



Project: The Michael Kirby Building Macquarie University
Architects: Hassell Studio
Engineer: TTW
Builder: FDC Construction and Fitout
Timber Supplier: Theca Timber

MECLA: Engineered Timber Resource Library

Authors: Engineered Timber
Working Group

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Why the Library Exists

Trusted engineered timber knowledge can be difficult to find, assess and navigate. Developed by MECLA's [Engineered Timber Working Group](#), this library brings credible guidance from leading organisations around the world into one accessible place.

Organised for architects, engineers, insurers, policymakers and quantity surveyors, it helps each stakeholder quickly find the information most relevant to their role and apply it with greater confidence.

What you will find

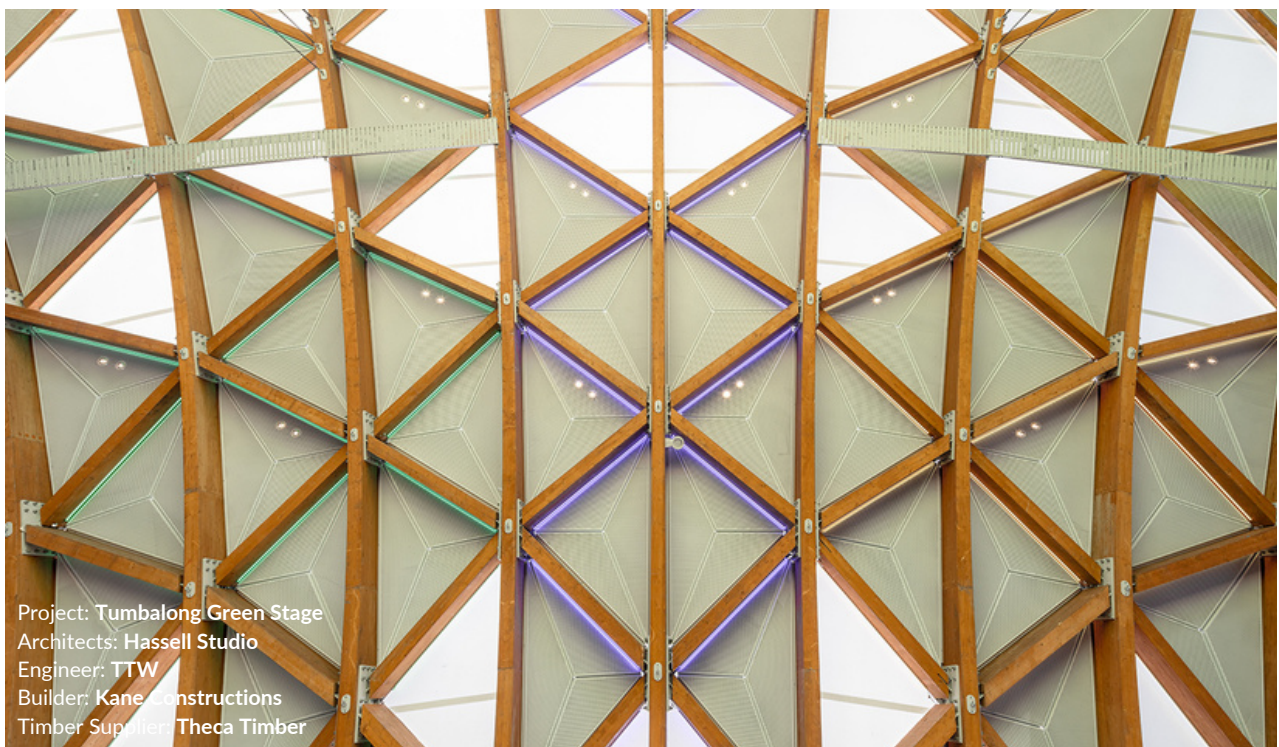
The library includes design guidance, technical references, case studies, research, policy documents and risk-management resources relevant to engineered timber projects.

