

REBUILT C A P E T O W N

TRANSFORMATION LABS

COMMUNITY-LED
REGENERATION FOR CLIMATE,
CULTURE, AND EQUITY



“THE REBUILT PROJECT HAS TWO AVENUES OF RESEARCH: A GLOBAL STUDY AND FOUR REGIONAL CASE STUDIES.”

The aim of the four case studies is to work closely with local communities to identify opportunities and challenges in using natural and recycled building materials. To test these ideas through demonstration projects to promote positive change.

Transforming Cape Town and the Western Cape's built environment faces significant challenges. However, by involving a variety of community members, creating a shared vision, and working together through guided discussions, the region can move towards a more sustainable and equitable future

REGIONAL CASE STUDIES



Paro-Thimphu, **Bhutan**



Cape Town, **South Africa**



Denpasar, **Indonesia**



Berlin-Postdam, **Germany**



Sharing knowledge and learning from each other will help improve the environment and build inclusive and resilient communities. The ReBuilt Project focuses on five interconnected transformation themes:

1. **Shift to bio-based construction materials**
 - Promoting renewable, low-emission materials.
 2. **Circular building practices**
 - Reusing, recycling, and designing for minimal waste.
 3. **Polycentric and resource-efficient urban systems**
 - Developing decentralised, efficient infrastructures.
 4. **People-centred and inclusive approaches**
 - Embedding socialequityandcommunity participation in development.
1. **Enabling environments for systems change**
- Creating supportive policies and frameworks for transformation.

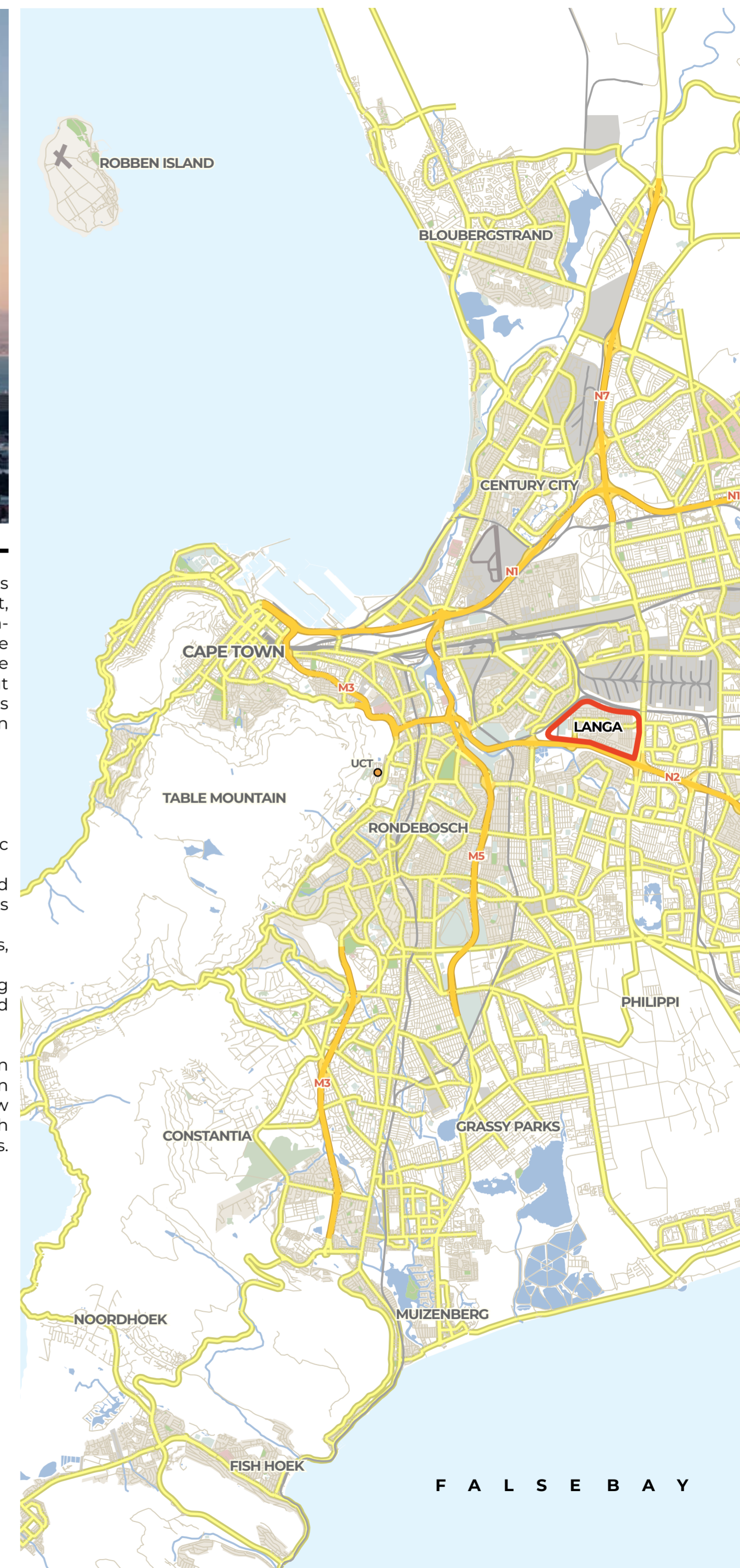
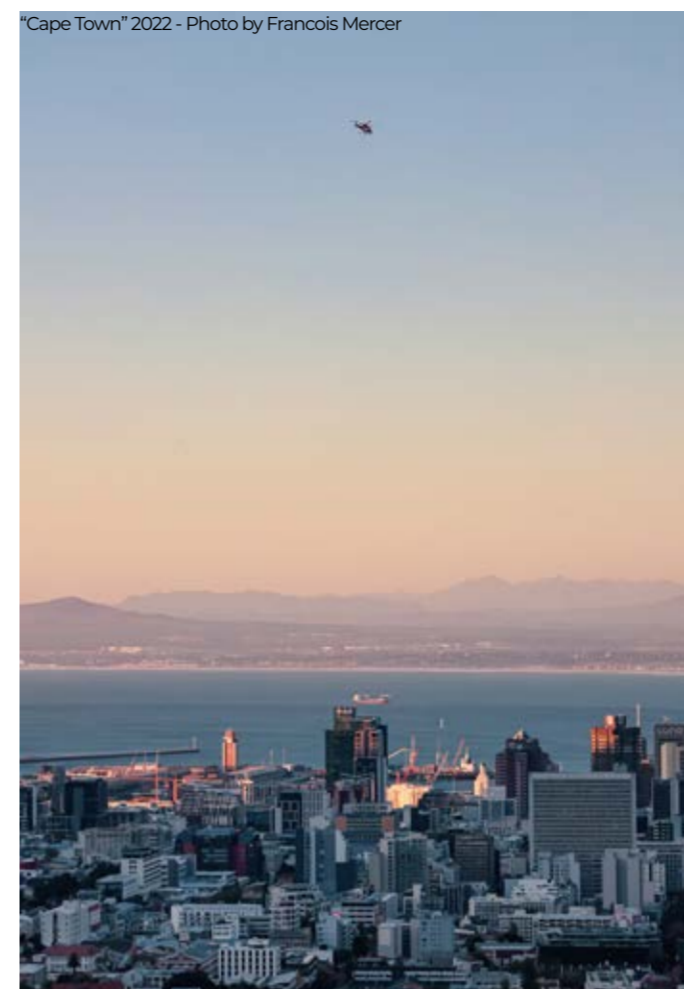
“THE GOAL IS TO CREATE A BUILT ENVIRONMENT THAT NOT ONLY REDUCES HARM BUT ACTIVELY CONTRIBUTES TO THE WELL-BEING OF PEOPLE AND THE PLANET.”

