

North Central Texas  
Council of Governments

**Recommended Amendments to the  
2024 International Energy Conservation Code  
And the energy provisions of the  
2024 International Residential Code**

North Central Texas Council of Governments Region  
(Climate Zone 2 & 3 of the IECC)

The following sections, paragraphs, and sentences of the *2021 International Energy Conservation Code* (IECC) are hereby amended as follows: Standard type is text from the IECC. Underlined type is text inserted. ~~Lined through type is deleted text from IECC.~~ A double (\*\*) asterisk at the beginning of a section identifies an amendment carried over from the 2021 edition of the code and a triple (\*\*\*) asterisk identifies a new or revised amendment with the 2024 code. Section numbers in parenthesis represent the corresponding numbers of the energy provisions of the *2021 International Residential Code* for parallel amendments.

**2024 IECC (Energy Provisions of the 2024 IRC)**

**NOTE:**

*In the case when an AHJ has governance over land in both Climate Zones 2A and 3A, this body recommends that said jurisdiction amends Tables C301.1 and R301.1 accordingly such that the entire area they have jurisdiction over is of the same Climate Zone.*

**\*\*Section C102/R102 General; add Section C102.1.2 and R102.1.2 (N1101.4.1) to read as follows:**

**C104.1.2 Alternative compliance.** A building certified by a national, state, or local accredited energy efficiency program and determined by the Energy Systems Laboratory to be in compliance with the energy efficiency requirements of this section may, at the option of the Code Official, be considered in compliance. The United States Environmental Protection Agency's Energy Star Program certification of energy code equivalency shall be considered in compliance.

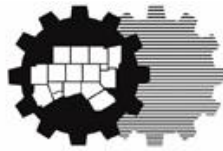
**R104.1.2 (N1101.4.1) Alternative compliance.** A building certified by a national, state, or local accredited energy efficiency program and determined by the Energy Systems Laboratory to be in compliance with the energy efficiency requirements of this section may, at the option of the Code Official, be considered in compliance. The United States Environmental Protection Agency's Energy Star Program certification of energy code equivalency shall be considered in compliance. Regardless of the program or the path to compliance, each 1- and 2-family dwelling shall be tested for air and duct leakage as prescribed in Section R402.5.1.2 (N1102. 5.1.2) and R403.3.7 (N1103.3.7) respectively.

*(Reason: This amendment is added to allow alternative compliance in accordance with Texas HB 1365, 78<sup>th</sup> Legislature. Codified in Chapter 388 Texas Building Energy Performance Standards: §388.003(i). The last sentence to Section R104.1.2 (N1101.4.1) was added to ensure that every house is tested in accordance with the mandatory provisions of the code.)*

**Section C403.7.4.1 Nontransient dwelling units.; amend as follows.**

**C403.7.4.1 Nontransient dwelling units.** Nontransient dwelling units shall be provided with outdoor air energy recovery ventilation systems complying with not less than one of the following:

1. The system shall have an enthalpy recovery ratio of not less than 50 percent at cooling design condition and not less than 60 percent at heating design condition.



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2. The system shall have a sensible recovery efficiency (SRE) that is not less than 65 percent at 32°F (0°C) and in Climate Zones 0A, 1A, 2A and 3A shall have a net moisture transfer (NMT) that is not less than 40 percent at 95°F (35°C). SRE and NMT shall be determined from a listed value or from interpolation of listed values at an airflow not less than the design airflow, based on testing in accordance with CAN/CSA C439.

**Exceptions:**

1. Nontransient dwelling units in Climate Zone 3C.
2. Nontransient dwelling units with not more than 500 square feet (46 m<sup>2</sup>) of conditioned floor area in Climate Zones 0, 1, 2, 3, 4C and 5C.
3. Enthalpy recovery ratio requirements at heating design condition in Climate Zones 0, 1 and 2.
4. Enthalpy recovery ratio requirements at cooling design condition in Climate Zones 4, 5, 6, 7 and 8.
5. Dwelling units using ventilation systems per the Fan Efficacy Table in R406, shall be considered in compliance.

