

Section R313.2 of the *International Residential Code*<sup>®</sup> is hereby amended to read as follows:

**“R313.2 One and two-family dwellings automatic fire systems.**

The installation of an automatic residential fire sprinkler system in one- and two-family dwellings is optional, provided all requirements of section R501.3 are met.

**Exception:** An automatic residential fire sprinkler systems shall not be required for additions or alterations to existing buildings that are not already provided with an automatic residential sprinkler system.”

**Section 1.** Section 18-1-70 of the *Frederick Municipal Code* is hereby amended by the addition of a new Paragraph (78) to read as follows:

“(78) Section R501.3 of the *International Residential Code*<sup>®</sup> is hereby repealed in its entirety and reenacted to read as follows:

**“R501.3 Fire protection of floors.**

Floor assemblies, not required elsewhere in this code to be fire-resistance rated, shall be provided with a 1/2-inch (12.7 mm) gypsum wallboard membrane, 5/8-inch (16 mm) wood structural panel membrane, or equivalent on the underside of the floor framing member.

**Exceptions:**

1. Floor assemblies located directly over a space protected by an automatic sprinkler system in accordance with Section P2904, NFPA13D, or other approved equivalent sprinkler system.
2. Floor assemblies located directly over a crawlspace or basement where fuel fired equipment is not intended to be located.
3. Portions of floor assemblies can be unprotected when complying with the following:
  - 3.1. The aggregate area of the unprotected portions shall not exceed 80 square feet per story.
  - 3.2. Fire blocking in accordance with Section R302.11.1 shall be installed along the perimeter of the unprotected portion to separate the unprotected portion from the remainder of the floor assembly.
4. Wood floor assemblies using dimension lumber or structural composite lumber equal to or greater than 2-inch by 10-inch (50.8 mm by 254 mm) nominal dimension, or other approved floor assemblies demonstrating equivalent fire performance.”

**Section 2.** Section 18-1-70 of the *Frederick Municipal Code* is hereby amended by the addition of a new Paragraph (79) to read as follows:

“(79) Subsection N1101.11 (R302.1) of the *International Residential Code*<sup>®</sup> is hereby amended to read as follows:

**“ N1101.11 (R302.1) Interior design conditions.** The interior design temperatures used for heating and cooling load calculations shall be a maximum of 70°F (21°C) for heating and minimum of 75°F (24°C) for cooling.”

**Section 3.** Section 18-1-70 of the *Frederick Municipal Code* is hereby amended by the addition of a new Paragraph (80) to read as follows:

“(80) Subsection N1102.3.6 (R402.3.6) of the *International Residential Code*<sup>®</sup> is hereby amended to read as follows:

**“N1102.3.6 (R402.3.6) Replacement fenestration.** When a permit is required and where some or all of an existing fenestration unit is replaced with a new fenestration product, including sash and glazing, the replacement fenestration unit shall meet the applicable requirements for U-factor and SHGC in Table N1102.1.1. (R402.1.1.)”

**Section 4.** Section 18-1-70 of the *Frederick Municipal Code* is hereby amended by the addition of a new Paragraph (81) to read as follows:

“(81) Subsection N1103.4 (R403.4) of the *International Residential Code*<sup>®</sup> is hereby amended to read as follows:

**“ N1103.4 (R403.4) Service hot water systems.** Energy conservation measures for service hot water system shall be in accordance with Section N1103.4.1 (R403.4.1).”

**Section 5.** Section 18-1-70 of the *Frederick Municipal Code* is hereby amended by the addition of a new Paragraph (87) to read as follows:

“(82) Section C101.1 of the *International Energy Conservation Code*<sup>®</sup> is hereby amended to read as follows:

**“C101.1 Title.**

This code shall be known as the *International Energy Conservation Code*<sup>®</sup> of the Town of Frederick, and shall be cited as such. It is referred to herein as “this code.”

**Section 6.** Section 18-1-70 of the *Frederick Municipal Code* is hereby amended by the addition of a new Paragraph (83) to read as follows:

“(83) Subsection C101.4.3, Exception 5, the *International Energy Conservation Code*<sup>®</sup> is hereby amended as follows:

“5. Reroofing of roofs where the insulation is not exposed. Roofs without insulation in the cavity and where the insulation is exposed during reroofing shall be insulated either above or below the sheathing.”

