

24.39.30 – RULES OF BUILDING SAFETY (BUILDING CODE RULES)

000. LEGAL AUTHORITY.

The rules are promulgated pursuant to Sections 33-356, 39-4107, 39-4109, 39-4112, 39-4113, Idaho Code. ()

001. SCOPE.

The rules prescribe the criteria for enforcement and administration of the Idaho Building Code Act by the Idaho Building Code Board and the Division of Occupational and Professional Licenses and the integrated design and fundamental commissioning of public school facilities. ()

~~002. – 003. — (RESERVED)~~

~~004600. ADOPTION AND INCORPORATION BY REFERENCE OF THE 2018 INTERNATIONAL BUILDING CODE, PARTS ONE (1) THROUGH THREE (3) AND PART NINE (IX) OF THE 2018 INTERNATIONAL RESIDENTIAL CODE FOR ONE (1) AND TWO (2) FAMILY DWELLINGS, THE 2018 INTERNATIONAL EXISTING BUILDING CODE, AND THE 2018 INTERNATIONAL ENERGY CONSERVATION CODE IDAHO BUILDING CODE.~~

~~Under the provisions of Sections 39-4109 and 39-4109A, Idaho Code, the codes enumerated in this section are hereby adopted and incorporated by reference into these rules. Pursuant to Sections 39-4109 and 39-4109A, Idaho Code, the Board adopts, as the Idaho Building Code, the following international codes with identified amendments. ()~~

~~01. International Building Code. The 2018 Edition, including appendices thereto pertaining to building accessibility, (herein IBC) is adopted and incorporated by reference with the following amendments: ()~~

~~a. — 2018 Edition with the following amendments: ()~~

~~ia. Delete Amend Section 305.2.3; and replace with the following: 305.2.3 Twelve (12) or fewer children in a dwelling unit. A facility such as the above within a dwelling unit and having twelve (12) or fewer children receiving such day care shall be classified as a Group R-3 occupancy or shall comply with the International Residential Code. Replace the word “five” with the word “twelve (12)”]. ()~~

Commented [MH1]: Re-phrased to simplify amendment

~~ii. Delete Section 308.2.4 and replace with the following: 308.2.4 Five (5) or fewer persons receiving custodial care. A facility with five (5) or fewer persons receiving custodial care shall be classified as a Group R-3 occupancy or shall comply with the International Residential Code. ()~~

~~iii. Delete Section 308.3.2 and replace with the following: 308.3.2 Five (5) or fewer persons receiving medical care. A facility with five (5) or fewer persons receiving medical care shall be classified as a Group R-3 occupancy. ()~~

~~iv. Delete Section 308.5.4 and replace with the following: 308.5.4 Persons receiving care in a dwelling unit. A facility such as the above within a dwelling unit and having twelve (12) or fewer children receiving day care or having five (5) or fewer persons receiving custodial care shall be classified as a Group R-3 occupancy or shall comply with the International Residential Code. ()~~

Commented [MH2]: Amendments create inconsistent language between IBC and the IFC and jeopardizes the life safety of occupants by not requiring an auto fire sprinkler system. Confirmed with State Fire Marshal.

~~v. Delete Amend Section 310.4; and replace with to add the following: 310.4 Residential Group R-3. Residential Group R-3 occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4, E or I, including: 1. Buildings that do not contain more than two (2) dwelling units. 2. Care facilities that provide accommodations for five (5) or fewer persons receiving personal care, custodial care or medical care. 3. Congregate living facilities (nontransient) with sixteen (16) or fewer occupants, including boarding houses (nontransient), convents, dormitories, fraternities and sororities, and monasteries. 4. Congregate living ()~~

~~facilities (transient) with ten (10) or fewer occupants, including boarding houses (transient). 5. Add the following: "Dwelling units providing day care for twelve (12) or fewer children". 6. Lodging houses (transient) with five (5) or fewer guest rooms and ten (10) or fewer occupants.~~ ()

Commented [MH3]: Re-phrased to simplify the amendment.

~~viid.~~ **viid.** ~~Delete~~ Section 310.4.1. ~~Delete~~ and replace with the following: ~~310.4.1~~ Care facilities within a dwelling. Care facilities for twelve (12) or fewer children receiving day care or for five (5) or fewer persons receiving personal care or custodial care that are within a one- or two-family dwelling are permitted to comply with the International Residential Code. ()

~~viiid.~~ **viiid.** ~~Add the following as~~ **Add new** Section 602.1.2. ~~602.1.2~~ Alternative provisions. As an alternative to the construction types defined in Sections 602.2 through 602.5, buildings and structures erected or to be erected, altered, or extended in height or area may be classified as construction type IV-A, IV-B, or IV-C in accordance with the provisions adopted in Paragraph 004.01.b~~h~~ of these rules. Buildings and structures classified as construction type IV-A, IV-B, or IV-C shall comply with the provisions adopted in Paragraph 004.01.b~~h~~ of these rules and all other applicable provisions of this code. ()

~~viiiif.~~ **viiiif.** ~~Delete footnote ^e under~~ Table 2902.1 Minimum Number of Required Plumbing Fixtures. ~~Delete footnote ^e~~ and replace with the following: ^e For business occupancies, excluding restaurants, and mercantile occupancies with an occupant load of thirty (30) or fewer, service sinks shall not be required. ()

~~ixgf.~~ **ixgf.** ~~Delete footnote ^f from~~ Table 2902.1 Minimum Number of Required Plumbing Fixtures. ~~add footnote ^f in the header row of the column in Table 2902.1 labeled "Drinking Fountains," and Delete footnote ^f reference from current cell and place in column header labeled "Drinking Fountains".~~ ~~Delete footnote ^f under Table 2902.1~~ and replace with the following: ^f Drinking fountains are not required for an occupant load of thirty (30) or fewer. ()

~~xhg.~~ **xhg.** ~~Delete~~ Section 3113.1 **Relocatable Buildings. Delete.** ~~and replace with the following: 3113.1 General. The provisions of this Section shall apply to relocatable buildings. Relocatable buildings manufactured after the effective date of this code shall comply with the applicable provisions of this code; title 39, chapter 43, Idaho Code; and IDAPA 24.39.31. Exception: This Section shall not apply to manufactured housing used as dwellings.~~ ()

Commented [MH4]: Outside the scope of Title 39 Chapter 41; falls under Title 39 Chapter 43 & IDAPA 24.39.31 codes and standards.

