

Attic floor bedrooms in single-family and two-family dwellings

Habitable Room Definition (2015 MN Residential Code R202)

A space in a building for living, sleeping, eating or cooking is considered a habitable space. Bathrooms, toilet rooms, closets, halls, storage or utility spaces and similar areas are not considered habitable rooms.

Room Dimensions (2015 MN Residential Code R304.2-R304.3; Minneapolis Code of Ordinances 244.810)

Habitable rooms shall have a floor area of not less than 70 square feet (6.5 m²) and shall not be less than 7 feet (2134 mm) in any horizontal dimension.

Rooms used exclusively for sleeping purposes shall have the following minimum floor area.

1. 70 square feet (6.5 m²) for one (1) person
2. 90 square feet (8.4 m²) for two (2) persons
3. 50 square feet (4.6 m²) for each additional person (maximum of 4 persons)

Arrangement of Rooms (Minneapolis Code of Ordinances 244.830)

Room arrangements shall be such that access to a sleeping room cannot be only through another sleeping room, bathroom, or toilet room. Such arrangements which existed prior to November 2, 1920 are exempt.

Light, Ventilation and Heating (2015 MN Residential Code R303.1; R303.2; R303.9)

All habitable rooms shall have an aggregate glazing area of not less than 8 percent of the floor. Natural ventilation shall be through windows, doors, louvers or other approved openings to the outdoor air. Such openings shall be provided with ready access or shall otherwise be readily controllable by the building occupants. The minimum openable area to the outdoors shall be 4 percent of the floor area being ventilated.

Adjoining rooms shall be considered as one room when at least one-half of the area of the common wall is open and unobstructed and provides an opening of not less than one-tenth of the floor area of the interior room but not less than 25 square feet (2.3 m²).

Exception:

Openings required for light and/or ventilation shall be permitted to open into a sunroom with thermal isolation or a patio cover, provided that there is an openable area between the adjoining room and the sunroom or patio cover of not less than one-tenth of the floor area of the interior room but not less than 20 square feet (2 m²). The minimum openable area to the outdoors shall be based upon the total floor area being ventilated.

Every dwelling unit shall be provided with heating facilities capable of maintaining a minimum room temperature of 68°F (20°C) at a point 3 feet (914 mm) above the floor and 2 feet (610 mm) from exterior walls.

Ceiling Height (2015 MN Residential Code R305.1)

Habitable spaces shall have a minimum ceiling height of 7 feet (2134 mm), including hallways and bathrooms.

Exceptions:

1. For rooms with sloped ceilings, at least a 3 1/2-foot (1067 mm) width of the room shall have a ceiling height of at least 7 feet (2134 mm).
2. Bathrooms shall have a minimum ceiling height of 6 feet 8 inches (2032 mm) at the center of the front clearance area for water closets, or sinks. The ceiling height above fixtures shall be such that the fixture is capable of being used for its intended purpose. A shower or tub equipped with a showerhead shall have a minimum ceiling height of 6 feet 8 inches (2032 mm) above a minimum area 30 inches (762 mm) by 30 inches (762 mm) at the showerhead.

Emergency Egress from Sleeping Rooms (2015 MN Residential Code R310.1)

Habitable attics and every sleeping room shall have at least one operable emergency escape and rescue opening.

Where emergency escape and rescue openings are provided they shall have a sill height of not more than 44 inches (1118 mm) measured from the finished floor to the bottom of the clear opening; all emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet (0.530 m²); the minimum opening height shall be 24 inches (610 mm) and the minimum opening width shall be 20 inches (508 mm). (Note that these two minimums do not equal the 5.7 square feet. If the height of the opening is only 24 inches, then the width would have to be over 34 inches. If the width of the opening is only 20 inches, then the height must be over 41 inches.)

Stair Requirements (2015 MN Residential Code R311.7)

Based on compliance with existing code at time of construction, existing stairs serving a second (2nd) or third (3rd) floor finished space (bedroom, office, etc.) may be permitted to meet the following requirements.