**\*\*\*Section C405.2.10 Sleeping unit and dwelling unit lighting and switched receptacle controls; deleted in its entirety.**

*(Reason: The requirement for automatic shutoff and switched receptacle controls in sleeping and dwelling units imposes an unnecessary restriction on personal living spaces, where lighting use should be a matter of individual preference rather than mandated control.)*

**\*\*\*Section R105.2.2 Solar Ready System; deleted in entirety.**

*(Reason: Removes ambiguity if Solar Ready provisions are not adopted).*

**\*\*\*Section R106.3 Permit Valuation; deleted in entirety.**

**(Reason: R106.3 no longer applies due to conflict with HB852, 86th Regular Session).**

**Section R202 (N1101.6) Definitions; add the following definition:**

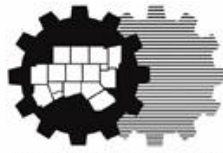
**\*\*DYNAMIC GLAZING.** Any fenestration product that has the fully reversible ability to change its performance properties, including *U*-factor, solar heat gain coefficient (SHGC), or visible transmittance (VT).

*(Reason: This term is referenced in Section R402.4.2. This definition of DYNAMIC GLAZING is also found in the Commercial provisions of the code.)*

**\*\*\* Section R401.2.1 Prescriptive Compliance Option; deleted reference to R408.**

**(Reason: Conflicts with HB2439, 86th Regular Session.)**

**\*\*\*Section R402.2.10 (N1102.2.10) Slab-on-grade floors; amend as follows.**



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Exception: Slab-edge insulation is not required in jurisdictions designated by the code official as having a moderate to heavy or very heavy termite infestation probability.

(Reason: Termites are an issue of concern throughout the North Central Texas Council of Governments Region which includes areas designated as having a "moderate to heavy" and "very heavy" infestation probability.)

\*\*\* Section R402.5.5 (N1102.5.5) Air-sealed electrical and communication outlet boxes; amend as follows.

Section R402.5.5 (N1102.5.5) Air-sealed electrical and communication outlet boxes. Air-sealed electrical and communication outlet boxes that penetrated the air barrier of the building thermal envelope shall be caulked, taped, gasketed or otherwise sealed to the air barrier element being penetrated. Air-sealed boxes shall be buried in or surrounded by insulation. Air-sealed boxes shall be tested and marked in accordance with NEMA OS 4. Air-sealed boxes shall be installed in accordance with the manufacturer's instructions.

Exception: Boxes may be air-sealed in the field using caulk, tape, gasket or other approved method to prevent air leakage through the box and in lieu of NEMA OS 4 boxes. Boxes air-sealed in the field shall be sealed to the air barrier element being penetrated and installed in accordance with manufacturer's instructions

(Reason: Amended to allow on-site air-sealing of electrical and communication boxes in order to meet current building techniques, market conditions and product availability.)

\*\*\*Table 402.1.2 (1102.1.2) Maximum Assembly/Climate Zone items: amend table as follows.

TABLE R402.1.2 (N1102.1.2) - MAXIMUM ASSEMBLY U-FACTOR AND FENESTRATION REQUIREMENTS

Portions of table not shown remain unchanged.

Table with 3 columns: CLIMATE ZONE, 2, 3. Row 1: Attic Roofline U-factor^f, 0.035, 0.035

f. Air-impermeable insulation located at the attic roofline but below the roof deck may be used if mechanical equipment and air distribution system are located entirely within the building thermal envelope. "Air-impermeable" shall be defined as having an air permeance not exceeding 0.02 L/s-m 2 at 75 Pa pressure differential tested according to ASTM E 2178 or ASTM E 283.

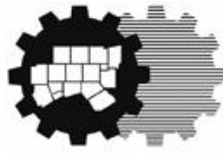
\*\*\*Table 402.1.3 (N1102.1.3) Insulation/Climate Zone items: amend table as follows.

TABLE R402.1.3 (N1102.1.3) - INSULATION MINIMUM R-VALUES AND FENESTRATION REQUIREMENTS BY COMPONENT

Portions of table not shown remain unchanged.

Table with 3 columns: CLIMATE ZONE, 2, 3. Row 1: attic roofline R-value^i, 30+0ci, 30+0ci

i. Air-impermeable insulation of R-30&0 or greater located at the attic roofline but below the roof deck may be used if mechanical equipment and air distribution system are located entirely within the building thermal



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envelope. "Air-impermeable" shall be defined as having an air permeance not exceeding 0.02 L/s-m<sup>2</sup> at 75 Pa pressure differential tested according to ASTM E 2178 or ASTM E 283.

