

# MYTH vs FACT: THE SUSTAINABILITY OF STEEL vs TIMBER

## MYTH:

Mass timber construction is more sustainable than steel construction.

## FACT:

Many of the claims about mass timber's sustainability are misleading and overstated, while the superiority of steel's sustainability is undeniable and backed by hard data.

When evaluating sustainability, it is important to consider the full life cycle impact of mass timber. Unfortunately, these considerations are routinely ignored in calculating a wood structure's environmental impact:

- As little as 36% of a harvested tree ends up as a final wood product, which means 64% goes to waste. Some of the biomass is left to decay in the forest, some is sent to landfills, and the rest is burned—all of which releases CO<sub>2</sub> into the atmosphere on day one, canceling the benefits of long-term carbon sequestration.
- Disturbing the soil during harvesting releases a substantial amount of greenhouse gasses—adding as much as 20% to wood's carbon footprint, not to mention the ecological impacts of forest disruption.
- When a structure reaches its end-of-life, the old wood is usually either landfilled or incinerated, which releases all of the sequestered carbon into the atmosphere and pushes the problem of climate change away from today and onto our children's shoulders.

Emphatically, the Carbon Leadership Forum's **2023 Material Baseline Report** indicates that there are no adequately representative data sources for major mass timber products, including CLT. Sustainability claims by mass timber are really no better than that—unsubstantiated claims.

In contrast, today's American steel industry has reduced its carbon footprint by increasing the use of recycled materials and clean electricity—and has the data to back it up. American-made steel beams and columns consist of **93% recycled content** and use electric arc furnaces increasingly powered by renewable energy sources. And when a steel building or bridge reaches its end-of-life, the steel can be recycled over-and-over again with no loss of strength, durability, or flexibility.

Designers choose steel because it's a proven solution that offers true sustainability, 100% recyclability, incredible durability, low waste, and a long lifespan.

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For more information on steel's sustainability, visit [aisc.org/sustainability](https://aisc.org/sustainability).



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