THE SAPIENS GARDEN

Engineering & Architecture Dossier

Document status: Concept / pre-feasibility dossier
Purpose: Initial professional review and advisory dialogue
Current focus: 14-metre oak and larch prototype
Long-term objective: 42-metre timber-frame lighthouse
Professional input sought: Architecture, timber engineering, structural feasibility, fabrication and assembly logic
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www.thesapiensgarden.com

1. Executive Summary

The Sapiens Garden is a UK-oriented cultural and architectural initiative centred on a proposed 42-metre timber-frame lighthouse and a 77-tree Memory Garden.

The immediate practical stage is the development of a 14-metre oak and larch prototype, intended to test the project's architectural language, structural logic, timber-frame geometry, material behaviour, assembly strategy, public presence, and pathway toward the full-scale lighthouse concept.

Alex Skarshelg has more than fifteen years of experience in independent timber construction practice, including more than 40 bespoke timber houses, a flagship built project exceeding 700 m², and specialist knowledge of Norwegian timber-building methods, structural joinery, workshop-led fabrication, and full-cycle timber project delivery.

The project is now seeking selected architectural and engineering partners for initial professional review, advisory dialogue, and possible future collaboration around the prototype and the wider full-scale lighthouse concept.

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2. Purpose of This Dossier

This dossier introduces The Sapiens Garden to selected architectural practices, timber engineers, structural consultants, and potential advisory partners whose expertise may be relevant to the architectural and structural development of the 14-metre prototype and the wider project.

It presents:

- the architectural intent of the project;
- the 14-metre prototype as the first practical stage;
- the main technical and structural questions requiring professional review;
- the author's timber practice and professional background;
- the project's UNESCO heritage alignment;
- a possible framework for expert exchange, advisory involvement, and future collaboration.

This dossier is not a request for unpaid design work. Its purpose is to open an initial professional review and determine whether there is a basis for developing a defined advisory or collaborative framework.

3. Author Profile

Alex Skarshelg is a master carpenter and independent timber construction specialist with more than fifteen years of experience in Norwegian timber-building methods and the full-cycle delivery of bespoke timber houses.

His work is rooted in craft-led timber construction, Norwegian log-building methods, workshop-led fabrication, assembly logic, and an understanding of the long-term behaviour of timber. Through his built practice, he has developed a technical and authorial approach in which timber is treated not only as a building material, but also as a structural, spatial, and cultural language.

Key professional background:

- more than 15 years of timber construction practice;
- founder and lead master of an independent timber construction practice;
- more than 40 bespoke timber houses designed and delivered;
- a flagship timber house exceeding 700 m^2;
- educational craft programmes;
- more than 25 participants trained in Norwegian log construction and Diamond Notch joinery;
- public documentation of fabrication, assembly processes, and completed timber works.

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4. The Sapiens Garden — Project Summary

The Sapiens Garden is a cultural and architectural initiative bringing together timber architecture, landscape, living heritage, public culture, education, and long-term stewardship.

At the centre of the project is a proposed 42-metre timber-frame lighthouse, conceived as the vertical axis of the project and as a contemporary beacon of cultural memory.

The lighthouse is accompanied by a 77-tree Memory Garden, dedicated to figures whose work has shaped human culture, science, and the arts. Together, the lighthouse and garden form a living cultural landscape where architecture, ecology, and intellectual heritage intersect.

The project is conceived as a phased cultural and architectural ecosystem, beginning with prototype development and extending toward public education, landscape stewardship, institutional and intergenerational continuity, and future architectural delivery.

4.1 Architectural Challenge

The challenge is to develop a tall lighthouse in oak and larch that is neither a conventional tower nor a symbolic sculpture, but a structure in which craft, verticality, landscape, and cultural memory are resolved through buildable architectural logic.

The current question is not whether a symbolic timber lighthouse can be imagined, but how such a structure can be responsibly translated into architectural, structural, material, and public reality. The 14-metre prototype is proposed as the first controlled step in this process.

4.2 Core Project Elements

- A 42-metre timber-frame lighthouse as the central architectural axis of the project.
- A 77-tree Memory Garden as a living landscape structure.
- Timber architecture and craft-led construction logic.
- Public education, cultural programming, and long-term stewardship.
- Development through prototypes and engineering studies toward a major capital phase.
- A UK-oriented cultural and architectural context.

