

TAURUS FLOOD

Determining Building Foundations

June 2024



- Non-Elevated Buildings
- Elevated Buildings
- First Floor Height
- Resources

Foundation Types

FEMA recognizes six (6) types of foundations



Slab on Grade



Elevated w/Enclosure on Solid Foundation Walls (no Posts, Piers or Pilings)



Basement



Elevated w/Enclosure on Posts, Pilings or Piers



Elevated w/no Enclosure on Posts, Pilings or Piers



Crawlspace (Elevated or Non-Elevated Subgrade Crawlspace)

Non-Elevated Buildings

Slab on Grade foundation with wood or metal frame walls on the first floor



One floor, slab on grade



Slab with attached garage



Two floor frame wall, both floors



Three or more floors on slab

Non-Elevated – Stem Wall Foundation

Type of raised foundation, comprised of cement walls that provide structural support by transmitting the load of the home to the footing and often keeps the home above flood level



The bottom floor is at or above ground level (grade) on at least one side of the slab-on-grade or slab-on-stem wall with fill

Split Level Buildings

A foundation with a vertical offset in the floor framing on either side of a common wall



The bottom floor (excluding garage) is at or above ground level (grade) on at least one side

Indicators of Slab Foundations

Building is constructed with wood or metal frame walls and encompasses the full footprint of the building

Building is one floor with any wall type and no airspace between the ground and lowest floor of the building

There is no airspace between the ground and the lowest floor of the building

Includes buildings with dual foundations



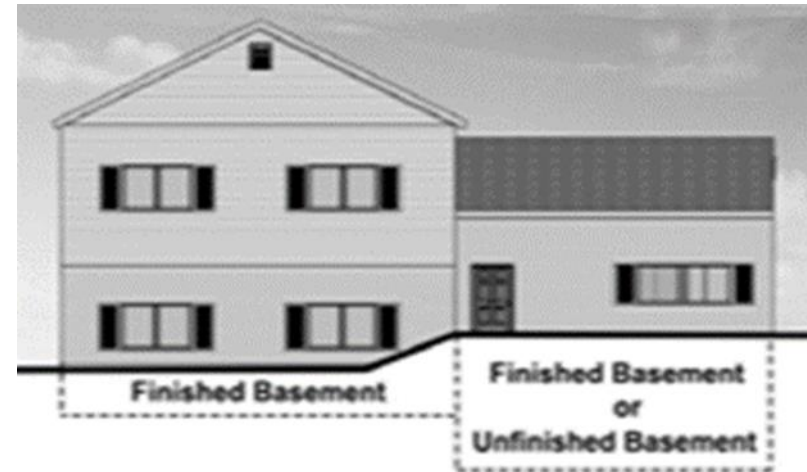
Crawlspace with converted garage or attached finished room

Basements

An area of any building, including any sunken room or sunken portion of a room, having its floor below ground level on ALL sides



Basement Building



Split Level with Basement

Indicators of Basements

- Building, including split-level, has a floor that is below grade on **ALL** sides
 - Even if the floor is used for living purposes, as an office, garage, workshop, etc
- Building has a subgrade crawlspace and
 - Distance from the crawlspace floor to the top of the next higher floor is more than 5 feet; OR
 - Crawlspace floor is more than 2 feet below the grade on **ALL** sides



Elevated Buildings

A building that has no basement and that has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, piles or columns or parallel shear walls with an enclosure below the elevated floor



Shear walls are for structural support and not structurally joined or enclosed at the ends, except by breakaway walls

