Structural Timber Conference

York Minster Centre of Excellence

Technology Hub and Heritage Quad

tonkin liu

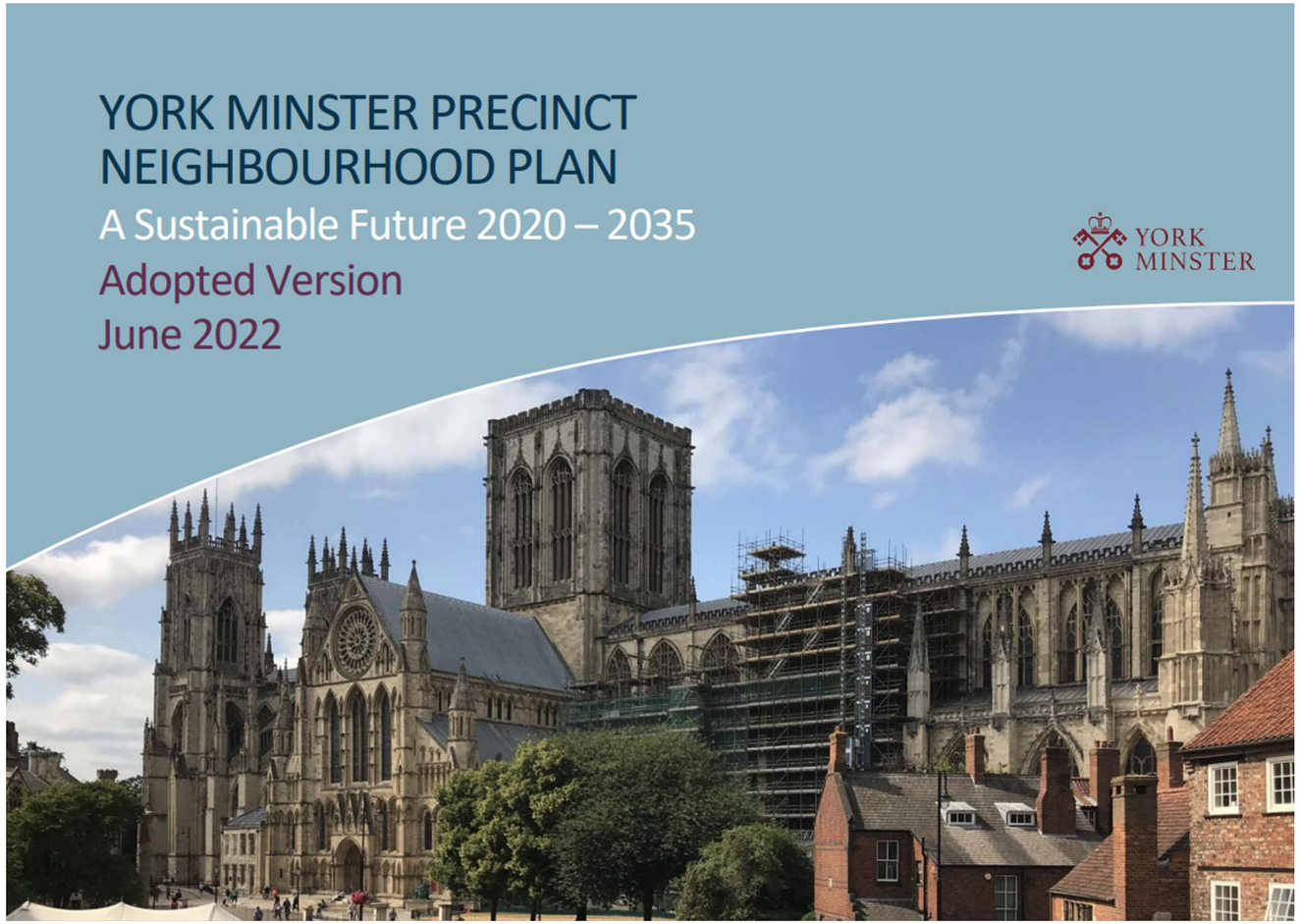
Mike Tonkin

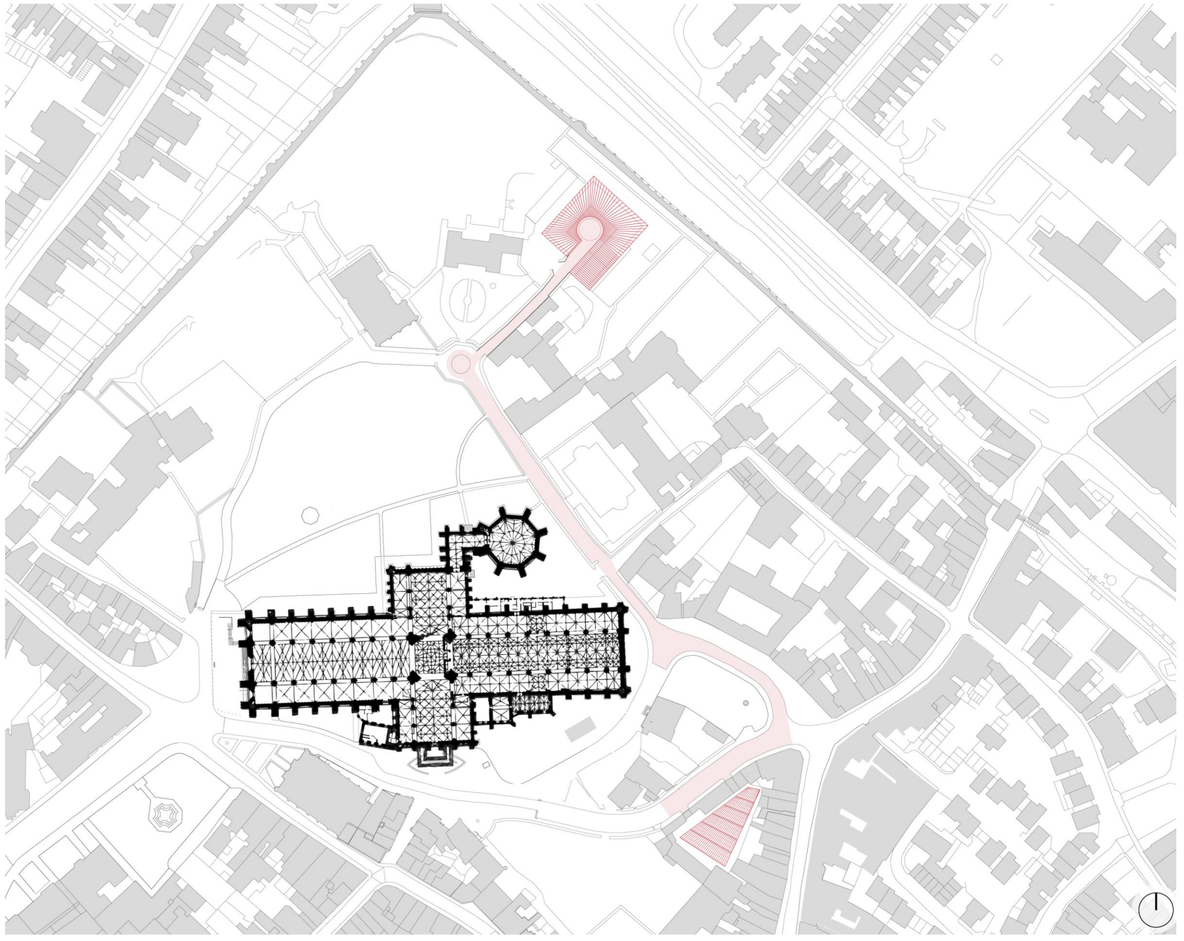
WEBB YATES

Melissa Cicin-Sain

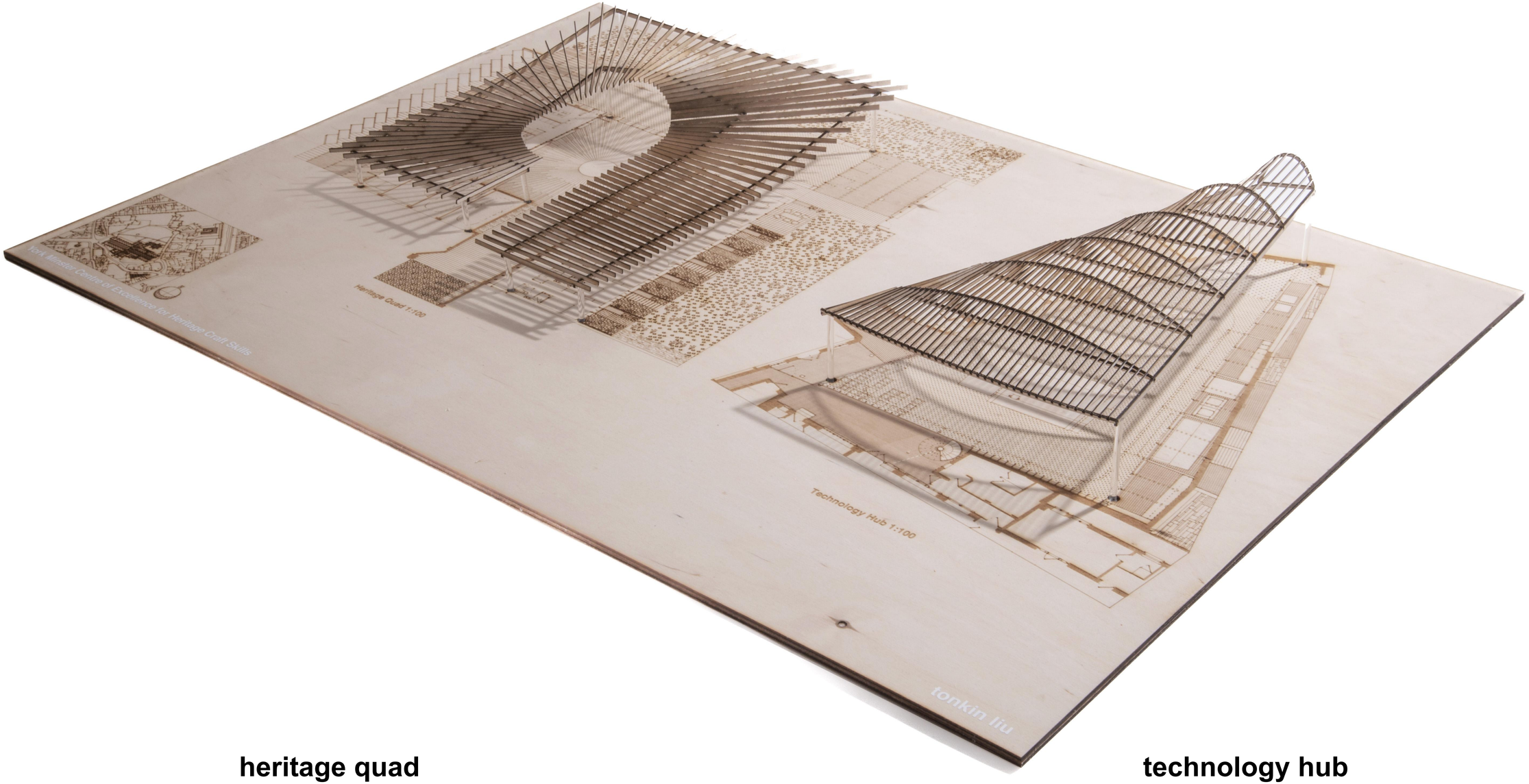
Buckland Timber

Robin Nicholson



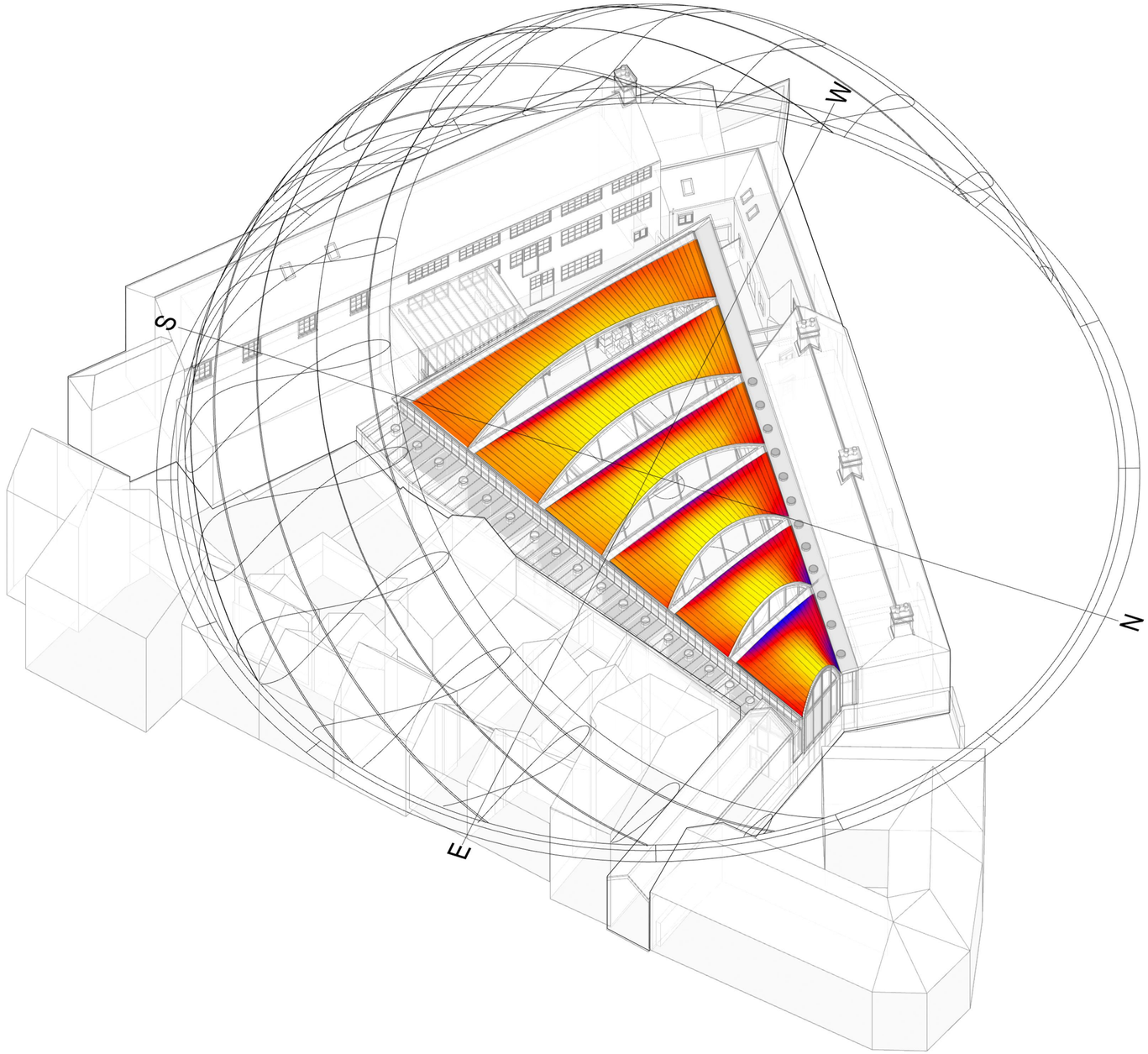


