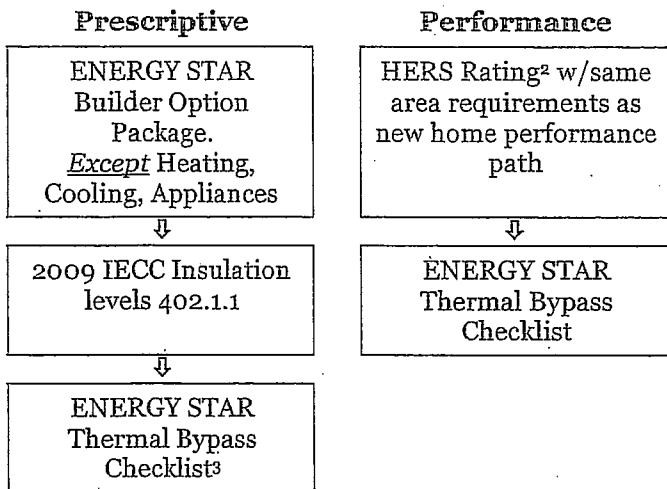
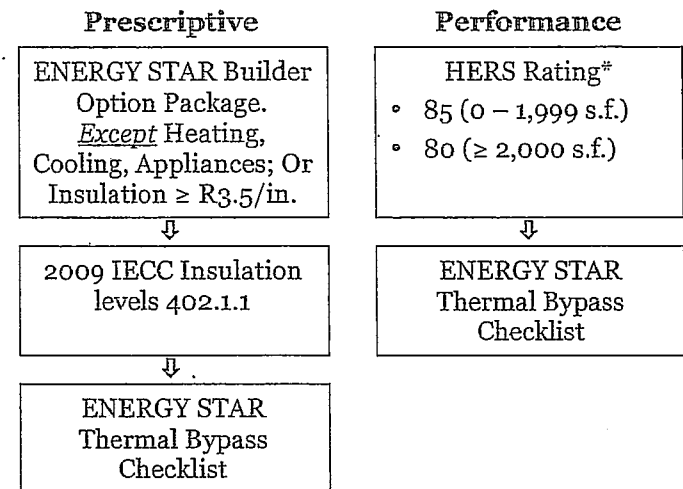


Residential Stretch Energy Code Requirements¹ for:

Additions – of any size [Sections 401.3 and 401.4]



Alterations, Renovations, and Repairs [Sections 401.5 and 401.6]



EXAMPLES of Additions

- Stretch Code applies to additions of any size.
- With the prescriptive option, only the addition has to meet the Stretch Code and the Thermal Bypass Checklist; energy upgrades are not required for the existing home (e.g., new heating system, new windows, more insulation, etc.).
- Appliance choices for a kitchen located in a new addition are exempted by the Stretch Code.
- If the HVAC contractor installs a new heating/cooling system in the addition, just the basic energy code would apply, NOT the heating system specs of the Builder Option Package.
- If the builder chooses the performance option for compliance, a HERS rating on the whole house, including the addition, would be required at the same HERS Index as a new home (65/70). This option would also require the Thermal Bypass Checklist.

EXCLUSIONS

- Heating/cooling and water heating equipment located in the addition, because they are regulated by the Federal Government, not the State.
- Appliances serving the addition.

EXAMPLES of Renovations/Alterations

- If you are replacing windows and opening part of a wall cavity when remodeling a kitchen or bathroom, the windows and wall insulation must meet the Stretch Code as the envelope is opened; appliance choices are exempt; other energy features of the existing home could be left as is.
- When replacing a heating system, efficiency specifications would be exempt from the Stretch Code and other efficiency upgrades, e.g., windows, insulation, water heater, etc. would not be triggered.
- Adding wall insulation must be at least an R-value of 3.5 per inch, but will not trigger window or heating equipment upgrades, for example.