How resources are selected

Resources are selected for their credibility, practical value and relevance to the Australian built-environment sector. The library is curated rather than exhaustive and will continue to evolve as new guidance and research become available.

Using international guidance

International resources provide valuable guidance and precedent but should be considered alongside applicable Australian legislation, codes, standards and project-specific requirements.

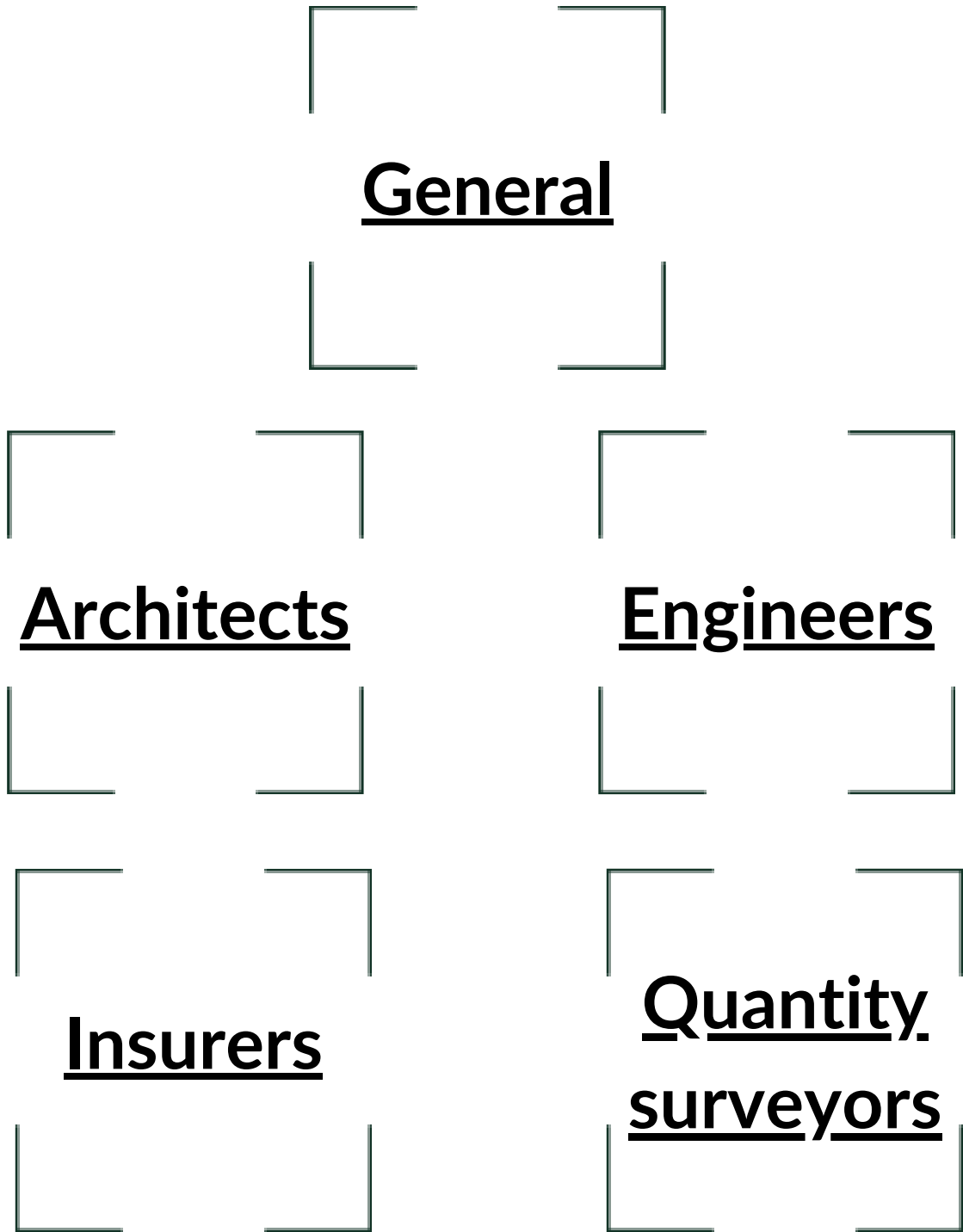


Project: Tumbalong Green Stage
Architects: Hassell Studio
Engineer: TTW
Builder: Kane Constructions
Timber Supplier: Theca Timber

Navigation Hub

Start at the Navigation Hub and choose the stakeholder group that best matches your role, or area of interest. From there, you can explore curated guidance, case studies, technical references and policy resources selected for you.

