



Illinois Department of Natural Resources

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JB Pritzker, Governor
Colleen Callahan, Director

MEMORANDUM

Date: April 3, 2020

To: Local Floodplain Managers and Building Officials

From: Paul Osman, Chief, Statewide Floodplain Programs

Marilyn Sucoe, NE Illinois Floodplain Program Manager

RE: Substantial Improvement/Substantial Damage (SI/SD) Permit Packet Template

The attached permit packet is provided to help you explain the substantial improvement and substantial damage provisions of your floodplain ordinance. This packet may be used following a flood, when damage repairs are being made, or during a building improvement permit process. The estimated cost form provided may be used by the applicant or a contractor cost estimate, your post-flood damage assessment, or some other cost accounting may be substituted.

The proposed work is determined to be a SI/SD if the ratio of the cost of the work to the market value equals or exceeds 50 percent. If your community has a cumulative provision in your ordinance, you will also need to add any previous improvements or repairs to the proposed work as specified in your ordinance. Many communities track improvements for 10 -years while others track for the life of the structure. A spreadsheet is available to help with tracking and an example is provided.

There are four steps to the SI/SD determination process:

1. Determine cost of work (improvements or repairs)
2. Determine market value of the building prior to the work
3. Determine ratio of work to market value and make SI/SD determination
4. Advise property owner of the determination in writing and require mitigation if the work is a SI/SD. (Optional SI/SD determination form is provided.)

Once a permit is issued, watch for changes in materials or the scope of the permit, as these may increase the cost of the work. You may consider using the attached affidavits to address this common problem or you can work with your inspectors to catch any changes.

Finally, FEMA has developed the manual [*Substantial Improvement /Substantial Damage Desk Reference*](#), FEMA P-758, May 2010. The manual goes into great detail on every step of the SI/SD process. Most questions can be answered by reviewing this manual.

If you have any questions, please contact Marilyn Sucoe at Marilyn.sucoc@illinois.gov or (847) 608-3181.

SUBSTANTIAL IMPROVEMENT OR SUBSTANTIAL DAMAGE NOTICE TO PROPERTY OWNERS

Repairing your home or business after a flood?

Adding on, renovating, remodeling your home?

Here's information YOU need to know about the "50% Rule".

For structures located in the regulatory floodplain, damage repairs or proposed improvements must be reviewed to determine if the building has **Substantial Damage** or if you are proposing a **Substantial Improvement**. The detailed definitions for these terms and market value for a building are listed below.

The formula used for making a substantial damage or substantial improvement determination is:

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

If your building was damaged or you are making improvements, a detailed cost estimate is required for a determination to be made. This is required by the National Flood Insurance Program to protect lives and investment from future flood damages. Our community must adopt and enforce these rules so that federally backed flood insurance is available to our residents and property owners.

SUBSTANTIAL DAMAGE means damage or destruction, regardless of cause, sustained by a structure whereby the cost of restoring the structure to its before damage condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. All labor and materials must be included in this determination. **(IF YOUR COMMUNITY HAS CUMMULATIVE RULE, INSERT YOUR DEFINITION.)** Note: The cost to repair the structure must be calculated for fully repairing the building to its before-damage condition, even if the owner elects to do less.

SUBSTANTIAL IMPROVEMENT means any repair, reconstruction, rehabilitation, addition, or other construction of a structure (including materials and labor), whereby the cumulative percentage cost of the construction would equal or exceed 50 percent of the market value of the current structure before the improvement or repair is started. This term includes structures which have incurred repetitive loss or substantial damage, regardless of the actual repair work performed. **(IF YOUR COMMUNITY HAS CUMMULATIVE RULE, INSERT DETAILS HERE.)**

MARKET VALUE: The market value or replacement cost will be estimated by *using three (3) times the current tax assessed value of the subject structure* (excluding the land and exterior construction). You may also submit your own certified appraisal meeting the following requirements.

- prepared by a state licensed appraiser
- completed within the last two years
- based on the comparable sales method may be used to determine **the value of the structure** prior to any construction or damages
- based on a building value that has been fairly depreciated to reflect the age of the building and the deterioration of building components.

