

Measuring Houses and Counting Rooms

Using the ANSI Standards

The ANSI Standard for Measuring Houses

In April, 1996 the American National Standards Institute (ANSI) adopted a standard for measuring single-family residential buildings. American National Standard Z765-1996 was developed through a process of consensus among a wide variety of participants. These included the American Institute of Architects, the Appraisal Foundation, the Building Owners and Managers Association, the Manufactured Housing Institute, the National Association of Realtors, Fannie Mae, Freddie Mac, HUD and others.

The ANSI standards are not law, only a voluntary guide, and are subject to periodic review and revision. But anyone using these standards must apply them as a whole, and not just pick out the parts they like or agree with. The standards are intended for both attached and detached single family residences, but not for apartments or multi-family residences.

The ANSI standards base floor area calculations on the exterior dimensions of the building at each floor level, and include all interior walls and voids. For attached units, the outside dimension is the center line of the common walls. Internal room dimensions aren't used in this system of measuring.

The ANSI standards define "finished area" as "an enclosed area in a house suitable for year-round use, embodying walls, floors, and ceilings that are similar to the rest of the house." Measurements must be taken to the nearest inch or tenth of a foot, and floor area must be reported to the nearest square foot. Garages are specifically excluded.

How to Measure a House

Measuring a house is not that hard. For most houses, it's an easy one-person job. However, if someone offers to help, you can always let them hold the "dumb" end of the tape. All you need is a little practice and the following tools.

A 100-foot measuring tape (fiberglass tapes work the best)

A sturdy 25-foot retractable steel measuring tape (like the ones carpenters use)

A letter-size tablet of graph paper (10 squares per inch works best for most houses)

A pencil

If you measure a lot of houses, you should upgrade your tool kit with the following items.

Measuring tapes graduated in tenths of a foot (instead of inches)

An adjustable gauge for measuring unusual corner angles (such as the “Mite-R-Gage” by Nowlin, Inc.)

A computer program such as “Apex” or “Winsketch”

A medium-size standard screwdriver

Always start by measuring the outside of the house.

Begin measuring from any corner and work your way around the house. Move counterclockwise so the numbers on your tape will be right-side-up.

Measure the exterior of the house to the nearest inch or tenth of an inch. Measure from the exterior face of the walls. Include any features that are on the same level as the floor, such as chimneys and bay windows. Do not include the thickness of any corner trim pieces or greenhouse windows that don't have a corresponding floor level. * Use the 100-foot tape for long wall sections and the 25-foot tape for short sections. If you can't get close to a wall because of landscaping or other obstacles, use your screwdriver to anchor the 100-foot tape on the ground away from the wall.

Draw the dimensions on the graph paper as you go, with each square representing one foot. If you measure correctly you should arrive at the exact point of beginning on your graph paper. If not, re-measure.

Draw a separate floor plan for each level in the house. Don't assume that each floor is identical. Check for floors that overhang or are recessed.

When you are finished measuring the outside of the house, go inside and decide what to include and what not to include on each level.

If there is an attached garage, exclude it. It's not part of the finished floor area. Use the interior wall surface of the garage next to the house as the outside wall of the house.

If there are stairs, include them on every level they serve.

When there are openings to the floor below, subtract the opening from that level.

For split-level designs, measure each level. You can lump multiple floor surfaces into one level if they are within two feet of each other.

Exclude any areas, such as porches and converted garages, which are not finished or heated the same as the rest of the house.

Basements and Below-Grade Floor Areas

The ANSI standards make a strong distinction between above-grade and below-grade floor area. The above-grade floor area is the sum of all finished square footage which is entirely above ground level. The below-grade floor area includes spaces which are wholly or partly below ground level.

Disregard the old rules of thumb that allow you to include below-grade areas if they are less than five feet below grade or if less than half the area is below grade. If the house has any areas below the natural grade, measure that whole level separately. Even if the below-grade areas are fully finished, they are not part of the finished floor area according to ANSI standards.

