

# Embodied Carbon Basics

Would it surprise you to learn that two seemingly identical houses, with the same floorplans, could have substantially different impacts on the environment and climate?



## So What is Embodied Carbon and Why Does it Matter?

The materials we use to build our homes have substantial impacts on our planet. One of these impacts is embodied carbon emissions.

Embodied emissions contribute about 50% of the total emissions that a given building incurs over its lifetime.

### Types of Building Emissions

#### 1 OPERATIONAL CARBON EMISSIONS

Greenhouse gas emissions produced from building energy use (heating, cooling, lighting).

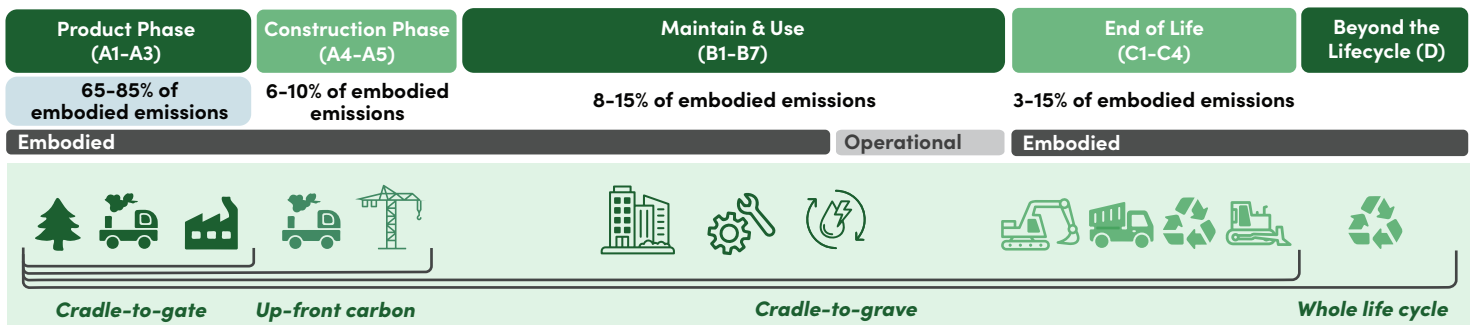
#### 2 EMBODIED CARBON EMISSIONS

Greenhouse gas emissions produced through the creation, use, and disposal of buildings and building materials.

## How Do We Measure Embodied Carbon?

Embodied carbon is measured with a process known as a **Life Cycle Assessment (LCA)**, which collects data on the impacts associated with a building's components throughout its lifecycle. This process helps promote supply chain transparency by accounting for embodied carbon and other impacts, like water use and contamination, air pollution, deforestation, and dangerous and unfair working conditions.

### A Building's Lifecycle



## Learn More and Get Involved

The City of Nelson has been leading research and initiatives related to embodied carbon through the Low Carbon Homes Pilot since 2021. Learn more about this work and related resources on our [website](#).

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