LEED BD+C: Homes | v4

Enhanced garage pollutant protection

Possible 2 points

Glossary

Intent

To minimize occupants' exposure to indoor pollutants originating from an adjacent garage.

Requirements

Case 1. Single Family

Option 1. Exhaust Fan in Garage (1 point)

Install in the garage an exhaust fan that is rated at least 75 cfm (35 liters per second) and meets ENERGY STAR cfm/w performance requirements.

The fan must vent directly to the outdoors and have an automatic timer control linked to an occupant sensor, a light switch, a garage door opening-closing mechanism, a carbon monoxide sensor that turns on the fan when ambient CO levels reach 35 ppm, or equivalent. The timer must be set to provide at least three air changes each time the fan is turned on.

Projects that earn the EPA Indoor airPLUS label automatically meet the requirements of Option 1.

OR

Option 2. No Garage, or Detached Garage, or Carport (2 points)

Select one of the following strategies:

- Do not construct a garage.
- Install a detached garage, defined as a structure that does not share a wall with the home.
- Install a carport, defined as an open-air space with one complete wall, which may be shared with the home.

Case 2. Multifamily

Option 1. Exhaust Fan in Multicar Garage (1 point)

For a garage that accommodates more than three cars, follow the requirements in ASHRAE 62.1–2010. Exhaust the garage sufficiently to create negative pressure with respect to adjacent spaces with the doors to the garage closed. Provide self-closing doors and deck-to-deck partitions or a hard lid ceiling. The pressure differential with the surrounding spaces must be at least 5 Pascals (Pa) (0.02 inches of water gauge) when all doors are closed. The exhaust fan may either run continuously, or on a carbon monoxide sensor that turns on the fan when ambient CO levels reach 35 ppm.

OR

Option 2. Exhaust Fan in Small Garage (1 point)

For a garage that accommodates one, two, or three cars, install an exhaust fan that meets ENERGY STAR minimum efficacy levels (cfm/W); direct-exhaust fans must be 100 cfm (47 liters per second) or greater, and ducted exhaust fans must be 130 cfm (61 liters per second) or greater.

The fan must either run continuously or have an automatic timer control linked to an occupant sensor, a light switch, a garage door opening-closing mechanism, a carbon monoxide sensor that turns on the fan when ambient CO levels reach 35 ppm, or equivalent. Any timer must be set to provide at least three air changes each time the fan is turned on.

Option 3. No Garage, or Detached Garage (2 points)

Select one of the following strategies:

- Do not construct a garage.
- Install a detached garage, defined as a structure that does not share a wall with the building.