



Indiana Department of Homeland Security

Preliminary Damage Assessment



FIELD GUIDE

June 2018 Version



Indiana Department of Homeland Security

302 W. Washington Street
Indianapolis, IN 46204

www.in.gov/dhs

This booklet was adapted from the
Ohio Emergency Management Agency's
"EMA Preliminary Damage Assessment Field Guide" booklet.

Consistent with the FEMA Damage Matrix updated 6/26/2018

This field guide has been designed to serve as a quick reference tool to be utilized by local officials conducting damage assessments for homes and businesses.

Inside you will find listed the 4 Degrees of Damage and tips (things to do, things to remember, etc.). In addition, illustrations have been provided and offer examples of the different degrees of damage for flood and other (wind, earthquake, severe storm, etc.).

Why Do Damage Assessments?

Conducting a local damage assessment enables officials to:

- determine the severity and magnitude of the event
- quantify homes and businesses impacted by the disaster
- determine whether local resources will be sufficient to effectively respond to and recover from the event
- inform the public
- facilitate effective decision-making

Local Damage Assessment Must Be Rapid, Detailed and Accurate.

- It should be completed and submitted to the State within 72 hours of the event.
- The data collected will then be analyzed to determine if supplemental assistance is needed.
- Delay in completing the assessment may delay supplemental disaster assistance to those most in need.
- State assistance in conducting these assessments is available, if requested.

***There Are 4 Degrees of Damage
Per the FEMA Matrix:***

- Destroyed
- Major
- Minor
- Affected

Dos:

- Conduct visual inspections to verify damages.
- Be sensitive when discussing damages with property owners.
- Determine the extent of insurance coverage (i.e. homeowner's policy vs. flood insurance).
- Detailed damage assessment information should be submitted to Indiana DHS within 72 hours, if possible. Due to the tight declaration process deadline, submitting this accurate information as soon as possible is preferred.

Dos:

- Assessment reports should be as accurate as possible. Exaggerating the amount of damage will be detrimental during a joint PDA.

- Include a comprehensive narrative to demonstrate immediate and long term needs of your community, including but not limited to the following: the number of people unemployed as a direct result of the disaster (including an estimation for how long), availability of housing, number of shelters, number of people sheltered, number of displaced people who have temporarily relocated to family, friends, etc., number of injuries and fatalities associated with the disaster, schools closed, roads closed, bridges out, number of people isolated because of the disaster, any restrictions to emergency services, threats to health and safety (sanitation issues, drinking water issues, disease-related issues), etc.

Don'ts:

- Use assessed property values.
- Assume or guess on insurance coverage.
- Forget to include impact statements.
- Complete damage assessments alone (if possible).

REMEMBER:

Focus on the degrees of damage and habitability. Do not become preoccupied with property value. Look for a waterline or debris line to determine the depth of water. Only report disaster-related damages. Deferred maintenance and/or pre-existing damage should not be included in your assessment. Based on criteria, make a judgment call.

KNOW THE DIFFERENCE:

Essential living space - rooms required for occupancy of the home, e.g., occupied bedroom when no vacant bedrooms are located on another floor, sole kitchen, sole living room, bathroom required for occupied bedroom

Non-essential living space - unfurnished basements, storage space, recreational or common areas

Flood Considerations:

Important questions to ask:

- How long was water in the structure?
- What were the weather conditions?
- What type of construction: brick, frame, basement, slab, or crawlspace?
- What are the neighborhood demographics?
- What insurance is available, and what kind of policies do the individuals have?
 - * Sewer back-up rider
 - Who may be liable if the sewers back up?
 - * Flood insurance

FEMA Damage Matrix: Affected (For Conventionally Built Homes)

Definition:

Residences with minimal damage to the exterior and/or contents of the home.

Flood Examples:

- Any water line in the crawl space or basement when essential living space or mechanical components are not damaged or submerged

Non-Flood Examples:

- Partial missing shingles or siding
- Cosmetic damage such as paint discoloration or loose siding
- Broken screens
- Gutter damage and debris
- Damage to an attached structure such as a porch, carport, garage, or outbuilding not for commercial use
- Damage to landscaping, retaining walls, or downed trees that do not affect access to the residence

FEMA Damage Matrix: Minor (For Conventionally Built Homes)

Definition:

Encompasses a wide range of damage that does not affect the structural integrity of the residence.

Flood Examples:

- Water line up to 18 inches in an essential living space
- Damage to mechanical components (e.g. furnace, boiler, water heater, HVAC, etc.)

Non-Flood Examples:

- Non-structural damage to roof components over essential living space to include shingles (e.g. roof covering, fascia board, soffit, flashing, and skylight)
- Non-structural damage to the interior wall components to include drywall, insulation
- Non-structural damage to exterior components
- Multiple small vertical cracks in the foundation
- Damage to chimney to include, tilting, fallen, cracks, or separated from the residence
- Damage to mechanical components (e.g. furnace, boiler, water heater, HVAC, etc.)
- Damage or disaster related contamination to a private well or septic system

FEMA Damage Matrix: Major (For Conventionally Built Homes)

Definition:

A residence may be categorized as having major damage when it has sustained significant structural damage and requires extensive repairs.

Flood Examples:

- For essential living space:
 - Water level 18 inches or greater and damage to mechanical components or electrical utilities such as main electrical panel; **AND** failure or partial failure to structural walls, foundation, or support structures
- For non-essential living space:
 - Failure or partial failure to structural walls, foundation, or support structures; **AND** severe damage to or complete failure of mechanical components or electrical utilities (such as main electrical panel) due to water level

Non-Flood Examples:

- Failure or partial failure to structural elements of the roof over required rooms to include rafters, ceiling joists, ridge boards, etc.
- Failure or partial failure to structural elements of the walls to include framing, sheathing, etc.
- Failure or partial failure to foundation to include crumbling, bulging, collapsing, horizontal cracks of more than two inches, and shifting of the residence on the foundation of more than six inches

FEMA Damage Matrix: Destroyed (For Conventionally Built Homes)

Definition:

The residence is a total loss, or damaged to such an extent that repair is not feasible.

Flood Examples:

- Complete failure of two or more major structural components (e.g. collapse of basement walls, foundation, walls, or roof)

Non-Flood Examples:

- Only foundation remains
- A residence that will require immediate demolition or removal because of disaster-related damage or confirmed immediate danger (e.g. impending landslides, mudslides, or sinkholes)

FEMA Damage Matrix: Affected (For Manufactured Homes)

Definition:

This category includes residences with cosmetic damage only. It also applies to residences with damage to a porch, carport, garage, and/or an outbuilding not for commercial use, etc.

