C103.6.2

Errata 2021 IECC Chapter 1 SCOPE AND ADMINISTRATION

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing & 2nd printing
Section/Table/Figure Number: C103.6.2
Posted: January 18, 2024

Correction:

C103.6.2 Compliance documentation. Energy code compliance documentation and supporting calculations shall be delivered in one document to the building owner as part of the project record documents or manuals, or as a standalone document. This document shall include the specific energy code edition utilized for compliance determination for each system, documentation demonstrating compliance with Section C303.1.3 for each fenestration product installed, and the interior lighting power compliance path, building area or space-by-space, used to calculate the lighting power allowance.

For projects complying with Item ~~2~~1 of Section C401.2.1, the documentation shall include:

1. The envelope insulation compliance path.
2. All compliance calculations including those required by Sections C402.1.5, C403.8.1, C405.3 and C405.5.

For projects complying with Section C407, the documentation shall include that required by Sections C407.3.1 and C407.3.2.

Correlation Notes: CE41-19, CE268-16

Table C301.1

Errata 2021 IECC Chapter 3 GENERAL REQUIREMENTS

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: Table C301.1
Posted: April 20, 2021

Correction:
NEW MEXICO
4B Bernalillo
4~~A~~B Catron
3B Chaves

Correlation Notes: CE36-19

C303.1.3

Errata 2021 IECC Chapter 3 GENERAL REQUIREMENTS

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: C303.1.3
Posted: April 20, 2021

Correction:

C303.1.3 Fenestration product rating. *U*-factors of fenestration products shall be determined as follows:

1. For windows, doors and skylights, *U*-factor ratings shall be determined in accordance with NFRC 100.
2. Where required for garage doors and rolling doors, *U*-factor ratings shall be determined in accordance with either NFRC 100 or ANSI/DASMA 105.

U-factors shall be determined by an accredited, independent laboratory, and *labeled* and certified by the manufacturer.

Products lacking such a *labeled U*-factor shall be assigned a default *U*-factor from Table C303.1.3(1) or Table C303.1.3(2). The *solar heat gain coefficient* (SHGC) and *visible transmittance* (VT) of glazed fenestration products (windows, glazed doors and skylights) shall be determined in accordance with NFRC 200 by an accredited, independent laboratory, and *labeled* and certified by the manufacturer. Products lacking such a *labeled* SHGC or VT shall be assigned a default SHGC or VT from Table C303.1.3(3). For Tubular Daylighting Devices, VT_{annual} shall be measured and rated in accordance with NFRC 203.

Correlation Notes: CE39-19

Table C402.1.3

Errata	2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: C402.1.3
Posted: April 20, 2021

Correction:

TABLE C402.1.3
OPAQUE THERMAL ENVELOPE INSULATION COMPONENT MINIMUM REQUIREMENTS, *R*-VALUE METHOD[a]

CLIMATE ZONE	0 AND 1		2		3		4 EXCEPT MARINE		5 AND MARINE 4		6		7		8	
	All other	Group R	All other	Group R	All other	Group R	All other	Group R	All other	Group R	All other	Group R	All other	Group R	All other	Group R
Roofs																
Insulation entirely above roof deck	R-20ci	R-25ci	R-25ci	R-25ci	R-25ci	R-25ci	R-30ci	R-30ci	R-30ci	R-30ci	R-30ci	R-30ci	R-35ci	R-35ci	R-35ci	R-35ci
Metal buildings[b]	R-19 + R-11 LS	R-19 + R-11 LS	R-19 + R11 LS	R-19 + R-11 LS	R-19 + R-11 LS	R-19 + R-11 LS	R-19 + R-11 LS	R-19 + R-11 LS	R-19 + R-11 LS	R-19 + R-11 LS	R-25 + R-11 LS	R-30 + R-11 LS	R-30 + R-11 LS	R-30 + R-11 LS	R-25 + R-11 + R-11 LS	R-25 + R-11 + R-11 LS
Attic and other	R-38	R-38	R-38	R-38	R-38	R-38	R-49	R-49	R-49	R-49	R-49	R-49	R-60	R-60	R-60	R-60
Walls, above grade																
Mass[f]	R-5.7ci[c]	R-5.7ci[c]	R-5.7ci[c]	R-7.6ci	R-7.6ci	R-9.5ci	R-9.5ci	R-11.4ci	R-11.4ci	R-13.3ci	R-13.3ci	R-15.2ci	R-15.2ci	R-15.2ci	R-25ci	R-25ci
Metal building	R-13 + R-6.5ci	R-13 + R-6.5ci	R13 + R-6.5ci	R-13 + R-13ci	R-13 + R-6.5ci	R-13 + R-13ci	R-13 + R-13ci	R-13 + R-14ci	R-13 + R-14ci	R-13 + R-14ci	R-13 + R-14ci	R-13 + R-14ci	R-13 + R-17ci	R-13 + R-19.5ci	R-13 + R-19.5ci	R-13 + R-19.5ci
Metal framed	R-13 + R-5ci	R-13 + R-5ci	R-13 + R-5ci	R-13 + R-7.5ci	R-13 + R-7.5ci	R-13 + R-7.5ci	R-13 + R-7.5ci	R-13 + R-7.5ci	R-13 + R-10ci	R-13 + R-10ci	R-13 + R-12.5ci	R-13 + R-12.5ci	R-13 + R-12.5ci	R-13 + R-15.6ci	R-13 + R-18.8ci	R-13 + R-18.8ci
Wood framed and other	R-13 + R-3.8ci or R-20	R-13 + R-3.8ci or R-20	R-13 + R-3.8ci or R-20	R-13 + R-3.8ci or R-20	R-13 + R-3.8ci or R-20	R-13 + R-3.8ci or R-20	R-13 + R-3.8ci or R-20	R-13 + R-3.8ci or R-20	R-13 + R-7.5ci or R20 + R3.8ci	R-13 + R-7.5ci or R-20 + R-3.8ci	R-13 + R-7.5ci or R-20 + R-3.8ci	R-13 + R-7.5ci or R-20 + R-3.8ci	R-13 + R-7.5ci or R-20 + R-3.8ci	R-13 + R-7.5ci or R-20 + R-3.8ci	R-13 + R-18.8ci	R-13 + R-18.8ci
Walls, below grade																
Below-grade wall[d]	NR	NR	NR	NR	NR	NR	R-7.5ci	R-10ci	R-7.5ci	R-10ci	R-10ci	R-15ci	R-15ci	R-15ci	R-15ci	R-15ci
Floors																
Mass[e]	NR	NR	R-6.3ci	R-8.3ci	R-10ci	R-10ci	R-14.6ci	R-16.7ci	R-14.6ci	R-16.7ci	R-16.7ci	R-16.7ci	R-20.9ci	R-20.9ci	R-23ci	R-23ci
Joist/framing	R-13	R-13	R-30	R-30	R-30	R-30	R-30	R-30	R-30	R-30	R-38	R-38	R-38	R-38	R-38	R-38
Slab-on-grade floors																
Unheated slabs	NR	NR	NR	NR	NR	R-10 for 24″ below	R-15 for 24″ below	R-15 for 24″ below	R-15 for 24″ below	R-20 for 24″ below	R-20 for 24″ below	R-20 for ~~24″~~ 48″ below	R-20 for ~~48″~~ 24″ below	R-20 for 48″ below	R-20 for 48″ below	R-25 for 48″ below
Heated slabs[g]	R-7.5 for 12″ below+ R-5 full slab	R-7.5 for 12″ below+ R-5 full slab	R-7.5 for 12″ below+ R-5 full slab	R-7.5 for 12″ below+ R-5 full slab	R-10 for 24″ below+ R-5 full slab	R-10 for 24″ below+ R-5 full slab	R-15 for 24″ below+ R-5 full slab	R-15 for 24″ below+ R-5 full slab	R-15 for 36″ below+ R-5 full slab	R-15 for 36″ below+ R-5 full slab	R-15 for 36″ below+ R-5 full slab	R-20 for 48″ below+ R-5 full slab	R-20 for 48″ below+ R-5 full slab	R-20 for 48″ below+ R-5 full slab	R-20 for 48″ below+ R-5 full slab	R-20 for 48″ below+ R-5 full slab

Correlation Notes: CE68-19, CE69-19

Table C402.1.4

Errata 2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: C402.1.4
Posted: April 20, 2021

Correction:

TABLE C402.1.4
OPAQUE THERMAL ENVELOPE ASSEMBLY MAXIMUM REQUIREMENTS, *U*-FACTOR METHOD[a, b]