York Minster Centre of Excellence. Technology Hub and Heritage Quad

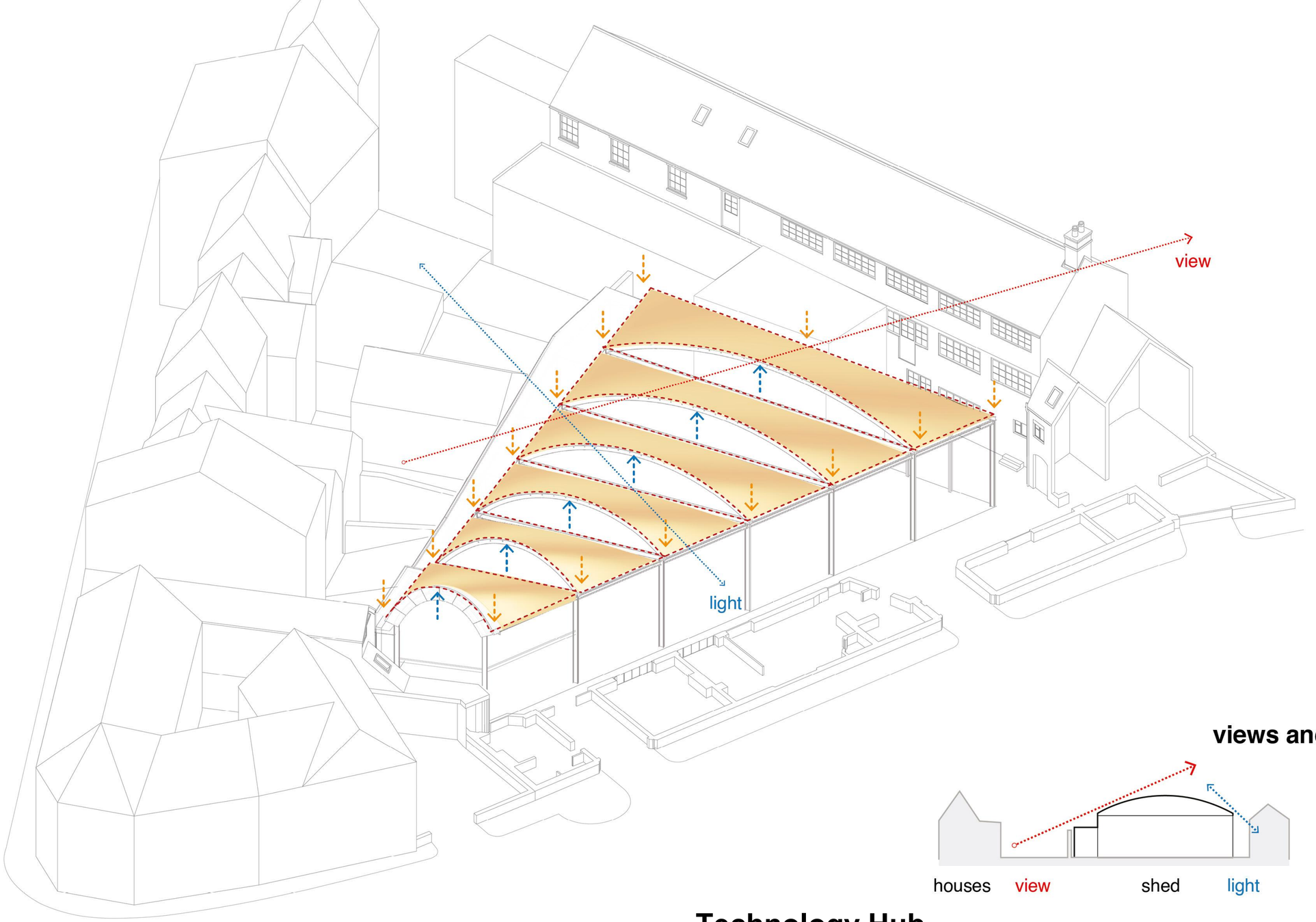


heritage quad

technology hub

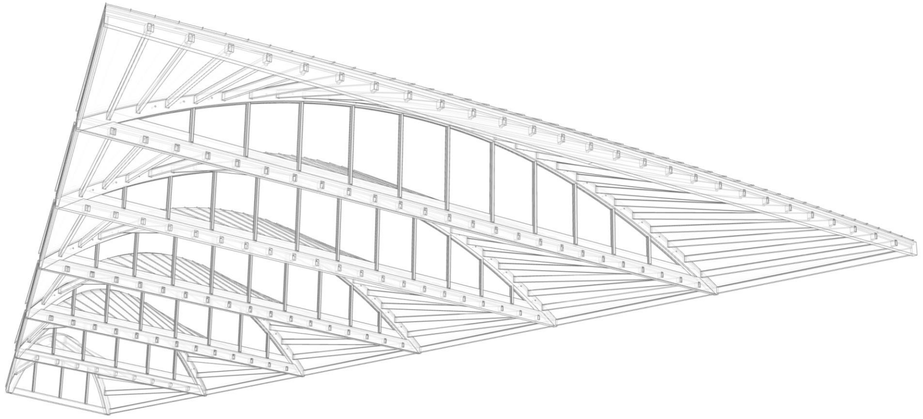


Technology Hub

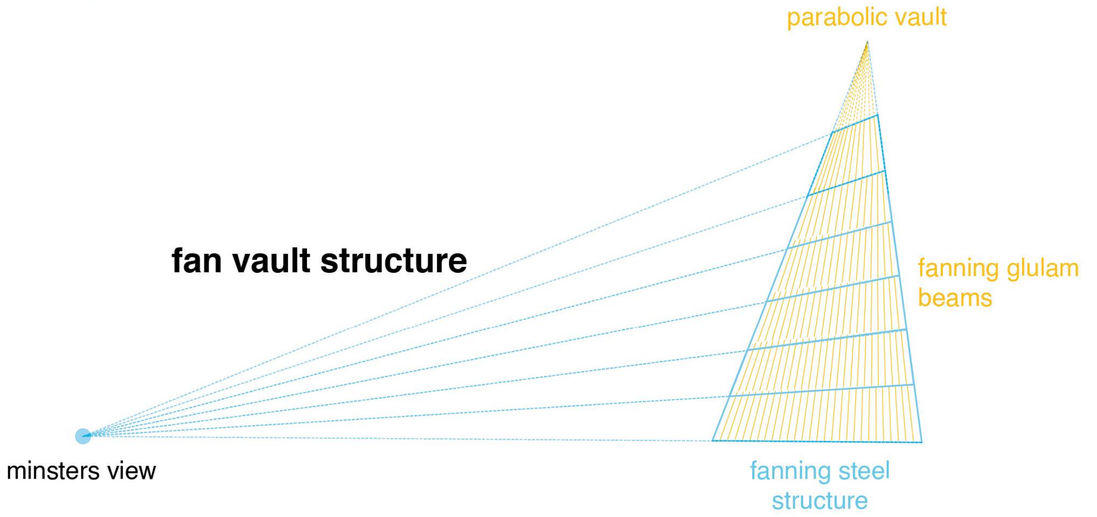


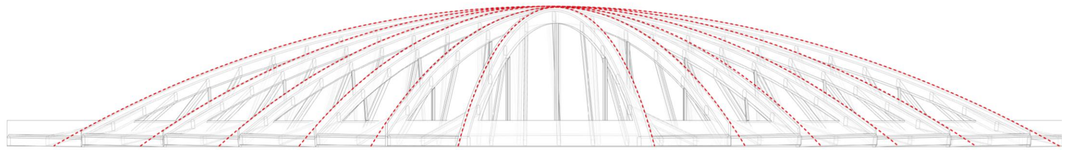
views and light

Technology Hub

