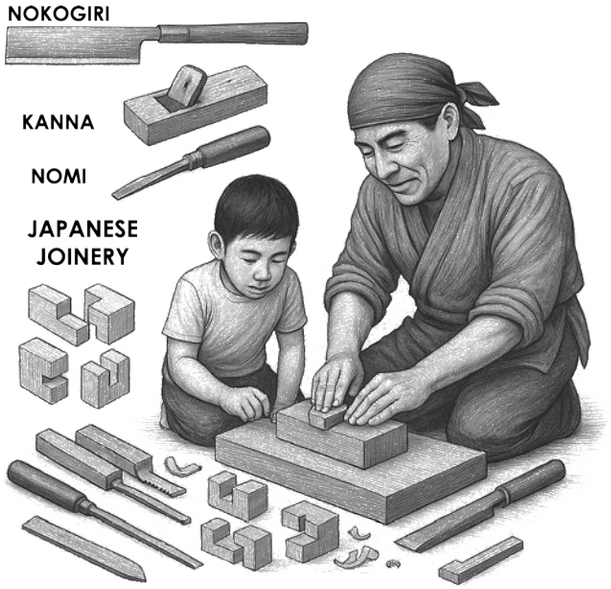
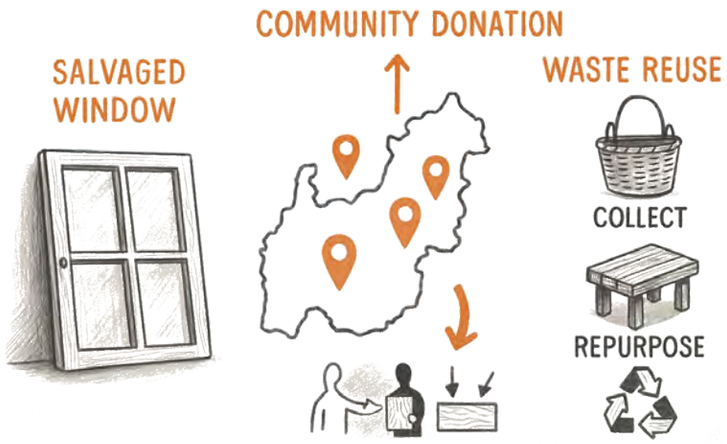
PROJECT BRIEF

Japanese Carpentry Hub

The project aims to transform the **Mokusan Wood Factory Store** into a **Japanese carpentry hub** that preserves and promotes traditional woodworking techniques while supporting sustainability. By utilising **local timber and interlocking joinery methods**, the space will serve as a **restoration and learning centre**, extending the life of wooden furniture and structures instead of replacing them. This initiative aligns with **Kamikatsu's minimal-waste philosophy**, reducing material waste and fostering mindful craftsmanship. Additionally, the project will provide **hands-on workshops, exhibitions, and apprenticeship opportunities**, ensuring that **Japanese carpentry traditions** are passed down to future generations. Through **adaptive reuse of the existing factory store**, the transformation will honour its architectural heritage while creating a functional, educational, and sustainable environment.

PRESERVATION FOCUS ++





Japanese Craftsmanship

Preserving the *intangible heritage* of Traditional Japanese joinery passed down through generations. The hub supports workshops, apprenticeship systems, and restoration practices to keep these endangered skills alive.

Local Kamikatsu Philosophy

Preserving the *zero-waste values* of Kamikatsu by minimizing waste, sourcing local timber, and repurposing old fixtures like doors and windows donated by nearby residents.

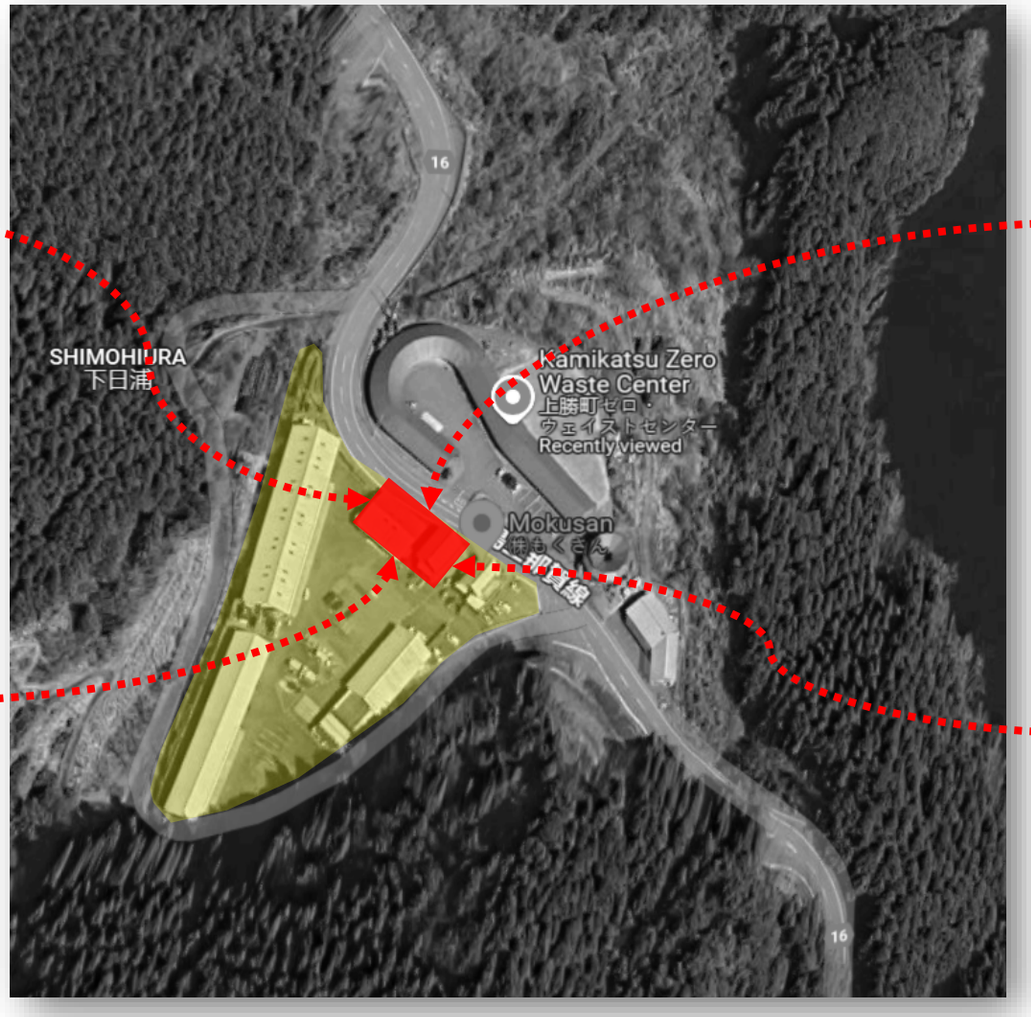
Material Reuse & Existing Structure

Preserving the *Mokusan Wood Factory* through adaptive reuse rather than demolition. Instead of replacing, existing furniture and structural parts are repaired and respected using traditional methods.

KAMIKATSU, JP 

Nestled in the lush valleys of Shikoku Island, Tokushima Prefecture, **Kamikatsu** is a hidden gem with a population of fewer than 1,500 people. Unlike typical tourist hotspots, this quiet town remains off the beaten path. But what makes Kamikatsu truly remarkable is its pioneering commitment to sustainability boasting one of the **highest recycling rates in the world**.

SITE LOCATION //



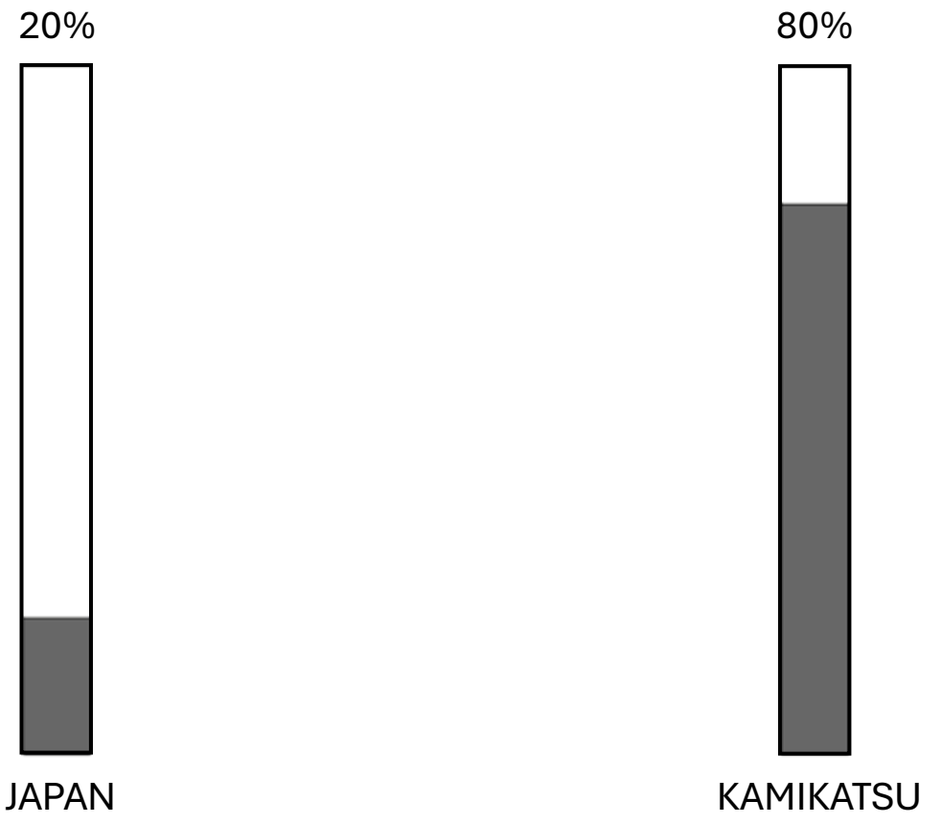
7-1 Shimohiura, Fukuhara, Kamikatsu-cho, Katsuura-gun,
Tokushima Prefecture, 771-4501

Mokusan Wood Supply Factory

The FACTORY Total site (8,000m2)

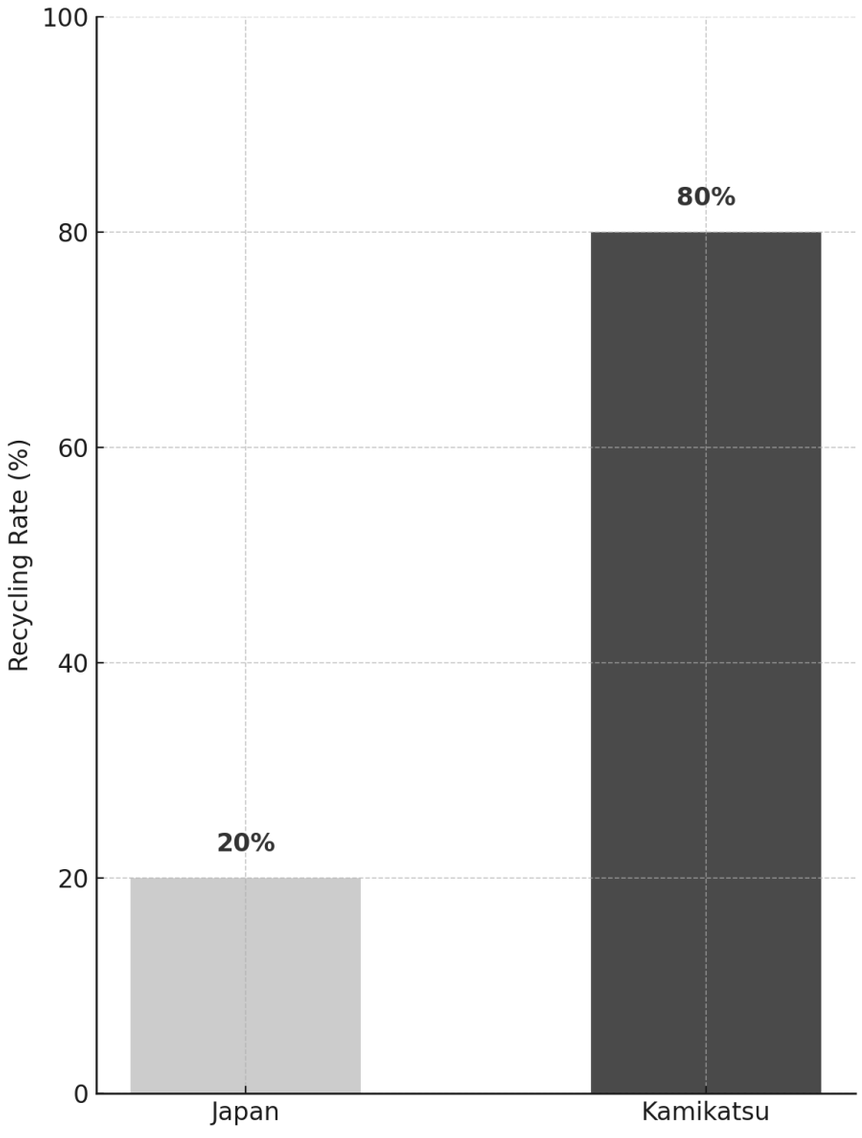
Office/1 two-story wooden building (173.28m²)
Product warehouse/1 steel-framed wooden building (208m²)
Processing building/1 steel-framed wooden building (840m²)
Impregnation treatment building/1 steel-framed wooden building (300m²)

RECYCLING RATE



While Japan’s average recycling rate is only 20%, Kamikatsu has achieved an impressive 80% making it a global leader in waste management and sustainability.

KAMIKATSU as a Model for Sustainable Design Thinking



Why this **matters** to my project:

Kamikatsu's 80% recycling rate shows a community-wide commitment to zero waste. This principle drives my carpentry hub's focus on restoration over replacement.

How it **influences design decisions**:

- Adaptive reuse of Mokusan Factory Store
- Focus on repair stations and joinery-based restoration
- Local timber sourcing and biodegradable finishes
- Hands-on education that teaches suistainable thinking

What I **learned**:

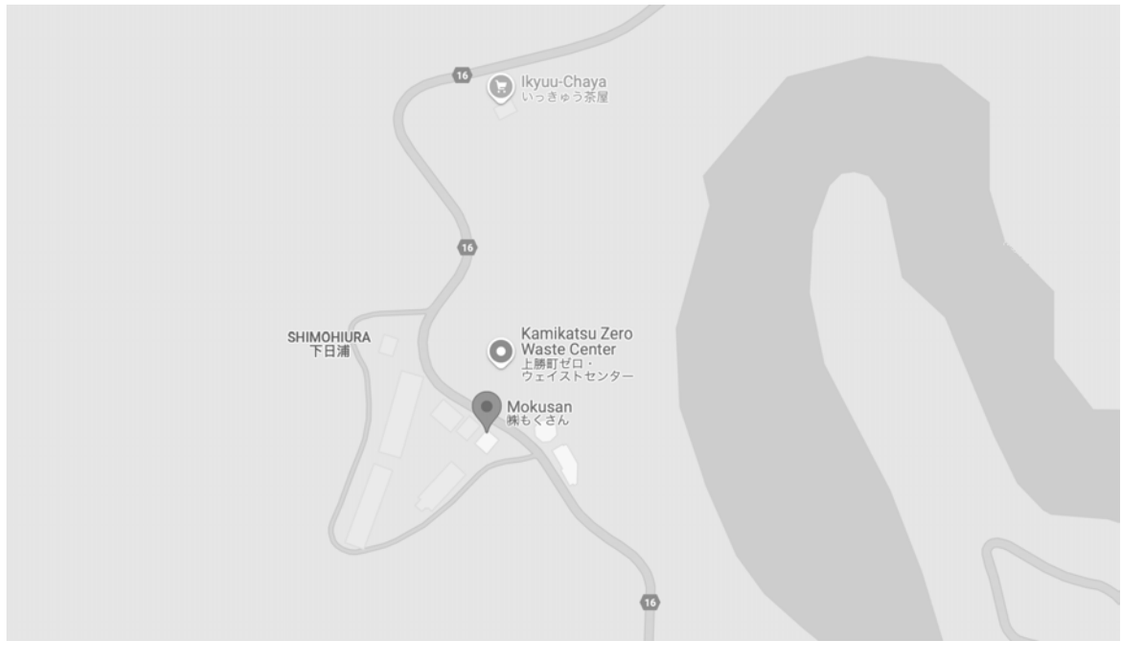
Sustainability here isn't about green or technology. it's about participation. I learned that craft and circularity go hand-in-hand, and architecture can support both.

ACCESS//

CAR

Approx. 70mins drive from Tokushima Awaodori Airport (Approx. 45km)

Approx. 50mins drive from Tokushima Station (Approx. 33.7km)

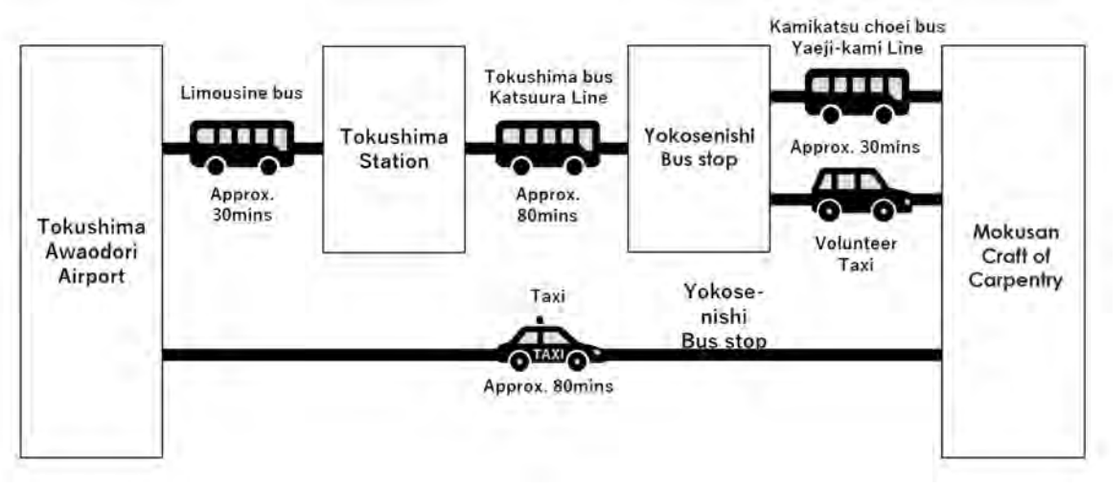


PUBLIC TRANSPORTATION

From Tokushima Awaodori Airport

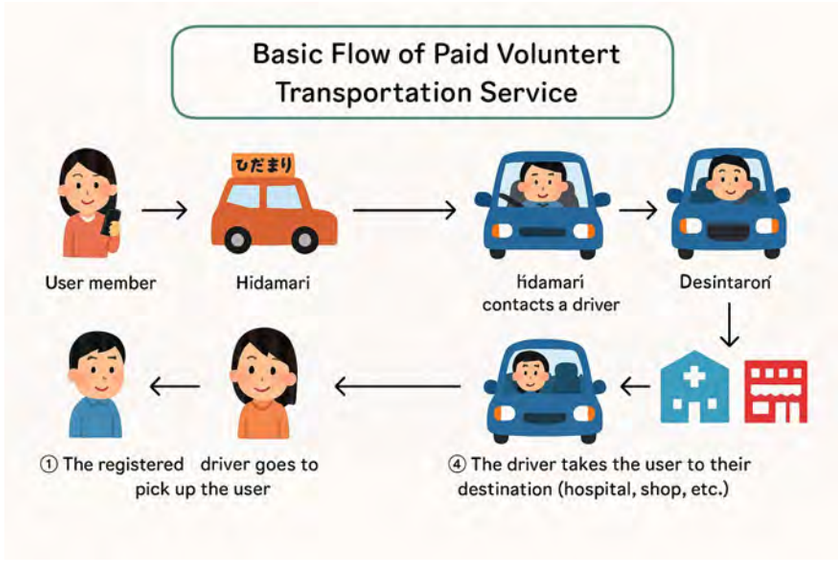
From Tokushima Station

Shimohiura-7-1 Fukuhara, Kamikatsu, Katsuura District, Tokushima 771-4501, Japan



BUS TIMETABLE

Limousine bus
Tokushima bus Katuura Line(JP)
Kamikatsu choei bus(JP)
*Please note that the service schedule is different on Saturdays, Sundays, national holidays, and at the end of the New Year(December 29th-January 3rd).

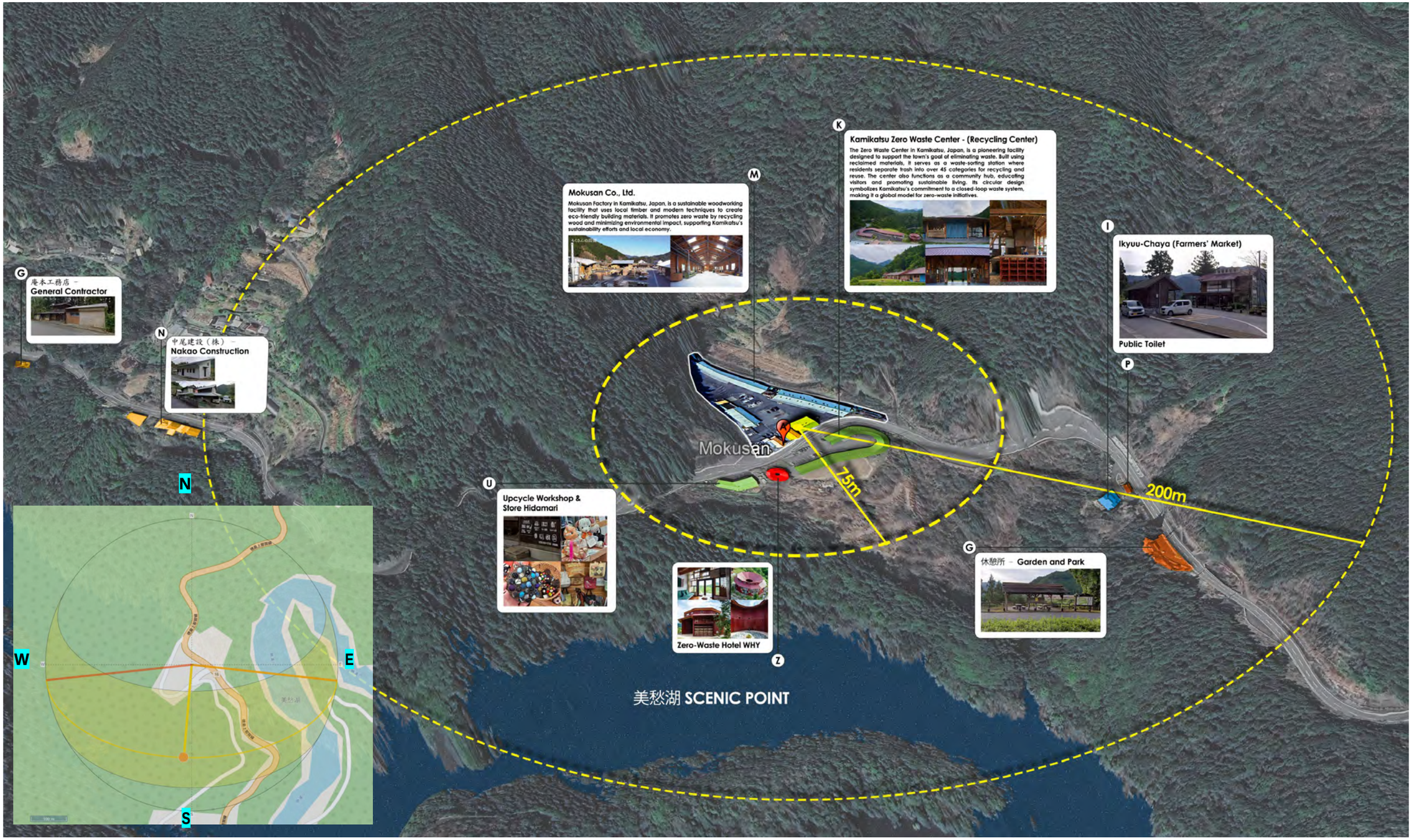


TAXI

JAL MaaS(JP)
Konpira Taxi
Volunteer Taxi(JP)

*Reservation is required.

NEIGBOURHOOD CONTEXT//



SUN ORIENTATION

LEGEND

G = General Contractor
N = Nakao Construction
U = Upcycle Workshop & Store Hidamari
M = Mokusan Co., Ltd
Z = Zero-Waste Hotel WHY
K = Kamikatsu Zero Waste Centre
I = Ikyuu Chaya (Farmers' Market)
P = Public Toilet
G = Garden and Park

CLIENT//

Shikoku Henro World Heritage Inscription Council

CLIENT BRIEF//

Shikoku Henro World Heritage Inscription Council

Client Brief
Client: Shikoku Henro World Heritage Inscription Council << Link
Established: March 16th, 2010
Location: Shikoku Region, Japan

Client Background
The Shikoku Craft Heritage Council represents a unified initiative to preserve and promote the living cultural traditions of Shikoku, particularly those embedded in the **Shikoku Henro Pilgrimage**, a thousand-year-old cultural route. The council operates with the aim of achieving **World Heritage status**, while preserving the integrity of local craftsmanship, architecture, and intangible cultural knowledge.

Purpose & Mission
•To **protect and transmit traditional Japanese cultural heritage** through regional crafts, practices, and built environments.
•To raise **awareness of Shikoku's cultural value** locally and internationally.
•To **coordinate the efforts of various preservation groups** and advocate for heritage continuity across generations.
•To promote a design ethos that values **repair over replacement**, **material honesty**, and **regional identity**.

Organizational Structure
•**Chairman:** Representative of the Shikoku Economic Federation
•**Vice Chairmen:** Governors of the four Shikoku prefectures
•**Membership:** 96 constituent organizations, including
- 58 municipalities
- Local universities and research bodies
- Cultural NPOs
- Private craft and preservation groups
- Economic and planning agencies

CORE TEAMS Members

USER~

2 Professional Carpenters

2 Carpenter Workers

1 Office Admin

1 Retail Guide

TOTAL **6** MEMBER

	PROFESSIONAL CARPENTER		CARPENTER WORKER		ADMIN	RETAIL GUIDE
NAME	Tanaka Haruo **Business Owner**	Sakamoto Ryo **Experienced Carpenter**	Kenta Fujimoto **Assistant Carpenter**	Liam O'Connor **Trainee Carpenter**	Naomi Ishikawa **Office Admin**	Itachi Uchiha **Retail Guide**
AGE	62	58	28	24	35	30
ORIGIN	Kamikatsu, Japan	Kyoto, Japan	Osaka, Japan	Asakusa, Japan	Kamikatsu, Japan	Awa, Japan
INTEREST	Traditional Japanese woodworking, tea ceremonies, and storytelling	Wood restoration, hiking, and preserving historic temples	Learning advanced joinery techniques, photography	Japanese woodworking techniques, historical carpentry	Business management, efficiency planning, and sustainability	Interacting w/ people, artisan products, and zero-waste lifestyle
HOBBY	Collecting old carpentry tools, reading historical architecture	Playing the shamisen (Japanese string instrument)	Cycling and visiting local craft fairs	Sketching furniture designs, hiking, and exploring Japanese culture	Baking traditional Japanese sweets and calligraphy	Hand-painting wooden crafts and visiting flea markets

USER //

Local Craftspeople (Core Team)

Who: 4 carpenters (2 seniors, 2 juniors — already defined in your team).
Role: Run the workshop, train interns, oversee repair and assembly areas.

Visitors / DIY Workshop Guests

Who: Tourists, weekend visitors, design enthusiasts.
Role: Attend guided hands-on sessions (~6 pax/session).

USER ROLE//

USER	ROLE & RESPONSIBILITY	SPACE USAGE
Professional Carpenters (2)	- Master craftsmen teaching traditional Japanese joinery. - Oversee complex restoration and large-scale woodworking. - On weekends, take turns leading DIY visitor sessions.	- **Main Workshop** (for advanced carpentry). - **Repair Station** (for furniture restoration). - **Finishing & Assembly Zone** (for detailing work). - **DIY Wood Experience Zone (Weekends)** (mentoring visitors in woodworking projects).
Carpenter Workers (2)	- Learning and assisting the master carpenters. - Handling wood preparation and assembly. - On weekends, take turns assisting in the DIY visitor sessions.	- **Main Workshop** (for training and hands-on work). - **Material Storage** (for organizing timber). - **DIY Wood Experience Zone (Weekends)** (helping visitors craft their own small wooden projects).
Office Admin	- Manages accounts, invoices, and administrative work.	- **Office/Discussion Room** (private workspace for financial management).
Retail Guide	- Manages the store and assists visitors. - Handles cash transactions when guests arrive.	- **Merchandise Display Area** (for customer service and product sales).

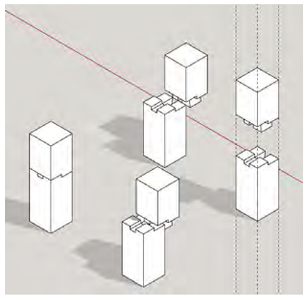
🪵 What is Japanese Craftsmanship?

A philosophy of precision, humility, and respect for materials.

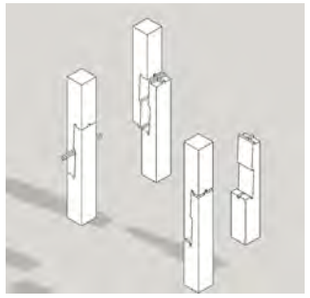
🔶 Joinery without Nails (木構榫卯)

Traditional Japanese woodworking is defined by its use of **interlocking joinery** systems that require no nails or screws. These joints rely on **geometric precision** and deep knowledge of wood behaviour.

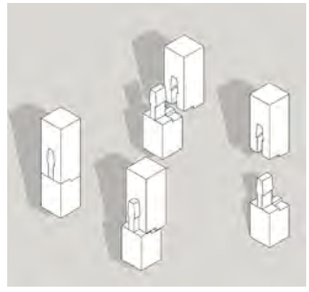
📌 Examples



Ari Tsugi
Dovetail Splice Joint



Kanawa Tsugi
Beam splicing joint



Kama Tsugi
Tenon-based locking systems

🔧 Tools & Handwork

Japanese craftsmanship relies on **hand tools** such as the ***Kanna*** *(plane)*, ***Nokogiri*** *(pull saw)*, and ***Nomi*** *(chisel)*. The emphasis is on **mastery through repetition** and fine control.

KANNA (plane)

Nokogiri (pull saw)

Nomi (chisel)

🪵 What is Japanese Craftsmanship?

A philosophy of precision, humility, and respect for materials.

🎄 Material Respect

The philosophy values **natural imperfections**. Instead of covering up knots, cracks, or colour variations, Japanese carpentry works **with** them — celebrating the wood's character.

📌 Common Material

Sugi (Cedar)
Light, knotty, soft

Hinoki (Cypress)
Clean, fragrant, fine grain

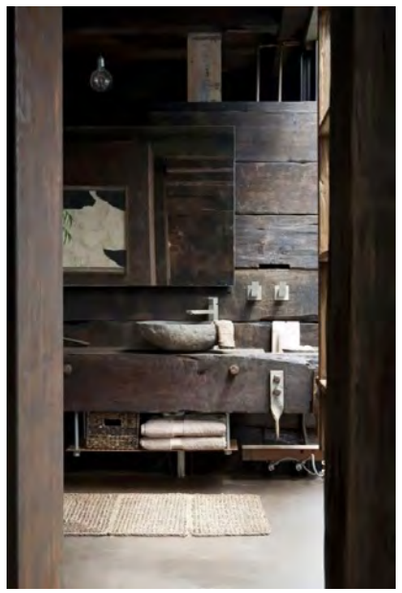
Reclaimed Wood (古材)
Worn surfaces, aged grain, nail marks

🍂 Wabi-Sabi Aesthetic

Rooted in Zen philosophy, **Wabi-sabi** embraces the beauty of **impermanence, asymmetry, and imperfection**. A well-used tool, a cracked surface, a repaired object all carry meaning.

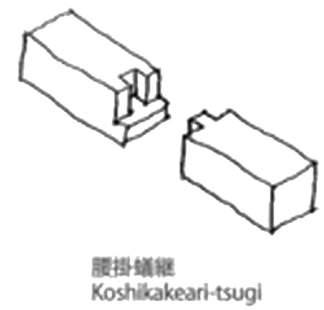
🎯 Design Impact:

Repaired joints are **celebrated**, not hidden
Aging timber is seen as **maturing**, not degrading
Space design reflects calmness, **unfinished textures**, and light-shadow play

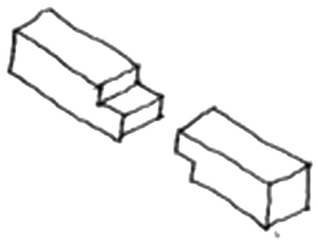


Japanese Craftsmanship

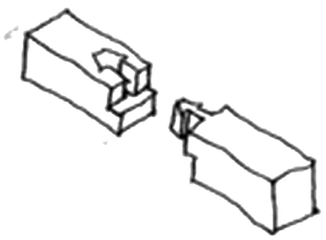
Kigumi (木組み)



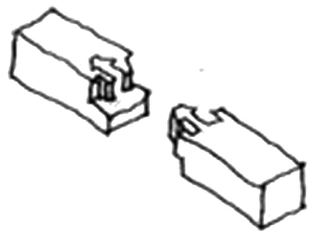
腰掛蟻継
Koshikakeari-tsugi



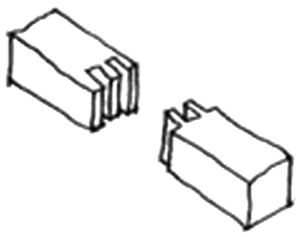
段継
Dan-tsugi



腰掛鎌継
Koshikakekama-tsugi



腰掛鎌継
Koshikakekama-tsugi



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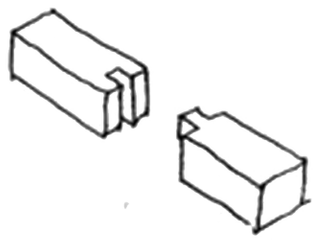
Mechigai-tsugi



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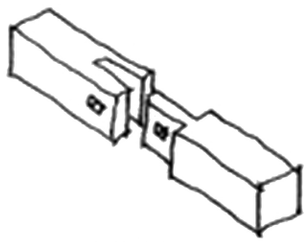
Mechigai-tsugi



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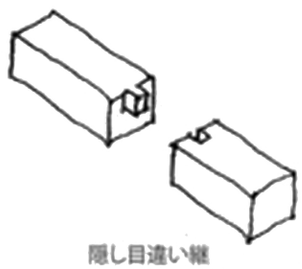
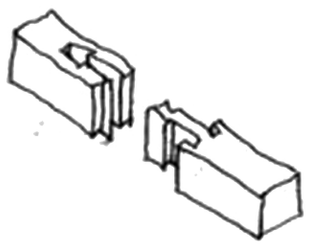
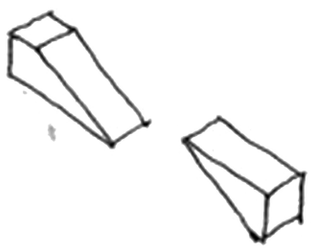
Mechigai-tsugi



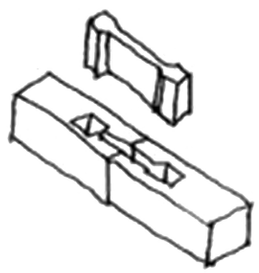
隠し目違い継
Kakushi-mechigai-tsugi



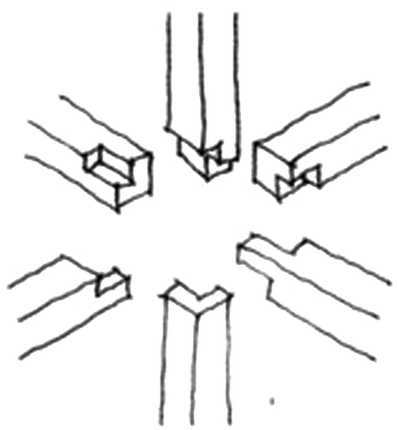
実継
Sane-tsugi



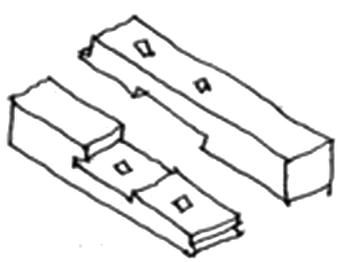
そぎ継
Sogi-tsugi



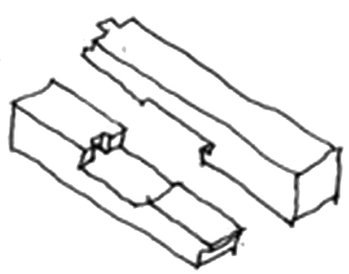
ねぎり継
Negiri-tsugi



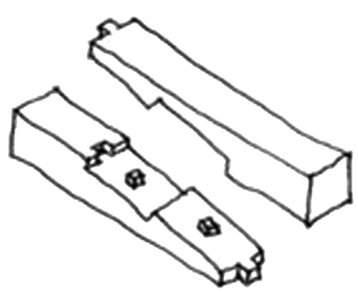
千鳥格子
Chidori-koshi



追掛大栓継
Okkake-daisen-tsugi



重ね継
Kasane-tsugi



台持ち継
Daimochi-tsugi

Joinery Study Through 3D Modelling

Why I Made These Models 🪵

To better understand the logic, precision, and assembly process behind traditional Japanese joinery. Instead of just referencing existing diagrams, I reconstructed each joint in SketchUp to study its geometry and spatial function.