02. International Building Code. The following provisions of the 2021 Edition related to mass timber construction: ()

bi. ~~The provisions of the 2021 Edition relating to mass timber construction, including, but not limited to:~~ ()

ia. In Section 202, the definitions of the terms MASS TIMBER; NONCOMBUSTIBLE PROTECTION (FOR MASS TIMBER); SECONDARY STRUCTURAL MEMBERS; and WALL, LOAD BEARING; ()

ib. Sections 403.3.2, 508.4.4.1, 509.4.1.1, 602.4 through 602.4.3.6, 703.6, 703.7, 704.4, 722.7 through 722.7.2.2, 1705.5.3, 1705.20, 2304.10.1, 3313.1 through 3313.3.3, 3313.5, and 3314.1; ()

ic. Tables 504.3, 504.4, 506.2, 601, 705.5, 722.7.1(1), 722.7.1(2), and 1705.5.3, including any note following each table adopted in this subparagraph; and ()

id. In Chapter 35, the referenced standards ANSI/APA PRG 320—2019: Standard for Performance-rated Cross-laminated Timber, referenced in Sections 602.4 and 2303.1.4, and ASTM D3498—03(2011): Standard Specification for Adhesives for Field-Gluing Plywood to Lumber Framing for Floor Systems, referenced in Section 703.7. ()

0203. International Residential Code. ~~2018 Edition, (herein IRC) is adopted and incorporated by reference with the following amendments Parts I, II, III, and IX of the 2018 Edition for one (1)- and two (2)- family dwellings, with the following amendments:~~ ()

a. Section R101.2 Scope. Delete the exception under Section R101.2 Scope, and replace with the following: Exception: The following shall also be permitted to be constructed in accordance with this code: 1. Owner-occupied lodging houses with five (5) or fewer guestrooms and ten (10) or fewer total occupants. 2. A care facility with five (5) or fewer persons receiving custodial care within a dwelling unit or single-family dwelling. 3. A care facility for five (5) or fewer persons receiving personal care that are within a dwelling unit or single-family dwelling. 4. A care facility with twelve (12) or fewer children receiving day care within a dwelling unit or single-family dwelling. ()

~~b. Delete Section R104.10.1 Flood hazard areas. ()~~

~~eb. Section R105.2. Delete Amend item number 7 under the "Building" subheading of Section R105.2. Work exempt from permit, and replace with the following: 7. Prefabricated swimming pools that are not greater than Replace the words "24 inches (610 mm)" with "four (4) feet (one thousand, two hundred nineteen (1219) mm)" deep. ()~~

~~dc. Section R105.2. Add the following asexemption item number 11 under the "Building" subheading of Section R105.2 Work exempt from permit: 11. Flag poles. ()~~

ed. Section R109.1.3. ~~Delete Section R109.1.3 Delete~~ and replace with the following: R109.1.3 Floodplain inspections. For construction in areas prone to flooding as established by Table R301.2(1), upon placement of the lowest floor, including basement, the building official is authorized to require submission of documentation of the elevation of the lowest floor, including basement, required in Section R322. ()

~~fe. Delete Section R301.2.1.2 Protection of Openings. Delete ()~~

~~gf. Delete Table R302.1(1). Delete and replace with the following:~~

TABLE R302.1(1) - EXTERIOR WALLS

EXTERIOR WALL ELEMENT		MINIMUM FIRE-RESISTANCE RATING	MINIMUM FIRE SEPARATION DISTANCE
Walls	Fire-resistance rated	1 hour-tested in accordance with ASTM E 119, UL263, or Section 703.3 of the International Building Code with exposure from both sides	< 3 feet
	Not fire-resistance rated	0 hours	≥ 3 feet
Projections	Fire-resistance rated	1 hour on the underside, or heavy timber, or fire retardant-treated wood ^{a,b}	≥ 2 feet to < 3 feet
	Not fire-resistance rated	0 hours	≥ 3 feet
Openings in Walls	Not allowed	N/A	< 3 feet
	25% maximum of wall area	0 hours	≥ 3 feet to < 5 feet
	Unlimited	0 hours	5 feet
Penetrations	All	Comply with Section R302.4	< 3 feet

Commented [MH5]: As requested by ID Dept of Water Resources to remain with ICC language.

Commented [MH6]: Re-phrased to simplify amendment.

		None required	≥ 3 feet
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For SI: 1 foot = 304.8 mm.

N/A = Not Applicable

^a The fire-resistance rating shall be permitted to be reduced to zero (0) hours on the underside of the eave overhang if fire blocking is provided from the wall top plate to the underside of the roof sheathing.