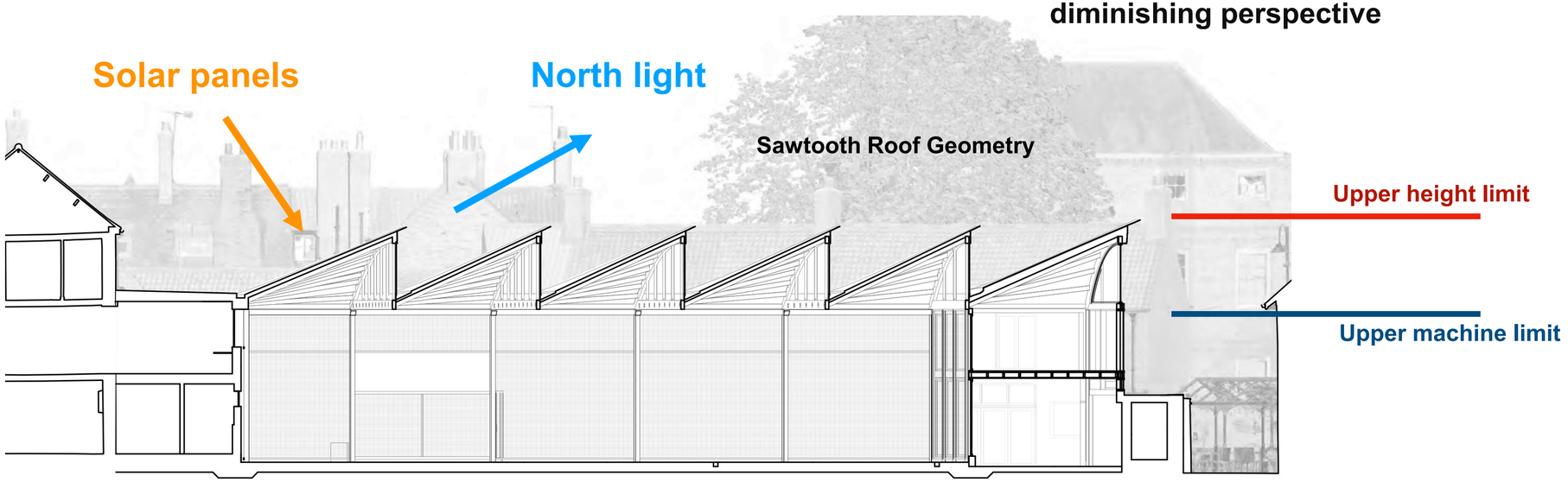


hyperbolic parabola





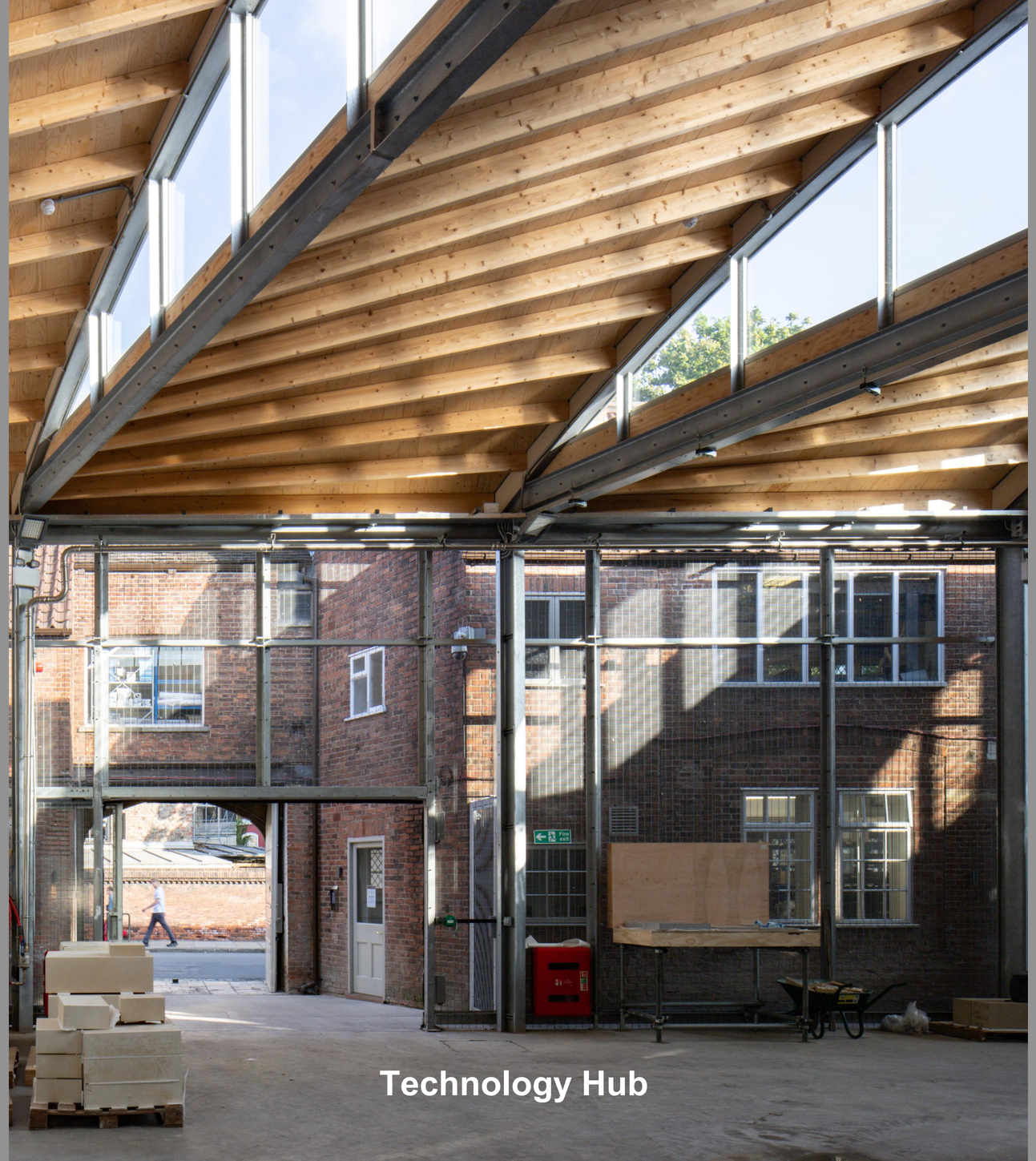
diminishing perspective

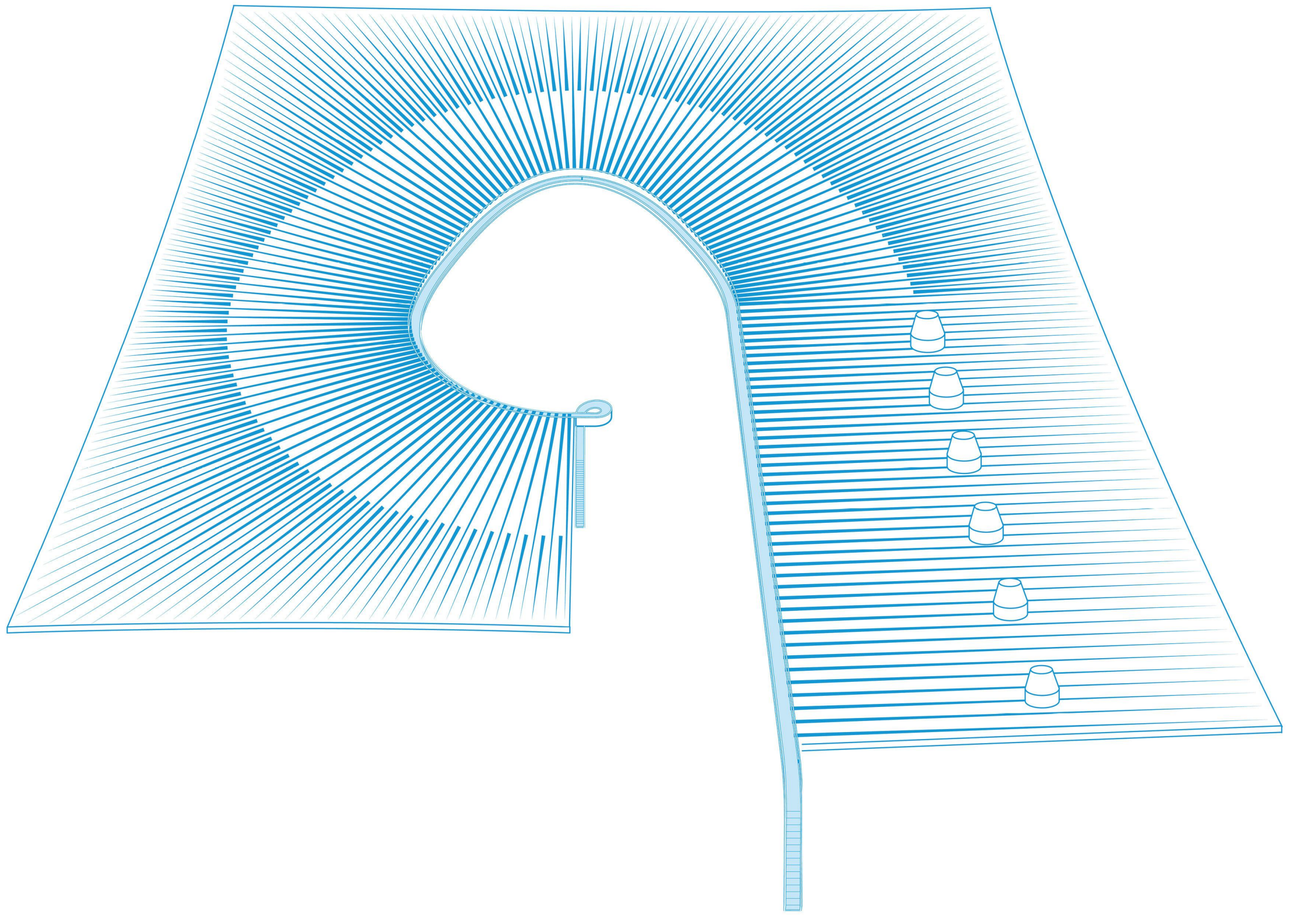


Technology Hub




Technology Hub


Technology Hub



Heritage Quad

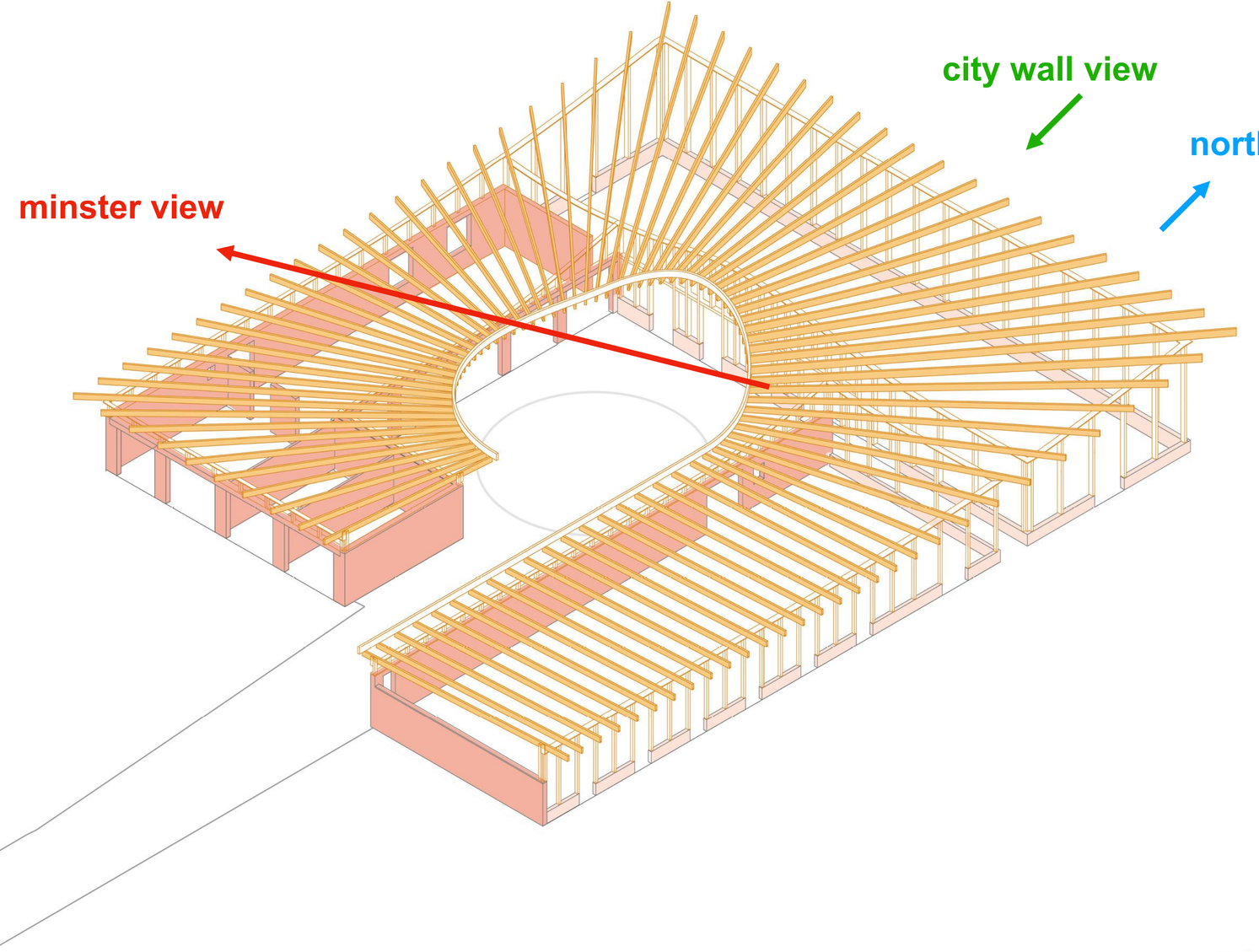


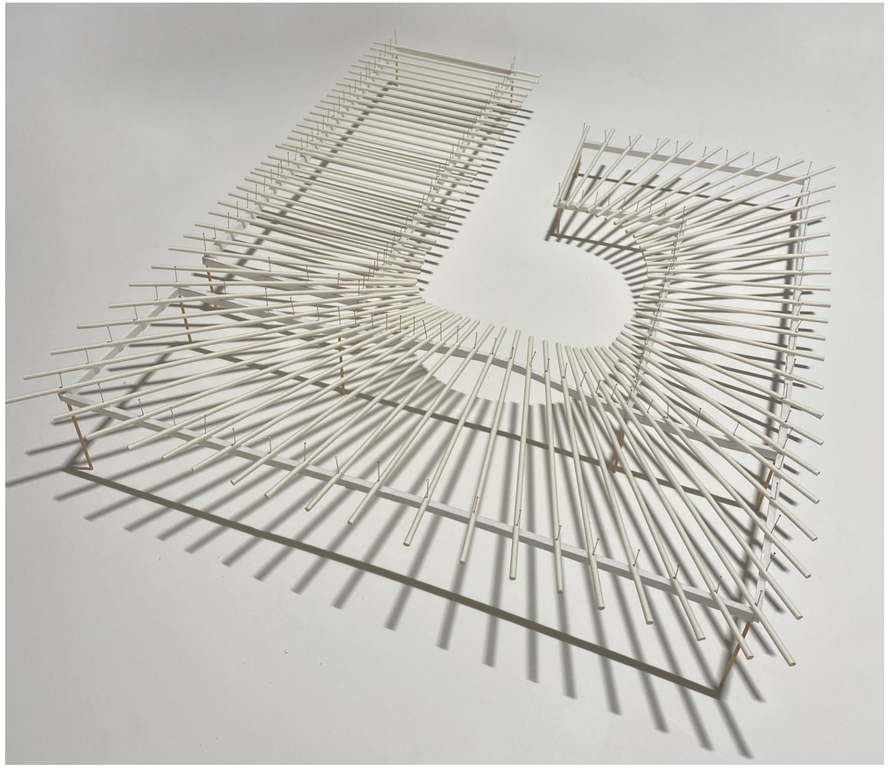
Existing garage structure