What I Learned 📐

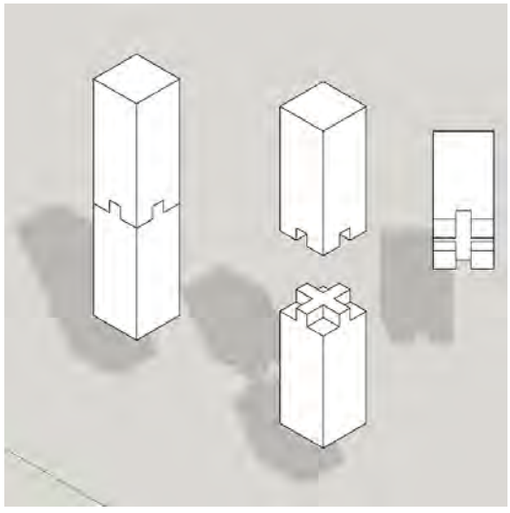
•The complexity of each joint shows **how function and aesthetics are integrated** in Japanese carpentry.
•Making them in 3D helped me **visualize how these systems might be scaled, adapted, or taught** in my own workshop space.
•Joinery systems are not just about construction — they represent a **philosophy of minimal waste and maximum respect** for the material.

How I Used This in My Design

•**Repair Station**: uses joints like *Kanawa Tsugi* for beam restoration
•**DIY Workshop**: visitors learn simple joints like *Hakosen Tsugi*
•**Furniture & Fixtures**: benches or shelves use *Ari Tsugi* or *Kama Tsugi* for tool-free assembly
•These models helped guide how structure, education, and sustainability come together in the space

Japanese Craftsmanship

Kigumi (木組み) is a joinery technique passed down through centuries of Japanese carpentry. These connections form the structural logic of wooden buildings without any nails or glue. Each joint serves both a functional and aesthetic purpose.



十字目違い継

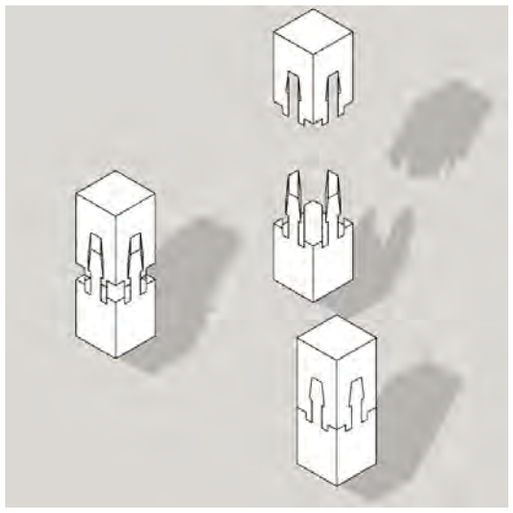
Jyuji Mechigai Tsugi

Cross-Lap Alternating Joint

📌 **Structure:**
A **cross-lap joint** with alternating interlocks on all four faces, creating a tightly nested connection.

🔧 **Best Used For:**
•**Cross-beam** or post intersections
•Grid structures or frames with criss-cross timber layouts

💡 **Design Relevance:**
Ideal for expressive frameworks or focal points like **entrance structures**, **display grids**, or **suspended timber elements** that show off intricate connections.



四方鎌継

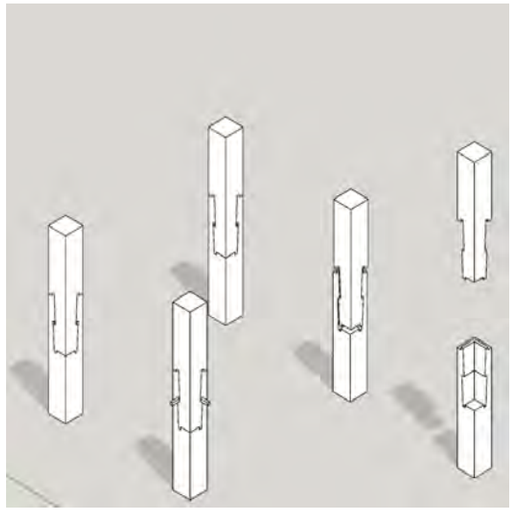
Shihou Kama Tsugi

Four-Way Sickle Joint

📌 **Structure:**
A complex mortise-and-tenon joint that connects timber from four directions with hook-shaped interlocks. Very strong in resisting pullout.

🔧 **Best Used For:**
•Central **columns** intersecting multiple beams
•Joint cores of structural frameworks

💡 **Design Relevance:**
Great for **heavily used public areas** or **DIY zones** where structure needs to be robust yet refined — it visually expresses strength and precision.



箱栓継

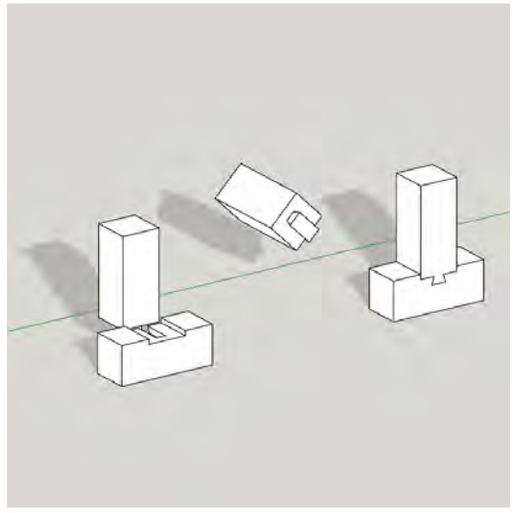
Hakosen Tsugi

Box-Lock Joint

📌 **Structure:**
A modular box-like connection that uses inset tongues and slots to lock timber securely.

🔧 **Best Used For:**
•**Modular furniture** or flat-pack assemblies
•Tables, stools, or small display boxes

💡 **Design Relevance:**
Perfect for **hands-on workshops** — easy to teach, easy to assemble, and reflects the modularity of contemporary craft. Ideal for visitor-made products or educational models.



蟻仕口

Ari Shiguchi

Dovetail Socket Joint

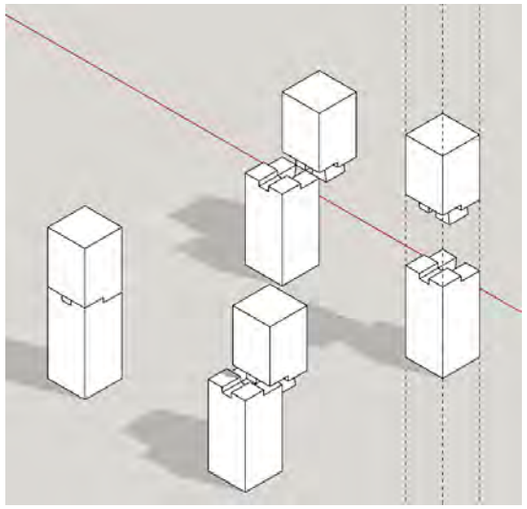
📌 **Structure:**
A classic Japanese dovetail joint where the tenon tapers inward, locking into a sloped mortise. It resists pulling and twisting.

🔧 **Best Used For:**
•Beam-to-post joints in load-bearing situations
•Frame corners or exposed structural furniture

💡 **Design Relevance:**
Perfect for your **Repair Station** zone — symbolizes the core value of restoring strength and integrity without nails or glue. A beautiful metaphor for “hidden strength.”

Japanese Craftsmanship

Kigumi (木組み)



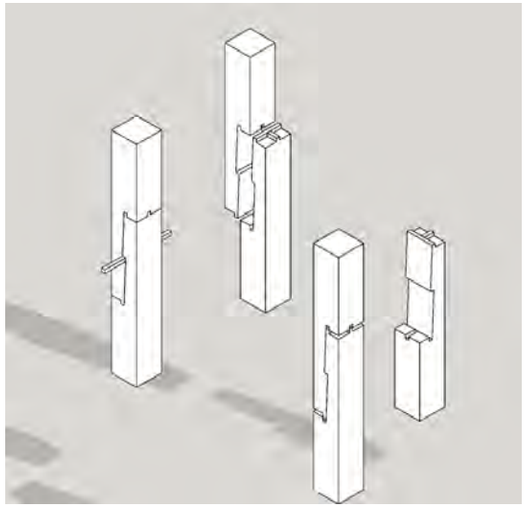
蟻継
Ari Tsugi

Dovetail Splice Joint

📌 **Structure:**
A horizontal joint where a dovetail-shaped tenon fits into a matching mortise, locking the two timber pieces together. Its shape resists pull and shear forces.

🔧 **Best Used For:**
•**Extending beams** horizontally
•**Mid-span splices** where strength is critical

💡 **Design Relevance:**
Perfect for places in your design where **timber elements need to be extended** seamlessly — for example, long bench seating, signage frames, or structure for a canopy.



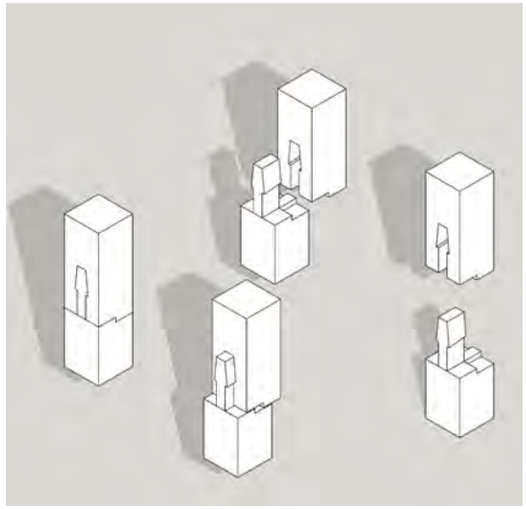
金輪継
Kanawa Tsugi

Kanawa Beam Splice Joint

📌 **Structure:**
One of the most complex Japanese joints — combines a tenon and dovetail with a locking wedge. This joint **prevents vertical, horizontal, and twisting movement**, making it extremely strong.

🔧 **Best Used For:**
•**Major structural beam extensions**
•Projects requiring **maximum tensile strength**

💡 **Design Relevance:**
Ideal to showcase in your Repair Station or Finishing Zone — it visually communicates **technical precision and heritage**, making it a storytelling feature.



鎌継
Kama Tsugi

Sickle Splice Joint

📌 **Structure:**
A mortise-and-tenon splice joint with a hooked or sickle-like profile. It often includes **interlocking side cuts** that resist pullout and twisting.

🔧 **Best Used For:**
•Light- to medium-duty beam extensions
•Decorative structures or modular frameworks
•Furniture making or small structure repair

💡 **Design Relevance:**
Excellent for integration in **DIY workshop projects** — you could teach this as a hands-on joinery skill. It's visually elegant but structurally effective, perfect for education.

Joinery Study Through 3D Modelling

Why I Made These Models 🪵

To better understand the logic, precision, and assembly process behind traditional Japanese joinery. Instead of just referencing existing diagrams, I reconstructed each joint in SketchUp to study its geometry and spatial function.

What I Learned 📐

•The complexity of each joint shows **how function and aesthetics are integrated** in Japanese carpentry.
•Making them in 3D helped me **visualize how these systems might be scaled, adapted, or taught** in my own workshop space.
•Joinery systems are not just about construction — they represent a **philosophy of minimal waste and maximum respect** for the material.

How I Used This in My Design

•**Repair Station**: uses joints like *Kanawa Tsugi* for beam restoration
•**DIY Workshop**: visitors learn simple joints like *Hakosen Tsugi*
•**Furniture & Fixtures**: benches or shelves use *Ari Tsugi* or *Kama Tsugi* for tool-free assembly
•These models helped guide how structure, education, and sustainability come together in the space

Traditional Japanese Woodworking TOOLS – Cutting & Shaping

Nokogiri (鋸) – *Japanese Pull Saw*

Unlike Western saws that cut on the push stroke, the **Nokogiri cuts on the pull stroke**, allowing for **more control, less effort, and cleaner, thinner kerfs**. This method suits Japan's softer woods like cedar and cypress and reflects the precision-focused nature of Japanese joinery.

Ryoba double-edged for cross-cutting and ripping

Kataba single-edged for flush cuts or tighter spaces

Dozuki fine-backed saw for joinery and dovetails

Kanna (鉋) – *Japanese Hand Plane*

The **Kanna** is a symbol of Japanese craftsmanship. Pulled rather than pushed, it creates **buttery-smooth wood surfaces** and can shave layers **less than 0.01mm thick**. Craftsmen often sharpen and tune their Kanna blades to match the moisture and density of the specific wood in use.

Ara Kanna (荒鉋)
Roughing Plane
Used for **initial flattening** of rough timber surfaces
Rough preparation before fine surfacing

Mentori Kanna (面取り鉋)
Chamfering Plane
Used to **bevel or round corners**
Adds detail and safety to edges

Dai-naoshi (台直し鉋)
Sole-flattening Plane
•Not for wood surface — it's used to **flatten the wooden base of other kanna**

Japanese Saw Horses 🪚

Functional Role 🔧

The saw horses serve as **modular work supports** for timber cutting, hand planning, joinery assembly, and prototyping. Their low height encourages traditional, floor-level craftsmanship — allowing makers to work in close contact with the material.

Design Details 🧩

- **Material**: Local Sugi or Reclaimed Timber
- **Joints**: Wedge Tenon or Kanawa Tsugi-style fasteners
- **Finish**: Beeswax coating — preserves the wood, allows grain to show
- **Structure**: Flat-packable / demountable for teaching or storage

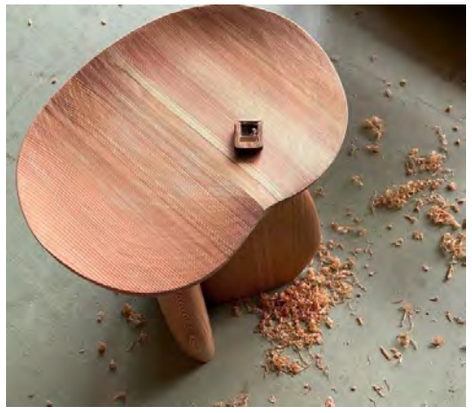
Cultural Relevance 🌿

Based on traditional Japanese *Sokozue* (底据え), the saw horses reflect the project's commitment to **material honesty, tool-based learning**, and **modular, joinery-based construction**.

- Built using **Japanese joinery only** — no nails or screws
- A symbol of **craft utility over decoration**
- Reinforces the **"repair, reuse, reconfigure"** value in the space

Local Timber in Kamikatsu

Using local wood reduces transportation emissions, supports local forestry economies, and aligns with **Kamikatsu's minimal-waste** principles. It also deepens the cultural connection between material, craft, and place.



Japanese Cedar (Sugi / 杉) 🎄

🔶 Material Overview

Japanese Cedar, or *Sugi*, is one of the most abundant and culturally significant softwoods in Japan. It is known for its **lightweight structure, soft texture**, and beautiful natural grain.

- 🟤 **Colour**: Comes in two main tones – warm **pinkish hues** and rich **brown shades**
- 🌀 **Grain**: Straight, even grain with **naturally spaced knots**
- 🌬️ **Scent**: Mild cedar aroma that enhances the atmosphere
- 🪵 **Workability**: Easy to cut, sand, and join; ideal for fine carpentry and handcrafting

🧩 Why It's Relevant to My Project

- Aligns with the concept of **lightness and imperfection** in Japanese craftsmanship
- A local material from **Tokushima Prefecture** — short supply chain, sustainable sourcing
- Easy for **DIY workshop participants** to handle, cut, and finish — perfect for learning joinery techniques

Hinoki (Japanese Cypress / 檜) 🌿

🔶 Material Overview

Hinoki, or Japanese Cypress, is a premium softwood highly valued in Japanese construction and spiritual architecture. Known for its **fragrance, durability, and refined appearance**, it is traditionally used in temples, shrines, and onsen facilities.

- 🤍 **Colour**: Pale cream to soft golden yellow; matures into a rich amber tone
- 🌾 **Grain**: Straight, fine, and silky — minimal knots, very uniform
- 🌸 **Scent**: Light, calming, citrus-like aroma
- 💧 **Durability**: Naturally resistant to rot, humidity, and insects
- 🪚 **Workability**: Excellent; allows fine detailing and smooth finishing

🧩 Why It's Relevant to My Project

- Symbolizes **purity, craft, and cultural heritage**, aligning with the project's educational and preservation goals
- Naturally weather- and rot-resistant — ideal for **high-contact workshop surfaces**
- Enhances the sensory quality of space with its **texture and fragrance**

Local Timber in Kamikatsu

Using local wood reduces transportation emissions, supports local forestry economies, and aligns with **Kamikatsu's minimal-waste** principles. It also deepens the cultural connection between material, craft, and place.

Karamatsu (Japanese Larch / 唐松) 🎄

🔶 Material Overview

Karamatsu is a native conifer found in central and northern Japan. Compared to Sugi and Hinoki, it's denser, tougher, and has a more **dynamic grain pattern**. Its slight resin content and durability make it ideal for **structural and exterior applications**.

- 🟤 **Colour**: Warm yellow-brown to reddish-brown
- 🌿 **Grain**: Coarse and expressive, with dramatic ring contrast
- 🪵 **Texture**: Medium-hard with a slightly rougher feel
- 💪 **Strength**: Higher density and mechanical strength
- 🛠️ **Workability**: Can be challenging — but stable once finished
- ⛈️ **Weather Resistance**: Good for outdoor or semi-exposed conditions

🧩 Why It's Relevant to My Project

- Offers structural reliability for elements like **roofs, canopy beams, and structural frames**
- Visually contrasts with Sugi and Hinoki — adds depth and texture in exposed structure
- Locally sourced within Japan and a great choice for sustainable construction
- Embodies the **"raw strength"** aspect of Japanese craftsmanship — not just precision, but resilience

Reclaimed Timber (古材 / Kozai) ♻️ - Old wood, new life

🔶 Material Overview

Reclaimed timber, or 古材 (*Kozai*), refers to wood salvaged from dismantled homes, shrines, barns, and public buildings. These timbers carry **visible signs of age** — nail holes, weathering, tool marks — making them not just materials, but **memory carriers**.

- 🪨 **Appearance**: Aged surface, darkened patina, variable colouring
- 🌾 **Grain**: Enhanced texture due to natural aging and oxidation
- 🪵 **Marks**: May include tool scars, ink stamps, or historical joinery traces
- 🧱 **Condition**: Often denser and more stable than new lumber due to age
- 🌱 **Sustainability**: Zero new deforestation; contributes to circular design economy

🧩 Why It's Relevant to My Project

- Perfectly aligns with **Kamikatsu's zero-waste values**
- Embodies the concept of **preserving imperfection**, which parallels the philosophy of Japanese repair (like *Wabi-sabi* or *Kintsugi*)
- Offers tactile and visual contrast to newer timbers like Hinoki or Karamatsu
- Creates an **emotional connection** between craft, memory, and reuse

Local Timber in Kamikatsu

Using local plywood reduces transportation emissions, supports local forestry economies, and aligns with **Kamikatsu's minimal-waste** principles. It also deepens the cultural connection between material, craft, and place.

🧱 PLYWOOD – Engineered Efficiency for Sustainable Craft

Why BB/CC Grade?
JPIC grading defines surface quality:
•**BB Grade (Face side):**
Clean surface with small, filled knots and tight grain — suitable for visible surfaces like tables, panels, and shelving.
➤ *Can be sanded and oiled for a clean, finished look.*
•**CC Grade (Back side):**
More tolerant of filled defects and blemishes — suitable for hidden or structural sides.
➤ *Ideal for cost-effective internal use where finish is less critical.*

🧩 Why Plywood for This Project?

•Enables **hands-on learning** in joinery and crafting
•Fits Kamikatsu's **zero-waste and reuse ethos**
•Lightweight yet strong — easy to transport, handle, and repair
•Surfaces can be left raw, oiled, or lightly sanded depending on function

🛠️ Applications in My Design

•**Workbenches and craft tables** (BB side exposed)
•**Storage units and tool walls** (CC side hidden)
•**DIY craft kits or flat-pack product bases**
•**Furniture prototypes** for skill learning and display

🌿 Sustainability & Craft Transparency

Plywood expresses the layered, honest quality of making — its **visible edges reveal construction**, mirroring the **joinery-first** philosophy of the entire project.

🏷️ What is JPIC?

JPIC stands for
Japan Plywood Inspection Corporation

It is the official body in Japan responsible for **inspecting, grading, and certifying plywood and engineered wood products**.
JPIC sets national quality standards for:
•Surface finish (grade: BB/CC, etc.)
•Glue strength and water resistance
•Dimensional stability

Surface Finishing – Enhancing Craft Through Beeswax ✨

Instead of using synthetic lacquer, I chose a **natural beeswax finish**, specifically using **locally sourced beeswax from Japan**, such as from **Shimane or Yamaguchi Prefecture**, where traditional apiculture is still practiced.

This finish enhances the **wood grain** while maintaining a soft, tactile surface. It reflects the project's values of sustainability and craftsmanship, offering a breathable, low-impact alternative that reinforces the handmade quality of the carpentry hub.

CASE STUDY

KAMIKATSU ZERO WASTE CENTER

Guide to a better life, find answers from waste

Architect: Hiroshi Nakamura & NAP
Location: Kamikatsu, Tokushima
Function: Waste sorting, reuse shop, education.

Why This Case Study Is Relevant

Located in the same town as my site, the Kamikatsu Zero Waste Centre demonstrates how **architecture can embody circular values**, foster **community-led sustainability**, and express **local identity through material reuse** — all key goals of my Carpentry Hub.

Fixtures
→ interior and exterior walls

Roof tiles
→ external elements

Pottery shards
→ washout-exposed aggregate

The wall comprises approximately 700 fixtures. On the floor of the lecture hall, we laid a medley of tiles that were headed for disposal, connecting their corners to harmonize the look.

Harvest containers
→ stop buckling of glass curtain wall mullions

Antique furniture
→ store fixtures etc.

Farming equipment and fixture handles
→ a chandelier

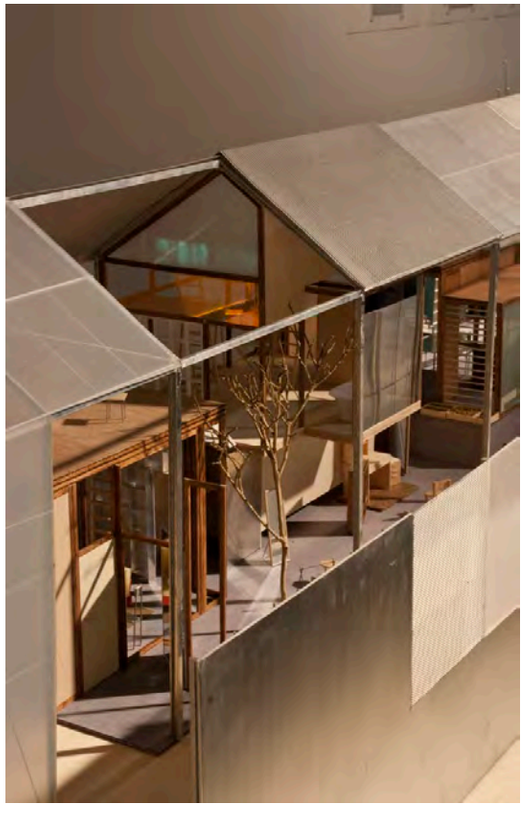
The town of **Kamikatsu** in Tokushima Prefecture **aims to become a sustainable recycling community** and has pledged to produce zero waste. Its recycling rate has already reached 80% by sorting trash into 45 categories, with used items displayed like a store at the recycling centre. As mass-production, mass-consumption society shows signs of an impasse, there are high anticipations both at home and abroad for this movement.

No two windows are alike. All collected from local residents. Together, they frame a new vision of reuse.

HOUSE OF 33 YEARS

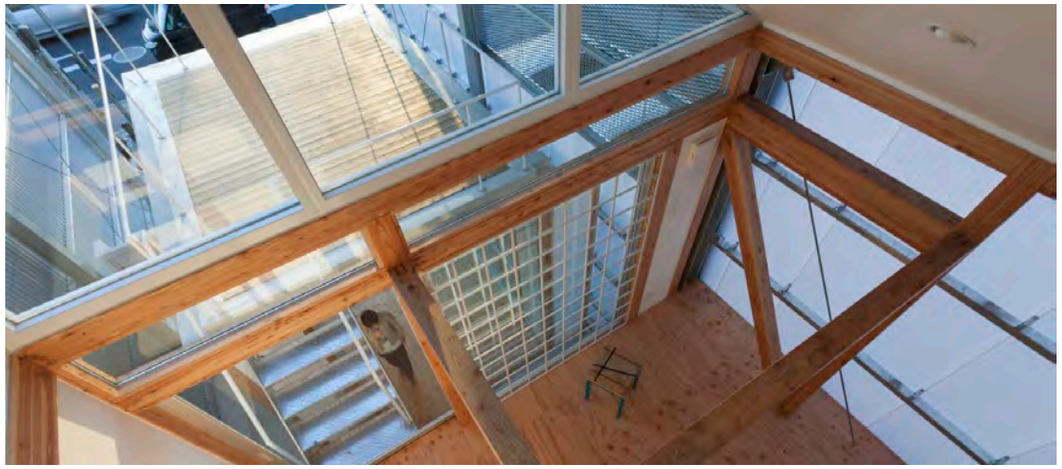
Materials hold stories. Architecture can become a vessel for memory and transition — not just shelter.

Architect: Atelier Bow-Wow
Location: Nara, Japan
Function: Private residence for an elderly couple
Key Theme: Memory, material reuse, continuity



Why This Case Matters to My Project

This house reuses materials from a home the couple lived in for 33 years — doors, window frames, floorboards, even **tatami**. Rather than discarding the past, the architects **transformed memory into a spatial experience**.



Design & Material Strategies

Salvaged timber used visibly — not covered, but **integrated**
Old pieces are **reassembled with new joinery**
Furniture from the old house reinstalled in key locations
The layout is adjusted for age and light responsive but not nostalgic

Design Relevance:

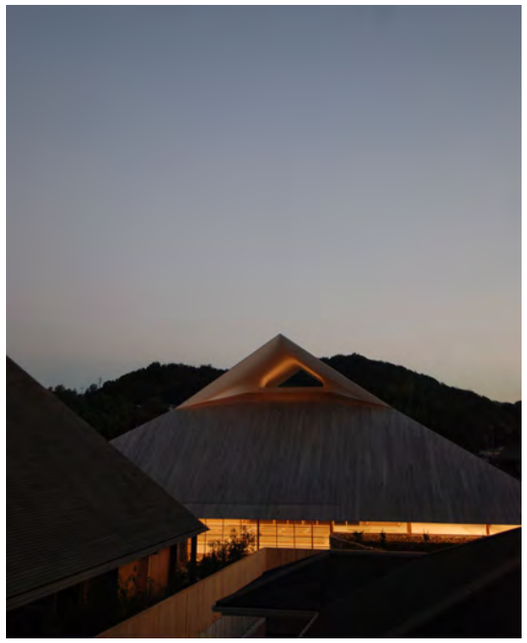
Reclaimed wood in your carpentry hub can be **story carriers**
Joinery isn't just structure — it connects time periods
Visitors can **learn craft by reconstructing**, just like this house rebuilt its identity.

NAOSHIMA HALL

Architecture can be a collective act — built by the people, for the people, with techniques passed down through generations.

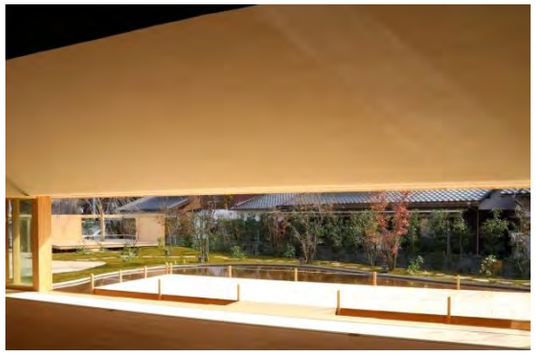
Architect: Hiroshi Sambuichi
Location: Honmura, Naoshima Island, Japan
Function: Community hall, gathering space, sports area
Key Themes: Local materials, craftsmanship, community revival

Engages **local craftspeople**
Uses **natural materials**
Reflects **regional identity**



Why This Case Matters to My Project

Naoshima Hall represents a deep respect for **natural forces** (wind, sunlight, topography) and **human traditions** (carpentry, community building). Sambuichi designed it in collaboration with **local carpenters**, using **traditional Japanese joinery and local wood**.



Design & Construction Features

Built with **Hinoki cypress + Japanese cedar** from the region
Crafted using **traditional Japanese joinery**
Local volunteers and carpenters **trained during construction**, creating skill transfer

Activity

Main Workshop

The **core working area** for professional carpenters to carry out **large-scale wood restoration and furniture crafting**. This space focuses on **interlocking joinery techniques** and precision woodworking using **traditional Japanese tools**.

Professional Carpenter Showcases – Where skilled craftsmen create furniture, lamps, or delicate souvenirs live.

Mingei Craft - Workshops focusing on creating small handcrafted wooden items.

Mingei (民芸) means **"folk craft"** or **"people's art."**
It was a movement founded in the 1920s by **Yanagi Sōetsu** who sought to recognize the beauty of everyday handcrafted objects made by anonymous artisans. **Mingei** emphasizes:-

Functionality & Simplicity – Practical, everyday items that are well-made and useful.

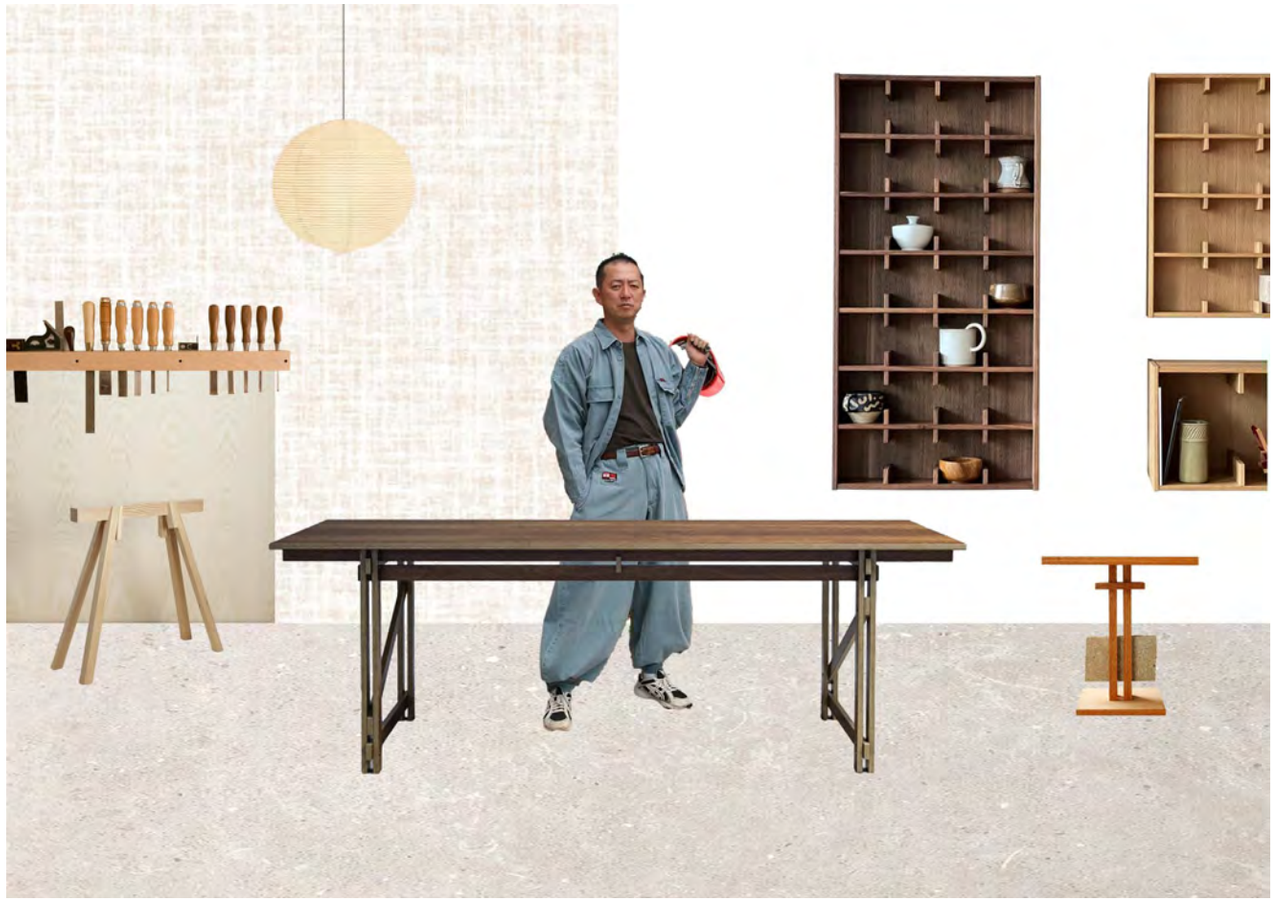
Handcrafted Beauty – Natural imperfections and traditional craftsmanship are valued.
Local & Natural Materials – Use of wood, clay, textiles, and other traditional resources.
Anonymous Artisans – Focuses on collective craftsmanship rather than individual fame.

Examples of **Mingei** Objects:

- Hand-carved wooden furniture (Wood Joinery)
- Rice paper lanterns and wooden lamps (e.g., Akari Lamp)
- Japanese planes (Kanna)

Left: Isamu Noguchi
Right: Akari Lamp

Kanna



Activity

DIY Wood Experience Zone – Allowing participants to learn traditional Japanese woodworking techniques.

An **interactive area** where visitors can participate in **hands-on workshops** to learn basic woodworking techniques such as **interlocking joinery, small repairs, and custom woodcraft projects**. This space encourages the community to be part of the preservation journey.

Activity

Repair Station - Enabling people to bring old furniture for repairs using Japanese joinery techniques.

- A dedicated area for **restoring old furniture or broken objects**. The station highlights the philosophy of **preserving imperfections** through **cutting, repairing, and replacing broken parts** using **interlocking methods** extending the lifespan of objects instead of replacing them.