CLIMATE ZONE	0 AND 1		2		3		4 EXCEPT MARINE		5 AND MARINE 4		6		7		8	
	All other	Group R	All other	Group R	All other	Group R	All other	Group R	All other	Group R	All other	Group R	All other	Group R	All other	Group R
Roofs																
Insulation entirely above roof deck	U-0.048	U-0.039	U-0.039	U-0.039	U-0.039	U-0.039	U-0.032	U-0.032	U-0.032	U-0.032	U-0.032	U-0.032	U-0.028	U-0.028	U-0.028	U-0.028
Metal buildings	U-0.035	U-0.035	U-0.035	U-0.035	U-0.035	U-0.035	U-0.035	U-0.035	U-0.035	U-0.035	U-0.031	U-0.029	U-0.029	U-0.029	U-0.026	U-0.026
Attic and other	U-0.027	U-0.027	U-0.027	U-0.027	U-0.027	U-0.027	U-0.021	U-0.021	U-0.021	U-0.021	U-0.021	U-0.021	U-0.017	U-0.017	U-0.017	U-0.017
Walls, above grade																
Mass[g]	U-0.151	U-0.151	U-0.151	U-0.123	U-0.123	U-0.104	U-0.104	U-0.090	U-0.090	U-0.080	U-0.080	U-0.071	U-0.071	U-0.071	U-0.037	U-0.037
Metal building	U-0.079	U-0.079	U-0.079	U-0.079	U-0.079	U-0.052	U-0.052	U-0.050	U-0.050	U-0.050	U-0.050	U-0.050	U-0.044	U-0.039	U-0.039	U-0.039
Metal framed	U-0.077	U-0.077	U-0.077	U-0.064	U-0.064	U-0.064	U-0.064	U-0.064	U-0.055	U-0.055	U-0.049	U-0.049	U-0.049	U-0.042	U-0.037	U-0.037
Wood framed and other[c]	U-0.064	U-0.064	U-0.064	U-0.064	U-0.064	U-0.064	U-0.064	U-0.064	U-0.051	U-0.051	U-0.051	U-0.051	U-0.051	U-0.051	U-0.032	U-0.032
Walls, below grade																
Below-grade wall[c]	C-1.140[e]	C-1.140[e]	C-1.140[e]	C-1.140[e]	C-1.140[e]	C-1.140[e]	C-0.119	C-0.092	C-0.119	C-0.092	C-0.092	C-0.063	C-0.063	C-0.063	C-0.063	C-0.063
Floors																
Mass[d]	U-0.322[e]	U-0.322[e]	U-0.107	U-0.087	U-0.074	U-0.074	U-0.057	U-0.051	U-0.057	U-0.051	U-0.051	U-0.051	U-0.042	U-0.042	U-0.038	U-0.038
Joist/framing	U-0.066[e]	U-0.066[e]	U-0.033	U-0.033	U-0.033	U-0.033	U-0.033	U-0.033	U-0.033	U-0.033	U-0.027	U-0.027	U-0.027	U-0.027	U-0.027	U-0.027
Slab-on-grade floors																
Unheated slabs	F-0.73[e]	F-0.73[e]	F-0.73[e]	F-0.73[e]	F-0.73[e]	F-0.54	F-0.52	F-0.52	F-0.52	F-0.51	F-0.51	F-0.434	F-0.51	F-0.434	F-0.434	F-0.424
Heated slabs[f]	F-0.69	F-0.69	F-0.69	F-0.69	F-0.66	F-0.66	F-0.62	F-0.62	F-0.62	F-0.62	F-0.62	F-0.602	F-0.602	F-0.602	F-0.602	F-0.602
Opaque doors																
Nonswinging door	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31
Swinging door[h]	U-0.37	U-0.37	U-0.37	U-0.37	U-0.37	U-0.37	U-0.37	U-0.37	U-0.37	U-0.37	U-0.37	U-0.37	U-0.37	U-0.37	U-0.37	U-0.37
Garage door < 14% glazing[i]	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31	U-0.31

For SI: 1 pound per square foot = 4.88 kg/m^2, 1 pound per cubic foot = 16 kg/m^3.
ci = Continuous Insulation, NR = No Requirement, LS = Liner System.

a. Where assembly *U*-factors, *C*-factors and *F*-factors are established in ANSI/ASHRAE/IESNA 90.1 Appendix A, such opaque assemblies shall be a compliance alternative where those values meet the criteria of this table, and provided that the construction, excluding the cladding system on walls, complies with the appropriate construction details from ANSI/ASHRAE/ISNEA 90.1 Appendix A.
b. Where *U*-factors have been established by testing in accordance with ASTM C1363, such opaque assemblies shall be a compliance alternative where those values meet the criteria of this table. The *R*-value of continuous insulation shall be permitted to be added to or subtracted from the original tested design.
c. Where heated slabs are below grade, below-grade walls shall comply with the *U*-factor requirements for above-grade mass walls.
d. "Mass floors" shall be in accordance with Section C402.2.3.
e. These *C*-, *F*- and *U*-factors are based on assemblies that are not required to contain insulation.
~~f. The first value is for perimeter insulation and the second value is for full, under-slab insulation.~~
g. "Mass walls" shall be in accordance with Section C402.2.2.
h. Swinging door *U*-factors shall be determined in accordance with NFRC-100.
i. Garage doors having a single row of fenestration shall have an assembly *U*-factor less than or equal to 0.44 in Climate Zones 0 through 6 and less than or equal to 0.36 in Climate Zones 7 and 8, provided that the fenestration area is not less than 14 percent and not more than 25 percent of the total door area.

Correlation Notes: CE76-19

Table C402.3

Errata	2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: Table C402.3
Posted: August 10, 2021

Correction:

TABLE C402.3
MINIMUM ROOF REFLECTANCE AND EMITTANCE OPTIONS[a]

Three-year-aged solar reflectance ~~index~~[b] of 0.55 and 3-year aged thermal emittance[c] of 0.75
Three-year-aged solar reflectance index[d] of 64

a. The use of area-weighted averages to comply with these requirements shall be permitted. Materials lacking 3-year-aged tested values for either solar reflectance or thermal emittance shall be assigned both a 3-year-aged solar reflectance in accordance with Section C402.3.1 and a 3-year-aged thermal emittance of 0.90.
b. Aged solar reflectance tested in accordance with ASTM C1549, ASTM E903 or ASTM E1918 or CRRC-S100.
c. Aged thermal emittance tested in accordance with ASTM C1371 or ASTM E408 or CRRC-S100.
d. Solar reflectance index (SRI) shall be determined in accordance with ASTM E1980 using a convection coefficient of 2.1 Btu/h × ft^2 × °F (12 W/m^2 × K). Calculation of aged SRI shall be based on aged tested values of solar reflectance and thermal emittance.

Correlation Notes: CE121-13

C402.4.4

Errata	2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: C402.4.4
Posted: May 11, 2021

Correction:

C402.4.4 *Daylight zones*. *Daylight zones* referenced in Sections C402.4.1.1 through C402.4.3.2 shall comply with Sections C405.2.4.2 and C405.2.4.3, as applicable. *Daylight zones* shall include toplit *daylight zones* and ~~daylight~~ sidelit *daylight zones*.

Correlation Notes: CE89-19

C402.5.11.1

Errata	2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: C402.5.11.1
Posted: April 20, 2021

Correction:

C402.5.11.1 Operable controls. Controls shall comply with Section C403.1~~3~~4.

Correlation Notes: CE161-19

C403.4.2.3

Errata	2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: C403.4.2.3
Posted: May 11, 2021

Correction:

C403.4.2.3 *Automatic* start and stop. *Automatic* start and stop controls shall be provided for each HVAC system. The automatic start controls shall be configured to automatically adjust the daily start time of the HVAC system in order to bring each space to the desired occupied temperature immediately prior to scheduled occupancy. *Automatic* stop controls shall be provided for each HVAC system with direct digital control of individual *zones*. The *automatic* stop controls shall be configured to reduce the HVAC system's heating temperature setpoint and increase the cooling temperature setpoint by not less than 2°F (-16.6ºC) before scheduled unoccupied periods based on the thermal lag and acceptable drift in space temperature that is within comfort limits.

Correlation Notes: CE120-19

C403.7.4.2

Errata	2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: C403.7.4.2
Posted: May 11, 2021

Correction:

C403.7.4.2 Spaces other than nontransient dwelling units. Where the supply airflow rate of a fan system serving a space other than a nontransient dwelling unit exceeds the values specified in Tables C403.7.4.2(1) and C403.7.4.2(2), the system shall include an energy recovery system. The energy recovery system shall provide an enthalpy recovery ratio of not less than 50 percent at design conditions. Where an air economizer is required, the energy recovery system shall include a bypass or controls that permit operation of the economizer as required by Section C403.5.

Exception: An energy recovery ventilation system shall not be required in any of the following conditions:

1. Where energy recovery systems are prohibited by the *International Mechanical Code*.
2. Laboratory fume hood systems that include not fewer than one of the following features:
   - 2.1. Variable-air-volume hood exhaust and room supply systems configured to reduce exhaust and makeup air volume to 50 percent or less of design values.
   - 2.2. Direct makeup (auxiliary) air supply equal to or greater than 75 percent of the exhaust rate, heated not warmer than 2°F (1.1°C) above room setpoint, cooled to not cooler than 3°F (1.7°C) below room setpoint, with no humidification added, and no simultaneous heating and cooling used for dehumidification control.
3. Systems serving spaces that are heated to less than 60°F (15.5°C) and that are not cooled.
4. Where more than 60 percent of the outdoor heating energy is provided from site-recovered or site-solar energy.