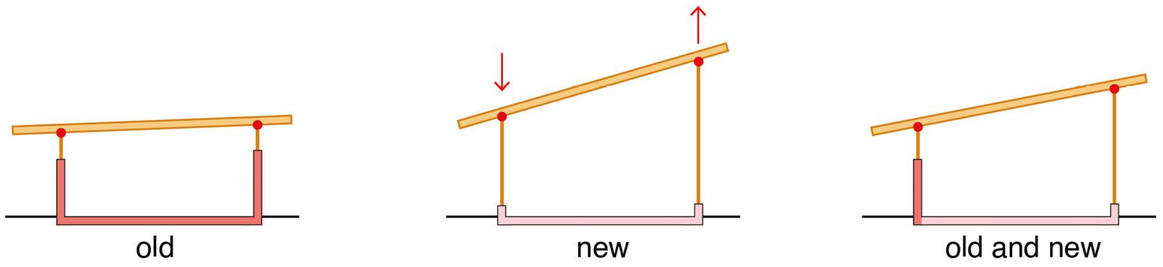
New radial timber roof

Heritage Quad

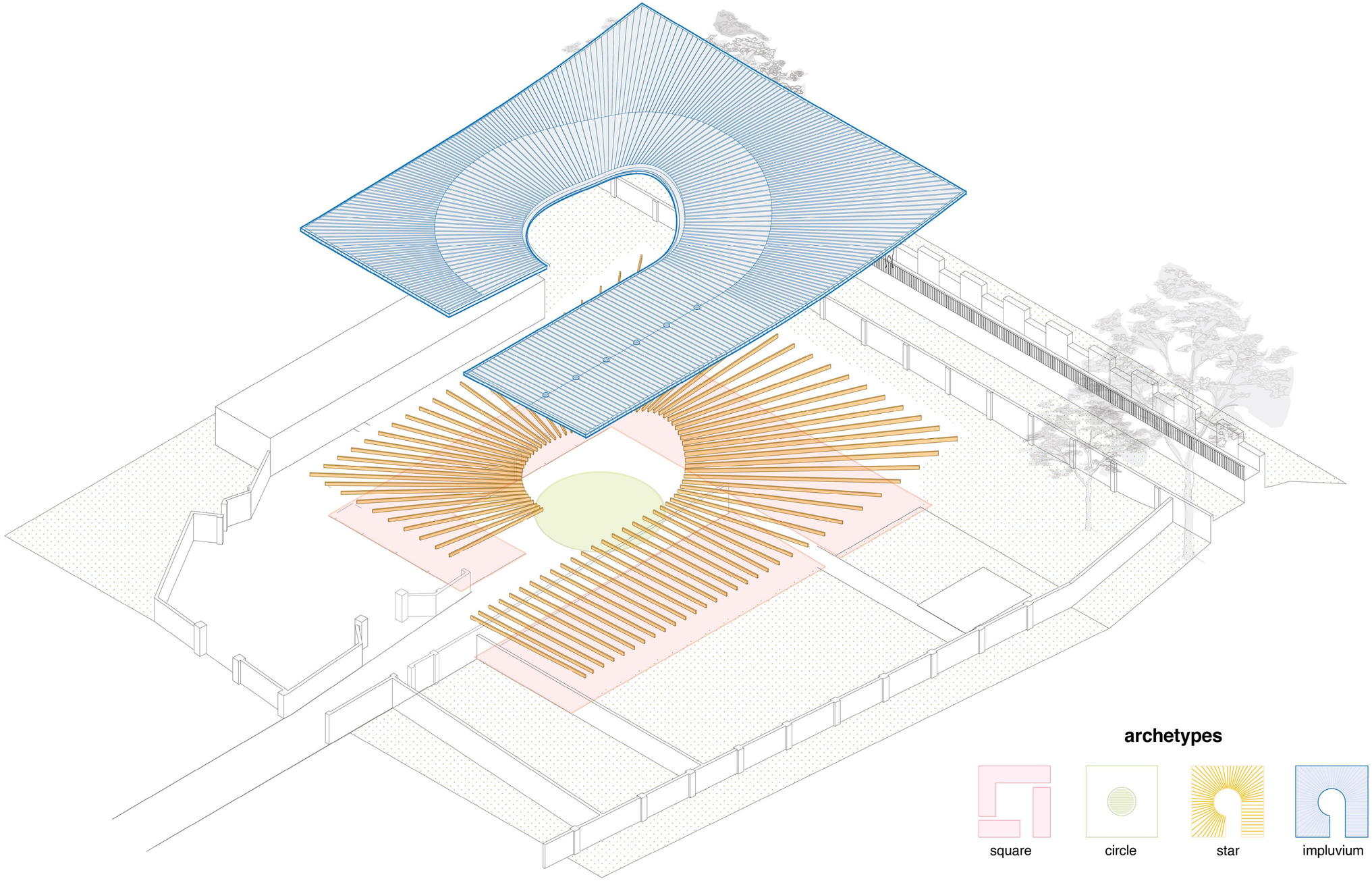




old and new structure



Heritage Quad



Heritage Quad



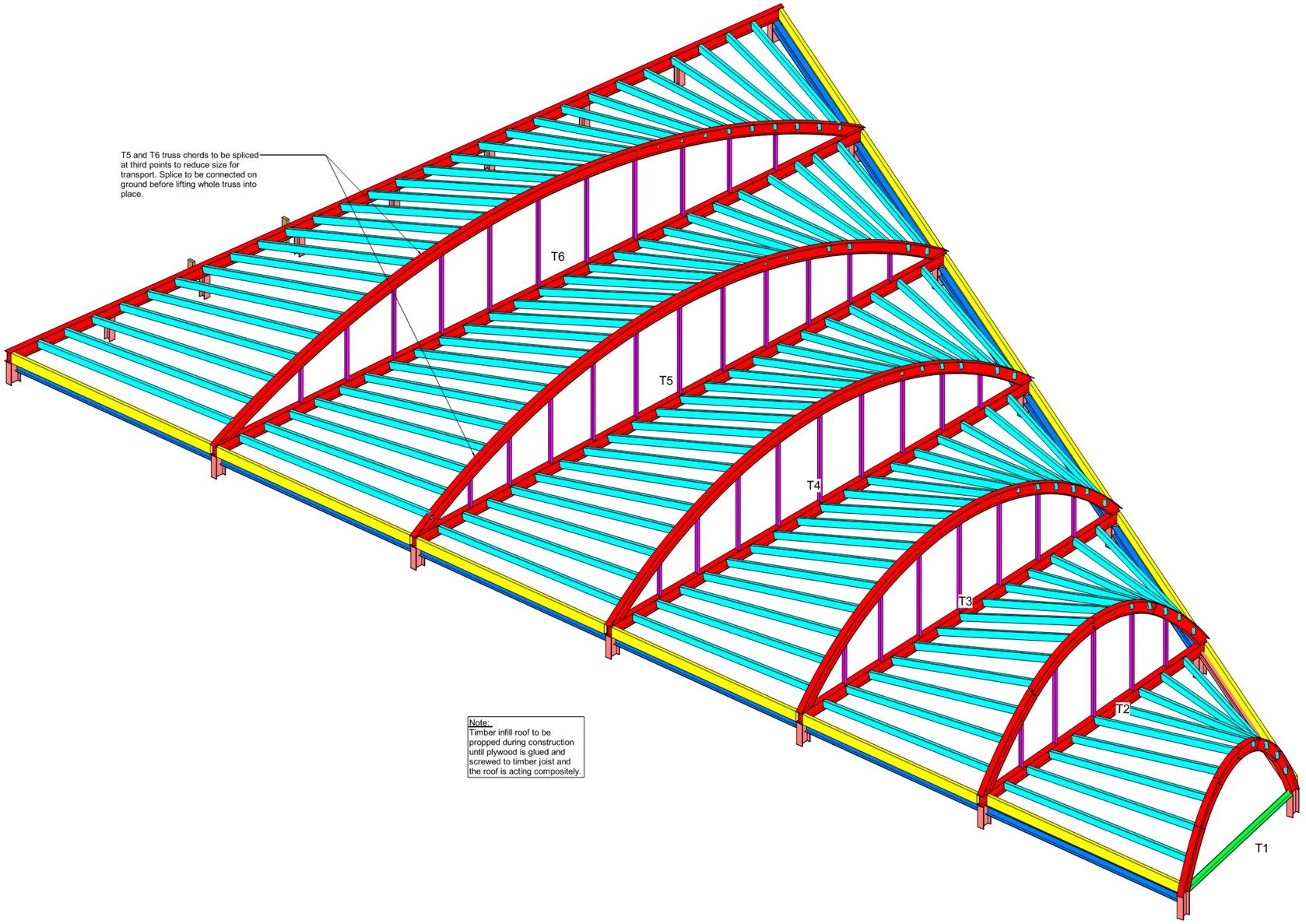
Heritage Quad

Heritage Quad





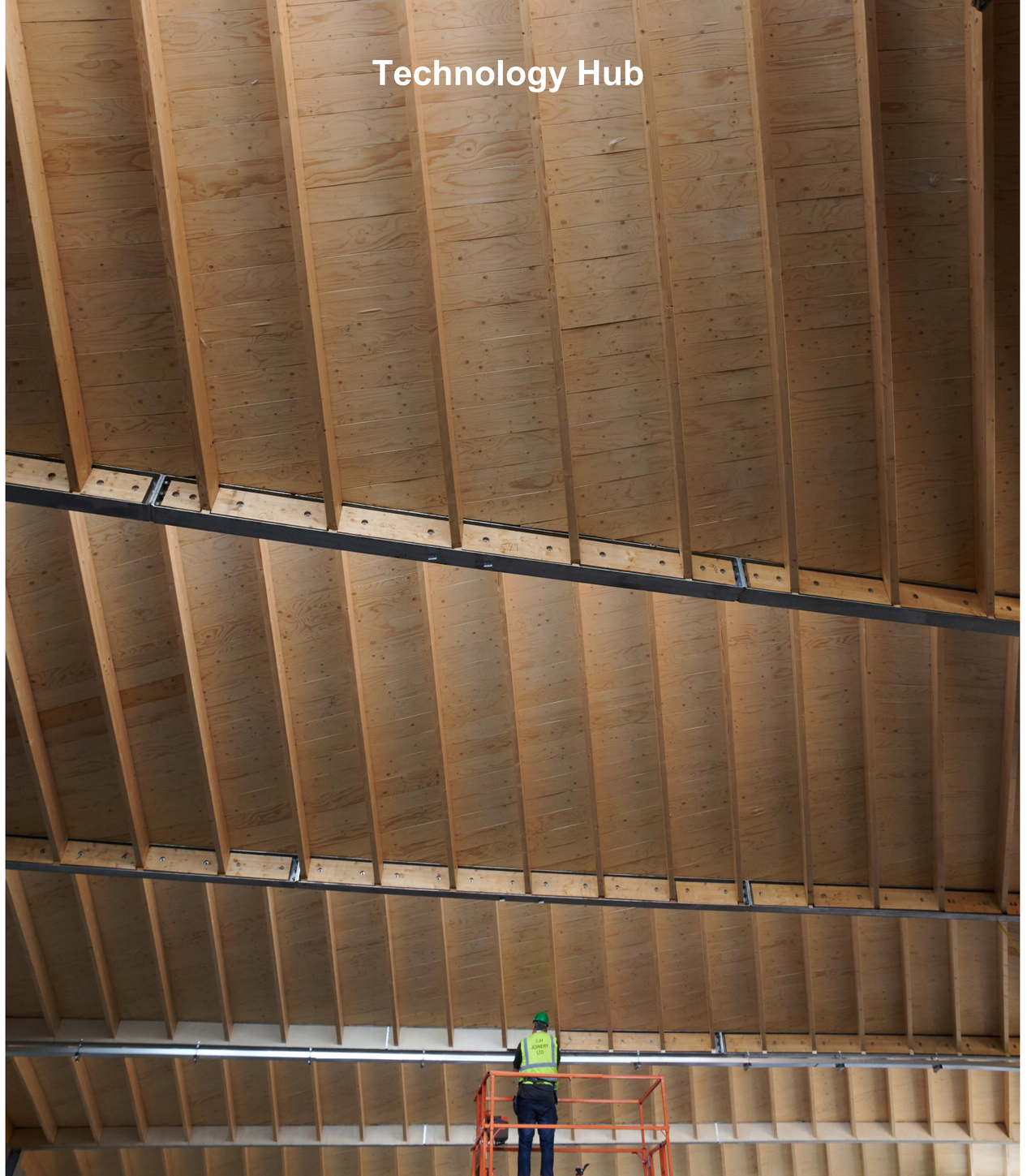
Heritage Quad

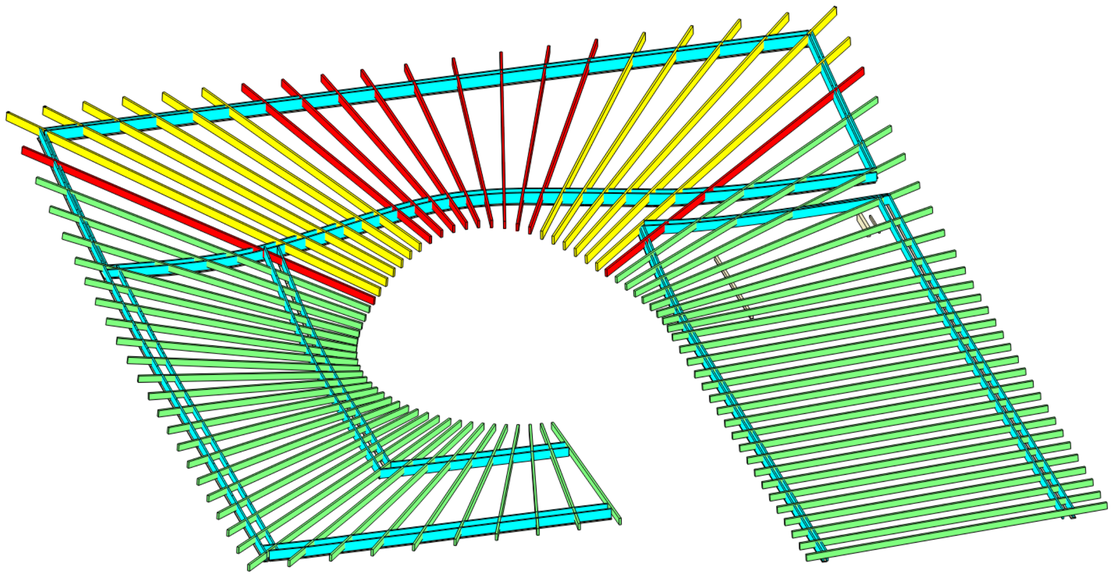