nouahsark.com Globe Map of Bhutan (<https://www.nouahsark.com/er/infocenter/worldwide/asia/bhutan/index.php>)



A TRANSFORMATION LAB FOR REGENERATIVE URBAN FUTURES IN LANGA, CAPE TOWN

At the heart of Langa, Cape Town's oldest township, a bold experiment is taking shape - one that aims to shift the built environment from a source of carbon emissions to a carbon sink.



The 16 on Lerotholi Demonstrator is part of the international ReBuild project, coordinated by Bauhaus Earth, a non-profit dedicated to transforming the built environment into a regenerative system that not only reduces harm but actively restores ecosystems, strengthens communities, and drives equitable urban transformation.

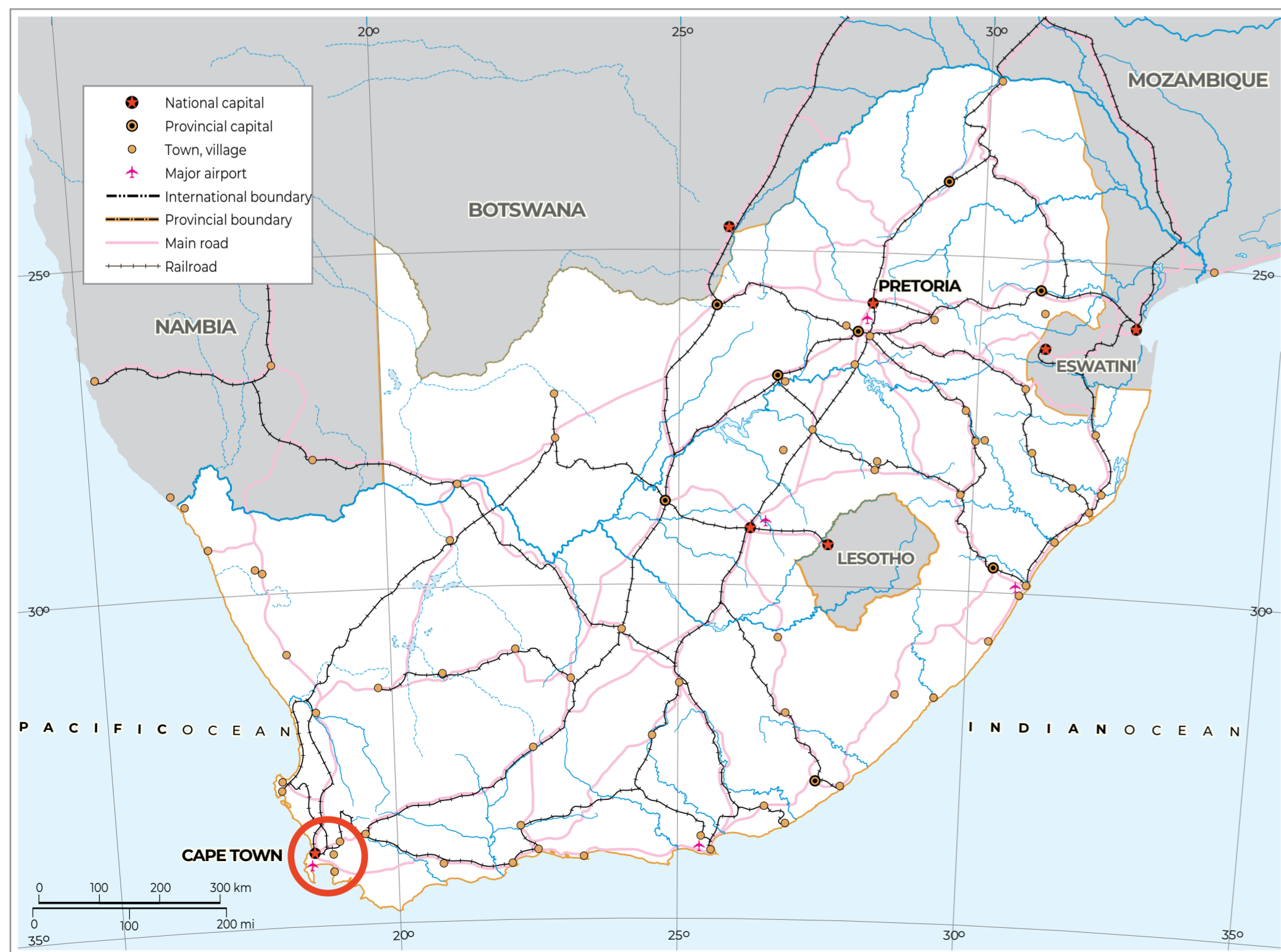
WHY LANGA?