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5. 14-Metre Timber Lighthouse Prototype — Immediate Focus

The immediate practical focus is the development of an exhibition-scale, 14-metre timber lighthouse prototype in oak and larch, following the proportions of the main lighthouse.

The prototype is conceived as the first practical stage of The Sapiens Garden in the United Kingdom and as a test structure for the future full-scale lighthouse. Its purpose is to move the project from institutional presentation into architectural, structural, and material development.

The 14-metre prototype is intended to become a built demonstrator: an argument for how craft-led timber construction can enter contemporary public architecture at landmark scale.

5.1 Purpose of the Prototype

The prototype is intended to test:

- architectural language;
- structural logic;
- timber-frame geometry;

- the material character and compatibility of oak and larch;
- joint and connection behaviour;
- lateral stability and wind response;
- assembly sequence and fabrication logic;
- public presence and spatial potential;
- the pathway from demonstrator to full-scale timber landmark.

5.2 Why the Prototype Matters

The prototype is a practical architectural and engineering step intended to establish:

- whether the lighthouse language can operate convincingly at built scale;
- how traditional timber craft can be translated into a vertical public structure;
- which structural principles may form the basis of the full-scale lighthouse concept;
- how oak and larch behave within the proposed formal and structural logic;
- which engineering, fabrication, and assembly questions must be resolved before further development.

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6. What We Are Asking You To Review

The current stage calls for focused professional input from architects, structural engineers, timber specialists, and practices experienced in public architecture, timber structures, cultural landmarks, and experimental prototypes.

The intended review concerns:

- the architectural feasibility of a 14-metre oak and larch prototype;
- the structural logic of a vertical timber-frame landmark;
- possible timber-frame, hybrid, or concealed structural strategies;
- wind loads, stiffness, lateral stability, durability, and connection logic;
- fabrication, transport, lifting, and assembly considerations;
- the possible role of your practice or team in the next advisory or collaborative stage.

7. Key Questions for Architectural and Engineering Dialogue

The following questions define the intended scope of early design and engineering dialogue.

7.1 Architectural Concept and Form

1. How can the 14-metre prototype express the architectural identity of the future 42-metre lighthouse without becoming a simplified model or temporary sculpture?
2. What formal language can connect craft-led timber construction with the public presence expected of a cultural landmark?
3. How should the internal space of the prototype be organised, even at exhibition scale, so that it communicates meaning, memory, and material presence?

7.2 Structural Strategy

4. What preliminary structural strategy is most appropriate for a vertical timber-frame lighthouse in oak and larch?
5. How should lateral stability, wind behaviour, stiffness, and deflection be approached at both 14-metre prototype scale and future 42-metre scale, including FEM modelling where appropriate?
6. What structural role could traditional timber-frame logic play, and where would contemporary engineering systems be required?

7.3 Joints, Connections, and Material Behaviour

7. What joint and connection strategy would be suitable for a prototype that must combine craft-led timber expression with public safety, durability, and engineering clarity?
8. How should oak and larch be evaluated in relation to environmental exposure, dimensional stability, ageing, maintenance, and long-term performance?
9. Which elements should remain visibly craft-led, and which should be resolved through concealed or hybrid engineering connections?

7.4 Fabrication, Assembly, and Delivery

10. What fabrication and assembly sequence would make the 14-metre prototype feasible, transportable, and suitable for exhibition or public presentation?
11. How can workshop-led preparation, prefabrication, lifting strategy, and on-site assembly be integrated from the earliest design stage?
12. What documentation, calculations, testing, or professional review would be required to move the prototype from concept into a buildable proposal?

7.5 Prototype-to-Lighthouse Pathway

13. Which aspects of the 14-metre prototype can meaningfully inform the future 42-metre lighthouse, and which aspects would require a different structural strategy at full scale?
14. What staged development pathway could connect concept design, prototype review, engineering feasibility, public presentation, and future architectural delivery?
15. What role could an architectural practice, structural engineer, or timber specialist play in defining the next professional phase of the project?

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8. Preliminary Technical Assumptions

The project is currently at concept / pre-feasibility stage. The following assumptions are preliminary and subject to professional review.

- **Primary material logic:** oak and larch as primary visible timber materials for the 14-metre prototype, with their structural role subject to professional review.
- **Structural direction:** a vertical timber-frame structure, subject to architectural and engineering development.
- **Prototype scale:** 14 metres as an exhibition-scale demonstrator and first practical stage.
- **Full-scale objective:** a 42-metre timber-frame lighthouse as the long-term architectural aim.
- **Key technical risks:** wind response, lateral stability, stiffness, deflection, connection strategy, durability, weather exposure, fabrication, lifting, and assembly sequence.
- **Development status:** concept / pre-feasibility; professional architectural and structural input is required before any buildable design stage.

