

REC2D-9-23

IECC RE: R402.2.9, R402.2.9.1, TABLE R405.2, TABLE R406.2

Proponents:

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2024 International Energy Code [RE] [RE Project] R3

Revise as follows:

R402.2.9 Basement walls.

Basement walls shall be insulated in accordance with Table R402.1.3.

Exception: Basement walls associated with unconditioned basements where the following requirements are met:

- 1.The floor overhead, including the underside stairway stringer leading to the basement, is insulated in accordance with Section R402.1.3 and applicable provisions of Sections R402.2 and R402.2.8.
- 2.There are no uninsulated *ductwork*, domestic hot water piping, or hydronic heating surfaces exposed to the basement.
- 3.There are no HVAC supply or return diffusers serving the basement.
- 4.The walls surrounding the stairway and adjacent to *conditioned space* are insulated in accordance with Section R402.1.3 and applicable provisions of Section R402.2.
- 5.The door(s) leading to the basement from conditioned spaces are insulated in accordance with Section R402.1.3 and applicable provisions of Section R402.2, and weatherstripped in accordance with Section R402.5.
- 6.The *building thermal envelope* separating the basement from adjacent conditioned spaces complies with Section R402.5.

R402.2.9.1 Basement wall insulation installation.

Where *basement walls* are insulated, the insulation shall be installed from the top of the *basement wall* down to 10 feet (3048 mm) below grade or to the basement floor, whichever is less, or in accordance with the *proposed design* or the *rated design*, as applicable.

TABLE R405.2 REQUIREMENTS FOR SIMULATED BUILDING PERFORMANCE

SECTION ^a	TITLE
General	
R401.3	Certificate
Building Thermal Envelope	
R402.1.1	Vapor retarder
R402.1.6	Rooms containing fuel burning appliances
R402.2.3	Attic knee wall
R402.2.4	Eave baffle

R402.2.5.1	Access hatches and door insulation installation and retention
<u>R402.2.9.1</u>	<u>Basement wall insulation installation</u>
R402.2.10	Slab-on-grade floors
R402.2.11	Crawl space wall insulation <u>walls</u>
R402.5.1.1	Installation
R402.5.1.2	Air leakage testing
R402.5.1.3	Maximum air leakage rate
R402.5.2	Fireplaces
R402.5.3	Fenestration air leakage
R402.5.4	Recessed lighting
R402.5.5	Air-sealed electrical and communication outlet boxes
R402.6	Maximum fenestration <i>U</i> -factor and SHGC
Mechanical	
R403.1	Controls
R403.2	Hot water boiler temperature reset
R403.3	Duct systems
R403.4	Mechanical system piping insulation
R403.5	Service hot water systems
R403.6	Mechanical ventilation
R403.7, except Section R403.7.1	Equipment sizing and efficiency rating
R403.8	Systems serving multiple dwelling units
R403.9.2	Snow melt and ice system controls
R403.10	Energy consumption of pools and spas
R403.11	Portable spas
R403.12	Residential pools and permanent residential spas
R403.13	Gas fireplaces
Electrical Power and Lighting Systems	
R404.1	Lighting equipment
R404.2	Interior lighting controls
R404.5	Electric readiness

R404.6	Renewable energy infrastructure
R404.7	Electric Vehicle power transfer infrastructure

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

TABLE R406.2 REQUIREMENTS FOR ENERGY RATING INDEX

SECTION ^a	TITLE
General	
R401.3	Certificate
Building Thermal Envelope	
R402.1.1	Vapor retarder
R402.1.6	Rooms containing fuel burning appliances
<u>R402.2.3</u>	<u>Attic knee wall</u>
R402.2.4	Eave baffle
R402.2.5.1	Access hatches and door insulation installation and retention
<u>R402.2.9.1</u>	<u>Basement wall insulation installation</u>
R402.2.10	Slab-on-grade floors
R402.2.11	Crawl space wall insulation <u>walls</u>
R402.5.1.1	Installation
R402.5.1.2	Air leakage testing
R402.5.1.3	Maximum air leakage rate
R402.5.2	Fireplaces
R402.5.3	Fenestration air leakage
R402.5.4	Recessed lighting
R402.5.5	Air-sealed electrical and communication outlet boxes
R406.3	<i>Building thermal envelope</i>
Mechanical	
R403.1	Controls
R403.2	Hot water boiler temperature reset
R403.3	Duct systems
R403.4	Mechanical system piping insulation

R403.5	Service hot water systems
R403.6	Mechanical ventilation
R403.7, except Section R403.7.1	Equipment sizing and efficiency rating
R403.8	Systems serving multiple dwelling units
R403.9.2	Snow melt and ice system controls
R403.10	Energy consumption of pools and spas
R403.11	Portable spas
R403.12	Residential pools and permanent residential spas
R403.13	Gas fireplaces
Electrical Power and Lighting Systems	
R404.1	Lighting equipment
R404.2	Interior lighting controls
R404.5	Electric readiness
R404.6	Renewable energy infrastructure
R404.7	Electric Vehicle power transfer infrastructure

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

Reason:

R402.2.9.1 was modified in the last round of voting ([RED1-217](#)). The reason statement said: "The proposal clarifies the relationship between the prescriptive path and both performance paths. The performance paths are intended to provide design flexibility in achieving target energy performance. Only installation provisions should be listed in this table because the amount of insulation should be tradable. The insulation height on basement walls should be tradable as well." However, this sub-section is no longer listed in Table R405.2 or Table R406.2. This member proposal corrects that mistake. In addition, the section header for 'crawl space walls' is updated and for consistency with Table R405.2, 'Attic knee walls' is added to Table R406.2.

Cost Impact:

The code change proposal will neither increase nor decrease the cost of construction.

None