- **Limited access** to safe, inclusive public space.
- **High unemployment** and restricted market access for local entrepreneurs and farmers.
- **Climate vulnerability** - heat stress, flooding, and resource scarcity.
- **Rich cultural heritage** and strong traditions of self-organisation and creativity.

This combination makes Langa an ideal location to link climate action with social transformation, testing how regenerative design can address both environmental and socio-economic needs.

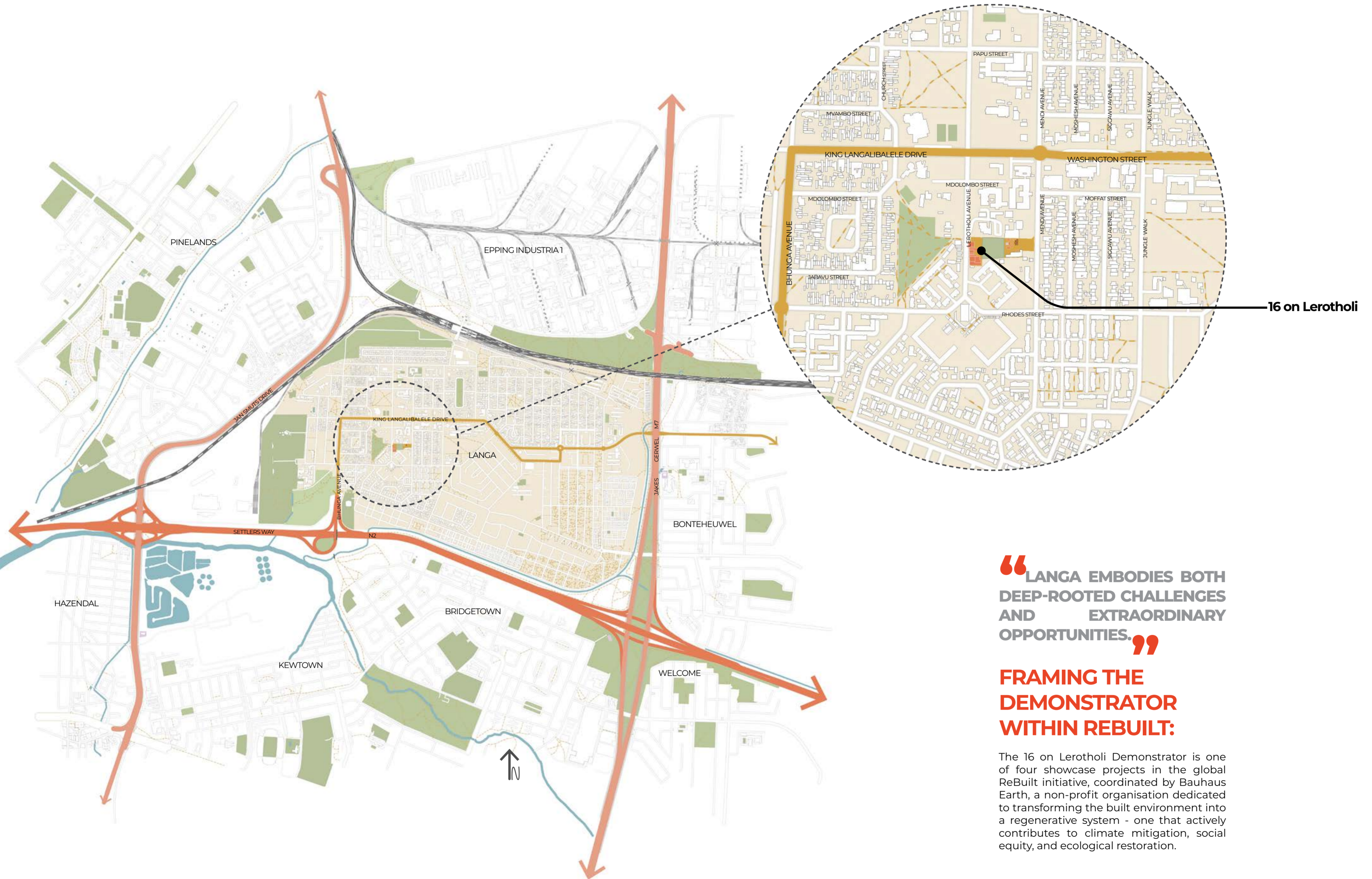
Map No. 3768 Rev. 6 UNITED NATIONS February 2007

