

(This forward is provided for information only and is not part of the draft addendum.)

## **FOREWORD**

**Draft Addendum 90.1af – Publication Draft.** The project committee believes that the proposed modification strengthens the standard, eliminates the possibility of loopholes, and at the same time, honors previous commitments to BOMA.

## **Addendum 90.1af**

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### **SECTIONS TO 4.1.2.2.2 AND 4.1.2.2.3, AND EXCEPTIONS TO 4.1.2.2.1: (I-P and SI Editions)**

**4.1.2.2.2 Heating, Ventilation, and Air Conditioning Alterations.** New HVAC equipment as a direct replacement of existing HVAC equipment shall comply with the specific minimum efficiency requirements applicable to that equipment, including but not limited to: air conditioners and condensing units, heat pumps, water-chilling packages, packaged terminal and room air conditioners and heat pumps, furnaces, duct furnaces, unit heaters, boilers, and cooling towers. New cooling systems installed to serve previously un-cooled spaces shall comply with Section 6. Alterations to existing cooling systems shall not decrease economizer capability unless the system complies with Section 6.3.1. New and replacement ductwork shall comply with Sections 6.2.4.1, 6.2.4.2, and 6.2.4.3. New and replacement piping shall comply with Sections 6.2.4.1 and 6.2.4.5.

**Exceptions to 4.1.2.2.2:** Compliance shall not be required

- (a) for *equipment* that is being modified or repaired but not replaced, provided that such modifications will not result in an increase in energy usage or,
- (b) where a replacement or *alteration of equipment* requires extensive revisions to other *systems, equipment,* or elements of a *building,* and such replaced or altered equipment is a like-for-like replacement, or
- (c) for a refrigerant change of existing *equipment,* or
- (d) for the relocation of existing *equipment, or*
- (e) for ducts and pipes where there is insufficient space or access to meet these requirements.

**4.1.2.2.3 Service Water-Heating Alterations.** Building service water heating equipment installed as a direct replacement for existing building service water heating equipment shall comply with the requirements of Section 7 applicable to being replaced. New and replacement piping shall comply with Section 7.2.3.

**Exception to 4.1.2.2.3** Compliance shall not be required where there is insufficient space or access to meet these requirements.....

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**4.1.2.2.1 Envelope Alterations.** *Alterations to the building envelope* shall comply with the requirements of Section 5 for insulation, moisture control, air leakage, and *fenestration* applicable to those specific portions of the building that are being altered.

**Exceptions to 4.1.2.2.1:** The following *alterations* need not comply with these requirements, provided such *alterations* will not increase the energy usage of the building:

- (a) installation of storm windows over existing glazing,
- (b) replacement of glazing in existing sash and frame provided the *U-factor* and *SHGC* will be equal to or lower than before the glass replacement,
- (c) alterations to roof/ceiling, wall, or floor cavities, which are insulated to full depth with insulation having a minimum nominal value of R-3.0/in. (R-0.02/mm),
- (d) alterations to walls and floors, where the existing structure is without framing cavities and no new framing cavities are created, or
- (e) replacement of a roof membrane where either the roof sheathing or roof insulation is not exposed or, if there is existing roof insulation below the roof deck,
- (f) replacement of existing doors that separate conditioned space from the exterior shall not require the installation of a vestibule or revolving door, provided however, that an existing vestibule that separates a conditioned space from the exterior shall not be removed, and
- (g) replacement of existing fenestration, provided however, that the area of the replacement fenestration does not exceed 25% of the total fenestration area of an existing building and that the *U-factor* and *SHGC* will be equal to or lower than before the fenestration replacement.