^b The fire-resistance rating shall be permitted to be reduced to zero (0) hours on the underside of the eave overhang where gable vent openings are not installed. ()

hg. ~~Section R302.13 Fire protection of floors.~~ ~~Delete.~~ ()

ih. ~~Section R303.4.~~ ~~Delete~~ and replace with the following: **R303.4** Mechanical Ventilation. Dwelling units shall be provided with whole-house mechanical ventilation in accordance with Section M1505.4. ()

ji. ~~the exception under~~ Section R313.1 Townhouse automatic fire sprinkler systems. ~~Delete~~ ~~the exception~~ and replace with the following: Exception: Automatic residential fire sprinkler systems shall not be required in townhouses where either two (2) one (1)-hour fire-resistance-rated walls or a common two (2)-hour fire-resistance rated wall, as specified in item number 2 of Section R302.2.2 is installed between dwelling units or when additions or alterations are made to existing townhouses that do not have an automatic residential fire sprinkler system installed. ()

kj. ~~Section R313.2 One- and two-family dwellings automatic fire sprinkler systems.~~ ~~Delete.~~ ()

lk. ~~Amend the e~~ ~~Exceptions: 1 under~~ Section R314.2.2 Alterations, repairs and additions. ~~and~~ ~~replace with the following: Exceptions: 1. Work involving the exterior surfaces of dwellings, such as, Amend~~ ~~Exception 1 to add the words "but not limited to," after the words "such as" and before the words "the replacement"~~ ~~replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck or electrical permits, are exempt from the requirements of this section. 2. Installation, alteration or repairs of plumbing or mechanical systems are exempt from the requirements of this section.~~ ()

ml. ~~Amend the e~~ ~~Exceptions: 1 under~~ Section R315.2.2 Alterations, repairs and additions. ~~and~~ ~~replace with the following: Exceptions: 1. Work involving the exterior surfaces of dwellings, such as, Amend~~ ~~Exception 1 to add the words "but not limited to," after the words "such as" and before the words "the replacement"~~ ~~replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck or electrical permits, are exempt from the requirements of this section. 2. Installation, alteration or repairs of noncombustion plumbing or mechanical systems are exempt from the requirements of this section.~~ ()

nm. ~~Section R322.1.10 As-built elevation documentation.~~ ~~Delete.~~ ()

o. ~~Section R322.2.1 and replace with the following: R322.2.1 Elevation requirements. 1. Buildings and structures in flood hazard areas, including flood hazard areas designated as Coastal A Zones, shall have the lowest floors elevated to or above the base flood elevation. 2. In areas of shallow flooding (AO Zones), buildings and structures shall have the lowest floors (including basement) elevated to a height above the highest adjacent grade of not less than the depth number specified in feet (mm) on the FIRMS, or not less than two (2) feet (610 mm) if a depth number is not specified. 3. Basement floors that are below grade on all sides shall be elevated to or above base flood elevation. Exception: Enclosed areas below the design flood elevation, including basements with floors that are not below grade on all sides, shall meet the requirements of Section R322.2.2.~~ ()

p. ~~subparagraph 2.1 of Section R322.2.2 Enclosed area below design flood elevation, and~~ ~~replace with the following: 2.1. The total net area of all openings shall be at least one (1) square inch (645 mm²) for each square foot (0.093 m²) of enclosed area, or the opening shall be designed and the construction documents shall include a statement that the design and installation of the openings will provide for equalization of hydrostatic flood forces on exterior walls by allowing the automatic entry and exit of floodwaters.~~ ()

qno. ~~Tables R403 Minimum Depth (D) and Width (W) of Crushed Stone Footings (inches),~~

Commented [MH7]: Amended language to apply to building permits as electrical and plumbing shall be regulated by IDAPA 24.39.10 and IDAPA 24.39.20. HVAC IDAPA rules 24.39.70 already accounts for the language and requirements.

Commented [MH8]: As requested by ID Dept of Water Resources to remain with ICC language.

R403.1(1) Minimum Width and Thickness for Concrete Footings for Light-Frame Construction (inches), R403.1(2) Minimum Width and Thickness for Concrete Footings for Light-Frame Construction and Brick Veneer (inches), and R403.1(3) Minimum Width and Thickness for Concrete Footings with Cast-In-Place or Fully Grouted Masonry Wall Construction (inches). ~~Delete.~~ ()

~~FP0.~~ Add the following as Table R403.1:

**TABLE R403.1
MINIMUM WIDTH OF CONCRETE, PRECAST, OR MASONRY FOOTINGS (inches)^a**

	LOAD-BEARING VALUE OF SOIL (psf)			
	1,500	2,000	3,000	≥ 4,000
Conventional light-frame construction				
1-Story	12	12	12	12
2-Story	15	12	12	12
3-Story	23	17	12	12
4-inch brick veneer over light frame or 8-inch hollow concrete masonry				
1-Story	12	12	12	12
2-Story	21	16	12	12
3-Story	32	24	16	12
8-inch solid or fully grouted masonry				
1-Story	16	12	12	12
2-Story	29	21	14	12
3-Story	42	32	21	16

For SI: 1 inch = 25.4 mm, 1 pound per square foot = 0.0479 kPa.

^aWhere minimum footing width is twelve (12) inches, use of a single wythe of solid or fully grouted twelve (12)-inch nominal concrete masonry units is permitted. ()

~~sgp.~~ ~~Delete~~ Section R403.1.1. ~~Delete~~ and replace with the following: R403.1.1 Minimum size. Minimum sizes for concrete and masonry footings shall be as set forth in Table R403.1 and Figure R403.1(1). The footing width (W) shall be based on the load bearing value of the soil in accordance with Table R401.4.1. Spread footings shall be at least six (6) inches in thickness (T). Footing projections (P) shall be at least two (2) inches and shall not exceed the thickness of the footing. The size of footings supporting piers and columns shall be based on the tributary load and allowable soil pressure in accordance with Table R401.4.1. Footings for wood foundations shall be in accordance with the details set forth in Section R403.2 and Figures R403.1(2) and R403.1(3). ()

~~trq.~~ ~~Delete/Amend~~ Section R602.10. ~~and replace with the following: R602.10 Wall bracing. Buildings shall be braced in accordance with this Section or, when applicable Section R602.12, a~~ ~~Add the words "or the most current edition of APA System Report SR-102 as an alternate method" after the words "Section R602.12".~~ ~~Where a building, or portion thereof, does not comply with one (1) or more of the bracing requirements in this Section, those~~

~~portions shall be designed and constructed in accordance with Section R301.1.~~ ()