Technology Hub


Technology Hub

Technology Hub



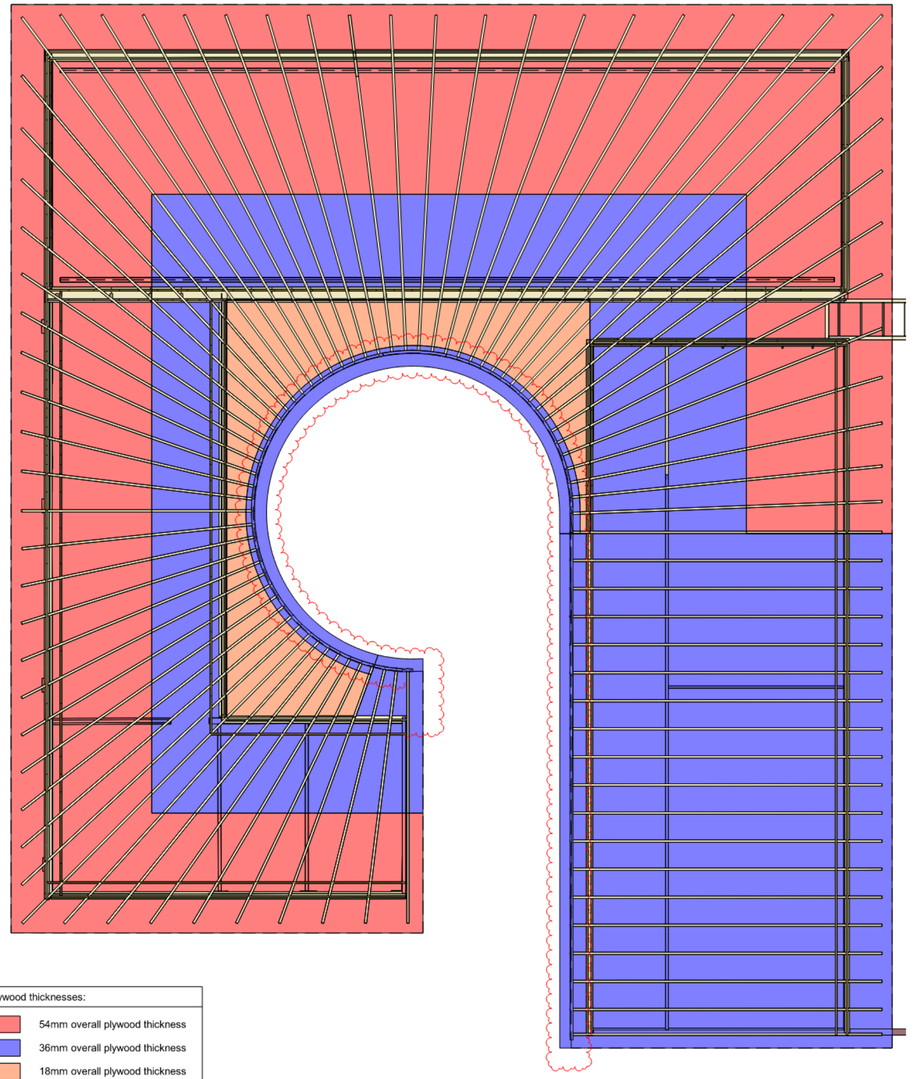


Roof Joist 3D View

Roof Beam Legend	
	GL.1 240x80 GL24h
	GL.2 280x80 GL24h
	GL.3 320x80 GL24h
	Noggings between joist of variable depth

Notes
Roof joists to be Spruce Whitewood GL24 homogeneous Glulam.

Ring beam to be built up from layers of plywood