Merchandise Display Area

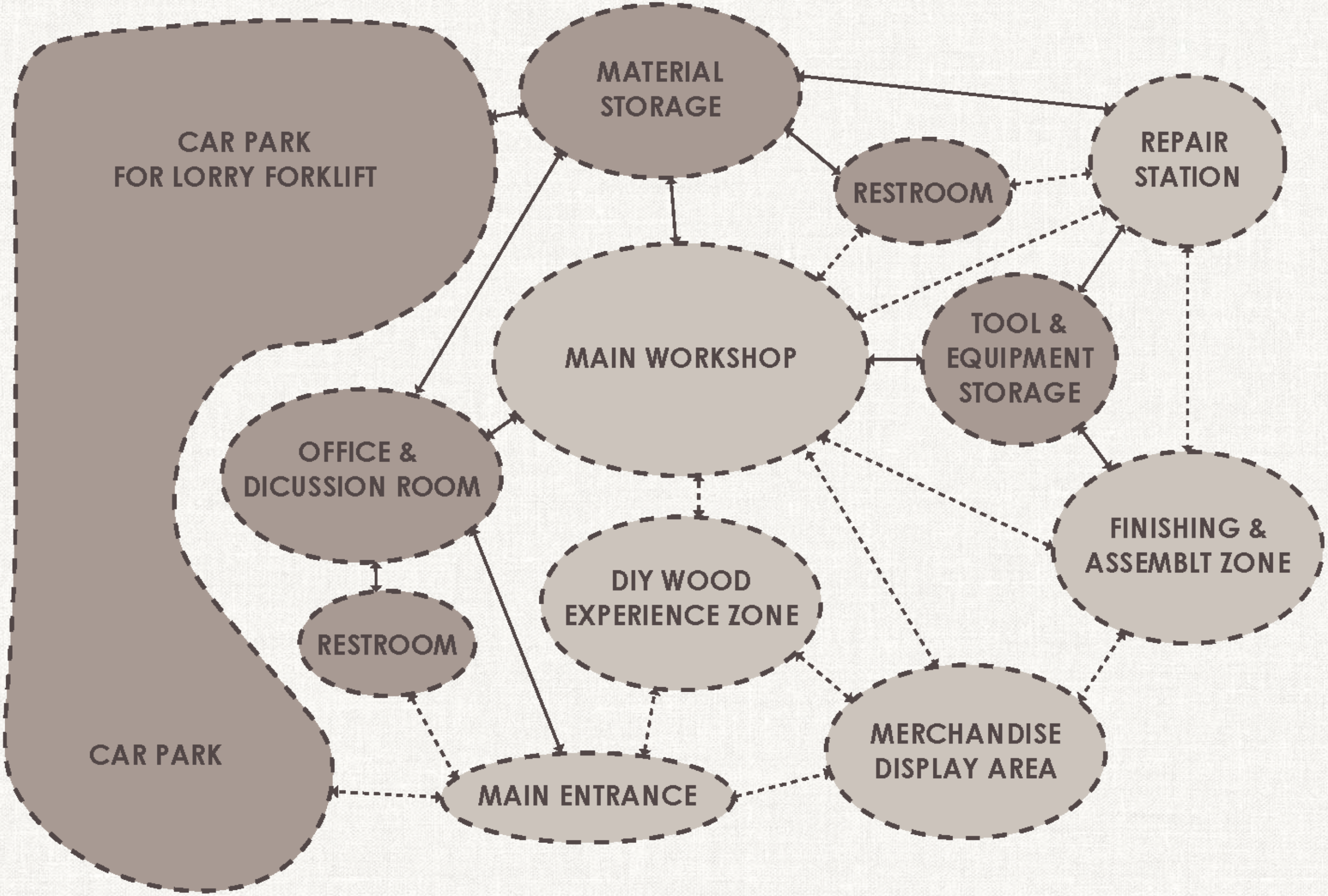
A **gallery-like retail space** showcasing **restored furniture, handcrafted objects, and small wooden items** made within the workshop. This area promotes the idea of **preserving objects with stories** and highlights the beauty of imperfections.

Finishing & Assembly Zone

A clean and controlled space for **sanding, polishing, and final product assembly**. This area allows visitors and craftsmen to apply natural wood finishes like **beeswax and oil coatings**, preparing the restored objects for display or sale.

FUNCTIONAL LIST

NO	AREA	FACILITIES PLANING	SQ M / %	
1	CAR PARK	Parking spaces, Bicycle racks, EV charging stations (if applicable), Signage for directions, Fork Lift, Lorry	Exterior	
2	MAIN ENTRANCE	Seating area (benches or chairs), Display shelves (for brochures or small exhibits)	22.88	6%
3	MAIN WORKSHOP	Large workbenches, Industrial woodworking machines, Ventilation system, Safety equipment	87.69	23%
4	REPAIR STATION	Workbenches, Display shelves, Information board	53.38	14%
5	MATERIAL STORAGE	Timber racks and shelving, Labelling system for materials, Pallet storage (for bulk wood)	45.57	12%
6	TOOL & EQUIPMENT STORAGE	Lockable cabinets, Wall-mounted tool racks, Worktable for tool maintenance, PPE storage (gloves, goggles, dust masks)	19.06	5%
7	FINISHING & ASSEMBLY ZONE	Sanding stations, Workbenches for assembly, Installation spaces	34.32	9%
8	DIY WOOD EXPERIENCE ZONE	3 Individual workbenches, Instructional boards, Seating area for demonstrations	53.38	14%
9	MERCHANDISE DISPLAY AREA	Display shelves and stands, Cashier & POS system, Lighting to highlight products.	34.32	9%
10	OFFICE / DISCUSSION ROOM	Office desks and chairs, Filing Cabinets, Glass board and projector	22.88	6%
11	RESTROOM	Toilets (accessible design), Washbasins with mirrors, Hand dryers, Waste bins	7.62	2%
		11 AREA TOTAL:	381.28m²	100%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FOR LORRY FORKLIFT
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ASSEMBLT ZONE
DIY WOOD
EXPERIENCE ZONE
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DISPLAY AREA
MAIN ENTRANCE
PRIMARY
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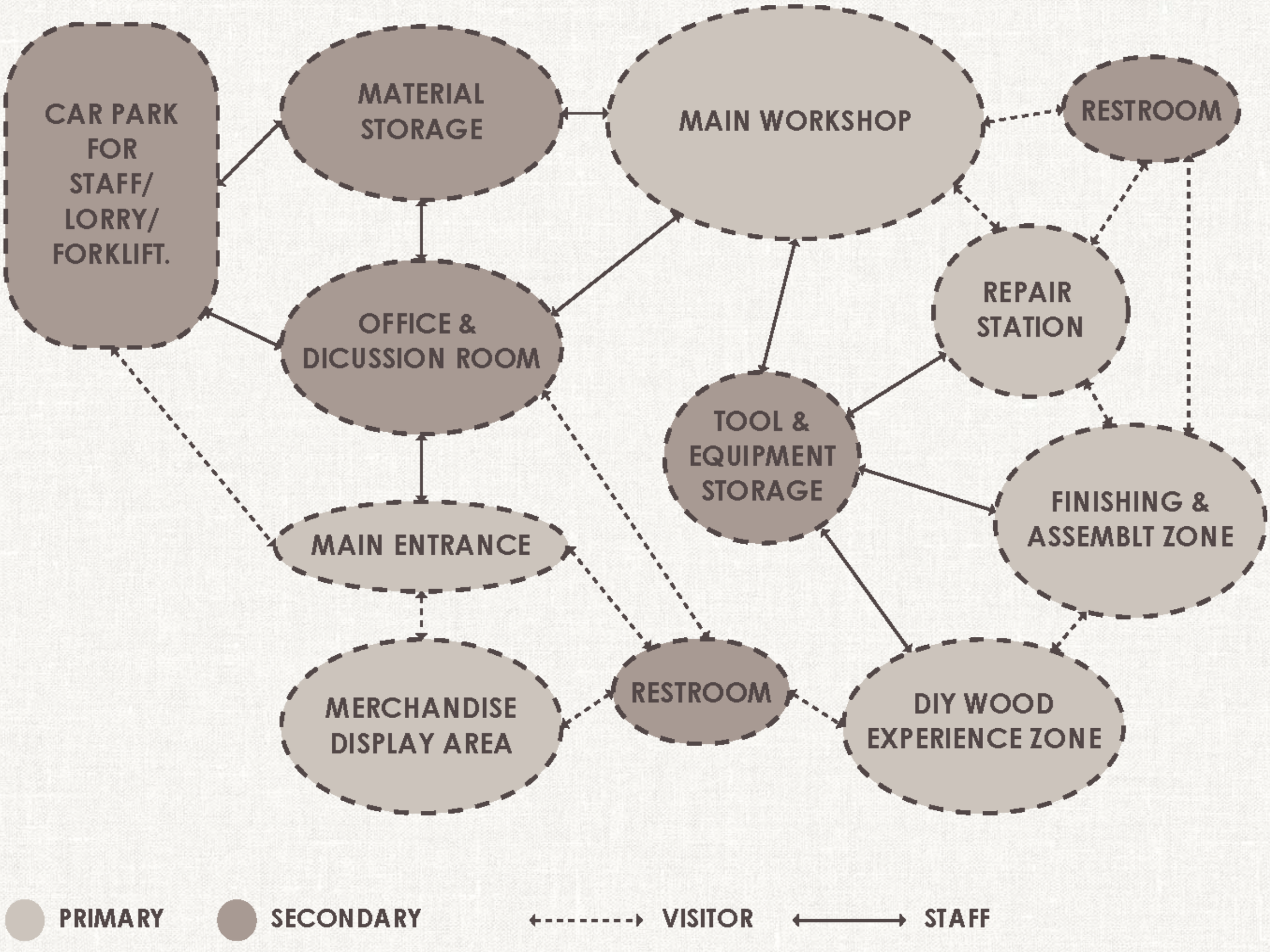
STAFF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OFFICE & DICUSSION ROOM
REPAIR STATION
TOOL & EQUIPMENT STORAGE
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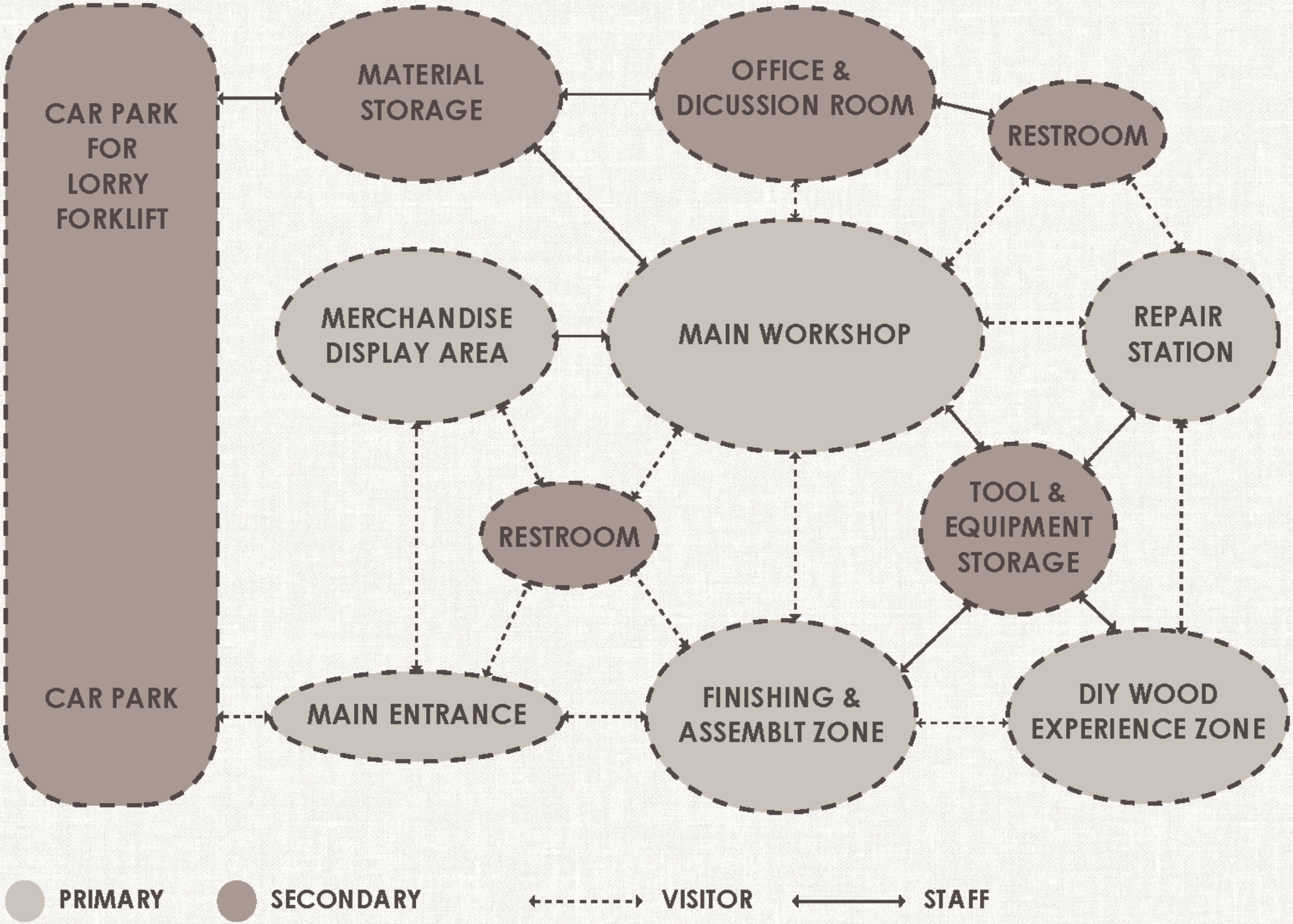
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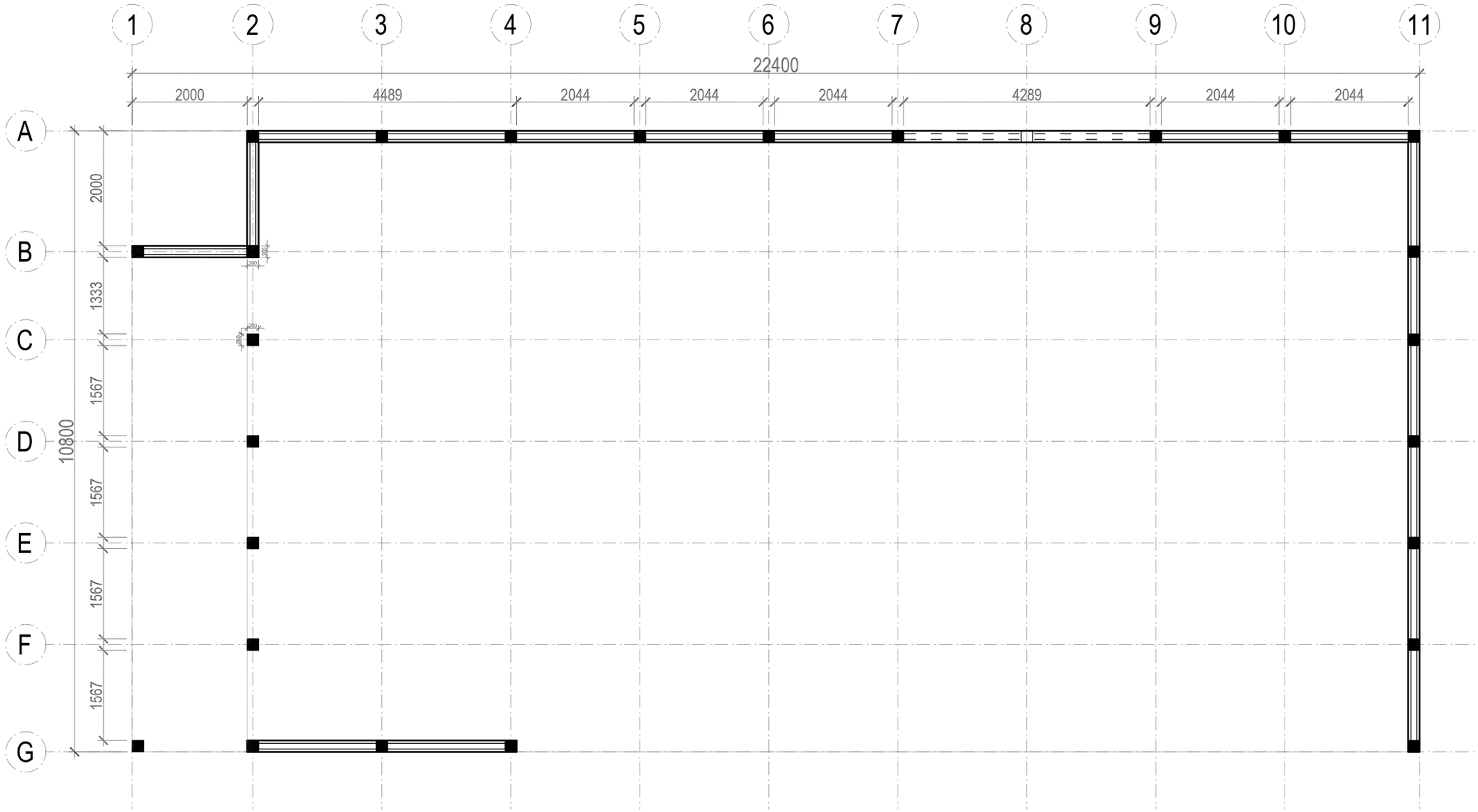


A ELP **EXISTING LAYOUT PLAN_**(BLOCK_A)

SCALE 1:75

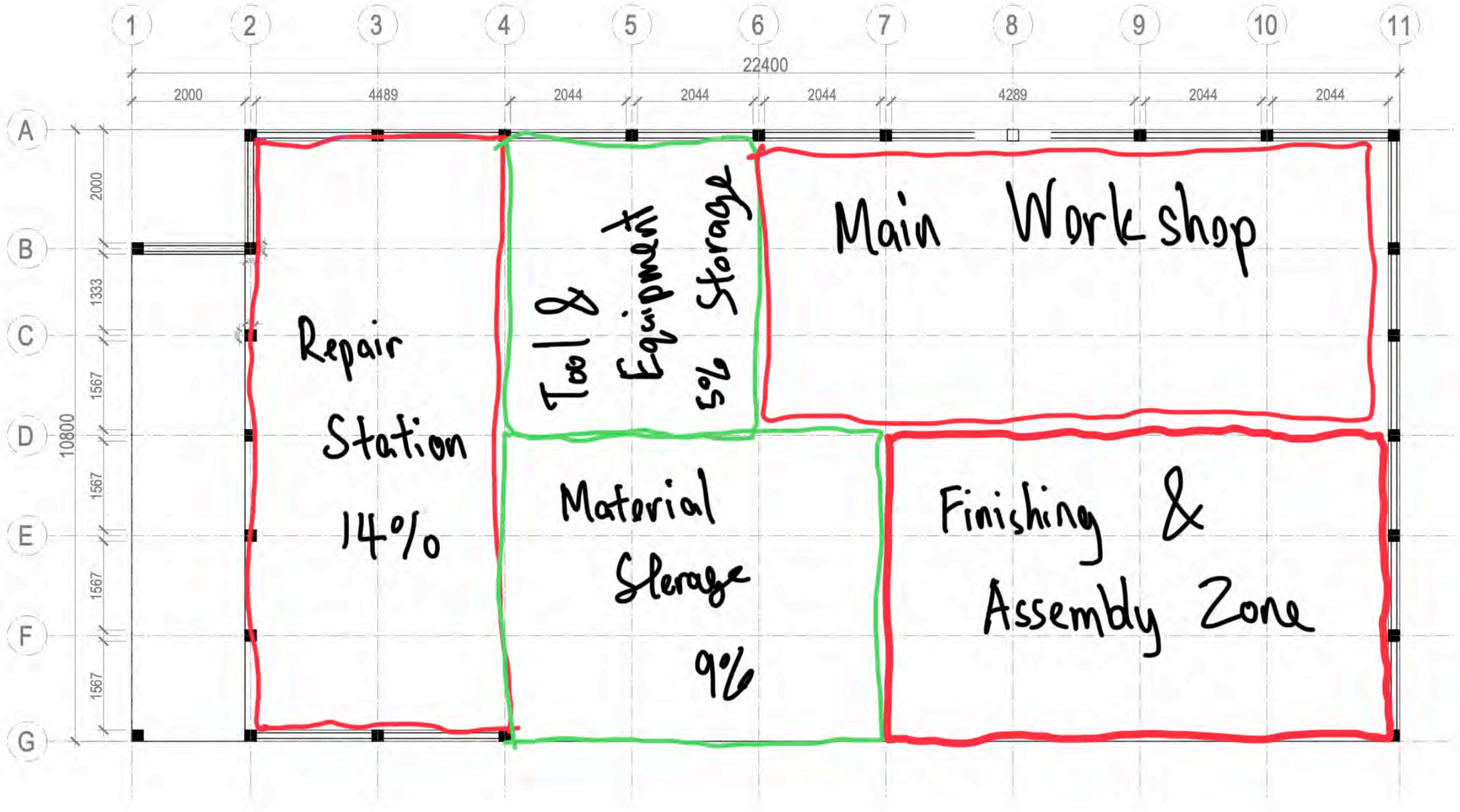
BRANDON LIM

GENERAL NOTES

ALL CONSTRUCTION SHALL BE PERFORMED IN A GOOD, WORKMANLIKE MANNER FOLLOWING ACCEPTED CONSTRUCTION PRACTICES AND TOLERANCES, DEFECTIVE OR DAMAGED MATERIALS SHALL NOT BE USED AND SHALL BE REPLACED.

WHERE CONFLICTING INFORMATION EXISTS BETWEEN THESE PLANS AND OTHER REFERENCED REQUIREMENTS, THE MORE STRINGENT REQUIREMENT SHALL APPLY UNLESS OTHERWISE APPROVED BY THE DESIGN PROFESSIONAL RESPONSIBLE FOR THESE PLANS. THE CONTRACTOR IS RESPONSIBLE TO IDENTIFY AND RESOLVE ALL CONFLICTS AND DISCREPANCIES PRIOR TO AND DURING CONSTRUCTION AND FACILTIATE PROPER CONSTRUCTION AS INTENDED BY THESE PLANS.

PROJECT TITLE SHIKOKU CRAFT CARPENTRY	**DRAWING TITLE** EXISTING LAYOUT PLAN - BLOCK A		**CLIENT APPROVAL & SIGNATURE**
CLIENT NAME SHIKOKU CRAFT HERITAGE COUNCIL	**DRAWN BY** BRANDON	**DATE** 24 / MAR / 2025	
CONTACT NO -	**SCALE** 1 : 75		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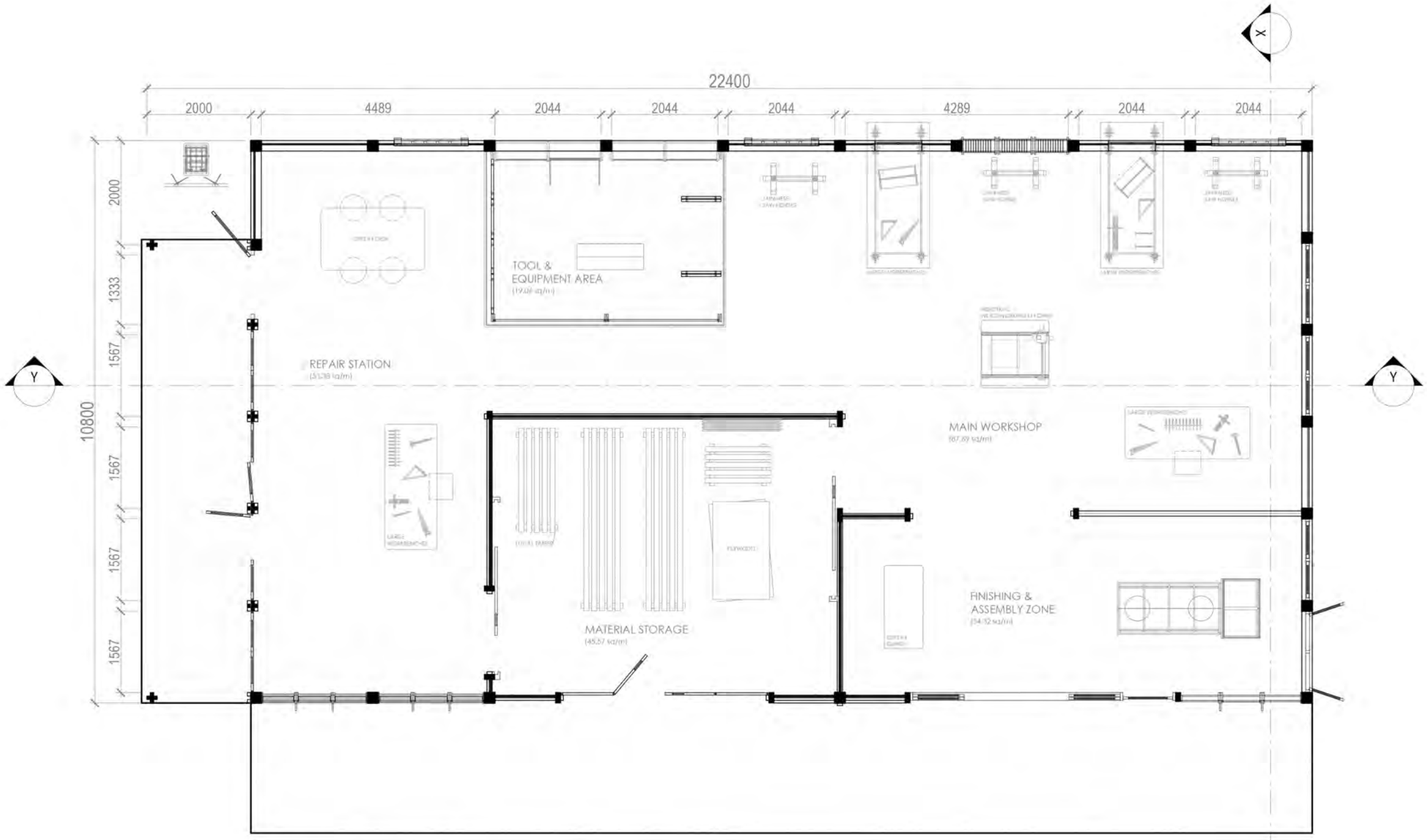
Tool &
Equipment
Storage
5%
Main Workshop
Material
Storage
9%
Finishing &
Assembly Zone



A FLP **FURNITURE LAYOUT PLAN_** (BLOCK_A)
SCALE 1:75

BRANDON LIM

GENERAL NOTES

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PROJECT TITLE SHIKOKU CRAFT CARPENTRY	**DRAWING TITLE** FURNITURE LAYOUT PLAN - BLOCK A		**CLIENT APPROVAL & SIGNATURE**
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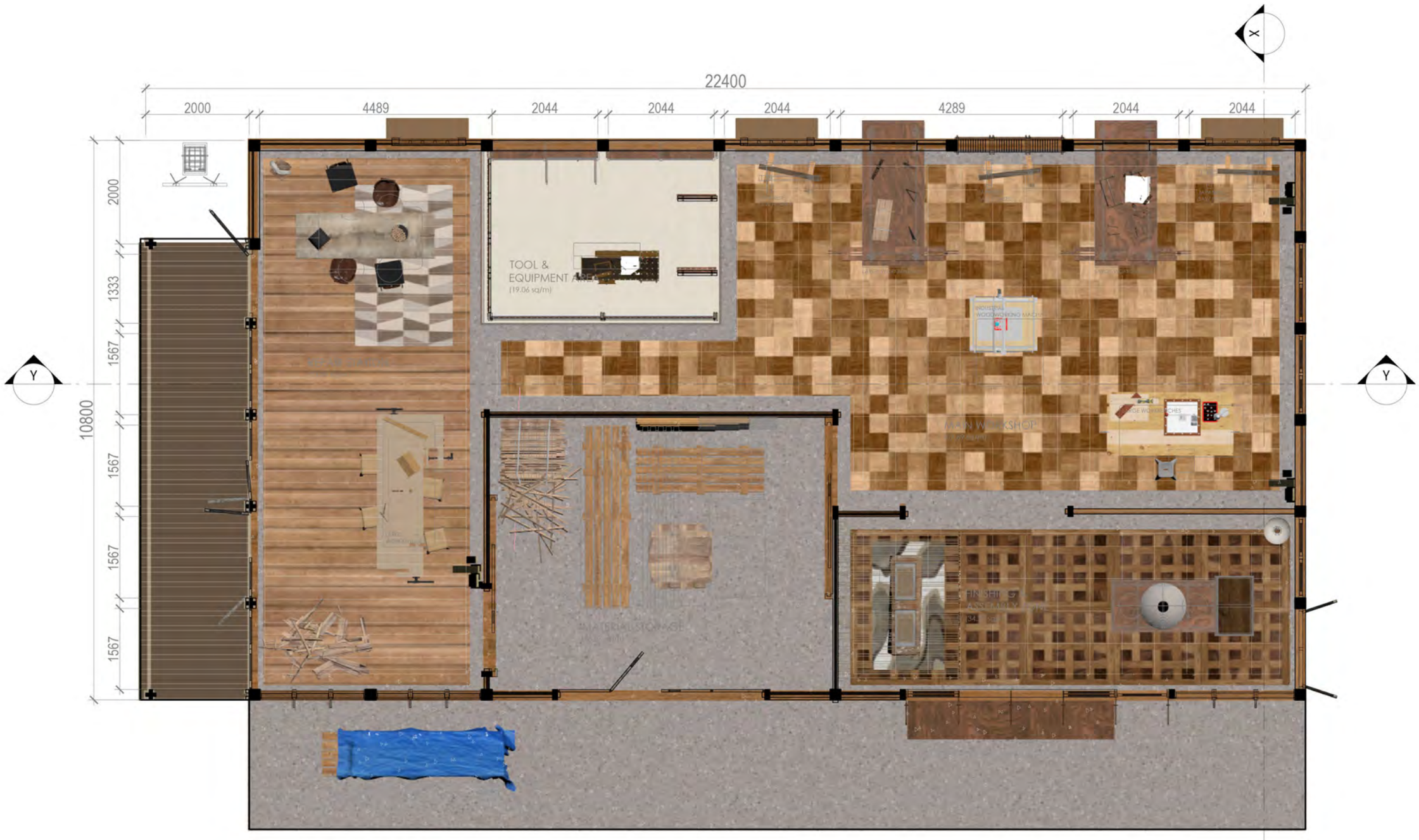

A FLP **FURNITURE LAYOUT PLAN_** (BLOCK_A)

SCALE 1:75

BRANDON LIM

GENERAL NOTES

ALL CONSTRUCTION SHALL BE PERFORMED IN A GOOD, WORKMANLIKE MANNER FOLLOWING ACCEPTED CONSTRUCTION PRACTICES AND TOLERANCES, DEFECTIVE OR DAMAGED MATERIALS SHALL NOT BE USED AND SHALL BE REPLACED.

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PROJECT TITLE SHIKOKU CRAFT CARPENTRY	**DRAWING TITLE** FURNITURE LAYOUT PLAN - BLOCK A		**CLIENT APPROVAL & SIGNATURE**
CLIENT NAME SHIKOKU CRAFT HERITAGE COUNCIL	**DRAWN BY** BRANDON	**DATE** 12 / MAY / 2025	
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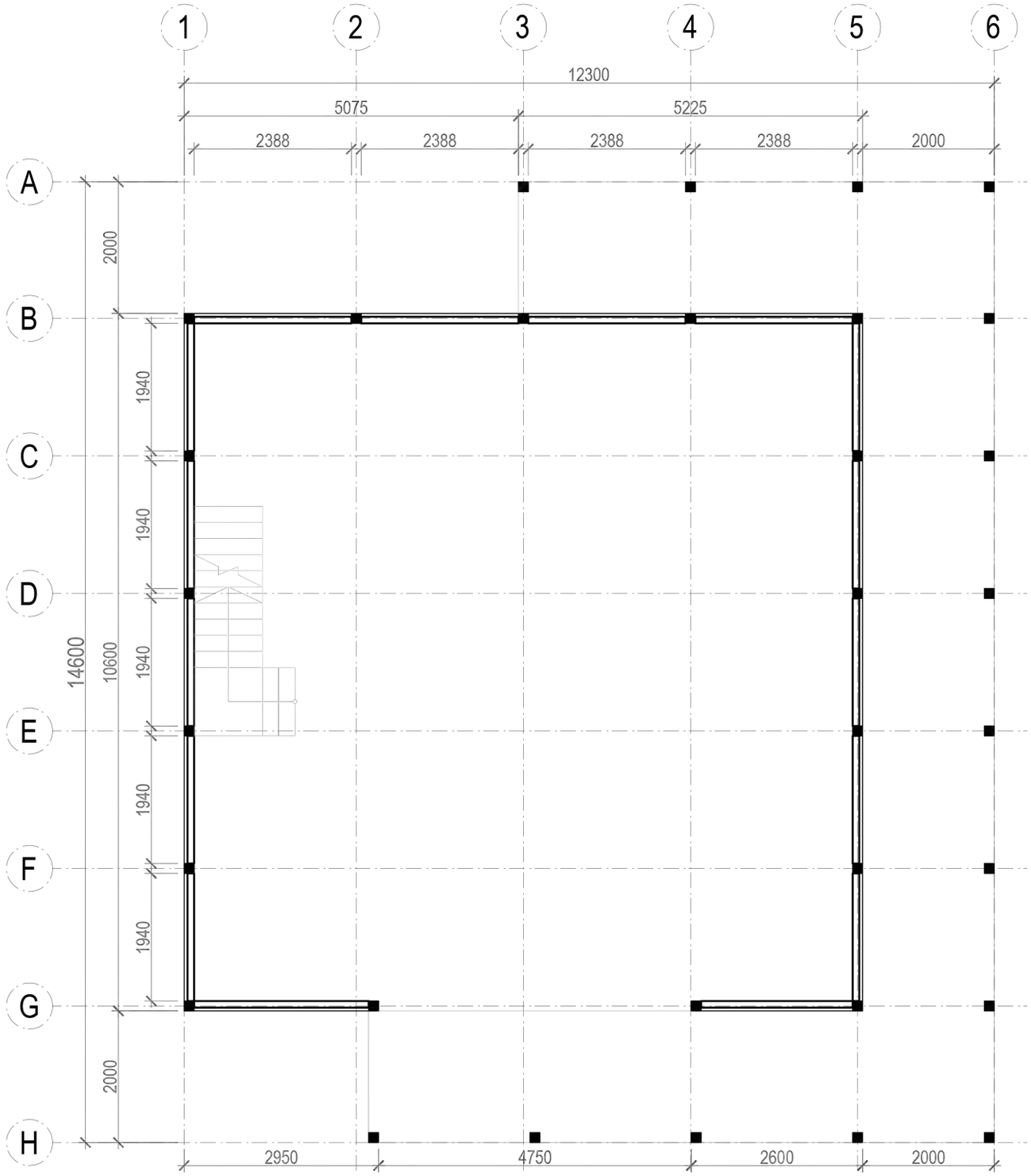

B ELP

GROUND FLOOR EXISTING LAYOUT PLAN_ (BLOCK_B)