5. Enthalpy recovery ratio requirements at heating design condition in *Climate Zones* 0, 1 and 2.
6. Enthalpy recovery ratio requirements at cooling design condition in *Climate Zones* 3C, 4C, 5B, 5C, 6B, 7 and 8.
7. Systems requiring dehumidification that employ energy recovery in series with the cooling coil.
8. Where the largest source of air exhausted at a single location at the building exterior is less than 75 percent of the design *outdoor air* flow rate.
9. Systems expected to operate less than 20 hours per week at the *outdoor air* percentage covered by Table C403.7.4.2(1).
10. Systems exhausting toxic, flammable, paint or corrosive fumes or dust.
11. Commercial kitchen hoods used for collecting and removing grease vapors and smoke.

Correlation Notes: CE133-19

C403.10.6

Errata	2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: C403.10.6
Posted: May 11, 2021

Correction:

C403.10.6 Heat recovery for space conditioning in healthcare facilities. Where heating water is used for space heating, a condenser heat recovery system shall be installed provided all of the following are true:

1. The building is a Group I-2 Condition 2 occupancy
2. The total design chilled water capacity for the Group I-2 Condition 2 occupancy, either air cooled or water cooled, required at cooling design conditions exceeds 3,600,000 Btu/h (1,100 kw) of cooling.
3. Simultaneous heating and cooling occurs above 60°F (16°C) outdoor air temperature.

The required heat recovery system shall have a cooling capacity that is not less than 7 percent of the total design chilled water capacity of the Group I-2 Condition 2 occupancy at peak design conditions.

Exceptions:

1. Buildings that provide 60 percent or more of their reheat energy from *on-site renewable energy* or site-recovered energy
2. Buildings in Climate Zones 5C, 6B, 7 and 8.

Correlation Notes: CE143-19

C403.14

Errata	2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: C403.14
Posted: May 3, 2024

Correction:

C403.14 Operable opening interlocking controls. The heating and cooling systems shall have controls that will interlock these mechanical systems to the set temperatures of 90ºF (32ºC) for cooling and 55ºF (12.7ºC) for heating when the conditions of Section C402.5.~~8~~11 exist. The controls shall configure to shut off the systems entirely when the outdoor temperatures are below 90ºF (32ºC) or above 55ºF (12.7ºC).

Correlation Notes: CE106-19

Table C404.5.2.1

Errata	2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: Table C404.5.2.1
Posted: May 11, 2021

Correction:

TABLE C404.5.2.1
INTERNAL VOLUME OF VARIOUS WATER DISTRIBUTION TUBING

OUNCES OF WATER PER FOOT OF TUBE									
Nominal Size (inches)	Copper Type M	Copper Type L	Copper Type K	CPVC CTS SDR 11	CPVC SCH 40	CPVC SCH 80	PE-RT SDR 9	Composite ASTM F1281	PEX CTS SDR 9
3/8	1.06	0.97	0.84	N/A	1.17	—	0.64	0.63	0.64
1/2	1.69	1.55	1.45	1.25	1.89	1.46	1.18	1.31	1.18
3/4	3.43	3.22	2.90	2.67	3.38	2.74	2.35	3.39	2.35
1	5.81	5.49	5.17	4.43	5.53	4.57	3.91	5.56	3.91
1 1/4	8.70	8.36	8.09	6.61	9.66	8.24	5.81	8.49	5.81
1 1/2	12.18	11.83	11.45	9.22	13.20	11.38	8.09	13.88	8.09
2	21.08	20.58	20.04	15.79	21.88	19.11	13.86	21.48	13.86

For SI: 1 foot = 304.8 mm, 1 inch = 25.4 mm, 1 liquid ounce = 0.030 L, 1 oz/ft^2 = 305.15 g/m^2.
N/A = Not Available.

Correlation Notes: CE158-19

C405.1.1

Errata	2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st & 2nd printing
Section/Table/Figure Number: C405.1.1
Posted: December 14, 2021

Correction:

C405.1.1 Lighting for dwelling units. No less than 90 percent of the permanently installed lighting serving dwelling units, excluding kitchen appliance lighting, shall be provided by lamps with an efficacy of not less than 65 lm/W or luminaires with an efficacy of not less than 45 lm/W, or shall comply with Sections C405.2.~~4~~5 and C405.3.

Correlation Notes: CE162-19

C405.2.1.2

Errata	2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: C405.2.1.2
Posted: September 15, 2021

Correction:

C405.2.1.2 Occupant sensor control function in warehouse storage areas. Lighting in warehouse storage areas shall be controlled as follows:

1. Lighting in each aisleway shall be controlled independently of lighting in all other aisleways and open areas.
2. Occupant sensors shall automatically reduce lighting power within each controlled area to an unoccupied setpoint of not more than 50 percent of full power within 20 minutes after all occupants have left the controlled area.
3. Lights that are not turned off by occupant sensors shall be turned off by time-switch control complying with Section C405.2.2.1.
4. A manual control shall be provided to allow occupants to turn off lights in the space.

Correlation Notes: CE166-19

C405.2.1.4

Errata 2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: C405.2.1.4
Posted: Revised July 1, 2022

Correction:

C405.2.1.4 Occupant sensor control function in corridors. Occupant sensor controls in corridors shall uniformly reduce lighting power to an unoccupied setpoint not more than 50 percent of full power within 20 minutes after all occupants have left the space.
Exception: Corridors provided with less than two footcandles of illumination on the floor at the darkest point with all lights on.

Correlation Notes: CE169-19

C405.2.2

Errata	2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st & 2nd printing
Section/Table/Figure Number: C405.2.2
Posted: December 11, 2021

Correction:

C405.2.2 Time-switch controls. Each area of the building that is not provided with *occupant sensor controls* complying with Section C405.2.1.1 shall be provided with *time-switch controls* complying with Section C405.2.2.1.

Exceptions:

1. Luminaires that are required to have specific application controls in accordance with Section C405.2.~~4~~5.
2. Spaces where patient care is directly provided.
3. Spaces where an automatic shutoff would endanger occupant safety or security.
4. Lighting intended for continuous operation.
5. Shop and laboratory classrooms.

Correlation Notes: CE163-19

C405.2.4.2

Errata	2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: C405.2.4.2
Posted: March 11, 2022

Correction:

C405.2.4.2 Sidelit daylight zone. The sidelit daylight zone is the floor area adjacent to vertical *fenestration* that complies with all of the following:

1. Where the fenestration is located in a wall, the primary sidelit daylight zone shall extend laterally to the nearest full-height wall, or up to 1.0 times the height from the floor to the top of the fenestration, and longitudinally from the edge of the fenestration to the nearest full-height wall, or up to 0.5 times the height from the floor to the top of the fenestration, whichever is less, as indicated in Figure C405.2.4.2(1).
2. Where the fenestration is located in a rooftop monitor, the sidelit daylight zone shall extend laterally to the nearest obstruction that is taller than 0.7 times the ceiling height, or up to 1.0 times the height from the floor to the bottom of the fenestration, whichever is less, and longitudinally from the edge of the fenestration to the nearest obstruction that is taller than 0.7 times the ceiling height, or up to 0.25 times the height from the floor to the bottom of the fenestration, whichever is less, as indicated in Figures C405.2.4.2(2) and C405.2.4.2(3).
3. The secondary sidelit daylight zone is directly adjacent to the primary sidelit daylight zone and shall extend laterally to 2.0 times the height from the floor to the top of the fenestration or to the nearest full height wall, whichever is less, and longitudinally from the edge of the fenestration to the nearest full height wall, or up to ~~2 feet~~0.5 times the height from the floor to the top of the fenestration, whichever is less, as indicated in Figure C405.2.4.2(1). The area of secondary sidelit zones shall not be considered in the calculation of the daylight zones in Section C402.4.1.1.
4. The area of the fenestration is not less than 24 square feet (2.23 m2).
5. The distance from the fenestration to any building or geological formation that would block *access to* daylight is greater than one-half of the height from the bottom of the fenestration to the top of the building or geologic formation.
6. The visible transmittance of the fenestration is not less than 0.20.
7. The projection factor (determined in accordance with Equation 4-5) for any overhanging projection that is shading the fenestration is not greater than 1.0 for fenestration oriented 45 degrees or less from true north and not greater than 1.5 for all other orientations.