1. Stair width: minimum 30" (762 mm)
2. Stair headroom: minimum 6'-6" (1982 mm)
3. Stair rise: maximum 8" (204 mm)
4. Stair tread depth: minimum 9" (229 mm)
5. Handrail: 30" – 38" height (762 – 966 mm)
6. Guardrail: minimum height 36" (914 mm); openings less than 4" (102 mm)

New stairs shall meet the current requirements.

1. Stair width: minimum 36" (914 mm)
2. Stair headroom: minimum 6'-8" (2032 mm)
3. Stair rise: maximum 7 3/4" (187 mm)
4. Stair tread depth: minimum 10" (254 mm)
5. Handrail: 34" – 38" height (762 – 966 mm)
6. Guardrail: minimum height 36" (914 mm); openings less than 4" (102 mm)

Continuous Unit Required for Two Family Dwellings

When the third (3rd) floor attic is used in conjunction with the second (2nd) floor dwelling in a duplex dwelling, the above conditions must be met as well as the following.

1. Access to the third (3rd) floor attic must be provided within the second (2nd) floor unit.
2. A dwelling unit may only have one kitchen. (zoning)

Smoke Alarms and Carbon Monoxide Detectors (2015 MN Residential Code R314; R315)

Smoke alarms shall be located in each sleeping room, immediately outside each sleeping room and on each additional story, including habitable attics. The smoke alarms shall be interconnected and hard wired unless alterations/repairs do not result in the removal of interior wall or ceiling finishes.

Carbon monoxide detectors are required in all residential buildings and dwelling units which have fuel-fired appliances or attached garages. They must be installed within 10 feet of each sleeping area and bedroom and be either hardwired or directly plugged into an electrical outlet without a switch, or battery powered.

Refer to the Smoke and Carbon Monoxide Detectors Bulletin for more information.

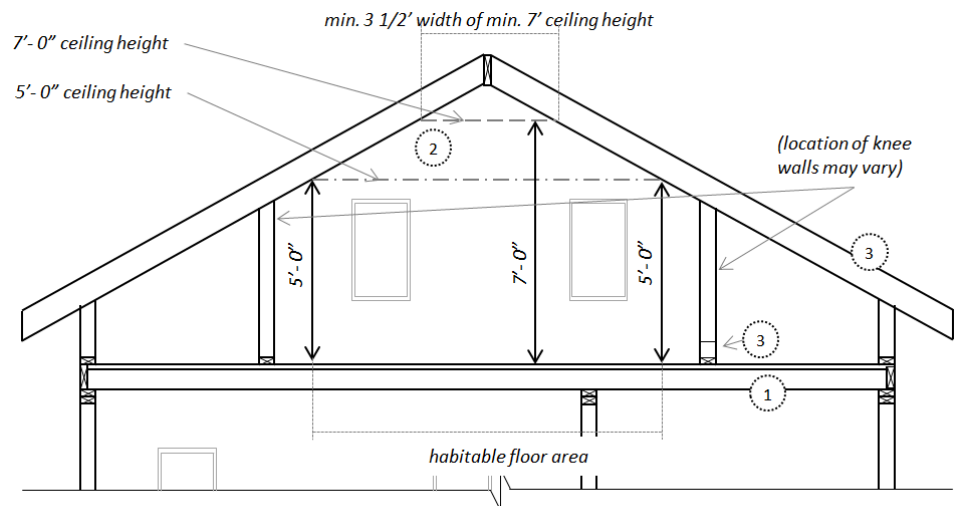
REQUIRED DRAWINGS*

*Drawings provided in this document are to be used as guides. Other drawings may be required.

Attic Section View

Indicate the following.

