



DEPARTMENT OF ECONOMIC
AND COMMUNITY DEVELOPMENT
BUILDING DIVISION

Design Information for New Construction or Retrofit **RESIDENTIAL WINDOWS** Light, Ventilation, Emergency Escape and Rescue

There are certain minimum standards which govern the size and openable area of the windows in a residence.

These regulations are applied differently to “habitable rooms” and “other rooms”, which are not considered habitable space, so we must look at the definitions of these terms:

A habitable room is: “a room used for living, sleeping, eating, or cooking”.

Other rooms or areas are: “bathrooms, toilet compartments, closets, halls, storage or utility spaces are not considered habitable spaces”.

Light: All **habitable rooms** within a dwelling must be provided with natural light by means of exterior glazed openings which have an area of not less than one twelfth (8%) of the floor area of the room being served **OR** shall be provided with artificial light that is capable of illuminating the equivalent of 6 foot-candles (65 lux) over the area of the room at a height of 30 inches (762 mm) above the floor level.

Adjoining Spaces: Any room may be considered as a portion of an adjoining room for purposes of calculating light when at least $\frac{1}{2}$ of the area of the common wall is open and unobstructed and provides an opening of at least 10% of the floor area of the interior room with a minimum open area of 25 square feet.

Ventilation: All **habitable rooms** within a dwelling, shall be provided with natural ventilation by means of openable exterior openings which have an area of not less than one twenty-fifth (4%) of the floor area of such rooms. In lieu of required exterior openings for natural ventilation, a mechanical ventilating system may be provided.

Bathrooms shall be mechanically ventilated. Mechanical systems must be connected directly to the outside and must provide a fan with a minimum rating of 50 cfm.

Adjoining Spaces: Any room may be considered as a portion of an adjoining room for purposes of calculating ventilation when the opening between rooms are unobstructed and shall have not an area of not less than 8% of the floor area with a minimum open area of 25 square feet.

* All new and replacement windows must be minimum dual paned.

1. **Smoke detectors and Carbon monoxide detectors are required for all residential permits, including window replacements. Combination smoke and carbon monoxide detectors can be used in lieu of separate devices.**
2. Smoke detectors are required in every bedroom, and on each floor level, in hallways outside of bedrooms.
3. Carbon monoxide detectors shall be installed outside of each separate dwelling unit sleeping area in the immediate vicinity of the bedrooms, and one on every level of a dwelling unit including finished basements.

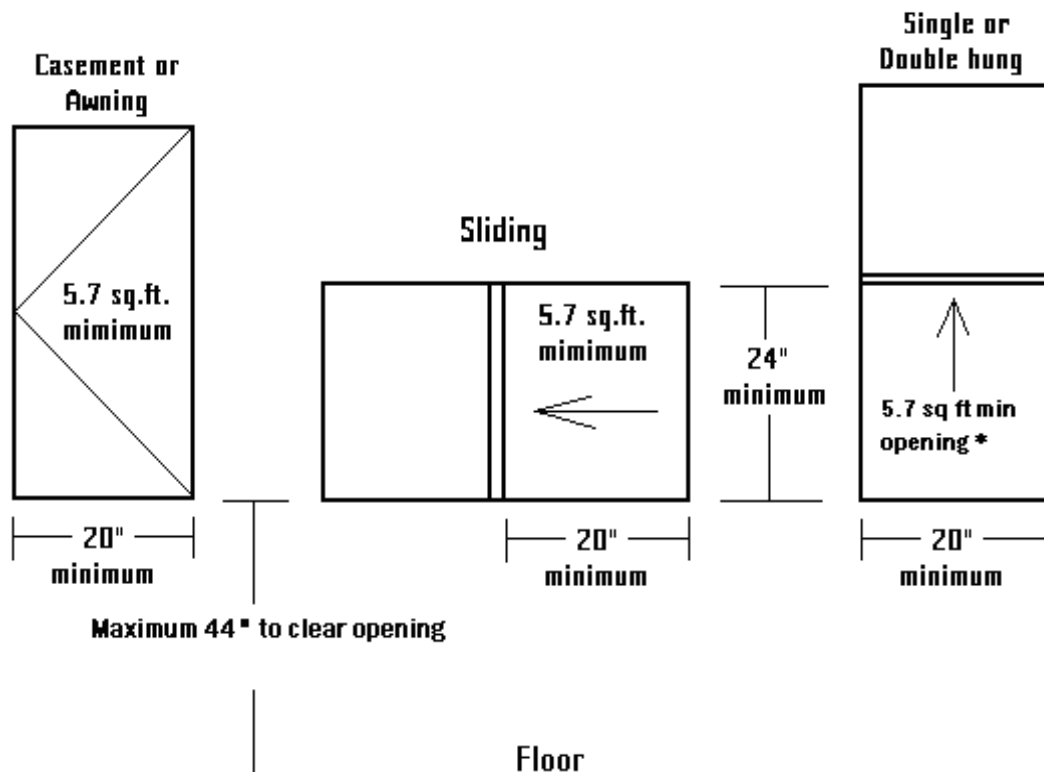
Emergency Escape and Rescue:

In every sleeping room, basement, and habitable attics within a dwelling unit, there must be at least one operable window or door approved for emergency escape or rescue. The emergency window or door must be operable from the inside without the use of tools. If security bars are to be installed, they must be (a) equipped with approved release mechanisms, openable from the inside without the use of a key or special knowledge or effort; or force greater than that which is required for normal operation.

1st floor (at grade or below) escape windows must have minimum clear opening of 5.0 square feet with a minimum clear opening width of 20" and a clear opening height of 24". The maximum height from the finished floor to the clear opening of the window is 44".

2nd floor and above escape windows must have a minimum clear opening of 5.7 square feet with a minimum clear opening width of 20" and a minimum clear opening height of 24". The maximum height from the finished floor to the clear opening of the window is 44".

Replacement of existing windows, with no change in rough opening size, shall be the same size and style of the original, provide equal or greater openings and shall be the largest standard size available from the manufacturer.



*5.7 sq ft min opening for 2nd floor and above emergency egress. 5.0 sq ft for grade level and below.