Department of Peacekeeping Operations Cartographic Section



Map No. 3768 Rev. 6 UNITED NATIONS February 2007

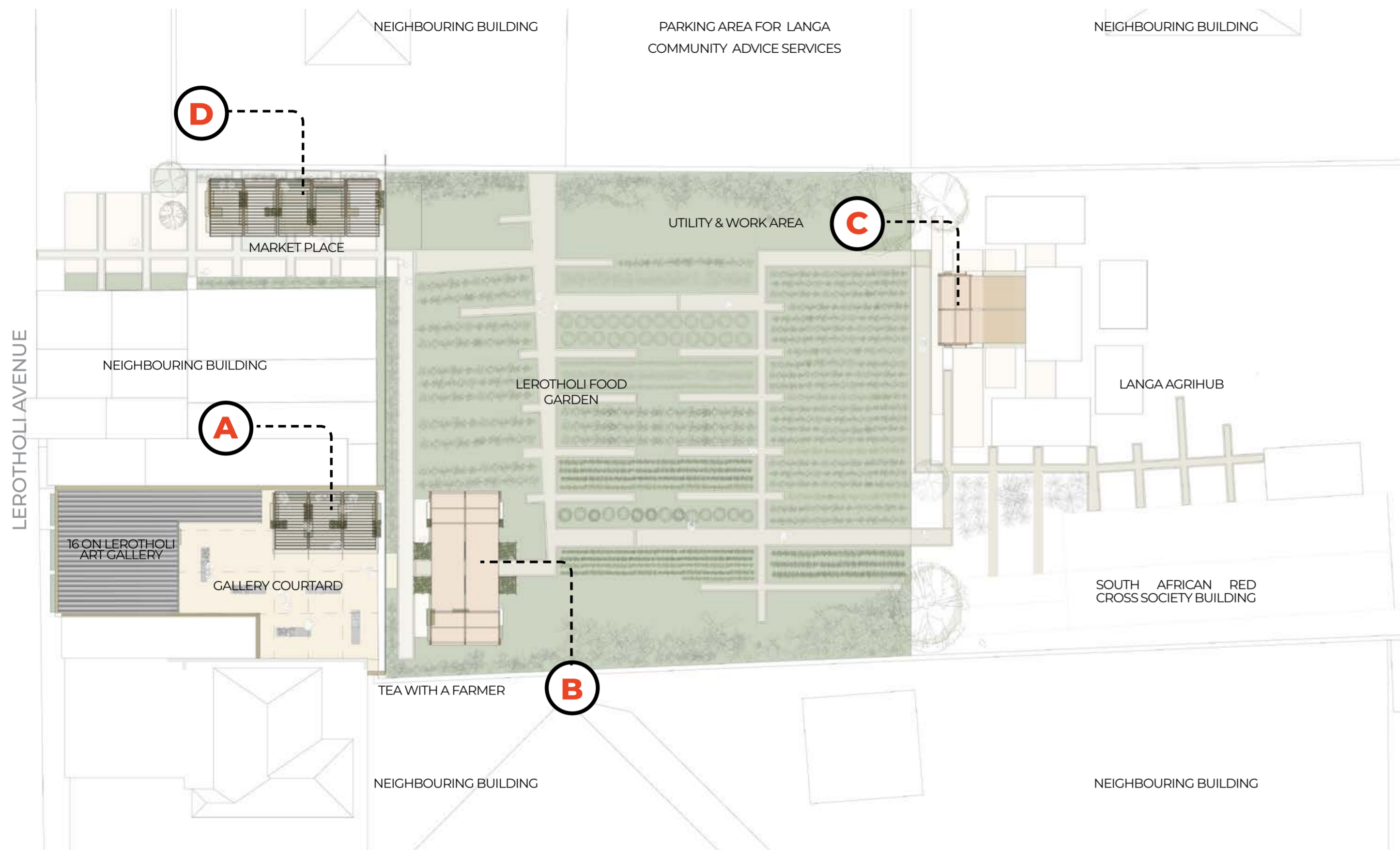
Department of Peacekeeping Operations Cartographic Section



“LANGA EMBODIES BOTH DEEP-ROOTED CHALLENGES AND EXTRAORDINARY OPPORTUNITIES.”

FRAMING THE DEMONSTRATOR WITHIN REBUILT:

The 16 on Lerotholi Demonstrator is one of four showcase projects in the global ReBuilt initiative, coordinated by Bauhaus Earth, a non-profit organisation dedicated to transforming the built environment into a regenerative system - one that actively contributes to climate mitigation, social equity, and ecological restoration.



MASTER PLAN 

“ THROUGH GARDENS AND COLLABORATIVE EFFORTS, THEY CULTIVATE NOT JUST FOOD, BUT A THRIVING, RESILIENT COMMUNITY ” **SHARED AND 16 ON LEROTHOLI ART GALLERY**

Founded in 2019 to make art accessible and celebrate Langa’s cultural heritage, 16 on Lerotholi is a platform for African artists to exhibit their work, host performances, and engage the community.

LEROTHOLI FOOD GARDEN

A 2,000 m² urban agriculture project providing training in organic farming, nutrition, and environmental stewardship. The garden improves local food security while serving as a community education hub.

LANGA AGRIHUB AND MARKETPLACE

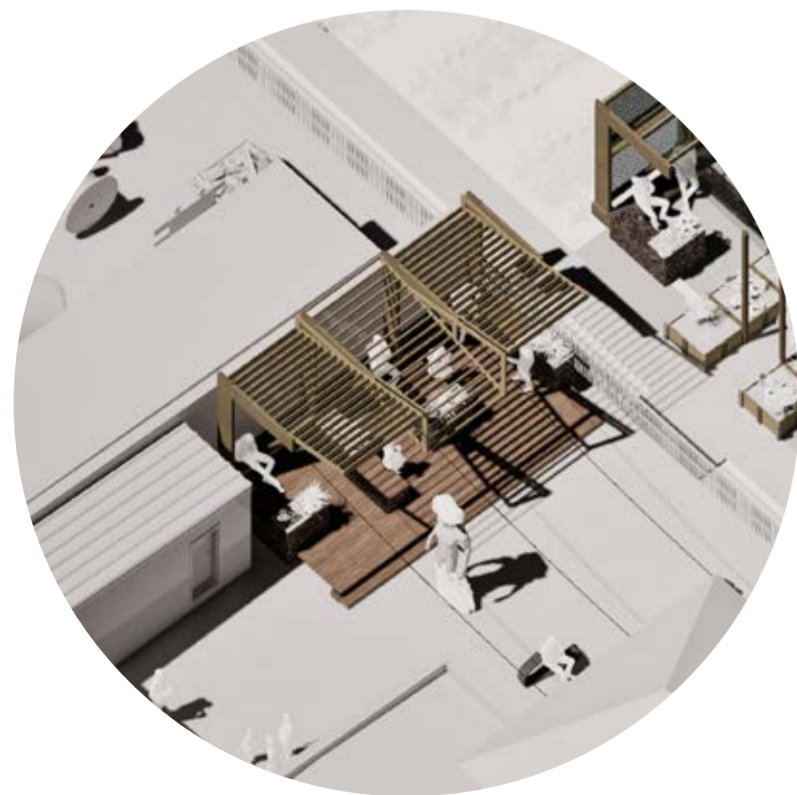
A market and training centre supporting over 300 small-scale farmers linked to 38 food gardens across Cape Town. The Agrihub provides seedlings, tools, and training, alongside facilities for washing, storage, and distribution.