Flood Examples:

- No damage affecting habitability; cosmetic damage only

Non-Flood Examples:

- The dwelling's frame is not bent, twisted, or otherwise compromised
- **No structural components of the dwelling have been damaged** (e.g. windows, doors, wall coverings, roof, bottom board insulation, ductwork, and/or utility hook up)

FEMA Damage Matrix: Minor (For Manufactured Homes)

Definition:

The residence is damaged and requires minimal repairs.

Flood Examples:

- Water line is below the floor system
- Skirting or HVAC is impacted
- There is no structural damage to the residence and it has not been displaced from the foundation

Non-Flood Examples:

- There is no structural damage to the residence and it has not been displaced from the foundation
- Non-structural components have sustained damage (e.g. windows, doors, wall coverings, roof, bottom board insulation, ductwork, and/or utility hook-up)
- Skirting or HVAC is impacted

FEMA Damage Matrix: Major (For Manufactured Homes)

Definition:

The residence has sustained structural or significant damage that requires extensive repairs.

Flood Examples:

- Water has come into contact with the floor system
- The residence has been displaced from the foundation, block or piers and other structural components have been damaged

Non-Flood Examples:

- The residence has been displaced from the foundation, block or piers and other structural components have been damaged

FEMA Damage Matrix: Destroyed (For Manufactured Homes)

Definition:

The residence is a total loss.

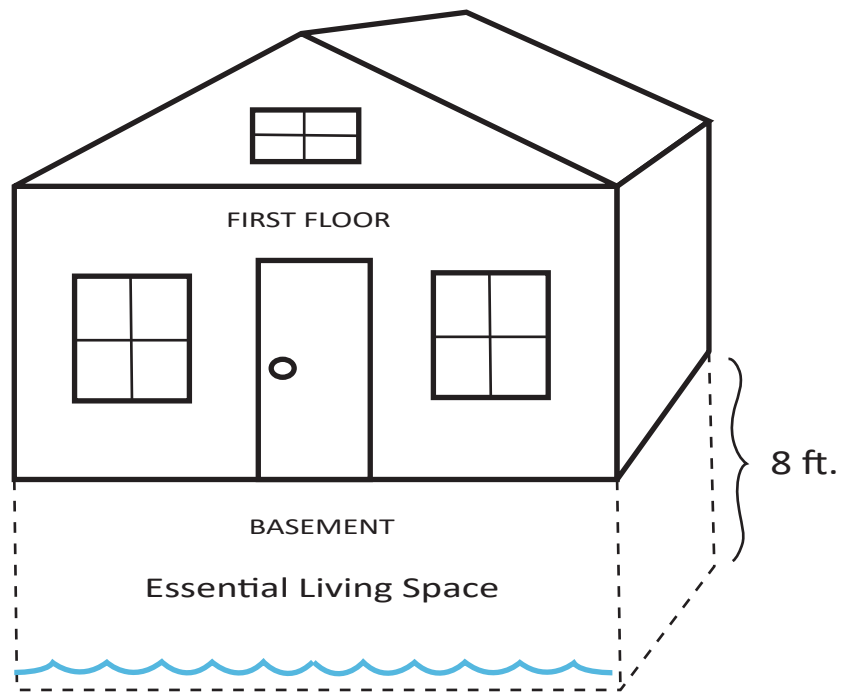
Flood Examples:

- The residence's frame is bent, twisted, or otherwise compromised
- Complete failure of two or more major structural components

Non-Flood Examples:

- The residence's frame is bent, twisted, or otherwise compromised
- The residence is missing the roof covering or the structural ribbing has collapsed for the majority of the roof system

FLOOD DAMAGE: CONVENTIONALLY BUILT HOMES WITH BASEMENT

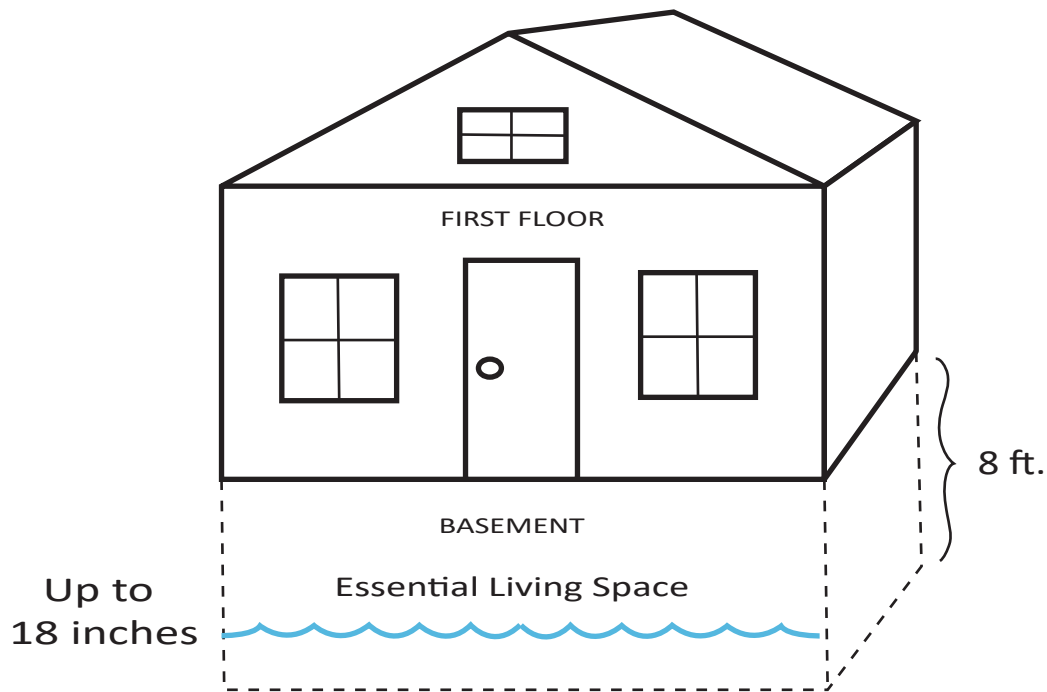


EXAMPLES:

- Minimal damage to structure or contents
- Any water line in the crawl space or basement when essential living space or mechanical components are not damaged or submerged

