

ADDENDA

**ANSI/ASHRAE/IES Addendum ct to
ANSI/ASHRAE/IES Standard 90.1-2019**

Energy Standard for Buildings Except Low-Rise Residential Buildings

Approved by ASHRAE and the American National Standards Institute on June 30, 2022, and by the Illuminating Engineering Society on June 10, 2022.

This addendum was approved by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the standard. Instructions for how to submit a change can be found on the ASHRAE® website (<https://www.ashrae.org/continuous-maintenance>).

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FOREWORD

Addendum ct makes the following changes to the baseline envelope description in Table G3.1(5):

- *Clarifies how baseline fenestration area is established, based on official interpretation request IC 90.1-2019-8 of ANSI/ASHRAE/IES Standard 90.1-2019.*
- *Removes roof albedo requirement, as it is already covered in the requirement that prescribes roof solar reflectance.*
- *Clarifies that automatic fenestration shading devices are not modeled in the baseline design.*

This addendum impacts an optional performance path in the standard designed to provide increased flexibility and therefore was not subjected to cost effectiveness analysis.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~strike through~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes.

Addendum ct to Standard 90.1-2019

Modify Table G3.1 as shown (I-P and SI). (Note: This table was previously modified by Addenda 1 and db to Standard 90.1-2019, which can be downloaded from the ASHRAE website at <https://www.ashrae.org/technical-resources/standards-and-guidelines/standards-addenda/addenda-to-standard-90-1-2019>.)

Table G3.1 Modeling Requirements for Calculating Proposed and Baseline Building Performance

No.	Proposed Building Performance	Baseline Building Performance
[...]		
5. Building Envelope		
[...]		<p>[...]</p> <p>d. Vertical Fenestration Areas. For building area types included in Table G3.1.1-1, <i>vertical fenestration areas</i> for new buildings and additions shall equal the percentage in Table G3.1.1-1 multiplied by the gross area of <i>above-grade walls that separate conditioned spaces and semiheated spaces from the exterior, are part of the exterior building envelope and semiexterior building envelope.</i></p> <p>Where a building has multiple building area types, each type shall use the values in the table. For building areas not shown in Table G3.1.1-1, <i>vertical fenestration areas</i> for new buildings and additions shall equal that in the <i>proposed design</i> or 40% of gross area of above-grade walls <i>area that are part of the exterior building envelope and semiexterior building envelope</i>, whichever is smaller, and shall be distributed on each face of the building in the same proportions in the <i>proposed design</i>.</p> <p>[...]</p> <p>e. Vertical Fenestration Assemblies. Fenestration for new buildings, existing buildings, and additions shall comply with the following:</p> <ul style="list-style-type: none"> • Fenestration <i>U-factors</i> shall match the appropriate requirements in Tables G3.4-1 through G3.4-8 for the applicable glazing percentage for U_{all}. • Fenestration <i>SHGCs</i> shall match the appropriate requirements in Tables G3.4-1 through G3.4-8 using the value for $SHGC_{all}$ for the applicable vertical glazing percentage. • All <i>vertical fenestration</i> shall be assumed to be flush with the <i>exterior wall</i>, and no shading projections shall be modeled. • <i>Manual</i> window shading devices such as blinds or shades are not required to be modeled. • <u><i>Automatic fenestration shading devices shall not be modeled.</i></u> <p>[...]</p> <p>g. Roof Solar Reflectance and Thermal Emittance. The exterior roof surfaces shall be modeled using a solar <i>reflectance</i> of 0.30 and a thermal <i>emittance</i> of 0.90.</p> <p>h. Roof Albedo. All roof surfaces shall be modeled with a reflectivity of 0.30.</p> <p>[...]</p>

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ASHRAE is concerned with the impact of its members' activities on both the indoor and outdoor environment. ASHRAE's members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted Standards and the practical state of the art.

ASHRAE's short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the Standards and Guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive Technical Committee structure, continue to generate up-to-date Standards and Guidelines where appropriate and adopt, recommend, and promote those new and revised Standards developed by other responsible organizations.

Through its *Handbook*, appropriate chapters will contain up-to-date Standards and design considerations as the material is systematically revised.

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