**Section 7.** Section 18-1-70 of the *Frederick Municipal Code* is hereby amended by the addition of a new Paragraph (84) to read as follows:

“(84) Subsection C302.1 of the *International Energy Conservation Code*<sup>®</sup> is hereby amended as follows:

**“C302.1 Interior design conditions.** The interior design temperatures used for heating and cooling load calculations shall be a maximum of 70°F (20°C) for heating and minimum of 75°F (24°C) for cooling.”

**Section 8.** Section 18-1-70 of the *Frederick Municipal Code* is hereby amended by the addition of a new Paragraph (85) to read as follows:

“(85) Subsection C401.2 of the *International Energy Conservation Code*<sup>®</sup> is hereby amended as follows:

**“C401.2 Application.**

Commercial buildings shall comply with one of the following:

1. The requirements of ANSI/ASHRAE/IESNA 90.1.
2. The requirements of Sections C402, C403, C404 and C405.
3. The requirements of Section C407, C402.4, C403.2, C404, C405.2, C405.3, C405.4, C405.6 and C405.7.”

**Section 9.** Section 18-1-70 of the *Frederick Municipal Code* is hereby amended by the addition of a new Paragraph (86) to read as follows:

“(86) Subsection C402.2.8 of the *International Energy Conservation Code*<sup>®</sup> is hereby amended as follows:

**“C402.2.8 Insulation of radiant heating systems.**

Radiant panels, and associated U-bends and headers, designed for sensible heating of an indoor space through heat transfer from the thermally effective panel surfaces to the occupants or indoor space by thermal radiation and natural convection and the bottom surfaces of floor structures incorporating radiant heating shall be insulated with a minimum of R-5.”

**Section 10.** Section 18-1-70 of the *Frederick Municipal Code* is hereby amended by the addition of a new Paragraph (87) to read as follows:

“(87) Table C402.3 of the *International Energy Conservation Code*<sup>®</sup> is hereby deleted in its entirety and replaced with the following:

**“TABLE C402.3 BUILDING ENVELOPE REQUIREMENTS**

Climate Zone	1	2	3	4 Except Marine	5 And Marine 4	6	7	8
Vertical fenestration (40% maximum of above-grade wall)								
U-factor	1.20	0.75	0.65	0.55	0.55	0.55	0.45	0.45
Framing materials other than metal with or without metal reinforcement or cladding								
U-factor	1.20	0.75	0.65	0.40	0.35	0.35	0.35	0.35
Metal framing with or without thermal break								
Curtain wall/ storefront U-factor	1.20	0.70	0.60	0.50	0.45	0.45	0.40	0.40
Entrance Door U-	1.20	1.10	0.90	0.85	0.80	0.80	0.80	0.80

factor								
All other U-factor <sup>a</sup>	1.20	0.75	0.65	0.55	0.55	0.55	0.45	0.45
SHGC - all frame types								
SHGC:PF < 0.25	0.25	0.25	0.25	0.40	0.40	0.40	0.45	0.45
SHGC: 0.25≤PF< 0.5	0.33	0.33	0.33	NR	NR	NR	NR	NR
SHGC: PF < 0.5	0.40	0.40	0.40	NR	NR	NR	NR	NR
Skylights (3% maximum)								
U-factor	0.75	0.75	0.65	0.60	0.60	0.60	0.60	0.60
SHGC	0.35	0.35	0.35	0.40	0.40	0.40	NR	NR

NR= No requirement.

PF = Projection factor (402.3.3).

<sup>a</sup> All others includes operable windows, fixed windows and nonentrance doors.”

**Section 11.** Section 18-1-70 of the *Frederick Municipal Code* is hereby amended by the addition of a new Paragraph (88) to read as follows:

“(88) Subsection C402.3.3.1 and Table C402.3.3.1 of the *International Energy Conservation Code*<sup>®</sup> are hereby deleted in their entirety.”

**Section 12.** Section 18-1-70 of the *Frederick Municipal Code* is hereby amended by the addition of a new Paragraph (89) to read as follows:

“(89) Section C406, of the *International Energy Conservation Code*<sup>®</sup> is hereby deleted in its entirety.”

**Section 13.** Section 18-1-70 of the *Frederick Municipal Code* is hereby amended by the addition of a new Paragraph (90) to read as follows:

“(90) Tables C406.2 (1) through (7), of the *International Energy Conservation Code*<sup>®</sup> are hereby deleted in their entirety.”