

# PIKES PEAK REGIONAL BUILDING DEPARTMENT

## International Energy Conservation Code Certificate

### Multifamily Dwellings

This Certificate is based on the 2003 IECC as amended by the 2005 Pikes Peak Regional Building Code. Include this form with your construction plans submittal for review.

**ADDRESSES:** \_\_\_\_\_

#### DECLARATION OF ENERGY CODE METHOD

Seven options are offered to achieve compliance with IECC minimum standards. Check the box to indicate your selection.

- 1. Energy Analysis (IECC Section 402.1). Available only to architects or engineers licensed by the state of Colorado.\*
- 2. Performance by individual component (IECC Section 502.2.1)
- 3. Performance by envelope (IECC Section 502.2.2)
- 4. Acceptable practice (IECC 502.2.3)
- 5. Prescriptive method (IECC Section 502.2.4)
- 6. Practical method (IECC Section 602.1)
- 7. REScheck (Dept. of Energy program)\*\*

\* If Energy Analysis is selected, do not continue with this form. Submit data and calculations with the plans submittal.

\*\* If REScheck is selected, skip the insulation data and energy calculations. Provide a floor plan showing windows and doors and their associated U-value, and indicate the size and style of windows to be installed. The floor plan must match the approved plans. Fill in and sign Certification.

#### INSULATION DATA

State the appropriate values for the project area; this may be the entire house or a portion such as a room addition.

_____ Area of exterior doors (sq ft)	_____ R value of ceiling insulation
_____ Area of exterior glazing (sq ft)	_____ R value of exterior wall
_____ Gross area of exterior walls (sq ft)	_____ R value of floor over unheated space
_____ (U <sub>g</sub> ) Glass/window units	_____ R value of floor over exterior space
_____ (U <sub>d</sub> ) Doors	_____ R value of basement wall
	_____ R value of slab perimeter
	_____ R value of crawl space wall

#### ENERGY CALCULATIONS

If method 2, 3 or 4 is used, attach documentation, calculation or data to substantiate compliance with declared method.

If method 5 is used, please state the window area percentage of the gross exterior wall: \_\_\_\_\_%

#### CERTIFICATION

I certify the data stated is correct to the best of my knowledge based on the plans provided and calculations performed for the address (or addresses) listed above.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print full name

\_\_\_\_\_  
Phone number

\_\_\_\_\_  
Name of company

## Energy Code Specifications for Multifamily Dwellings

Use the following tables for minimum U- and R-Values applicable to the selected Method.

### METHODS 2, 3 & 4

### IECC TABLE 502.2<sup>a</sup> HEATING & COOLING CRITERIA

ELEMENT	MODE	MULTI-FAMILY ATTACHED DWELLINGS
		U <sub>o</sub>
Walls	Heating/Cooling	0.20
Roof/Ceiling	Heating/Cooling	0.026
Floors over unheated spaces	Heating/Cooling	0.05
Heated slab on grade <sup>c</sup>	Heating	<b>R-Value</b> 7.5
Unheated slab on grade <sup>c</sup>	Heating	<b>R-Value</b> 5.0
Basement wall <sup>b,c</sup>	Heating/Cooling	<b>U-Value</b> 0.095
Crawl space wall <sup>b,c</sup>	Heating/Cooling	<b>U-Value</b> 0.077

#### Footnotes:

- Values must be determined using the graphs [Figures 502.2(1-6)] with HDD as specified in Table 302.1 of the 2003 IECC as amended.
- Basement & crawl space wall U-Factors are based on the wall components and surface air films. Adjacent soil does not affect the U-Factor.
- Typical foundation insulation techniques are found in the Building Foundation Design Handbook published by the Department of Energy.

### METHOD 5

### IECC TABLE 502.2.4(7 - 9) HEATING & COOLING CRITERIA

WINDOW AREA PERCENTAGE OF GROSS EXTERIOR WALL	MAXIMUM	MINIMUM					
	Glazing U-Factor	Ceiling R-Value	Exterior Wall R-Value	Floor R-Value	Basement wall R-Value	Slab perimeter R-Value	Crawl space wall R-Value
20%	0.50	R-26	R-13	R-19	R-9	R-5, 3 ft	R-14
25%	0.51	R-30	R-13	R-19	R-10	R-7, 3 ft	R-16
30%	0.44	R-38	R-19	R-19	R-10	R-8, 3 ft	R-18

### METHOD 6

### IECC TABLE 602.1 HEATING & COOLING CRITERIA

MAXIMUM WINDOW AREA PERCENTAGE OF GROSS EXTERIOR WALL	MAXIMUM	MINIMUM					
	Glazing U-Factor	Ceiling R-Value	Exterior Wall R-Value	Floor R-Value	Basement wall R-Value	Slab perimeter R-Value	Crawl space wall R-Value
15% FOR 2 UNITS 25% FOR 3 OR MORE	0.35	R-38	R-13	R-21	R-10	R-5, 3 ft	R-20

#### Notes for Methods 5 & 6:

- One door may be omitted from calculations. The maximum U-Factor for any additional door is 0.35.
- Floors over exterior spaces must meet the same criteria as Ceiling R-Value, including bay windows, cantilevers & overhangs.
- Floors over unheated and enclosed spaces, such as garages and crawl spaces, must meet the Floor R-Value criteria.