



Fort Collins Building & Zoning Dept.

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BIG CHANGES IN NEW FORT COLLINS RESIDENTIAL BUILDING CODE

A new building code containing some of the most significant and controversial changes in many years is scheduled to become the law in Fort Collins in the next few months. A joint Fort Collins-Larimer County task group is nearing the end of its mission – reviewing the latest version of the “model” residential building code already in effect in much of the country, the *2003 INTERNATIONAL RESIDENTIAL CODE (IRC)*® published by the non-profit International Code Council®. The local volunteer group, made up of building code officials, public board members, builders, private building specialists, and representatives from the Home Builders Association of Northern Colorado, has been meeting for the past 15 months examining the model code plus local amendments. With the vast majority of building code requirements universal throughout the region and state, the joint review of the model code is an ongoing effort to keep the building codes throughout the Larimer County-Fort Collins area regionally consistent to the extent possible. But, both jurisdictions will likely enact some distinctive requirements based on each entity’s existing standards and the public they serve.

INDOOR AIR QUALITY (IAQ)

RADON-REDUCING VENTING SYSTEMS IN ALL NEW HOMES – In addition to the typical, naturally-vented (“passive”) system with provisions for later installation of a fan at the homeowner’s choosing, the Fort Collins City Council also has asked to consider a version of the draft with a continuously-running fan installed at the time of construction. Homeowners then would already have the most effective radon-reducing system, by taking advantage of a fan-powered (“active”) radon vent installed before the home is completed for a modest increase in cost in the range of \$200 - \$350 more than a passive system.

INTERIOR MOISTURE CONTROL VENTILATION SYSTEMS – The recommended code amendments are in response to potential IAQ/health problems associated with interior moisture accumulation and consequent fungal growth (molds). This problem is found with increasing frequency around the country and in Colorado, especially in enclosed spaces below suspended basement structural floor systems. The elevated “structural-floor” concept, itself a design consequence, is intended to eliminate the familiar concrete slab-on-ground basement floors, which often move with severe damaging results when placed in direct contact with the expansive soils that are pervasive throughout Fort Collins and the Front Range region.

ENERGY CONSERVATION

UPDATED ENERGY-CONSERVATION CONSTRUCTION STANDARDS – The proposed standards are based on the completely revised and more energy-conserving *2003 INTERNATIONAL ENERGY CODE (2003 IECC)* ® and an updated prescriptive option published by the U.S. Department of Energy. Compared to the current code, the '03 IECC, in general, increases exterior minimum total wall insulation “R-value” (a relative measure of resistance to heat flow) from about R-15 to R-18 and requires all windows to be a high-performing type with a maximum heat loss factor of U-0.35 (R-3 minimum).

The DOE standard is a more straight-forward code review path than the current regulations, in that it allows the builder the choice of not performing detailed heat-loss calculations. Though easier to demonstrate compliance, this short cut is also less flexible by the nature of its “one-size-fits-all” methodology that boils down the most essential requirements into a few concise tables and paragraphs.

Beyond the model code, the Fort Collins draft proposal would also restrict excessive over-sizing of new HVAC systems and require them to be tested for proper operation according to the manufacturer's parameters and require all duct systems to be sealed. Additionally, all new A/C systems would be required to exceed the minimum efficiency prescribed by federal standards and found in the model code: going from a minimum "Seasonal Energy Efficiency Rating" (SEER) of 10 to 12.

ARCHITECTURAL

STAIRS – The IRC requirements also differ from the current code for some architectural features. Foremost is minimum stairway geometry, which is less steep under the new IRC than is specified in its older counterpart now in effect. The result is a safer stairway having two additional stair steps with all steps being one inch deeper and ¼ - inch lower. The combination creates just under two feet more in the overall horizontal run dimension.

CEILING HEIGHT – The minimum ceiling height in habitable spaces would be lowered from 90 inches to 84 inches.

STRUCTURAL, EXTERIOR, & MISC

WIND DESIGN – Structural requirements in the new code are quite comparable to the current code with the exception of wind speed design. The current code and the '03 IRC both specify that buildings be designed for a maximum wind speed of 100 mph for our high-wind region. But, the method for measuring wind speed has changed, resulting in the new design wind speed being equivalent to 80 mph under the current criteria. However, even with that lower equivalent wind speed, the IRC specifies additional structural tie-downs to provide a continuous from the roof to the foundation that better resist high winds.

ROOFING – The current Fort Collins standard requiring new homes to have a Class A fire-rated roofing will likely remain in place.

EXTERIOR SIDING – Horizontal lap siding made from "hardboard" or "fiber cement" will required to be applied over an approved weather-resistant membrane (asphalt "tar" paper, "house wrap", etc.) and that vertical end joints are attached at studs and are covered or sealed.

HVAC, PLUMBING, & ELECTRIC – The '03 IRC standards with minor amendments are proposed for consistency throughout.

TRAINING

Contractor training is planned for spring of 2004.

PUBLIC HEARINGS

The code review task group is scheduled to hold additional meetings. The aim of the group is not to achieve consensus among all of the participants, but to consider a wide range of perspectives in the process. Ultimately, Fort Collins City staff will present its recommendation along with other group participant viewpoints to the City Council for making the final decision and passing the necessary ordinances, which is expected to occur in late February or March 2004

In addition to the December City Council public hearing, a series of other public meetings on the Fort Collins draft code package is scheduled for November, December, and February, with dates, times, and locations listed below. A complete copy of the latest drafts of proposed Fort Collins code amendments can be obtained in the Fort Collins Building & Zoning Dept. at 281 N. College Ave. or by e-mail. Written comments also may be sent to the attention of Felix Lee by e-mail to flee@fcgov.com.

**PUBLIC HEARINGS ON THE PROPOSED FORT COLLINS BUILDING CODE
Through February 2004**

| <u>DATE/TIME/PLACE</u> | <u>PUBLIC HEARING TYPE</u> |
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| November 19, 2003, 5:00 p.m. Fort Collins Utilities, 700 Wood St. | Electric Board comments on the Energy Code. |
| November 20, 2003, 1:00 p.m. City Hall, Council Chambers, 300 Laporte Ave. | Building Review Board and public invited to comment on the 2003 IRC and amendment package. |
| November 20, 2003, 5:00 p.m. City Building, 281 N. College Ave. | Air Quality Advisory Board comments on the 2003. IRC package . |
| December 4, 2003, 6:00 p.m. City Building, 281 N. College Ave. | Natural Resources Advisory Board comments on the 2003 IRC package. |
| December 4, 2003, 4:00 p.m. City Building, 281 N. College Ave. | Affordable Housing Board comments on the 2003 IRC package. |
| December 16, 2003, 6:00 p.m. City Hall, Council Chambers, 300 Laporte Ave. | City Council Public Meeting |
| February 10, 2003, 6:00 p.m. City Hall, CIC 300 Laporte Ave. | Study Session, City Council comments and advises on the 2003 IRC amendment package. |