SCALE 1:75

BRANDON LIM

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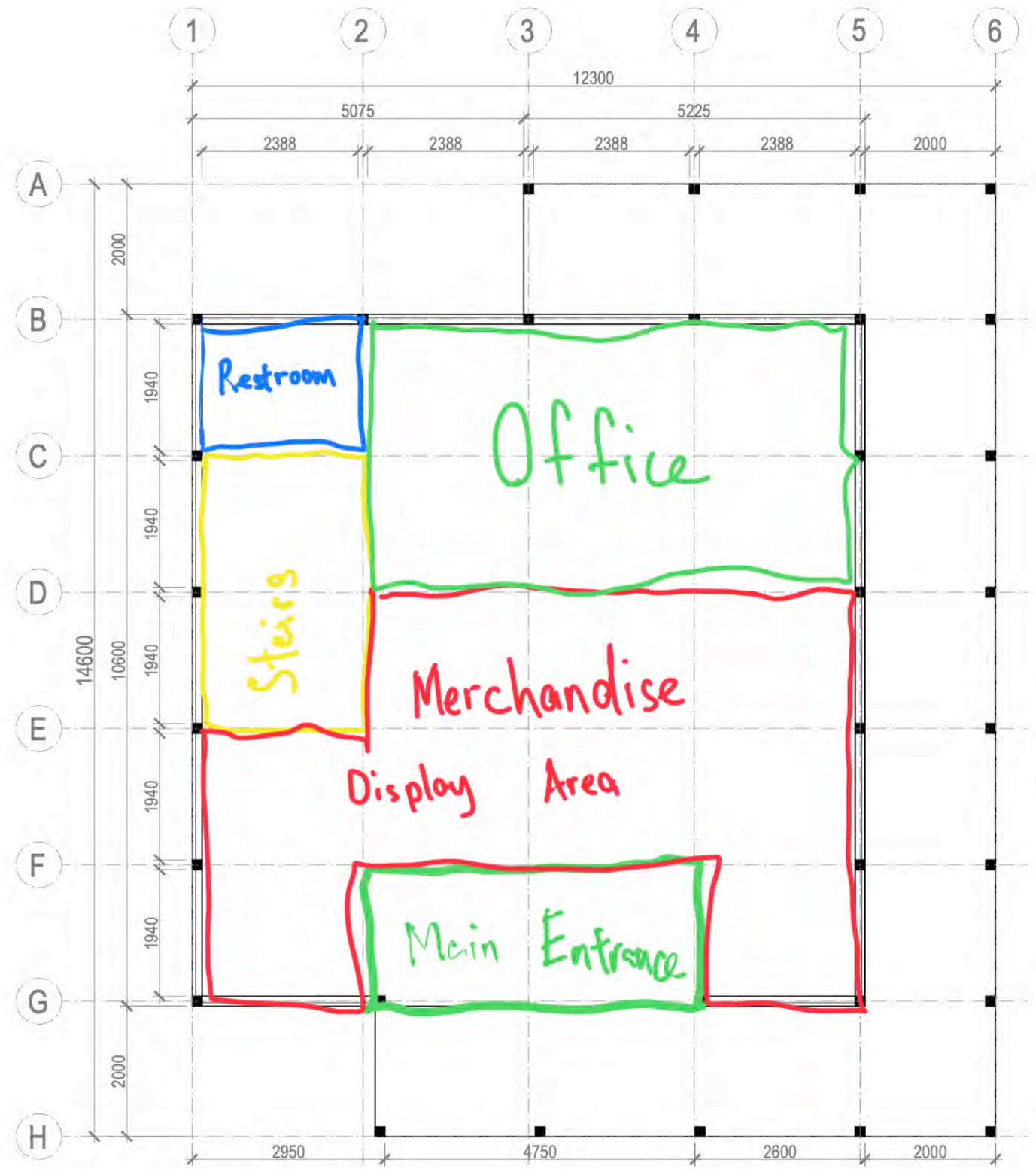
CLIENT NAME SHIKOKU CRAFT HERITAGE COUNCIL	**DRAWN BY** BRANDON	**DATE** 24 / MAR / 2025	
CONTACT NO -	**SCALE** 1 : 75		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1940
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14600
10600
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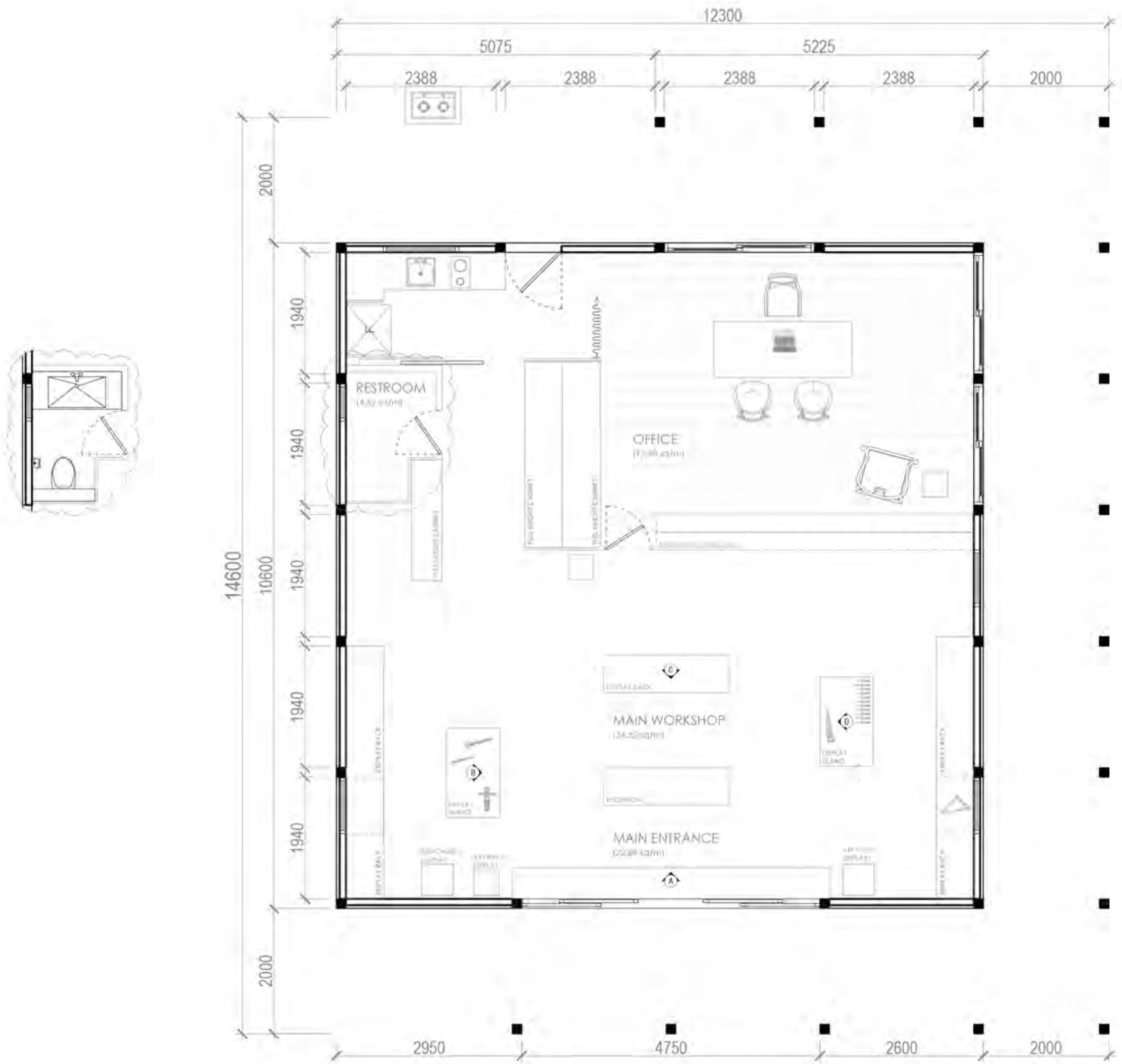
Restroom
Office
Stairs
Merchandise
Display Area
Main Entrance
2950
4750
2600
2000



B GF **GROUND FLOOR FURNITURE LAYOUT PLAN_** (BLOCK_B)
SCALE 1:75

BRANDON LIM

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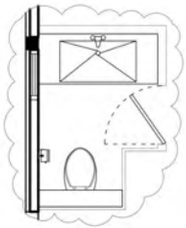

B GF **GROUND FLOOR FURNITURE LAYOUT PLAN_** (BLOCK_B)
SCALE 1:75

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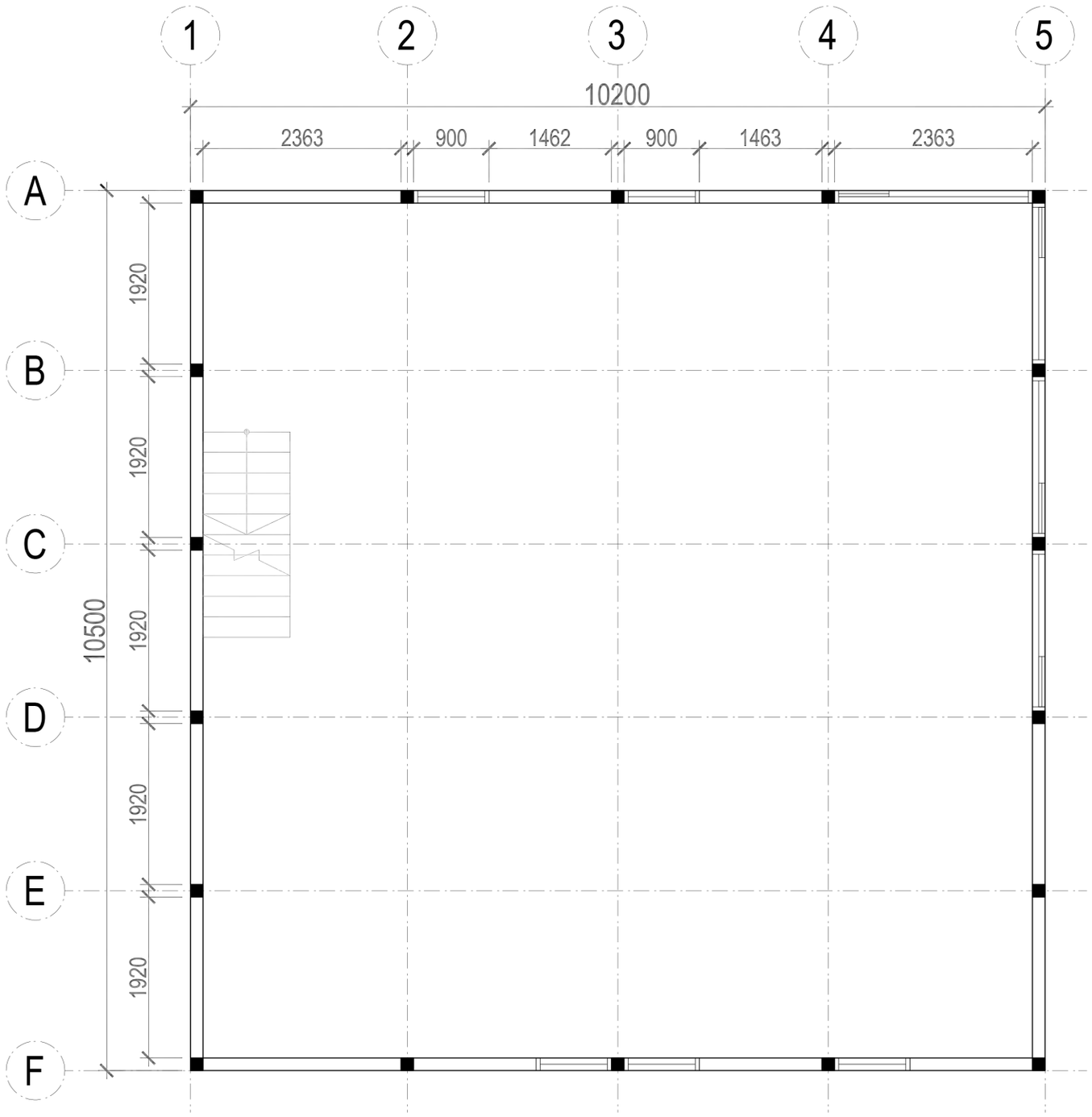

B ELP

FIRST FLOOR EXISTING LAYOUT PLAN_(BLOCK_B)

SCALE 1:60

BRANDON LIM

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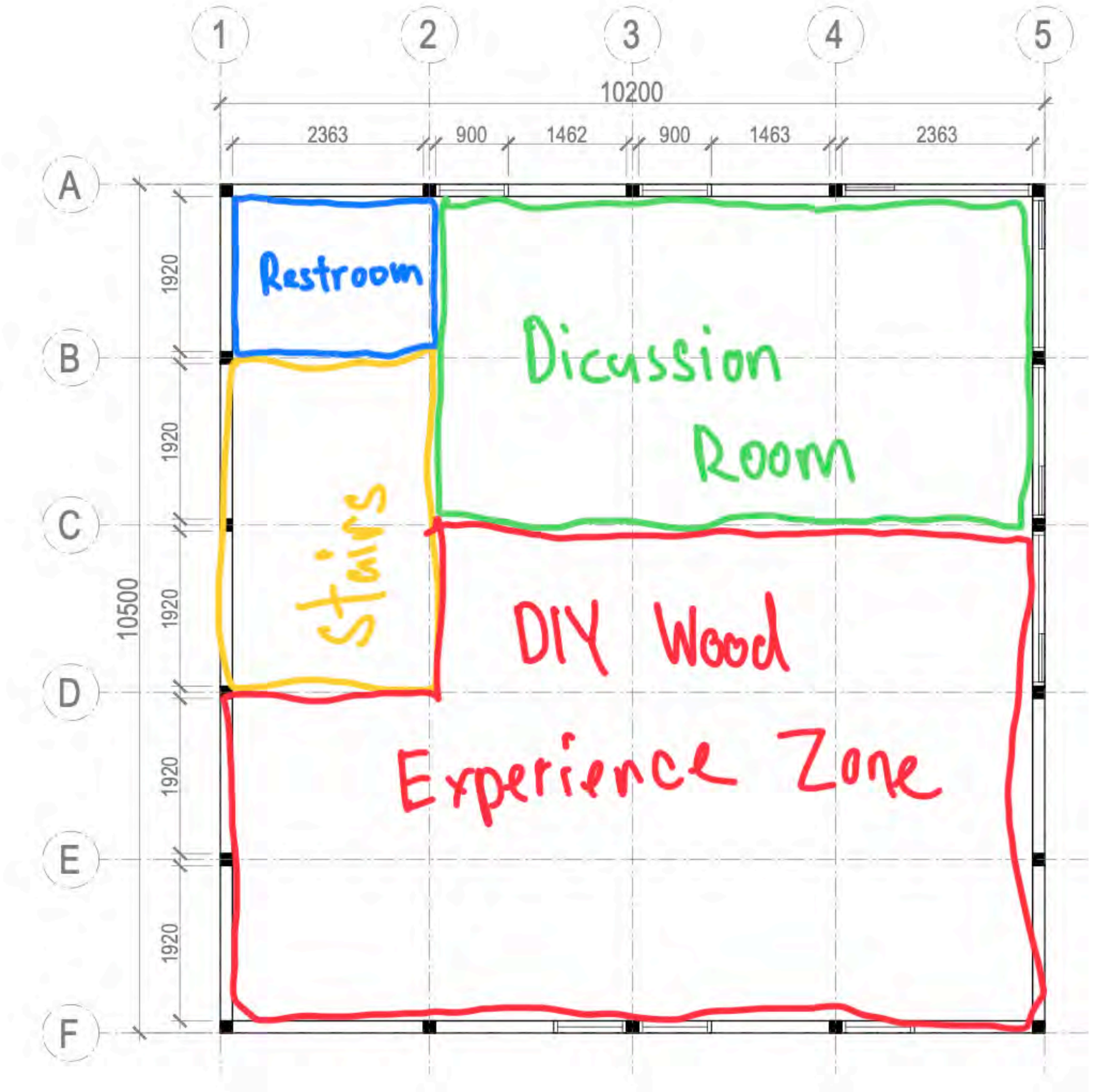
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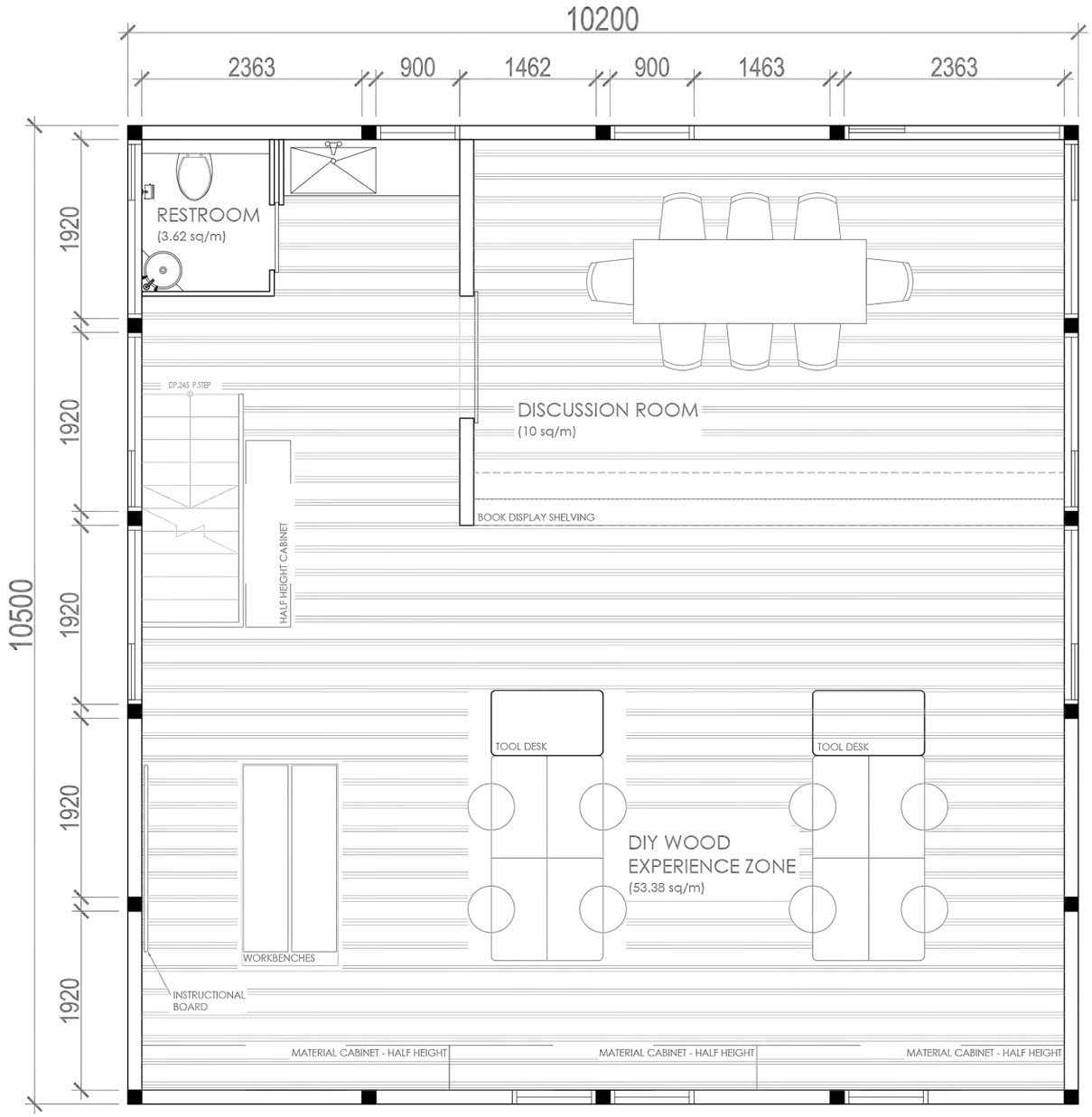
10500
Restroom
Dicussion
Room
Stairs
DIY Wood
Experience Zone



B
FF

FIRST FLOOR FURNITURE LAYOUT PLAN_ (BLOCK_B)

SCALE 1:60

BRANDON LIM

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CONTACT NO -	**SCALE** 1 : 60		

DESIGN PROSES

DESIGN PROCESS

Block A – Design Process Overview

In the design development of **Block A**, I made a conscious effort to **preserve the existing structure without alteration or demolition**. The design process began with a detailed on-site observation of the **placement of original columns**, **beam joints**, **roof assembly**, and **material use**. Wherever the construction logic could be read, it was carefully studied and **reinterpreted in near 1:1 scale**.

By respecting the **Existing wood interlocking joints**, existing timber profiles, and the aged condition of materials, the intervention avoids replacing or overpowering the old. Instead, it **extends the life of the building** through **minimal yet meaningful additions**, acting as a quiet reinforcement of what is already present.

This approach celebrates the **imperfections, wear, and memory** embedded in the structure. It reflects a philosophy of **preservation through continuity**, ensuring the carpentry culture and built heritage are carried forward with dignity.

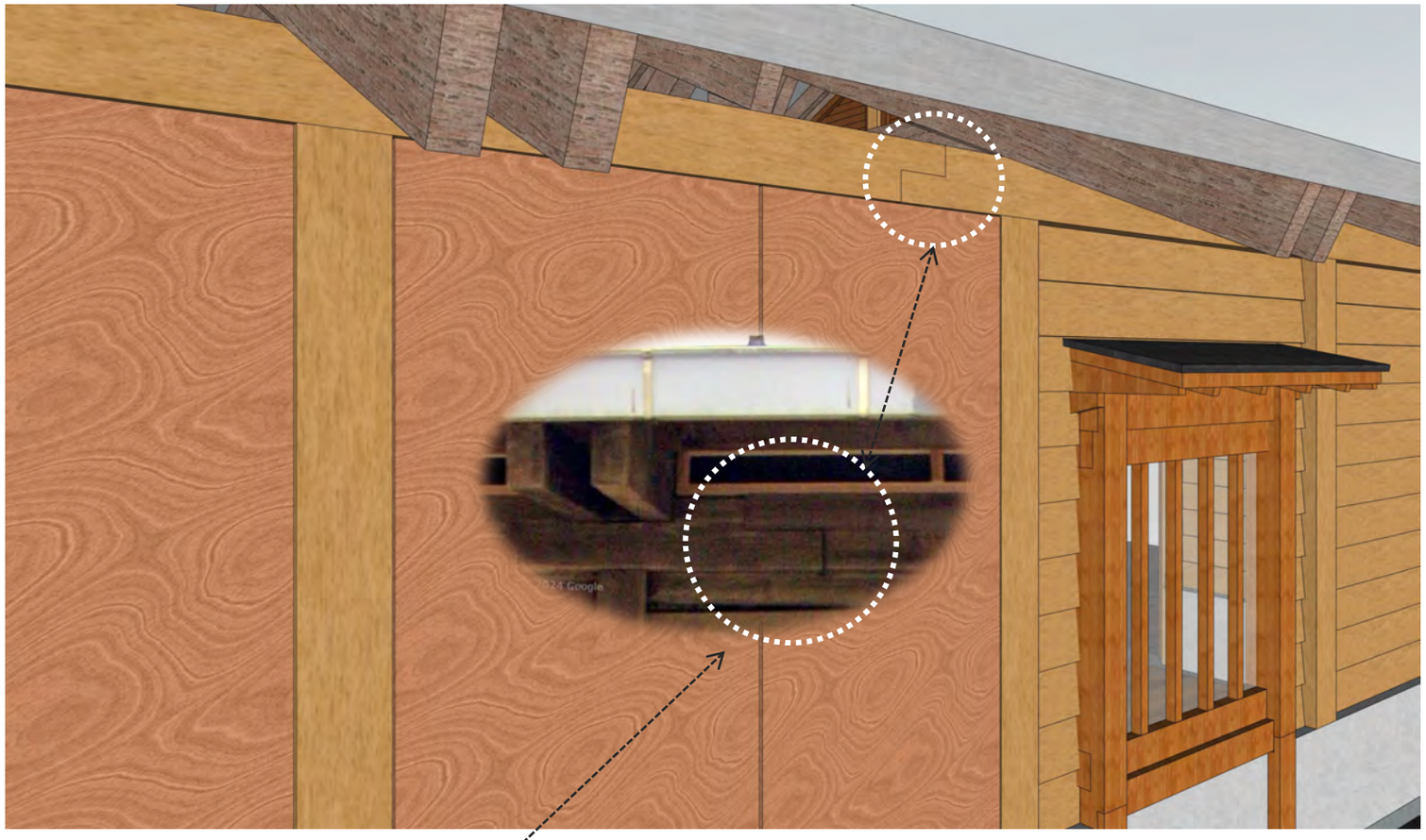
DESIGN PROCESS

This view shows the transition from the Entrance **Block A** into the **Finishing & Assembly Area**

Traditional Joinery for Structural Stability

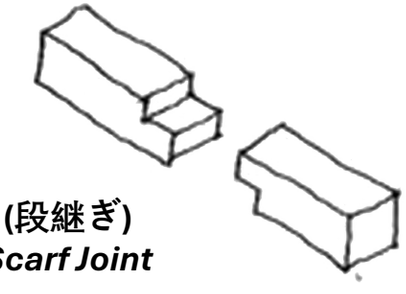
To ensure **safety and continuity**, this section incorporates two traditional **interlocking joints**:
•**Ari Shiguchi** (Dovetail Socket Joint) – resists lateral force.
•**Shihou Kama Tsugi** (Four-Way Sickle Joint) – stabilizes vertical and cross-directional loads.
Meanwhile, the **roof and overall structure** follow the lines and logic of the **existing building**, preserving the original framework without alteration. This approach respects the site's heritage while reinforcing structural performance through craftsmanship.

DESIGN PROCESS



MODELLING

STRUCTURE OF EXISTING BUILDING



Dan-tsugi (段継ぎ)
Stepped Scarf Joint

Dan-tsugi is a **stepped scarf joint**, commonly used in Japanese timber construction to **connect two beams longitudinally** (along the same axis). It involves one or more "steps" that interlock, often in combination with locking keys or wedges.

While surveying the existing building, I identified the use of **Dan-tsugi**, a traditional **stepped scarf joint** technique used to connect timber beams longitudinally. In respect of this original **interlocking method**, I chose to **preserve the existing structural system** without alteration.

New structural additions are carefully connected in a way that **extends the building's lifespan**, upholds the **material integrity**, and embraces the **imperfections** of the aged structure. This approach aligns with a philosophy of **repair over replacement**, respecting the past while building toward the future.

DESIGN PROCESS

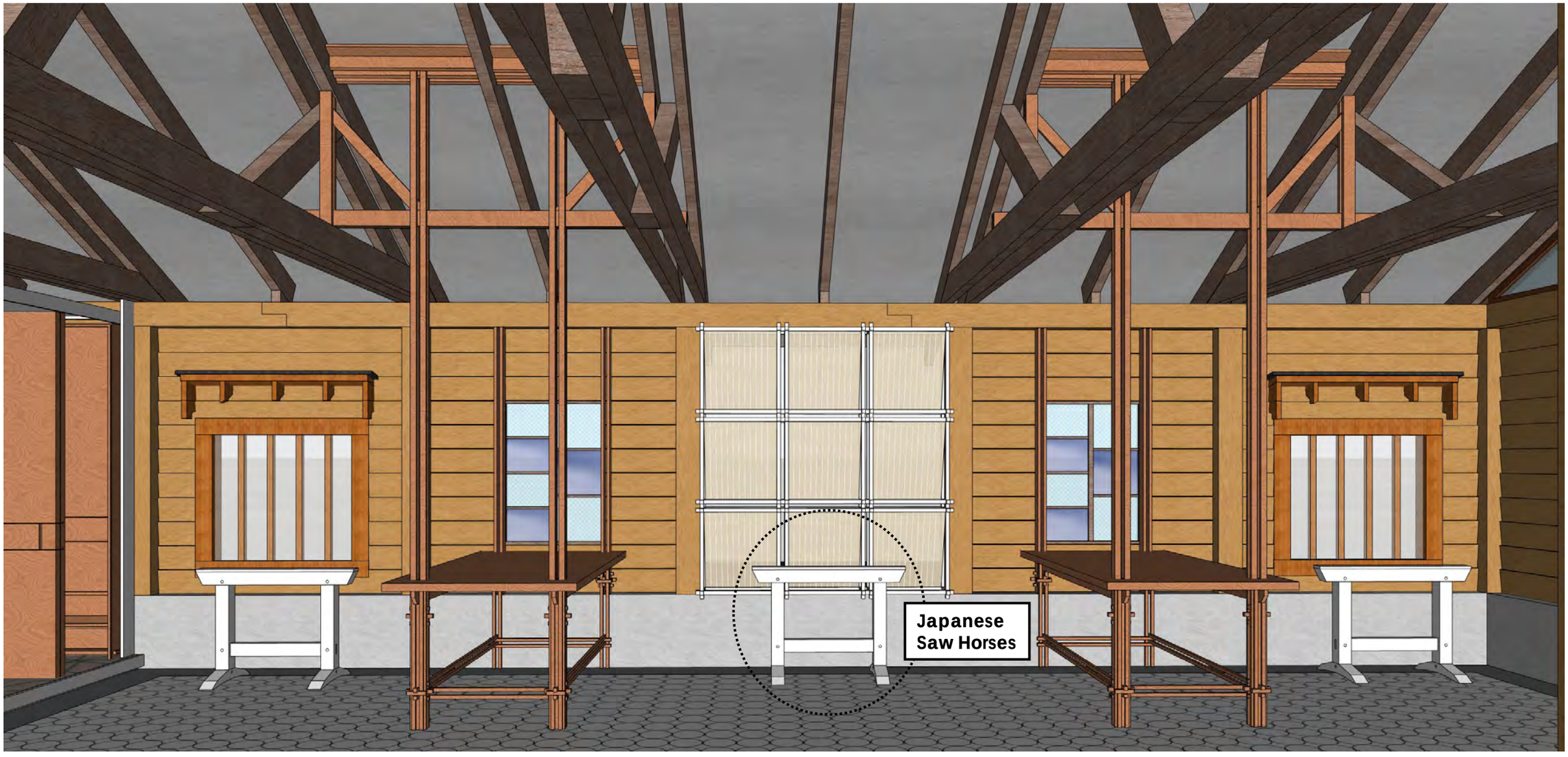
This view showing the transition from **Finishing & Assembly Area**

Finishing & Assembly Area

This space is where the carpenter applies **natural beeswax finishes** to furniture and fixtures, ensuring each piece is sealed and polished by hand. The controlled indoor environment allows for precision work and proper curing. The layout supports smooth workflow while maintaining visibility to adjacent spaces, reinforcing the open and collaborative nature of the Carpentry Hub.

DESIGN PROCESS

This view shows the transition from **Main Workshop.**



Structure

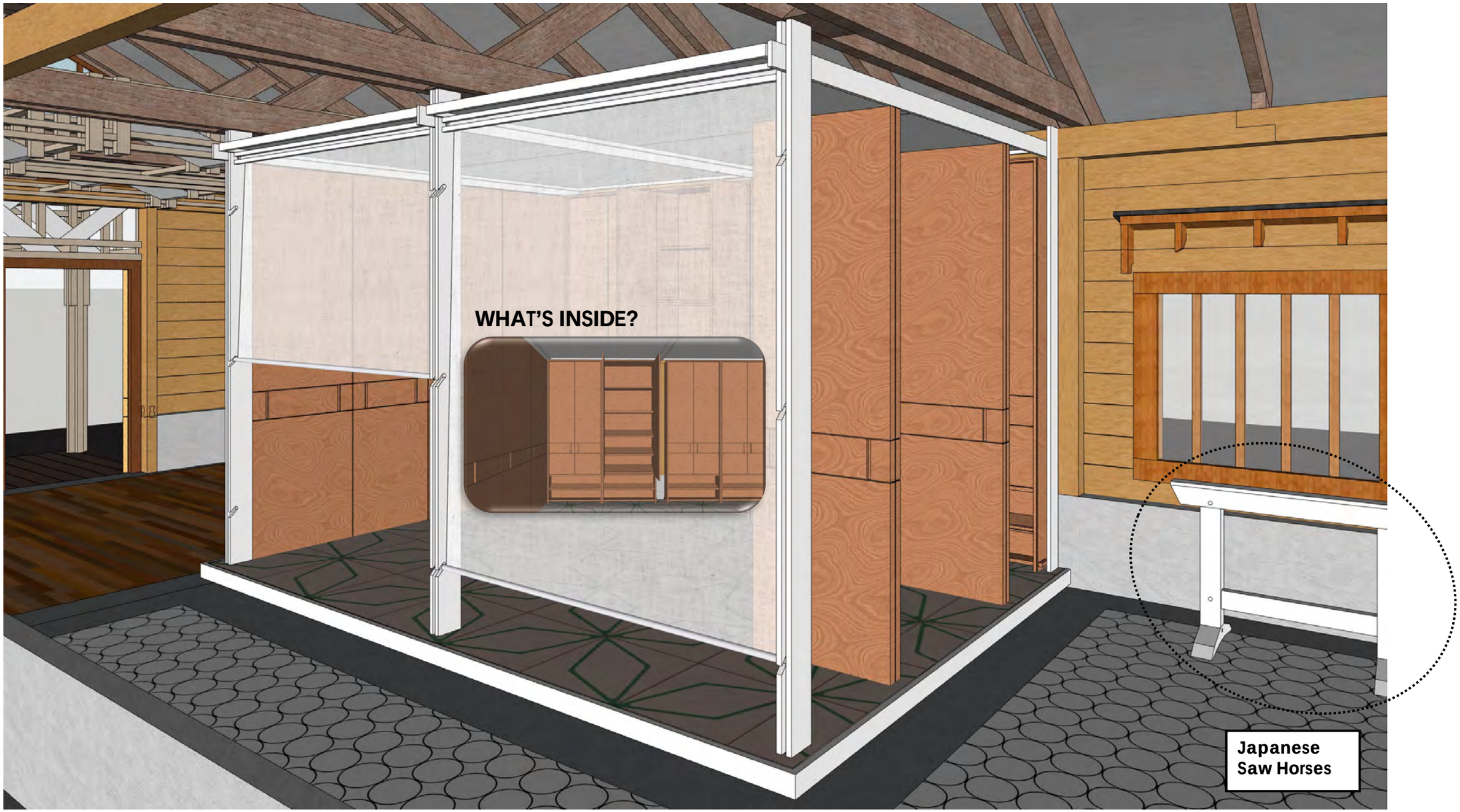
The workbenches in the Main Workshop are supported by a **continuous interlocking structure** that connects from **floor to wall to ceiling**. This traditional Japanese construction method enhances **stability and load-bearing capacity**, ensuring the workspace remains structurally sound without relying on modern fasteners. It also visually expresses the **craftsmanship logic** embedded in the building itself.

Activity

In the Main Workshop, a professional carpenter engages in precise woodworking tasks such as **measuring, cutting, and assembling traditional joinery**. Supported by a structurally interlocked workbench system that anchors from floor to ceiling, the space provides the **stability and rigidity** needed for detailed craftsmanship. This setup reflects the **discipline and integrity** of Japanese carpentry, where every joint is tested for fit before final assembly.

DESIGN PROCESS

This view shows the **Tool & Equipment Area**.



Structure

The structure is built atop a **raised tatami-style platform**, featuring **pivoting doors** clad in plywood. The enclosure uses a **double wood post system**, with **linen panels stretched over stainless steel frames**, creating a flexible "blind method" enclosure. The linen screens are hooked at the sides for easy adjustment, referencing traditional Japanese partitioning logic while using durable, local materials.

Activity

This enclosed area stores essential **tools and equipment** used by the carpenters. The semi-transparent linen enclosure ensures **visual softness and ventilation**, while maintaining **a degree of privacy** and protecting tools from dust. Carpenters access this space regularly to retrieve or store hand tools, jigs, and joinery components during their workflow.

DESIGN PROCESS

Left: **Exterior entrance** view / Right: Interior view of the **Repair Station**

Structure

The gabled roof is constructed using an **interlocking timber craftsmanship method**, ensuring durability without metal fasteners. Integrated into the roof is a **clerestory window system**, which allows natural light to flood the workspace while maintaining ventilation. Notably, the clerestory windows are **refurbished and reused** components—**donated by local residents or small workshops**, giving new life to discarded building elements. The entrance canopy is supported by a **steel post-and-beam frame**, while the interior continues with modular timber finishes and a suspended grid ceiling for lighting and servicing.

Activity

This area serves as the **Repair Station**, where carpenters perform **post-assembly adjustments, joinery corrections, and fine repairs**. The space supports tool-heavy tasks in a controlled setting, with easy access between indoor workbenches and outdoor movement. The canopy provides **sheltered transitional space**, reinforcing the flow and flexibility needed in daily workshop operations.

DESIGN PROCESS

BLOCK B – Design Process Overview

Block B retains the **original external structure almost entirely**, with only minor changes such as the **reuse of old windows and doors** sourced from local donations. The building's frame, roof, and exterior finish were kept intact to honor the existing architectural logic.

The design focus shifted inward **the interior becomes the main medium for expressing Japanese craftsmanship**. Through precise material selection, joinery detailing, and spatial layout, the interior is reinterpreted to **communicate the values of preservation, repair, and refined workmanship**. Every insertion whether a partition, a surface, or a furniture piece was designed to align with the original structure at a **1:1 scale**, maintaining both proportion and rhythm.