~~03.04.~~ **International Existing Building Code.** 2018 Edition. ()

~~0435.~~ **International Energy Conservation Code.** 2018 Edition ~~—(herein IECC) is adopted and incorporated by reference~~ with the following amendments: ()

a. Add ~~the following as new~~ Section C101.5.2: C101.5.2 Industrial, electronic, and manufacturing equipment. Buildings or portions thereof that are heated or cooled exclusively to maintain the required operating temperature of industrial, electronic, or manufacturing equipment shall be exempt from the provisions of this code. Such buildings or portions thereof shall be separated from connected conditioned space by building thermal envelope assemblies complying with this code. ()

b. ~~Add the following as an exception under~~ Section C402.5 Air leakage—thermal envelope (Mandatory): Add Exception: For buildings having over fifty thousand (50,000) square feet of conditioned floor area, air leakage testing shall be permitted to be conducted on less than the whole building, provided the following portions of the building are tested and their measured air leakage is area-weighted by the surface areas of the building envelope: 1. The entire floor area of all stories that have any spaces directly under a roof. 2. The entire floor area of all stories that have a building entrance or loading dock. 3. Representative above-grade wall sections of the building totaling at least twenty-five percent (25%) of the above-grade wall area enclosing the remaining conditioned space. Floor area tested under subparagraphs 1. or 2. of this exception shall not be included in the twenty-five percent (25%) of above-grade wall sections tested under this subparagraph. ()

e. ~~Add the following as exception number 7 under Section C403.5 Economizers (Prescriptive): 7. Unusual outdoor air contaminate conditions—Systems where special outside air filtration and treatment for the reduction and treatment of unusual outdoor contaminants, makes an air economizer infeasible.~~ ()

d. Delete Table C404.5.1 and replace with the following:

TABLE C404.5.1 PIPING VOLUME AND MAXIMUM PIPING LENGTHS			
NOMINAL PIPE SIZE (inches)	VOLUME (liquid ounces per foot length)	MAXIMUM PIPING LENGTH (feet)	
		Public lavatory faucets	Other fixtures and appliances
1/4	0.33	31	50
5/16	0.5	N/A—non-standard size	50
3/8	0.75	17	50
1/2	1.5	10	43
5/8	2	7	32

Commented [MH9]: Re-phrased amendment to simplify language.

Commented [MH10]: Should this be mandated and enforced by the building code board? Are there other methods of providing mechanical ventilation other than through an Economizer?

3/4	3	5	21
7/8	4	N/A – non-standard size	16
1	5	3	13
1-1/4	8	2	8
1-1/2	11	1	6
2-or-larger	18	1	4

For SI: 1 inch = 25.4 mm; 1 foot = 304.8 mm; 1 liquid ounce = 0.030 L; 1 gallon = 128 ounces. (←)

- ~~c. Delete Section C403 Building Mechanical Systems. Delete.~~
- ~~d. Delete Section C404 Service Water Heating (Mandatory). Delete.~~
- ~~e. Delete Section C405 Electrical Power and Lighting Systems. Delete.~~
- ~~f. Delete Section C406 Additional Efficiency Package Options. Delete.~~
- ~~g. Delete Section C407 Total Building Performance. Delete.~~
- ~~h. Delete Section C408 Maintenance Information and System Commissioning. Delete.~~
- ~~i. Delete Section C502.2.3 Building mechanical systems. Delete.~~
- ~~j. Delete Section C502.2.4 Service water-heating systems. Delete.~~
- ~~k. Delete Section C502.2.6 Lighting power and systems. Delete.~~
- ~~l. Delete Section C503.4 Heating and cooling systems. Delete.~~
- ~~m. Delete Section C503.5 Service hot water systems. Delete.~~
- ~~n. Delete Section C503.6 Lighting systems. Delete.~~
- ~~o. R202 Definitions. Add the following to the definition of “Conditioned Space” this definition shall not apply to garage spaces where supplemental heating or cooling is installed.~~
- ~~ep. Delete the rows in Table R402.1.2 Insulation and Fenestration Requirements by Component. Delete the rows in for climate zones “5 and Marine 4” and “6” and replace with the following:~~

Commented [MH11]: Should this be mandated and enforced by the building code board?
How is limiting hot water pipe a concern of safety?

Commented [MH12]: Should these commercial provisions be regulated and enforced by the building code board? Are these items considered life safety and protect the occupant welfare? Or should they be consumer and builder choice?

Commented [MH13]: Allows for consumers to supply heating or cooling to a garage or shop without full envelop requirements and heating and cooling load calculations.

**TABLE R402.1.2
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT ^a**

Climate Zone	Fenestration U-Factor ^b	Skylight ^b U-factor	Glazed Fenestration SHGC ^{b, c, e}	Ceiling R-Value	Wood Frame Wall R-Value	Mass Wall R-Value ⁱ	Floor R-Value	Basement ^c Wall R-Value	Slab ^d R-Value & Depth	Crawlspace ^c Wall R-Value
5	0.32	0.55	NR	38	20 or 13+5 ^h	13/17	30 ^g	15/19	10, 2 ft	15/19
6	0.30	0.55	NR	49	22 or 13+5 ^h	15/20	30 ^g	15/19	10, 4 ft	15/19

()

fg. ~~Add the following as footnote ^k to the title of Table R402.1.2 —Insulation and Fenestration Requirements by Component. Add the following as footnote ^k to the Table title:~~ ^k For residential log home building thermal envelope construction requirements see Section R402.6.

