

## Garages with Habitable Space

### Guideline

Guideline ESP - 20

### Purpose

Under the Rocky View County Land Use Bylaw, some Direct Control Districts (zonings), such as Cottage Club, only permit a maximum of one dwelling unit per titled area. This Guideline has been created to aid in the design and enforcement of buildings containing habitable living space but are not classified as dwelling units. This Guideline also addresses Rocky View County's interpretation of building code requirements for residential garages.



### Code Reference

Current National Building Code - Alberta Edition (NBC-AE), Division B, Articles:

- 9.10.9.18. Separation of Storage Garages,
- 9.13.4.2. Protection from Soil Gas Ingress,
- 9.25.3.1. Required Barrier to Air Leakage,
- 9.32.3.1. Required Mechanical Ventilation,
- 9.10.8.1. Fire-Resistance Ratings for Floors and Roofs, and
- 9.35.4.1. Garage Interior Finish.



### Summary

The requirements within this Guideline are applicable to garages and accessory buildings serving buildings of residential occupancy, under Part 9 of the current National Building Code – Alberta Edition.



### Interpretation

- 1) Definitions – As per the current National Building Code – Alberta Edition and Canadian Oxford Dictionary, 2<sup>nd</sup> Edition.
  - a) Conditioned space means any space within a building the temperature of which is controlled to limit variation in response to the exterior ambient temperature by the provision of heating or cooling over substantial portions of the year.
  - b) Garage means a building or part thereof intended for the storage or parking of motor vehicles. A garage is always considered unconditioned space, regardless if it is heated.
  - c) Motor vehicle means a vehicle powered by an internal combustion engine. This includes motorcycles, tractors, ATV's, ride-on lawn mowers and other similar vehicles equipped with a combustion engine.

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- d) Accessory Dwelling Unit means a dwelling unit located on the same parcel as a principle dwelling and is considered accessory and subordinate to that principle dwelling.
- 2) Applications - Requirements for enclosed living space in an attached garage or detached accessory building are listed below. Examples include enclosed man caves, gyms, mechanical rooms, offices or sleeping rooms that are closed off from the remainder of the garage. (Washrooms and storage rooms adjacent to a garage are considered exempt from these requirements).
- a) Radon gas requirements - Conditioned spaces on ground level are required to install a radon depressurization rough-in conforming to Article 9.13.4.3. if the space is intended to be occupied for more than 4 hours a day on a continuing basis. An air barrier system conforming to Subsection 9.25.3 must be installed below a concrete slab.
  - b) Environmental separation - An air barrier conforming to Subsection 9.25.3 shall be installed between conditioned living space and the garage to provide an effective barrier to gas and exhaust fumes. Doors must be self-closing and weather-stripped.
  - c) Energy Code requirements - Section 9.36 Energy Efficiency applies to all conditioned living space that is intended to be heated in the winter months.
  - d) Ventilation requirements - Ventilation must be provided to all habitable living space. Living space that is heated only with supplemental heating systems, such as baseboard heating or a fireplace, may be considered exempt from heating season mechanical ventilation requirements if the heating system is not intended to be used in the winter months. Living space that is not intended to be heated must also be provided with ventilation. This can be achieved through natural means (openable window) in each space.
- 3) Fire Resistance Ratings
- a) Second floors and exit stairs are exempt from providing Fire resistance ratings in buildings of residential occupancy. This includes accessory buildings serving a single residential occupancy.
  - b) ½" gypsum board must be installed on all walls and ceilings in an attached garage if the building is provided with sleeping accommodation.
- 4) Ventilation Requirements for a Residential Garage Intended to store 5 or More Motor Vehicles
- a) A garage intended to store five or more vehicles must install a mechanical ventilation system to ensure the Carbon Monoxide and Nitrous Oxide levels in the garage will be within the limits provided in the current National Building Code – Alberta Edition. The ventilation system may be designed by an Engineer, or a qualified designer using good Engineering practice. Building permit applications must include the mechanical equipment specifications, air volume calculations, and a reference to the standard the system was designed to.

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- b) Garage dimensions: A garage longer than 40 feet in depth is considered a tandem garage, capable of storing two motor vehicles back-to-back. This measurement is taken from the interior walls of the garage. Any permanent obstructions, such as cabinetry or stairs, can be deducted from this measurement.
- c) Where a design can be provided to show the intended use of the space, Rocky View County will accept a "Declaration of Use" signed by the owner to declare that less than five vehicles will be stored in the garage.
- d) Garage Separation – A wall may be constructed to separate a garage into two compartments, each with less than 5 vehicles. Minimum 2x4 wall with ½" drywall each side will suffice. A self-closing door and weather stripping is required. This will eliminate the requirements for mechanical ventilation noted above.

### 5) Accessory dwelling Unit with Shared Attached Garage

- a) If an attached garage of an accessory dwelling unit is intended to be used by the occupants of the principle dwelling, the garage must be provided with a one-hour fire resistance rating between any portion of the dwelling unit and the garage. All loadbearing walls supporting a fire rated floor must also be provided with an equivalent fire resistance rating. The construction details for rated walls/floors/ceilings must be determined using a ULC listed assembly, Table 9.10.3.1.-A. or appendix D Fire-Performance Ratings.
- b) Building Code spatial separation requirements apply between an accessory dwelling unit and a primary residence. See requirements in Section 9.15 of the current National Building Code – Alberta Edition.



## Reference

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