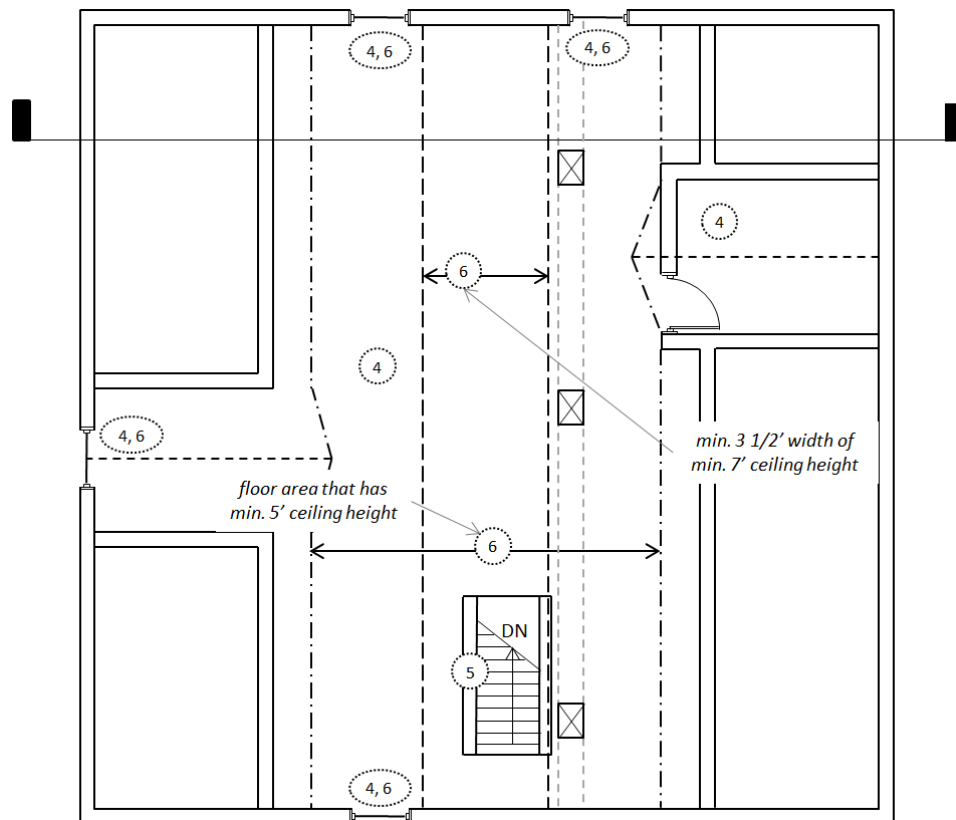
- 1) Joist size, spacing, span
- 2) Ceiling height, at least 3 1/2' width of a minimum 7'-0" height (The habitable floor area is measured for where the ceiling is at least 5'-0" high.)
- 3) Roof insulation and venting