*(Reason: Amended table to meet current building techniques, market conditions and product availability.)*

**\*\*\*Section R404.2 (N1104.2) Interior lighting controls; deleted in its entirety.**

*(Reason: The requirement for automatic shutoff and switched receptacle controls in sleeping and dwelling units imposes an unnecessary restriction on personal living spaces, where lighting use should be a matter of individual preference rather than mandated control.)*

**\*\*\* TABLE R405.4.2(1) (N1105.4.2(1)) - SPECIFICATIONS FOR THE STANDARD REFERENCE AND PROPOSED DESIGNS: amend table as follows.**

**TABLE R405.4.2(1) (N1105.4.2(1)) SPECIFICATIONS FOR THE STANDARD REFERENCE AND PROPOSED DESIGNS**

Portions of table not shown remain unchanged.

BUILDING COMPONENT	STANDARD REFERENCE DESIGN	PROPOSED DESIGN
Foundations	Type: same as proposed.	As proposed
	Foundation wall or slab extension above grade: 1 foot (30cm) Foundation wall or slab extension below grade: same as proposed Foundation wall or slab perimeter length: same as proposed Soil characteristics: same as proposed.	As proposed
	Foundation wall U-factor and slab-on-grade F-factor: as specified in Table R402.1.2. <sup>n</sup>	As proposed

For SI: 1 square foot = 0.93 m<sup>2</sup>, 1 British thermal unit = 1055 J, 1 pound per square foot = 4.88 kg/m<sup>2</sup>, 1 gallon (US) = 3.785 L, °C = (°F-32)/1.8, 1 degree = 0.79 rad.

n. In accordance with Section R402.2.10, a maximum F-factor of 0.73 shall apply for the reference design in jurisdictions designated by the code official as having a moderate to heavy or very heavy termite infestation probability.

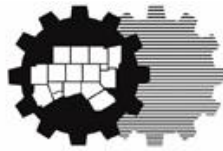
*(Reason: Termites are an issue of concern throughout the North Central Texas Council of Governments Region which includes areas designated as having a "moderate to heavy" and "very heavy" infestation probability.)*

**\*\*TABLE R406.5 (N1106.5) MAXIMUM ENERGY RATING INDEX; amend to read as follows:**

**TABLE R406.5 (N1106.5)<sup>2</sup>  
MAXIMUM ENERGY RATING INDEX**

CLIMATE ZONE	ENERGY RATING INDEX NOT INCLUDING OPP	ENERGY RATING INDEX WITH OPP
2	54 59	34
3	50 59	33

<sup>2</sup> The table is effective from September 1, 2022 to August 31, 2025.



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**TABLE R406.5 (N1106.5) <sup>3</sup>**  
**MAXIMUM ENERGY RATING INDEX**

CLIMATE ZONE	ENERGY RATING INDEX NOT INCLUDING OPP	ENERGY RATING INDEX WITH OPP
2	<del>54</del> 57	<del>34</del>
3	<del>50</del> 57	<del>33</del>

<sup>3</sup> The table is effective from September 1, 2025 to August 31, 2028.

**TABLE R406.5 (N1106.5) <sup>4</sup>**  
**MAXIMUM ENERGY RATING INDEX**

CLIMATE ZONE	ENERGY RATING INDEX NOT INCLUDING OPP	ENERGY RATING INDEX WITH OPP
2	<del>54</del> 55	<del>34</del>
3	<del>50</del> 55	<del>33</del>

<sup>4</sup> This table is effective on or after September 1, 2028.

*(Reason: The tables reflect the values and timetable set forth in HB 3215, 87<sup>th</sup> Regular Session Codified in Chapter 388 Texas Building Energy Performance Standards: §388.003.)*

**\*\*\* Section R408 Additional Efficiency Requirements; deleted in entirety.**

*(Reason: The deletion is based on the omission of reference to R408 in R401.2.1, and R408 conflicts with HB2439, 86<sup>th</sup> Regular Session.)*

**NOTE : HB 3215 was signed into law by the Governor on June 14, 2021 as part of the 87<sup>th</sup> Regular Session Codified in Chapter 388 Texas Building Energy Performance Standards: §388.003 (i), (j), and (k).** HB 3215 now allows a **Home Energy Rating System Index (ex. HERS Index)** utilizing ANSI/RESNET/ICC Standard 301 (as it existed on January 1, 2021) shall be considered in compliance with State law provided that:

- *The home includes compliance with the Mandatory requirements of 2018 IECC Section R406.2.*
- *The home includes compliance with Building thermal envelope provisions of Table R402.1.2 or Table R402.1.4 of the 2018 IECC*

**END**

**COMMISSIONING COMPLIANCE CHECKLIST** (adapted from the 2024 IECC)

Project Name: \_\_\_\_\_

Project Address: \_\_\_\_\_

Permit Number: \_\_\_\_\_

Commissioning Provider (CxP): \_\_\_\_\_

Company/CxP Address: \_\_\_\_\_

ITEM	COMMISSIONING DOCUMENTATION	APPROVAL
<b>1.</b>	<b>Project Commissioning Requirements</b>	
	Project commissioning requirements included in project contract documents.	
<b>2.</b>	<b>Commissioning Plan</b>	
	Commissioning Plan with checklists (before start of functional testing) completed. (Section C408.2.1)	
<b>3.</b>	<b>Commissioning Plan Utilized</b>	
	Commissioning Plan was used during construction and includes items required in Section 408.2.1	
<b>4.</b>	<b>Systems Adjusting and Balancing</b>	
	Systems Adjusting and Balancing completed with report reviewed by CxP	
<b>5.</b>	<b>HVAC Equipment</b>	
	HVAC Equipment Functional and Performance Testing has been executed. If applicable, deferred and follow up testing is scheduled to be completed on	
<b>6.</b>	<b>HVAC Controls</b>	
	HVAC Controls Functional and Performance Testing has been executed. If applicable, deferred and follow up testing is scheduled to be completed on	
<b>7.</b>	<b>Economizers</b>	
	Economizer Functional and Performance Testing has been executed. If applicable, deferred and follow up testing is scheduled to be completed on	
<b>8.</b>	<b>Lighting Controls</b>	
	Lighting Controls Functional and Performance Testing has been executed (Section 408.3.1). If applicable, deferred and follow up testing is scheduled to be completed on	
<b>9.</b>	<b>Service Water Heating</b>	
	Service Water Heating Functional Testing has been executed. If applicable, deferred and follow up testing is scheduled to be completed on	
<b>10.</b>	<b>Systems Manual</b>	
	Project documentation, and Systems and O&M Manual, and training completed or scheduled.	
<b>11.</b>	<b>Commissioning Report</b>	
	Preliminary Commissioning Report submitted to Owner and includes all items required in C408.2.4	

**Owner/Owner's Representative Acknowledgement**

I hereby certify that the commissioning provider has provided me with evidence of mechanical, service water heating and lighting systems commissioning in accordance with the 2024 IECC.

Name/Company: \_\_\_\_\_

Owner     Owner's Representative

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Insert  
City Seal

City of \_\_\_\_\_

Residential Energy Compliance Path  
Energy Code Requirements of the 2024 IECC (IRC) as amended  
**Submit with application for either**



**A building permit OR**  **A Certificate of Occupancy**

Project Address:

Project shall comply with one of the following:

- o **Option #1 – Prescriptive Compliance: Sections R401 through R404 (N1101 through N1104)**
- o **Option #2 – Simulated Building Performance Compliance: Section R405 (N1105)**
  - o *Includes compliance with requirements from Sections R401 through R404 as indicated in Table R405.2*
- o **Option #3 – IECC Energy Rating Index Compliance: Sections R406 (N1106)**
  - o *Includes compliance with requirements from Sections R401 through R404 as indicated in Table R406.2*
    - *Note: The HERS® index is not valid for code compliance.*
- o **Option #4 – ENERGY STAR Certified Homes® R104.1.1 (N1101.4)**
  - o *Includes compliance with requirements from Sections R401 through R404 as indicated in Table R406.2*
  - o *Includes compliance with requirements from Section R402.5.1.2 (N1102.5.1.2), R403.3.7 (N1103.3.7), R403.3.8 (N1103.3.8), and R403.6.3 (N1103.6.3).*
    - *Note: Each 1- and 2-family dwelling shall be tested.*
- o **Option #5 – HB 3215 (87R) Home Energy Rating System Index Compliance**
  - o *Includes compliance with ANSI/RESNET/ICC 301, as it existed on January 1, 2021.*
  - o *Includes compliance with the Mandatory requirements of 2018 IECC Section R406.2.*
  - o *Includes compliance with Building thermal envelope provision of 2018 IECC R402.1.2 or 2018 IECC R402.1.4.*