()

gr. ~~Delete the rows in Table R402.1.4 Equivalent U-Factors. Delete the rows in for climate zones “5 and Marine 4” and “6” and replace with the following:~~

**TABLE R402.1.4
EQUIVALENT U-FACTORS ^a**

Climate Zone	Fenestration U-factor	Skylight U-factor	Ceiling U-factor	Frame Wall U-factor	Mass Wall U-factor ^b	Floor U-factor	Basement Wall U-factor	Crawlspace Wall U-factor
5	0.32	0.55	0.030	0.060	0.082	0.033	0.050	0.055
6	0.30	0.55	0.026	0.057	0.060	0.033	0.050	0.055

()

h. ~~Delete Section R402.4.1 and replace with the following: R402.4.1 Building thermal envelope. 1. Until June 30, 2021, the building thermal envelope shall comply with Sections R402.4.1.1 (Installation) and either Section R402.4.1.2 (Testing) or Section R402.4.1.3 (Visual inspection). 2. Effective July 1, 2021, the building thermal envelope of a minimum of twenty percent (20%) of all new single-family homes constructed by each builder shall comply with Section R402.4.1.1 (Installation) and Section R402.4.1.2 (Testing). The authority having jurisdiction may: 2.1. Determine how to enforce this requirement, starting with the fifth house and continuing with each subsequent fifth house. 2.2. Waive this requirement if significant testing indicates the five (5) air changes per hour (ACH) requirement is consistently being met or exceeded (resulting in a lower ACH). 2.3. Grant exceptions to this requirement in rural areas where testing equipment is not available or cost effective. 3. Effective July 1, 2021, the building thermal envelope of eighty percent (80%) of all new single-family homes constructed by each builder shall comply with Section R402.4.1.1 (Installation) and either Section R402.4.1.2 (Testing) or Section R402.4.1.3 (Visual inspection). 4. The sealing methods between dissimilar materials shall allow for differential expansion and contraction.~~

(—)

Commented [MH14]: Unnecessary code language for testing option when visual method is sufficient.

i. ~~Delete Section R402.4.1.1 and replace with the following: R402.4.1.1 Installation. The components of the building thermal envelope as listed in Table R402.4.1.1 shall be installed in accordance with the manufacturer's instructions and the criteria listed in Table R402.4.1.1, as applicable to the method of construction.~~ ()

Commented [MH15]: Addressed in 2018 IECC.

j. ~~Delete Section R402.4.1.2 and replace with the following: R402.4.1.2 Testing. Testing building envelope tightness and insulation installation shall be considered acceptable when tested air leakage is less than five (5) air changes per hour (ACH) when tested with a blower door at a pressure of 33.5 psf (50 Pa). Testing shall occur after rough-in and after installation of penetrations of the building envelope, including penetrations for utilities, plumbing, electrical, ventilation and combustion appliances. Testing shall be conducted in accordance with RESNET/ICC 380, ASTM E 779 or ASTM E 1827 and reported at a pressure of 0.2 inch w.g. (50 Pascals). During testing: 1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed. 2. Dampers shall be closed, but not sealed, including exhaust, intake, makeup air, backdraft and flue dampers. 3. Interior doors shall be open. 4. Exterior openings for continuous ventilation systems and heat recovery ventilators shall be closed and sealed. 5. Heating and cooling system(s) shall be turned off. 6. HVAC ducts shall not be sealed. 7. Supply and return registers shall not be sealed.~~ ()

Commented [MH16]: Over the years envelope tightness tests have been difficult to enforce when visual options are allowed; and if visual options have shown sufficient, why have language for a testing option that is too difficult to enforce and creates delays.

ks. ~~Delete~~ Add the following as Section R402.4.1.32. ~~Delete and replace with the follow:~~ R402.4.1.32 Visual inspection. Building envelope tightness and insulation installation shall be considered acceptable when the items listed in Table R402.4.1.1, applicable to the method of construction, are field verified. Where required by code official an approved party independent from the installer of the insulation shall inspect the air barrier and insulation. ()

lt. Add the following as ~~as~~ Add new Section R402.6: R402.6 Residential log home thermal envelope. Residential log home construction shall comply with Section R401 (General), Section R402.4 (Air leakage), ~~Section R402.5 (Maximum fenestration U-factor and SHGC), Section R403.1 (Controls), the mandatory sections of Sections R403.3 through R403.9, Section R404 (Electrical Power and Lighting Systems), and either 1., 2., or 3. as follows: 1. Sections R402.2 through R402.3, Section R403.3.1 (Insulation), Section R404.1 (Lightning equipment), and Table R402.6 (Log Home Prescriptive Thermal Envelope Requirements by Component). 2. Section R405 (Simulated Performance Alternative). 3. REScheck (U.S. Department of Energy Building Codes Program).~~ ()

Commented [MH17]: Removes requirements for log homes in accordance with draft amendments in this chapter.

mu. Add the following as new Table R402.6:

TABLE R402.6 LOG HOME PRESCRIPTIVE THERMAL ENVELOPE REQUIREMENTS BY COMPONENT									
For SI: 1 foot = 304.8 mm.									
Climate Zone	Fenestration U-factor ^a	Skylight U-factor	Glazed Fenestration SHGC	Ceiling R-value	Min. Average Log Size In Inches	Floor R-value	Basement Wall R-value ^d	Slab R-value & Depth ^b	Crawl Space Wall R-value ^d
5, 6 - High efficiency equipment path ^c	0.32	0.60	NR	49	5	30	15/19	10, 4 ft.	10/13
5	0.32	0.60	NR	49	8	30	10/13	10, 2 ft.	10/13
6	0.30	0.60	NR	49	8	30	15/19	10, 4 ft.	10/13

^aThe fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration.

^bR-5 shall be added to the required slab edge R-values for heated slabs.

^c90% AFUE natural gas or propane, 84% AFUE oil, or 15 SEER heat pump heating equipment (zonal electric resistance heating equipment such as electric base board electric resistance heating equipment as the sole source for heating is considered compliant with the high efficiency equipment path).

^d“15/19” means R-15 continuous insulated sheathing on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall. “15/19” shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulated sheathing on the interior or exterior of the home. “10/13” means R-10 continuous insulated sheathing on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall.

