



Laboratory Investigation of Cross-Laminated Timber (CLT) Decks for Bridge Applications

<https://research.thinkwood.com/en/permalink/catalogue2557>

Organization: Forest Products Laboratory

Iowa State University

Material: CLT (Cross-Laminated Timber)

Application: Bridges and Spans

Topic: Mechanical Properties

Keywords: Bridge Decks

Serviceability

Structural Performance

Research Status: In Progress

Notes: Project contacts are James Wacker at the Forest Products Laboratory, Justin Dahlberg and Brent Phares at Iowa State University

Summary:

The use of cross-laminated timber (CLT) has gained popularity over the past decade, with many advances stemming from completed research and construction projects in Europe. Many inherent advantages of CLT (such as, it is prefabricated, relatively lightweight, dimensionally stable, and environmentally sustainable) have been utilized in vertical construction projects. Despite these advances, the use of CLT in bridge structures has been limited, and the adoption of CLT into governing design codes has been slow. However, CLT shows promise as a complementary or alternative construction material in bridge decks, and additional research would help characterize the structural attributes of CLT decks to guide their use in bridge projects.

Resource Link

<https://www.fpl.fs.fed.us/documnts/rips/fplrip-4719-046-ISU-Dahlberg-Phares-Wacker.pdf>