AFFECTED - FLOOD

FLOOD DAMAGE: CONVENTIONALLY BUILT HOMES WITH BASEMENT

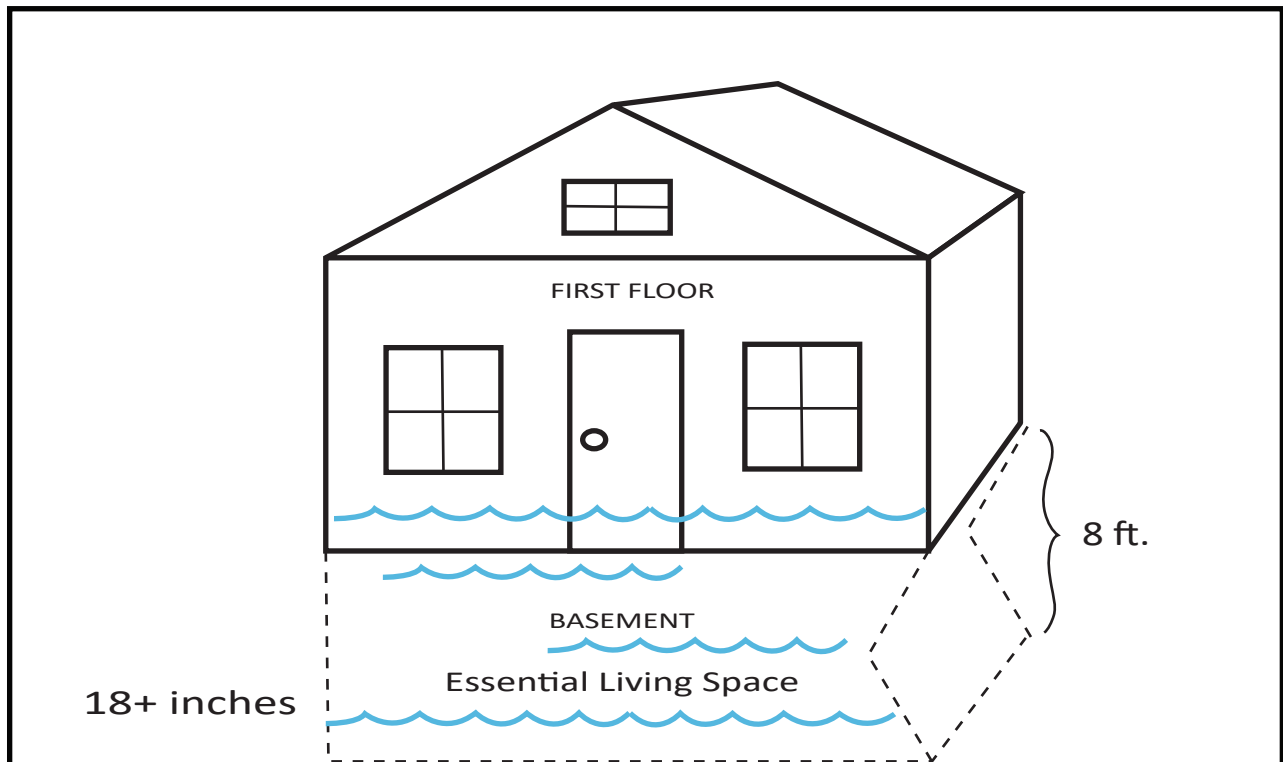


EXAMPLES:

- Water line up to 18 inches in an essential living space
- Damage to mechanical components (e.g. furnace, boiler, water heater, well, septic, HVAC, etc.)

MINOR - FLOOD

FLOOD DAMAGE: CONVENTIONALLY BUILT HOMES WITH BASEMENT



EXAMPLES (Essential living space):

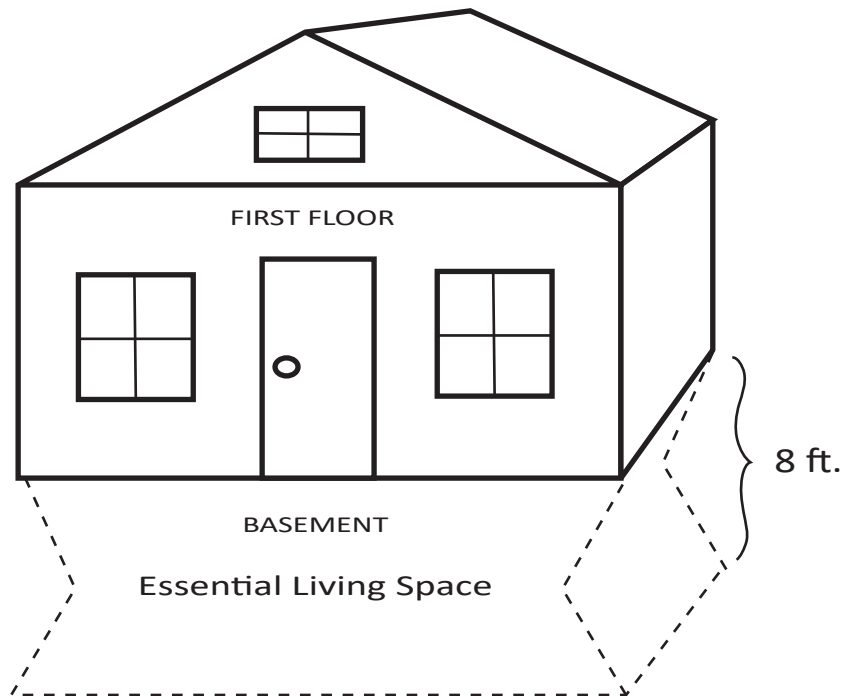
- Water level 18 inches or greater and damage to mechanical components or electrical utilities such as main electrical panel, **AND** failure or partial failure to structural walls, foundation, or support structures

EXAMPLES (Non-essential living space):

- Failure or partial failure to structural walls, foundation, or support structures, **AND** severe damage to or complete failure of mechanical components or electrical utilities (such as main electrical panel) due to water level

MAJOR - FLOOD

FLOOD DAMAGE: CONVENTIONALLY BUILT HOMES WITH BASEMENT

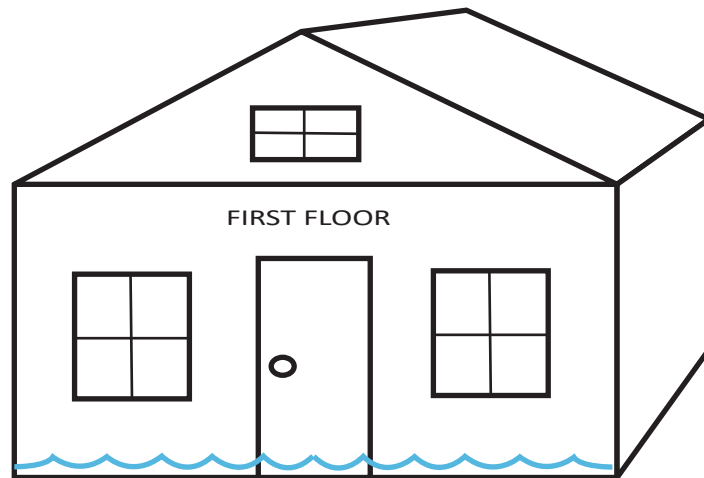


EXAMPLES:

- 2 or more walls bowed, missing, or collapsed
- Residence is unsafe, and requires immediate demolition
- Per the matrix, there is no water depth requirement for a destroyed residence

DESTROYED - FLOOD

FLOOD DAMAGE: CONVENTIONALLY BUILT HOMES WITHOUT BASEMENT

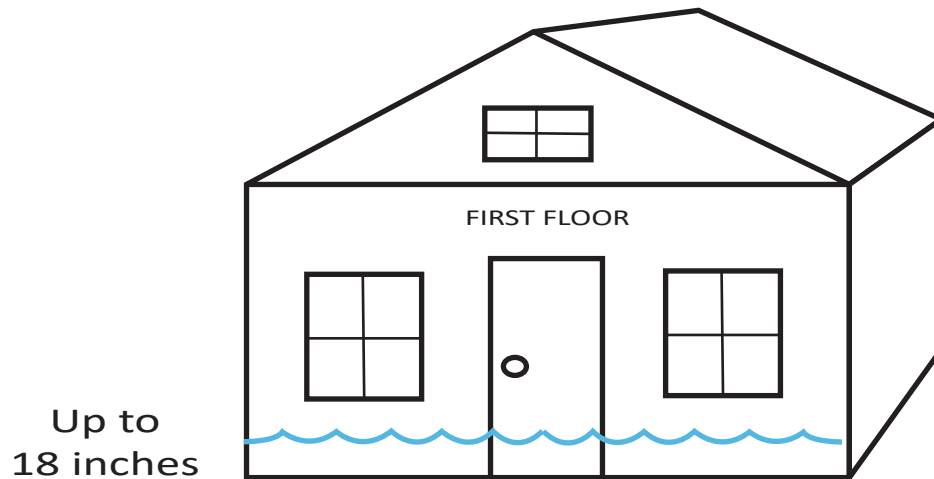


EXAMPLES:

- Minimal damage to structure or contents
- Any water line in the crawl space when essential living space or mechanical components are not damaged or submerged

AFFECTED - FLOOD

FLOOD DAMAGE: CONVENTIONALLY BUILT HOMES WITHOUT BASEMENT

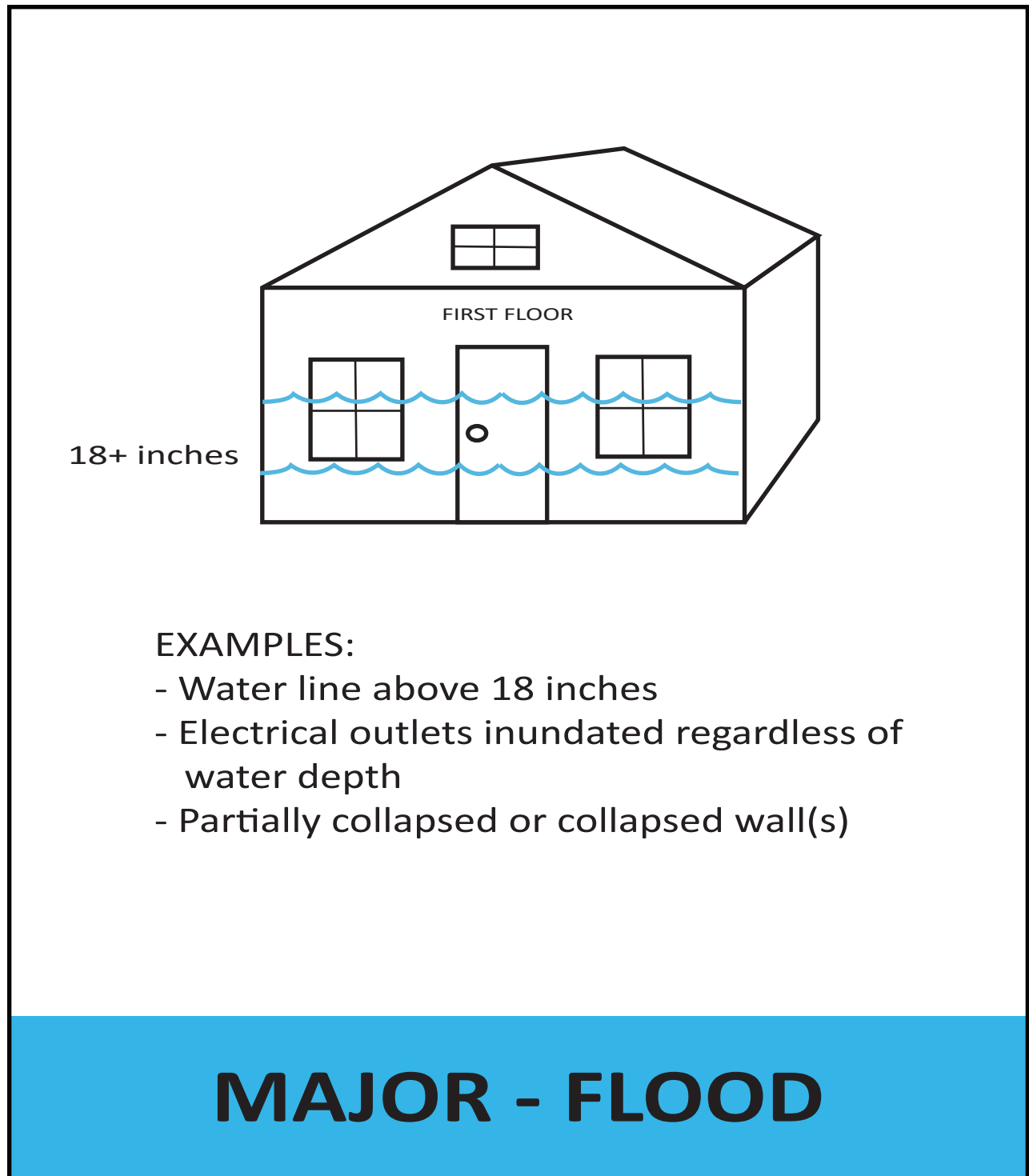


EXAMPLES:

- Water line up to 18 inches in an essential living space
- Damage to mechanical components (e.g. furnace, boiler, water heater, HVAC, etc.)