()

~~r. Delete Section R403.3.1 and replace with the following: R403.3.1 Duct insulation requirements. Supply and return ducts located in an attic space shall have an R-value of not less than R-8.~~ (—)

~~s. Delete Sections R403.3.6 and R403.3.7.~~ (—)

~~p. Delete Section R403.5.3 and replace with the following: R403.5.3 Hot water pipe insulation (Prescriptive). Insulation for hot water piping with a thermal resistance, R-value, of not less than R-3 shall be applied to the following: 1. Piping serving more than one (1) dwelling unit. 2. Piping located outside the conditioned space. 3. Piping located under a floor slab. 4. Buried piping. 5. Supply and return piping in recirculation systems other than demand recirculation systems.~~ (—)

~~q. Delete Section R404.1 and replace with the following: R404.1 Lighting equipment (Mandatory). A minimum of seventy-five percent (75%) of the lamps in permanently installed lighting fixtures shall be high-efficacy lamps or a minimum of seventy-five percent (75%) of the permanently installed lighting fixtures shall contain only high-efficacy lamps.~~ (—)

~~v. Delete Section R403 Systems. Delete.~~

~~w. Delete Section R404 Electrical Power and Lighting Systems. Delete.~~

~~x. Delete Section R405 Simulated Performance Alternative (Performance). Delete.~~

~~ry. Delete Section R406.3 and replace with the following: R406.3 Energy Rating Index. The Energy Rating Index (ERI) shall be determined in accordance with RESNET/ICC 301. Energy used to recharge or refuel a vehicle used for transportation on roads that are not on the building site shall not be included in the ERI reference design or the rated design.~~ Delete. ()

~~sz. Delete Table R406.4 Maximum Energy Rating Index. Delete and replace with the following:~~

Table R406.4 - Maximum Energy Rating Index

Climate Zone	Energy Rating Index ^a
5	68
6	68

^a Where on-site renewable energy is included for compliance using the ERI analysis of Section R406.4, the building shall meet the mandatory requirements of Section 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 Table R402.1.4 of the 2015 International Energy

Commented [MH18]: Should this be regulated by the Building Code Board? Are there other design parameters that can or should be considered prior to regulating the requirements of duct insulation?

Commented [MH19]: Should this be regulated by the building code board? Are LEDs considered a factor of life safety or consumer protection? Should this be allowed for consumer choice?

Commented [MH20]: Should these commercial provisions be regulated and enforced by the building code board? Are these items considered life safety and protect the occupant welfare? Or should they be consumer and builder choice?

Conservation Code. ()

~~05. **References to Other Codes.** Where any provisions of the codes that are adopted in this Section make reference to other construction and safety-related model codes or standards which have not been adopted by the involved authority having jurisdiction, to the extent possible, such reference should be construed as pertaining to the equivalent code or standard that has been duly adopted by such jurisdiction.~~ ()

Commented [MH21]: Codes adopted and enforced are addressed in statute.

~~005. — 025. — (RESERVED)~~

026002. DEFINITIONS.

The terms defined in this section have the following meaning for all parts of this chapter, unless the context clearly indicates another meaning: ()

~~01. **Listed.** Equipment or other building components included within a current list published by a recognized listing agency that maintains periodic inspection on current production of listed equipment or other building components and whose listing states either that the equipment or component complies with recognized standards or has been tested and determined to be suitable for the use intended.~~ ()

Commented [MH22]: I-codes provide substantive definition.

021. **Listing Agency.** A person, firm, association, partnership or corporation which is in the business of listing or labeling and which maintains a periodic inspection program on current production of listed materials, and which makes available, not less frequently than annually, a published report of such listing in which specific information is included that the product has been tested to nationally approved standards and found safe for use in a specified manner. ()

03. **Minor Alteration.** The following definition is used for the purpose of administering annual permits. ()

a. Minor alterations shall include, but are not limited to, the following: partition walls constructed within a defined room; relocation of or existing openings or installation of new doors and windows in non-load bearing walls and not in construction meant to compartmentalize fire; window replacement in unaltered existing openings; roof repairs involving installation of less than one hundred (100) square feet of new roof covering; and new suspended ceilings that are not part of a required fire resistive assembly. ()

b. Minor alterations shall not include: work that alters the fire resistive characteristics of the building or fire suppression systems; work that creates new openings in construction meant to compartmentalize fire such as fire walls, fire barriers, fire partitions, smoke barriers, smoke partitions, horizontal assemblies, shaft enclosures, stair enclosures; work that increases the floor area or height of the building; work that changes the structural load path of the building for gravity or horizontal loads; work that reduces the thermal resistant capacity of the building envelop; changes in the occupancy classification of the building or space; increases in the floor loads. ()

027500. PERMITS AND PLAN REVIEW.

~~01. **Building Permits.** Building permits shall be obtained from the Division prior to the construction of structures governed by the act or rules promulgated by the Board.~~ ()

Commented [MH23]: Addressed in 39-4111.

021. **Annual Permit.** In lieu of an individual permit for each minor alteration to an already approved building, the Division may issue an annual permit upon application therefor to any state agency or state governmental organization regularly employing one (1) or more qualified trade persons in the building, structure or on the premises or campus owned or operated by the applicant for the permit. The agency to whom an annual permit is issued shall keep a detailed record of alterations made under such annual permit. The Division shall be allowed access to such records ~~at all times~~ upon request or such records shall be filed with the Division as designated. The permit holder shall request inspections and make the work accessible for inspection as required by the adopted codes and ~~this rule~~ herein. ()

~~028. — PLAN REVIEW.~~

~~01. **Jurisdiction.** The Division shall have exclusive jurisdiction and authority to conduct plan reviews of the construction, additions, repairs, and occupancy of all state buildings of any agency of government at the state level for any purposes or occupancy regardless of the source of funding for such construction, addition, repair, or occupancy.~~ ()

Commented [MH24]: Addressed in 39-4113.