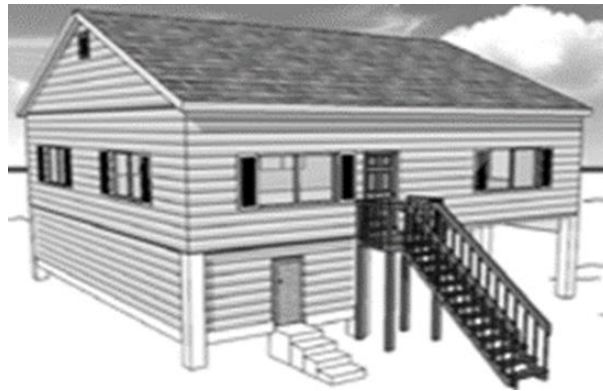
Elevated With No Enclosure



No Enclosure



Elevated with Lattice

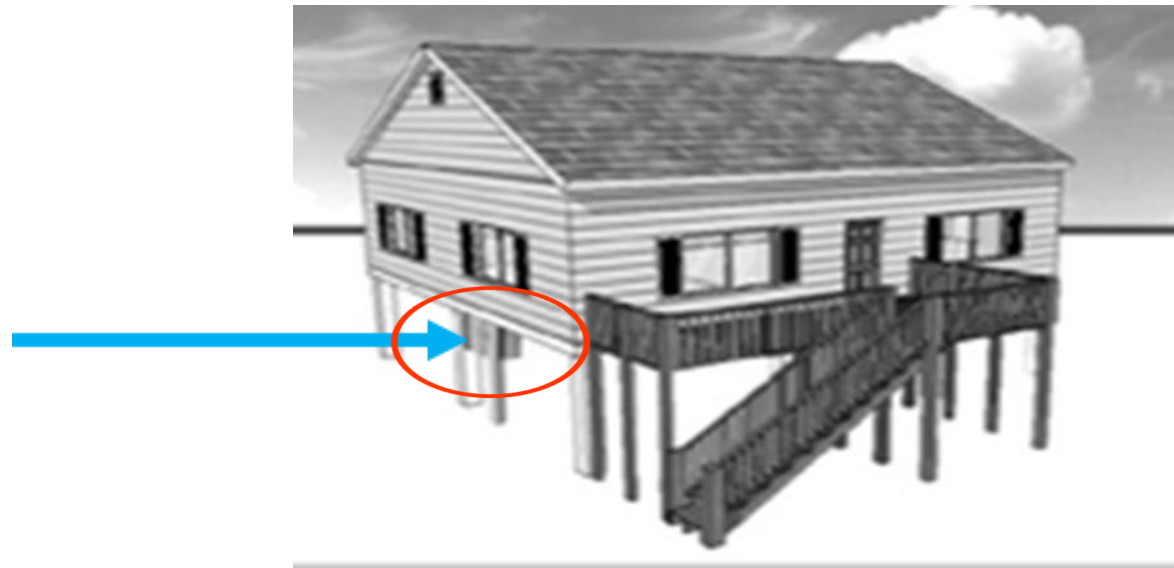


Elevated Hanging Floor



Mobile Home with Skirting

Elevated with Utility Chase



- FEMA does not consider a small enclosed area (a utility chase) below the lowest floor to be an enclosure if all the following criteria are met:
 - It is the minimum size necessary to protect the building utilities (for example, plumbing, pipes, wiring, HVAC supply/return lines);
 - It is constructed with flood-damage-resistant materials;
 - There are no mechanical or electrical equipment inside the enclosed area; and
 - There is not enough space for a person to enter into the enclosed area

Elevated with an Enclosure

That portion of an elevated building that is either partially or fully enclosed by rigid walls

- Garage, storage, utility room below the elevated floor
- Garage, storage or utility room attached and next to an elevated building with the enclosure floor lower than the elevated floor
- Enclosed crawlspace below the lowest elevated floor

Enclosure Wall Types

- Solid wood frame walls
- Masonry walls
- Breakaway walls

Elevated with Enclosure – Posts, Pilings or Piers

The area below the elevated floor is enclosed, either partially or fully, with or without openings present in the walls of the enclosure