PURPOSE

- Test **alternative building materials and methodologies (ABMs)**.
- Provide a **functional, inclusive public space**.
- Build **local skills** in regenerative construction.
- Create a **replicable model** for other communities facing similar challenges.

The design aims to minimise reliance on carbon-heavy construction by using materials and methods that support local economies, honour cultural traditions, and significantly reduce environmental impact

“ THE COURTYARD BETWEEN THE GALLERY AND FOOD GARDEN BECOMES A “THIRD SPACE”—A SHARED PLACE WHERE ART, FOOD, AND ENTERPRISE MEET. ”



A. GALLERY/COURTYARD



B. TUNNEL/TEA GARDEN



C. UTILITY/WORK AREA



D. ARRIVAL/MARKET

“ TRADITIONAL CONSTRUCTION RELIES ON CARBON-INTENSIVE, NON-RENEWABLE MATERIALS. ”

"Langa" 2025 - Photo by Francois Mercer

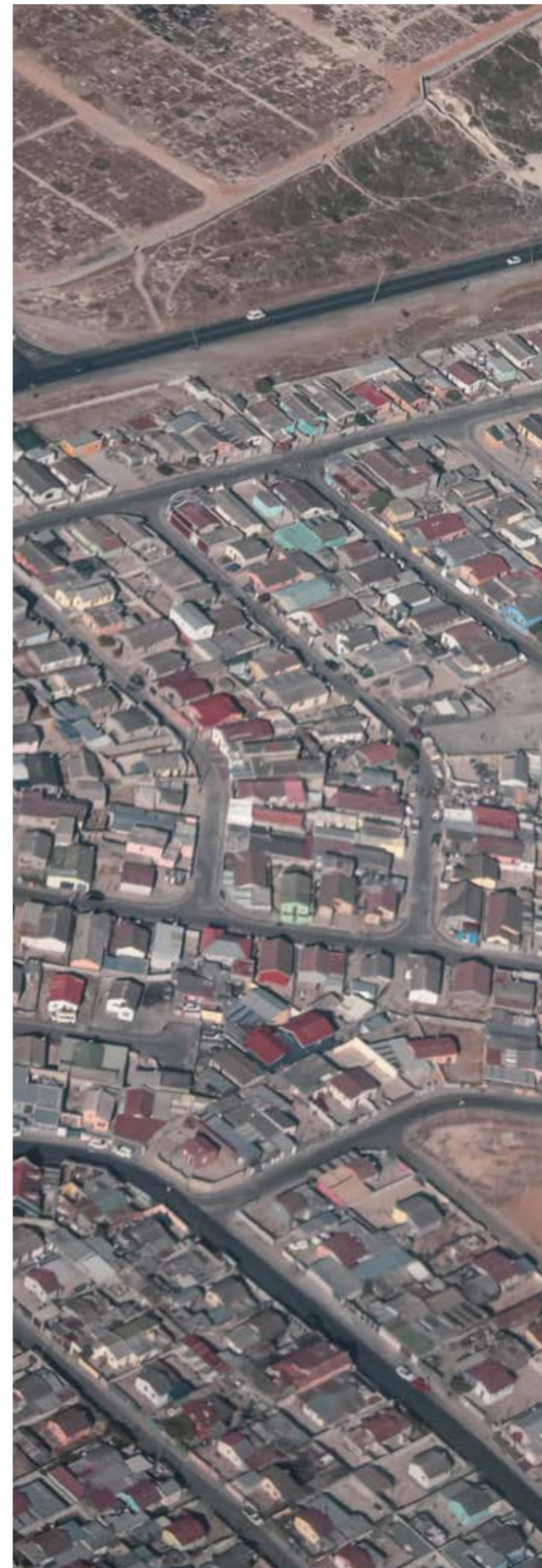


"Langa" 2025 - Photo by Francois Mercer

EXISTING PALETTE

Climate change intensifies resource scarcity and urban vulnerability. Traditional construction relies on carbon-intensive, non-renewable materials. Social inequality remains deeply rooted in spatial planning and access to opportunities. Marginalized communities often lack inclusive infrastructure, market access, and cultural recognition.

"Informality" 2022 - Photo by Francois Mercer



"Aerial" 2022 - Photo by Francois Mercer

MATERIALS FOR A REGENERATIVE FUTURE

Cross-Laminated Timber (CLT):

Lightweight, renewable, and prefabricated, CLT stores carbon and reduces construction waste. The Demonstrator's CLT 'kit-of-parts' speeds up assembly and allows for replication in other informal urban contexts.

Gabion Walls:

Wire mesh cages filled with stones or recycled rubble—durable, flood-resilient, and easy to assemble using community labour. They reuse construction waste and improve thermal comfort.

Ground Screws:

A low-impact foundation solution ideal for Langa's soft, waterlogged soil. Installed without concrete, they are fully reversible and align with regenerative, adaptable design.



ANTICIPATED IMPACTS

Climate & Environment:

- Reduced embodied carbon footprint.
- Increased greenery and biodiversity in the urban core.

Social & Economic:

- Strengthened **community pride** and ownership.
- New income streams for farmers and artists.
- Skills in **regenerative construction and sustainable farming**.

