

# Residential Stretch Plan Review Checklist: Energy Rating Index Path



This checklist is applicable to residential new construction, changes of occupancy to dwelling units, additions greater than 1,000 sqft or 100% of the existing conditioned floor area, and alterations where the work area exceeds 50% of the area of the dwelling unit and is greater than 1,000 sqft or 100% of the existing conditioned floor area.

## PROJECT INFORMATION.....

Applicant Name: \_\_\_\_\_ Applicant Phone: \_\_\_\_\_

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

Project type:

- New construction     Large Addition     Extensive Alteration     Changes of Occupancy or Use

## DOCUMENTATION .....

- A **Home Energy Rating Certificate - Projected Report - Based on Plans** has been provided.

## INFORMATION ON CONSTRUCTION DOCUMENTS (R103.2) .....

- A note indicating the energy code compliance path is the Energy Rating Index Path
- Insulation materials, depth, and R-values
- Fenestration U-factors and solar heat gain coefficients (SHGC)
- Mechanical system design criteria (Manual J, Manual D, and Manual S reports)
- Mechanical and service water heating systems and equipment types, sizes, and efficiencies
- Equipment and system controls
- Duct sealing, duct and pipe insulation and location
- Air sealing details

## SOLAR-READY .....

- Solar-Ready Zone per Appendix RB is indicated in construction documents, or an exception is selected below with applicable documentation provided.

Exceptions - Check one if applicable:

- Additions under 1,000 sqft
- 1- & 2-family dwellings & townhouses with < 600 sqft of roof area oriented between 110 & 270 of true north
- Buildings with a permanently installed onsite renewable energy system
- Buildings with a solar-ready zone that is shaded for more than 70 percent of daylight hours annually
- Buildings and dwelling units complying with Appendix RC Sections RC102 or RC105

## ELECTRIC VEHICLE WIRING .....

- For one- and two-family dwellings and townhouses with on-site parking at least one EV Ready Space is shown. For Group R buildings: At least 20% of installed spaces are shown as EV Ready. Exception: onsite parking is not provided, or parking is separated from the dwelling by a public right of way.
- Electrical site plan shows wiring from the electrical service to within six feet of each EV Ready Space

## CLEAN ENERGY APPLICATION: .....

*Fuel type:*

- Mixed-fuel building (contains combustion equipment or piping for such equipment)
- All-electric building (does not contain combustion equipment or piping for such equipment)

*Solar electric generation*

Do the construction documents include provisions for onsite electricity generation rated at 4 kW or higher?

- Yes
- No

Based on the boxes checked above, check the appropriate maximum HERS Index below:

Clean Energy Application	Maximum HERS Index Score		
	New Construction until June 30, 2024	New Construction Permits after July 1, 2024	Major Alterations, Additions, or Change of Use
Mixed-Fuel Building	<input type="checkbox"/> 52	<input type="checkbox"/> 42	<input type="checkbox"/> 52
Solar Electric Generation	<input type="checkbox"/> 55	<input type="checkbox"/> 42	<input type="checkbox"/> 55
All-Electric Building	<input type="checkbox"/> 55	<input type="checkbox"/> 45	<input type="checkbox"/> 55
Solar Electric & All-Electric Building	<input type="checkbox"/> 58	<input type="checkbox"/> 45	<input type="checkbox"/> 58

**MANDATORY REQUIREMENTS** .....

Check with AHJ to determine if the following items will be verified by the code official or by the HERS Rater.

Complies?			Mandatory Requirements per Table R406.2	
Y	N	NA		
<b>General</b>				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R401.3	Certificate in utility room or approved location to be installed
<b>Building Thermal Envelope</b>				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R402.1.1	Vapor retarders installed per MA Residential Code R702.7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R402.2.3	Eave Baffles to be installed in each bay
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R402.2.4.1	Access hatches and doors to have retainer for loose-fill insulation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R402.2.10.1	Crawl space wall insulation installation installed per MA Residential Code
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R402.4.1.1	Installation - Air barrier and insulation installation criteria shown on plans
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R402.4.1.2	Testing - Blower door test to be performed. Max 5 ACH50.
<b>Mechanical</b>				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R403.1	<input type="checkbox"/> Controls - At least one thermostat per heating and cooling system <input type="checkbox"/> Programmable thermostat is specified <input type="checkbox"/> Heat pump supplementary heat does not operate when not needed
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R403.3	Ducts (except R403.3.2, R403.3.3, and R403.3.6) <input type="checkbox"/> Ducts outside conditioned space ≥ R-8 (≥ R-6 if duct is < 3" diameter) <input type="checkbox"/> Ducts to be sealed and airtight air handler is specified <input type="checkbox"/> Duct leakage testing to be conducted <input type="checkbox"/> No building cavities to be used as ducts
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R403.4	Mechanical system piping insulation - Piping > 105F or < 55F to be insulated to R-3
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R403.5.1	Heated water circulation and temp. maintenance systems have proper controls
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R403.5.3	Drain water heat recovery units (only if present)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R403.6.1	Heat or energy recovery ventilation (HRV/ERV) - HRV/ERV is specified
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R403.7	Equipment sizing and efficiency rating - Manual J report provided.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R403.8	System serving multiple dwelling units - Comply with C403 and C404 (commercial)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R403.9	Snow and ice melt systems - Controls specified
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R403.10	Energy consumption of pools and spas - Heater controls, pool covers
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R403.11	Portable spas meet APSP 14
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R403.12	Residential pools and permanent residential spas meet APSP 15
<b>Electrical Power and Lighting Systems</b>				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R404.1	Lighting equipment - All permanently installed lighting to be LED (except kitchen appliance lights)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R404.2	Interior lighting controls - Dimmers or occupant sensors specified
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R404.4	Wiring for electric vehicle charging spaces

ENERGY CODE SUPPORT HOTLINE: 855-757-9717      EMAIL: ENERGYCODESMA@PSDCONSULTING.COM

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