MINOR - FLOOD

FLOOD DAMAGE: CONVENTIONALLY BUILT HOMES WITHOUT BASEMENT

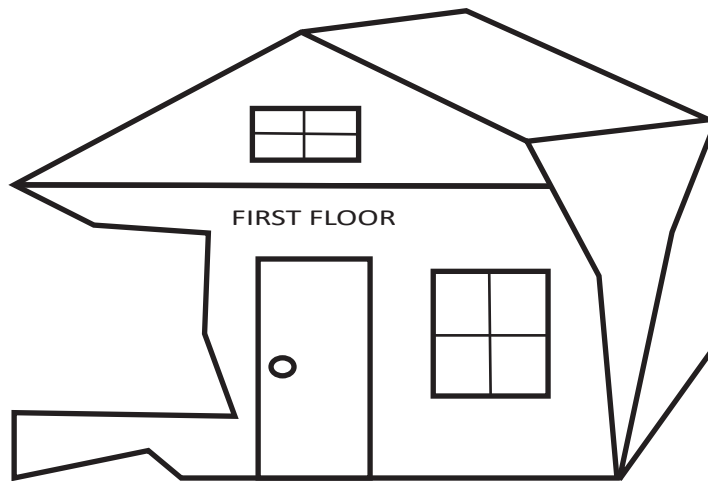


EXAMPLES:

- Water line above 18 inches
- Electrical outlets inundated regardless of water depth
- Partially collapsed or collapsed wall(s)

MAJOR - FLOOD

FLOOD DAMAGE: CONVENTIONALLY BUILT HOMES WITHOUT BASEMENT

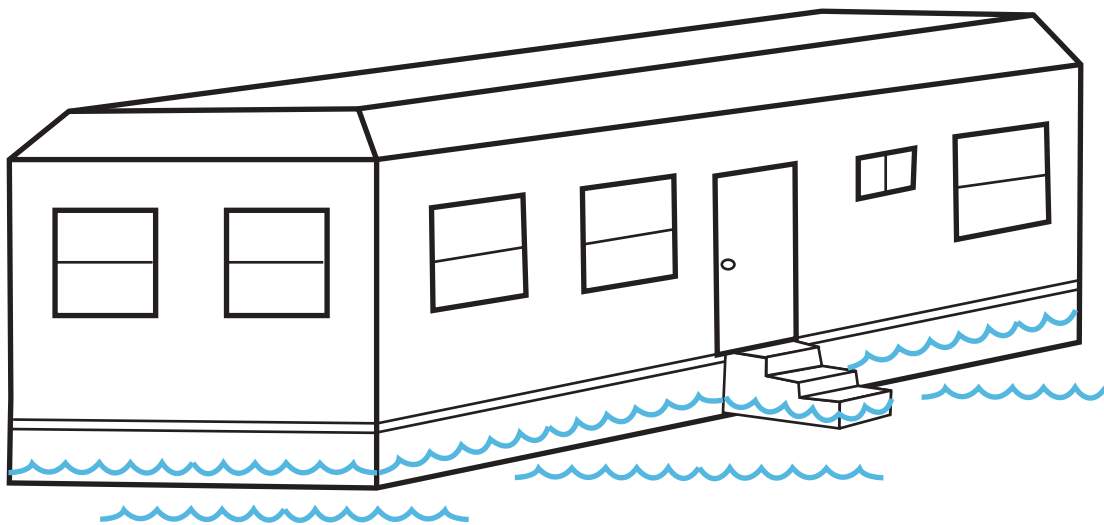


EXAMPLES:

- 2 or more walls bowed, missing, or collapsed
- Residence is unsafe, and requires immediate demolition
- Per the matrix, there is no water depth requirement for a destroyed residence

DESTROYED - FLOOD

FLOOD DAMAGE: MANUFACTURED HOMES

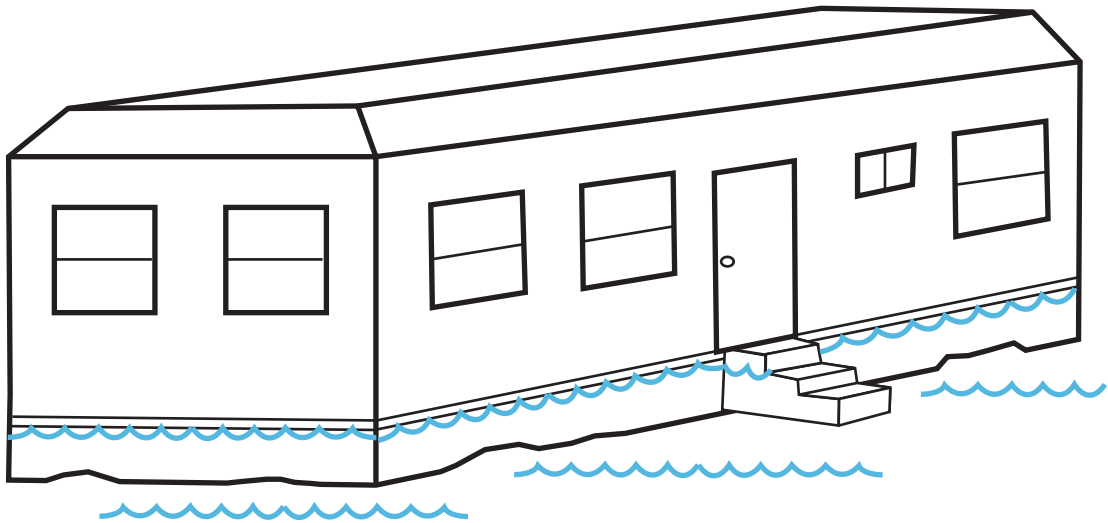


EXAMPLES:

- Water line in yard; no damage affecting habitability
- Cosmetic damage only

AFFECTED - FLOOD

FLOOD DAMAGE: MANUFACTURED HOMES

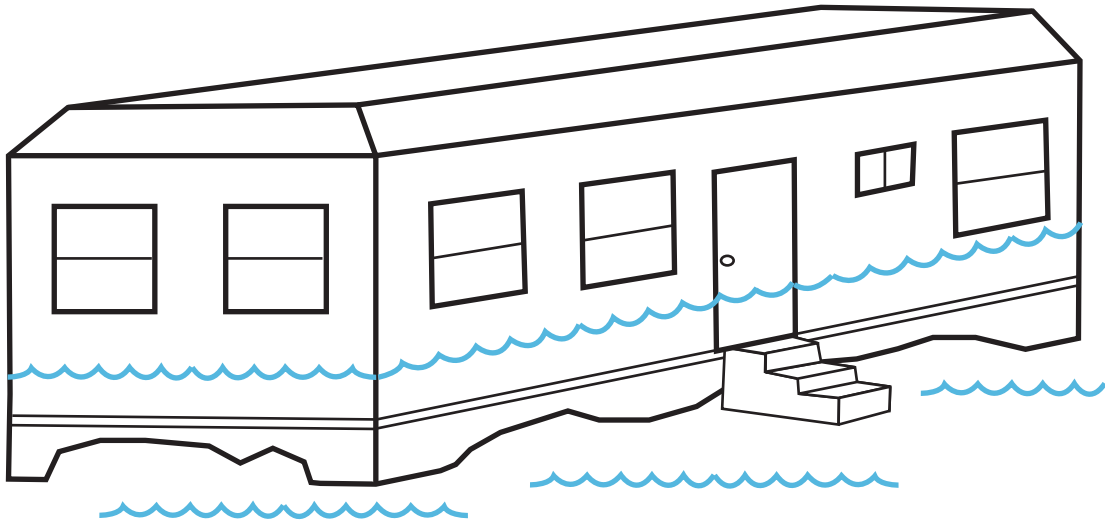


EXAMPLES:

- Water line is below the floor system
- Skirting or HVAC is impacted
- No structural damage to the residence and it has not been displaced from the foundation

MINOR - FLOOD

FLOOD DAMAGE: MANUFACTURED HOMES

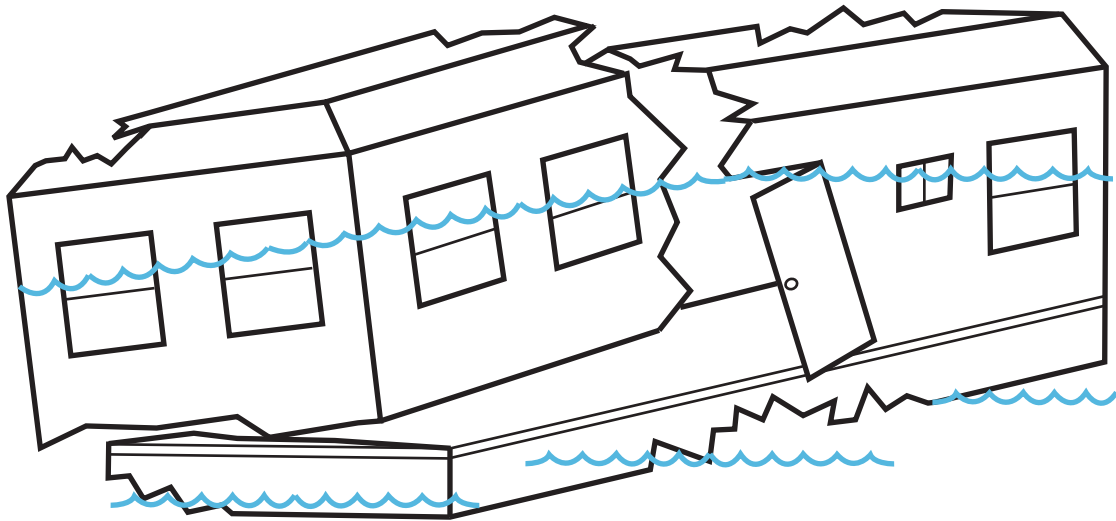


EXAMPLES:

- Water has come into contact with the floor system
- Residence has been displaced from the foundation, block or piers and other structural components have been damaged

MAJOR - FLOOD

FLOOD DAMAGE: MANUFACTURED HOMES

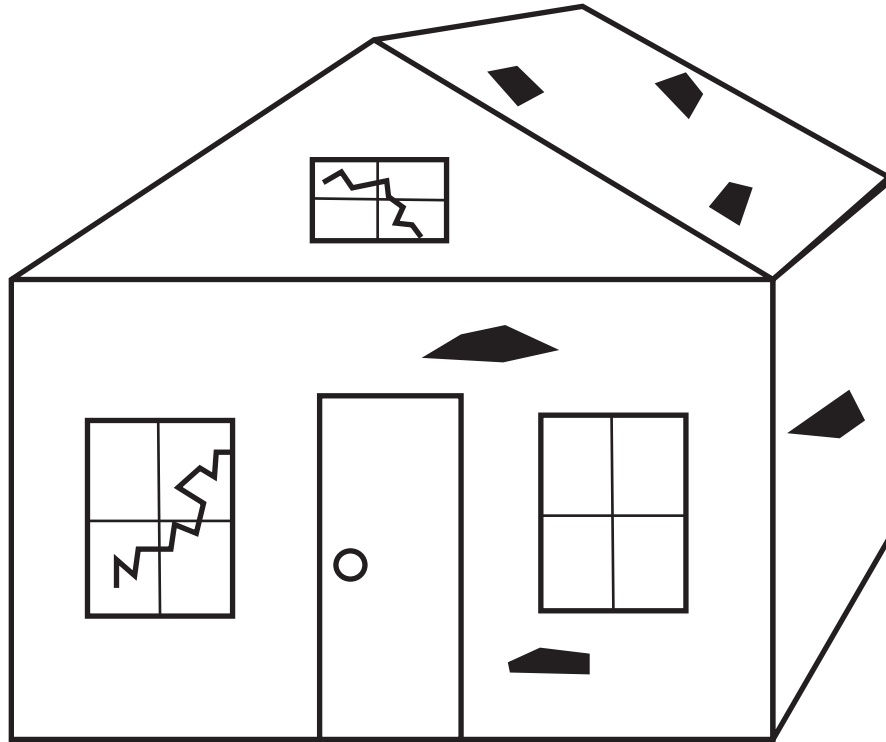


EXAMPLES:

- Complete failure of 2 or more major structural components

DESTROYED - FLOOD

NON-FLOOD DAMAGE: CONVENTIONALLY BUILT HOMES

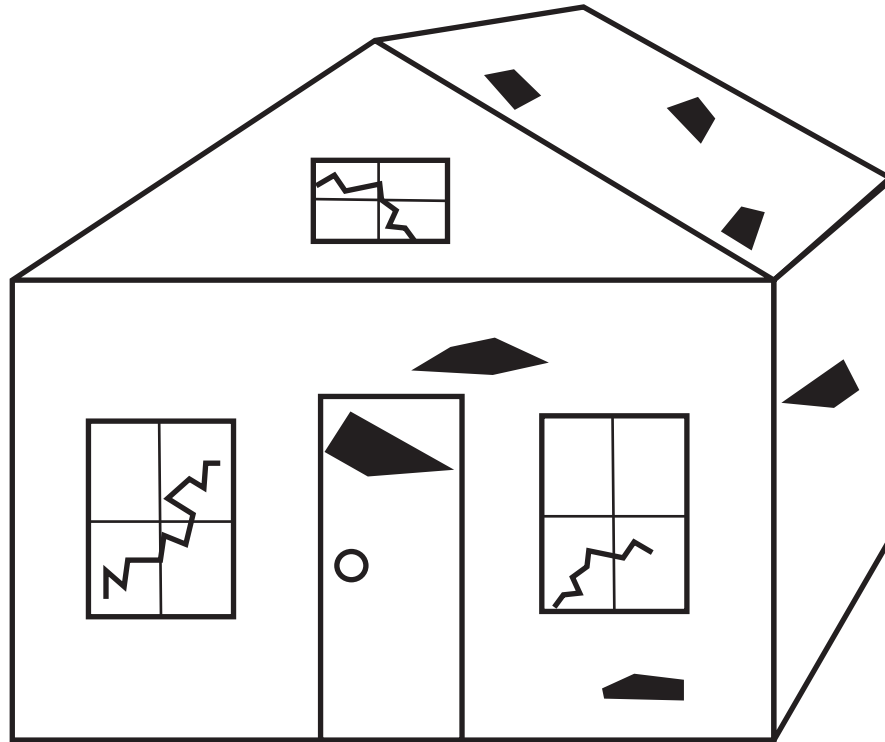


EXAMPLES:

- Partial missing shingles or siding
- Cosmetic damage such as paint discoloration or loose siding
- Broken screens, gutter damage, or debris
- Damage to an attached structure such as a porch, carport, garage, or outbuilding not for commercial use
- Damage to landscaping, retaining walls, or downed trees that do not affect access to the residence

AFFECTED - NON-FLOOD

NON-FLOOD DAMAGE: CONVENTIONALLY BUILT HOMES



EXAMPLES:

- Non-structural damage to roof components over essential living space to include shingles (e.g. roof covering, fascia board, soffit, flashing, and skylight)
- Non-structural damage to interior wall components to include drywall and insulation
- Non-structural damage to exterior components
- Multiple small vertical cracks in foundation
- Damage to chimney to include tilting, fallen, cracks, or separated from the residence
- Damage to mechanical components (e.g. furnace, boiler, water heater, HVAC, etc.)
- Damage or disaster related contamination to a private well or septic system

MINOR - NON-FLOOD

NON-FLOOD DAMAGE: CONVENTIONALLY BUILT HOMES

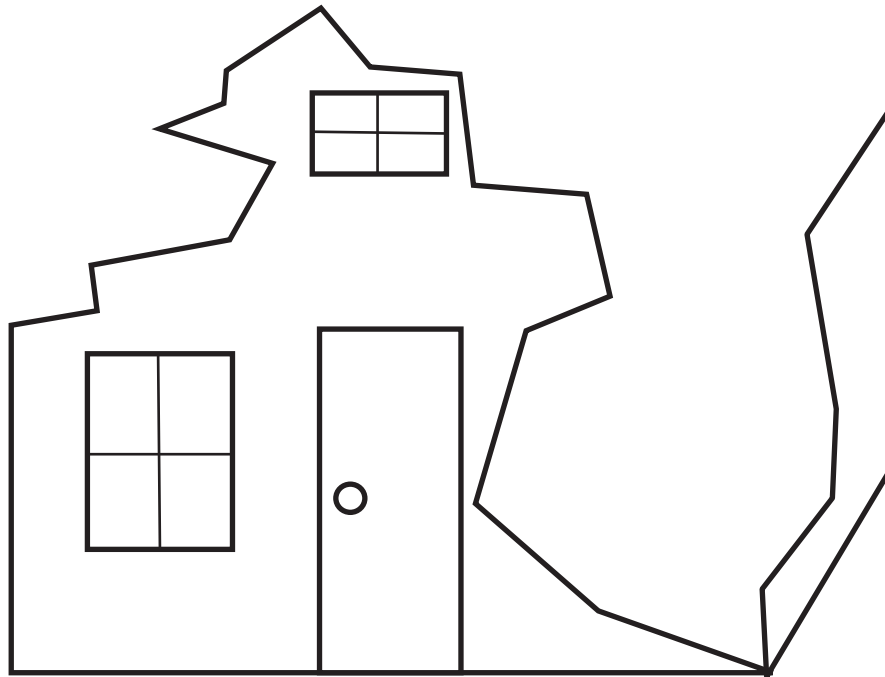


EXAMPLES:

- Failure or partial failure to structural elements of the roof over required rooms to include rafters, ceiling joists, ridge boards, etc.
- Failure or partial failure to structural elements of the walls to include framing, sheathing, etc.
- Failure or partial failure to foundation to include crumbling, bulging, collapsing, horizontal cracks of more than 2 inches, and shifting of the residence on the foundation of more than 6 inches

MAJOR - NON-FLOOD

NON-FLOOD DAMAGE: CONVENTIONALLY BUILT HOMES

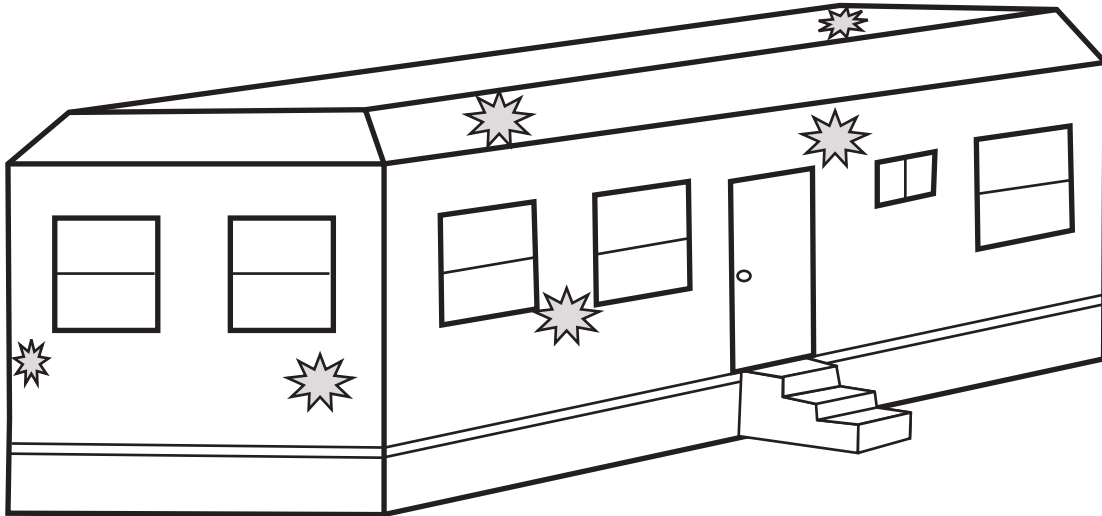


EXAMPLES:

- Only foundation remains
- A residence that will require immediate demolition or removal because of disaster-related damage or confirmed imminent danger (e.g. impending landslides, mudslides, or sinkholes)

