

City of Fort Smith Building Safety Division

623 Garrison Ave. Room 405

Fort Smith, AR 72901

479-784-2206

Cleaning and Repairing Residential Single Family/Duplex Buildings for Flood Damage

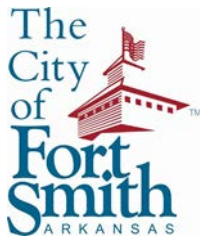
Go Inside Carefully

- Make sure structure is safe to enter before any clean-up work can be started. Do not enter home if any of these conditions exist
 - Water against exterior walls
 - Toxins present from flood waters
 - Weak floors
 - Compromised foundation
 - Shifting of structure
 - Examine underfloor space
 - Roof supports not intact
 - Down or loose electrical lines
 - Gas leaks
 - Electrical and gas is not turned off

- Tools to bring with you
 - Flashlight
 - First aid kit
 - Waterproof boots or waders
 - Hard hat, gloves, eye protection
 - Boots or shoes with hard soles
 - Dust mask (N-95)
 - Crowbar, hammer, saws, pliers, crescent wrench, screwdrivers, etc.
 - Drinking water
 - Trash bags
 - A wooden stick for turning things over, scaring away snakes and small animals
 - Gas-powered generator

- Before entering structure
 - Make sure utilities are turned off
 - Do not use fuel burning appliances, such as generators or propane heaters, inside the building due to possible carbon monoxide

- Enter the structure cautiously
 - Watch for snakes and other displaced animals
 - Check ceilings for cracking, sagging or signs of collapse
 - Mold present – wear protective equipment
 - Examine floors for sagging and any other signs of collapse



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- Shore up any structurally compromised members
- Open doors carefully. If the door sticks and has to be forced open, it might be swollen or blocked by debris. If it sticks at the top, the ceiling may be ready to fall

Once Inside

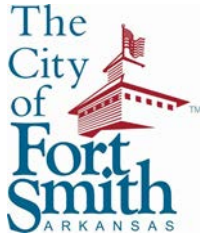
- Check ceilings for sagging.
- Check for electrical hazards, such as ponding water in front of an electrical panel

Beginning clean-up

- Do not use electrical plugs or mechanical equipment
- Remove mirrors and any other heavy items from walls
- Remove personal belongings
- Remove floor coverings and carpet pad
- Remove sediment

Removing flood damaged materials

- **Do not remove any structural members.** This includes wall studs, headers, ceiling joists, rafters, etc. **Do shore up structurally** compromised areas of the structure.
- Inspect the house's materials for damage that will require replacement. Some materials might be salvageable. If damage is too severe, materials must be discarded safely.
- Wet wallboard must be removed. Wallboard that has been soaked by floodwater presents a permanent health hazard and should be removed. Structures with minor flooding may be allowed to remove the wallboard at a point 4 feet above the floor
- Remove damaged plaster
- Remove wet wall insulation
- Remove damaged floor sheathing
- Remove damaged doors and cabinets
- Remove outlets and switches submerged in flood waters
- Remove electrical circuit wiring to plugs and switches which were submerged in flood waters. Remove any electrical circuits, in their entirety, which was located below the level of the flood water.
- Remove any electrical equipment submerged in water, such as but not limited to, electrical panels, circuit breakers, transfer switches, generators



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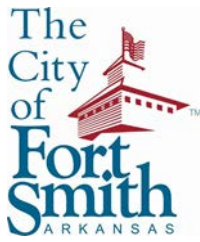
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- Inspect plumbing for leaks
- Check sewer cap to make sure it is in place.
- Gas valves will need to be replace.
- Electrical appliances that were submerged should be removed. This includes, but not limited to, water heaters, air handlers, washer, dryer, electric fireplace, garbage disposal, dishwasher, freezer, refrigerator, ice machines, ranges and oven
- Remove flexible ductwork
- Remove any insulation on ductwork
- Remove interior HVAC units submerged. Interior units have insulation inside the shell.