BUILDING PERMIT PROCESS:

As part of the building permit application, you must submit a detailed cost estimate. The attached Estimated Cost Form may be used or a detailed cost estimate from the contractor. If the house has been damaged, such as by flood or fire, you may also submit the insurance adjusters estimate. The cost estimate must provide enough detail to allow our staff to review for completeness.

The owner and contractor must also sign attached affidavits indicating that the cost estimate submitted includes all damage repairs or all proposed construction to the building.

A signed contract must be submitted with your detailed cost estimate. If the owner is acting as their own contractor, the owner is responsible for submitting the cost estimate and providing documentation, including subcontractor bids, to document the cost estimate.

We will evaluate the cost of construction or repairs based on recognized cost estimating manuals and determine if they are complete and accurate and reflect current construction market cost for labor and supplies. For damage repairs, pre-damage prices and rates will be utilized. Please refer to the following list of items to be included and excluded from the cost estimate.

SUBSTANTIAL DAMAGE OR SUBSTANTIAL IMPROVEMENT DETERMINATIONS

Using the cost estimate and the market value, a determination will be made if you have equaled or exceeded 50% of the existing building's market value. The attached **SUBSTANTIAL DAMAGE/ SUBSTANTIAL IMPROVEMENT DETERMINATION** form will be used.

Once the determination is made you will be asked to sign the determination. If you wish to dispute the market Value, you may choose to submit your own appraisal (see Market Value definition for requirements). For elected improvements, you may also modify your scope to reduce the costs and resubmit revised plans and estimate.

If the building is determined to be "substantially damaged" or "substantially improved", it must be brought into compliance with the Building Protection Standards of our community's floodplain regulations.

For homes there are three options:

- demolish the house
- relocate the house out of the regulatory floodplain
- elevate the house; raising the lowest floor, including basement above the floodplain elevation. This includes all electrical and mechanical equipment, such as water heater, furnace and ducts. Only parking and limited storage is allowed below the flood level.

IMPORTANT NOTE ON DONATED MATERIALS AND VOLUNTEER LABOR:

The value placed on materials should be equal to the actual or estimated fair market cost of all materials to be used. Where materials or servicing equipment are donated or discounted below normal market values, the value should be adjusted to an amount equivalent to that estimated through normal market transaction.

Self or Volunteer Labor: The value placed on labor should be equal to the actual or estimated labor charge for repairs of all damages sustained the structure. Where non-reimbursed (volunteer) labor is involved, the value of the labor should be estimated based on applicable published hourly wage scales, for example using prevailing wages for the type of construction work to be completed.

COSTS FOR SUBSTANTIAL IMPROVEMENTS / REPAIR OF SUBSTANTIAL DAMAGE:

Included Costs

Items that must be included in the costs of improvement or costs to repair are those that are directly associated with the building. 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 (foundation excavation, 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 regulation 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 to an elevation that is lower than the BFE.
- Construction management and supervision
- Contractor's overhead and profit
- Sales tax on materials
- Structural elements and exterior finishes, including:
 - ◊ Foundations
 - ◊ Monolithic or other types of concrete slabs
 - ◊ Bearing walls, tie beams, trusses
 - ◊ Joists, beams, subflooring, framing, ceilings
 - ◊ Exterior finishes (brick, stucco, siding, painting, trim, etc.)
 - ◊ Interior non-bearing walls
 - ◊ Windows and exterior doors
 - ◊ Roofing, gutters, and downspouts
 - ◊ Hardware
 - ◊ Attached decks and porches
- Interior finish elements, including:
 - ◊ Floor finishes (hardwood, ceramic, vinyl, linoleum, stone and wall-to-wall carpet over subflooring, etc.)
 - ◊ Bathroom tiling and fixtures
 - ◊ Wall finishes (drywall, paint, stucco, plaster, paneling, marble, etc.)
 - ◊ Built-in cabinets (kitchen, bathroom, utility, entertainment, storage, etc.)
 - ◊ Interior doors
 - ◊ Interior finish carpentry
 - ◊ Built-in bookcases and furniture
 - ◊ Hardware
 - ◊ Insulation
- Utility and service equipment, including:
 - ◊ HVAC equipment
 - ◊ Plumbing fixtures and piping
 - ◊ Electrical wiring, outlets and switches
 - ◊ Light fixtures and ceiling fans
 - ◊ Security systems
 - ◊ Built-in appliances

