# Massachusetts Energy Code
## Residential New Construction Permit Application and Plan Review Checklist

Version 1.0

*This page is to be completed by the permit applicant and submitted to the local building department with other required permit application documents.

Applicant Name: _____ Applicant Phone: _____

Project Address: _____ Date: _____

Select a compliance path (R401.2)

☐ Path 1 (Prescriptive) ☐ Path 2 (ERI and Stretch Code) ✓ Mandatory Requirements (All projects)

**Path 1. Prescriptive: Sections R401 – R404 & R407:** Indicate page number in plans & specifications where details are found: _____

| | Windows & Doors | Skylights | Ceilings | Wood frame walls | Mass walls | Floors | Basement walls | Slab insulation / depth | Crawlspace walls |
|---|---|---|---|---|---|---|---|---|---|
| ☐ **Option A:** R-value (R402.1.2) | Maximum value | | Minimum value | | | | | | |
| | U-0.30 | U-0.55 | R-49 | R-20 or R-13+5 | R-13 / R-17 | R-30 | R-15 / R-19 | R-10 / 2 ft. | R-15 / R-19 |
| ☐ **Option B:** Equivalent U-factor (R402.1.4): Must include calculations | Maximum value | | | | | | | | |
| | U-0.30 | U-0.55 | U-0.026 | U-0.060 | U-0.082 | U-0.033 | U-0.050 | U-0.1 / 2 ft. | U-0.055 |

☐ **Option C:** Total UA alternative (R402.1.5 plus MA amendment R402.1.5.1) ☐ REScheck™ version 4.6.5 or later ☐ REScheck-Web™

\+ **Additional Efficiency Packages (R407.1)** All prescriptive projects must comply with one of the options to the right. Select one.

☐ More Efficient HVAC performance (R407.2)
☐ Heat or energy recovery ventilation system (R403.6.1)
☐ High efficiency water heating or solar thermal hot water heating (R407.3)

**Path 2. Energy rating index (ERI) and Approved Alternatives (R406): MANDATORY FOR STRETCH CODE** (optional path in non-stretch communities). Documentation must be submitted prior to issuing building permit. Select one method below.

☐ **Option A. RESNET HERS rating with MA amendments: Submittal must include:** Preliminary HERS rating with Index score less than or equal to Table R406.4, description of energy features, and a statement that the rating index score is "based on plans".

**Table R406.4**

| Maximum HERS Index | |
|---|---|
| New construction | Whole house renovations; additions |
| 55 | 65 |

Note: Higher HERS Index scores are permitted for projects that include renewable energy generation. See MA 780 CMR Chapter 11 Table R406.4

☐ **Option B. Certified ENERGY STAR® homes, version 3.1 (R406.1.1): Submittal must include:** Preliminary HERS rating, description of energy features, and a statement that the rating index score is "based on plans".

☐ **Option C. Passive House Institute US or Passive House Institute certification: Submittal must include:** WUFI or PHPP compliance report which demonstrates compliance with PHIUS+2018 (or newer) or PHI performance requirements, a statement that the WUFI or PHPP results are "based on plans", and evidence of PHIUS or PHI precertification approval.

**General Mandatory Requirements (ALL PROJECTS):**

☐ **Air sealing and insulation to be installed per Table R402.4.1.1**

☐ **Blower door test to be completed (R402.4.1.2)** Building envelope leakage must be ≤ 3 ACH50

☐ **Ducts to be pressure tested** by a HERS Rater, HERS RFI, or BPI Certified Pro. Exception: All ducts/air handlers are inside (R403.3.3.)

☐ **Boiler temperature setback control indicated in specifications (R403.2) on page #** _____

☐ **Mechanical ventilation rate (R403.6):** _____ CFM

Method by which ventilation rate was calculated (select one):
☐ 1. Equation 4-1 (R406.3)
☐ 2. ENERGY STAR® Homes v3.1
☐ 3. ASHRAE 62.2-2013
☐ 4. MA amendment formula

☐ **Heating and cooling load calculations (Manual J) and Equipment Selection report (Manual S) to be submitted (R403.7)**

☐ **Solar Ready Zone indicated in construction documents on page # _____ (RA101.1 through 103.6 and RA103.8)** Note: This requirement applies only to new construction of one- and two-family dwellings and townhouses, excluding additions, and has the following exceptions:
1. less than 600 square feet of roof area is oriented between 110° and 270° of true north;
2. buildings with a permanently installed on-site renewable energy system;
3. buildings with a solar-ready zone that is shaded for more than 70 percent of daylight hours annually.