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9. Built Timber Practice

The author's built timber practice is based on Norwegian dry-laft log construction traditions and related timber-building methods, with a focus on bespoke houses, large-section timber, structural joinery, controlled fabrication of joints, and full-cycle delivery.

The practice combines Scandinavian craftsmanship with a production process in which architectural intent, material behaviour, structural logic, fabrication, and construction are held within a single chain of responsibility through to turnkey completion.

It operates both as a building practice and as a craft laboratory, exploring the relationship between heritage construction, contemporary residential architecture, and timber project delivery.

9.1 Key Outcomes

- More than 40 bespoke timber houses designed and delivered.
- A flagship timber house exceeding 700 m², with a project value of more than €2.5 million.
- Full-cycle delivery from concept and fabrication through assembly and completion.
- Development of educational craft programmes.
- More than 25 participants trained in Norwegian log construction and joinery.
- Public documentation of fabrication, construction, assembly, and completed works.

9.2 Technical Signature

The technical character of the practice is defined by traditional Scandinavian timber construction and direct responsibility for the full design–material–construction chain.

Key technical features include:

- Norwegian Diamond Notch / diamond-laft joinery;
- kiln-dried structural timber preparation;
- in-house timber drying process;
- custom templates, jigs, and tooling;
- precision hand-fitted joints;
- workshop-led preparation and controlled assembly logic;
- settlement-compensation systems;
- winter assembly methods;
- production base exceeding 1,000 m².

This integrated system enables control over timber behaviour, joint quality, component repeatability, assembly tolerances, and the long-term performance and aesthetic quality of the buildings.

10. Technical Development Direction

The Sapiens Garden lighthouse is being developed from a craft-led timber background, but its future delivery requires contemporary architectural and engineering input.

Technical development will need to address:

- translating timber craft into vertical landmark architecture;

- identifying an appropriate timber-frame structural system;
- evaluating oak and larch as primary expressive and structural materials;
- developing connection logic suitable for public architecture;
- addressing wind, stiffness, deflection, durability, and maintenance;
- defining a credible pathway from prototype to full-scale structure;
- preparing the professional documentation required for future design stages.

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11. UNESCO Heritage Alignment

In January 2026, the Secretariat of the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage acknowledged receipt of materials relating to The Sapiens Garden.

The response commended the dedication and far-reaching efforts demonstrated through the initiative and stated that its vision closely aligns with the principles of the 2003 Convention, particularly in relation to living heritage, sustainability, built heritage, and the surrounding environment.

This correspondence does not constitute endorsement or approval of the project. Its significance lies in the fact that the conceptual direction of the project is legible within an international heritage framework concerned with living heritage, sustainability, built heritage, and environmental interdependence.

For the current design and engineering phase, this provides a clear heritage context: the lighthouse and prototype are part of a broader question of how timber architecture, living heritage, and landscape can be developed responsibly over time.

12. Professional Dialogue and Collaboration Framework

The project is now moving from institutional presentation into a design and engineering dialogue phase.

Alex Skarshelg is approaching a small number of carefully selected architectural practices, structural engineers, timber specialists, and strategic design teams whose work may resonate with vertical timber landmarks, craft-led design, ecological construction, and structurally expressive timber architecture.

12.1 Current Aim

At this stage, the aim is to establish an initial professional review and exploratory exchange in order to understand whether there is a meaningful basis for a more formal advisory or collaborative framework.

The purpose is to identify whether selected professional partners could contribute to:

- the architectural definition of the 14-metre prototype;
- the structural concept of the demonstrator;
- feasibility questions related to vertical timber-frame structures in the UK;
- the future technical development of the full-scale lighthouse;
- a possible advisory or collaborative pathway.

12.2 Possible Forms of Contribution

Possible areas of professional contribution include:

- review of the preliminary architectural concept;
- development of prototype design documentation;
- preliminary structural review;
- advice on the timber-frame system;
- wind, stiffness, and lateral stability strategy;
- joint and connection strategy;
- material and durability advice;
- fabrication and assembly logic;
- public architecture and exhibition-scale presentation;
- definition of a future advisory scope, role, timeline, and budget.

