City of Fort Collins

FOR ASSISTANCE VIEWING OR READING ANY CITY DOCUMENTS,

contact the City's ADA Coordinator via email adacoordinator@fortcollins.gov or phone: 970-416-4254.

A Request for Reasonable Accommodation can also be completed online.

For more information about the City's Non-Discrimination policy and Accessibility efforts, visit FortCollins.gov/Non-Discrimination.

City of Fort Collins New Multifamily Air Tightness Testing Protocol

Code reference and application

2024 International Energy Conservation Code (IECC) Sections C402.6.2.2 and R402.5.1.2 as amended by the City of Fort Collins, requires that stacked multifamily individual dwelling units meet the air tightness requirement below. It does not apply to attached-single-family dwellings such as duplexes, townhomes, and rowhouses.

Approved testers

Test results will only be accepted from individuals holding any of the following certifications: RESNET Rater or RFI, BPI Building Analyst or BPI IDL, or other professional approved by the Building Official.

Compliance requirements

- Apartment exterior air barrier must be continuous and unbroken, separating the conditioned space of the building from the exterior and any unconditioned spaces or mechanical rooms.
- Units must be compartmentalized to minimize uncontrolled pathways for smoke and other indoor air pollutants to transfer between units. Walls, ceilings, floors, and doors that separate each apartment from neighboring apartments, corridors, common space, utility chases, floors above and below, stairwells and elevator shafts must be air sealed.
- The maximum air leakage rate at 50 Pascal test pressure shall not exceed 0.27 CFM50 / square foot (1.4 L/s m^2) of testing / *dwelling unit* enclosure area as defined within the IECC.

Unit sampling

- Where buildings have fewer than eight testing units, each testing unit shall be tested.
- For *buildings* with eight or more units, a minimum of seven or 20 percent of the testing units in the *building,* whichever is greater, shall be tested, including at least one of each unit type and approximately an equal number of units on each floor level. For each tested unit that exceeds the maximum air leakage rate, corrections to the unit must be made and the unit re-tested until it meets the required air leakage, and an additional two units of this type in the same *building* shall be tested and meet the required air leakage.

Testing

- A multi-point air tightness test shall be conducted based on the ANSI/Residential Energy Services Network (ANSI/RESNET)/ICC 380 ASTM E779, ASTM E1827 or ASTM E3158.

Submittal requirement

Output from the blower door testing / analysis software showing, at a minimum, the following information:

- Building address, dwelling model unit type and unit number
- Date of test
- Name of test technician and company conducting the test
- Sq ft of dwelling unit enclosure area as defined within the IECC
- Percent uncertainty in the corrected CFM50, at the 95% confidence level (+/- 5%)
- Dwelling unit air change rate (CFM50 / sq ft dwelling unit enclosure area)

Note

An example of measurement software meeting the requirements above is TECTITE, published by 'The Energy Conservatory'. TEC software options are available at www.energyconservatory.com.