Roof Ply Plan

Overall plywood thicknesses:	
	54mm overall plywood thickness
	36mm overall plywood thickness
	18mm overall plywood thickness

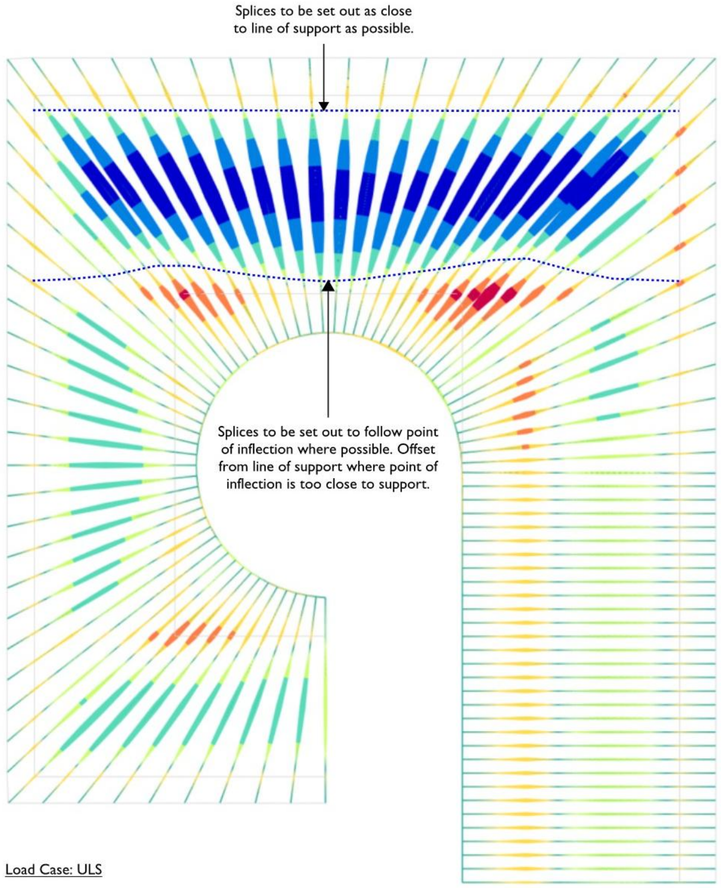
Notes
Plywood to be staggered, glued and screwed to act as stressed skin and provide horizontal diaphragm action as part of stability system