12.3 Intended Collaboration Pathway

If a strong professional fit is identified, the dialogue may develop into a more formal advisory or collaborative framework with a defined scope of work, role, timeline, and budget for services.

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13. UK Development Context

The Sapiens Garden is being developed as part of a long-term cultural and architectural practice oriented toward the United Kingdom.

The wider ambition is to establish a craft-led timber architecture platform combining built work, public education, craft development, ecological stewardship, institutional dialogue, and international professional exchange.

This context is important because the project is intended to become a phased cultural and architectural platform, beginning with concept studies and prototype development and expanding toward long-term public, educational, landscape, and architectural outcomes.

14. Selected Supporting Context

The following related initiatives support the wider professional and cultural context of the project. They are not the focus of this engineering dossier, but they demonstrate the broader framework in which The Sapiens Garden is being developed.

14.1 Artefact-Based Institutional Outreach

An artefact-based institutional outreach method was developed to introduce the project to selected cultural and heritage institutions in the United Kingdom and Europe through crafted project dossiers and verified delivery.

14.2 Public Craft and Spatial Culture Laboratory

A proposed London-based public craft and spatial culture laboratory is being developed as an early public-facing platform for the project.

It is conceived as a place for timber craft, drawing, material research, prototype development, small-group education, and public cultural programming.

14.3 Reforestation Programme

A personal reforestation programme involving the hand planting of 170 pine trees forms part of the wider ethical context of the author's practice, linking timber construction with ecological responsibility and long-term landscape stewardship.

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15. Possible Areas for Professional Assessment

If a professional exchange develops, possible areas for assessment may include:

- the author's technical authorship in timber construction;
- the relevance of his built timber practice to contemporary craft-led architecture;
- the architectural and structural potential of the 14-metre prototype;
- the feasibility pathway from demonstrator to full-scale timber landmark;
- the project's relevance to UK cultural and architectural life;
- the value of international professional exchange around timber architecture and public cultural infrastructure.

16. Visual Appendix — Selected Built Timber Practice and Project References

The visual appendix includes selected images of built timber work, fabrication processes, joinery, assembly, training activity, and early concept material for The Sapiens Garden.

Scandinavian timber-frame house — evening exterior
Completed timber house showing the exterior architectural language and material presence of the built work.

Author at work —
preparing structural timber elements for a stavlaft house as part of the workshop-led fabrication process.

Scandinavian timber-frame house — exterior view

Completed timber structure demonstrating large-scale timber construction, proportion, and façade articulation.

Evening interior

Interior view showing timber atmosphere, spatial warmth, and the material continuity of the construction.

Living space with 6-metre-high ceilings

Generous timber interior with exposed structural rhythm and a ceiling height reaching approximately 6 metres.

Timber roof structure with exposed purlins

Interior roof structure showing exposed purlins, timber lining, and the integration of structural and spatial expression.

Handcrafted kitchen with island and integrated sink

Interior joinery and timber finishing demonstrating craft-led detailing within a completed living environment.

Primary bedroom

Completed timber bedroom showing the material atmosphere and domestic scale of the built work.

Evening interior with ambient lighting

Interior view demonstrating the atmospheric quality of timber surfaces under warm lighting conditions.

Flagship timber house, 700+ m²

Large-scale bespoke timber house constructed from kiln-dried timber beams measuring 250 × 350 mm.

Roof ridge exceeding 9 metres

Large timber roof structure with a ridge height exceeding 9 metres.

Multi-level engineered roof structure, 800 m²

Complex multi-level roofing system with a total roof area of approximately 800 m².

House during sanding, before final finish

Construction-stage view showing timber surface preparation before the final finish.

Assembled exterior corner of the log structure

Corner detail showing the assembly logic, joint precision, and structural character of the timber wall system.

Hand-forged axe for Diamond Notch joinery

Specialised hand-forged axe used for cutting Diamond Notch joints in log construction.

Crafting a structural timber element

Process image showing the hand preparation of a structural element for a log house.

From architectural visualisation to construction —
the completed timber log structure assembled on its foundation.