Attic Floor Plan Showing

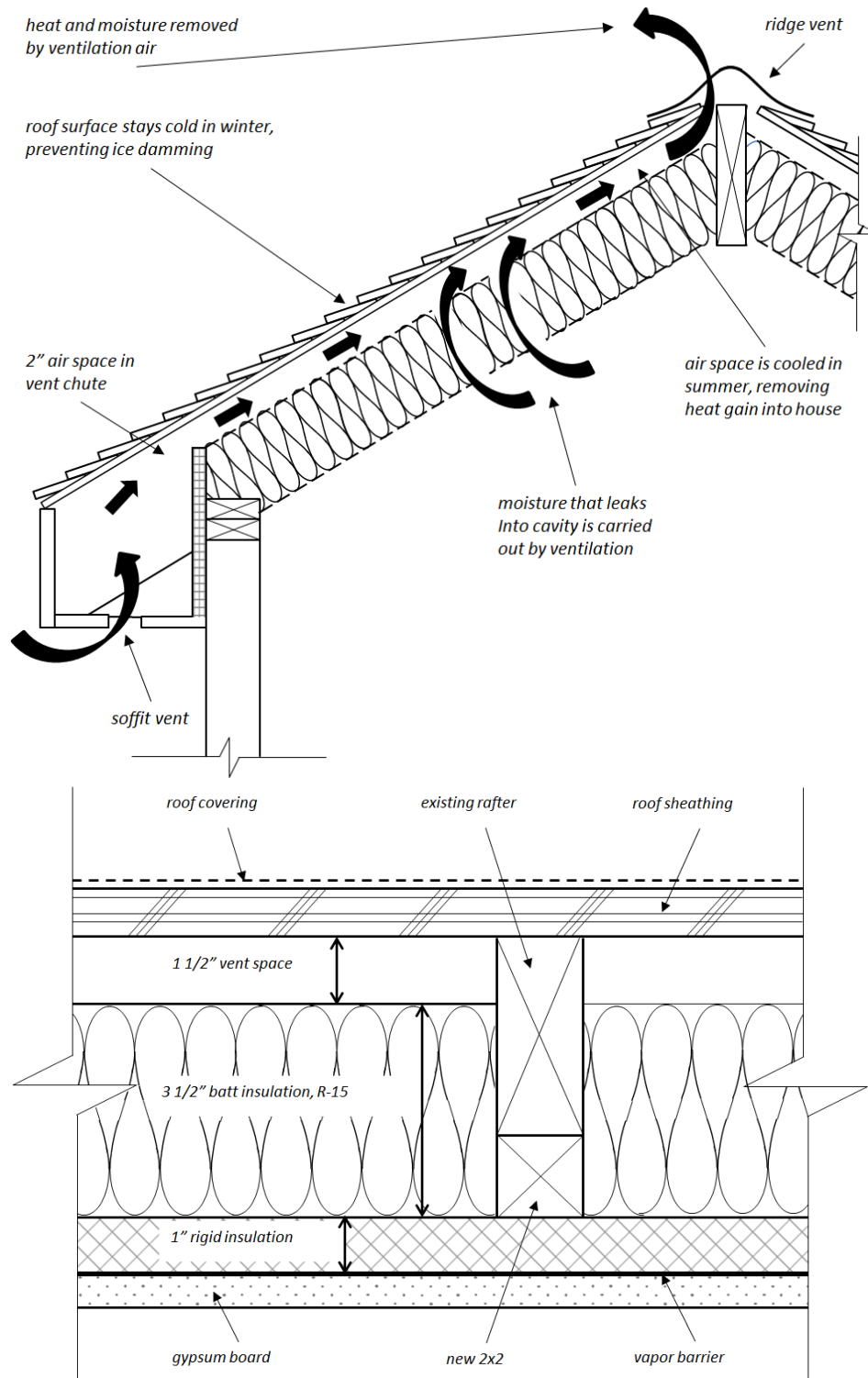
Indicate the following.

- 4) Room use (floor plan) with dimensions, window sizes, etc. (Recommended scale is 1/4" per 1' minimum.)
- 5) One approved means of egress: an existing stair with minimum 9" treads, maximum 8" risers, minimum 30" widths, and minimum 6'-6" headroom (If new stair is intended, see stair requirements.)
- 6) Light and ventilation: amount of glass totaling 8% of the habitable floor area, with a minimum 10 square feet in every habitable room and at least half operable



Construction Detail Information (one design option)