Click any resource card to open the original source, and use the navigation buttons to move between sections or return to the hub.



General

Architects

Engineers

Insurers

**Quantity
surveyors**

General Resources

Getting Started

Wood Solutions — Glossary

Type: Reference Guide
Focus: Definitions and explanations of timber terminology and systems.
Best for: Beginners or cross-disciplinary teams unfamiliar with timber language.

 [Open Resource](#)

Wood Solutions — Timber Wiki

Type: Reference Guide
Focus: Introduction to products and systems
Best for: Broad understanding of timber products and opportunities.

 [Open Resource](#)

Timber Development UK — Engineered Wood Products

Type: Design Guide & Handbook
Focus: Introduction to products and systems.
Best for: Broad understanding of timber products and opportunities.

 [Open Resource](#)

Swedish Wood — Choosing Glulam

Type: Design Guide & Handbook
Focus: Advice on how to use glt and general advice
Best for: Introductory understanding of timber benefits.

 [Open Resource](#)

Industry Learning & Myth Busting

Planet Ark — Wood Nature Inspired Design

Type: Industry Guidance
Focus: Benefits of timber and biophilic design principles.
Best for: General audiences exploring timber's environmental and human impacts.

 [Open Resource](#)

BUILT BY NATURE — Discussing Timber Myths

Type: Industry Guidance
Focus: Evidence-based responses to common misconceptions around timber construction.
Best for: General awareness and stakeholder education.

 [Open Resource](#)

General Resources

Real-world Projects

Wood Solutions — Case Studies

Type: Case Studies & Precedents

Focus: Australian timber projects and examples.

Best for: Understanding how timber systems are applied in practice.

[!\[\]\(0aff635c4179ba9e710b00f4b01d3b20_img.jpg\) Open Resource](#)

WoodWorks USA — Mapping Mass Timber

Type: Case Studies & Precedents

Focus: US Built timber projects and industry trends.

Best for: Exploring precedent projects and market growth.

[!\[\]\(47734e4656765d20df4fdbd5b7aff048_img.jpg\) Open Resource](#)

Top of the Class — Resources for Elevating K-12 Educational Facilities with Wood

Type: Case Studies & Precedents

Focus: Guidance and examples focused on timber educational buildings.

Best for: School and education-sector projects

[!\[\]\(7bc43b319a082987e20f7bf78f4bab80_img.jpg\) Open Resource](#)

Infrastructure NSW — Using Structural Timber to Reduce Carbon

Type: Case Study & Precedent

Focus: Engineered timbers application at the Sydney Fish Market project.

Best for: Seeing embodied carbon reduction strategies in practice.

[!\[\]\(e119fc79c8f448683d20ba4c873025a2_img.jpg\) Open Resource](#)

Sustainability, Circularity & Biophilia

Arup — Circular Buildings Toolkit

Type: Design Guide & Sustainability Toolkit

Focus: Step-by-step guidance for circular and low-carbon building approaches.

Best for: Teams exploring decarbonisation pathways and systems thinking.

[!\[\]\(135faf555a2da147cc447132eda26e60_img.jpg\) Open Resource](#)

3XN — Demystifying Circularity

Type: Design Guide & Sustainability Toolkit

Focus: Circular economy thinking in architecture and material systems.

Best for: Architects exploring reuse and systemic material flows.

[!\[\]\(06456157f083c12e510a7643240746db_img.jpg\) Open Resource](#)

General Resources

Research, Innovation & Academic Knowledge

Advance Timber Hub – Project Partners Overview

Focus: Overview of organisations and collaborations contributing to timber innovation and research.

