



## Residential Kitchen Exhaust Requirements

Effective August 1, 2013, the City of Creve Coeur adopted the *2009 International Residential Code for One and Two Family Dwellings*.

Two of the code sections the city amended read as follows:

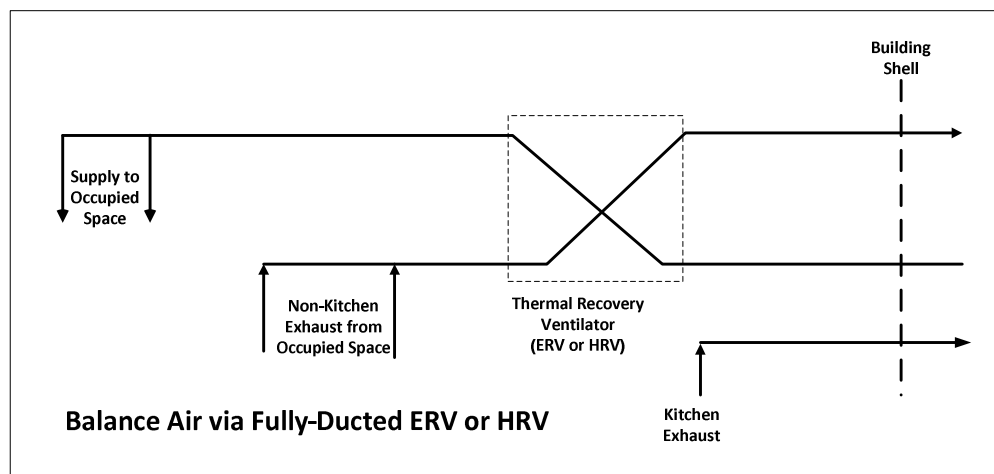
**M1503.1 General.** All kitchens shall be equipped with a means of mechanical exhaust directly over, or immediately adjacent to, a range or cook top. Range hoods shall discharge directly to the outdoors through a single-wall duct. The duct serving the hood shall have a smooth interior surface, shall be airtight and shall be equipped with a back-draft damper. Ducts serving range hoods shall not terminate in an attic or crawl space or areas inside the building.

**Exception:** Where installed in accordance with the manufacturer's installation instructions, and where mechanical or natural ventilation is otherwise provided, listed and labeled ductless range hoods shall not be required to discharge to the outdoors.

**M1503.4 Makeup air required.** Kitchen exhaust hood systems capable of exhausting in excess of 400 cubic feet per minute or 15 cfm per 100 square feet of finished floor area, whichever is greater, shall be provided with makeup air. The makeup air system shall supply tempered outside air at a rate equal to the exhaust air minus 400cfm. The makeup air system shall be equipped with a means of closure and shall be electrically interlocked with the kitchen exhaust fan to operate whenever the kitchen exhaust fan is operating. Makeup air shall be heated to 50 degrees Fahrenheit by an inline duct heater.

Makeup air shall not be required where there is no possibility of back-drafting carbon monoxide gas into the living area and at least one (1) of the following conditions is met:

1. There are no fossil fuel-fired heating appliances, other than cooking appliances, within the dwelling unit.
2. All fossil fuel-fired heating appliances have sealed combustion systems that are isolated from the dwelling unit.
3. An engineered, fully-ducted Energy Recovery Ventilator or Heat Recovery Ventilator is provided to admit and temper outside air in accordance with the following diagram or other substantially equivalent system.



The city made this amendment because research has shown that kitchen exhaust systems, with an exhaust flow rate of 400 cfm or greater, are greatly oversized and their continued operation can create negative pressure within an airtight home to the point that backdrafting of carbon monoxide gases from gas-fired appliances and wood-burning fireplaces back into the home can occur.

Note: Where more than one kitchen exhaust system is provided, the combined exhaust flow rates of both systems (since both may be operating at the same time) must be less than 400 cfm.

(Revision Date 07/24/2013)