

**OVERVIEW**

Honolulu County adopted the 2015 IECC with amendments in June 2020, and the Honolulu amendments incorporate those adopted by the State of Hawaii on March 21, 2017 with some changes. This supplemental checklist includes only the requirements that differ in Honolulu County compared to the State amendments. The complete requirements of the 2015 IECC with State amendments are described in a separate checklist. See <https://energy.hawaii.gov/hawaii-energy-building-code>.

**AMENDED TROPICAL ZONE REQUIREMENTS**

Component/System	Requirement	Code Section	Plan Review Notes	Info on Plans
<b>Windows</b> – solar heat gain coefficient (SHGC)	<p>≤ <b>0.25</b> if projection factor &lt; 0.30                      ≤ <b>0.40</b> if projection factor 0.30-0.50                      N/A: projection factor ≥ 0.5.                      N/A: north windows if PF &gt; 0.20</p> <p><u>Jalousie windows exempt from SHGC requirement</u></p>	R401.2.1	<p>SHGC = solar heat gain factor.</p> <p>Low SHGC typically requires dual-pane glazing with a low-emittance coating that is designed to reduce solar heat gain.</p> <p>Projection factor = horizontal projection of overhang ÷ vertical distance from overhang to bottom of window.</p> <p>Overhang must extend at least 2 ft on each side of the window or to the nearest wall, whichever is less.</p>	<p><input type="checkbox"/> SHGC indicated on plans</p> <p><input type="checkbox"/> Overhang dimensions on plans, if applicable</p>
<b>Ceiling fans</b>	<p>Ceiling fans or rough-ins or <u>whole-house fan</u> required for:</p> <ul style="list-style-type: none"> <li>▪ Each bedroom</li> <li>▪ Largest space not used as a bedroom</li> </ul>	R401.2.1		<p><input type="checkbox"/> Ceiling fan locations on plans</p>

## AMENDED PRESCRIPTIVE REQUIREMENTS

Component/System	Requirement	Code Section	Plan Review Notes	Info on Plans
<b>Wall</b> – mass (CMU or concrete)	<input type="checkbox"/> <b>R-3</b> exterior, <b>R-4</b> interior or <b>U-0.197</b> <input type="checkbox"/> <i>Total UA alternative</i> , or <input type="checkbox"/> <i>Points option</i> <input type="checkbox"/> <u>Exception: No insulation required if reflectance <math>\geq 0.64</math>, shading PF <math>\geq 0.3</math>, or <math>\geq 6</math> inches thick</u>	R402.1	Requires either exterior or interior insulation, typically foam board. CMU integral insulation does not comply.  No insulation is required if the mass wall has an exterior visible light reflectance of at least 64% or the wall is shaded with overhangs with projection that is at least 0.3 times the height of the wall, <u>or the wall is at least 6 inches thick.</u>	<input type="checkbox"/> Insulation location on plans <input type="checkbox"/> Insulation R-value on plans <input type="checkbox"/> Wall surface visible light reflectance on plans (if applicable)
<b>Windows &amp; skylights</b>	SHGC $\leq 0.25$ Area-weighted average permitted as long as no window or skylight has SHGC $> 0.50$ . Up to 15 ft <sup>2</sup> exempt.  <u>Jalousie windows exempt</u>	R402.3	SHGC is solar heat gain coefficient. Typically requires dual-pane glazing with a low-emittance coating that is designed to reduce solar heat gain. The 15 ft <sup>2</sup> exemption allows a small amount of clear glazing.	<input type="checkbox"/> SHGC indicated on plans
<b>Air leakage – sampling</b>	<u>Allows RESNET sampling procedures for air leakage testing for builders of multiple single-family homes and multi-family units</u>	R402.4.1.3	Section R402.4.1.2 requires envelope air leakage testing. This added section permits builders to test only a sample of units in a larger development. The amendment references Chapter 6, “Standard for Sampled Ratings” of the current RESNET National Home Energy Rating System Standards.	
<b>Ceiling fans</b>	A ceiling fan or <u>whole-house fan ceiling fan rough-in</u> is provided for bedrooms and the largest space that is not used as bedroom.  <u>Exception for production homes, where a ceiling fan junction box is required and ceiling fan equipment is provided as a buyer’s option.</u>	R404.2		<input type="checkbox"/> Ceiling fan locations on plans