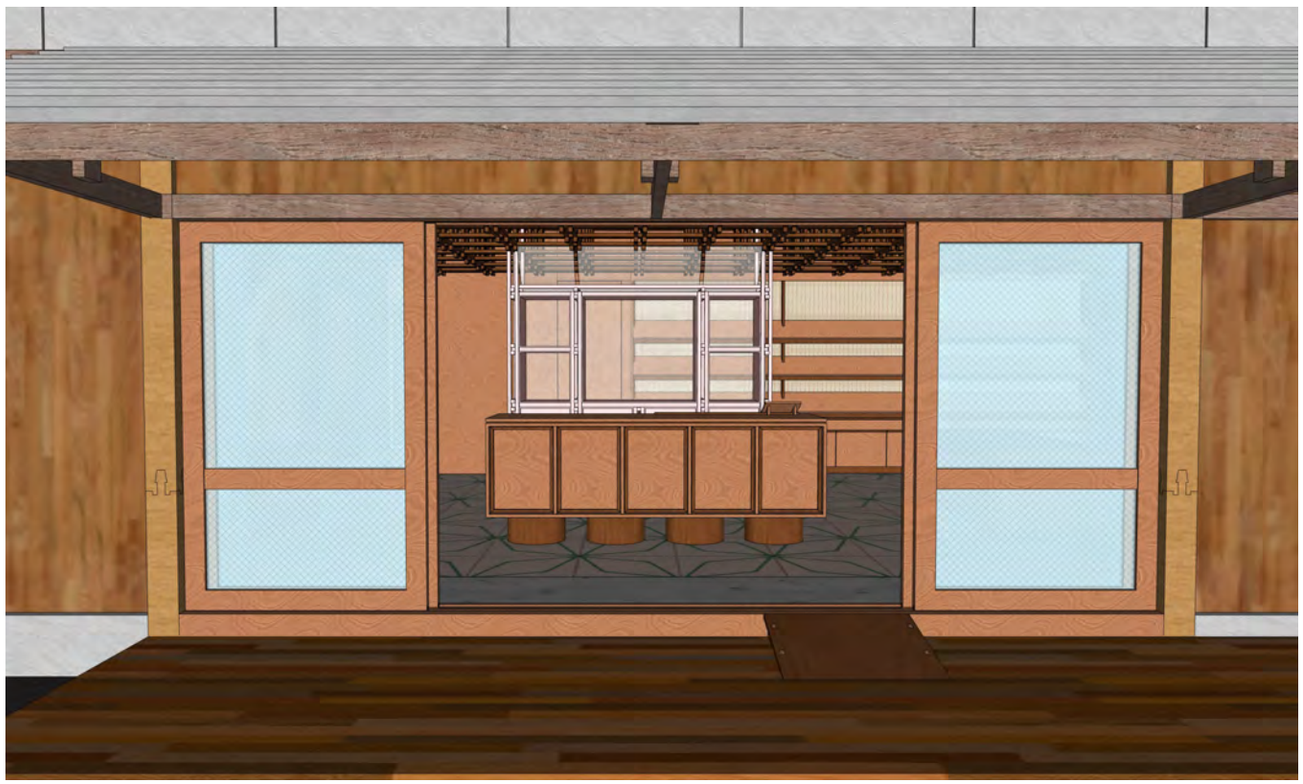
Rather than replacing or reconstructing, Block B demonstrates how **heritage can be extended through interior design** using spatial language to embody and celebrate the **essence of traditional Japanese carpentry**.

DESIGN PROCESS

This view shows the **Block B Entrance to the Merchandise Area**.

Structure

The entrance doors are constructed using **fire-rated safety glass panels** framed in timber. These doors incorporate both **mechanical interlocking systems** and **traditional wood joinery techniques**, offering durability while expressing a refined level of craftsmanship. The slight elevation difference between spaces is addressed by a **timber ramp**, integrated cleanly into the flooring system to ensure accessibility.

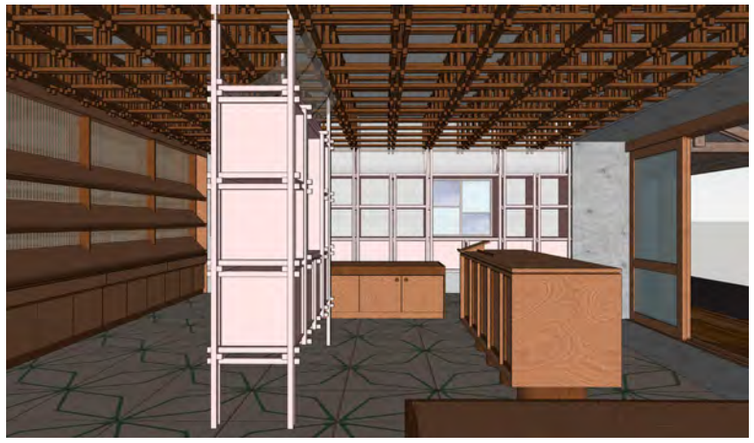


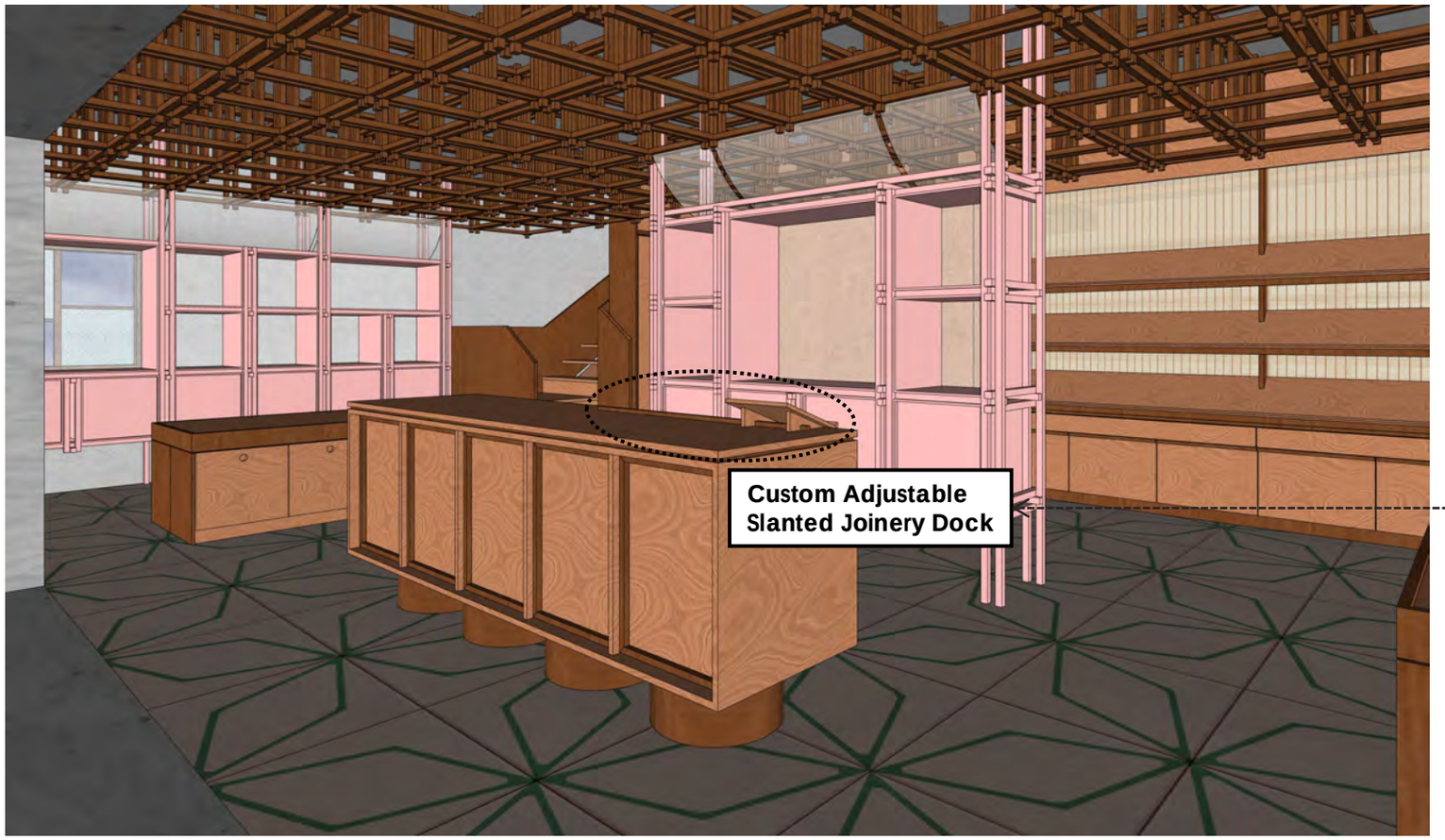
Activity

Inside this space, the **Retail Guide and Office Administrator** manage merchandise logistics, customer interaction, and basic administrative tasks. The semi-enclosed design provides both **visibility and privacy**, allowing visitors to view the products while maintaining a sense of boundary between the retail area and back-end operations.

DESIGN PROCESS

This view shows the **Merchandise Area**.





Structure

The ceiling features a **continuous grid system constructed through interlocking wood joinery**, echoing traditional Japanese techniques. This exposed framework not only supports modular shelving and lighting but also expresses the **craftsmanship logic** at the heart of the project. Each timber element is left visible to celebrate **material honesty**, with subtle variations in wood texture and tone embracing the **Wabi-Sabi philosophy**—finding beauty in imperfection, aging, and the handmade.

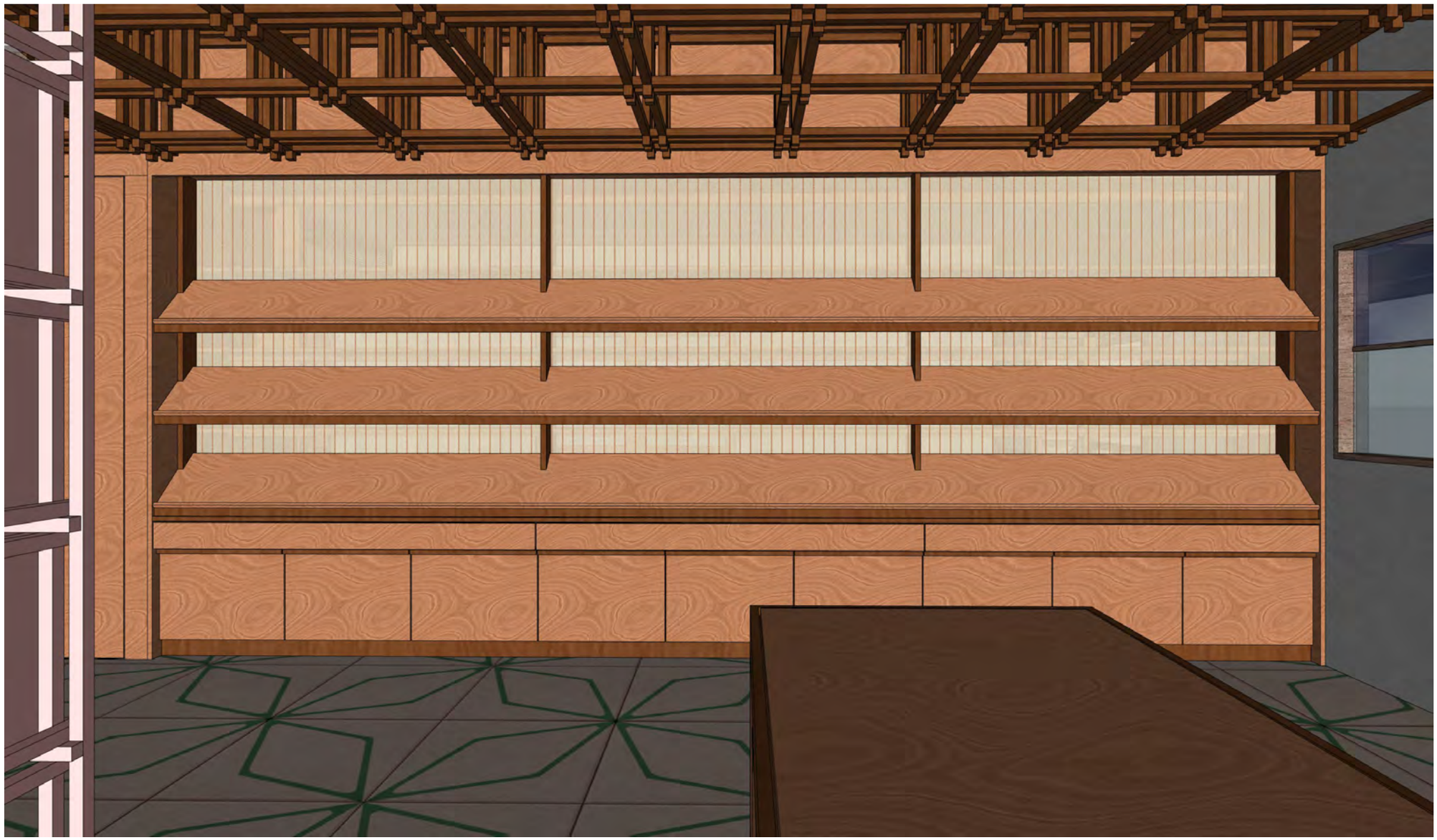
Activity

This area functions as the **retail and display space** for wooden merchandise crafted within the Carpentry Hub. Visitors can browse through curated items, while the **Merchandise Assistant** provides support from the central counter. The open ceiling, linear shelving, and tactile materials collectively shape a quiet, respectful atmosphere—allowing the spirit of traditional craft to be experienced through space.

A small timber stand designed to hold an **iPad or POS machine** at a comfortable angle for checkout. Built with **interlocking joinery**, it complements the overall carpentry language while serving a functional role at the merchandise counter.

DESIGN PROCESS

This view shows the **Merchandise Area** - Book shelving.



Structure

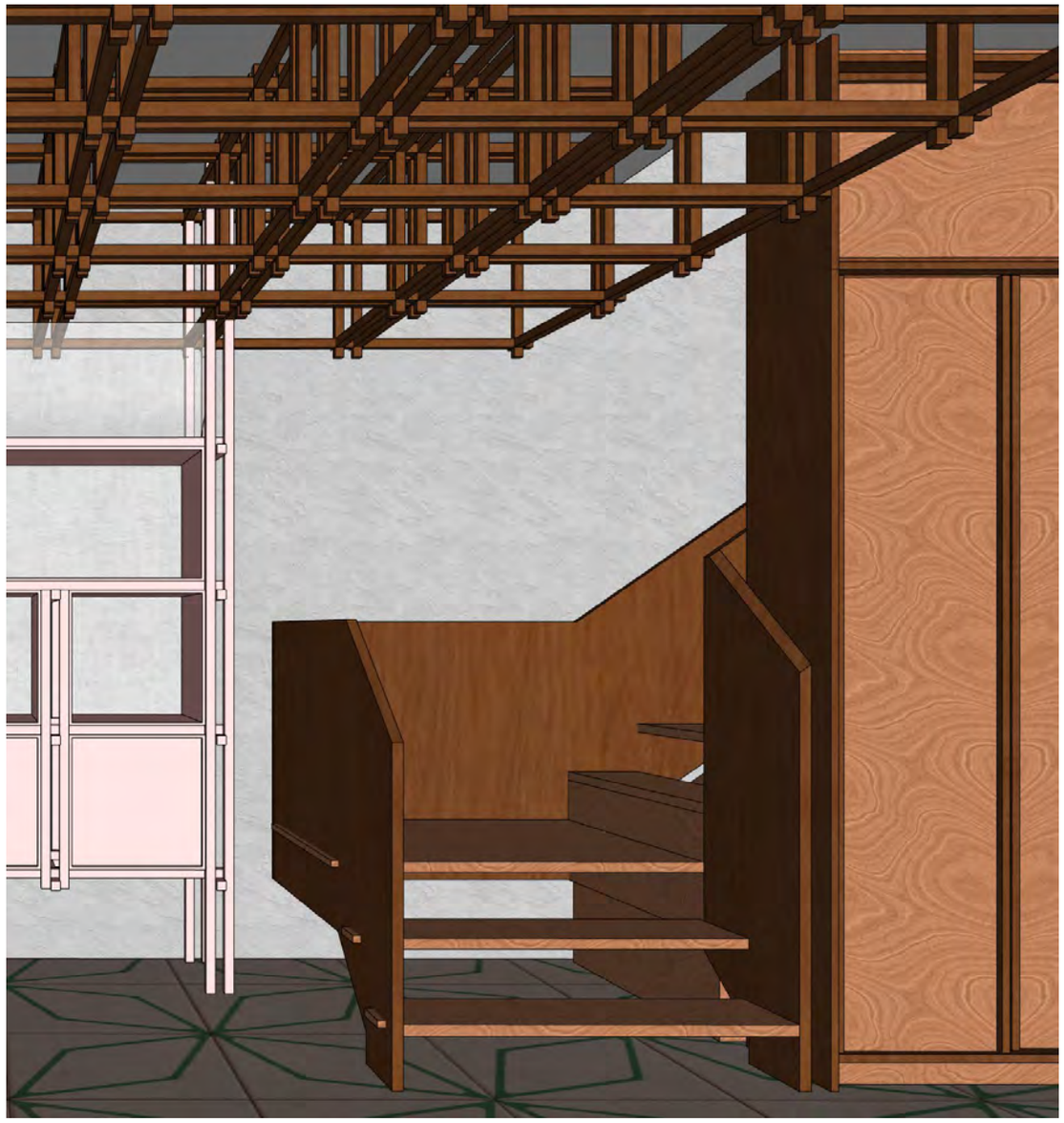
The shelving system is entirely constructed using **timber components** and simple **wood joinery**, aligning with the interlocking logic seen throughout the interior. The modular frame allows for both **book display and closed storage**, while maintaining visual consistency with the ceiling grid above.

Activity

This wall showcases a curated collection of **free second-hand books**, available for visitors to browse or take home. The selection reflects themes of **craft, nature, and preservation**, reinforcing the cultural value of reuse—both in materials and in knowledge.

DESIGN PROCESS

This view shows the **Staircase**.



Structure

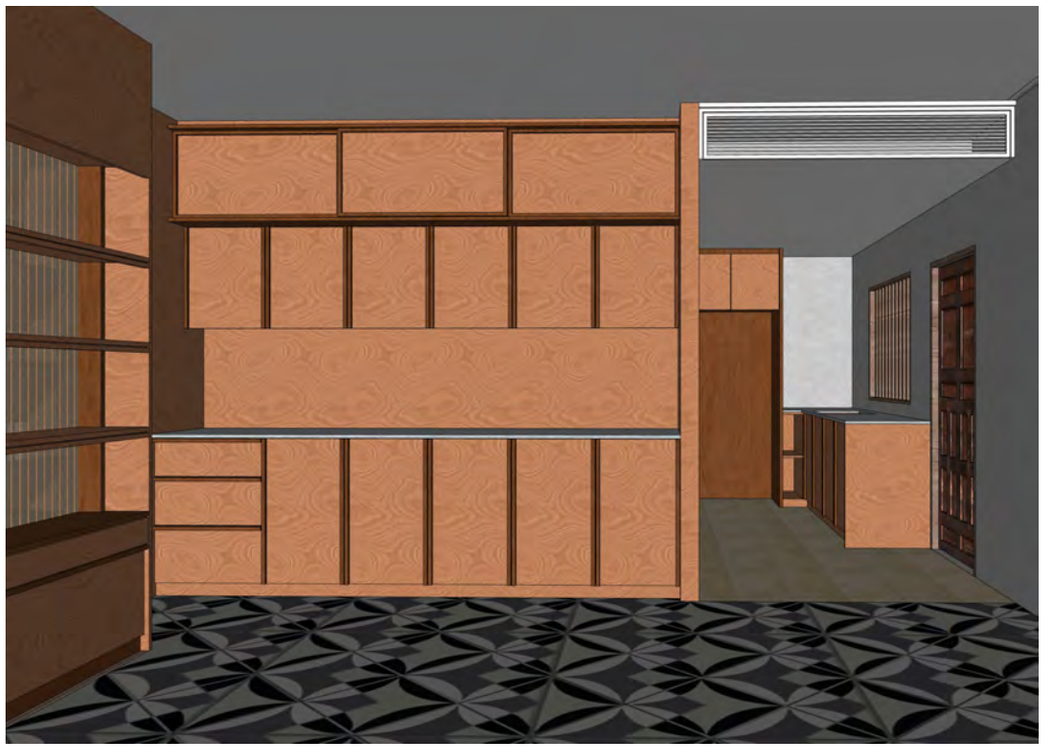
The staircase is constructed from **solid timber panels** using **interlocking joinery** without metal fixings. The side profile serves as both **guardrail and structural support**, with steps designed to align rhythmically with the ceiling grid above. The stair follows **ergonomic standards**, with a **tread depth of 270mm**, **riser height of 160mm**, and **step width of 900mm**—ensuring safe and comfortable use for a range of users.

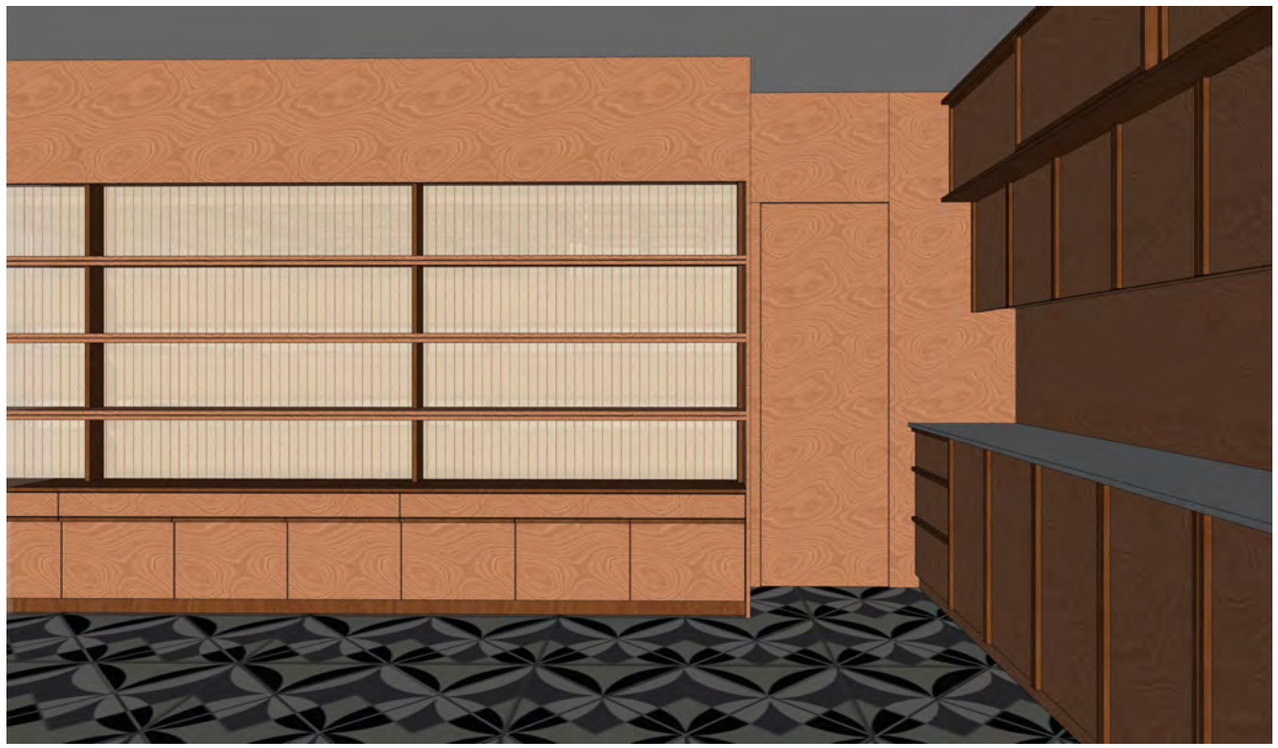
Activity

This staircase provides access to the **upper-level DIY Workshop and Discussion Room**, supporting movement between public retail and semi-private learning spaces. Its careful detailing reinforces both the **functional efficiency** and **craft-based language** of the Carpentry Hub interior.

DESIGN PROCESS

Left: **Carpentry cabinetry for document storage** / Right: **Shelving for Japanese Craftsmanship Books and curated goods**)





Structure

The office cabinetry is constructed using **solid timber and interlocking joinery**, reflecting the material logic seen throughout the project. The left side consists of custom-built storage for documents and daily tools, while the right features a shelving system with **linen backing and open wood profiles**, designed to express **the rhythm of handcrafted joinery**. The slight tonal variation in wood and natural wear in reused elements introduce subtle **wabi-sabi accents** embracing imperfection, wood profile, aging, and authenticity.

Activity

This space is managed by the **Office Administrator**, who handles paperwork and daily operations. The shelving on the right displays a curated selection of **books on Japanese craftsmanship** along with **small artisanal goods**, reinforcing the educational and cultural value of the Carpentry Hub through interior expression.

DESIGN PROCESS

This view shows the **Material Storage Entrance**.

Structure

The entrance features a pair of **pivoting timber doors** constructed with **compressed wood panel cladding** and narrow **vertical vision strips** for safety and light. The framing follows the same **interlocking timber logic** used across the project, preserving structural and visual coherence. A **clerestory window band** above allows daylight into the space, enhancing visibility and supporting passive ventilation.

Activity

This entrance serves as the main access point to the **Material Storage Area**, functioning as a dedicated **unloading zone** for timber and raw materials. Delivery vehicles can pull up directly outside, allowing carpenters and staff to efficiently **receive, sort, and move materials** into storage. The wide door opening supports the handling of large or irregularly sized items essential to the workshop's daily operations.

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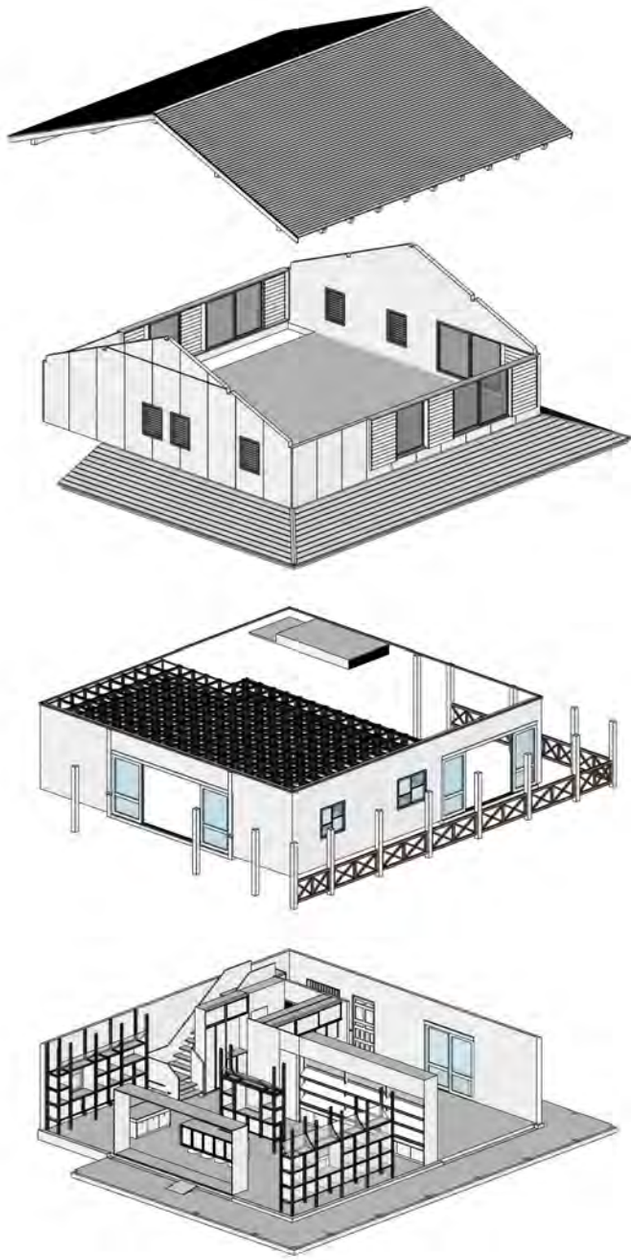

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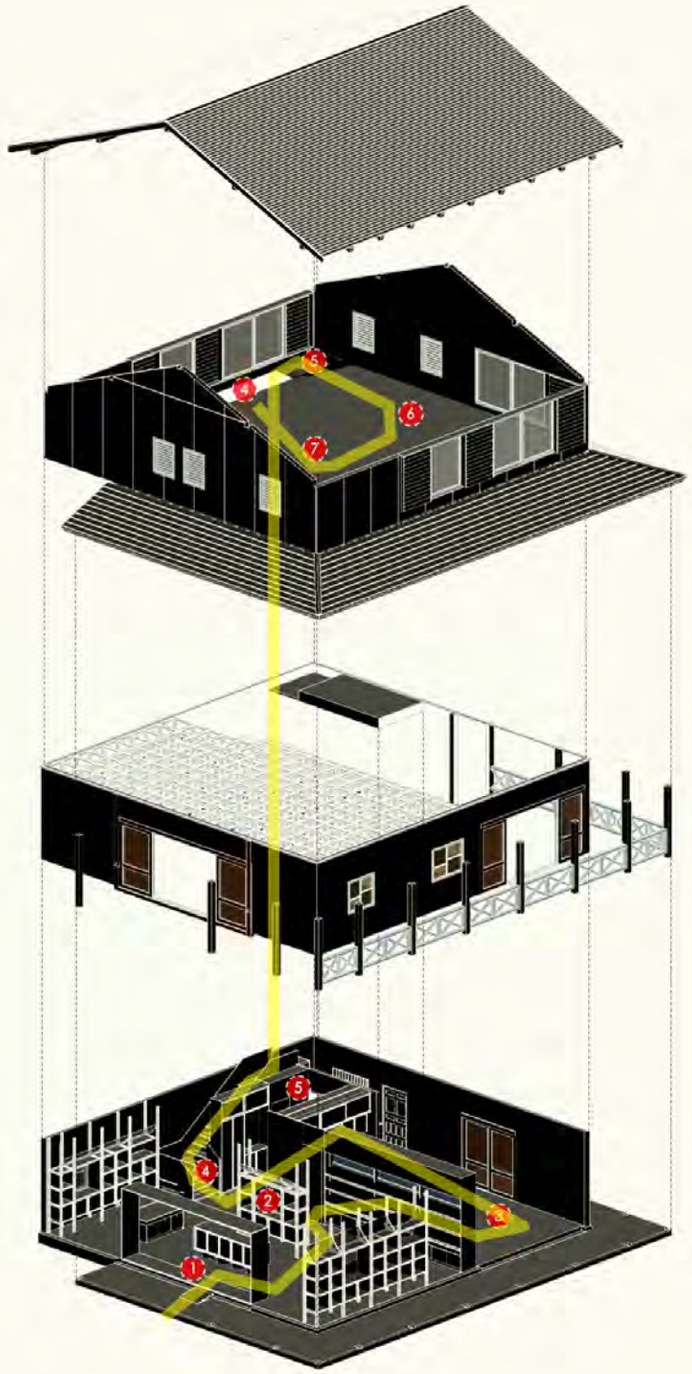


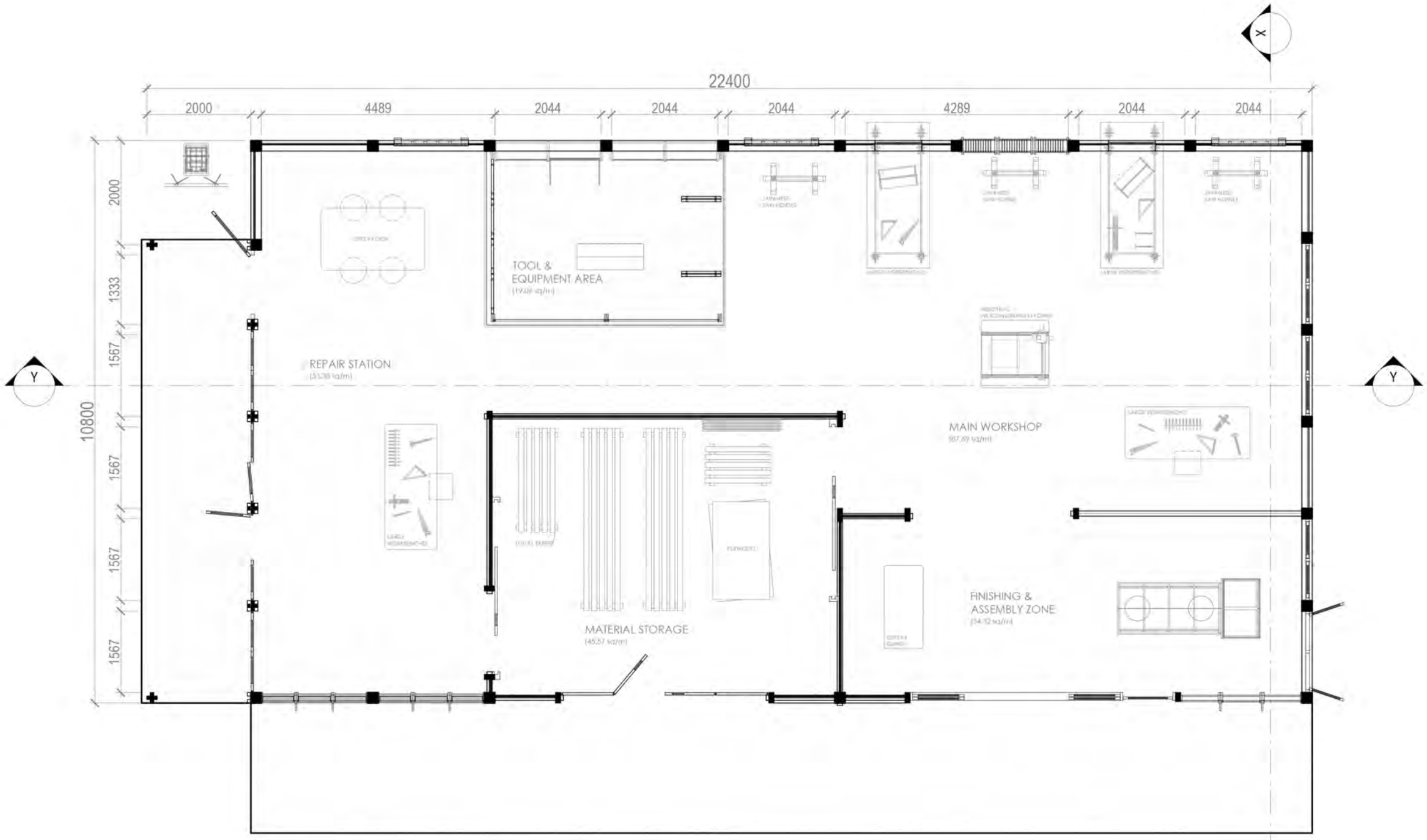
1

LEGEND

4. Staircase
5. Restroom
6. Dicussion Room
7. DIY Wood Experience Zone

1. Main Entrance
2. Merchandise Display Area
3. Office
4. Staircase
5. Restroom

SECTION



A FLP **FURNITURE LAYOUT PLAN_** (BLOCK_A)
SCALE 1:75

BRANDON LIM

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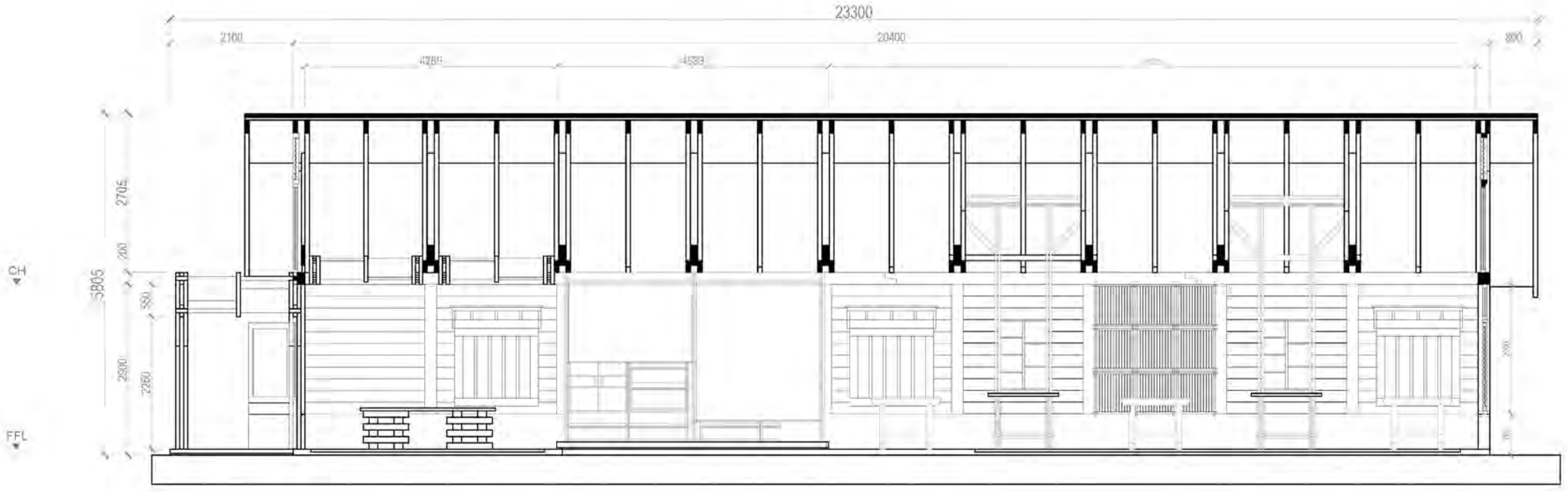
CLIENT NAME SHIKOKU CRAFT HERITAGE COUNCIL	**DRAWN BY** BRANDON	**DATE** 12 / MAY / 2025	
CONTACT NO -	**SCALE** 1 : 75		