~~02. **Plans Specifications.** Construction documents shall be dimensioned and drawn upon suitable material. Plans may be submitted electronically or in digital format as approved by the Division. Drawing format shall be equivalent to the paper format. Construction documents shall be of sufficient clarity to indicate the location, nature, and extent of the work proposed and show in detail that the installations will conform to the provisions of the building code and applicable laws, rules, and policies of the Division.~~ ()

Commented [MH25]: Unnecessary code language.

~~03. **Plans Not Required.** Plans are not required for group U occupancies of Type V conventional light-frame wood construction.~~ ()

~~04. **Addenda and Change Orders.** Documents enforcing changes or modifications. Addenda, contract change orders, changes in work requests, and other similar written documents enforcing changes or modifications to plans or specifications, already approved by the Division, which addenda, change orders, or change in work requests deal with structural or fire resistance changes, or such other changes affecting code conformance, shall be submitted to the Division for approval. The use of the terms "addenda," "change orders," and "changes in work requests" are not be limited exclusively to such phraseology, but may include such other language used in the professions which essentially have the same meaning.~~ ()

Commented [MH26]: Unnecessary code language attempting to address too many variables.

029 03. Fees.

~~01a. **Technical Service Fee.** One hundred dollars (\$100) per hour.~~ ()

~~02b. **Building Permit Fees.**~~

The determination of value or valuation will be made by the administrator and includes the total value of all construction work for which a permit is issued.

TABLE 1-A—BUILDING PERMIT FEES	
Total Valuation	Fee
\$1 to \$500	= \$23.50
\$501 to \$2,000	= \$23.50 for the first \$500 plus \$3.05 for each additional \$100, or fraction thereof, to and including \$2,000
\$2,001 to \$25,000	= \$69.25 for the first \$2,000 plus \$14 for each additional \$1,000, or fraction thereof, to and including \$25,000
\$25,001 to \$50,000	= \$391.75 for the first \$25,000 plus \$10.10 for each additional \$1,000, or fraction thereof, to and including \$50,000
\$50,001 to \$100,000	= \$643.75 for the first \$50,000 plus \$7 for each additional \$1,000, or fraction thereof, to and including \$100,000
\$100,001 to \$500,000	= \$993.75 for the first \$100,000 plus \$5.60 for each additional \$1,000, or fraction thereof, to and including \$500,000

\$500,001 to \$1,000,000	= \$3,233.75 for the first \$500,000 plus \$4.75 for each additional \$1,000, or fraction thereof, to and including \$1,000,000
\$1,000,001 to \$5,000,000	= \$5,608.75 for the first \$1,000,000 plus \$3.65 for each additional \$1,000, or fraction thereof, to and including \$5,000,000
\$5,000,001 to \$10,000,000	= \$20,208.75 for the first \$5,000,000 plus \$2.75 for each additional \$1,000, or fraction thereof, to and including \$10,000,000
\$10,000,001 and up	= \$33,958.75 for the first \$10,000,000 plus \$2 for each additional \$1,000, or fraction thereof

()

03c. Fees for Annual Permits. A fee for inspections performed on annual permits shall be charged at the rate of one hundred dollars (\$100) per hour inspection. The Division shall bill the applicant for annual permits and failure of the applicant to pay the fee within sixty (60) days may result in cancellation of the annual permit. ()

Commented [MH27]: To remain consistent with all other inspection fees within BCRE bureau - operations.

04d. Plan Review Fees. Plan review fees shall be charged at an hourly rate of one hundred dollars (\$100) per hour up to a maximum of sixty-five percent (65%) of the calculated building permit fee with a minimum required fee of forty percent (40%) of the calculated building permit fee. All requests for plan review services shall at such time be accompanied by a payment in the amount of at least forty percent (40%) of the calculated building permit fee. Upon completion of the plan review, any additional fees, above the minimum required, are due to the Division by the requesting party. ()

05e. Refund of Plan Review Fees. Plan review fees are non-refundable. ()

030. — RIGHT OF ENTRY.

~~Whenever necessary to make an inspection to enforce any of the provisions of Title 39, Chapters 40 and 41, Idaho Code, or whenever the administrator or his authorized representative has reasonable cause to believe that there exists in any building or upon any premises, any condition which makes such building or premises unsafe, the administrator or his authorized representative shall enter such building or premises at all reasonable times to inspect the same or to perform any duty imposed upon the Division by Title 39, Chapters 40 and 41, Idaho Code; provided that if such building or premises is occupied, he shall first present proper credentials and demand entry; and if such building or premises be unoccupied, he shall first make a reasonable effort to locate the owner or other persons having charge or control of the building or premises and demand entry. If such entry is refused, the administrator shall have recourse to every remedy provided by law to secure entry.~~ ()

Commented [MH28]: Addressed in Chapter 1 of both IRC & IBC.

031. — WORK PROCEEDING WITHOUT PERMIT OR APPROVAL.

~~Where any work for which a permit or approval, to include plan or system approval, is required by these rules, or by the codes enumerated in Title 39, Chapter 41, Idaho Code, is started or proceeded prior to obtaining said approval or permit, and after notice to such person doing or causing such work to be done, and such person continues or causes to continue such work, the fees specified in these rules shall be doubled, but the payment of such double fee shall not relieve any persons from fully complying with the requirements of Title 39, Chapter 41, Idaho Code, or these rules in the execution of the work nor from any other penalties prescribed by law.~~ ()

Commented [MH29]: Addressed in Chapter 1 of both IRC & IBC.

032. — STOP WORK ORDERS.

~~Whenever any work is being done contrary to any provisions of the codes enumerated in Title 39, Chapter 41, Idaho Code, or contrary to these rules, the administrator or his authorized representative may order the work stopped by notice in writing to any persons engaged in such work, and any such persons shall forthwith stop such work until authorized by the administrator or his representative to proceed with the work. Stop work orders shall be accompanied by a notice of violation that states the specific violation and code reference.~~ ()

Commented [MH30]: Addressed in Chapter 1 of both IRC & IBC.