Construction stage with panoramic glazing installation

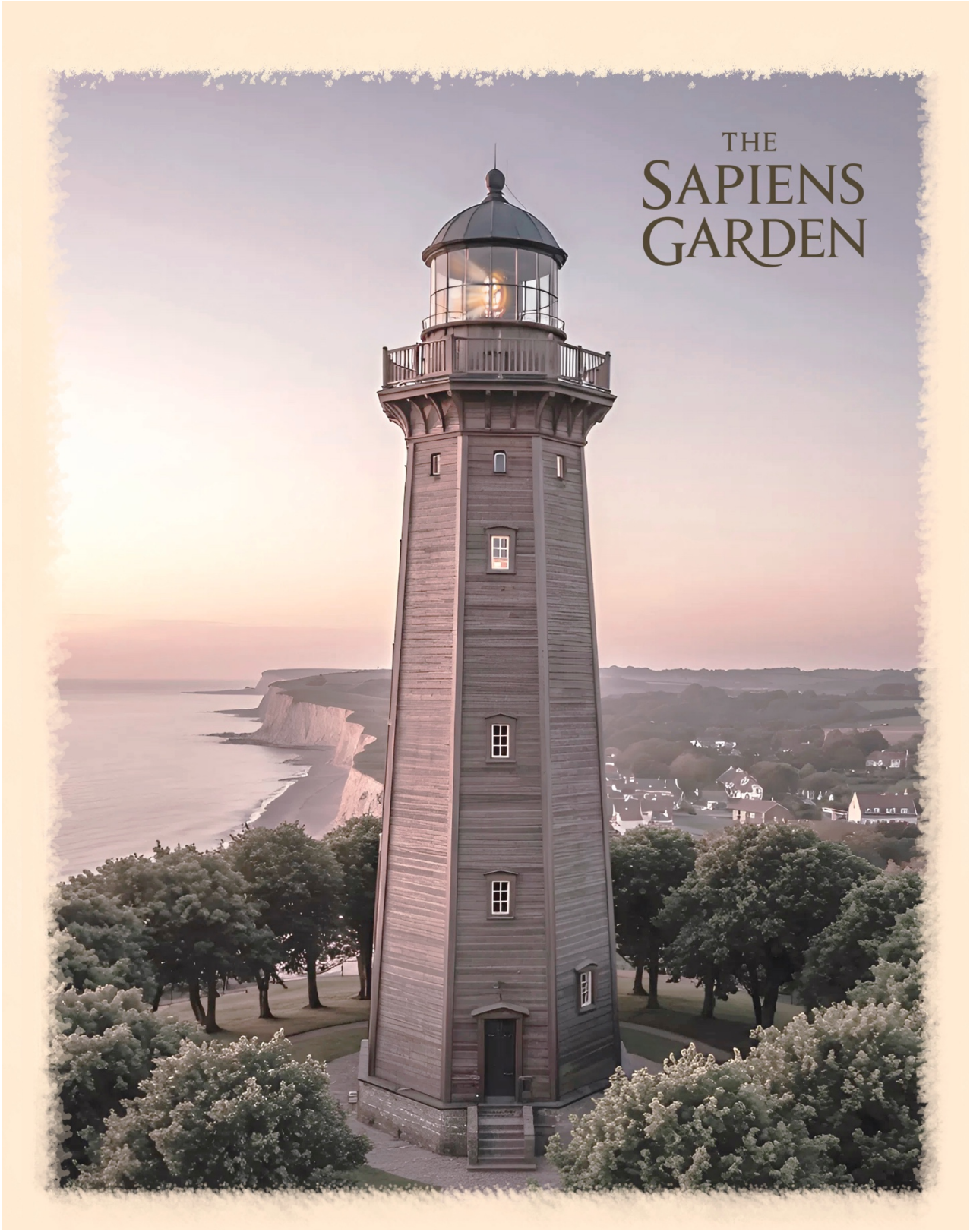
Timber house under construction, with interior works in progress and panoramic glazing being installed.

Timber craft training programme, active since 2019

Two-day masterclasses conducted at an in-house production facility, focused on Norwegian timber construction techniques.

Hand-tool training with kiln-dried timber

Participants work with premium kiln-dried timber using traditional hand tools and finely sharpened axes.



The Sapiens Garden — conceptual visualisation

Conceptual visualisation showing the proposed timber-frame lighthouse as the central vertical landmark within the 77-tree Memory Garden.

17. Closing Statement

The Sapiens Garden is entering a stage where architectural imagination, timber craft, and structural expertise must be brought into direct professional dialogue.

The 14-metre timber lighthouse prototype is conceived as the first buildable step: a structure through which the project's architectural language, material logic, engineering questions, and public potential can be tested before any later full-scale stages.

The purpose of this dossier is to open dialogue with selected professionals capable of contributing to the next stage of the project's architectural and structural definition.

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