Excluded Costs

- Plans and specifications
- Survey costs
- Permit fees
- Clean up and debris removal (e.g., removal of debris from building or lot, dumpster rental, transport fees to landfill and landfill tipping fees), and clean-up (e.g., dirt and mud removal, building dry out, etc.)
- Plug in appliances like washing machines, dryers and stoves
- Outside improvements, including driveways, fences landscaping, sidewalks, yard lights, irrigation systems
- Items not considered real property such as: throw rugs (carpeting over finished floors), furniture, refrigerators, appliances which are not built-in, etc.
- Costs required for the minimum necessary work to correct existing violations of health, safety and sanitary codes

APPLICATION SUBMITTAL CHECKLIST

- _____1. Estimated Cost Form of reconstruction/improvement form (included in package) and all required backup. Include subcontractor's bids and itemized cost lists. One (1) Estimated Cost Form shall be submitted for each impacted structure.
- _____2. Property Owner's Substantial Damage/ Substantial Improvement Cost Estimate Affidavit signed, notarized and dated.
- _____3. Contractor(s) Substantial Damage/ Substantial Improvement Cost Estimate Affidavit signed, notarized and dated.
- _____4. Contractor(s) contract. If the owner is the general contractor, submit all subcontractor bids as part of the cost estimate.
- _____5. Appraisal report for Market Value (optional)

Permit No.: _____

ESTIMATED COST FORM

STRUCTURAL ELEMENTS	LABOR	MATERIAL	TOTAL COST
EXCAVATION (Ex: prep work, gravel base)			
FOUNDATION (Ex: monolithic slabs, piers, spread footing, CMU, ICF, wood)			
DAMPROOFING, WEATHERPROOFING, TILE, FOUNDATION INSULATION			
FLOOR SYSTEMS (Ex: trusses, lumber, steel, concrete, in-floor heat, vapor barrier)			
BEAMS (Ex: steel, wood, pre-engineered, columns)			
WALLS, FRAMING (EXTERIOR & INTERIOR) (Ex: wood, metal, sheathing)			
CEILING, RAFTERS, TRUSSES			
ROOFING SYSTEM (Ex: sheathing, felt, ice & water shield, asphalt, wood shake, tile, clay, metal, shingling, venting)			
EXTERIOR WALL COVERING (Ex: lap siding, vinyl, aluminum, brick, stucco, house wrap shutters)			
WINDOWS (Ex: escape window, double-hung, casement, slider, awning)			
WOOD DECKS (EXTERIOR & INTERIOR)			
INSULATION (Ex: walls, floors, roof)			
HARDWARE (Ex: door hardware, nails, screws, brackets, handrails)			
INTERIOR FINISH ELEMENTS	LABOR	MATERIAL	TOTAL COST
FLOORING (Ex: tile, linoleum, stone, laminate, wood, carpet, sub-flooring)			
WALL FINISHES (Ex: drywall, plaster, stucco, paneling, stone, paint, tape, mud)			
BUILT-INS, CABINETRY (Ex: bookcases, entertainment centers, kitchen cabinets, countertops, built-in stove, vanities, furniture)			
DOORS (EXTERIOR & INTERIOR) (Ex: side-hinged, sliding, pocket, bi-fold)			
HARDWARE (Ex: interior door hardware, screws, nails, handrails)			
UTILITY & SERVICE EQUIPMENT	LABOR	MATERIAL	TOTAL COST
HVAC (Ex: furnace, a/c unit, baseboard heat, radiant heat, duct-work venting, registers, material associated with system)			
PLUMBING (Ex: fixtures, faucets, tubs, showers, toilets, sinks, material, venting, water heater, sump & ejector pumps)			
ELECTRICAL (Ex: panel, wiring, boxes/outlets, switches, light fixtures, fans, raceway, etc.)			
MISCELLANEOUS	LABOR	MATERIAL	TOTAL COST
OVERHEAD & PROFIT			
OTHER	LABOR	MATERIAL	TOTAL COST
TOTAL			

**SUBSTANTIAL DAMAGE/
SUBSTANTIAL IMPROVEMENT**

PROPERTY OWNER'S COST ESTIMATE AFFIDAVIT

Permit Number: _____

Property Address: _____

Property Owner's Name: _____

Property Owner's Address: _____

Property Owner's Phone Number(s): _____

I hereby attest that the list of work and cost estimate submitted with my Substantial Damage or Substantial Improvement Application reflects ALL OF THE WORK TO BE CONDUCTED on the subject structure including all additions, construction and repairs and, if the work is the result of Substantial Damage, this work will return the structure at least to the "before damage" condition and bring the structure into compliance with all applicable codes.

