

Substantial Improvement /Substantial Damage NFIP Requirements

Improvement and Repair of Property in the Floodplain

Barton County is a participating community in the National Flood Insurance Program (NFIP) administered by the Federal Emergency Management Agency. In exchange for making flood insurance available to citizens of the county, FEMA requires the community to adopt and enforcement floodplain management regulations governing new construction and substantial improvements in mapped floodplains.

If you are rebuilding after a storm, renovating, remodeling, or adding an addition to your home or business, here is information you need to know concerning substantial improvement and substantial damage.

Making SI/SD Determinations

Once the cost of the work and the market value of the structure have been determined, Barton County will make a final determination of SI/SD. The work is SI/SD is the ratio of the cost of work to the market value equals or exceeds 50%:

$$(\text{Cost of Work/ Market Value of Building}) \geq 50\%$$

If the County determines that improvements or repairs to a building constitute SI/SD, then the building must be brought into compliance with the NFIP floodplain management requirements for new construction.

The purpose of the Substantial Improvement (SI) and Substantial Damage (SD) requirements is to protect the property owner's investment and safety, and, over time, to reduce the total number of buildings that are exposed to flood damage, thus reducing the burden on taxpayers through payment of disaster assistance. The SI/SD requirements are triggered when the local official determines that the cost of repairing or improving a building in a Special Flood Hazard Area (SFHA) equals or exceeds 50% of the building's market value (excluding land value).

Substantial Damage (SD) means damage of any origin sustained by a structure whereby the cost of restoring the structure to pre-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 work performed. The cost of the repairs must include all costs necessary to fully repair the structure to its before-damage condition.*

Substantial Improvement (SI) means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before “start of construction” of the improvement. This term includes structures, which have incurred “substantial damage”, regardless of the actual repair work performed. The term does not, however, include either: (1) any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications that have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or (2) any alteration of a “historic structure”, provided that the alteration will not preclude the structure’s continued designation as a “historic structure”.

Barton County’s Responsibility

Communities that participated in the NFIP must determine whether proposed work qualifies as a substantial improvement or repair of substantial damage. If work on buildings constitutes SI/SD, then structures must be brought into compliance with NFIP requirements for “new construction”, including the requirement that the lowest floor be elevated one (1) foot above the base flood elevation (SFE). There are four (4) major actions Barton County performs in administering the SI/SD requirements:

- Determine costs,
- Determine market values,
- Make SI/SD determinations, and
- Require owners to obtain permits to bring substantially improved or substantially damaged buildings into compliance with the floodplain management requirements.

Determining Costs

The term “costs of improvements” includes the complete costs associated with all of the types of work performed. The term “costs of repair” includes the costs of all work necessary to restore a damaged building to its pre-damaged condition. Both terms include the costs of all materials, labor, and other items necessary to perform the proposed work.

Costs That Must Be Included in SI/SD Determinations. The following list of costs that must be included is not intended to be exhaustive, but characterizes the types of costs that must be included:

- Materials and labor, including the estimated value of donated or discounted materials and owner or volunteered labor
 - Site preparation related to the improvement or repair (e.g. foundation excavation or filling in basements)
 - Demolition and construction debris disposal
 - Labor and other costs associated with demolishing, moving, or altering building components to accommodate improvements, additions, and making repairs
 - Costs associated with complying with any other regulations or code requirement that is triggered by the work, including costs to comply with the requirements of the Americans with Disabilities Act (ADA)
 - Costs associated with elevating a structure when the proposed elevation is lower than the BFE
 - Construction management and supervision
 - Contractor’s overhead and profit
 - Sales taxes on materials
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- Structural elements and exterior finishes, including:
 - Foundations
 - Monolithic or other types of concrete slabs
 - Bearing walls, tie beams, trusses
 - Joists, beams, subflooring, framing, ceilings
 - Interior non-bearing walls
 - Exterior finishes
 - Windows and exterior doors
 - Roofing, gutters, and downspouts
 - Hardware
 - Attached decks and porches
- Interior finish elements, including:
 - Floor finishes
 - Bathroom tiling and fixtures
 - Built-in cabinets
 - Interior doors
 - Interior finish carpentry
 - Built-in bookcases and furniture
 - Hardware
 - Insulation
- Utility and service equipment, including:
 - Heating, ventilation, and air conditioning (HVAC) equipment
 - Plumbing fixtures and piping
 - Electrical wiring, outlets, and switches
 - Light fixtures and ceiling fans
 - Security systems
 - Built-in appliances
 - Central vacuum systems
 - Water filtration, conditioning, and recirculation systems

Costs That May be Excluded from SI/SD Determinations. Items that can be excluded are those that are not directly associated with the building. The following list characterizes the types of costs that may be excluded:

- Clean-up and trash removal
 - Costs to temporarily stabilize a building so that it is safe to enter to evaluate and identify required repairs
 - Costs to obtain or prepare plans and specifications
 - Land survey costs
 - Carpeting and recarpeting installed over finished flooring such as wood or tiling
 - Outside improvements, including landscaping, irrigation, sidewalks, driveways, fences, yard lights, swimming pools, pool enclosures, and detached accessory structures
 - Costs required for the minimum necessary work to correct existing violations of health, safety, and sanitary codes
 - Plug-in appliances such as washing machines, dryers, and stoves
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Sources of Cost Information. The cost of improvements and the costs of repairs are necessary to make the SI/SD determination. The following are acceptable methods to determine the costs:

- Itemized costs of materials and labor, or estimates of materials and labor that are prepared by licensed contractors or professional construction cost estimators.
- Building owners may submit cost estimates that they prepare themselves. Owners will need to provide as much supporting documentation as possible, such as pricing information from lumber companies and hardware stores. The estimate must include the value of labor, including the value of the owner's labor.

Donated/Discounted Materials. The value placed on all donated or discounted materials should be equal to the actual or estimated cost of such materials and must be included in the total cost. The applicant should provide cost estimates of the value of donated/discounted materials based on actual or estimated costs.

Owner/Volunteer Labor. The normal "market" value or "going rate" for labor must be included in the estimate of the cost of improvements and the costs to repair. The value placed on labor should be estimated based on applicable minimum-hour wage scales for the skill and type of construction work that is done.

Determining Market Value

Generally, market value can be explained as the price a willing seller and buyer agree upon. The market value of a building reflects its original quality, subsequent improvements, physical age of building components, and current condition. For purposes of determining SI/SD, market value pertains only to the structure in question; the value of the land, landscaping, detached accessory buildings, etc., must be subtracted from the equation.

When work is an improvement, the market value is the building's market value "before the 'start of construction' of the improvement." When work is repair of substantial damage, the market value is the building's market value "before the damage occurred."

Acceptable estimates of market value can be obtained from these sources:

- Appraised value developed for property tax assessment purposes.
- Detailed estimates of the structure's actual cash value, including depreciation.
- An independent appraisal by a licensed professional appraiser.

The appraised value will customarily be used by the community unless the owner chooses to determine market value by a professional appraiser at the owner's expense. Whatever method is used, the closer the estimate falls relative to the 50% threshold, the more precise the market value figure needs to be. In such circumstances, the community may require the owner to submit an appraisal from an independent professional appraiser.

If you have any questions about these requirements, contact **Barry McManaman, County Engineer** at (620) 793-1808 or **bmcmaman@bartoncounty.org**.