Component/System	Requirement	Code Section	Plan Review Notes	Info on Plans
<b>Solar conduit and electrical panel readiness</b>	<u>Requires installation of conduit and planning for solar photovoltaic system.</u>	R404.2	<p><u>Plans show location for inverters, metering equipment, battery equipment, energy storage equipment, and other equipment required to interconnect with the electrical grid.</u></p> <p><u>New single-family, two-family detached and duplexes have electrical panel to accommodate ≥5 kWAC photovoltaic system.</u></p> <p><u>New multi-family buildings have panel to accommodate a system sized for the common area or for the roof space available.</u></p> <p><u>Panel must include space reserved and labeled as solar PV ready.</u></p> <p><u>Conduit ≥1.5 inches must be installed from panel to inverter location and from inverter location to the underside of the roof.</u></p>	
<b>Electric vehicle readiness</b>	<u>A dedicated receptacle must be provided for each enclosed attached garage to support AC Level 2 charging.</u>	R404.3	<u>AC Level 2 is defined as 208 to 240V AC, 1-phase, minimum 16A for enclosed attached residential garages</u>	

## ADDITIONS AND ALTERATIONS

Component/System	Requirement	Code Section	Plan Review Notes	Info on Plans
<p><b>Alterations</b> – roof replacement</p>	<p>Replacement of uninsulated roofs include at least two of the following:</p> <ul style="list-style-type: none"> <li>▪ <u>EnergyStar compliant covering</u></li> <li>▪ <u>Radiant barrier, or</u></li> <li>▪ <u>Attic ventilation via solar fan(s), ridge ventilation or gable vents</u></li> <li>▪ <u>A minimum of two exceptions listed in C402.3</u></li> </ul> <p><u>Exception: shake roofs on battens must be replaced with materials that result in equal or improved energy efficiency.</u></p>	<p>R503.1.1</p>	<ul style="list-style-type: none"> <li>• Any new roof must meet the requirements for a new roof.</li> <li>• No requirements for roof recover.</li> </ul>	

## AMENDED POINT SYSTEM

### Points Option for Dwellings with Mass Walls (see the full residential checklist for wood and metal framed walls)

Measure	Standard Home Points	Tropical Home Points
R-3/4 insulation	0	1
R-0 wall insulation	-1	0
R-0 Wall Insulation + high reflectance walls <sup>4</sup>	0	1
R-0 wall insulation + 90% high efficacy lighting and Energy Star Appliances <sup>5</sup>	1	2
R-0 Wall Insulation + exterior shading wpf=0.3 <sup>6</sup>	0	1
R-19 Roof Insulation	-1	0
R-19 + Cool roof membrane <sup>1</sup> or Radiant Barrier <sup>3</sup>	0	1
R-19 Roof Insulation + Attic Venting <sup>2</sup>	<u>0</u>	<u>1</u>
R-30 Roof Insulation	0	1
Ductless Air Conditioner <sup>7</sup>	<u>1</u>	<u>1</u>
1.071 X Federal Minimum SEER for Air Conditioner	<u>1</u>	<u>1</u>
1.142 X Federal Minimum SEER for Air Conditioner	<u>2</u>	<u>2</u>
No air conditioning installed	<u>Not Applicable</u>	<u>2</u>
House floor area ≤ 1,000 ft <sup>2</sup>	<u>1</u>	<u>1</u>
House floor area ≥ 2,500 ft <sup>2</sup>	<u>-1</u>	<u>-1</u>
Energy Star Fans <sup>8</sup>	<u>1</u>	<u>1</u>
Install 1 kW or greater of solar electric	<u>1</u>	<u>1</u>