“ BY CHOOSING MATERIALS LIKE CLT, GROUND SCREWS, AND GABION WALLS, WE DRASTICALLY REDUCE CARBON EMISSIONS WHILE SUPPORTING LOCAL EMPLOYMENT AND KEEPING MATERIAL CYCLES REGIONAL. ”



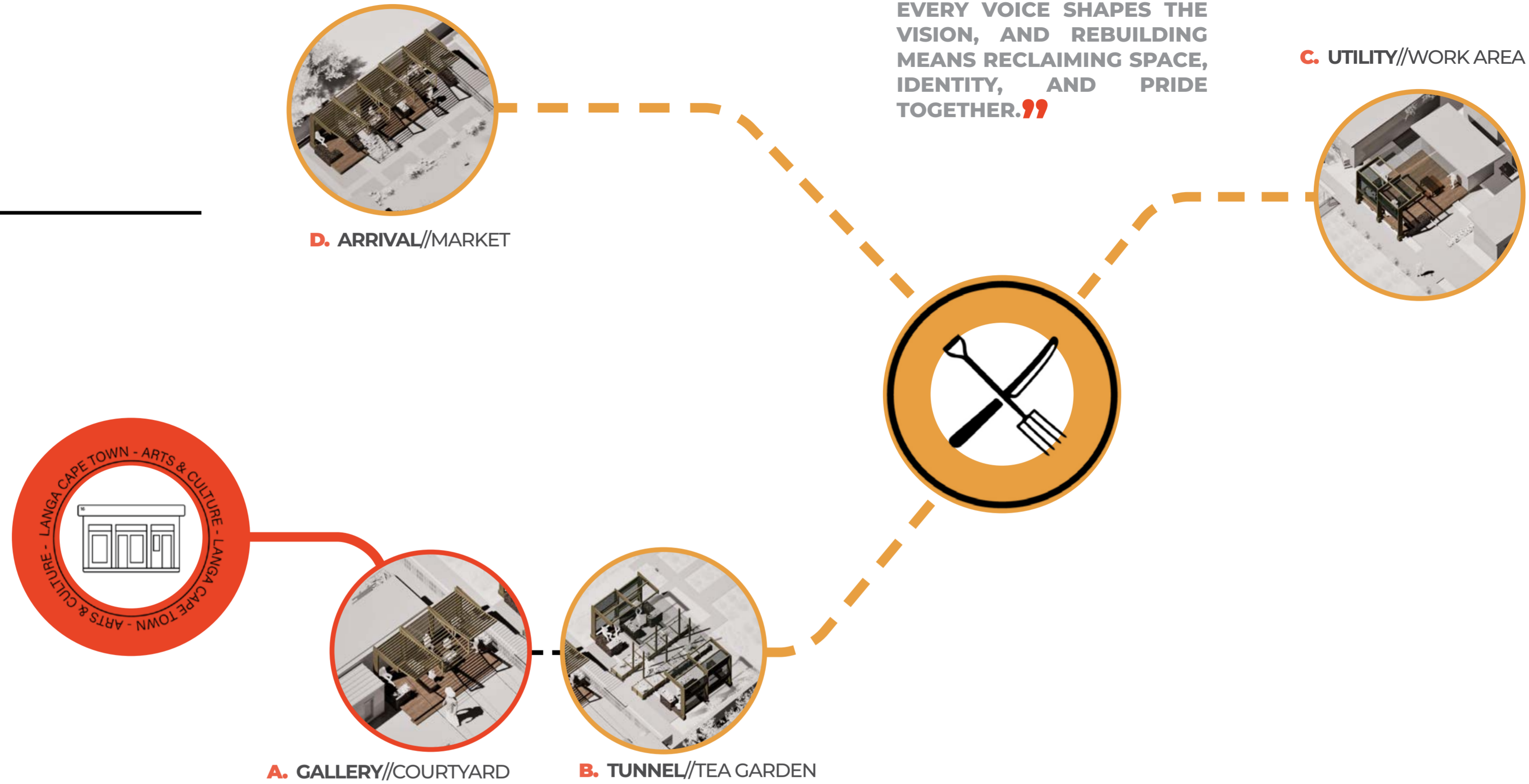
FOUR INTERLINKED ZONES

- A. Gallery Courtyard**
exhibitions, gatherings, and cultural events.
- B. Tunnel/ Tea Garden**
shaded walkway with herbal tea crops.
- C. Utility/ Work Area**
workspace for farmers and artisans.
- D. Arrival/ Market**
trading space for fresh produce and crafts.

The Demonstrator is co-created with local residents through:

- Workshops – defining community priorities for the space.
- Skills training – in regenerative building and urban agriculture.
- Live prototyping – testing planter boxes, seating, and shading before final construction.

“TRUE TRANSFORMATION BEGINS WITH LISTENING... EVERY VOICE SHAPES THE VISION, AND REBUILDING MEANS RECLAIMING SPACE, IDENTITY, AND PRIDE TOGETHER.”