EXCLUSIONS

- Storm windows installed over existing windows; repairs to existing windows
- Re-roofing or re-siding over uninsulated roofs or walls (when sheathing is not exposed)
- Existing ceiling, wall or floor cavities of the building envelope, exposed during construction, provided empty cavities are filled with insulation at least R3.5
- Kitchen appliances

¹ This handout was compiled on 4.12.10 from BBRS, DOER and Statewide Energy Code Training materials by the Center for Ecological Technology (CET). www.cetonline.org

² HERS ratings can only be done on a whole house

³ Unless one is seeking true ENERGY STAR certification, (the Stretch Code is not Energy Star), then a HERS Rater is not required to fill out the Checklist and only the Builder has to verify Checklist items.

Related Q&A for MA Stretch Energy Code Document, 09-15-2009

8. Does the stretch code apply to major renovation projects as well as new construction?

For commercial buildings: No, for residential buildings: Yes. The 'stretch' energy code does apply to residential building renovation and addition projects, but has less stringent energy performance requirements for renovations than for new buildings. In addition, renovators have the option of using a simple 'prescriptive' path to code compliance, installing specified efficiency measures, instead of performance testing. This greater flexibility is available for residential renovations due to the greater design constraints in working with an existing building.

Simple and small repairs (for example, patching drywall, replacing an existing door, repairing a window sash or frame, installing storm windows, replacing bulbs or ballasts in existing lighting) do not require a building permit and as a result are not required to meet stretch energy code requirements.

9. Does the stretch code apply to minor additions to existing buildings?

Additions to existing buildings that are large enough to require code compliance are treated in the same way as ... renovations in residential buildings. Additions can elect to follow the performance approach to code compliance or a simplified prescriptive path. In the case of residential additions, this requires following the Energy Star Homes program National Builders Option Package, which results in modest, cost-effective, increases in energy savings over those already required by the new Massachusetts base code.

12. How does the stretch code apply to historic buildings?

The stretch code appendix, similar to the base energy code, allows an exemption for listed historic buildings. More specifically, historic buildings listed in state or national registers, or designated as a historic property under local or state designation law or survey, or with an opinion or certification that the property is eligible to be listed, are exempt from both the base energy code and the stretch appendix to the energy code.

- The stretch code is no different than the regular code exemptions

Exact Wording from 780 CMR Appendix 120 AA / Stretch Energy Code:

ADDITIONS

401.3 Prescriptive option for residential additions. Additions to an existing building, building system or portion thereof shall conform to the most recent Energy Star for Homes Prescriptive Builders Option Package (BOP), except for heating and cooling equipment and appliances, and shall demonstrate compliance with:

- The Energy Star Qualified Homes Thermal Bypass Inspection Checklist.
- Envelope insulation requirements that meet or exceed IECC 2009 requirements (Chapter 4, Section 402) for climate zone 5.

401.4 Performance option for residential additions. The performance approach and HERS ratings of 401.2 may be followed in lieu of the prescriptive requirements of 401.3

ALTERATIONS, RENOVATIONS OR REPAIRS

401.5 Prescriptive option for alterations, renovations or repairs. Alterations, renovations or repairs that involve accessing the building envelope shall require the affected portion of the envelope to comply with 401.3. Envelope insulation shall meet or exceed IECC 2009 requirements (Chapter 4, Section 402) for climate zone 5, or fully fill existing cavities with insulating material which meets or exceeds an R value of R 3.5/inch.

401.6 Performance option for alterations, renovations or repairs. In all cases of alterations, renovations or repairs the performance approach of 401.2 may be followed in lieu of the prescriptive requirements of 401.5 with the following HERS rating requirements:

- For units equal to or greater than 2,000 sq ft in conditioned floor space, a HERS rating of 80 or less is required.
- For units less than 2,000 sq ft, a HERS rating of 85 or less is required.
- Compliance with the Energy Star Qualified Homes Thermal Bypass Inspection Checklist.