

STEEL INDUSTRY RESPONSE TO INACCURATE CLAIMS REGARDING WOOD IN CONSTRUCTION

By Kevin Dempsey, AISI Interim President and CEO

Claims made about the “environmental benefits” of using mass timber for mid- and high-rise building construction often rely on existing assumptions to reinforce them versus scientific studies. One such example is an article in the *New York Times* on September 22, 2020, “As Concerns Over Climate Change Rise, More Developers Turn to Wood,” which makes a number of inaccurate claims about the sustainability of construction materials. Some examples follow.

When citing wood as a renewable resource, the decimation to forests caused by clear-cutting practices, the loss of carbon dioxide from mature trees, and the years it takes to replace those trees are often overlooked. YaleEnvironment360, a publication of the Yale School of the Environment in its article “[As Mass Timber Takes Off, How Green Is This New Building Material?](#)” notes that “... some are questioning whether the logging and manufacturing required to produce the new material outweigh any benefits.” John Talberth, president of the Center for Sustainable Economy near Portland, has stated that he wants to “debunk the myth that mass timber is in any way, shape, or form related to some kind of environmental benefit.” The same article notes that “... representatives of Oregon environmental groups – including the Audubon Society, the Sierra Club, and Oregon Physicians for Social Responsibility – raised serious doubts about mass timber as a green climate solution ...” In contrast, it is tough to counter the benefits of steel. While many other products, including wood, can only be downcycled into a lower-quality product, steel can be recycled over and over again and remade without any loss of quality. Between 60 million and 80 million tons of steel are recycled annually, making steel a permanent resource.

In terms of construction waste, Environmental Protection Agency data shows that twenty million tons of wood waste are sent to landfills annually in the U.S., with only a small quantity recycled into one-time-use products like mulch. In contrast, steel can be continually recycled into other steel products, resulting in a minimal amount of waste on the construction site.

In the article “[The Urgency of Embodied Carbon and What You Can Do About It](#)” (that appeared in the publication *Building Green*, attention is called to claims about the carbon impacts of wood, with a few scientists stating that Life Cycle Assessments (LCAs) of

wood buildings may greatly overestimate the benefits. Regarding wood building LCAs, in the same article Arup's Frances Yang states: "The more we've dug, the more [the numbers] seem to be all over the place. There is so much uncertainty carried with them."

Regarding greenhouse gas emissions, producing a ton of steel today in North America requires less than half the energy that was needed to produce a ton of steel 40 years ago, resulting in a 50 percent reduction in greenhouse gas emissions (GHG). This means that a single ton of steel produced today, compared to 1980, would save the GHG emissions equivalent to driving a car for 2,000 miles.

When covering green climate solutions in the construction industry, steel should be included as a viable solution.

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