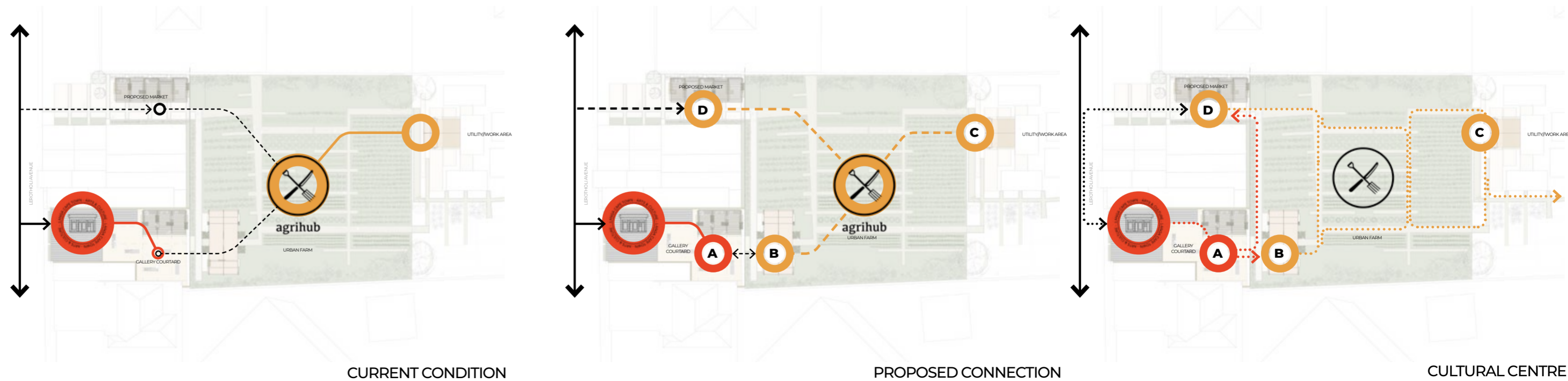


LOOKING FORWARD

When complete, the **16 on Lerotholi Demonstrator** will be:

- A **public space** bridging culture, food, and local enterprise.
- A **live example** of low-carbon, locally adapted construction.
- A **catalyst for regeneration** in Cape Town and beyond.

Its lessons will join the **global ReBuilt network**, offering a **replicable pathway for communities worldwide** facing the twin challenges of **climate change and inequality**.



“AT THE HEART OF LANGA, 16 ON LEROTHOLI GALLERY AND THE LEROTHOLI URBAN FOOD FARM ARE CULTIVATING MORE THAN ART AND FOOD—THEY’RE GROWING COMMUNITY.”

A. 16 ON LEROTHOLI

Established in 2019 by childhood friends Mpilo Ngcukana, Thulani Fesi, Khanyo Ngcukana, and Shaun Williams, 16 on Lerotholi was created to make art accessible to the local community and to celebrate the rich cultural heritage of Langa.

The gallery serves as a platform for African artists, offering a space to showcase their work and engage with the community. It aims to foster understanding, empathy, and solidarity within the Langa community and beyond, using art as a tool for social changes.

Adjacent to the gallery is Café Lerotholi, offering a selection of healthy food options such as freshly squeezed juices, smoothies, breakfast bowls, and salads. The café sources its ingredients from the Lerotholi Food Garden, a community initiative aimed at promoting urban farming and sustainable living.



B. TEA WITH A FARMER

Tea with a Farmer is an immersive urban farming experience hosted at the Lerotholi Food Garden in Langa, Cape Town. First organised in 2024 by the Food Indaba, this event offers participants a unique opportunity year-round to engage with local farmers and learn about sustainable agriculture practices.

The tour begins in the courtyard of the 16 on Lerotholi Art Gallery, where guests are welcomed with a cup of farm-grown herbal tea. Led by farmer Mzi Mashicila, attendees are then guided through the urban farm, learning about its history, sustainable farming practices, and the significance of urban agriculture in the community.

The tour also highlights the SA Urban Food & Farming Trust (SAUFFT) Agrihub Initiative, supporting in Langa and three other marginalised communities over 1500 farmers to grow more food and improve their livelihoods.

After the tour, guests are encouraged to return to the gallery and explore the exhibition. This provides an opportunity to appreciate local art and further immerse oneself in the cultural richness of Langa.

“ROOTED IN TIMBER AND TIME, THE TEA WITH A FARMER STRUCTURE STANDS—NOT JUST AS SHELTER, BUT AS STORY.”



south african urban food and farming trust



C. SOUTH AFRICAN URBAN FOOD & FARMING TRUST

The Lerotholi Food Garden is a vibrant community-driven urban agriculture project located in the heart of Langa, Cape Town. Established through a partnership between the SA Urban Food & Farming Trust (SAUFFT) and the Masakhe Foundation, the garden occupies a 2,000 m² plot within the Langa Cultural Heritage Precinct. It serves as both a food production site and an educational space, aiming to promote sustainable agriculture, improve nutrition, and foster community engagement.

The garden was initiated to support local residents, particularly women, in accessing fresh produce and learning about sustainable farming practices. It offers workshops, training sessions, and hands-on gardening opportunities for community members, school children, and visitors. Through these initiatives, participants gain skills in organic farming, food security, and environmental stewardship.

D. LANGA AGRIHUB & MARKETPLACE

WITH THE SAUFFT

In January 2022, SAUFFT initiated the Langa Agrihub on the land behind 16 on Lerotholi. The Langa Agrihub and Marketplace is designed to empower farmers by providing them with farming inputs like seedlings and compost as well as tools and training, alongside a platform to showcase and sell their fresh produce. It increases visibility and inspires farmers to boost production and embrace entrepreneurship, addressing the shortage of market spaces for local produce.

The Agrihub provides essential facilities—washing, storage, kitchens, and cooling units—to help farmers process, pack, and store produce efficiently, supporting 38 local food gardens. It serves as a vital resource for over 300 local small-scale farmers, providing them with the tools, training, and market access needed to thrive.

The Agrihub offers workshops on agroecology, agro-processing, business skills and other topics, equipping farmers to manage sustainable and profitable operations. Governed by the participating farmers, the Langa Agrihub exemplifies a holistic approach to urban agriculture, combining infrastructure development, education, market access, and community engagement to build resilience in one of Cape Town’s marginalised communities.