Best for: Understanding the timber research ecosystem.

[!\[\]\(950a62bbddad88d64435fd35607dfc42_img.jpg\) Open Resource](#)

Timber Development UK – Book Shop

Focus: Collection of books, reports, and specialist timber publications.

Best for: Further reading and advanced knowledge development.

[!\[\]\(73002692dd5e7a64e60946be3158e719_img.jpg\) Open Resource](#)

Advance Timber Hub – WCTE Wrap Up

Focus: Summary of key learnings and discussions from the World Conference on Timber Engineering.

Best for: Staying informed on emerging industry conversations.

[!\[\]\(104fbf564e2e5a8fbd84f31656d114c7_img.jpg\) Open Resource](#)

WCTE 2025 – Proceedings

Focus: Published conference research papers covering global timber engineering innovations.

Best for: Deep technical and academic research.

[!\[\]\(21226b58c700e5231ab98d27101bac58_img.jpg\) Open Resource](#)

Architect Resources

Design & Implementation

BUILT BY NATURE – Knowledge Hub

Type: Design Guide & Handbook

Focus: Practical mass timber guidance for designers and project teams.

Best for: Early-stage design thinking and implementation.

 [Open Resource](#)

BUILT BY NATURE – Practical Guide to Moisture for Timber Construction

Type: Design Guide & Technical Guidance

Focus: Moisture management risks and mitigation in timber buildings.

Best for: Design detailing and construction considerations.

 [Open Resource](#)

Danish Technological Institute – Moisture Management for Timber Construction

Type: Technical Design Guide

Focus: Moisture protection strategies across timber building systems.

Best for: Architects coordinating envelope and durability performance.

 [Open Resource](#)

Embodied Carbon & Circularity

Buro Happold – Embodied Carbon Structural Sensitivity Study

Type: Design Guide

Focus: How structural decisions influence embodied carbon outcomes.

Best for: Early-stage carbon-informed design decisions.

 [Open Resource](#)

SESOC – Top Tips for Low Carbon Design

Type: Design Guide

Focus: Low-carbon structural design principles and practical interventions.

Best for: Integrating carbon reduction into concept design.

 [Open Resource](#)

Institution of Structural Engineers – Setting Carbon Targets

Type: Guidance Document

Focus: Introduction to SCORS and carbon benchmarking approaches.

Best for: Teams setting measurable project carbon targets.

 [Open Resource](#)

Engineer Resources

Structural Performance

Institution of Structural Engineers — SCORS Rating Scheme Introduction

Type: Guidance Document
Focus: Framework for setting structural carbon targets and benchmarking performance.

Best for: Engineers aligning projects with measurable carbon outcomes.

 [Open Resource](#)

Structural Engineering Society NZ — Top Tips for Low Carbon Design

Type: Design Guide
Focus: Practical engineering strategies to reduce embodied carbon.

Best for: Integrating carbon reduction into structural decision-making.

 [Open Resource](#)

Standards and Codes

Wood Solutions — Standards & Codes

Type: Standards & Codes
Focus: Australian timber standards, compliance pathways, and code guidance.

Best for: Engineers needing regulatory and technical references.

 [Open Resource](#)

Wood Solutions — Technical Design Guides

Type: Technical Design Guide

Focus: Timber engineering principles, detailing, and structural applications.

Best for: Day-to-day design support and technical specification.

 [Open Resource](#)

Structural Modelling & Technical Design

USDA Wood Handbook — Wood as an Engineering Material

Type: Engineering Handbook
Focus: Fundamental timber material properties and engineering behaviour.

Best for: Technical reference and foundational material understanding.

 [Open Resource](#)

FPIInnovations Canada — Technical Guide for the Design and Construction of Tall Wood Buildings

Type: Technical Design Guide
Focus: Engineering and construction guidance for tall timber buildings.

Best for: Structural systems, detailing, and implementation pathways.