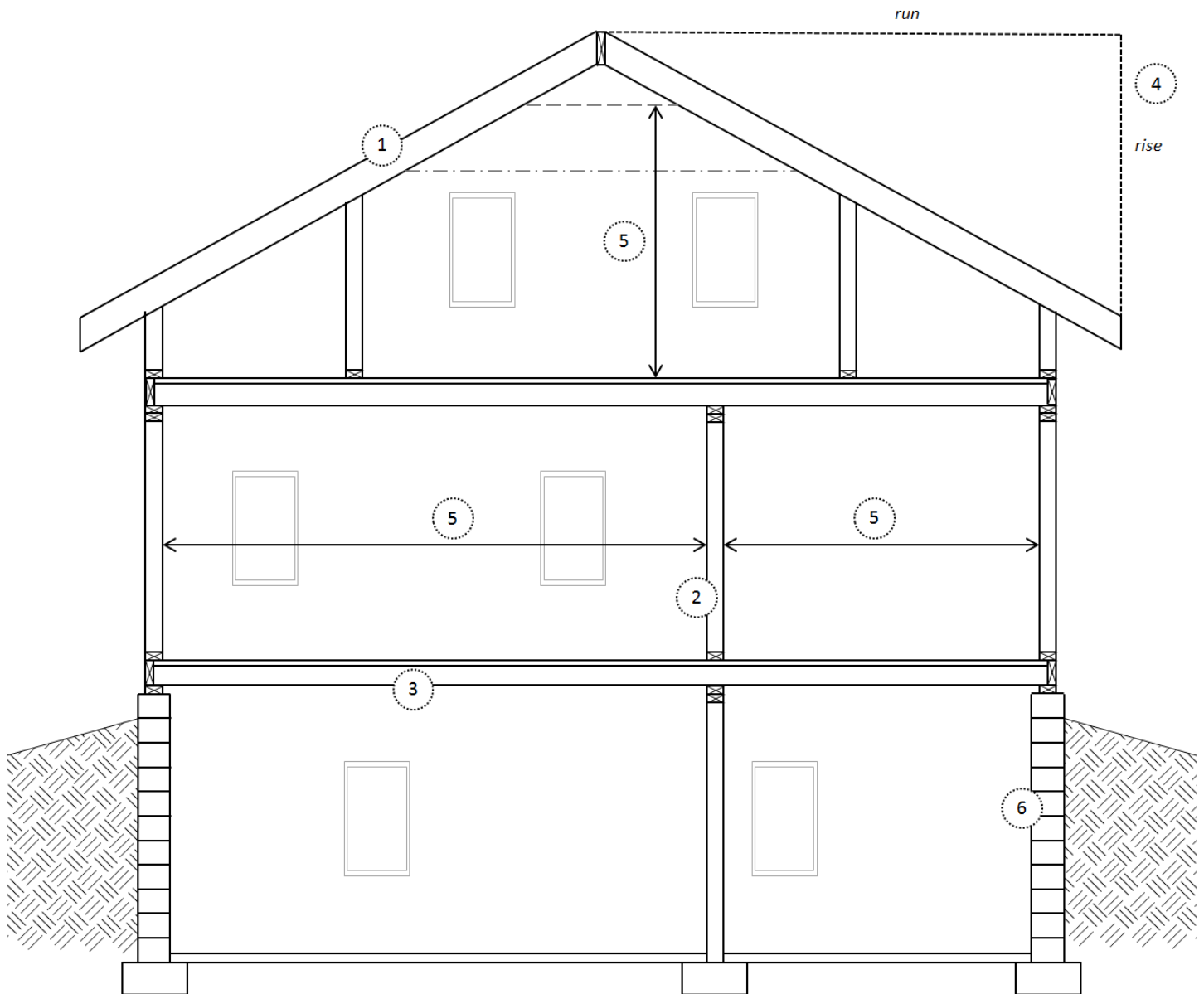
Provide information like the following.



Building Section with Structural Information

Indicate the following.