Elevated with a Garage



Elevated with a bedroom below the elevated floor



Elevated on posts, piles or piers with a properly vented partial enclosure

Indicators of Elevated with Enclosure



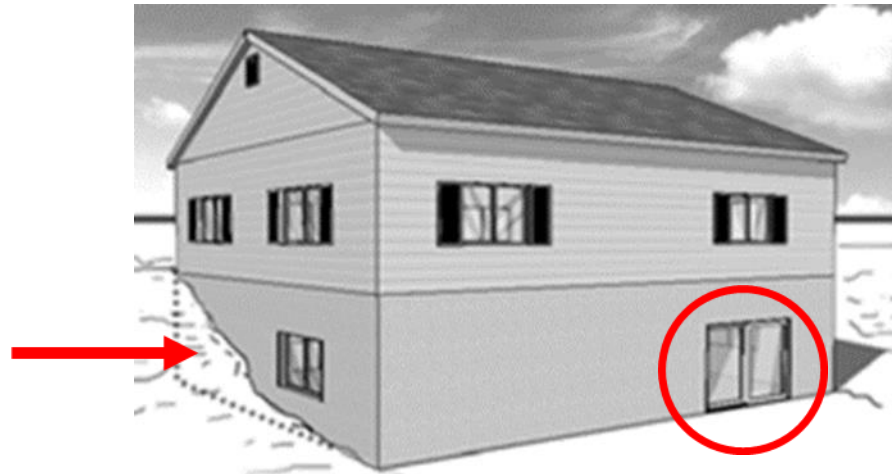
Elevated on piers, posts, piles, columns or parallel shear walls and there is an enclosed storage area or garage below the elevated floor



Elevated on piers, posts, piles, columns or parallel shear walls and there is a finished area below the elevated floor (example – bedroom or bathroom)

Elevated with Enclosure – Solid Foundation Walls

A building that has its lowest floor raised above the ground by foundation walls (solid perimeter walls) with a full floor enclosure



Walkout Basement



Two floor building with a full floor solid perimeter foundation for the first story and a frame construction for the second floor

Indicators for Elevated with Enclosure (Solid Foundation Walls)

Building may have a walk-out level, where at least one side is at or above grade

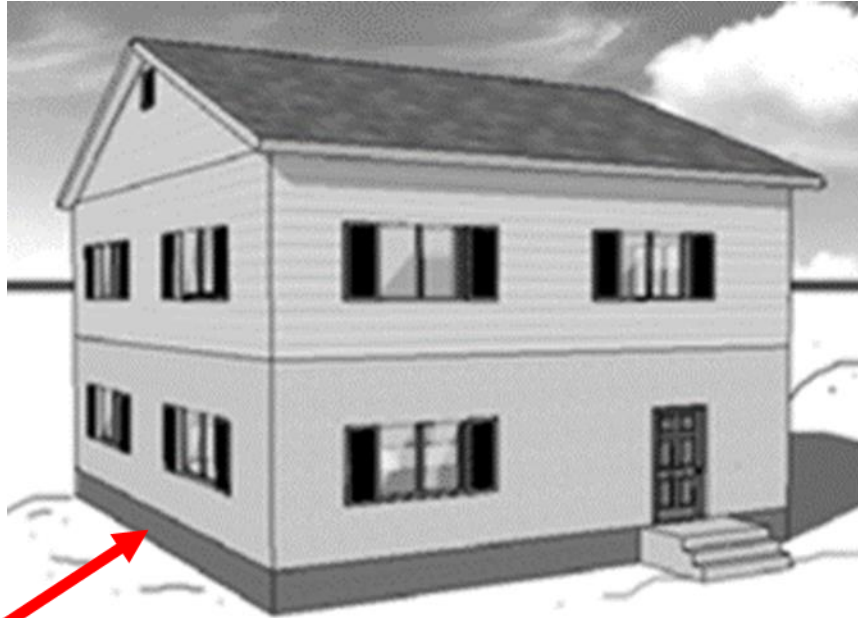
Principal use is located on the elevated floors of the building

Building has no basement

The area below the elevated floor is enclosed, either partially or fully, with or without openings present in the walls of the enclosure. The building is elevated on full-story foundation walls.