BRANDON LIM

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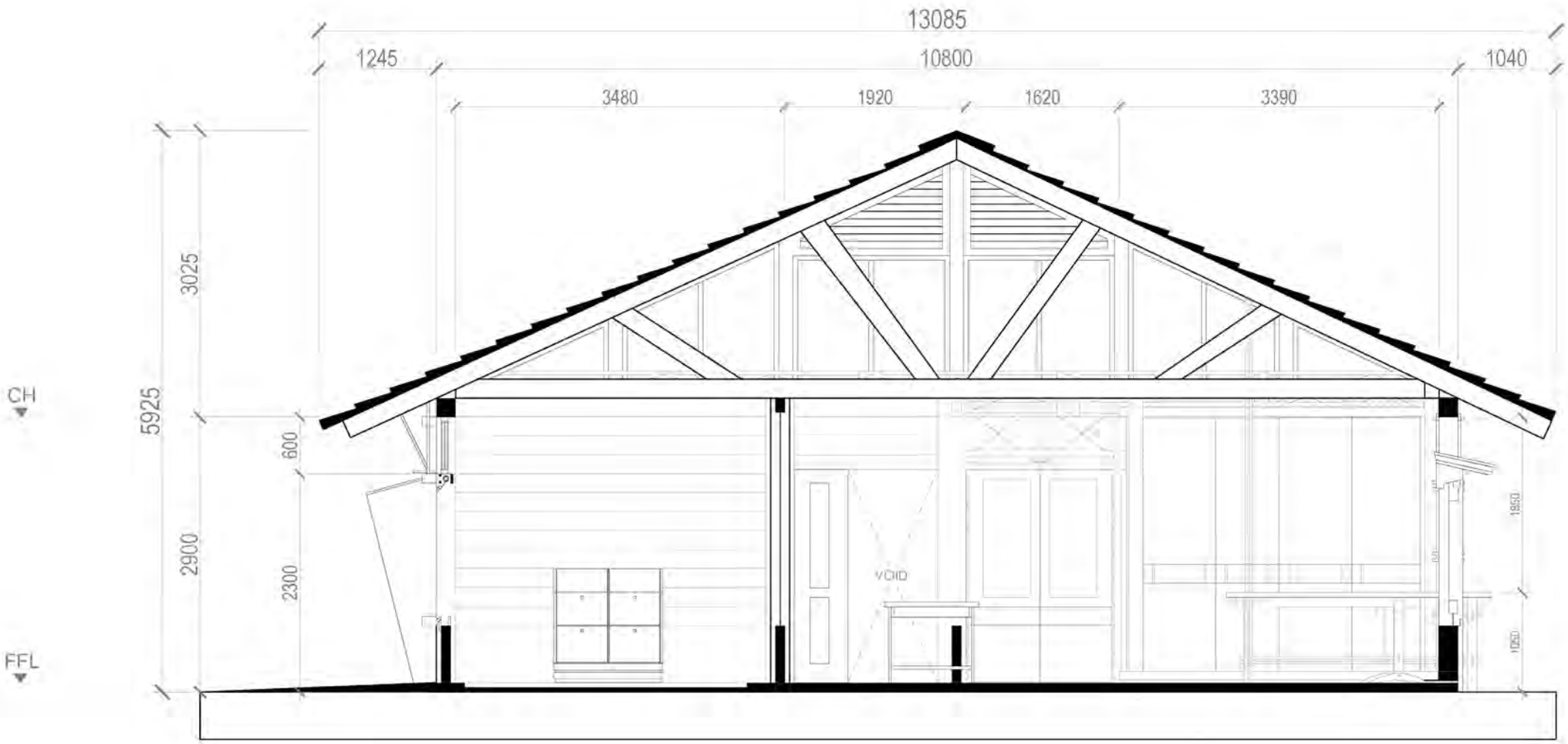
CLIENT NAME SHIKOKU CRAFT HERITAGE COUNCIL	**DRAWN BY** BRANDON	**DATE** 12 / MAY / 2025	
CONTACT NO -	**SCALE** 1 : 75		



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CLIENT NAME SHIKOKU CRAFT HERITAGE COUNCIL	**DRAWN BY** BRANDON	**DATE** 12 / MAY / 2025	
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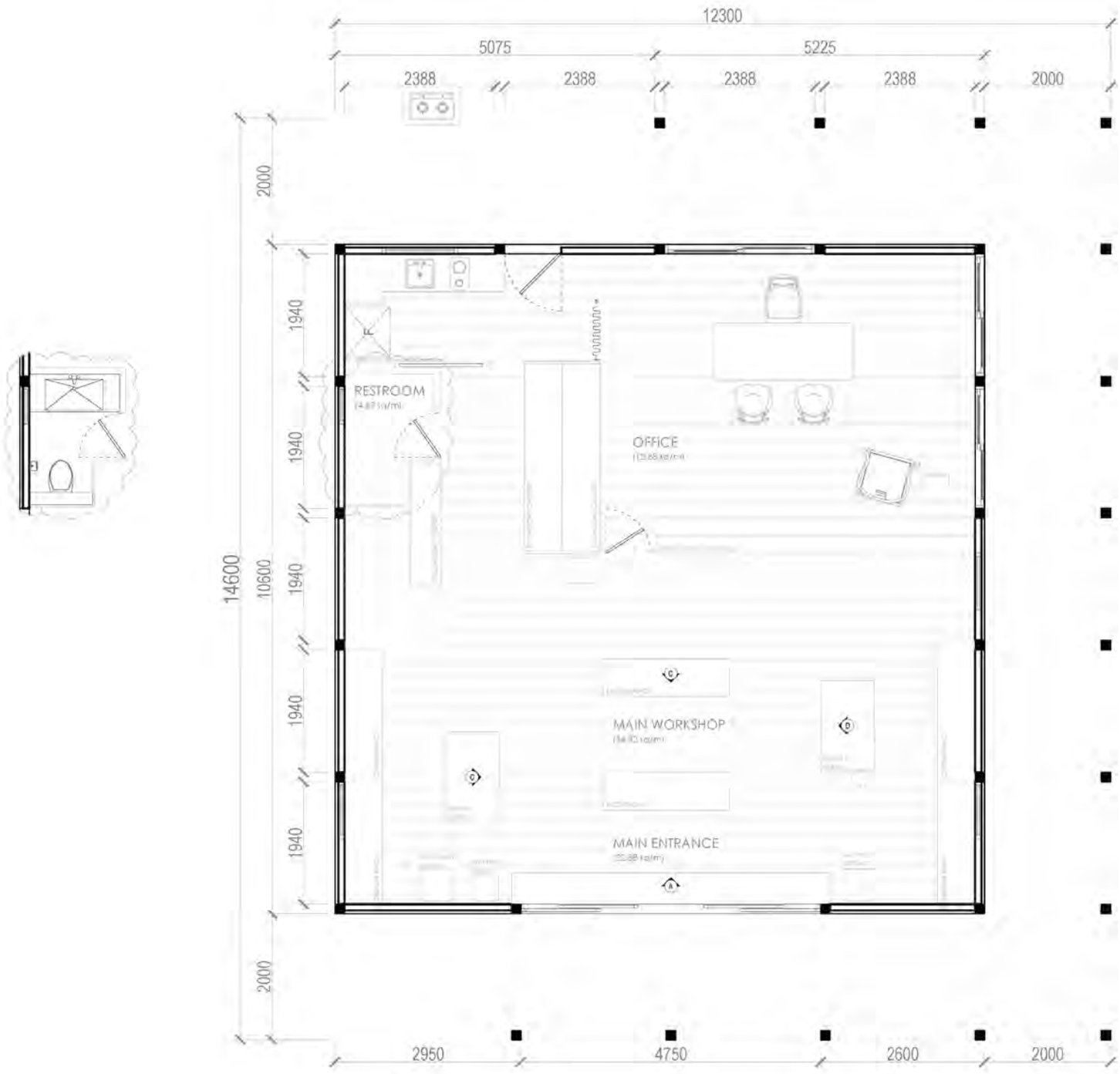
ELEVATION



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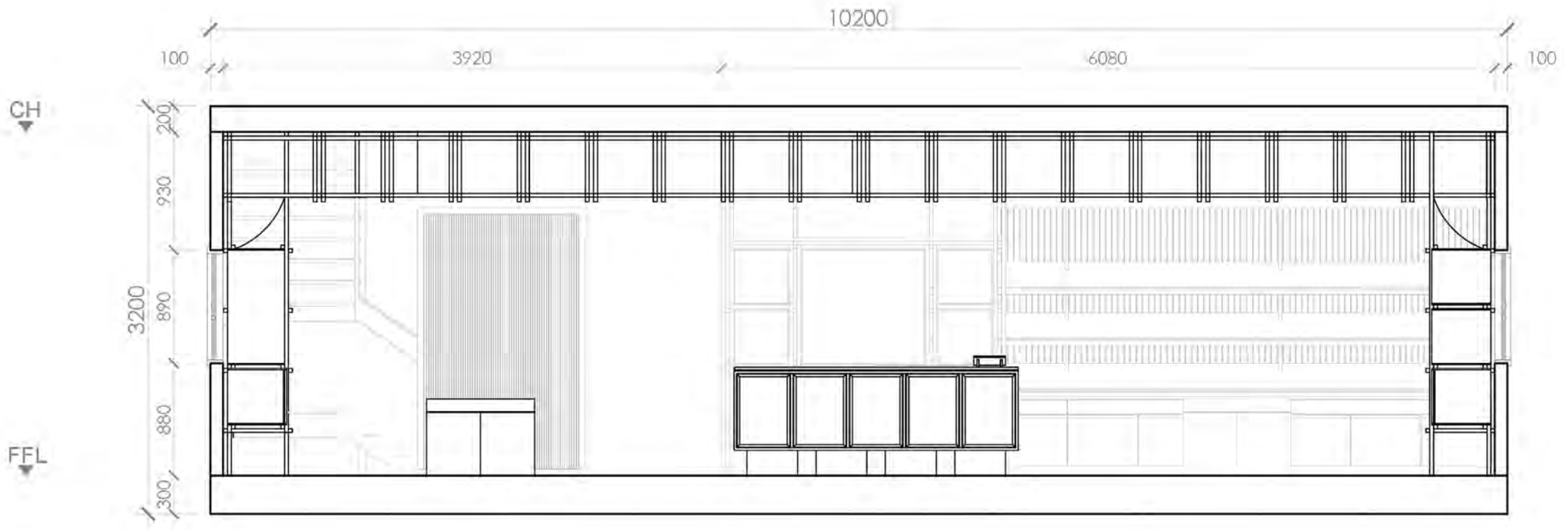

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CLIENT NAME SHIKOKU CRAFT HERITAGE COUNCIL	**DRAWN BY** BRANDON	**DATE** 13 / MAY / 2025	
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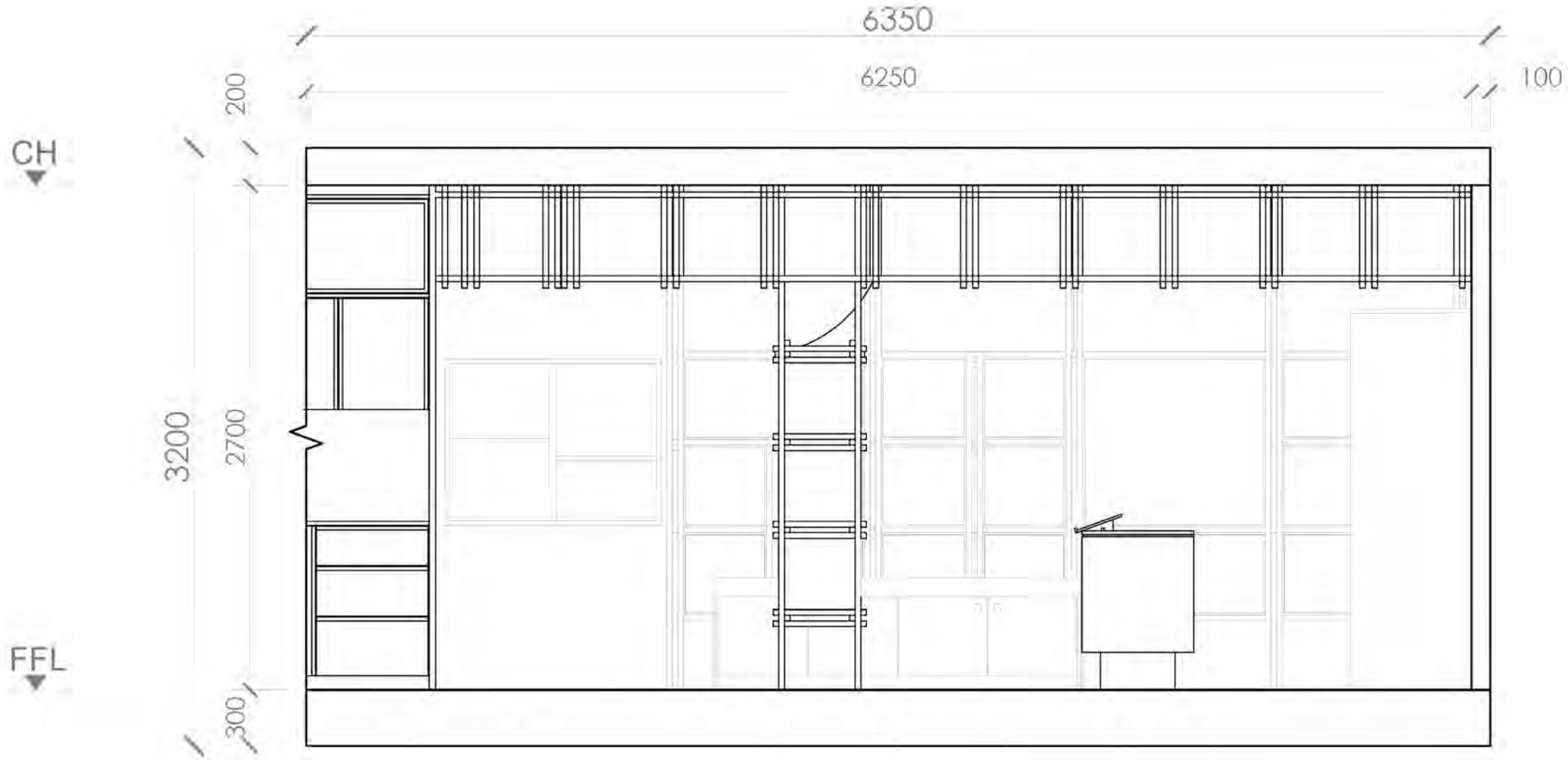

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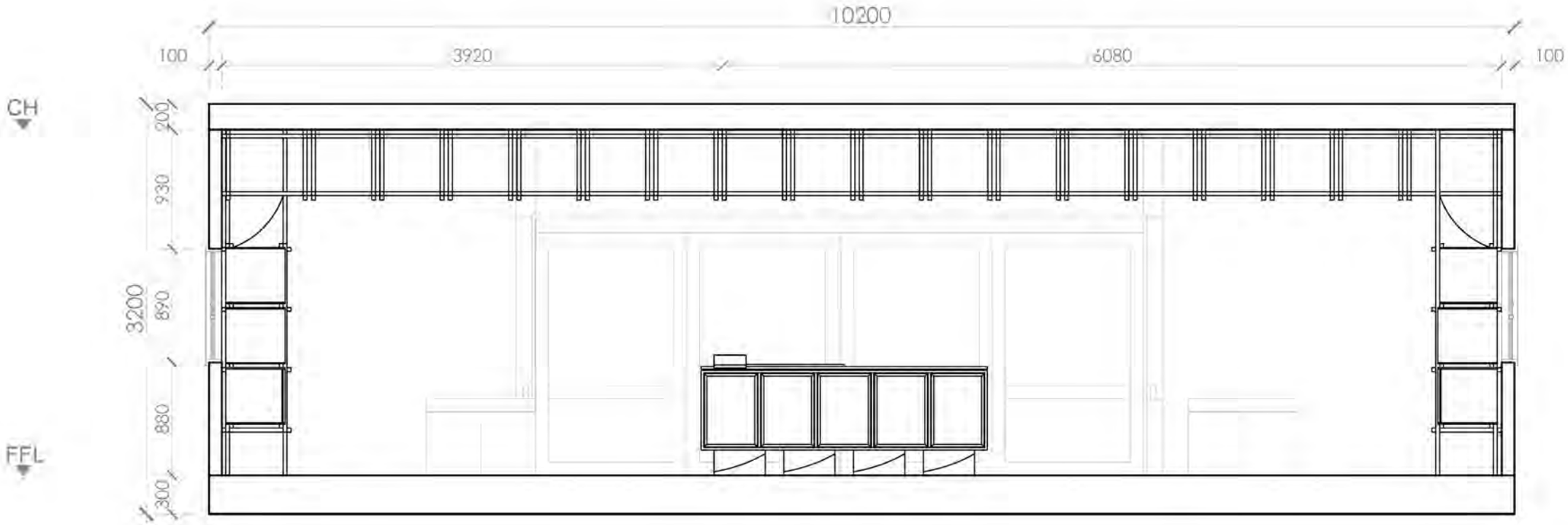
CLIENT NAME SHIKOKU CRAFT HERITAGE COUNCIL	**DRAWN BY** BRANDON	**DATE** 13 / MAY / 2025	
CONTACT NO -	**SCALE** 1 :25		



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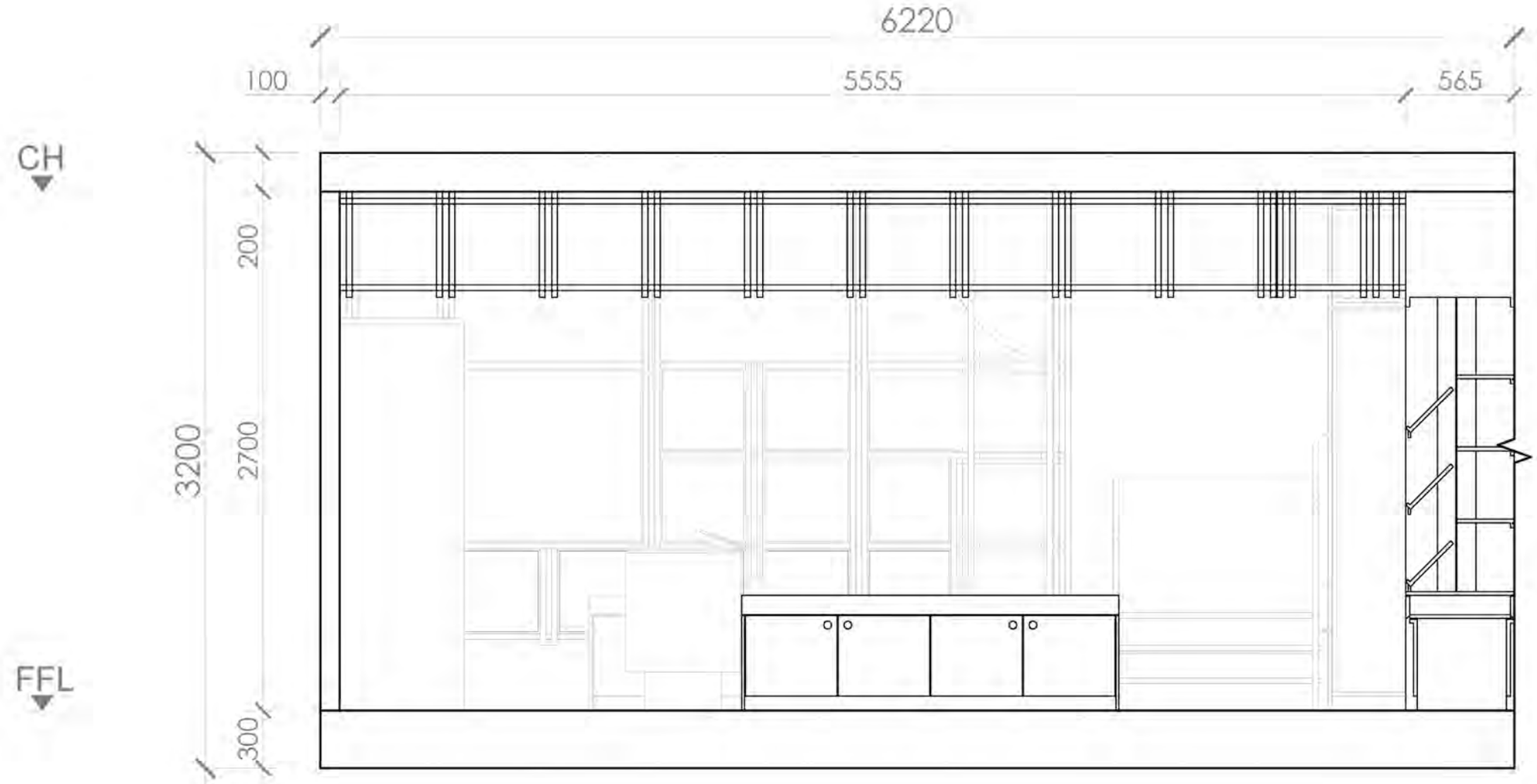
PROJECT TITLE SHIKOKU CRAFT CARPENTRY	**DRAWING TITLE** ELEVATION - C		**CLIENT APPROVAL & SIGNATURE**
CLIENT NAME SHIKOKU CRAFT HERITAGE COUNCIL	**DRAWN BY** BRANDON	**DATE** 13 / MAY / 2025	
CONTACT NO -	**SCALE** 1 : 35		



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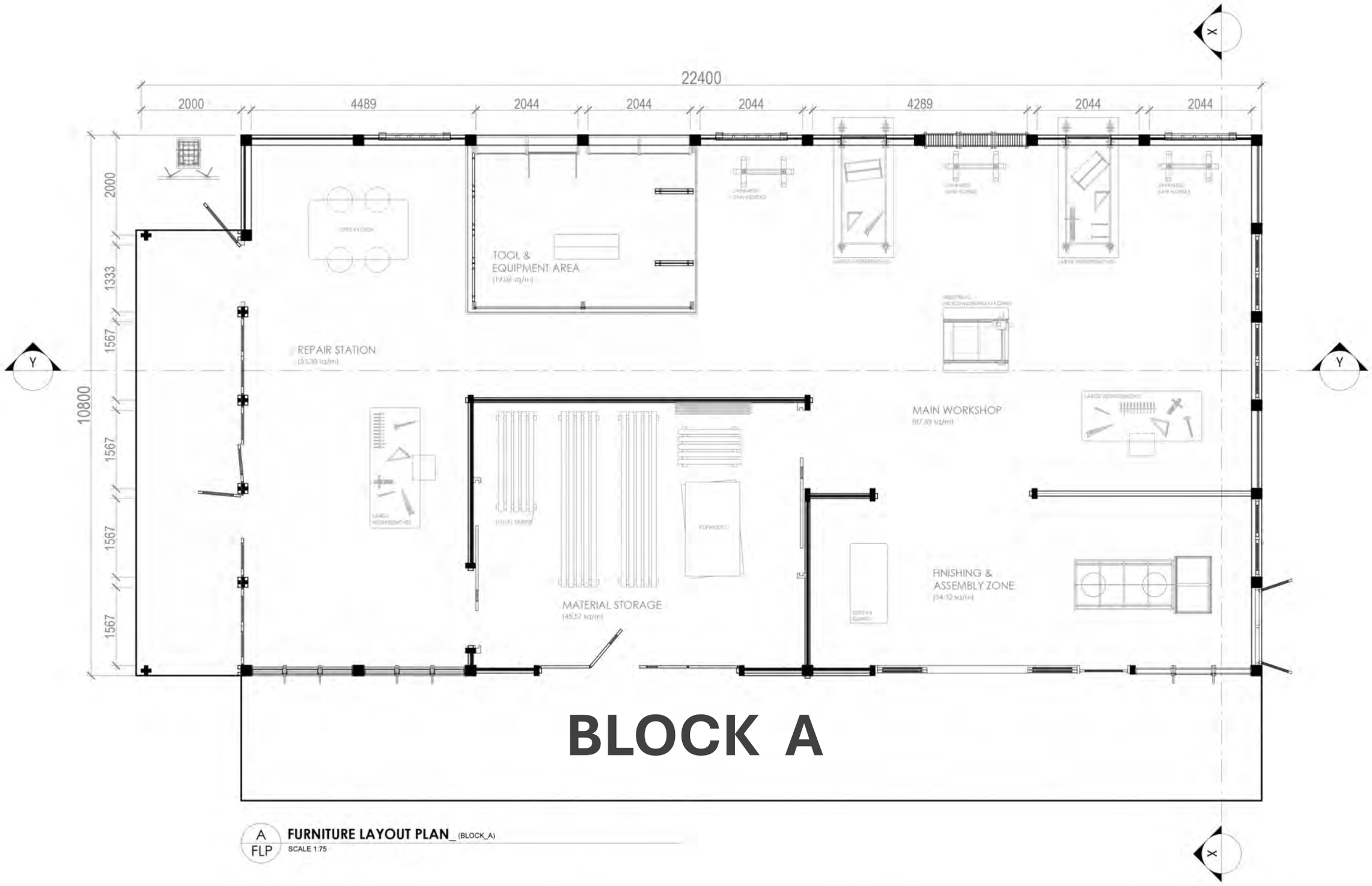
CLIENT NAME SHIKOKU CRAFT HERITAGE COUNCIL	**DRAWN BY** BRANDON	**DATE** 13 / MAY / 2025	
CONTACT NO -	**SCALE** 1 : 25		

RENDERING



BLOCK A

A FLP **FURNITURE LAYOUT PLAN_** (BLOCK_A)
SCALE 1:75

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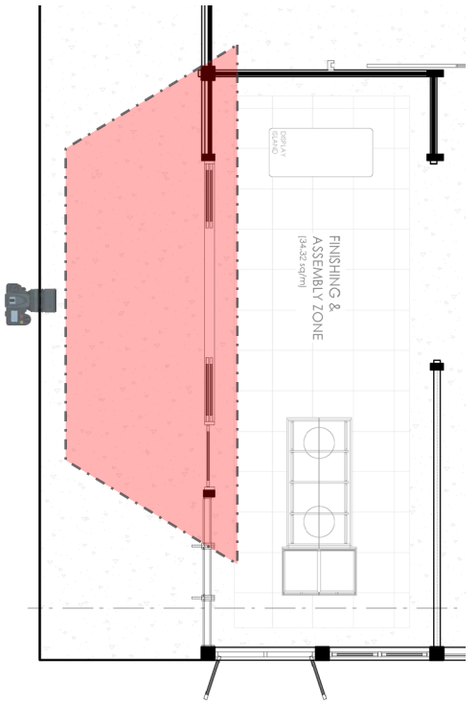
MAIN ENTRANCE

The Main Entrance marks the beginning of the journey into the Carpentry Hub — not just a physical threshold, but a conceptual one: from the everyday to the handcrafted, from throwaway culture to mindful making.



Reclaimed Timber Structure
Structural frame made from salvaged wood, showing aging and joint marks.

Fire-Rated Mesh Glass
Provides safety while maintaining visibility.

Arai-dashi (洗い出し) Floor Finish
Traditional **Japanese exposed aggregate** concrete
Surface **washed** to reveal local Tokushima pebbles
Non-slip, durable, perfect for workshop use
Brings **tactile texture** and cultural depth underfoot
Common in **genkan and temple paths**

Interlocking Blind Adjustment Detail

Double-sided Wooden Groove Design
Two timber strips interlock with **stepped notches** cut along the face.

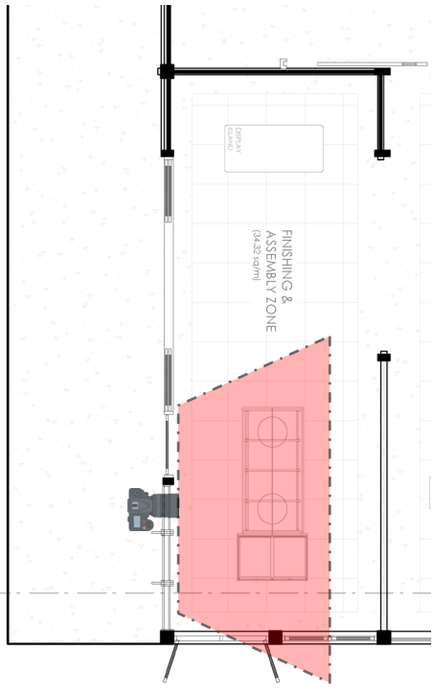
Hooked Notch System
Each notch acts as a **catch point**, allowing the blind to lock into position at different heights.

Roller Blind Mechanism
Blind can be manually pulled down and secured at varying levels **without mechanical parts**.

Material: JPIC Plywood, beeswax finished
Matches the surrounding timber palette, highlighting craftsmanship.

FINISHING & ASSEMBLY ZONE

Craft finishes quietly here — under Noguchi's Akari glow and over joinery-built foundations.



Function:
Dedicated to sanding, beeswax/oil finishing, and final assembly of crafted objects.

Lighting Feature:
Akari 55A Paper Lantern by Isamu Noguchi
— a soft, sculptural icon of Japanese modernism, symbolising the fusion of art, light, and air.

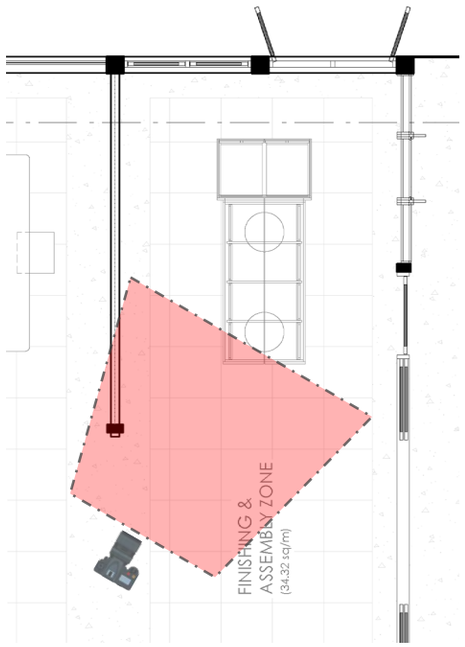
Akari 10A Floor Lamp
Noguchi's sculptural paper lamp adds a soft, ambient glow rooted in Japanese modernism.

Island Workbench:
→ Constructed using a **carpentry sandwich detail** — layered plywood core with solid timber faces, joined using traditional joinery (no screws).

Parquet inlay using **leftover timber** from the workshop — reflects sustainability reuse and craft.

Atmosphere:
Warm, focused, and tactile — where objects are completed with care before reaching the public.

FINISHING & ASSEMBLY ZONE



Fire-Rated Mesh Glass
Provides safety while maintaining visibility.

Interlocking Blind Adjustment Detail

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Two timber strips interlock with **stepped notches** cut along the face.

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Blind can be manually pulled down and secured at varying levels **without mechanical parts**.

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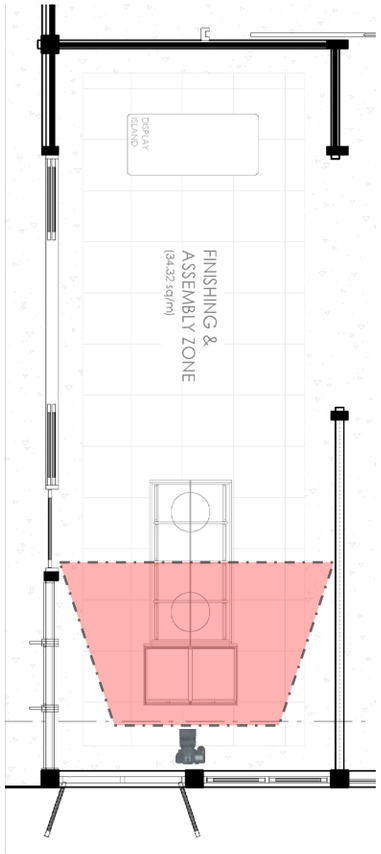
FINISHING & ASSEMBLY ZONE



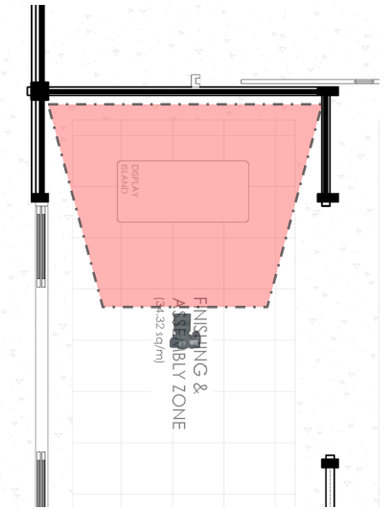
Partition Surface
Wooden-striped rice paper panels, semi-transparent for light flow and visual layering.

Top Drawer — 45° Cut Handle
Bevelled edge carved at a 45-degree angle for finger grip
Reflects **precision joinery and seamless craft expression**

Bottom Drawer — Circular Pull Handle
Traditional **carved round hole** as handle
Inspired by classic Japanese carpentry and tool chest design
Highlights **functional honesty and characterful imperfection**

Flooring
Parquet timber inlay, crafted from leftover wood stock — waste becomes feature.

FINISHING & ASSEMBLY ZONE



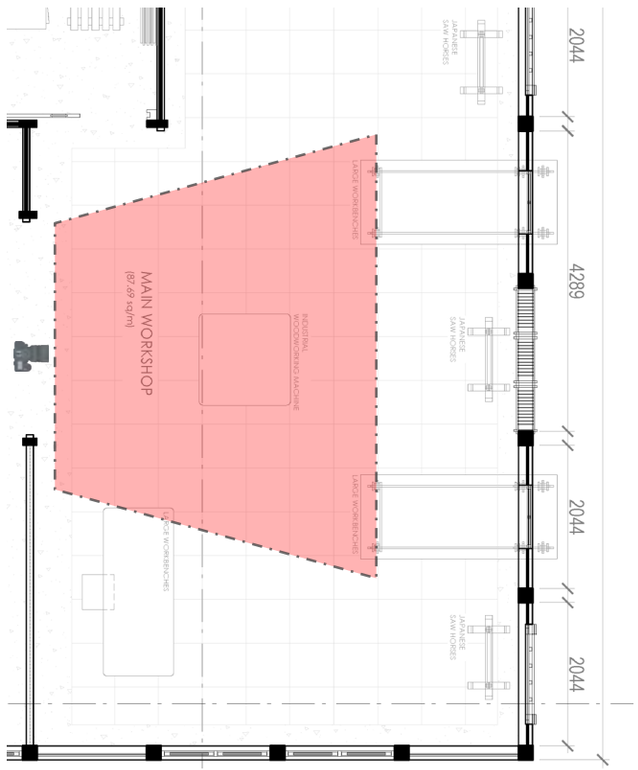
Sugi (Japanese Cedar) Columns
Structure made from locally sourced Sugi, known for its warm tone, straight grain, and natural scent.

Rope-Wrapped Columns
The vertical columns are wrapped in **hand-tied jute rope**, referencing **Shimenawa**, the sacred Japanese ritual rope.

Suspended String System
These can be used to **hang small wooden tools or joinery samples**, or remain empty as a symbolic gesture.

Raw Timber Base
A **reclaimed, unpolished log** serves as the display base — rough, cracked, and full of character.
Topped with **minimal glass boxes**, it contrasts the raw nature of the timber with the precision of final pieces.

MAIN WORKSHOP



Vventilation Window Wall
The slatted **ventilation window wall** allows passive airflow and soft light filtration, improving air quality through a low-tech, breathable design.

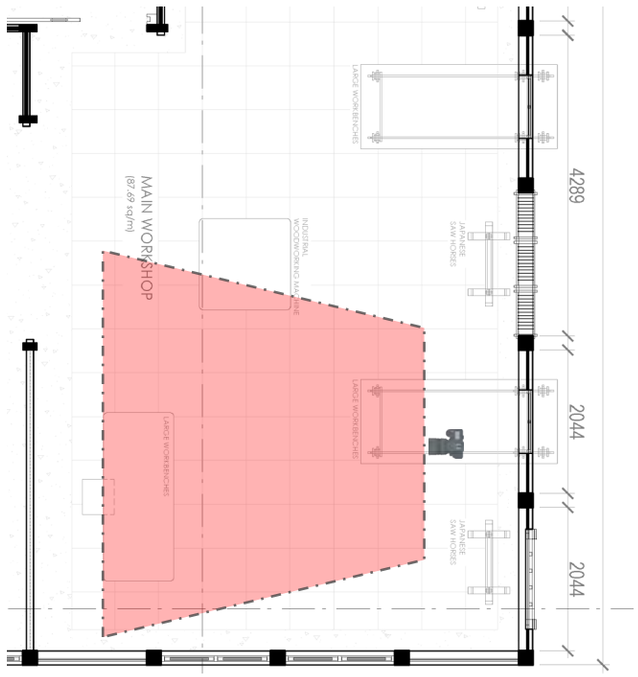
Linen Ceiling Drapes
Diffuse natural light and filter dust creating a calm, breathable atmosphere.