Clean, sanitize and dry

- The structure will need to be cleaned and sanitized. This includes gas lines, metal ductwork, plumbing fixtures, etc.
- Mold will need to be remediated
- Structure will need to dry



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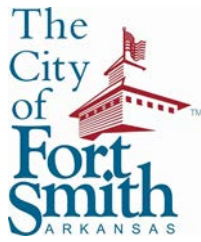
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Repairing Residential Single Family/Duplex Buildings for Flood Damage

Repair and remediation of damaged structure

- **A BUILDING PERMIT WILL BE REQUIRED PRIOR TO ANY REPAIRS OR REMEDIATION**
- Items that will be required to obtain a building permit
 - Structural repairs that are needed for foundation system and major structural damage will require an engineer's design.
 - Structures located within the 100 year flood zone will require a floodplain development permit and approval from City Engineering department
 - Complete itemized breakdown of repair costs. This includes costs associated with:
 - Materials and labor, including the estimated value of donated or discounted materials and owner or volunteer 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
 - Structural elements and exterior finishes, including:
 - Foundations (e.g., spread or continuous foundation footings, perimeter walls, chainwalls, pilings, columns, posts, etc.)
 - Monolithic or other types of concrete slabs
 - Bearing walls, tie beams, trusses
 - Joists, beams, subflooring, framing, ceilings
 - Interior non-bearing walls
 - Exterior finishes (e.g., brick, stucco, siding, painting, and trim)
 - Windows and exterior doors



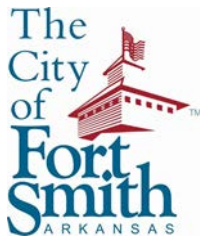
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- Roofing, gutters, and downspouts
- Hardware
- Attached decks and porches
- Interior finish elements, including:
 - Floor finishes (e.g., hardwood, ceramic, vinyl, linoleum, stone, and wall-to-wall carpet over subflooring)
 - Bathroom tiling and fixtures
 - Wall finishes (e.g., drywall, paint, stucco, plaster, paneling, and marble)
 - Built-in cabinets (e.g., kitchen, utility, entertainment, storage, and bathroom)
 - 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
- Structures substantially damaged will need to be brought up to current codes. Plan may be required.
- Inspection cards need to be placed on property so that they are visible from the road.
- **Licensed Contractors**
 - Any person hired as a general contractor or to repair plumbing, mechanical or electrical must be a licensed contractor in the State of Arkansas. Trade contractors are required to be registered and bonded with the City of Fort Smith Building Safety Division
 - Any owner occupied residential property that will be doing their own work must meet with the city inspectors to verify adequate knowledge to proceed.



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- Any person hired for repairs to drywall, framing, floor repairs etc. that exceeds a repair cost of \$2000 is required to be a licensed contractor
- A City of Fort Smith business license is required for a contractors working within the city limits of Fort Smith
- **Inspections**
 - Inspections for trades (plumbing, mechanical, electrical) must be called in by the contractor. Inspection fees shall be bonded or paid up front prior to the inspection.
 - Inspections can be requested, on the day of the inspection, by calling 479-784-2206 between 8:00-9:00 am and 1:00-2:00 pm, or an inspection can be requested the day prior to the inspection
 - Inspection of the structure is required prior to covering any walls and/or ceilings
 - Inspection of foundation repairs to be inspected prior to concrete placement
 - A building inspection is required prior to insulation being placed and after inspection and approval of rough mechanical, electrical and plumbing.

ADDITIONAL INFORMATION REGARDING FLOOD DAMAGED PROPERTIES

The flooded building is located outside of the FEMA 100 year (1 percent annual chance) floodplain without substantial damage¹

A building permit is required but no floodplain development permit is needed. A detailed repair estimate from a qualified licensed contractor, architect or engineer must be submitted to determine if the property has substantial damage.

The flooded building is located outside of the FEMA 100 year (1 percent annual chance) floodplain with substantial damage¹

A building permit is required but no floodplain development permit is needed. A detailed repair estimate from a qualified licensed contractor, architect or engineer must be submitted to determine if the property has substantial damage. Substantial damage to the property triggers a requirement to bring the entire structure into compliance with the current building code.

The flooded building is located within the FEMA 100 year (1 percent annual chance) floodplain without substantial damage¹

Both a building permit and a floodplain development permit are required. A detailed repair estimate from a qualified licensed contractor, architect or engineer must be submitted to determine if the property has substantial damage.

The flooded building is located within the FEMA 100 year (1 percent annual chance) floodplain with substantial damage¹

Both a building permit and a floodplain development permit are required. A detailed repair estimate from a qualified licensed contractor, architect or engineer must be submitted to determine if the property has substantial damage. Substantial damage to the property triggers a requirement to bring the entire structure into compliance with the current building code and current floodplain development code.

¹Substantial damage shall mean damage that is 50% or greater of the appraised value of the improvements taken from the Sebastian County Assessor's Office. The value of the land is not included in determining if the property has substantial damage.