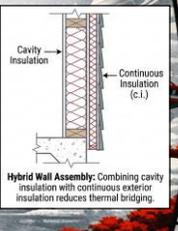






Slide 7

Climate Zone 5 and Marine 4	
Vertical Fenestration <sup>1,2</sup> U-Factor	0.27
Skylight <sup>3</sup> U-Factor	0.50
Ceiling <sup>4</sup> R-Value	50
Insulation Entirely Above Roof Deck	30ci
Wood Frame Wall <sup>5</sup> R-Value	30 or 20+5ci or 13+10ci or 0 +20ci
Floor R-Value	30 or 19+7.5ci or 20ci
Below-Grade Wall <sup>6</sup> R-Value	10/15/21 int + 5TB
Unheated Slab <sup>7</sup> R-Value and Depth	10, 4 ft.
Heated Slab <sup>8</sup> R-Value and Depth	10, 3 ft and R-10 full slab



Slide 8

- 1 foot = 304.8 mm, ci = continuous insulation, int = intermediate framing.
- R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the compressed R-value of the insulation from Appendix CA Table CA101.4 of chapter 51-11C WAC shall not be less than the R-value specified in the table.
- The fenestration U-factor column excludes skylights.
- \*10/15/21+5TB\* means R-10 continuous insulation on the exterior of the wall, or R-15 on the continuous insulation on the interior of the wall, or R-21 cavity insulation plus a thermal break between the slab and the basement wall at the interior of the basement wall. \*10/15/21+5TB\* shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the wall. \*TB\* means R-5 thermal break between floor slab and basement wall.
- Slab insulation shall be installed in accordance with Section R402.2.9.1.
- \* For existing single rafter- or joist-vaulted ceilings, the insulation may be reduced to R-38 if the full insulation depth extends over the top plate of the exterior wall.
- R-7.5 continuous insulation installed over an existing slab is deemed to be equivalent to the required perimeter slab insulation when applied to existing slabs complying with Section R503.1.1. If foam plastic is used, it shall meet the requirements for thermal barriers protecting foam plastics.

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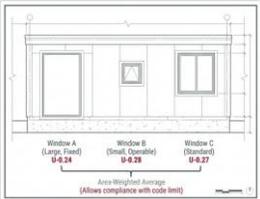
### FENESTRATION AND GLAZING MANAGEMENT (R402.3 - R402.4)

**Key Metrics**

- Vertical Fenestration<sup>1</sup>: Maximum U-Factor 0.27
- Skylights: Maximum U-Factor 0.50

**Design Flexibility**

- **Area-Weighted Average (R402.4.1):** Permitted to satisfy U-factor requirements. High-performance fixed glass can offset standard operable units.
- **Exemption (R402.4.3):** Up to 15 sq. ft. of glazing per dwelling unit is exempt from U-factor/SHGC rules (e.g., decorative glass).







Slide 16

**THE CREDIT OPTIONS MENU (TABLE R406.3)**

- 1. Envelope**  
Lower U-factor windows (U-0.18), advanced framing.
- 2. HVAC**  
High-efficiency Heat Pumps (HSPF2 8.4+), Ground Source Heat Pumps.
- 3. Water Heating**  
Heat Pump Water Heaters (Tier 2/3), Drain Water Heat Recovery.
- 4. Air Leakage**  
Reducing leakage below 2.0 ACH.
- 5. Renewables**  
Solar PV generation (credits per kWh).
- 6. Appliances**  
Energy Star packages (Dryer, Washer, Dishwasher).

Note: Credits are designed to equalize energy use between gas and electric systems (R406.2).

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**SIMULATED PERFORMANCE & ERI (R405 & R408)**

**Simulated Performance (R405)**

- Compares **Proposed Design** vs. **Standard Reference Design**.
- Analysis includes heating, cooling, ventilation, and water heating.
- **Constraint:** Must still meet mandatory envelope and system requirements.

**Energy Rating Index (R408)**

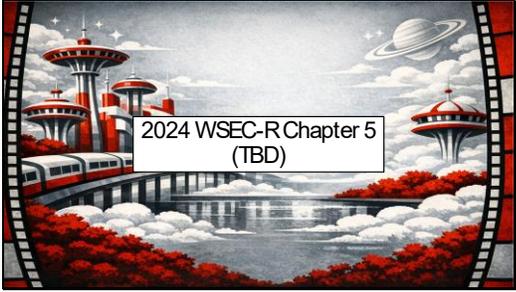
- Uses ANSI/RESNET/ICC 301 standards.
- **Targets (Table R408.5):** Requires **specific ERI score** (e.g., 52-58) based on home size.
- Requires approved third-party verification.

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**Key possible takeaways:**

- New units' size with corridor loaded dwellings
- New credit requirements based on size with several size categories were added.
- Multifamily lighting calculations
- Cool roof calculation
- New target U-factors
- Water heating location space requirements
- Electric ready requirements for dwelling appliances
- Optional Solar roof designated area
- ERI index was added as a pathway for compliance, you will align the home based on its energy characteristics against a chart.
  - Size category (9 or 10 ish)
  - Heating types (3 to 5 ish)
  - And you would match them up for your target.

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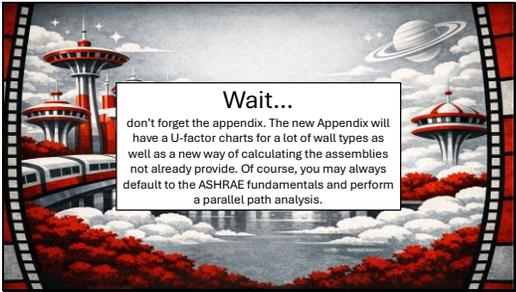
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Slide 20



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Slide 21



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Slide 22

**The Core Philosophy**  
The "No Less Conforming" Rule

R503.1: Alterations shall be such that the existing building uses no more energy than it did prior to the alteration.

R501.1: Unaltered portions of the building are NOT required to comply.

Maintenance & Safety      Efficiency

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Slide 23

**Categorizing Your Project**  
The Decision Tree

**PROJECT TYPE**

- ADDITION**  
Extension of conditioned floor area or height; (New Space).  
Code: R202/R502.
- ALTERATION**  
Retrofit or system changes within existing space. (Improvement).  
Code: R202/R503.
- REPAIR**  
Fixing damaged components. (Restoration).  
Code: R504.

**WARNING:** Must be damaged. Do not confuse with renovation.

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**Additions: The "New Construction" Standard**  
Section R502

**The Rule:** Additions must meet the same requirements as New Construction (Chapter 4) for all new portions.

**Envelope (R502.2.1):** Walls, ceilings, and floors must meet current Table R402.1.2 U-factors.

**Exception: The UA Trade-off**  
**Formula:**  
(Existing UA + Addition UA) ≤ (Existing UA)  
Use this when converting porches or unconditioned spaces to gain design flexibility.

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