Fully Interlocking Workbenches
Custom-designed with no screws or glue — assembled using traditional Japanese joinery logic.

Central CNC Router
Used for digital fabrication and precise joinery prototyping.

Flooring Material
Checkerboard pattern made from **reused plywood offcuts** sourced from workshop waste and Kamikatsu's discarded timber.

MAIN WORKSHOP



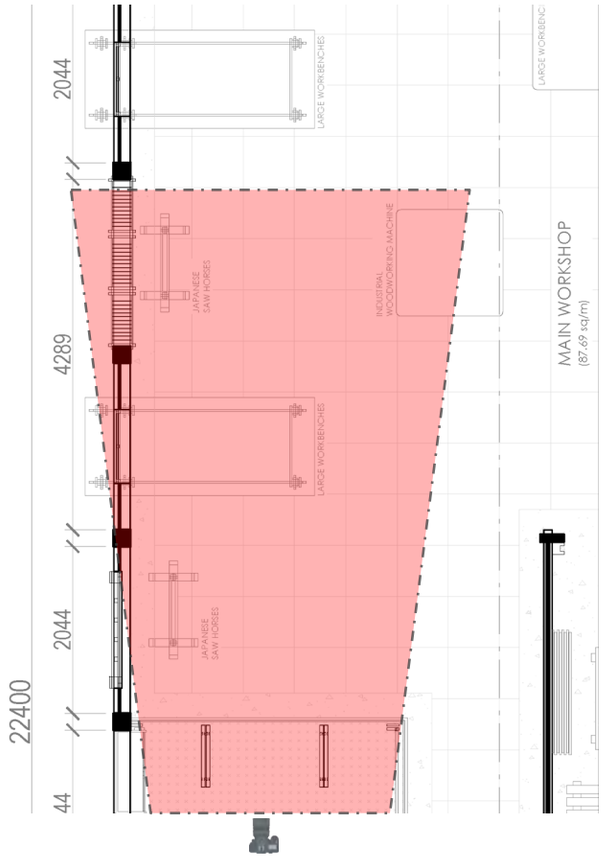
Linen Ceiling Drapes
Diffuse natural light and filter dust creating a calm, breathable atmosphere.

Partition Surface
Wooden-striped rice paper panels, semi-transparent for light flow and visual layering.

Timber Workbench
Made from **local Sugi (Japanese Cedar)**, designed for a professional carpenter to experiment with **new joinery techniques**.

Atmosphere
Calm, filtered light sets a meditative tone for making and working.

MAIN WORKSHOP

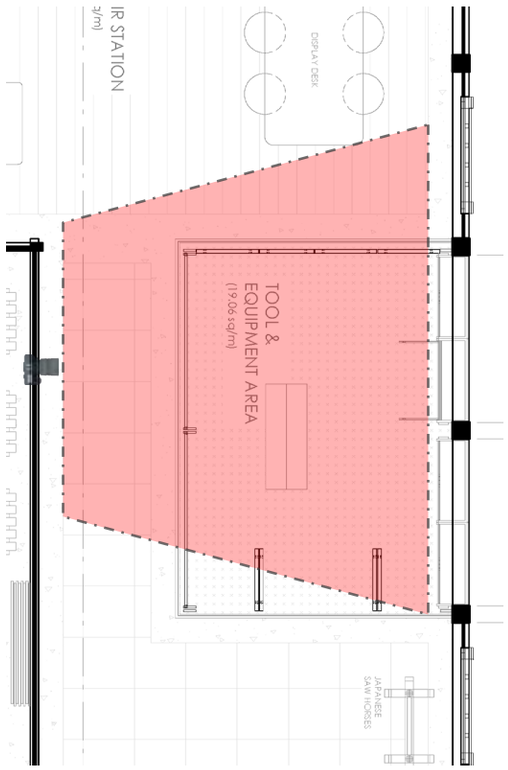


Linen Ceiling Drapes
Diffuse natural light and filter dust creating a calm, breathable atmosphere.

90° Timber Swing Door
Single-panel swing door that **opens a full 90 degrees**, flush with another door when open.

Japanese Saw Horses
The saw horses serve as **modular work supports** for timber cutting, hand planning, joinery assembly, and prototyping. Their low height encourages traditional, floor-level craftsmanship. Allowing makers to work in close contact with the material.

TOOL & EQUIPMENT AREA



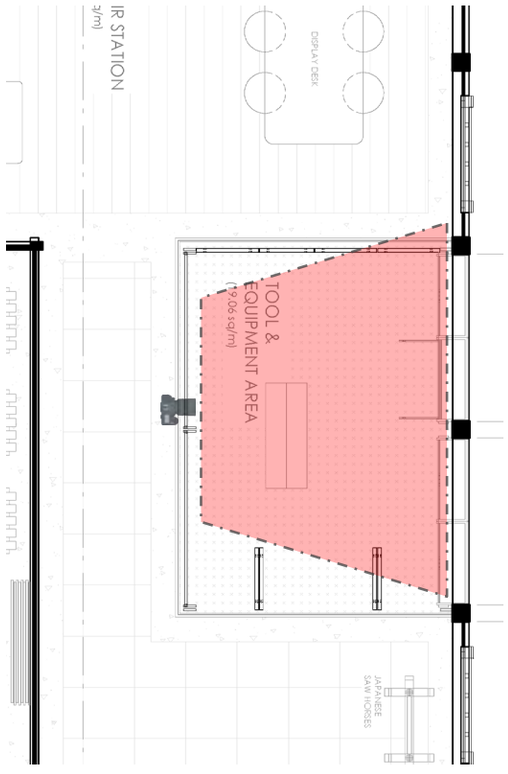
Linen Ceiling Drapes
Diffuse natural light and filter dust creating a calm, breathable atmosphere.

Interlocking Blind Adjustment Detail

Double-Sided Groove Design
Two timber strips interlock with **stepped notches** to guide blind movement.
Hooked Notch Catch
Each notch acts as a **manual stop**, allowing flexible height adjustment.
No Mechanical Parts
The blind is held in place **purely by joinery logic.**
Material
Made from **JPIC plywood**, finished in **beeswax** to match surrounding timber tone and express handcraft.

Tatami Flooring Detail
Tatami mats laid over **JPIC plywood platform**
Creates soft, raised surface for focused work
Removable and replaceable — supports longevity
Warm contrast to reused plywood floor outside

TOOL & EQUIPMENT AREA



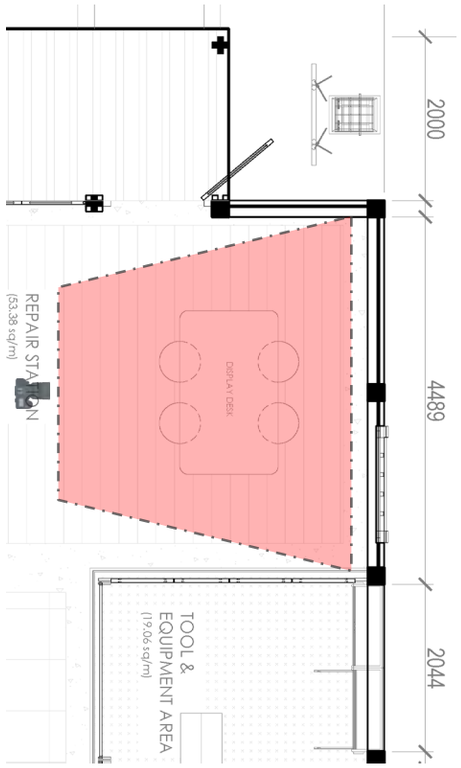
Ceiling Light
Plain diffused lighting, hidden above fabric ceiling for soft, shadow-free illumination.

Wall Cabinet
Made from **JPIC plywood**, custom-fit for traditional hand tools.

Tatami Flooring
Soft, warm surface supports quiet, focused craft.

TOOL & EQUIPMENT AREA
All in warm plywood tone, creating a calm, immersive workspace.

REPAIR STATION



Ceiling Detail
Made from **interlocking linen fabric**, layered to create soft light and tactile atmosphere.

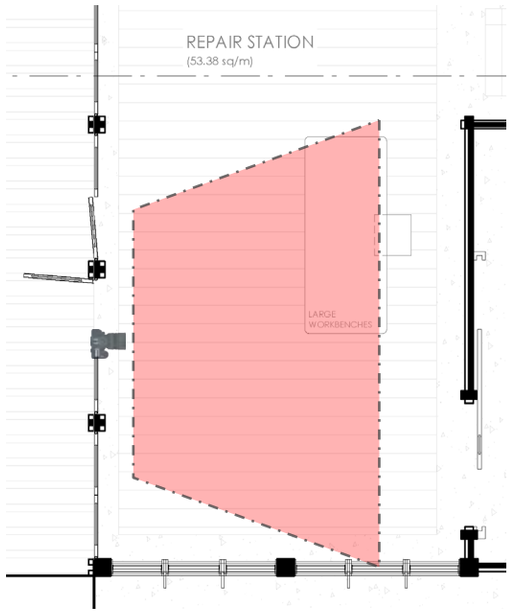
Wall Finish
Local Sugi cladding, untreated to showcase natural grain and patina.

Table reclaimed timber blocks and slabs, emphasizing reuse and visible aging.

Flooring
Combination of **raised timber planks** and **woven rug**, creating a transition between working and discussion space.

Purpose
A space for **customers meet carpenters** to review repair needs or restoration options.

REPAIR STATION



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Interlocking Blind Adjustment Detail

Double-sided Wooden Groove Design
Two timber strips interlock with **stepped notches** cut along the face.

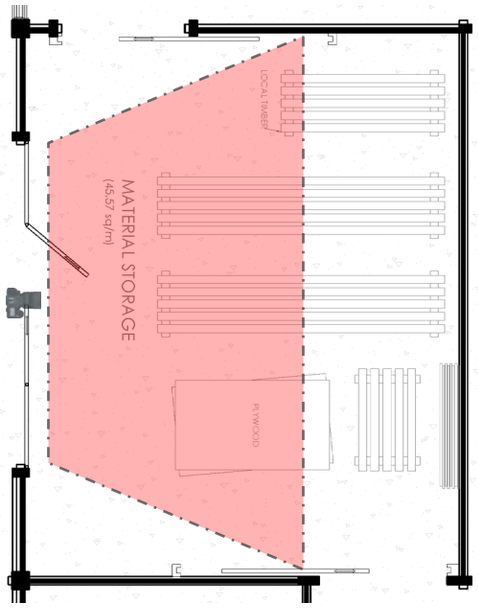
Hooked Notch System
Each notch acts as a **catch point**, allowing the blind to lock into position at different heights.

Workbench
Made of **Sugi timber**, with wide surfaces for detailed repair work and joinery.

Stools
Simple, stackable wooden stools promote flexibility and shared use.

Flooring
Solid timber planks, slightly raised — built from local offcuts to align with zero-waste intent.

MATERIAL STORAGE



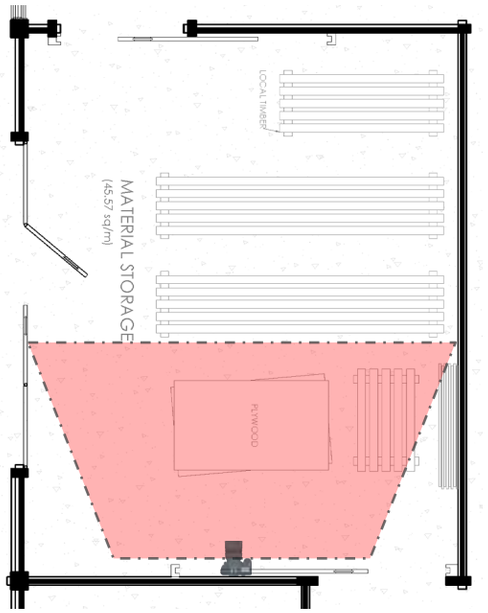
Ceiling Structure
Exposed trusses with aged timber and linen infill — blends structure with softness.

Wall Finish
Lined with **horizontal Sugi boards**, echoing the workshop's overall material palette.

Timber Stack Zones
Clearly separated by size and type: long planks, offcuts, and sheet materials

Arai-dashi (洗い出し) Floor Finish
Traditional **Japanese exposed aggregate** concrete
Surface **washed** to reveal local Tokushima pebbles
Non-slip, durable, perfect for workshop use
Brings **tactile texture** and cultural depth underfoot
Common in **genkan and temple paths**

MATERIAL STORAGE



Reclaimed Timber Structure
Structural frame made from salvaged wood, showing aging and joint marks.

Wall Finish
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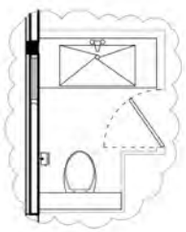
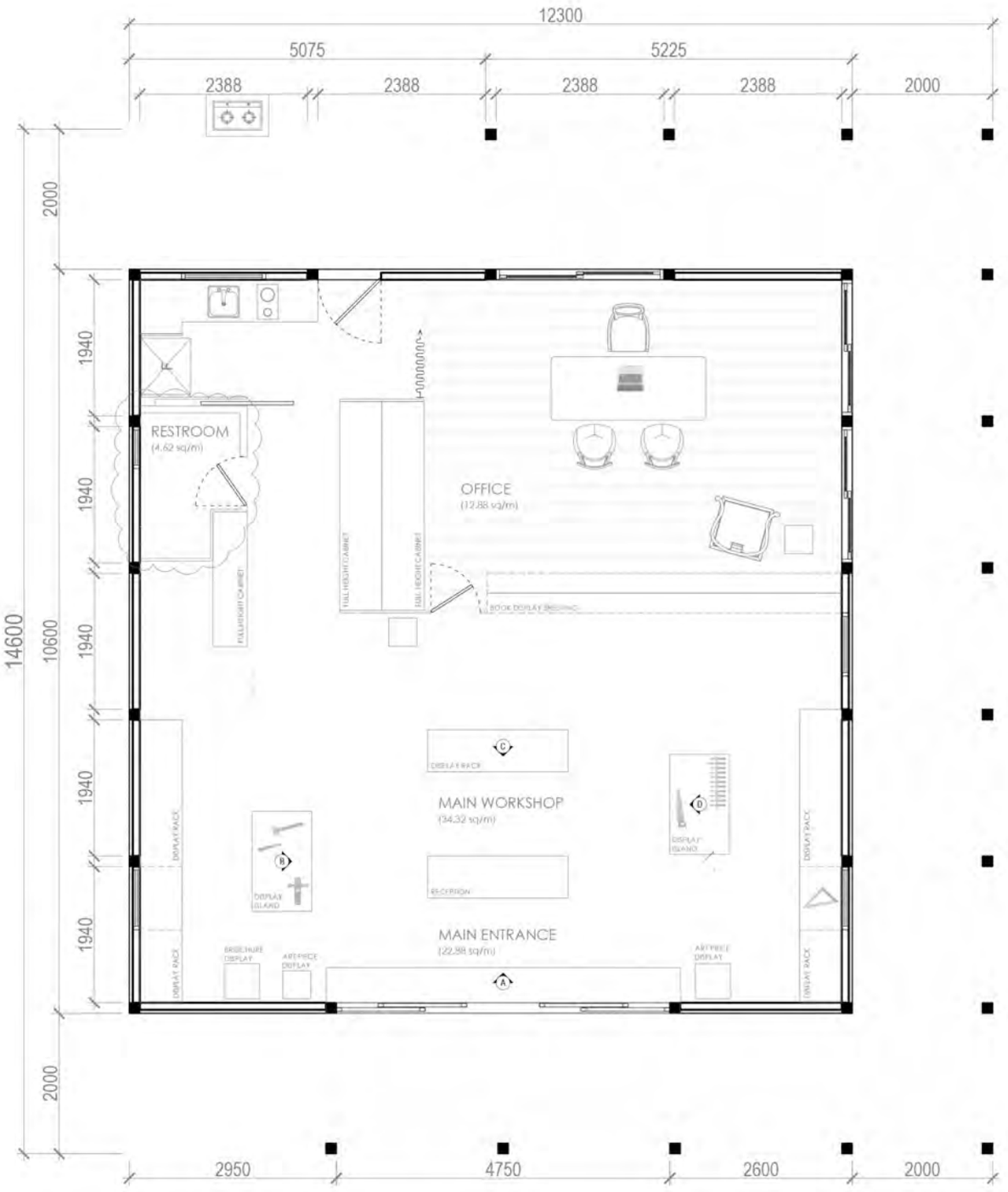
Timber Stack Zones
Clearly separated by size and type: long planks, offcuts, and sheet materials

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14600
10600
1940
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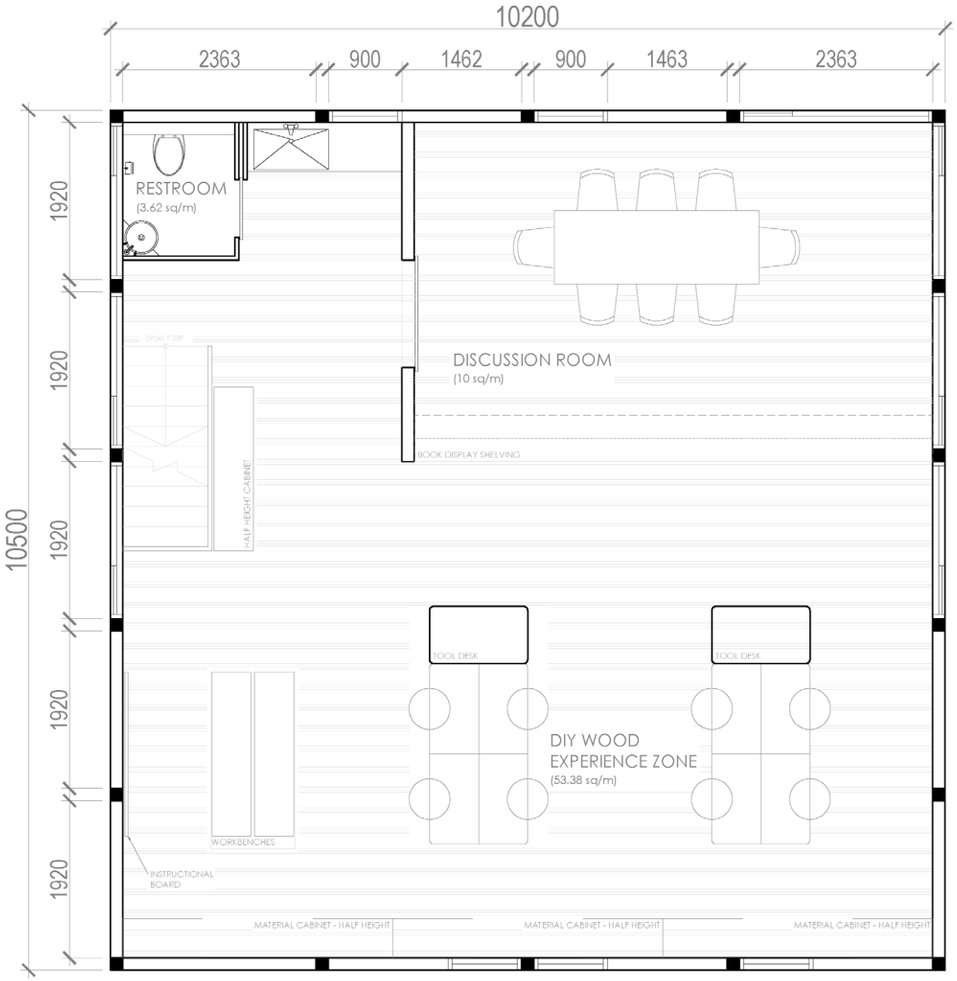
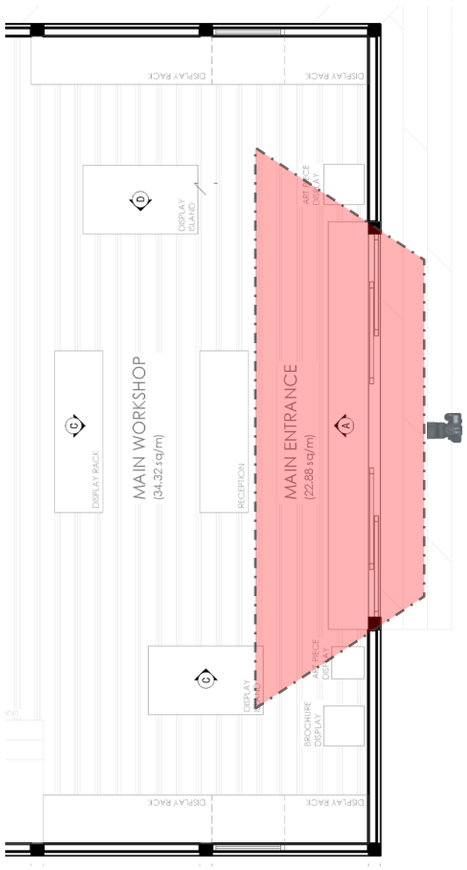
1940
2000
RESTROOM
(4.62 sq/m)
OFFICE
(12.88 sq/m)
FULL HEIGHT CABINET
FULL HEIGHT CABINET
BOOK DISPLAY SHELVING
DISPLAY RACK
MAIN WORKSHOP
(34.32 sq/m)
DISPLAY ISLAND
RECEPTION
DISPLAY ISLAND
DISPLAY RACK
DISPLAY RACK
BROCHURE DISPLAY
ART PIECE DISPLAY
MAIN ENTRANCE
(22.38 sq/m)
ART PIECE DISPLAY
DISPLAY RACK
2950
4750
2600
2000


10200
2363
900
1462
900
1463
2363
10500
1920
1920
1920
1920
1920
RESTROOM
(3.62 sq/m)
DISCUSSION ROOM
(10 sq/m)
BOOK DISPLAY SHELVING
HALF-HEIGHT CABINET
TOOL DISK
TOOL DISK
DIY WOOD
EXPERIENCE ZONE
(53.38 sq/m)
WORKBENCHES
INSTRUCTIONAL BOARD
MATERIAL CABINET - HALF HEIGHT
MATERIAL CABINET - HALF HEIGHT
MATERIAL CABINET - HALF HEIGHT

BLOCK B

MAIN ENTRANCE

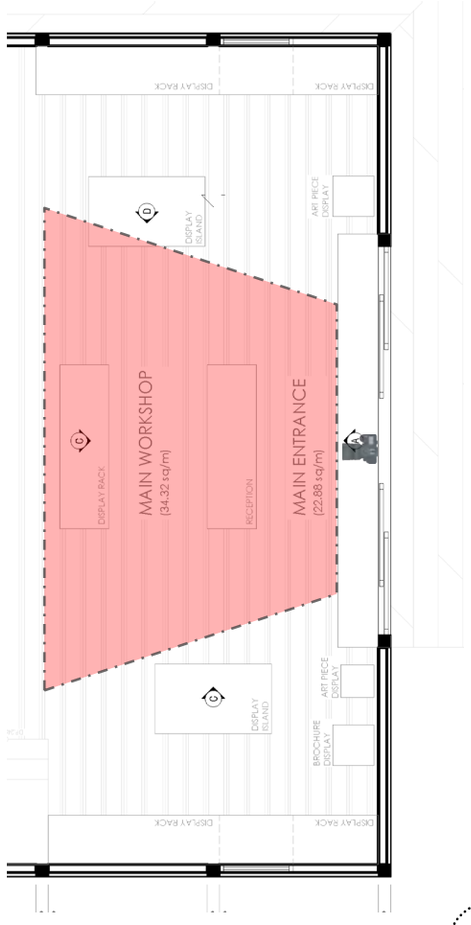


Reclaimed Timber Structure
Structural frame made from salvaged wood, showing aging and joint marks.

Plywood Cabinet Reception
Front desk made from **JPIC BB/CC grade plywood**, highlighting grain and layered texture.

Interlocking Floor Ramp
Constructed using **timber interlocking technique** no nails or screws, allowing clean assembly and easy disassembly

RECEPTION



Ceiling
Exposed timber lattice ceiling, layered in interlocking grid pattern, adding rhythm and depth.

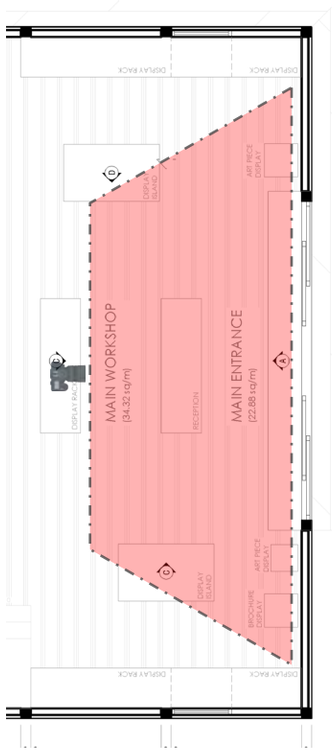
Lighting
Paper lanterns provide **warm ambient glow**, echoing traditional Akari lamps.

Plywood Cabinet Reception
Front desk made from **JPIC BB/CC grade plywood**, highlighting grain and layered texture.

Arai-dashi (洗い出し) Floor Finish
Traditional **Japanese exposed aggregate** concrete
Surface **washed** to reveal local Tokushima pebbles
Non-slip, durable, perfect for workshop use
Brings **tactile texture** and cultural depth underfoot
Common in **genkan and temple paths**

Base Detail
Raised on **reused timber log cylinders**, referencing Japanese joinery bases and adding character.

RECEPTION



Arai-dashi (洗い出し) Floor Finish

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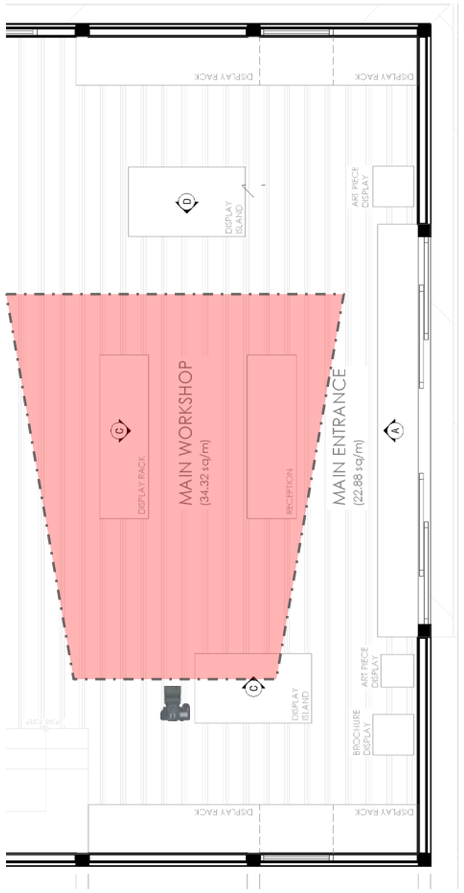
MERCHANDISE AREA



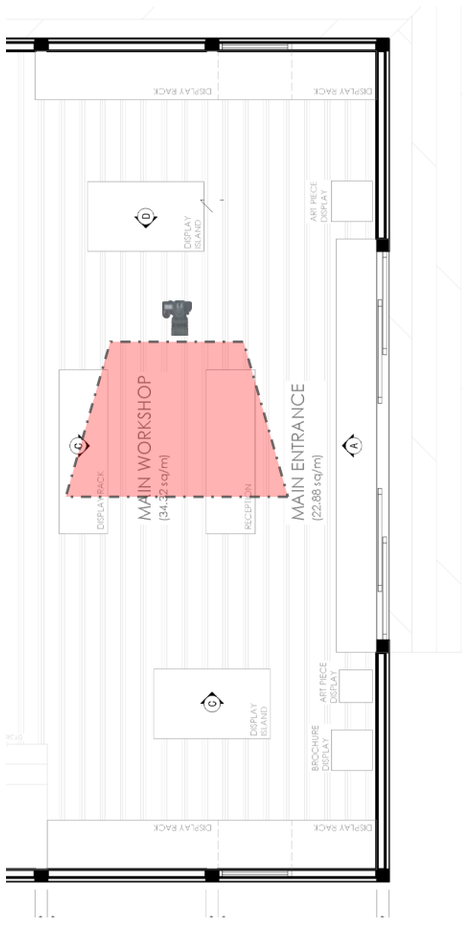
Timber Lattice Ceiling
Interlocking wood grid adds visual rhythm and echoes traditional Japanese ceiling joinery.

Lighting
Paper lanterns provide **warm ambient glow**, echoing traditional Akari lamps.

Display Rack
Built from **solid local timber** and **JPIC plywood**, expressing grain variation and honest construction.
Assembled using **interlocking mortise-and-tenon joints**, no screws or glue — fully demountable.
Acts as a **spatial divider** while offering surfaces for display, signage, or textile hanging.
Reflects traditional Japanese rack structures (**tategu**) — lightweight, mobile, and craft-forward.

Island Display
Clad in **BB/CC grade plywood**, beeswax-finished to highlight natural grain.

MERCHANDISE AREA



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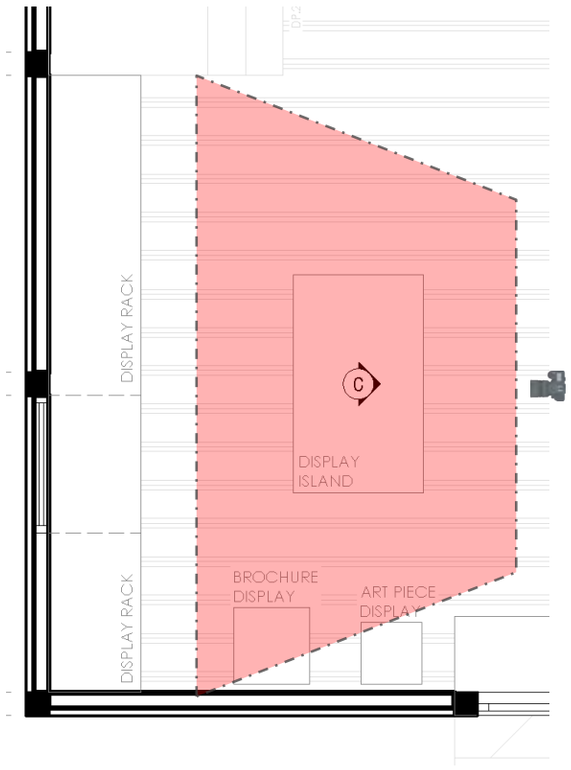
Interlocking Cashier Platform
A movable iPad stand crafted from **layered plywood**, seamlessly integrated into the reception counter.
It slides along a **concealed timber track**, using a fully **interlocking joinery system** with no visible hardware.
The angled form balances **functionality and craft**, offering ergonomic use while maintaining a clean, monolithic surface expression.

MERCHANDISE AREA



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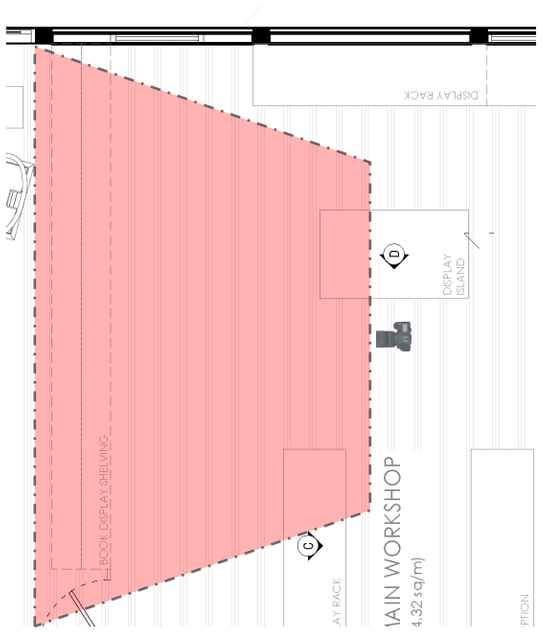
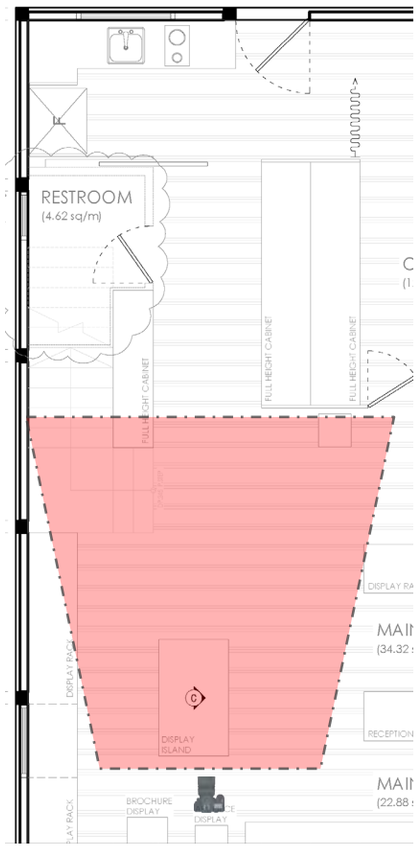


Timber Lattice Ceiling
Interlocking wood grid adds visual rhythm and echoes traditional Japanese ceiling joinery.

Lighting
Paper lanterns provide **warm ambient glow**, echoing traditional Akari lamps.

Community Book Exchange Shelf
In line with Kamikatsu's zero-waste philosophy, this shelving unit is designed as a **community book exchange** — where local residents can donate books they no longer need, and others are free to take what inspires them.
Crafted from **beeswax-finished plywood**, the shelving supports both **material reuse and knowledge circulation**, reinforcing the values of sharing, sustainability, and quiet everyday generosity.
The angled display encourages browsing, while integrated lighting and joinery details express care and craft.

MERCHANDISE AREA



Timber Lattice Ceiling
Interlocking wood grid adds visual rhythm and echoes traditional Japanese ceiling joinery.

Lighting
Paper lanterns provide **warm ambient glow**, echoing traditional Akari lamps.

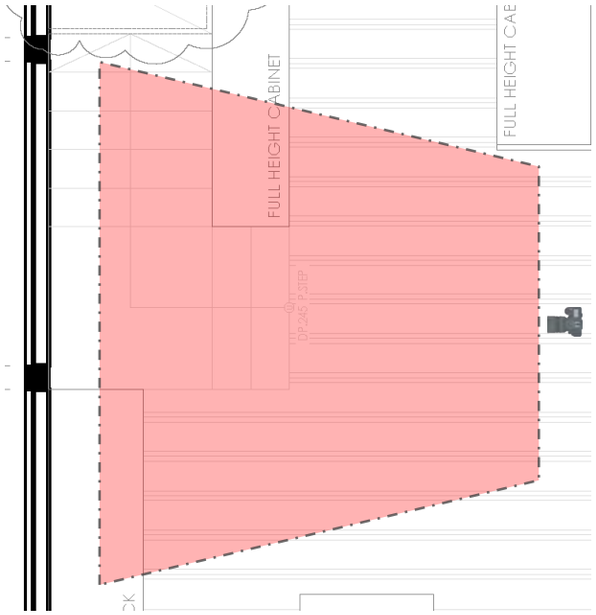
Hidden Door

Island Display
Clad in **BB/CC grade plywood**, beeswax-finished to highlight natural grain.

Kanna

Nokogiri

STAIRCASE

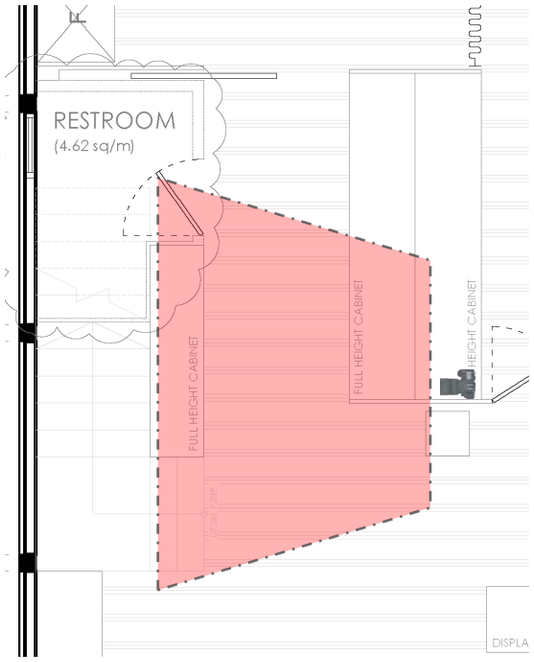


Lighting
Paper lanterns provide **warm ambient glow**, echoing traditional Akari lamps.

