

The Passive House Network

PHribbon

By AECB CarbonLite™

Calculate your building's total carbon emissions.

The PHN PHribbon allows Passive House designers to calculate total cradle-to-grave building carbon emissions, for buildings located in the US, within the Passive House Planning Package (PHPP) tool.

By utilizing the PHPP and PHN PHribbon, building designers have an unparalleled ability to connect design and construction choices to carbon emissions outcomes. With the PHN PHribbon designers can optimize their building designs to address our climate emergency.

As with the PHPP itself, all calculations in the PHN PHribbon are transparent and viewable.

The PHN PHribbon is written by Tim Martel, a Certified Passive House Designer and Chartered Architectural Technologist, and produced by the Association for Environment Conscious Building (AECB), in collaboration with The Passive House Network.

The data inputs are by the nature of the emerging focus on embodied carbon values, incomplete. Industry-standard assumptions may be utilized. Where US data is unavailable, when appropriate, data or assumptions may be sourced from European sources such as the RICS Building Carbon Database. Annually, as new data becomes accessible the PHribbon will be updated to incorporate the latest available data.

PHN PHribbon principally pulls data from three sources:

- The PHPP defined materials, systems and operational energy use outputs.
- The Building Transparency EC3 database.
- The US Environmental Protection Agency (EPA) guidance on the US power supply and end of life pathway of building materials.

Additional data can be added by users for interior walls and finishes, transport specifics, component useful life, and more.

The total carbon emissions calculation can include all stages of the building's life cycle:

- A1-A3: Products
- A4-A5: Construction Process
- B1-B5: Use
- C1-C4: End of Life

The results are presented in detailed graphical and report formats.

The PHN PHribbon is made possible in part by the generous support of:



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www.naphnetwork.org/phribbon/