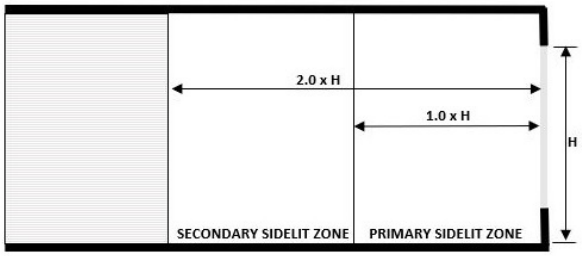
Correlation Notes: CE191-19

Figure C405.2.4.2(1)

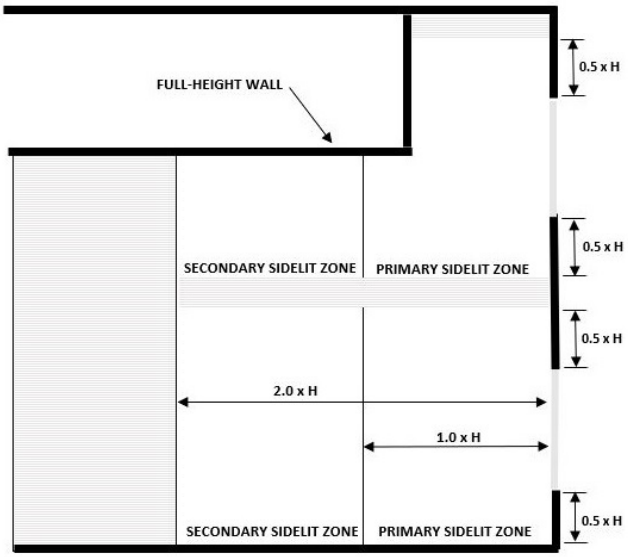
Errata	2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: all printings
Section/Table/Figure Number: Figure C405.2.4.2(1)
Posted: Updated April 7, 2023

Correction:



(a) Section View



(b) Plan View

Replace existing figure with the following figure

Correlation Notes: CE191-19

C405.9.2.1

Errata	2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: C405.9.2.1
Posted: September 15, 2021

Correction:

C405.9.2.1 Energy recovery. Escalators shall be designed to recover electrical energy when resisting overspeed in the down direction. ~~The escalator shall be designed to recover, on average, more power than is consumed by the power recovery feature of its motor controller system.~~

Correlation Notes: CE213-19

Table C406.1(4)

Errata	2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: Table C406.1(4)
Posted: September 15, 2021

Correction:

TABLE C406.1(4)
ADDITIONAL ENERGY EFFICIENCY CREDITS FOR GROUP M OCCUPANCIES

SECTION	CLIMATE ZONE																
	0A & 1A	0B & 1B	2A	2B	3A	3B	3C	4A	4B	4C	5A	5B	5C	6A	6B	7	8
C406.2.1: 5% heating efficiency improvement	NA	NA	NA	NA	1	1	NA	1	1	2	2	2	2	3	2	3	4
C406.2.2: 5% cooling efficiency improvement	5	6	4	4	3	3	1	2	2	1	1	2	NA	1	1	1	NA
C406.2.3: 10% heating efficiency improvement	NA	NA	NA	1	1	1	1	2	2	4	3	4	5	5	3	6	8
C406.2.4: 10% cooling efficiency improvement	9	12	9	8	6	6	3	4	4	1	2	3	NA	2	2	2	1
C406.3: Reduced lighting power	13	13	15	14	16	14	17	15	15	14	12	14	14	16	16	14	12
C406.4: Enhanced digital lighting controls	3	3	4	3	4	3	4	4	4	3	3	3	3	4	4	3	3
C406.5: On-site renewable energy	8	8	8	8	8	8	8	8	8	7	7	7	7	7	7	7	6
C406.6: Dedicated outdoor air system	3	4	3	3	3	3	1	3	2	2	2	3	2	4	3	4	4
C406.7.2: Recovered or renewable water heating	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C406.7.3: Efficient fossil fuel water heater	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C406.7.4: Heat pump water heater	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C406.8: Enhanced envelope performance	4	6	3	4	3	3	1	6	4	4	4	5	4	6	5	8	9
C406.9: Reduced air infiltration	1	1	1	2	1	1	NA	3	1	1	3	2	1	7	3	6	3
C406.10: Energy monitoring	4	5	5	5	5	4	4	4	4	3	3	4	3	4	4	4	3
C406.11: Fault detection and diagnostics system	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	2

NA = Not Applicable.

Correlation Notes: CE218-19

C406.3

Errata	2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: C406.3
Posted: September 15, 2021

Correction:

C406.3 Reduced lighting power ~~by more than 10 percent~~.
Buildings shall comply with Section C406.3.1 or C406.3.2, and dwelling units and sleeping units within the building shall comply with Section C406.3.3.

Correlation Notes: CE226-19

Table C406.12(2)

Errata	2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: Table C406.12(2)
Posted: August 10, 2021

Correction:

TABLE C406.12(2)
MINIMUM EFFICIENCY REQUIREMENTS: COMMERCIAL STEAM COOKERS

FUEL TYPE	PAN CAPACITY	COOKING ENERGY EFFICIENCY[a]	IDLE ENERGY RATE	TEST PROCEDURE
Electric steam	3-pan	50%	400 watts	ASTM F1484
	4-pan	50%	530 watts	
	5-pan	50%	670 watts	
	6-pan and larger	50%	800 watts	
Gas steam	3-pan	38%	6,250 Btu/h	
	4-pan	38%	8,350 Btu/h	
	5-pan	38%	10,400 Btu/h	
	6-pan and larger	38%	12,500 Btu/h	

a. Cooking energy efficiency is based on heavy load (potato) cooking capacity.

Correlation Notes: CE240-19

Table C406.12(3)

Errata	2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: Table C406.12(3)
Posted: September 15, 2021

Correction:

TABLE C406.12(3)
MINIMUM EFFICIENCY REQUIREMENTS: COMMERCIAL DISHWASHERS

MACHINE TYPE	HIGH-TEMPERATURE EFFICIENCY REQUIREMENTS		LOW-TEMPERATURE EFFICIENCY REQUIREMENTS		TEST PROCEDURE
	Idle energy rate[a]	Water consumption[b]	Idle energy rate[a]	Water consumption[b]	
Under counter	≤.50 kW	≤ 0.86 GPR	≤ 0.50 kW	≤ 1.19 GPR	ASTM F1696 ASTM F1920
Stationary single-tank door	≤.70 kW	≤ 0.89 GPR	≤ 0.60 kW	≤ 1.18 GPR	
Pot, pan and utensil	≤ 1.20 kW	≤ 0.58 GPR	≤ 1.00 kW	≤ 0.58 GPSF	
Single-tank conveyor	≤ 1.50 kW	≤ 0.70 GPR	≤ 1.50 kW	≤ 0.79 GPR	
Multiple-tank conveyor	≤ 2.25 kW	≤ 0.54 GPR	≤ 2.00 kW	≤ 0.54 GPR	
Single-tank flight	Reported	GPH ≤ 2.975x + 55.00	Reported	GPH ≤ 2.975x + 55.00	
Multiple-tank flight	Reported	GPH ≤ 4.96x + 17.00	Reported	GPH ≤ 4.96x + 17.00	

a. Idle results shall be measured with the door closed and represent the total idle energy consumed by the machine, including all tank heaters and controls. Booster heater (internal or external) energy consumption shall not be part of this measurement unless it cannot be separately monitored.
b. GPR = gallons per rack, GPSF = gallons per square foot of rack, GPH = gallons per hour, x = maximum conveye~~r~~or belt speed (feet/minute) x conveye~~r~~or belt width (feet).

Correlation Notes: CE240-19

C407.2

Errata	2021 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: C407.2
Posted: June 18, 2021

Correction:

C407.2 Mandatory requirements. Compliance based on total building performance requires that a proposed design meet all of the following:

1. The requirements of the sections indicated within Table C407.2.
2. An annual energy cost that is less than or equal to ~~85~~ 80 percent of the annual energy cost of the *standard reference design*. Energy prices shall be taken from a source *approved* by the *code official*, such as the Department of Energy, Energy Information Administration's *State Energy Data System Prices and Expenditures* reports. *Code officials* shall be permitted to require time-of-use pricing in energy cost calculations. The reduction in energy cost of the proposed design associated with *on-site renewable energy* shall be not more than 5 percent of the total energy cost. The amount of renewable energy purchased from off-site sources shall be the same in the *standard reference design* and the *proposed design*.

Exception: Jurisdictions that require site energy (1 kWh = 3413 Btu) rather than energy cost as the metric of comparison.

Correlation Notes: CE49-19

C502.3.5

Errata 2021 IECC Chapter 5 Existing Buildings

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st & 2nd printing
Section/Table/Figure Number: C502.3.5
Posted: July 1, 2022

Correction:

C502.3.5 Pools and inground permanently installed spas. New pools and inground permanently installed spas shall comply with Section C404.~~9~~8.