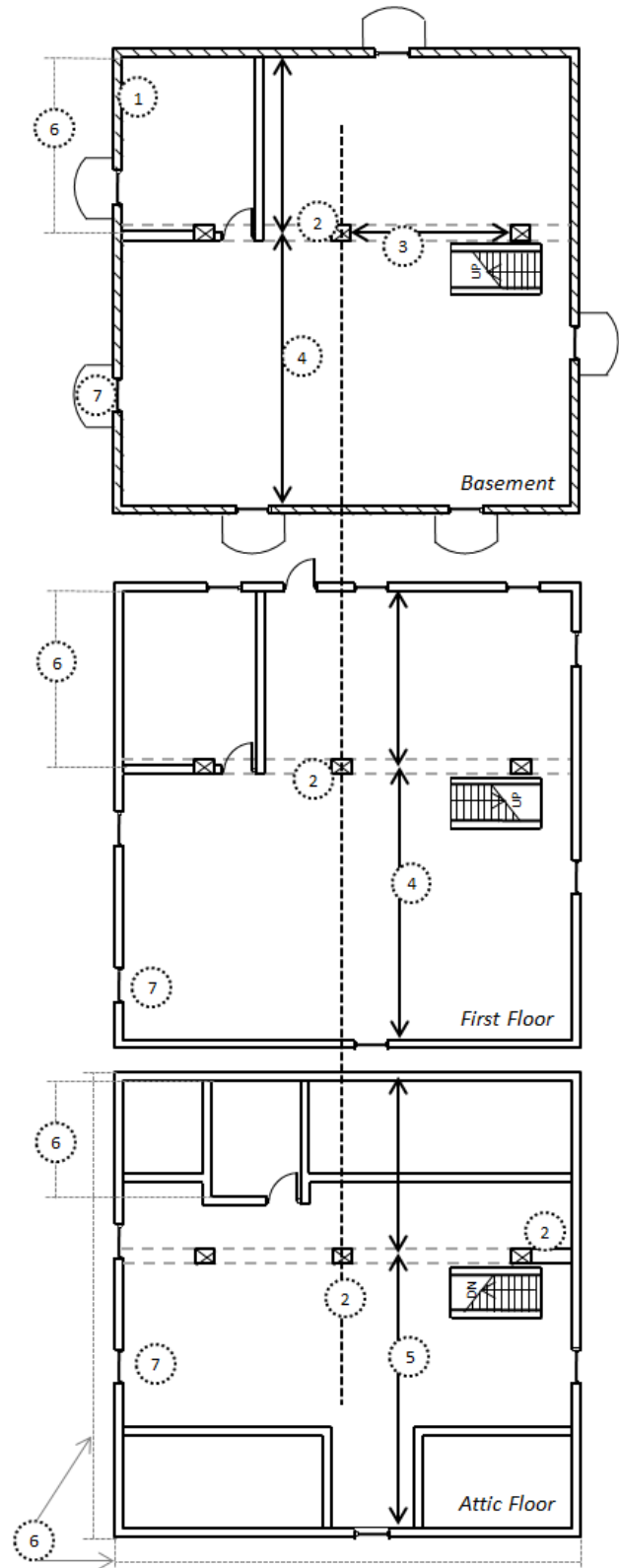
1. Size and spacing of new rafters (if applicable)
2. Location and dimensions of interior posts, beams or partitions
3. Floor joist sizes and spacing
4. Pitch of roof
5. Room dimensions
6. Basement foundations



Building Floor Plans with Structural Information

Indicate the following.

1. Basement wall foundation, including size of block
2. Bearing walls and posts: including location, size and material; call out continuous posts (if applicable) – dashed line in drawing is not part of the structure and is meant to illustrate continuity
3. Beams: including location, size, material and distance between supports
4. Floor joists: including direction, length, size and spacing for all floors
5. Roof framing: including joist direction size, spacing, span
6. Dimensions: including overall and area dimensions
7. Windows: including type and glass size



FREQUENTLY ASKED QUESTIONS

Q: What is the minimum size allowed for a bedroom?

A: A bedroom shall be a minimum of 70 square feet (6.5 m²) in area and not less than 7 feet (2134 mm) in any horizontal direction.

Q: What makes a room a legal bedroom?

A: A legal bedroom shall have 70 square feet (6.5 m²) gross floor area; light, ventilation, and heating per 2015 Residential Code R303; a ceiling height of 7 feet (2134 mm) from the finished floor to the finished ceiling; one egress window or door direct to the exterior per 2015 MN Residential Code R310; smoke detector and carbon monoxide per 2015 MN Residential Code R314, R315.

Q: Is an egress window required in attic bedrooms on the 3rd floor?

A: Yes, one egress window or door direct to the exterior is required in each and all bedrooms, from the basement floor through the 3rd floor.

Q: What are the requirements for the ductwork when a heat recovery ventilator is located in an attic?

A: Heat recovery ventilators located in an attic need to be in conditioned spaces. They do go through a defrost cycle in the winter and require a drain for condensation removal. Penetrations through the ceiling and walls require a thermal barrier. Therefore, the ductwork needs to be of ridged metal and sealed. The ductwork should have a vapor barrier and be insulated to R-8 or greater.

Q: Can I heat the bedroom with electric baseboard heat?

A: Yes, if it is hard wired and runs off a thermostat. All habitable spaces must have a heating system capable of maintaining a minimum room temperature of 68°F (20°C) at a point 3 feet (914 mm) above the floor and 2 feet (610 mm) from exterior walls per 2015 MN Residential Code R303.9.

Q: Can I install a separate furnace or boiler to heat the attic?

A: Yes, all gas heating equipment in bedrooms or adjoining rooms accessed through a bedroom, closets or bathrooms must be of a sealed combustion type.