Attics, Lofts and Low Ceilings

Level ceilings must be at least 7 feet high, and at least 6 feet 4 inches under beams, ducts and other obstructions. There is no height restriction under stairs. If a room has a sloped ceiling, at least one-half of the finished floor area must have a ceiling height of at least 7 feet. Otherwise, omit the entire room from the floor area calculations. If a room with a sloped ceiling meets the one-half-of-floor-area-over-7-feet requirement, then include all the floor space with a ceiling height over 5 feet.

Lofts and finished attics must be accessible by a conventional stairway or other access to be counted. If you can only reach the loft by climbing a ladder, it's not part of the finished floor area regardless of the ceiling height.

Detached Rooms, Guest Cottages, Granny Units and Dwelling Units

According to the ANSI standards, finished areas which are not connected to the main residence by a finished hall or stairway must be listed separately. If you have to leave the house to get to the room, it's not part of the finished floor area.

These detached living areas are called various things: "detached bedrooms," "guest cottages," "family care units (granny units)," "guest quarters" and "dwelling units."

A detached bedroom is a separate structure containing one room only without a kitchen or bathroom. It must be designed for and intended to be used as a sleeping or living facility for family members. It must be used in conjunction with the main house which includes a kitchen and a bathroom. Detached bedrooms can't be located farther than 150 feet from the main house and can't exceed 500 square feet in floor area.

A guest cottage is like a detached bedroom with a bathroom, but no kitchen. It can't exceed 640 square feet in floor area and must be a permanent structure, not a trailer or mobile home. It can't have a kitchen, wet bar or any provision for appliances for the storage or preparation of food. It must be clearly subordinate and incidental to the main house. Guest cottages can't be rental units. They must be used without compensation by guests of the occupants of the main house.

A family care unit (sometimes called a granny unit) is determined more by use than design. It is the temporary use of a building, structure or trailer to provide housing for the following.

Immediate family members who require daily supervision and care; or
People who provide daily supervision and care for the people who reside in the main residence.

A full dwelling unit is a single unit providing complete, independent living facilities for one or more people, including permanent provisions for living, sleeping, eating, cooking and sanitation. A dwelling unit can have only one kitchen.

Room Counts, Bedrooms and Bathrooms

The real estate profession often describes houses by their total room count, the number of bedrooms and the number of bathrooms they contain. For example, the shorthand convention "5/2/1.5" describes a house with 5 rooms, 2 bedrooms and 1.5 bathrooms.

Local custom determines the definition of a "room." In general, a room is a kitchen, a bedroom, a living room, a dining room, a family room, an office or a den. Rooms do not have to be divided by walls as long as there is space for the designated function. In the Northern Michigan market area therefore, the area in a house with a Great Room that encompasses the kitchen, dining and living rooms will have the Great Room counted as three rooms even though there are no walls to separate those areas. Lofts used as bedrooms are seen by the market as acceptable bedrooms and even though they may not have full privacy, they can be counted as a bedroom. **Bathrooms, laundry rooms, sun rooms, closets, storage rooms and entries are not usually considered to be rooms.**

What is the difference between a den and a bedroom? If the den can function as a bedroom, there may be no difference at all. What is the difference between a dining area and a dining room? If you could add walls and it would remain functionally the same, a dining area can be called a dining room.

A bedroom is any room that you can fit a conventional bed into. Usually the local zoning, building or health codes establish minimum requirements for bedrooms. In general, bedrooms should be at least 90 square feet in size, with at least one bedroom in the house 120 square feet in size. Bedrooms should have a window which provides an emergency exit, natural light and ventilation.

Bedrooms should have direct access to a hallway, living room or other common area. You should not have to walk through one bedroom to get to another. A bedroom should have a closet, but this is optional. Before closets, people stored their clothes in armoires and dressers.

Local custom also defines the bathroom. A full bathroom will include a toilet, a sink, and a tub, tub/shower unit or a shower. A bath with only a shower is still seen by the market as a full bath and is considered to be a full bath; not a $\frac{3}{4}$ bath. A half bath may have a toilet and a sink or a toilet only.