Correlation Notes: No list

AHRI

Errata 2021 IECC Chapter 6 (CE)

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st and 2nd printing
Section/Table/Figure Number: Referenced Standards
Posted: November 1, 2021

AHRI

ISO/AHRI/ASHRAE 13256-1 ~~(2012)~~ 1998 (R2012) Water-to-Air and Brine-to-Air Heat Pumps—Testing and Rating for Performance

AMCA

Errata 2021 IECC Chapter 6 (CE)

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st and 2nd printing
Section/Table/Figure Number: Referenced Standards
Posted: November 1, 2021

AMCA

220—~~19~~ 05(R2012) Room Air Conditioners

ASHRAE

Errata 2021 IECC Chapter 6 (CE)

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st and 2nd printing
Section/Table/Figure Number: Referenced Standards
Posted: November 1, 2021

ASHRAE

ISO/AHRI/ASHRAE 13256-1 ~~(2012)~~ 1998 (R2012) Water-to-Air and Brine-to-Air Heat Pumps—Testing and Rating for Performance

ISO/AHRI/ASHRAE 13256-2 ~~(2012)~~ 1998 (R2012) Water-to-Water and Brine-to-Water Heat Pumps—Testing and Rating for Performance

ASTM

Errata 2021 IECC Chapter 6 (CE)

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st and 2nd printing
Section/Table/Figure Number
Posted: December 9, 2022

ASTM

E1918—~~06(2016)~~ 2016 Standard Test Method for Measuring Solar Reflectance of Horizontal or Low-sloped Surfaces in the Field

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E3158-18:

Test Method for Measuring the Air Leakage Rate of a Large or Multizone Building

Correlation Notes: CE98-19

CRRC

Errata 2021 IECC Chapter 6 (CE)

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st and 2nd printing
Section/Table/Figure Number
Posted: November 1, 2021

CRRC

ANSI/CRRC-S100—~~2020~~ 2016 Standard Test Methods for Determining Radiative Properties of Materials

ISO

Errata 2021 IECC Chapter 6 (CE)

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st and 2nd printing
Section/Table/Figure Number
Posted: November 1, 2021

ISO

ISO/AHRI/ASHRAE 13256-1 ~~(2017)~~ 1998 (R2012) Water-to-Air and Brine-to-Air Heat Pumps—Testing and Rating for Performance

ISO/AHRI/ASHRAE 13256-2 ~~(2017)~~ 1998 (R2012) Water-to-Water and Brine-to-Water Heat Pumps—Testing and Rating for Performance

NFRC

Errata 2021 IECC Chapter 6 (CE)

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st and 2nd printing
Section/Table/Figure Number
Posted: November 1, 2021

NFRC

203—2017 Procedure for Determining Visible Transmittance of Tubular Daylighting Devices ~~Translucent Fenestration Product Visible Transmittance at Normal Incidence~~

UL

Errata 2021 IECC Chapter 6 (CE)

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st and 2nd printing
Section/Table/Figure Number
Posted: November 1, 2021

UL

731—~~18~~ 95 Oil-fired Unit Heaters~~—~~with Revisions through October 2015

R202

Errata	2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing and 2nd printing
Section/Table/Figure Number: R202
Posted: December 14, 2021

Correction:

CONTINUOUSLY BURNING PILOT LIGHT. A small gas flame used to ignite gas at a larger burner. Once lit, a continuous pilot light remains in operation until manually interrupted.

Correlation Notes: RE107-19

R202

Errata 2021 IECC Chapter 2 DEFINITIONS

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: R202
Posted: May 11, 2021

Correction:

HIGH-EFFICACY LIGHT SOURCES. ~~Compact fluorescent lamps, light-emitting diode (LED) lamps, T-8 or smaller diameter linear fluorescent lamps, or other~~ Any lamp~~s~~ with an efficacy of not less than 65 lumens per watt, or luminaires with an efficacy of not less than 45 lumens per watt.

Correlation Notes: RE7-19, RE145-19

Table R301.1

Errata 2021 IECC Chapter 3 GENERAL REQUIREMENTS

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: Table R301.1
Posted: September 15, 2021

Correction:
NEW MEXICO
4B Bernalillo
4~~A~~B Catron
3B Chaves

Correlation Notes: CE36-19 Part II

R401.2.5

Errata	2021 INTERNATIONAL ENERGY CONSERVATION CODE [RE]

Code/Standard: 2021 IECC-RE
Applies to following Printings: 1st printing
Section/Table/Figure Number: R401.2.5
Posted: September 22, 2021

Correction:

R401.2.5 Additional energy efficiency. This section establishes additional requirements applicable to all compliance approaches to achieve additional energy efficiency.

1. For buildings complying with Section R401.2.1, one of the additional efficiency package options shall be installed according to Section R408.2.
2. For buildings complying with Section R401.2.2, the building shall meet one of the following:
    2.1. One of the additional efficiency package options in Section R408.2 shall be installed without including such measures in the proposed design under Section R405; or
    2.2. The proposed design of the building under Section R405.~~3~~2 shall have an annual energy cost that is less than or equal to 95 percent of the annual energy cost of the standard reference design.
3. For buildings complying with the Energy Rating Index alternative Section R401.2.3, the Energy Rating Index value shall be at least 5 percent less than the Energy Rating Index target specified in Table R406.5.

The option selected for compliance shall be identified in the certificate required by Section R401.3.

Notes: RE209-19

Table R402.1.2

Errata 2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: R402.1.2
Posted: April 20, 2021 updated February 18, 2022

Correction:

TABLE R402.1.2 MAXIMUM ASSEMBLY U-FACTORS[a] AND FENESTRATION REQUIREMENTS

CLIMATE ZONE	FENESTRATION *U*-FACTOR[f]	SKYLIGHT *U*-FACTOR	GLAZED FENESTRATION SHGC[d, e]	CEILING *U*-FACTOR	WOOD FRAME WALL *U*-FACTOR	MASS WALL *U*-FACTOR[b]	FLOOR FACTO
0	0.50	0.75	0.25	0.035	0.084	0.197	0.064
1	0.50	0.75	0.25	0.035	0.084	0.197	0.064
2	0.40	0.65	0.25	0.026	0.084	0.165	0.064
3	0.30	0.55	0.25	0.026	0.060	0.098	0.047
4 except Marine	0.30	0.55	0.40	0.024	0.045	0.098	0.047
5 and Marine 4	0.30	0.55	~~0.40~~ NR	0.024	0.045	0.082	0.033
6	0.30	0.55	NR	0.024	0.045	0.060	0.033
7 and 8	0.30	0.55	NR	0.024	0.045	0.057	0.028

For SI: 1 foot = 304.8 mm.

a. Nonfenestration *U*-factors shall be obtained from measurement, calculation or an approved source.

b. Mass walls shall be in accordance with Section R402.2.5. Where more than half the insulation is on the interior, the mass wall *U*-factors shall not exceed 0.17 in Climate Zones 0 and 1, 0.14 in Climate 0.065 in Climate Zone 5 and Marine 4, and 0.057 in Climate Zones 6 through 8.

c. In warm-humid locations as defined by Figure R301.1 and Table R301.1, the basement wall *U*-factor shall not exceed 0.360.

d. The SHGC column applies to all glazed fenestration.

Exception: In Climate Zones 0 through 3, skylights shall be permitted to be excluded from glazed fenestration SHGC requirements provided that the SHGC for such skylights does not exceed 0.30

e. There are no SHGC requirements in the Marine Zone.

f. A maximum *U*-factor of 0.32 shall apply in Marine Climate Zone 4 and Climate Zones 5 through 8 to vertical fenestration products installed in buildings located either:

1. Above 4,000 feet in elevation above sea level, or
2. In windborne debris regions where protection of openings is required by Section R301.2.1.2 of the *International Residential Code*.

Correlation Notes: CCC Meeting 2/14/22 overturned April 16, 2021 errata

Table R402.1.3

Errata 2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: Table R402.1.3
Posted: August 10, 2021

Correction:

TABLE R402.1.3
INSULATION MINIMUM R-VALUES AND FENESTRATION REQUIREMENTS BY COMPONENT[a]

CLIMATE ZONE	FENESTRATION **U**-FACTOR[b, i]	SKYLIGHT[b] **U**-FACTOR	GLAZED FENESTRATION SHGC[b, e]	CEILING **R**-VALUE	WOOD FRAME WALL **R**-VALUE[g]	MASS WALL **R**-VALUE[h]	FLOOR **R**-VALUE	BASEMENT[c,g] WALL **R**-VALUE	SLAB[d] **R**-VALUE & DEPTH	CRAWL SPACE[c,g] WALL **R**-VALUE
0	NR	0.75	0.25	30	13 or 0&10ci	3/4	13	0	0	0
1	NR	0.75	0.25	30	13 or 0&10ci	3/4	13	0	0	0
2	0.40	0.65	0.25	49	13 or 0&10ci	4/6	13	0	0	0
3	.30	0.55	0.25	49	20 or 13+&5ci[h] or 0+&15ci[h]	8/13	19	5ci or 13f	10ci, 2 ft	5ci or 13f
4 except Marine	.30	0.55	0.40	60	30 or 20+&5ci[h] or 13+&10ci[h] or 0+&1520ci[h]	8/13	19	10ci or 13	10ci, 4 ft	10ci or 13
5 and Marine 4	0.30[i]	0.55	0.40	60	30 or 20+&5ci[h] or 13+&10ci[h] or 0+&1520ci[h]	13/17	30	15ci or 19 or 13+&5ci	10ci, 4 ft	15ci or 19 or 13+&5ci
6	0.30[i]	0.55	NR	60	30 or 20+&5ci[h] or 13+&10ci[h] or 0+&20ci[h]	15/20	30	15ci or 19 or 13+&5ci	10ci, 4 ft	15ci or 19 or 13+&5ci
7 and 8	0.30[i]	0.55	NR	60	30 or 20+&5ci[h] or 13+&10ci[h] or 0+&20ci[h]	19/21	38	15ci or 19 or 13+&5ci	10ci, 4 ft	15ci or 19 or 13+&5ci