 [Open Resource](#)

FPIInnovations Canada — Modelling Guide for Timber Structures

Type: Design Guide & Handbook

Focus: Structural modelling approaches for timber systems and mass timber buildings.

Best for: Engineers developing analytical and structural performance models.

 [Open Resource](#)

Insurer Resources

Risk & Insurance

WoodWorks USA – Mass Timber Insurance Playbook

Type: Policy & Regulation Document

Focus: Insurance considerations, perceived risks, and underwriting approaches.

Best for: Assessing risk frameworks and guidance.

 [Open Resource](#)

AON – Unlocking Mass Timber: Strategies for Risk and Insurance

Type: Risk & Insurance Guidance

Focus: Risk management strategies and insurance pathways for timber construction projects.

Best for: Building insurer confidence.

 [Open Resource](#)

Policy & Regulatory Landscape

UK Government – Timber in Construction Roadmap 2025

Type: Policy & Regulation Document

Focus: Government strategy supporting timber adoption and sector transformation.

Best for: Understanding policy direction and trends.

 [Open Resource](#)

UK Government – Barriers to the Use of Timber in Construction

Type: Policy & Research Document

Focus: Key challenges affecting timber adoption

Best for: Identifying systemic barriers and emerging opportunities.

 [Open Resource](#)

Quantity Surveyors

Project Delivery

WoodWorks – Mass Timber Design & Cost Optimization Checklists

Type: Design optimisation and early planning

Focus: Optimising structural layouts and project costs.

Best for: practical checklists for pre-design, schematic design and design development

[!\[\]\(9479d69b60a82161c6862eaa53eb4db3_img.jpg\) Open Resource](#)

WoodWorks – Mass Timber Constructability & Costing

Type: Risk & Pricing Guidance

Focus: Constructability, detailing, sequencing and coordination strategies

Best for: Improving cost efficiency throughout project delivery.

[!\[\]\(ac13c516668a3b529e385da83084b241_img.jpg\) Open Resource](#)

Cost Optimisation

WoodWorks – How to Successfully Cost Manage a Mass Timber Project

Type: Cost engineering and estimating

Focus: Guidance for budgeting, procurement, benchmarking and managing whole-of-project costs

Best for: Contractors.

[!\[\]\(e11f4c47008b23dfe2f4f7c6bb9034d1_img.jpg\) Open Resource](#)

BGE Engineering – Cost Considerations for a Mass Timber Office Building

Type: Cost engineering and estimating

Focus: Discusses major cost drivers and compares costs with conventional structural systems.

Best for: Project managers

[!\[\]\(276e638389c99b8d70cec5b1b95df546_img.jpg\) Open Resource](#)

WoodSolutions – Cost Engineering of Mid-rise Timber Buildings

Type: Cost engineering and estimating

Focus: Technical decisions that influence cost

Best for: Structural engineers, quantity surveyors, and design teams

[!\[\]\(4440d94c8edc9f7fe3326627de158891_img.jpg\) Open Resource](#)

Use it. Share it. Improve it.

The MECLA Engineered Timber Resources Library is a living industry resource. The MECLA Mass Timber Resource Library is a living resource, designed to grow as new guidance, research and project experience become available.

Use it to find trusted information, share it with your project teams, and help us keep it relevant by suggesting new resources or reporting outdated links.

Access the latest version

Follow the link to access the current online library: <https://mecla.org.au/mecla-publications/>



Suggest a resource

Submit a guide, case study, tool or publication that should be considered for inclusion.

Report an update

Let us know about broken links, revised publications or information that may no longer be current. Contact us at info@mecla.org

Interested in helping accelerate the uptake of engineered timber? [Join MECLA](#) and get involved in Working Group 5F Engineered Timber, where industry leaders collaborate to share knowledge, address barriers and develop practical resources. To learn more about joining MECLA or contributing to WG5F, email info@mecla.org. It is a valuable opportunity to contribute your expertise, learn from others and help shape the future of timber construction in Australia.

More resources:

Exploring publications, past events, presentations and case studies on MECLA's [Resources hub](#)

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