



**BSR/ASHRAE/IES Addendum df  
to ANSI/ASHRAE/IES Standard 90.1-2022**

**Public Review Draft**

# **Proposed Addendum df to Standard 90.1-2022, Energy Standard for Sites and Buildings Except Low- Rise Residential Buildings**

**First Public Review (August 2025)  
(Draft Shows Proposed Changes to Current Standard)**

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at [www.ashrae.org/standards-research--technology/public-review-drafts](http://www.ashrae.org/standards-research--technology/public-review-drafts) and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore) or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

The appearance of any technical data or editorial material in this public review document does not constitute endorsement, warranty, or guaranty by ASHRAE of any product, service, process, procedure, or design, and ASHRAE expressly disclaims such.

© 2025 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 180 Technology Parkway NW, Peachtree Corners, GA 30092. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

**ASHRAE, 180 Technology Parkway NW, Peachtree Corners, GA 30092**

© 2025 ASHRAE

*This draft is covered under ASHRAE copyright. The appearance of any technical data or editorial material in this publication document does not constitute endorsement, warranty, or guaranty by ASHRAE of any product, service, process, procedure, design or the like and ASHRAE expressly disclaims such. Permission to republish or redistribute must be obtained from the MOS.*

(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

FOREWORD

This addendum updates envelope modeling rules for Section 12 budget design to reflect the current prescriptive requirements in Section 5.

*[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]*

Addendum df to 90.1-2022

Modify Section 12 as follows:

**12.2 Compliance.** The proposed *building* design shall comply with all of the following:

- a. Sections 4.2.3, 4.2.4, 5.2.1, 6.2.1, 7.2.1, 8.2.1, 9.2.1, and 10.2.1.

.....

12.7 Submittals

.....

**12.7.3 Completion Requirements.** Completion requirements shall be in compliance with Sections 5.7.3, 6.7.3, 7.7.3, 8.7.3, 9.7.3, and 10.7.3.

.....

Proposed Design (Column A) Design Energy Cost (DEC)	Budget Building Design (Column B) Energy Cost Budget (ECB)
5. Building Envelope	
	The <i>budget building design</i> shall have identical <i>conditioned floor area</i> and identical exterior dimensions and <i>orientations</i> as the <i>proposed design</i> , except as follows: a. <i>Opaque</i> assemblies, such as <i>roof, floors, doors, and walls</i> , shall be modeled as having the same <i>heat capacity</i> as the <i>proposed design</i> but with the minimum <i>U-factor</i> required in Section 5.5 for new <i>buildings</i> or additions and Section 5.1.4 for <i>alterations</i> . ..... d. No shading projections are to be modeled. <i>Manual fenestration</i> shading devices such as blinds or shades are not required to be modeled. <i>Automatically controlled fenestration</i> shading devices shall not be modeled. <i>Fenestration</i> shall be assumed to be flush

with the wall or roof. If the fenestration area for new buildings or additions exceeds the maximum allowed by Section 5.5.4.2, the area shall be reduced proportionally along each exposure until the limit set in Section 5.5.4.2 is met. If the vertical fenestration area facing west or east of the proposed design exceeds the area limit set in Section 5.5.4.5 then the energy cost budget shall be generated by simulating the budget building design with its actual orientation and again after rotating the entire budget building design 90, 180, and 270 degrees and then averaging the results. Fenestration U-factor, SHGC and VT shall be equal to the criteria from Tables 5.5-0 through 5.5-8 for the appropriate climate, ~~and the SHGC shall be equal to the criteria from Tables 5.5-0 through 5.5-8 for the appropriate climate.~~ For portions of those tables where there are no SHGC requirements, the SHGC shall be equal to that determined in accordance with Section C3.6(d). The VT shall be equal to that determined in accordance with Section C3.6(d). The fenestration model for building envelope alterations shall reflect the limitations on area, U-factor, and SHGC as described in Section 5.1.4.

e. Skylights shall be included in each thermal block ~~when~~ as required by Section 5.5.4.2.3 ~~and meet the required VT.~~

~~Exception: When trade-offs are made between an addition and an existing building, as described in the exception to Section 4.2.1.2, the building envelope assumptions for the existing building in the budget building design shall reflect existing conditions prior to any revisions that are part of this permit.~~