033. — 037. — (RESERVED)

038200. INTEGRATED DESIGN AND FUNDAMENTAL COMMISSIONING OF PUBLIC SCHOOL FACILITIES.

01. Definitions. The following definitions are intended to supplement, and should be read in conjunction with the definitions contained in Section 33-356, Idaho Code. ()

a. Fundamental Commissioning. A quality-focused process for enhancing the delivery of a project. It makes use of a qualified third party employed directly by the building owner. ()

b. Integrated Design. Integrated design refers to a collaborative design effort in which each of the individual architectural or engineering professionals focuses on the whole building approach, with an emphasis on optimizing the building's performance, environmental sustainability, and cost-savings, to include climate, use, loads and systems resulting in a more comfortable and productive environment, and a building that is more energy-efficient than would be realized using current best practices. ()

Commented [MH31]: Duplicative of 33-356(2)(a) & (b).

021. Technical and Educational Information. Technical and educational information related to integrated design and fundamental commissioning in the form of the American Institute of Architects Integrated Project Delivery Guide; Portland Energy Conservation, Inc. (PECI) Commissioning Guides; ASHRAE Guideline 0-2005-The Commissioning Process; and the Northwest Energy Efficiency Alliance Integrated Design Special Focus on Energy Performance Guide is available at the Division's website office locations including 1090 E. Watertower St., Meridian, Idaho 83642, and 1250 Ironwood Dr., Ste. 220, Coeur d'Alene, Idaho 83814. A building commissioned under the prescriptive approaches defined by any of the above-named national organizations is deemed to have completed the Fundamental Commissioning process. ()

032. Commissioning Agents. The Division has compiled and made available for public examination a list of all known third party building commissioning agents in Idaho and its contiguous states. The Division has ensured that all such commissioning agents appearing on this list have been certified by the Building Commissioning Association (BCA) or other similar certifying entity. ()

043. Annual Optimization Review. ()

a. A public school building that qualifies for the school building replacement value calculation pursuant to Section 33-356(5)(a), Idaho Code, shall undergo an annual optimization review each year following the first year of operations that the involved school district seeks to qualify such building for the building replacement value calculation. ()

Commented [YD32]: Duplicative of Idaho Code 33-356(1)(c).

ba. The systems within a building required to undergo annual optimization review, as well as any relevant measuring criteria for such systems, shall be formulated by the third party commissioning agent that performs the initial fundamental commissioning. The school district shall be provided with a written report from the commissioning agent identifying the systems which will be subject to the annual optimization review along with any other requirements. The third-party commissioning agent who performed the initial fundamental commissioning for a public school building must provide the school district with a written report identifying the systems which will be subject to the Idaho Code Section 33-356 annual optimization review and identifying the system requirements and/or other relevant measuring criteria. ()

Commented [YD33]: I rewrote this section for clarity.

c. The written report required above in Paragraph 038.043.b. of these rules shall, at a minimum, include, but is not limited to, at least the following: ()

i. Verification that the heating, ventilation, and air conditioning (HVAC) systems, controls, dampers, valves, sensors and other equipment used to control the system are functioning as they were at the commissioning of the building; ()

ii. Verification that the lighting controls are functioning as they were at the commissioning of the building; and ()

iii. The requirement that any changes made to any of the controls contained on the agent's list after the initial commissioning be re-set back to the commissioned settings unless it can be demonstrated that the new settings result in greater energy efficiency. ()

~~eb.~~ The annual optimization review shall be performed by persons qualified to make the required determinations and adjustments. ()

~~ec.~~ Following the annual optimization review, the school district shall submit to the Division written verification indicating (1) that the systems identified by the commissioning agent, including those identified in this Section are functioning as they were at the initial commissioning; and (2) the persons performing the optimization and their qualifications. ~~Such written verification shall also identify~~ ()

~~0545.~~ **Commissioning Anniversary Date.** The date upon which the commissioning agent provides the school district with the required written report described in ~~Rule 200.04.a.Paragraph 038.043.b. of these rules shall be is~~ the commissioning anniversary date for purposes of this Section. If a school district seeks to qualify a building for the building replacement value calculation, the annual optimization review shall be performed within thirty (30) days of the annual commissioning anniversary date following the first year the building is in operation. The written verification required by ~~Rule 200.04.c.Paragraph 038.03.e. of these rules~~ is due to the Division not later than sixty (60) days after the annual commissioning anniversary date. ()

~~06503.~~ **Fundamental Building Commissioning Requirements.** ()

a. School districts seeking to qualify a building for the building replacement value calculation shall engage a building commissioning agent. ()

b. The commissioning agent must document the owner's requirements for each commissioned system in the facility. All HVAC and controls systems, duct work and piping, renewable and alternative technologies, lighting controls and day lighting, waste heat recovery, and any other advanced technologies incorporated in the building must be commissioned. Building envelope systems must also be verified. The owner's requirements for these systems may include efficiency targets and other performance criteria such as temperature and lighting levels that will define the performance criteria for the functional performance testing that occurs prior to acceptance. ()

c. The commissioning agent shall include commissioning requirements in the project construction documents. This includes the scope of commissioning for the project, the systems to be commissioned, and the various requirements related to schedule, submittal reviews, testing, training, O & M manuals, and warranty reviews. ()

d. The commissioning agent shall develop and utilize a commissioning plan. This plan must include an overview of the commissioning process for the project, a list of commissioned systems, primary commissioning participants and their roles, a communication and management plan, an outline of the scope of commissioning tasks, a list of work products, a schedule, and a description of any commissioning testing activities. ()

e. The commissioning agent must submit a report to the owner once the commissioning plan has been executed. ()

~~039. - 999.~~ ~~(RESERVED)~~

Commented [YD34]: In the clean copy, I moved this section before the annual optimization.