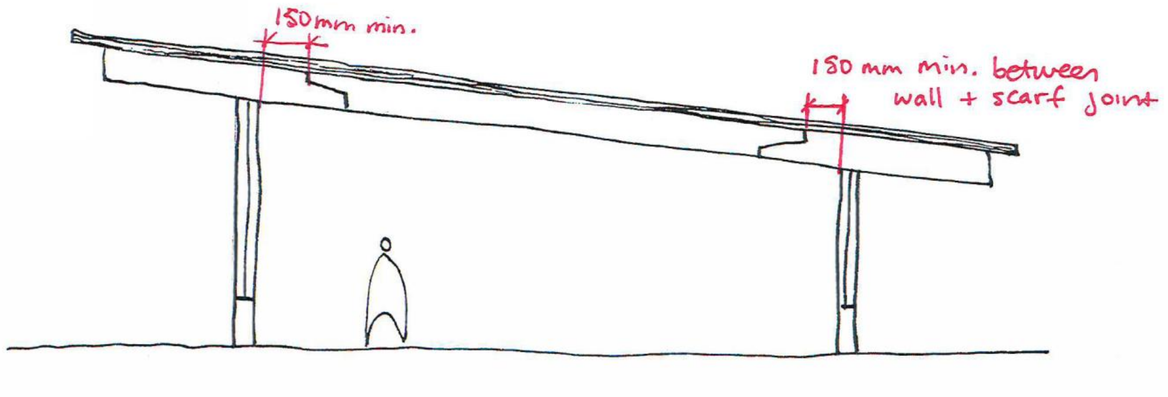
Minimum 2 layers of plywood.

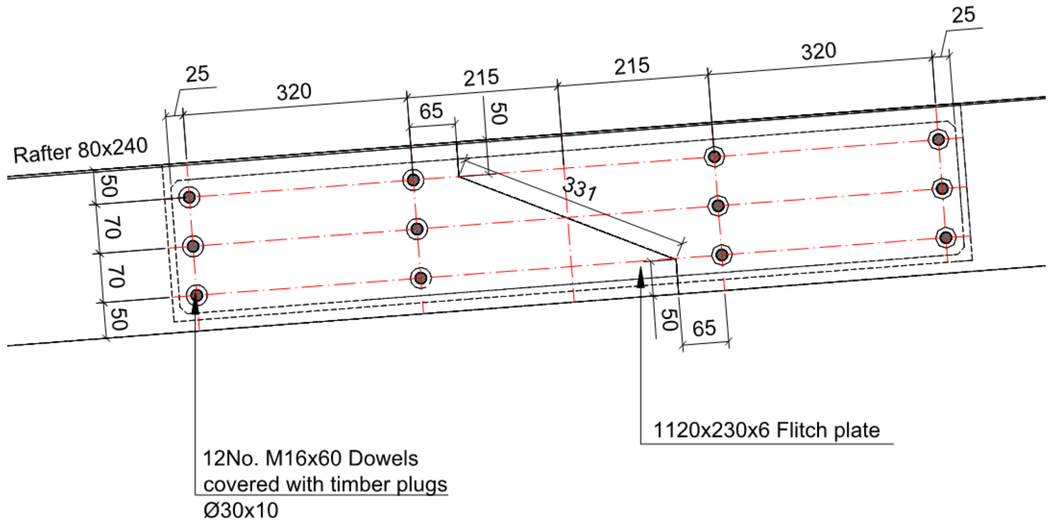
All visible plywood to be visual grade to Architect's Specifications