Neither I nor any contractor or agent will make any repairs or perform any work on the subject structure other than what has been included in the attached list.

Property Owner's Signature

Property Owner's Signature

Sworn to and subscribed before me this
_____ day of _____, 20____.

Sworn to and subscribed before me this
_____ day of _____, 20____.

NOTARY PUBLIC

NOTARY PUBLIC

**SUBSTANTIAL DAMAGE/
SUBSTANTIAL IMPROVEMENT**

CONTRACTOR'S COST ESTIMATE AFFIDAVIT

Permit Number: _____

Property Address: _____

Contractor's Name: _____

Contractor's Address: _____

Contractor's Phone Number(s): _____

I hereby attest that I, or a member of my staff, personally inspected the subject property and produced the attached itemized list of repairs, reconstruction and/or remodeling which are hereby submitted for a Substantial Damage or Substantial Improvement Review. The list of work contains ALL OF THE WORK TO BE CONDUCTED on the subject property. If the property sustained Substantial Damage, this list of work will return the structure to at least its condition prior to damage and bring the structure into compliance with all applicable codes. I further attest that all additions, construction or repairs proposed for the subject building are included in this estimate and that neither I nor any contractor or agent representing me will make any repairs or perform any work on the subject structure other than what has been included in the attached list.

Contractor's Signature

Sworn to and subscribed before me this

_____ day of _____, 20____.

NOTARY PUBLIC

SUBSTANTIAL DAMAGE/ SUBSTANTIAL IMPROVEMENT DETERMINATION

Permit Number: _____

Owner or Contractor's Cost Estimated Total Cost: _____

Building Staff Review of Cost Estimate: Reviewed by: _____

- ☐ Cost provided by Owner/Contractor is a reasonable estimate for work performed
- ☐ Cost provided by Owner/Contractor is not a reasonable estimate for work performed and should be adjusted as follows

Building Market Value: _____

Percentage of Damage or Improvement: _____

Cumulative Percentage of repair and/or improvements since _____ (including current improvement):

- ☐ I accept the estimated cost of construction as a fair cost of the repair/improvement of my home.
- ☐ I accept the estimated market value from the tax assessment
- ☐ I do not accept the estimated market value from the tax assessment and will submit an appraisal report of my property from a licensed appraiser.

Property Owner's Signature

Property Owner's Signature

Sworn to and subscribed before me this
_____ day of _____, 20____.

Sworn to and subscribed before me this
_____ day of _____, 20____.

NOTARY PUBLIC

NOTARY PUBLIC

EXAMPLE CUMMULATIVE SI/SD TRACKING SPREADSHEET

Substantial Improvement/Substantial Damage Tracking

PIN:

Property Address:

Buildings on Property:

Fair Market Value of Building (FMV) Source (select one):

_____ Township Assessor

_____ Homeowner Provided Appraisal

Improvements

Building Permit # or SDE	Date	Work Done	FMV ** at Time of Permit/ Damage Assessment	Value of Work	Percentage	Percentage to Date
Cumulative tracking for rolling 10 year						
02070003		Remodel		\$41,800.00	past 10 years	0.00%
05050028		Electric Upgrade		\$800.00	past 10 years	0.00%
	4/18/2013	SDE/ April 2013 flood	\$112,320.00	\$5,520.00	4.91%	4.91%
17010060	1/19/2017	Kitchen and bathroom	\$114,540.00	\$22,280.00	19.45%	24.37%
17010060		Deck and Front Porch repairs, not reflected in initial scope of work	\$114,540.00	\$7,500.00	6.55%	30.91%

**FMV = Township assessor times local multiplier