Interlocking Staircase
Joinery System
Assembled using a **fully interlocking timber joinery**, with no screws or nails — disassemble and expressive of craft.
Material
Steps and side panels are made of **beeswax-finished JPIC plywood**, showcasing rich grain and durability.
Side Panel
Patterned **dark plywood** acts as a visual anchor and tactile hand support.
Design Intent
A lightweight, modular stair rooted in traditional techniques and adaptive reuse values.

Akari Floor Lamp
Soft ambient light on the stair landing — evokes warmth and calm.

LEFT CABINET &
RESTRROM ENTRANCE



Sliding Door

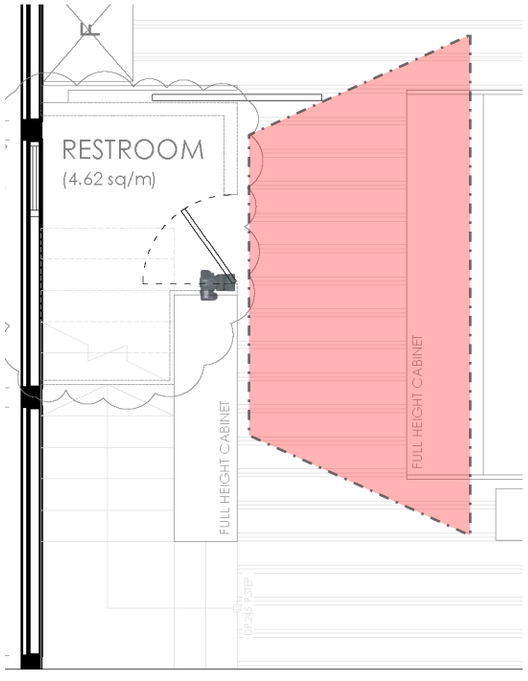
Restroom Entrance (Hidden)

Tool Display Niche
Travertine stone, adding earthy texture and timeless calm.

Wabi-Sabi Cabinet
Asymmetric proportions and raw plywood texture celebrate imperfection and material honesty.

Akari Floor Lamp
Soft ambient light on the stair landing — evokes warmth and calm.

RIGHT CABINET



Sliding Door

Cabinet Door
(20mm Hidden Handle)

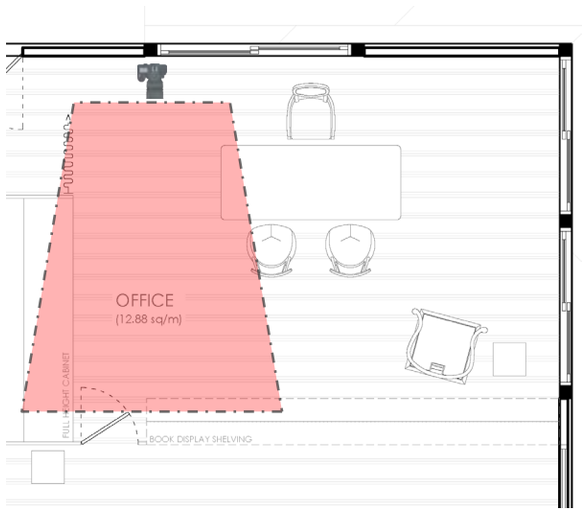
Tool Display Niche
Travertine stone, adding earthy texture and timeless calm.

Stainless Steel Frame With Fluted Glass

Cabinet Material
Constructed from **JPIC BB/CC grade plywood**, beeswax-finished to enhance its dramatic grain patterns.

Arai-dashi (洗い出し) Floor Finish
Traditional **Japanese exposed aggregate** concrete
Surface **washed** to reveal local Tokushima pebbles
Non-slip, durable, perfect for workshop use
Brings **tactile texture** and cultural depth underfoot
Common in **genkan and temple paths**

OFFICE

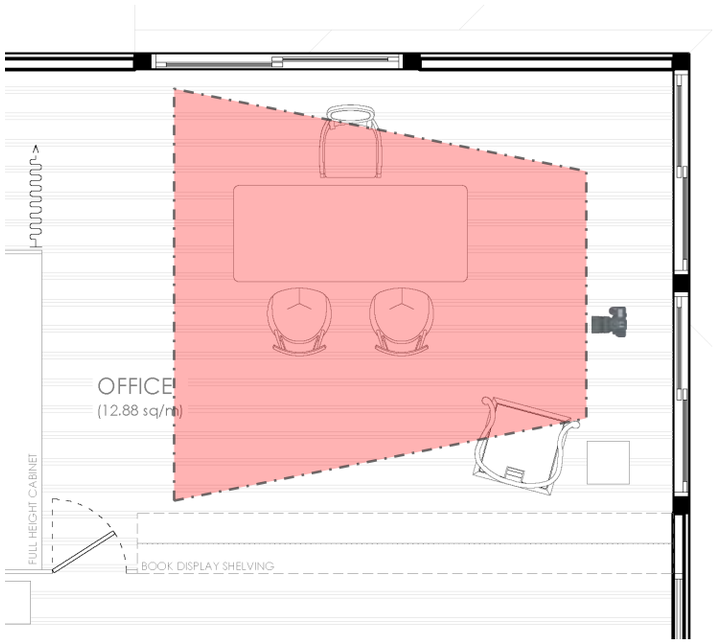


Sliding Door

Floor Finish
Local timber flooring — warm, resilient, and tactile, grounding the space in regional materiality.

Table Sculpture Base
Reclaimed stacked timbers form a **monolithic desk base**, expressing the ethos of reuse and permanence.

OFFICE

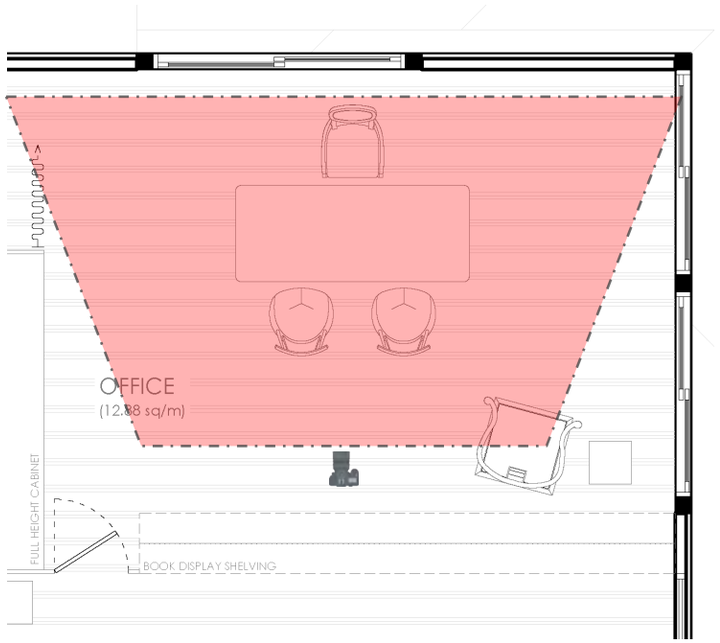


Ventilation (AC)

Table Sculpture Base
Reclaimed stacked timbers form a **monolithic desk base**, expressing the ethos of reuse and permanence.

Furniture & Decor
Wabi-sabi inspired **mixed seating** and vintage Japanese screen add character and cultural layering.

OFFICE

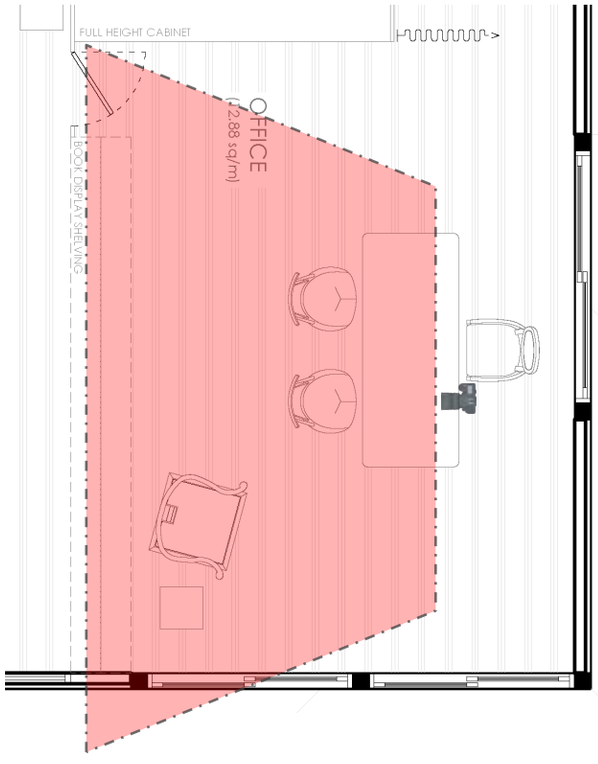


Sliding Door

Mixed Seating
Combines **vintage chair forms** and **carpentry-inspired joinery**, embracing imperfection and individuality.

Wabi-Sabi Accents
Displayed **statue, stoneware, and patinated brassware** reflect age and subtle asymmetry.

OFFICE

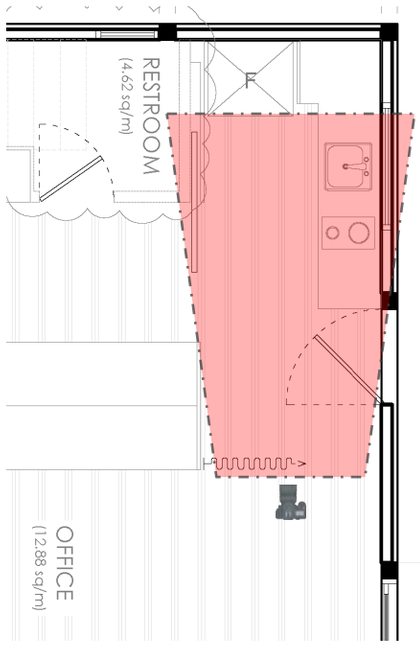


Akari Lamp

Wabi-Sabi Armchair
A low, wide armchair with black lacquered wood and traditional patterned fabric, embracing wabi-sabi aesthetics in both form and texture.

Custom Joinery Shelves
Modular wooden shelves with vertical battens behind, referencing Japanese joinery aesthetics.

SMALL KITCHEN



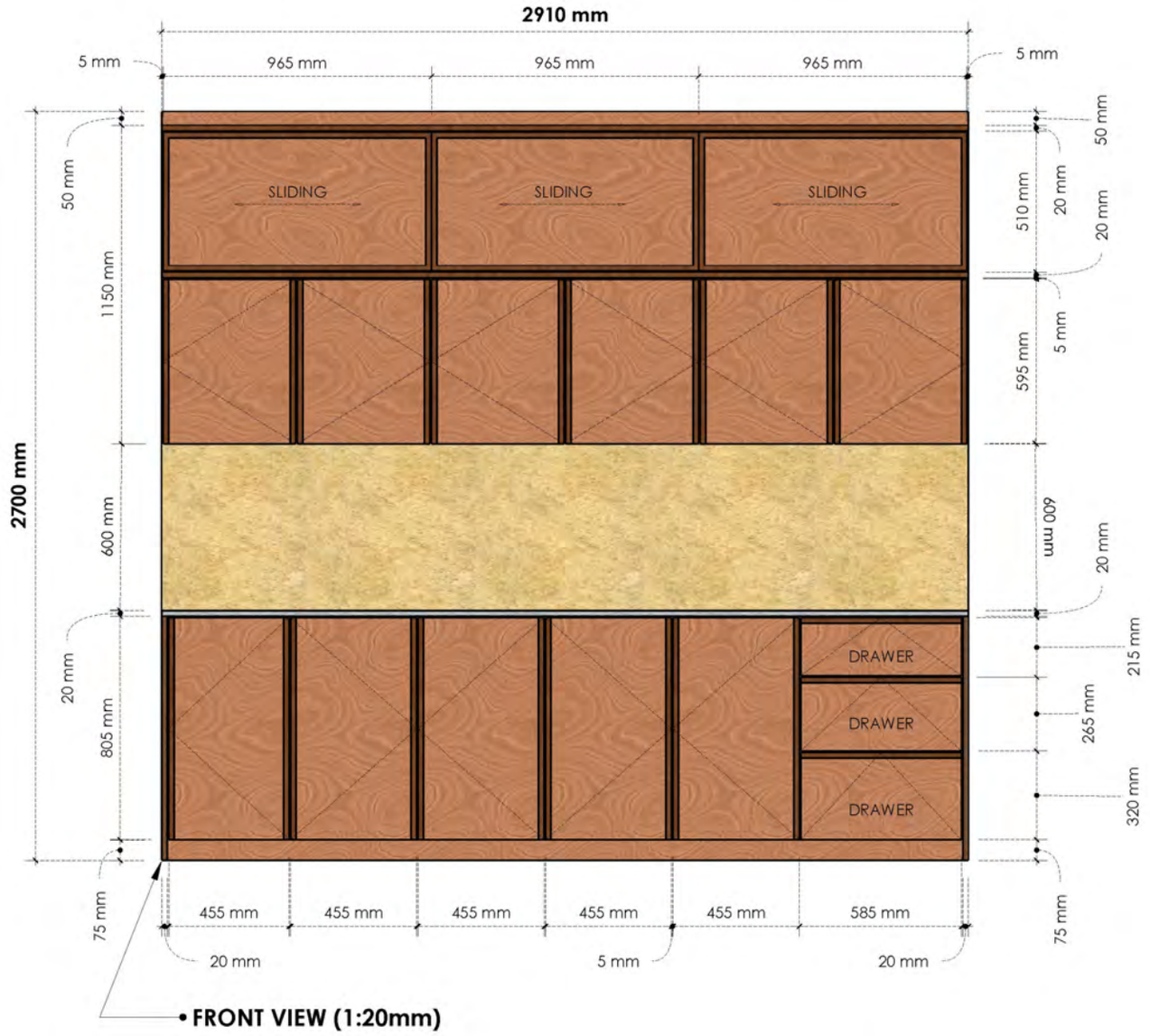
Lighting
White sculptural ceiling spotlight + shelf-integrated warm lighting

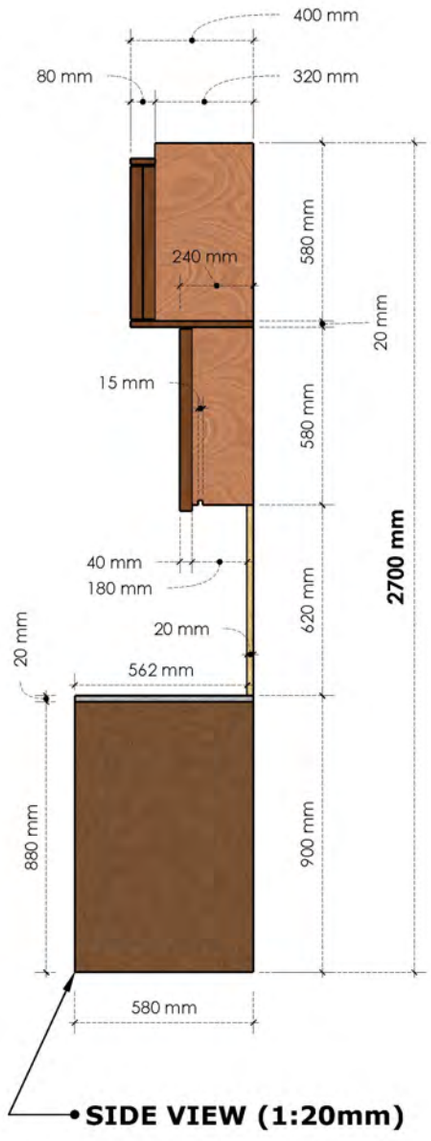
The **reclaimed door** and **window** were donated by local residents, embracing Kamikatsu's reuse culture and adding layers of character and history to the space.

Stainless Steel Frame With Fluted Glass

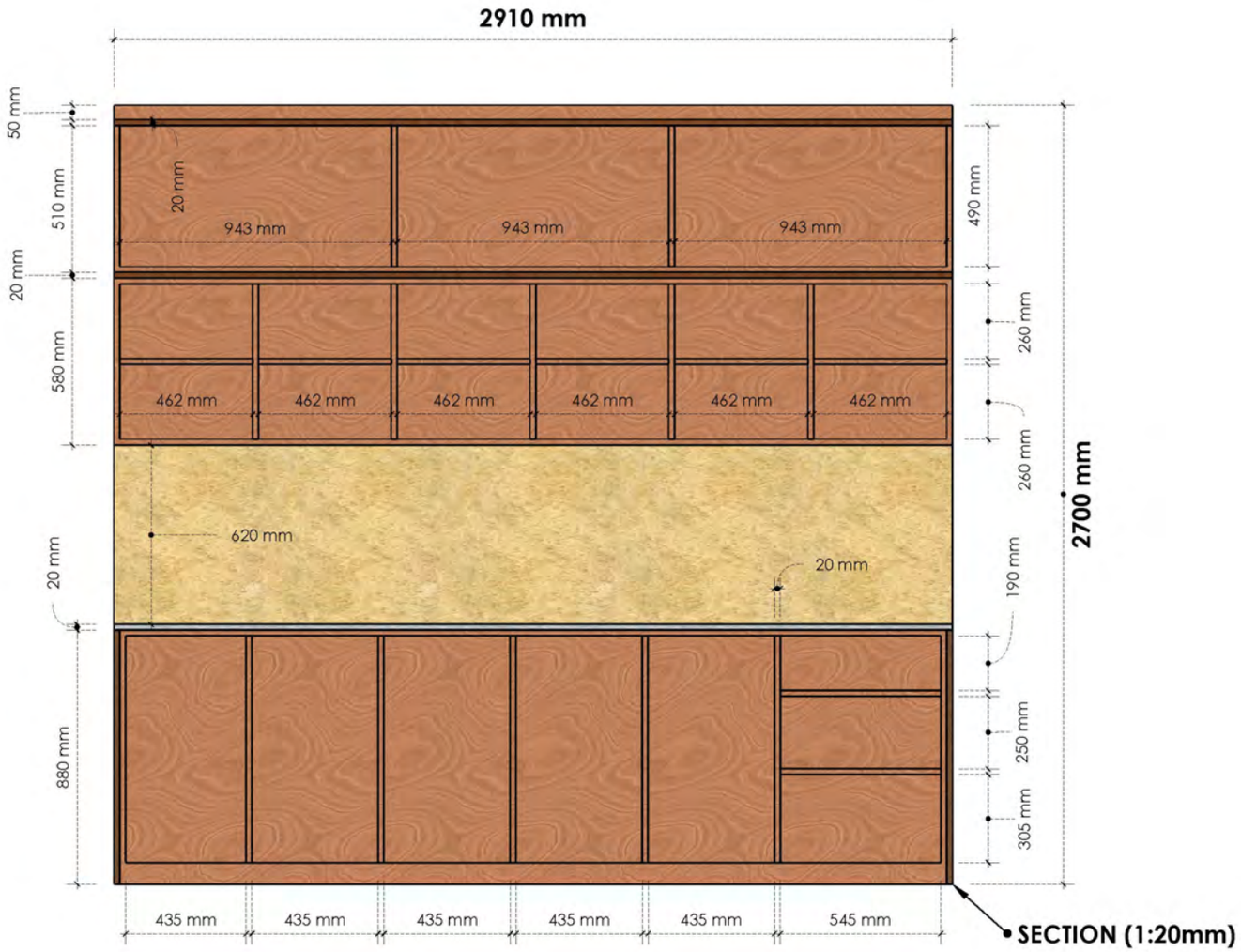
DETAIL DRAWING

CABINET DETAIL

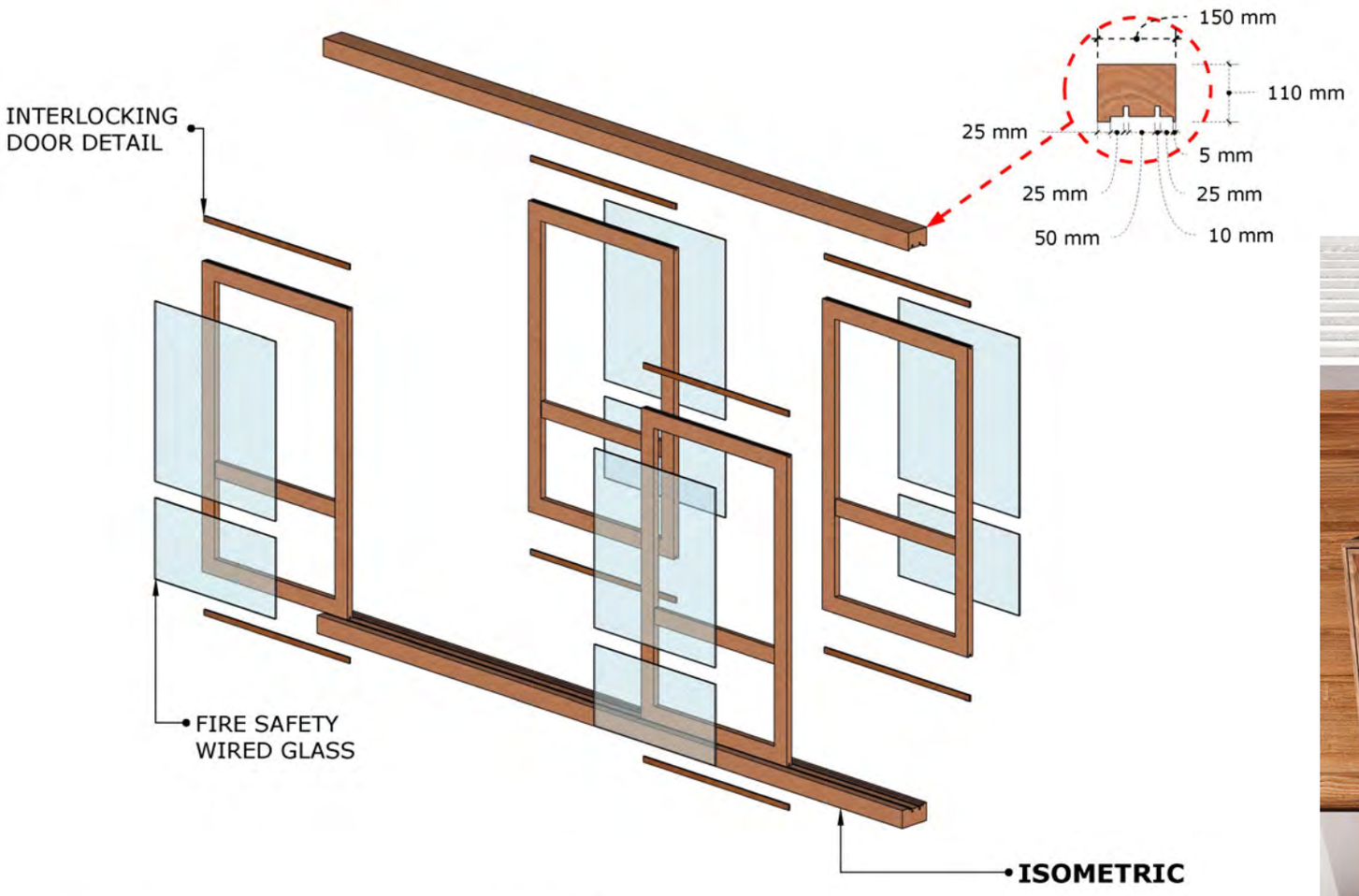


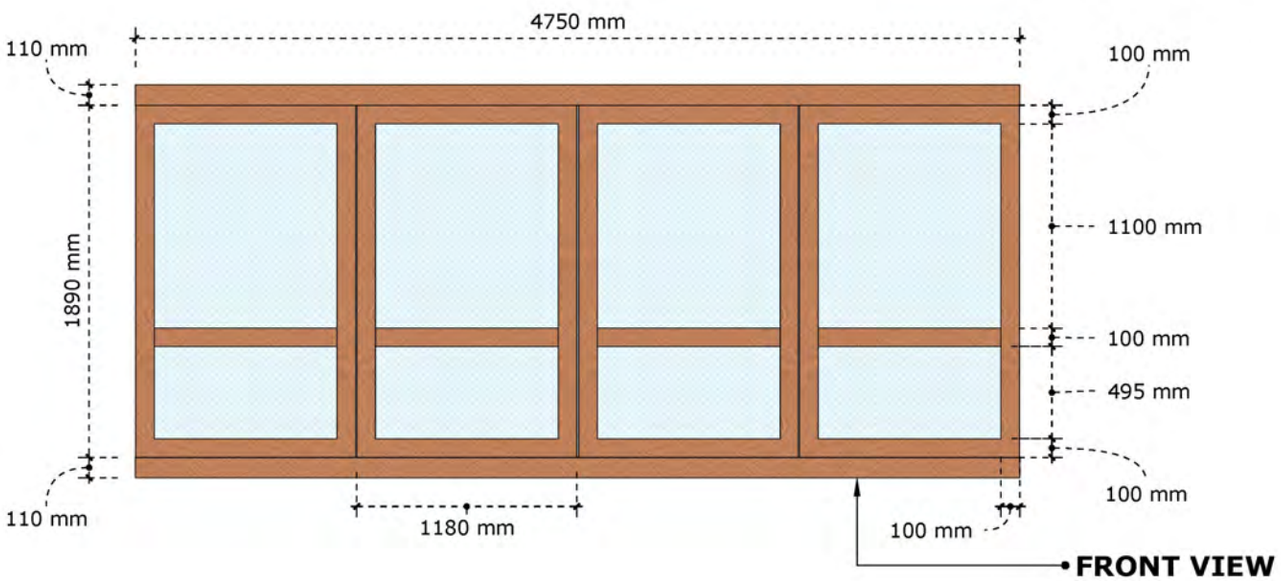


CABINET DETAIL

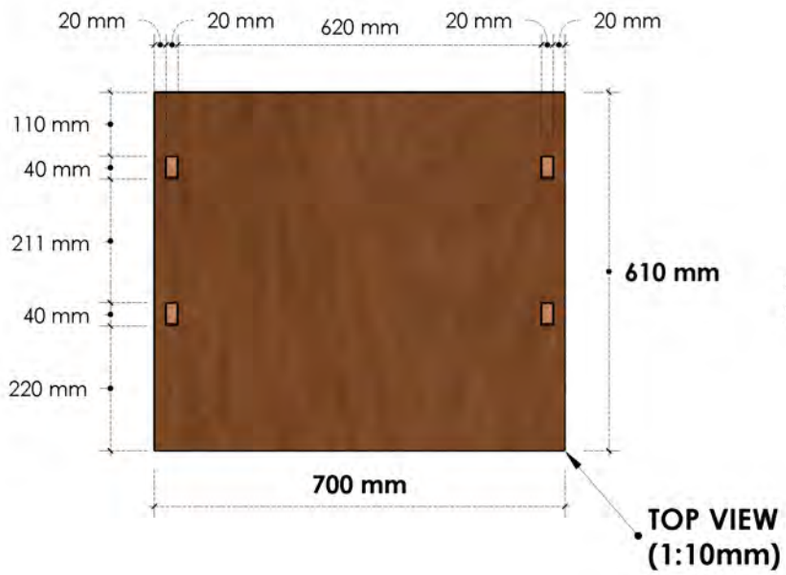


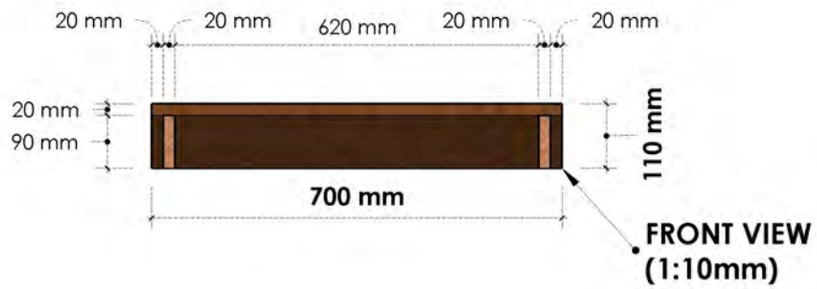
DOOR DETAIL

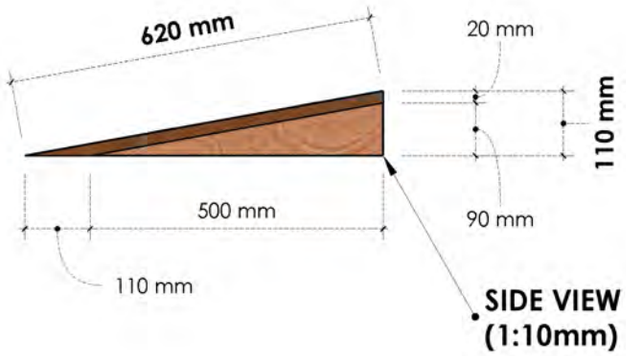

INTERLOCKING
DOOR DETAIL
150 mm
110 mm
25 mm
5 mm
25 mm
25 mm
50 mm
10 mm
FIRE SAFETY
WIRED GLASS
ISOMETRIC

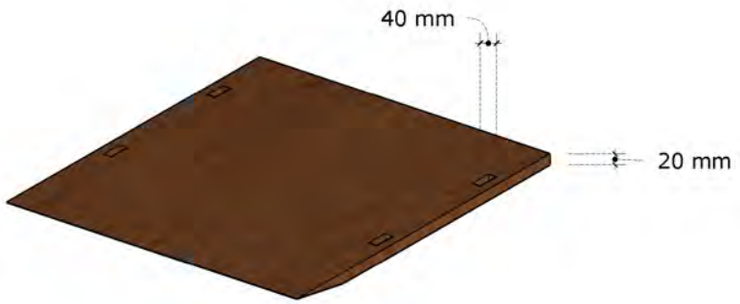

4750 mm
110 mm
100 mm
1100 mm
1890 mm
100 mm
495 mm
100 mm
110 mm
1180 mm
100 mm
FRONT VIEW

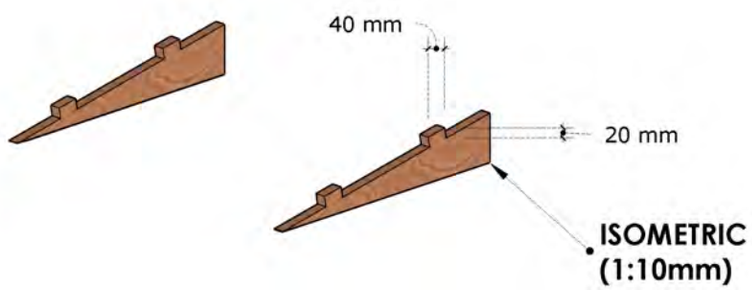
FLOOR RAMP DETAIL



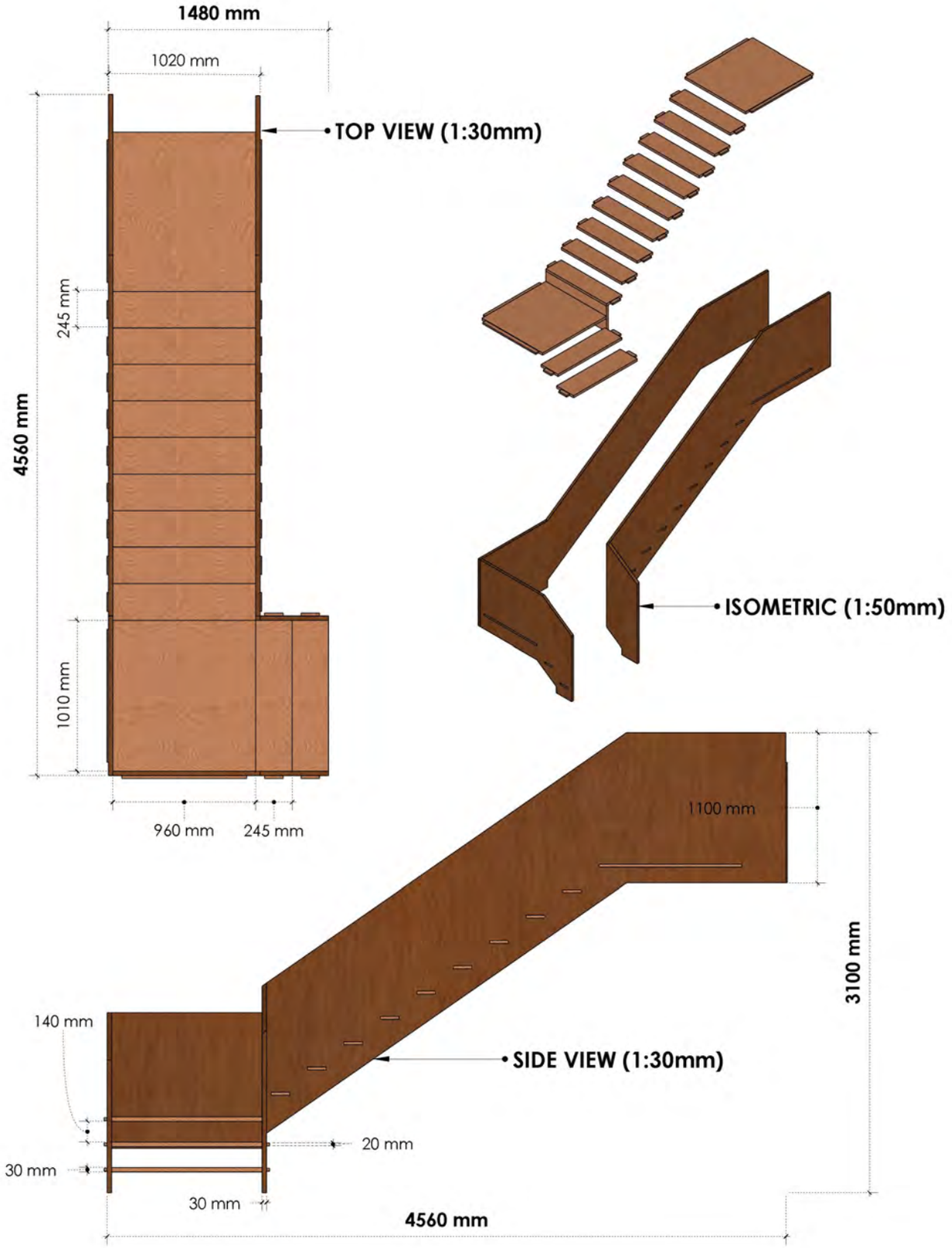


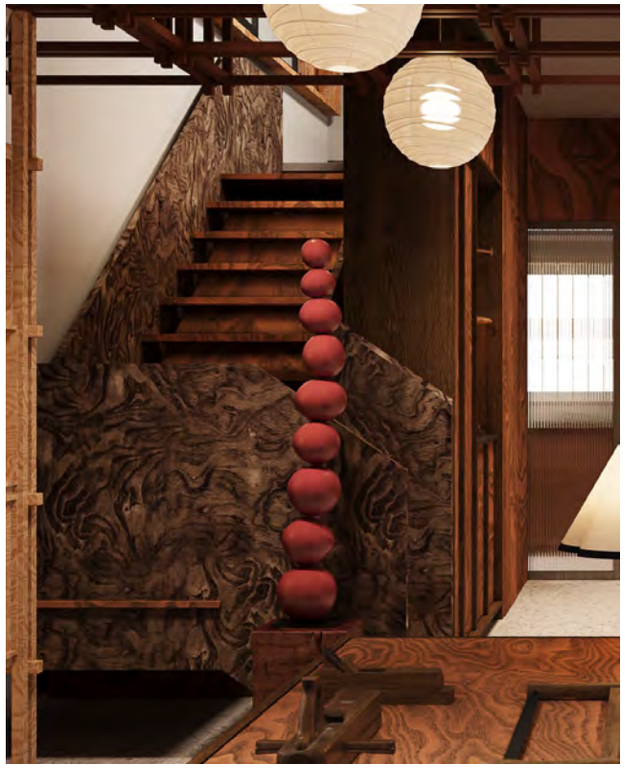






FLOOR RAMP DETAIL





THANK YOU