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

The proposed text edits below reflect a couple of important issues:

* Fixed issues with nonmandatory language and other language issues.
* Added HVAC – Refridgerants which are known to be a big issue from an emissions standpoint.
* Removed – some items which have minimal impact, some of which have a lot of data and some have very little.
	+ Insulation – ok with keeping this on the list if life stages beyone A1-3 are included. Many recent studies have shown that the use of insulation saves not just a little but a lot more carbon over its useful life than that included in its manufacturing. To only show A1-3 does a disservice to energy efficiency and could hurt our efforts to reduce carbon. You **need** to look at the big picture.
		- <https://www.americanchemistry.com/better-policy-regulation/plastics/resources/unlocking-carbon-savings-with-plastic-insulation-materials>
		- <https://insulationinstitute.org/wp-content/uploads/2024/10/102224-NAIMA-Carbon-Payback-Period-Analysis.pdf>
	+ “barriers” – are typically thin, often also save energy through their ability to mitigate air leakage and to my knowledge there may only be one or two proprietary materials that have EPDs. Due to the small amount of data and carbon investment involved I would remove these from the list at this time.

**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.*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## 5.4 Minimum Assessed Products

Within the *system boundary*, all applicable building productslisted in Table 5.4.1 shall be ~~and~~ identified on the *construction documents,* ~~shall be~~ ~~included in the~~ *~~system boundary~~*and included ~~addressed~~ in the calculations.

All building products ~~elements~~ identified as exclusions in Appendix 10.4.1 shall not be included ~~addressed~~ in the calculations in accordance with Section 6 ~~regardless of being identified on the~~ *~~construction documents~~*.

Table 5.4.1 Minimum Assessed Products

|  |  |
| --- | --- |
| **Building Element** | **Minimum Assessed Products** |
| Foundations, Subgrade Enclosures, and Slabs-on-Grade |  Concrete elements, incl. walls, footings, pads, piers & piles |
|  Reinforcement bars and mesh |
|  Perimeter frame walls integral to foundation assembly |
|  ~~Insulation, exterior & interior~~ |
|  ~~Barriers (air tightness, waterproofing, drainage)~~ |
|  Aggregate |
| Exterior Walls |  Wall structure (framing, SIP, masonry, other) |
|  Sheathing |
|  Strapping/furring |
|  Cladding |
|  Windows |
|  Exterior doors (glazed and opaque) |
|  ~~Insulation (cavity, continuous, band joist, other)~~ |
|  ~~Barriers (air tightness, waterproofing)~~ |
|  Paint (if site painting required) |
| Roofs |  Roof structure (framing, SIP, other) |
|  Roof deck sheathing |
|  Roof deck strapping |
|  Roofing |
|  ~~Insulation~~ |
|  ~~Barriers~~ |
|  Skylights |

|  |  |
| --- | --- |
| HVAC |  Heating & cooling equipment |
| Refrigerants |
|  Mechanical ventilation systems |
|  Distribution systems (ducts, tubing) |

Portions of the table not shown have no changes.