COMPONENT	AIR BARRIER, AIR SEALING CRITERIA	INSULATION INSTALLATION CRITERIA
General requirements	A continuous air barrier shall be installed in the building thermal envelope. Breaks or joints in the air barrier shall be sealed.	Air-permeable insulation shall not be used as a sealing material.
Ceiling/attic	An air barrier shall be installed in any dropped ceiling or soffit to separate it from unconditioned space. Access openings, drop down stairs or knee wall doors to unconditioned attic spaces shall be sealed with gasketing materials that allow for repeated entrance over time.	The insulation in any dropped ceiling/soffit shall be aligned with the air barrier. Access hatches and doors shall be installed and insulated in accordance with Section R402.2.5.Eave baffles shall be installed in accordance with Section.
Walls	The junction of the foundation and sill plate shall be sealed. The junction of the top plate and the top of exterior walls shall be sealed. Knee walls shall be sealed.	Cavities within corners and headers of frame walls shall be insulated by completely filling the cavity with a material having a thermal resistance, *R*-value, of not less than R-3 per inch. Exterior building thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier.
Knee wall	Knee walls shall have an air barrier between conditioned and unconditioned space	Insulation installed in a knee wall assembly shall be installed in accordance with Section R402.2.3.Air-permeable insulation shall be enclosed inside an air barrier assembly.
Windows, skylights and doors	The rough opening gap between framing and the frames of skylights, windows and doors, shall be sealed in accordance with fenestration manufacturer's instructions.	Insulation shall not be required in the rough opening gap except as required by the fenestration manufacturer's instructions.
Rim joists	Rim joists shall include an air barrier. The junctions of the rim board to the sill plate and the rim board and the subfloor shall be air sealed.	Rim joists shall be insulated so that the insulation maintains permanent contact with the exterior reboard
Floors, including cantilevered floors and floors above garages	Floor framing members that are part of the building thermal envelope shall be air sealed to maintain continuous air barrier. Air permeable floor cavity insulation shall be enclosed.	Floor insulation shall be installed in accordance with the requirements of Section R402.2.8.
Basement, crawl space and slab foundations	Exposed earth in crawl spaces shall be covered with a Class I vapor retarder/air barrier in accordance with Section R402.2.11.Penetrations through concrete foundation walls and slabs shall be air sealed. Class 1 vapor retarders shall not be used as an air barrier on below-grade walls and shall be installed in accordance with Section R702.7of the *Residential Code of New York State*.	Crawl space insulation, where provided instead of floor insulation, shall be installed in accordance with Section R402.2.11.Conditioned basement foundation wall insulation shall be installed in accordance with Section R402.2.9.1.Slab-on-grade floor insulation shall be installed in accordance with Section R402.2.10.
Shafts, penetrations	Duct and flue shafts to exterior or unconditioned space shall be sealed. Utility penetrations of the air barrier shall be caulked, gasketed or otherwise sealed and shall allow for expansion, contraction of materials and mechanical vibration.	Insulation shall be fitted tightly around utilities passing through shafts and penetrations in the building thermal envelope to maintain required *R*-value.

Narrow cavities	Narrow cavities of 1 inch or less that are not able to be insulated shall be air sealed.	Batts to be installed in narrow cavities shall be cut to fit or narrow cavities shall be filled with insulation that on installation readily conforms to the available cavity space.
Garage separation	Air sealing shall be provided between the garage and conditioned spaces.	Insulated portions of the garage separation assembly shall be installed in accordance with Sections and R402.2.8.
Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be air sealed in accordance with Section.	Recessed light fixtures installed in the building thermal envelope shall be airtight and IC rated, and shall be buried in or surrounded with insulation.
Plumbing, wiring or other obstructions	All holes created by wiring, plumbing or other obstructions in the air barrier assembly shall be air sealed.	Insulation shall be installed to fill the available space and surround wiring, plumbing, or other obstructions, unless the required *R*-value can be met by installing insulation and air barrier systems completely to the exterior side of the obstructions.
Showers, tubs and fireplaces adjacent to the building thermal envelope	An air barrier shall separate insulation in the building thermal envelope from the shower, tub or fireplace assemblies.	Exterior framed walls adjacent to showers, tubs and fireplaces shall be insulated.
Electrical, communication and other equipment boxes, housings and enclosures	Boxes, housing and enclosures that penetrate the air barrier shall be caulked, taped, gasketed or otherwise sealed to the air barrier element being penetrated. All concealed openings into the box, housing enclosure shall be sealed. Alternatively, air-sealed boxes shall be installed in accordance with Section R402.5.5.	Boxes, housing and enclosures shall be buried in or surrounded by insulation.
HVAC register boots	HVAC supply and return register boots shall be sealed to the subfloor, wall covering or ceiling penetrated by the boot.	HVAC supply and return register boots located within a building thermal envelope assembly shall be buried in or surrounded by insulation.
Concealed sprinklers	Where required to be sealed, concealed fire sprinklers shall only be sealed in a manner that is recommended by the manufacturer. Caulking or other adhesive sealants shall not be used to fill voids between fire sprinkler cover plates and walls or ceilings.	—
Common walls or double walls separating attached single-family dwellings or townhouses	An interior air barrier shall be provided. Air sealing at the intersections with building thermal envelope shall be provided. Where installed in a fire-resistance-rated wall assembly, air sealing materials shall comply with one of the following: 1. 1.Be in accordance with an approved design for the fire-resistance-rated assembly. 2. 2.Be supported by approved data that shows the assembly as installed complies with the required fire-resistance rating.	Insulation materials recognized in the approved common wall or double-wall design and installed in accordance with the approved design shall be permitted to be used.