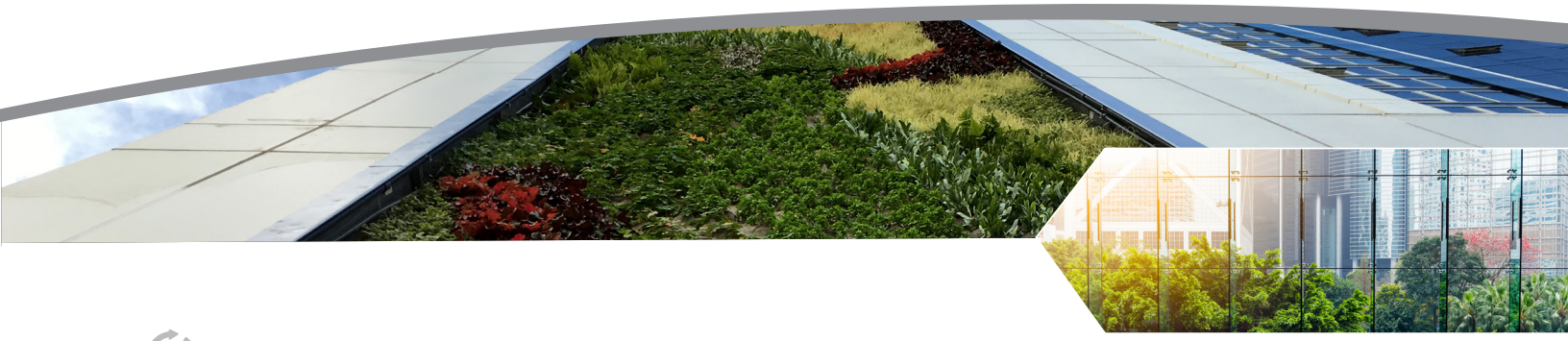

# Whole Building Life Cycle Analysis (WBLCA)

## GUIDING SUSTAINABLE MATERIAL CHOICES BY UNDERSTANDING ENVIRONMENTAL IMPACTS

Performing WBLCAs can help stakeholders gain insights into the environmental implications of their activities, enabling them to make more sustainable design decisions and reduce the negative effects these impacts have on the environment. This is a systematic and comprehensive method used to assess the environmental impacts of products, processes, or services throughout the entire lifecycle, from raw material extraction and manufacturing to installation of construction materials and final disposal after their useful life.

One key metric at the center of an WBLCA is the level of embodied carbon in the selected materials used in construction projects. There is a growing trend, as seen in California and New York for regulatory reporting of embodied carbon as a hedge against the risks of a changing climate, in much the same way as seismic requirements hedge against the risk of earthquakes.

Using the latest software tools and an expanding database of product lifecycles, the team at Marx|Okubo can help organizations compare building products to assess relative levels of embodied carbon and identify strategies to help minimize long-term negative effects on their development and redevelopment projects. A WBLCA can be used to identify low-carbon alternatives to traditional structural, envelope, and finishes systems for developers and owners to support green building certifications, meet emerging regulations, or simply support their decarbonization efforts.