Heritage Quad



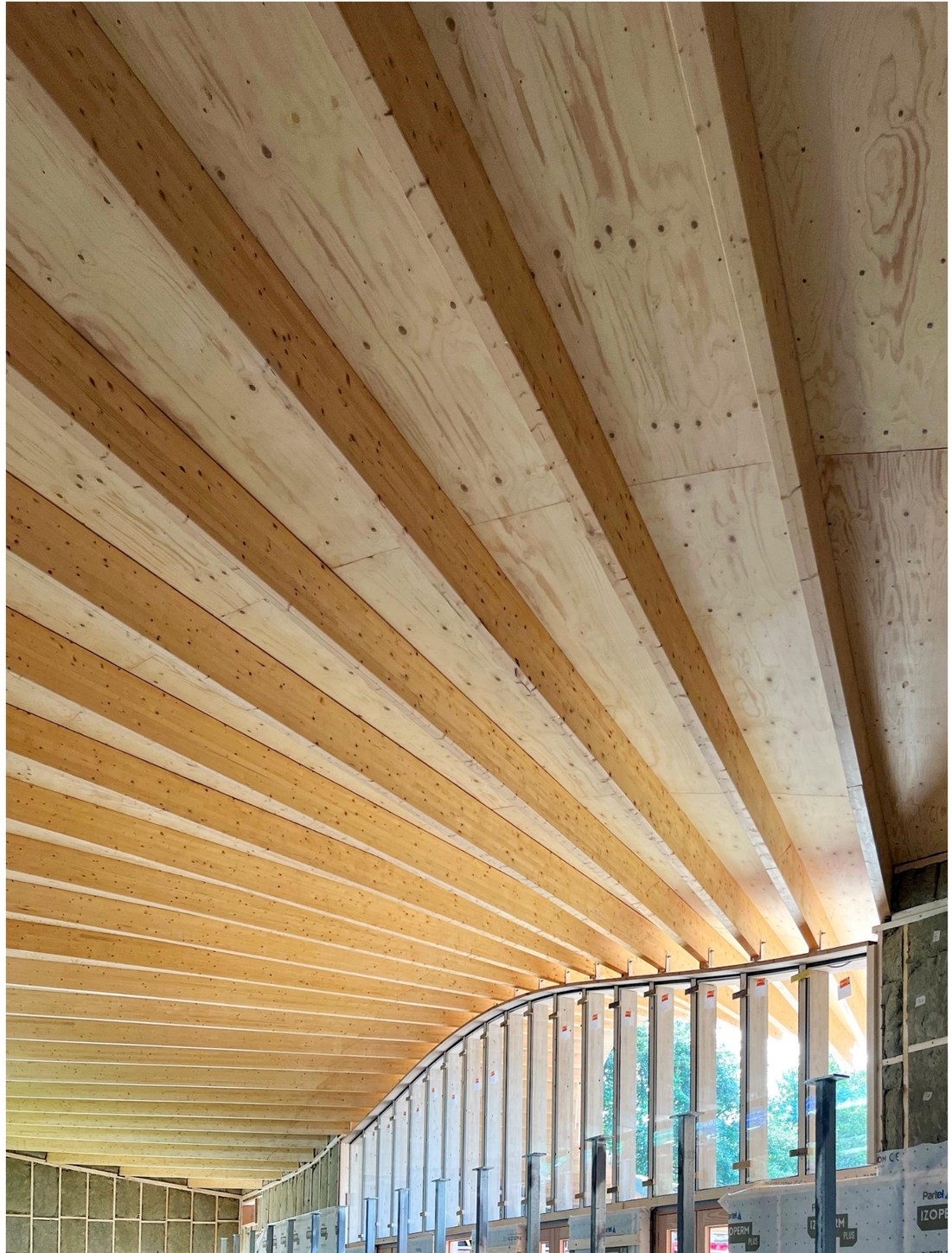






Heritage Quad







Heritage Quad


Heritage Quad



Heritage Quad



Douglas Fir

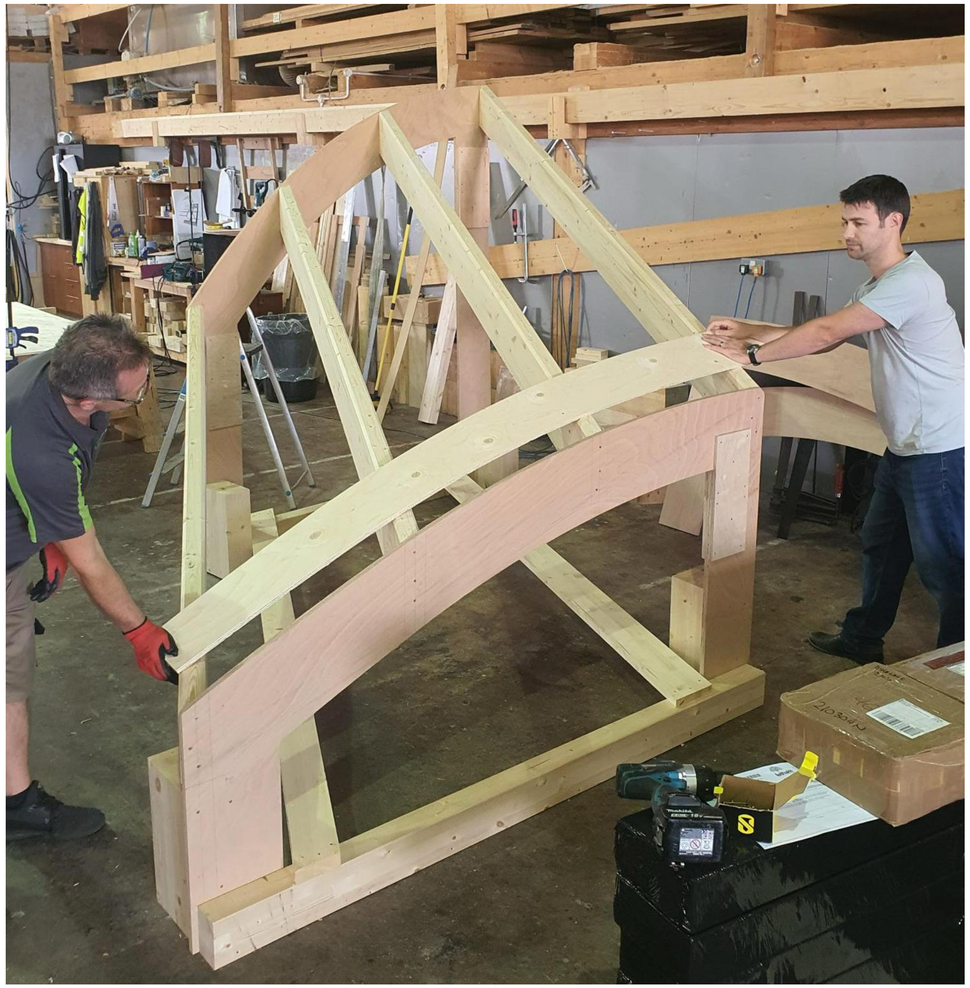


Larch



Whitewood Spruce

Timber Species





Timber Roof Prototyping





Timber Roof Prototyping

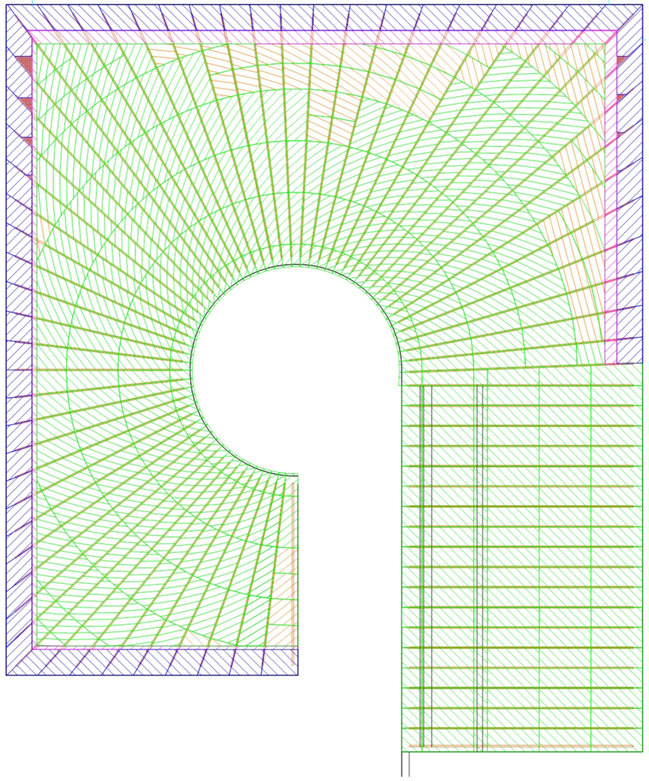


Z Rotation

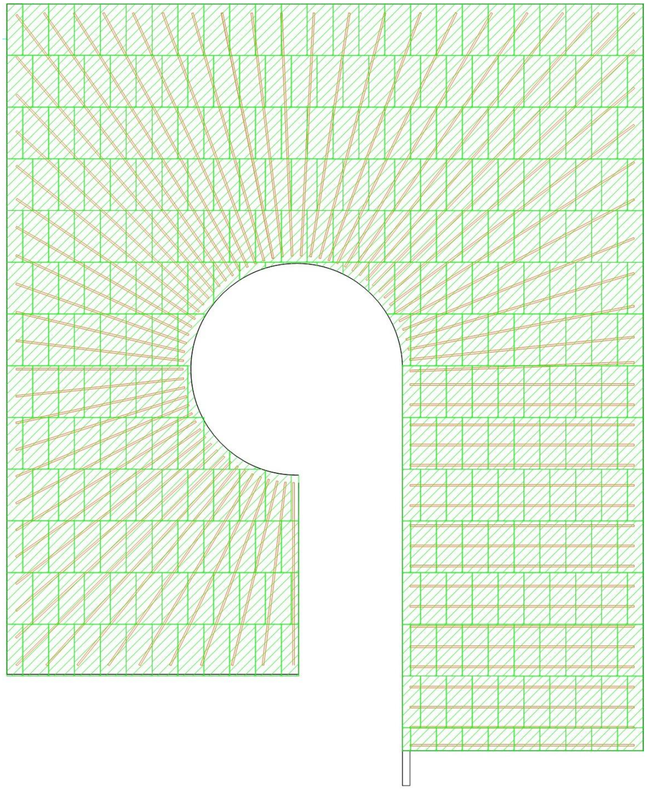
Y Pitch

X Height

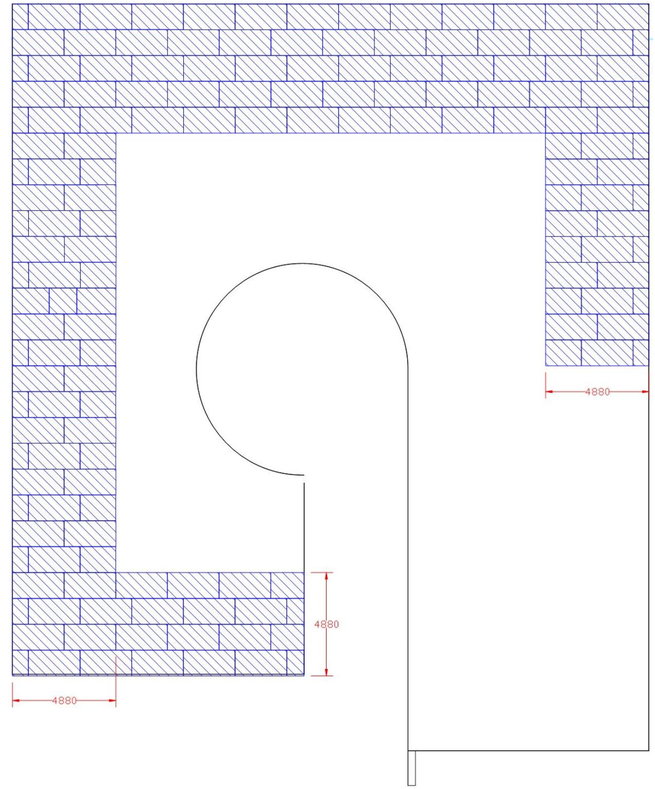




First Ply Layer Setting Out

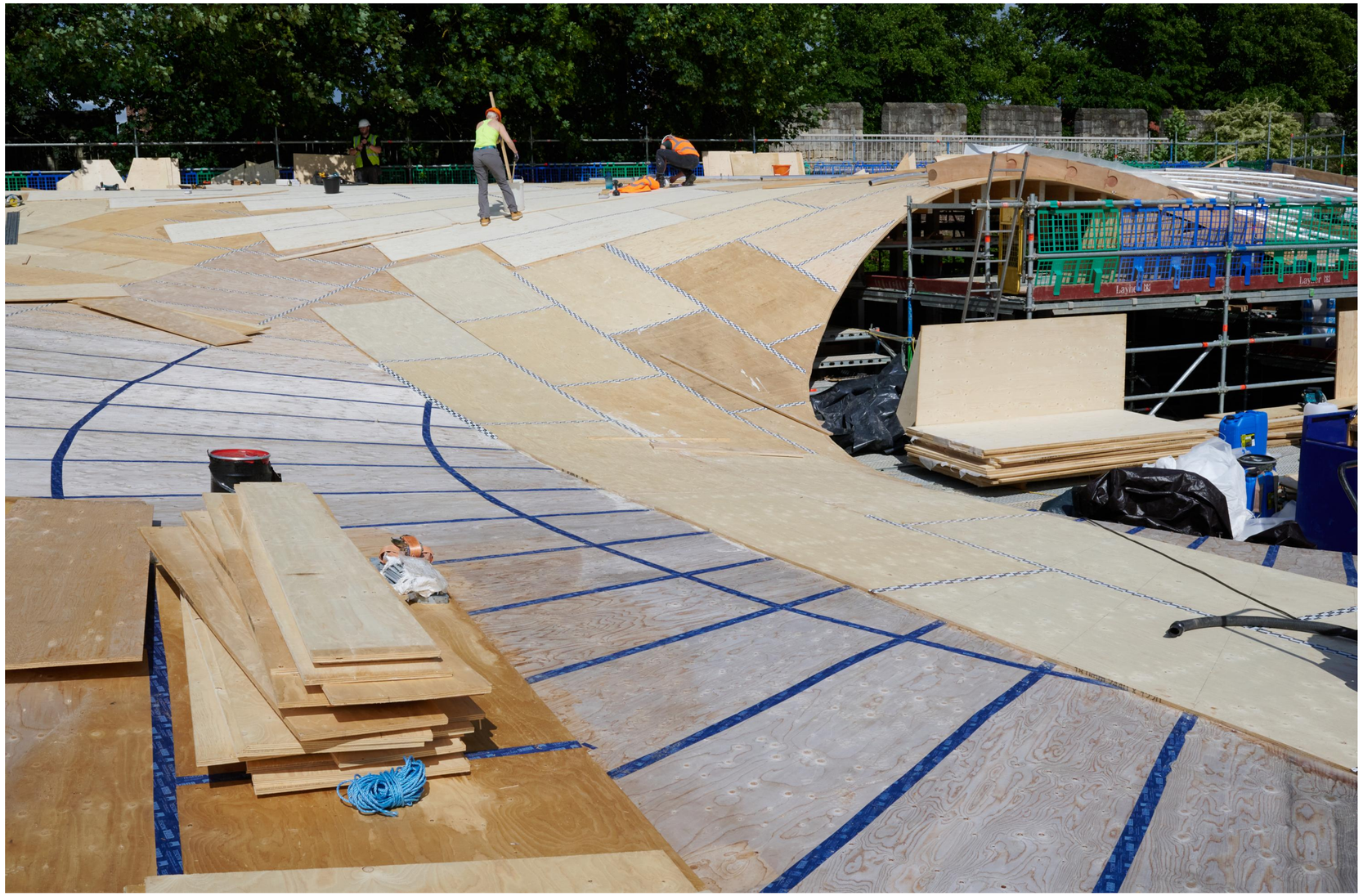


Second Ply Layer Setting Out



Third Ply Layer Setting Out

Plywood Roof





Plywood Roof



Ring Beam

Thank you

tonkin liu

WEBB YATES

Buckland Timber







Mike Tonkin

Melissa Cicin-Sain

Robin Nicholson