Correlation Notes: RE27-19, RE28-19, RE29-19, CCC approved

R402.2.1

Errata	2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: R402.2.1
Posted: May 11, 2021

Correction:

R402.2.1 Ceilings with attics ~~spaces~~**.** Where Section R402.1.3 requires R-49 insulation in the ceiling or attic, installing R-38 over 100 percent of the ceiling or attic area requiring insulation shall satisfy the requirement for R-49 insulation wherever the full height of uncompressed R-38 insulation extends over the wall top plate at the eaves. Where Section R402.1.3 requires R-60 insulation in the ceiling or attic, installing R-49 over 100 percent of the ceiling or attic area requiring insulation shall satisfy the requirement for R-60 insulation wherever the full height of uncompressed R-49 insulation extends over the wall top plate at the eaves. This reduction shall not apply to the insulation and fenestration criteria in Section R402.1.2 and the Total UA alternative in Section R402.1.5.

Correlation Notes: RE49-19

R402.2.4.1

Errata	2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: R402.2.4.1
Posted: May 10, 2021

Correction:

R402.2.4.1 Access hatches and door insulation installation and retention. Vertical or horizontal access hatches and doors from *conditioned spaces* to *unconditioned spaces* such as attics and crawl spaces shall be weatherstripped. Access that prevents damaging or compressing the insulation shall be provided to all equipment. Where loose-fill insulation is installed, a wood-framed or equivalent baffle, ~~or~~ retainer, or dam shall be installed to prevent ~~the~~ loose-fill insulation from spilling into ~~the~~ living space~~s,~~ from higher to lower sections of the attic and from attics covering *conditioned spaces* to *unconditioned spaces*. The baffle or retainer shall provide a permanent means of maintaining the installed *R-value* of the loose-fill insulation.

Correlation Notes: RE49-19

Table R402.4.1.1

Errata	2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: Table R402.4.1.1
Posted: October 5, 2021

Correction:

Basement crawl space and slab foundations	Exposed earth in unvented crawl spaces shall be covered with a Class I vapor retarder/air barrier in accordance with Section R402.2.10. Penetrations through concrete foundation walls and slabs shall be air sealed. Class 1 vapor retarders shall not be used as an air barrier on below-grade walls and shall be installed in accordance with Section R702.7 of the *International Residential Code*.	Crawl space insulation, where provided instead of floor insulation, shall be installed in accordance with Section R402.2.10. Conditioned basement foundation wall insulation shall be installed in accordance with Section R402.2.8.1. Slab-on-grade floor insulation shall be installed in accordance with Section ~~R402.2.10~~ R402.2.9.1.

Correlation Notes: RE60-19

Shafts, penetrations	Duct and flue shafts ~~and other similar penetrations~~ to exterior or unconditioned space shall be sealed ~~to allow for expansion, contraction and mechanical vibration~~. Utility penetrations of the air barrier shall be caulked, gasketed or otherwise sealed and shall allow for expansion, contraction of materials and mechanical vibration.	Insulation shall be fitted tightly around utilities passing through shafts and penetrations in the building thermal envelope to maintain required *R*-value.

Correlation Notes: RE74-19, RE86-19

R402.4.1.2

Errata	2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: R402.4.1.2
Posted: May 11, 2021

Correction:
R402.4.1.2 Testing. The *building* or *dwelling unit* shall be tested for air leakage. The maximum air leakage rate for any *building* or *dwelling unit* under any compliance path shall not exceed 5.0 air changes per hour or 0.28 cubic feet per minute (CFM) per square foot [0.0079 m3/(s × m2)] of dwelling unit enclosure area. Testing shall be conducted in accordance with ANSI/RESNET/ICC 380, ASTM E779 or ASTM E1827 and reported at a pressure of 0.2 inch w.g. (50 Pascals). Where required by the *code official*, testing shall be conducted by an *approved* third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the *code official*. Testing shall be performed at any time after creation of all penetrations of the *building thermal envelope* have been sealed.

> **Exception:** For heated, attached private garages and heated, detached private garages accessory to one and two-family dwellings and townhouses not more than three stories above *grade plane* in height, building envelope tightness and insulation installation other habitable, *conditioned spaces* in accordance with Sections R402.2.12 and R402.3.5, as applicable.
>
> During testing:
> 1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures.
> 2. Dampers including exhaust, intake, makeup air, backdraft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.
> 3. Interior doors, where installed at the time of the test, shall be open.
> 4. Exterior or interior terminations for continuous ventilation systems shall be sealed.
> 5. Heating and cooling systems, where installed at the time of the test, shall be turned off.
> 6. Supply and return registers, where installed at the time of the test, shall be fully open.

Exception: When testing individual *dwelling units*, an air leakage rate not exceeding 0.30 cubic feet per minute per square foot [0.008 m3/(s × m2)] of the dwelling unit enclosure area, tested in accordance with ANSI/RESNET/ICC 380, ASTM E779 or ASTM E1827 and reported at a pressure of shall be considered acceptable where the items in Table R402.4.1.1, applicable to the method of construction, are field verified. Where required by the code official, an *approved* third party independent from the installer shall inspect both air barrier and insulation installation criteria. Heated, attached private garage space and heated, detached private garage space shall be thermally isolated from all 0.2 inch w.g. (50 Pa), shall be ~~an accepted alternative~~ permitted in all climate zones for:

1. Attached single and multiple-family building *dwelling units*.
2. Buildings or *dwelling units* that are 1,500 square feet (139.4 m2) or smaller.

Mechanical ventilation shall be provided in accordance with Section M1505 of the *International Residential Code* or Section 403.3.2 of the *International Mechanical Code*, as applicable, or with other *approved* means of ventilation.

Correlation Notes: RE88-19

R403.3.5

Errata	2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: R403.3.5
Posted: April 20, 2021

Correction:

R403.3.5 Duct testing. Ducts shall be pressure tested in accordance with NSI/RESNET/ICC 380 or ASTM E1554 to determine air leakage by one of the following methods:

1. Rough-in test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure if installed at the time of the test. Registers shall be taped or otherwise sealed during the test.
2. Postconstruction test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. Registers shall be taped or otherwise sealed during the test.

Exception: A duct air-leakage test shall not be required for ducts serving ~~heating, cooling or~~ ventilation systems that are not integrated with ducts serving heating or cooling systems.

A written report of the results of the test shall be signed by the party conducting the test and provided to the *code official*.

Correlation Notes: RE118-19

R403.6

Errata	2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: R403.6
Posted: May 11, 2021

Correction:

R403.6 Mechanical ventilation. **The** *Buildings* ~~and *dwelling units*~~ complying with Section R402.4.1 shall be provided with ~~mechanical~~ *ventilation* that complies with the requirements of Section M1505 the *International Residential Code* or *International Mechanical Code*, as applicable, or with other *approved* means of *ventilation*. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the *ventilation* system is not operating.

Correlation Notes: RE88-19, RE132-19 Part I

Table R403.6.2

Errata	2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st & 2nd printing
Section/Table/Figure Number: Table R403.6.2
Posted: Revised July 1, 2022

Correction:

TABLE R403.6.2
WHOLE-~~DWELLING~~ HOUSE MECHANICAL VENTILATION SYSTEM FAN EFFICACY[a]

~~FAN LOCATION~~SYSTEM TYPE	AIRFLOW RATE ~~MINIMUM~~ (CFM)	MINIMUM EFFICACY (CFM/WATT)
HRV, ERV, or balanced	Any	1.2 cfm/watt
Range hood	Any	2.8 cfm/watt
In-line supply or exhaust fan	Any	3.8 cfm/watt
Other exhaust fan ~~Other exhaust fan~~	< 90	2.8 cfm/watt
	≥ 90	3.5 cfm/watt
Air-handler that is integrated to tested and *listed* HVAC equipment	Any	1.2 cfm/watt

For SI: 1 cubic foot per minute = 28.3 L/min.
a. Design outdoor airflow rate/watts of fan used.

Correlation Notes: RE134-19, RE137-19, CCC meeting 2/14/22

R404.1.1

Errata	2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: R404.1.1
Posted: September 16, 2021

Correction:

R404.1.1 Exterior lighting. Connected exterior lighting for residential buildings shall comply with Section C405.~~4~~5.

Exceptions:

1. Detached one- and two- family dwellings.
2. Townhouses.
3. Solar-powered lamps not connected to any electrical service.
4. Luminaires controlled by a motion sensor.
5. Lamps and luminaires that comply with Section R404.1.