DESTROYED - NON-FLOOD

NON-FLOOD DAMAGE: MANUFACTURED HOMES

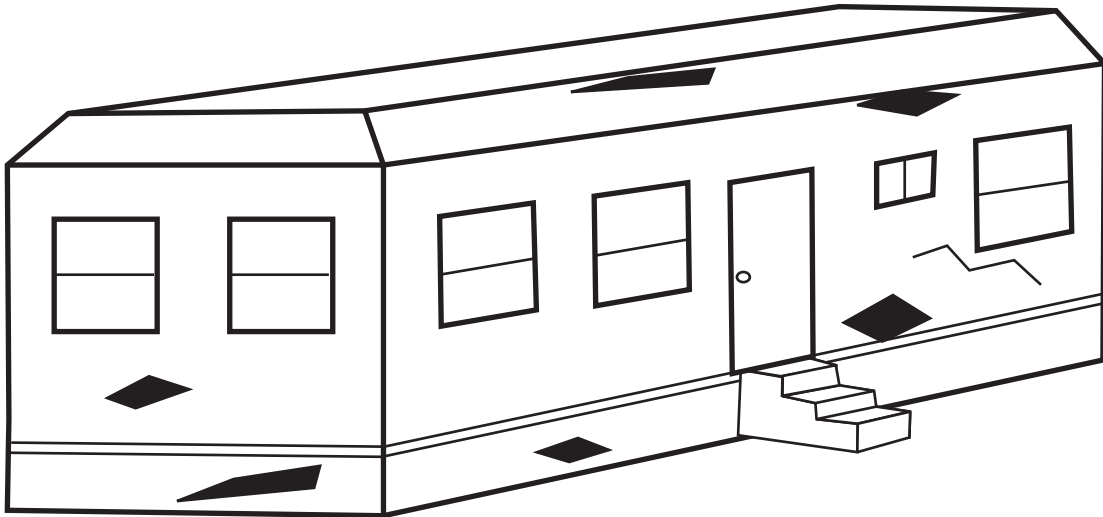


EXAMPLES:

- Frame is not bent, twisted, or otherwise compromised
- No structural components of the dwelling have been damaged (e.g. windows, doors, wall coverings, roof, bottom board insulation, ductwork, and/or utility hook up)

AFFECTED - NON-FLOOD

NON-FLOOD DAMAGE: MANUFACTURED HOMES

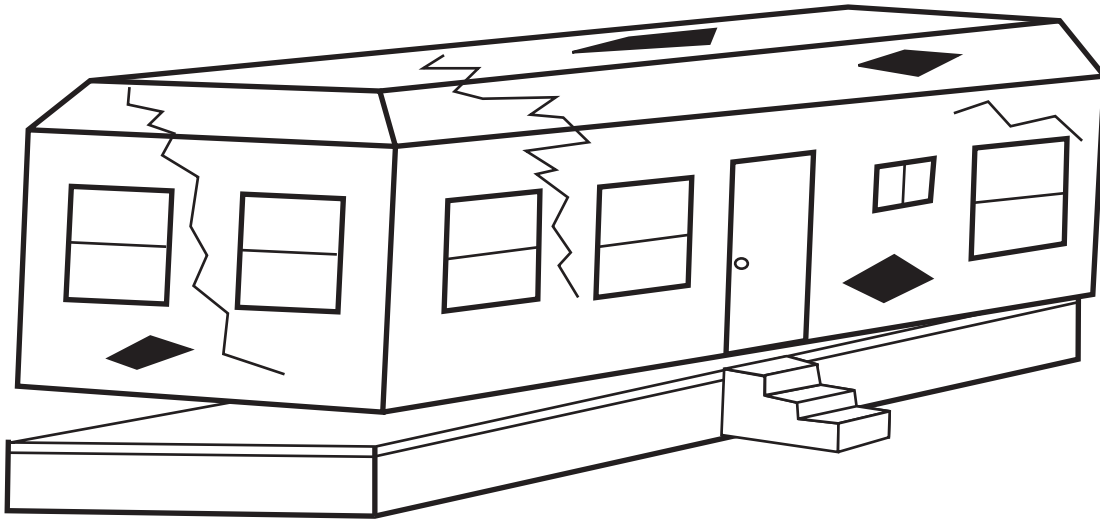


EXAMPLES:

- No structural damage to the residence and it has not been displaced from the foundation
- Non-structural components have sustained damage (e.g. windows, doors, wall coverings, roof, bottom board insulation, ductwork, and/or utility hook up)
- Skirting or HVAC is impacted

MINOR - NON-FLOOD

NON-FLOOD DAMAGE: MANUFACTURED HOMES

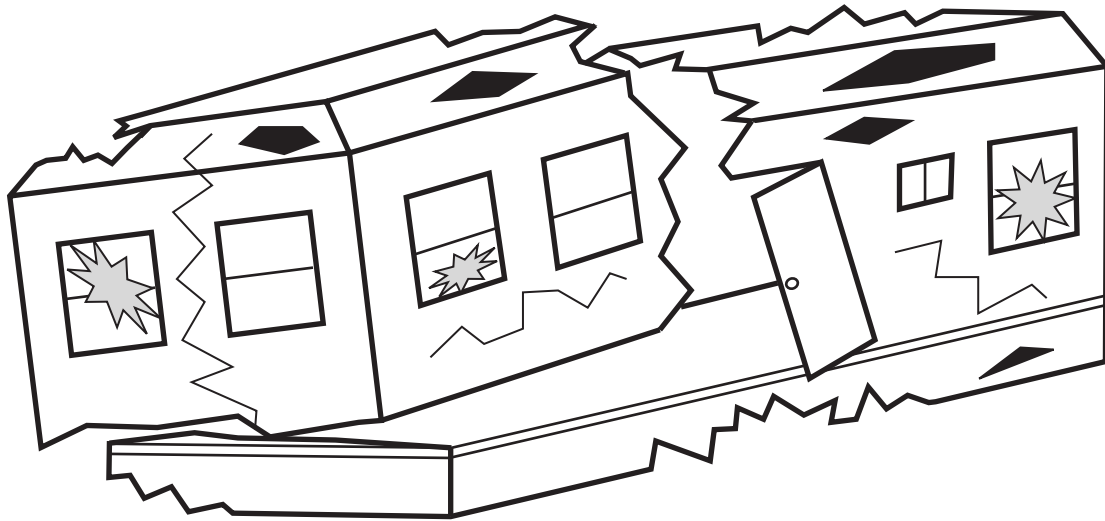


EXAMPLES:

- Residence has been displaced from the foundation, block or piers and other structural components have been damaged

MAJOR - NON-FLOOD

NON-FLOOD DAMAGE: MANUFACTURED HOMES



EXAMPLES:

- The residence's frame is bent, twisted, or otherwise compromised
- The residence is missing the roof covering or the structural ribbing has collapsed for the majority of the roof system

DESTROYED - NON-FLOOD