**Comment/Explanation\*:***Include your justification for your proposed change to the draft standard below.*  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

This section seems to be full of opinions and text based on opinions which is not appropriate for a standard.

* The allowable life stages has to be expanded if this is going to be a meaningful standard that results in anything close to good data.
* The reasoning for life stage limitations does bring up good points. It is not always available but that doesn’t mean that when it is it shouldn’t be allowed.
* There may also be cases where data overlaps. I’m not sure how industry is going to fix this yet but for now we should let practitioners make some professional judgement about the life stages that are appropriate and provide the best full picture of a materials impact.
* Green highlighted text is not backed with facts. In some cases it may not be the case and it is definitely not the case for carbon savings attributed to energy saving materials like insulation.
* Assumptions should be clearly stated and reported but available and impactful data should not be left out.

**Proposed Change to the Draft Standard\***  
*Use “strikethrough” and “underline” formatting to indicate all proposed changes. Changes must be shown with “hard-formatting” strikethrough and underline, not “track changes”.*

*Use a color other than red to indicate proposed changes to the draft.*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Limitations of This Methodology (Informative)

This Standard estimates the *embodied carbon* of building products for *assessed homes* for life cycle *modules A1-A3,* also known as a *cradle-to-gate* assessment at a minimum. This standard permits ~~excludes~~ *embodied carbon* emissions from ~~all~~ other life cycle modules. Use and interpretations of the results achieved using this Standard must be understood in this context.

Modules A4 (emissions from transportation of products to the construction site) and A5 (emissions from construction activities) are important contributors to the embodied carbon of an assessed home. These are not required to be ~~have not been~~ included in this standard for two reasons. The first is the difficulties inherent in trying to estimate these emissions for a large and geographically diverse industry like homebuilding which features complex supply chains and widely differing site conditions. The second is the overlap between the scope 1 and scope 2 emissions reported by homebuilders for Environment, Social and Governance (ESG) reporting, for which a proportion of module A4 emissions and a substantial percentage of A5 emissions are captured and may ~~would~~ be double counted by this Standard if it were to include these modules.

Emissions from modules A1-A3 for building products typically represent the largest proportion of total life cycle emissions~~, enabling this Standard to capture and report on this most substantial of the life cycle stages. Additionally, since building products have lifespans that are measured in decades, it is not until the first products measured in this Standard are repaired or replaced that any additional embodied carbon attributed to the~~ *~~assessed home~~* ~~will be incurred in life cycle modules B and C, meaning that the results of an assessment using this Standard are largely accurate for the first decade or more of the lifespan of the~~ *~~assessed home~~*~~. The timing at which such repairs and replacements will occur along with uncertainties surrounding the methods of removal and disposal and the types of products used for replacement make it difficult to attribute accurate estimates for modules B and C. Residential buildings tend to have less scheduled repair and replacement cycles compared to commercial buildings, adding further uncertainty to B and C estimates.~~

~~Including only life cycle modules A1-A3 results in reporting of carbon storage in products that will, to some degree, be emitted back to the atmosphere at the end of the product’s life cycle. Without the inclusion of B and C modules, no estimates regarding the timing or extent of these emissions are included in this Standard. By requiring reporting of stored carbon as a distinct A1-A3 result, the Standard enables users to transparently identify and quantify stored carbon at the product and building level, but the Standard does not attempt to ascribe any value to this stored carbon. The source of the stored carbon and the duration for which the carbon is stored in the product will have important ramifications for any valuation of the carbon storage and it is not within the scope of this Standard to provide this type of guidance.~~

Reports generated using this Standard shall clearly state the ~~make it clear that only~~ life cycle modules that are included ~~A1-A3~~ ~~have been considered~~. This should be communicated clearly in any reporting extending from this Standard.

The technical committee for this Standard is determined to work towards the required inclusion of more life cycle modules and, ~~when the threshold for accurate and meaningful data has been determined to be reached,~~ adding guidance for estimating these emissions.