Correlation Notes: RE148-19

Table R405.2

Errata	2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: Table R405.2
Posted: Updated September 6, 2022

Correction:

TABLE R405.2
REQUIREMENTS FOR TOTAL BUILDING PERFORMANCE

SECTION[a]	TITLE
General	
R401.2.5	Additional energy efficiency
R401.3	Certificate
Building Thermal Envelope	
R402.1.1	Vapor retarder
R402.2.3	Eave baffle
R402.2.4.1	Access hatches and doors ~~s~~ insulation installation and retention

Electrical Power and Lighting Systems	
R404.1	Lighting equipment
~~404.2~~ R404.2	Interior lighting controls

a. Reference to a code section includes all the relative subsections except as indicated in the table.

Other portions of table omitted for clarity

Correlation Notes: RE46-19, RE49-19, RE145-19

R405.2(2)

Errata	2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: R405.2(2)
Posted: April 20, 2021

Correction:

R405.2 Performance-based compliance. Compliance based on total building performance requires that a *proposed design* meets all of the following:

1. The requirements of the sections indicated within Table R405.2.
2. The building thermal envelope shall be greater than or equal to levels of efficiency and solar heat gain coefficients in Table R402.1.1 or R402.1.3 of the 2009 *International Energy Conservation Code*.
3. An annual energy cost that is less than or equal to the annual energy cost of the *standard reference design*. Energy prices shall be taken from a source *approved* by the *code official*, such as the Department of Energy, Energy Information Administration's State Energy Data System Prices and Expenditures reports. Code officials shall be permitted to require time-of use pricing in energy cost calculations.

Exception: The energy use based on source energy expressed in Btu or Btu per square foot of conditioned floor area shall be permitted to be substituted for the energy cost. The source energy multiplier for electricity shall be 3.16. The source energy multiplier for fuels other than electricity shall be 1.1.

Correlation Notes: RE151-19

R405.3.2

Errata	2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: R405.3.2
Posted: December 14, 2021

Correction:

R405.3.2 Compliance report. Compliance software tools shall generate a report that documents that the *proposed design* complies with Section R405.~~3~~2. A compliance report on the *proposed design* shall be submitted with the application for the building permit. Upon completion of the building, a confirmed compliance report based on the confirmed condition of the building shall be submitted to the *code official* before a certificate of occupancy is issued. Compliance reports shall include information in accordance with Sections R405.3.2.1 and R405.3.2.2.

Correlation Notes: RE158-19

R405.3.2.1

Errata	2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st & 2nd printing
Section/Table/Figure Number: R405.3.2.1
Posted: December 14, 2021

Correction:

R405.3.2.1 Compliance report for permit application. A compliance report submitted with the application for building permit shall include the following:

1. Building street address, or other *building site* identification.
2. The name of the individual performing the analysis and generating the compliance report.
3. The name and version of the compliance software tool.
4. Documentation of all inputs entered into the software used to produce the results for the reference design and/or the rated home.
5. A certificate indicating that the proposed design complies with Section R405.~~3~~2. The certificate shall document the building components' energy specifications that are included in the calculation including: component-level insulation *R*-values or *U*-factors; duct system and building envelope air leakage testing assumptions; and the type and rated efficiencies of proposed heating, cooling, mechanical ventilation and service water-heating equipment to be installed. If on-site renewable energy systems will be installed, the certificate shall report the type and production size of the proposed system.
6. Where a site-specific report is not generated, the proposed design shall be based on the worst-case orientation and configuration of the rated home.

Correlation Notes: RE158-19

R405.3.2.2

Errata	2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st & 2nd printing
Section/Table/Figure Number: R405.3.2.2
Posted: December 14, 2021

Correction:

R405.3.2.2 Compliance report for certificate of occupancy. A compliance report submitted for obtaining the certificate of occupancy shall include the following:

1. Building street address, or other building site identification.
2. Declaration of the total building performance path on the title page of the energy report and the title page of the building plans.
3. A statement, bearing the name of the individual performing the analysis and generating the report, indicating that the as-built building complies with Section R405.~~3~~2.
4. The name and version of the compliance software tool.
5. A site-specific energy analysis report that is in compliance with Section R405.~~3~~2.
6. A final confirmed certificate indicating compliance based on inspection, and a statement indicating that the confirmed rated design of the built home complies with Section R405.~~3~~2. The certificate shall report the energy features that were confirmed to be in the home, including component-level insulation *R*-values or *U*-factors; results from any required duct system and building envelope air leakage testing; and the type and rated efficiencies of the heating, cooling, mechanical ventilation and service water-heating equipment installed.
7. When on-site renewable energy systems have been installed, the certificate shall report the type and production size of the installed system.

Correlation Notes: RE158-19

Table R405.4.2(1)

Errata 2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: Table R405.4.2(1)
Posted: May 11, 2021

Correction:

Mechanical ventilation	Where mechanical ventilation is not specified in the proposed design: None Where mechanical ventilation is specified in the proposed design, the annual vent fan energy use, in units of kWh/yr, shall equal $(1/e_f) \times [0.0876 \times CFA + 65.7 \times (N_{br} + 1)]$ where: e_f = the minimum ~~exhaust~~ fan efficacy, as specified in Table 403.6.2, corresponding to the system type at a flow rate of $0.01 \times CFA + 7.5 \times (N_{br} + 1)$ CFA = conditioned floor area, ft^2. N_{br} = number of bedrooms.	As proposed

TABLE R405.4.2(1)—continued
SPECIFICATIONS FOR THE STANDARD REFERENCE AND PROPOSED DESIGNS

<table>
<tr><th>BUILDING COMPONENT</th><th>STANDARD REFERENCE DESIGN</th><th colspan="3">PROPOSED DESIGN</th></tr>
<tr><td rowspan="8">Service water heating[d, g]</td><td rowspan="8">As proposed.
Use, in units of gal/day = ~~30~~ 25.5+ (~~10~~ 8.5× N_{br})
where:
N_{br} = number of bedrooms.</td><td colspan="3">As proposed
Use, in units of gal/day = $25.5 + (8.5 \times N_{br}) \times (1 - HWDS)$
where:
N_{br} = number of bedrooms.
$HWDS$ = factor for the compactness of the hot water distribution system.</td></tr>
<tr><td colspan="2">Compactness ratio[i] factor</td><td>HWDS</td></tr>
<tr><td>1 story</td><td>2 or more stories</td><td></td></tr>
<tr><td>> 60%</td><td>> 30%</td><td>0</td></tr>
<tr><td>> 30% to ≤ 60%</td><td>> 15% to ≤ 30%</td><td>0.05</td></tr>
<tr><td>> 15% to ≤ 30%</td><td>> 7.5% to ≤ 15%</td><td>0.10</td></tr>
<tr><td>< 15%</td><td>< 7.5%</td><td>0.15</td></tr>
<tr><td>Thermal distribution systems</td><td>Duct insulation: in accordance with Section R403.3.1.
A thermal distribution system efficiency (DSE) of 0.88 shall be applied to both the heating and cooling system efficiencies for all systems other than tested duct systems.
Duct location: same as proposed design.
Exception: For nonducted heating and cooling systems that do not have a fan, the standard reference design thermal distribution system efficiency (DSE) shall be 1. For tested duct systems, the leakage rate shall be 4 cfm (113.3 L/min) per 100 ft^2 (9.29 m^2) of conditioned floor area at a pressure of differential of 0.1 inch w.g. (25 Pa).</td><td colspan="3">Duct location: as proposed.
Duct insulation: as proposed.
As tested or, where not tested, as specified in Table R405.4.2(2).</td></tr>
</table>

Correlation Notes: RE162-19, RE163-19, RE172-19, RE178-19

R405.5.1

Errata	2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: R405.5.1
Posted: June 23, 2021

Correction:

R405.5.1 Minimum capabilities.
Calculation procedures used to comply with this section shall be software tools capable of calculating the annual energy consumption of all building elements that differ between the *standard reference design* and the *proposed design* and shall include the following capabilities:

1. Computer generation of the *standard reference design* using only the input for the *proposed design.* The calculation procedure shall not allow the user to directly modify the building component characteristics of the *standard reference design.*
2. Calculation of whole-building (as a single *zone*) sizing for the heating and cooling equipment in the *standard reference design* residence in accordance with Section R403.~~6~~7.
3. Calculations that account for the effects of indoor and outdoor temperatures and part-load ratios on the performance of heating, ventilating and air-conditioning equipment based on climate and equipment sizing.
4. Printed *code official* inspection checklist listing each of the *proposed design* component characteristics from Table R405.4.2(1) determined by the analysis to provide compliance, along with their respective performance ratings such as *R*-value, *U*-factor, SHGC, HSPF, AFUE, SEER and EF.

