

# GG199-14

## 505.2, A105.3

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**Revise as follows:**

**A105.3 Material selection project electives.** Each of the following shall be considered a separate material selection project elective. The project electives are cumulative and compliance with each item shall be recognized individually.

1. Compliance with this project elective shall require compliance with Section 505.2, except that buildings and structures shall contain used, recycled content, recyclable, bio-based and indigenous materials that comply with Sections 505.1 through 505.2.5 such that the aggregate total materials compliant with those sections constitute at least 70 percent of the total building products and materials used, based on mass, ~~volume~~ or cost, used singularly or in combination.
2. Compliance with Item 1 except that such materials shall be used for at least 85 percent of the total mass, ~~volume~~ or cost of materials in the project.

**505.2 Material selection.** Not less than 55 percent of the total building materials used in the project, based on mass, volume or cost, shall comply with Section 505.2.1, 505.2.2, 505.2.3, 505.2.4 or 505.2.5. Where a material complies with more than one section, the material value shall be multiplied by the number of sections that it complies with. The value of total building material mass, ~~volume~~ or cost shall remain constant regardless of whether materials are tabulated in more than one section.

**Reason:** We are proposing to delete the term "volume" from Section 505.2 and Section A105.3. The problem that arises is that the term as used in this context is not consistent in application with the terms "cost" or "mass". Further, unlike other provisions of the I-codes and the IgCC where the term volume is used, we would point out that it is used successfully as the term does have a qualifier for its measurement (e.g. Plumbing, site materials, construction waste, energy provisions and interior conditioned space, adhesive or sealants chemical makeup, etc.) and where the trade normally applying this term has experience with the term "volume".

Volume in this case can have a manifold of definitions since there is no qualifier for its application. From a measurement perspective, one could apply the following measurement methodologies and be correct since there are no such benchmarks for a user to apply, as follows:

- Measure the dimensional volume of each material.
- Measure the volume of a space, which could include the air within.
- Measure scientifically based on water displacement.

But if an A/E firm uses the BIM (Building Information Modeling) process for design this application allows for the volume of products and materials to be calculated, so why change? The issue is when BIM is not used. As noted earlier, the variations for hand calculating are too liberal to warrant this option to be applied to anything other than the BIM process.

In view of this liberal opportunity to apply this term we propose that the term "volume" be deleted without substitution in Sections 505.2 and A105.3.

**Cost Impact:** Will not increase the cost of construction

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