Crawlspaces

A building that has its lowest floor raised above the ground by a crawlspace



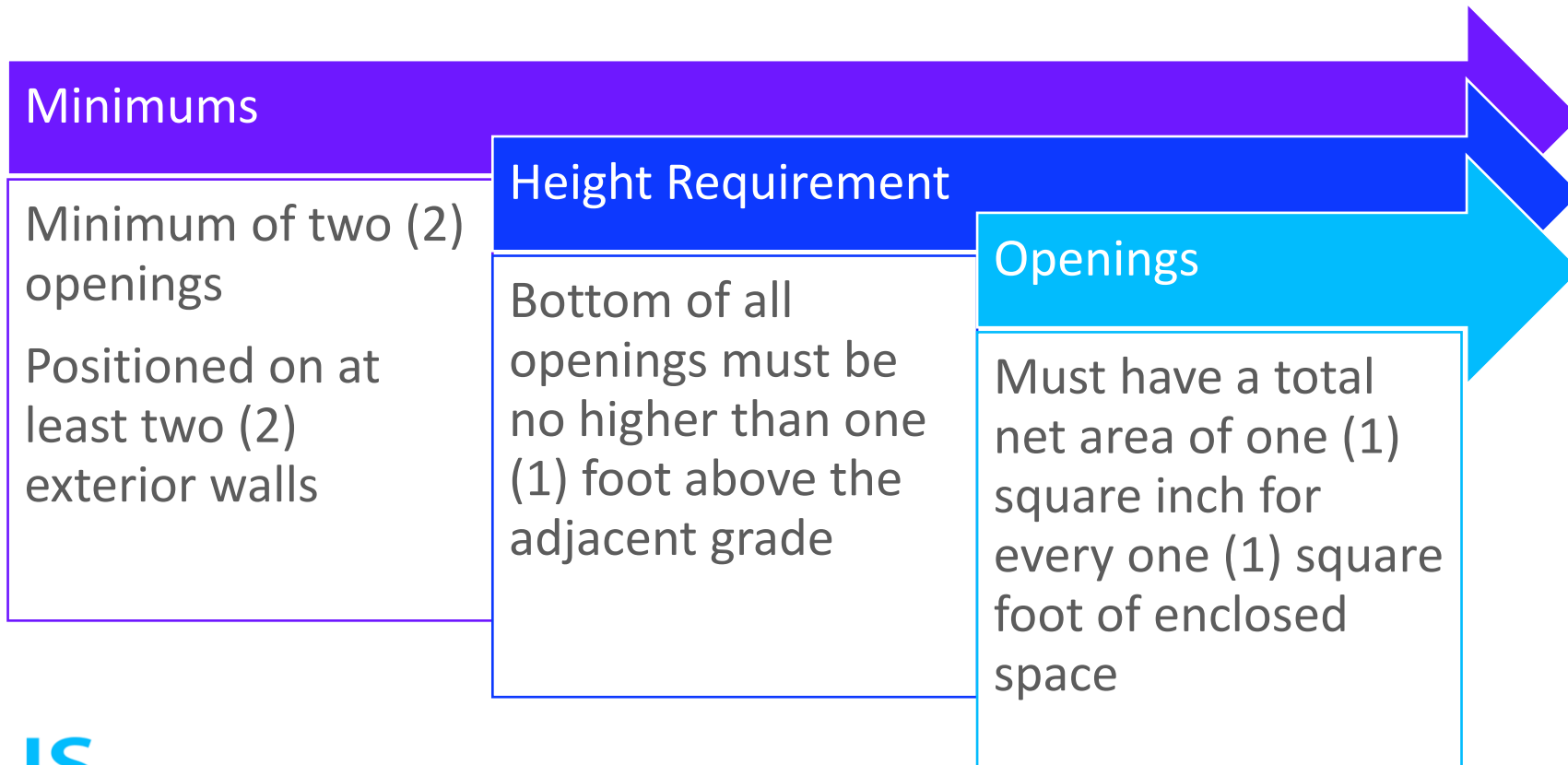
Above grade crawlspace



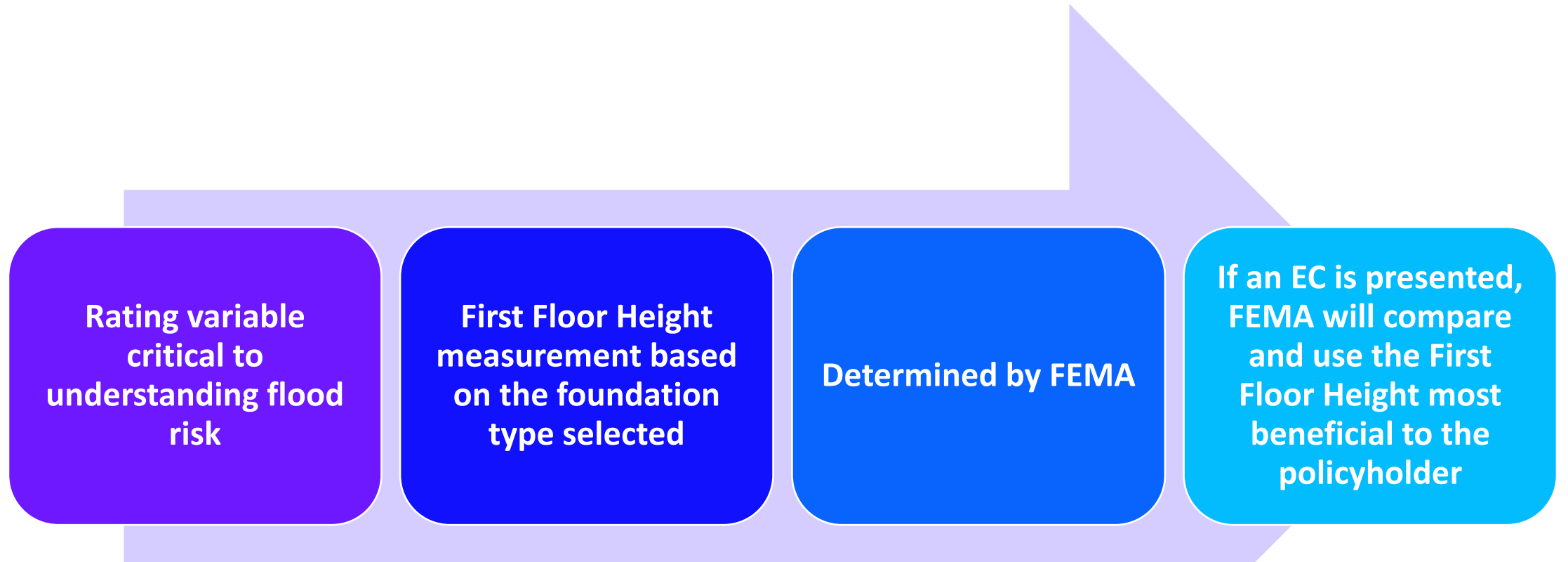
A building with a crawlspace foundation may have an attached garage

Proper Openings

- Foundation types that may be eligible to receive a discount for proper flood openings
 - Elevated with Enclosure on Posts, Piles or Piers (Diagram 6)
 - Elevated with Enclosure Not on Posts, Piles or Piers (Solid Foundation Walls) (Diagram 7)
 - Crawlspace (Diagram 8)



First Floor Height



Resources

FEMA / NFIP Flood Insurance

- <https://fema.gov/flood-insurance>

FloodSmart

- <https://agents.floodsmart.gov>

Taurus Flood

- <https://edu.myflood.com>

**By making flood insurance your business,
you can help protect your clients**

THANK YOU



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