**Attach appropriate site-specific design compliance report and inspection checklist.**

**Name and version of the compliance software (if selecting Option 2 through 5): \_\_\_\_\_**

I certify that I have verified insulation materials and R-values; fenestration U-factors and SHGC values; area-weighted average U-factor and SHGC calculations; mechanical system design criteria; mechanical and service water heating system and equipment types, mechanical ventilation, sizes and efficiencies; equipment and system controls; duct sealing, duct and piping insulation and location; air sealing details; and that the project as designed satisfies the minimum requirements for the compliance approach selected above.

**Agency and Certification Number: \_\_\_\_\_**

**Signature of Responsible Party: \_\_\_\_\_**

**Printed Name and Title of Responsible Party:**

Insert  
City Seal

City of \_\_\_\_\_

Residential Energy Testing Compliance Certificate  
Energy Code Requirements of the 2024 IECC (IRC) as amended  
*Provide this form at building completion prior to final inspections*



Project Address: \_\_\_\_\_ Permit Number: \_\_\_\_\_

**BUILDING THERMAL ENVELOPE TESTING VERIFICATION R402.5.1.2 (N1102.5.1.2)**

\_\_\_\_\_ ACH50\*       \_\_\_\_\_ CFM per SF of dwelling unit enclosure\*

I certify that I have conducted **building thermal envelope air leakage testing and the building thermal envelope has passed the requirements of 2024 International Energy Conservation Code or 2024 International Residential Code, applicable and as amended locally**. I further certify the testing was conducted in accordance with ANSI/RESNET/ICC 380, ASTM E779, ASTM E1827, or ASTM E3158 and that I am a third party as approved by the building official.

Agency and Certification Number: \_\_\_\_\_

Signature of Responsible Party: \_\_\_\_\_

Printed Name and Title of Responsible Party: \_\_\_\_\_

**DUCT SYSTEM LEAKAGE TESTING VERIFICATION R403.3.8 (N1103.3.8)**

**System #1** - \_\_\_\_\_ CFM25    **System #2** - \_\_\_\_\_ CFM25    **System #3** - \_\_\_\_\_ CFM25  
**System #4** - \_\_\_\_\_ CFM25    **System #5** - \_\_\_\_\_ CFM25    **System #6** - \_\_\_\_\_ CFM25

I certify that I have conducted a **total duct leakage testing and the duct system(s) has passed the requirements of the 2024 International Energy Conservation Code or 2024 International Residential Code, applicable and as amended locally**. I further certify that the testing was conducted in accordance with ANSI/RESNET/ICC 380 or ASTM E1554.

Agency and Certification Number: \_\_\_\_\_

Signature of Responsible Party: \_\_\_\_\_

Printed Name and Title of Responsible Party: \_\_\_\_\_

**MECHANICAL VENTILATION AIRFLOW TESTING VERIFICATION R403.6.3 (N1103.6.3)**

**Whole-house System #1** - \_\_\_\_\_ CFM    **Whole-house System #2** - \_\_\_\_\_ CFM

**The Mechanical Ventilation Fan Efficacy meets the requirements of R403.6.2 and Table R403.6.2**

I certify that I have conducted **whole-house mechanical ventilation airflow testing and the Mechanical Ventilation Systems(s) have passed the requirements of the 2024 International Energy Conservation Code, 2024 International Residential Code or International Mechanical Code as applicable and as amended locally**. I further certify the testing was conducted in accordance with ANSI/RESNET/ICC 380 and that I am a third party as approved by the building official.

Agency and Certification Number: \_\_\_\_\_

Signature of Responsible Party: \_\_\_\_\_

Printed Name and Title of Responsible Party: \_\_\_\_\_

\* Per R402.5.1.3 (1102.5.1.3): The maximum infiltration rate for Option 1 Prescriptive Path is 4.0 ACH in Climate Zone 2 or 3.0 ACH in Climate Zone 3. The maximum infiltration rate for all other compliance paths and climate zones is 4.0 ACH or 0.22 CFM per SF of the building thermal envelope area or the dwelling unit enclosure area, as applicable.