Correlation Notes: **EC108-09/10**

Table R406.2

Errata 2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: Table R406.2
Posted: Updated September 6, 2022

Correction:

TABLE R406.2
REQUIREMENTS FOR ENERGY RATING INDEX

SECTION[a]	TITLE
General	
R401.2.5	Additional energy efficiency
R401.3	Certificate
Building Thermal Envelope	
R402.1.1	Vapor retarder
R402.2.3	Eave baffle
R402.2.4.1	Access hatches and doors insulation installation and retention

Electrical Power and Lighting Systems	
R404.1	Lighting equipment
~~404.2~~ R404.2	Interior lighting controls
R406.3	Building thermal envelope

a. Reference to a code section includes all of the relative subsections except as indicated in the table.

Other portions of table omitted for clarity

Correlation Notes: **CE145-19, RE46-19, RE49-19**

R406.3.1

Errata	2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing & 2nd printing
Section/Table/Figure Number: R406.3.1
Posted: May 23, 2022

Correction:

R406.3.1 On-site renewables are not included. Where on-site renewable energy is not included for compliance using the ERI analysis of Section R406.4, the proposed total building thermal envelope UA, which is sum of *U*-factor times assembly area, shall be less than or equal to the building thermal envelope UA using the prescriptive *U*-factors from Table R402.1.2 multiplied by 1.15 in accordance with Equation 4-1. The area-weighted maximum fenestration SHGC permitted in Climate Zones 0 through 3 shall be 0.30.

$$UA_{\text{Proposed design}} = \leq 1.15 \times UA_{\text{Prescriptive reference design}}$$

(Equation 4-1)

Correlation Notes: RE150-19

R406.3.2

Errata 2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: R406.3.2
Posted: April 20, 2021

Correction:

R406.3.2 On-site renewables are included. Where onsite renewable energy is included for compliance using the ERI analysis of Section R406.4, the *building thermal envelope* shall be greater than or equal to the levels of efficiency and SHGC in Table R402.1.2 or Table R402.1.4 of the ~~2015~~ 2018 *International Energy Conservation Code*.

Correlation Notes: RE182-19

R406.6

Errata	2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing & 2nd printing
Section/Table/Figure Number: R406.6
Posted: March 8, 2023

Correction:

R406.6 Verification by approved agency. Verification of compliance with Section R406 as outlined in Sections ~~R406.4~~ R406.5 and ~~R406.6~~ R406.7 shall be completed by an *approved* third party. Verification of compliance with Section R406.2 shall be completed by the authority having jurisdiction or an *approved* third-party inspection agency in accordance with Section R105.4.

Correlation Notes: RE199-19

R407.2

Errata 2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing & 2nd printing
Section/Table/Figure Number: R407.2
Posted: December 9, 2022

Correction:

R407.2 Tropical climate region. Compliance with this section requires the following:

1. Not more than one-half of the *occupied* space is air conditioned.
2. The *occupied* space is not heated.
3. Solar, wind or other renewable energy source supplies not less than 80 percent of the energy for service water heating.
4. Glazing in *conditioned spaces* has a *solar heat gain coefficient* (SHGC) of less than or equal to 0.40, or has an overhang with a projection factor equal to or greater than 0.30.
5. Permanently installed lighting is in accordance with Section R404.
6. The exterior roof surface complies with one of the options in Table C402.3 of the *International Energy Conservation Code*–Commercial Provisions or the roof or ceiling has insulation with an *R-value* of R-15 or greater. Where attics are present, attics above the insulation are vented and attics below the insulation are unvented.
7. Roof surfaces have a slope of not less than $^1/_4$ unit vertical in 12 units horizontal (2~~1~~-percent slope). The finished roof does not have water accumulation areas.
8. Operable fenestration provides a ventilation area of not less than 14 percent of the floor area in each room. Alternatively, equivalent ventilation is provided by a ventilation fan.
9. Bedrooms with *exterior walls* facing two different directions have operable fenestration on exterior walls facing two directions.
10. Interior doors to bedrooms are capable of being secured in the open position.
11. A ceiling fan or ceiling fan rough-in is provided for bedrooms and the largest space that is not used as a bedroom.

Correlation Notes:

R408.2.3

Errata	2021 INTERNATIONAL ENERGY CONSERVATION CODE [RE]

Code/Standard: 2021 IECC-RE
Applies to following Printings: 1st printing
Section/Table/Figure Number: R408.2.3
Posted: August 10, 2021

Correction:

R408.2.3 Reduced energy use in service water-heating option. The hot water system shall meet one of the following efficiencies:
1. Greater than or equal to .82 EF fossil fuel service water-heating system.
2. Greater than or equal to 2.0 EF electric service water-heating system.
3. Greater than or equal to 0.4 solar fraction solar water-heating system.

Notes: RE209-19, CCC approved 8.2.21

R408.2.5

Errata	2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing & 2nd printing
Section/Table/Figure Number: R408.2.5
Posted: November 10, 2022

Correction:

R408.2.5 Improved air sealing and efficient ventilation system option. The measured air leakage rate shall be less than or equal to 3.0 ACH50, with either an Energy Recovery Ventilator (ERV) or Heat Recovery Ventilator (HRV) installed. Minimum HRV and ERV requirements, measured at the lowest tested net supply airflow, shall be greater than or equal to 75 percent Sensible Recovery Efficiency (SRE), less than or equal to 1.1 ~~cubic feet per minute per watt (0.03 m^3/min/watt)~~ W/CFM Fan Energy and shall not use recirculation as a defrost strategy. In addition, the ERV shall be greater than or equal to 50 percent Latent Recovery/Moisture Transfer (LRMT).

Correlation Notes: **RE209-19**

R503.1.1

Errata	2021 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing & 2nd printing
Section/Table/Figure Number: R503.1.1
Posted: September 6, 2022

Correction:

R503.1.1 Building envelope. Building envelope assemblies that are part of the *alteration* shall comply with Section R402.1.2 or ~~R402.1.4~~ R402.1.3, Sections R402.2.1 through R402.2.12, R402.3.1, R402.3.2, R402.4.3 and R402.4.5.

Exception: The following alterations shall not be required to comply with the requirements for new construction provided that the energy use of the building is not increased:

1. Storm windows installed over existing fenestration.
2. Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are filled with insulation.
3. Construction where the existing roof, wall or floor cavity is not exposed.
4. Roof recover.
5. Roofs without insulation in the cavity and where the sheathing or insulation is exposed during reroofing shall be insulated either above or below the sheathing.
6. Surface-applied window film installed on existing single pane fenestration assemblies to reduce solar heat gain provided that the code does not require the glazing or fenestration assembly to be replaced.

Correlation Notes:

R503.1.2

Errata 2021 IECC Chapter 5 Existing Buildings

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: all printings
Section/Table/Figure Number: R503.1.2
Posted: April 7, 2023

Correction:

R503.1.2 Heating and cooling systems. HVAC ducts newly installed, as part of an alteration shall comply with Section R403.

Exception: Where ducts from an existing heating and cooling system are extended ~~to an addition~~.

Correlation Notes: RE211-19

ASHRAE

Errata 2021 IECC Chapter 6 (RE)

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st and 2nd printing
Section/Table/Figure Number: Referenced Standards
Posted: November 1, 2021

ASHRAE

ASHRAE—~~2021~~ 2017 ASHRAE Handbook of Fundamentals

ASTM

Errata 2021 IECC Chapter 6 (RE)

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st and 2nd printing
Section/Table/Figure Number: Referenced Standards
Posted: November 1, 2021

ASTM

E1554/E1554M—~~E2013~~ 13(2018) Standard Test Methods for Determining Air Leakage of Air Distribution Systems by Fan Pressurization

HVI

Errata 2021 IECC Chapter 6 (RE)

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st and 2nd printing
Section/Table/Figure Number: Referenced Standards
Posted: November 1, 2021

HVI

916—~~18~~ 15 Airflow Test Procedure

NEMA

Errata 2021 IECC [RE] Chapter 6 Referenced Standards

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: all printings
Section/Table/Figure Number: Chapter 6
Posted: July 13, 2023

Correction:

NEMA

National Electrical Manufacturers Association
1300 North 17th Street, Suite 900
Rosslyn, VA 22209

OS 4-2016:
Requirements for Air-Sealed Boxes for Electrical and Communication Applications
R402.4.6

Correlation Notes: **RE109-19**

Table RC102.2

Errata	2021 IECC APPENDIX RC ZERO ENERGY RESIDENTIAL BUILDING PROVISIONS

Code/Standard: 2021 International Energy Conservation Code
Applies to following Printings: 1st printing
Section/Table/Figure Number: Table RC102.2
Posted: April 20, 2021

Correction:

TABLE RC102.2
MAXIMUM ENERGY RATING INDEX[a]

CLIMATE ZONE	ENERGY RATING INDEX NOT INCLUDING OPP	ENERGY RATING INDEX INCLUDING ADJUSTED OPP (as proposed)
1	43	0
2	45	0
3	47	0
4	47	0
5	47	0
6	46	0
7	46	0
8	46	0

a. The building shall meet the requirements of Table R406.2, and the building thermal envelope shall be greater than or equal to the levels of efficiency and SHGC in Table R402.1.2 or R402.1.3. of the 2015 *International Energy Conservation Code.*

Correlation Notes: RE223-19