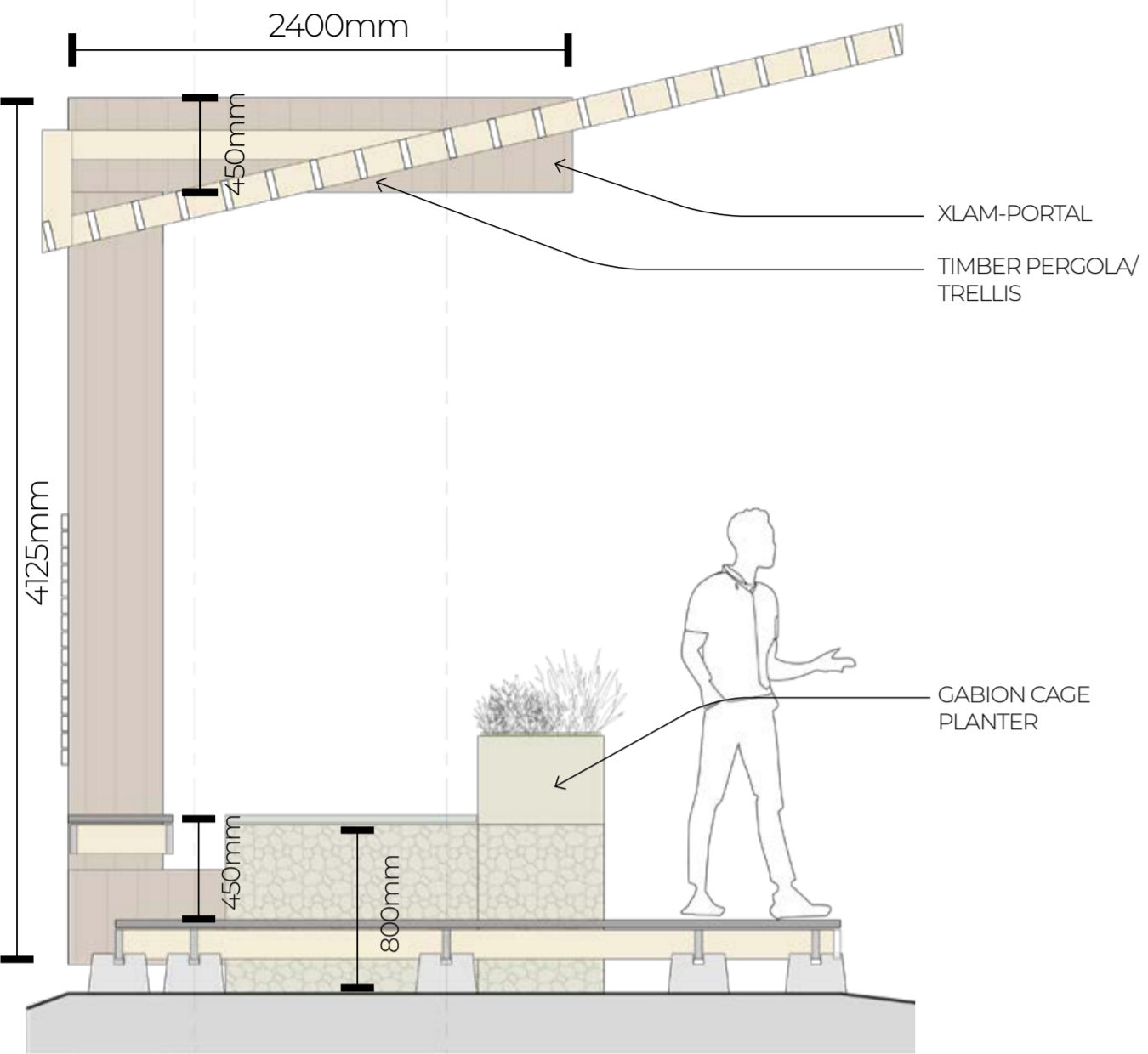
“BY WORKING TOGETHER, WE CAN DESIGN SPACES THAT ARE RESILIENT, SUSTAINABLE, AND DEEPLY ROOTED IN COMMUNITY PRIDE.”



agrihub

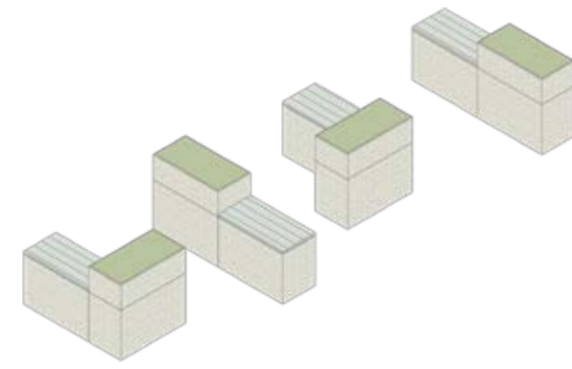
ENTERTAIN TYPE
SHADE/THRESHOLD

PERFORM TYPE
SHADE/THRESHOLD

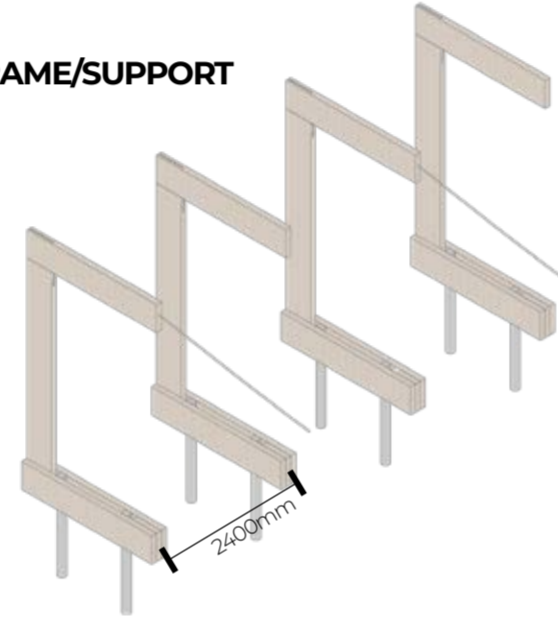


TYPICAL SECTION

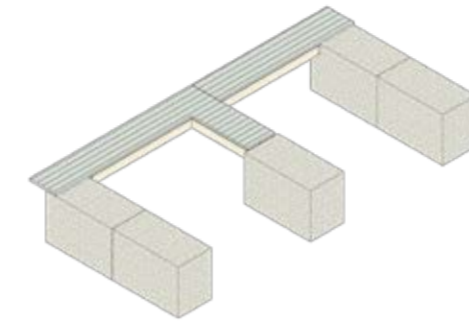
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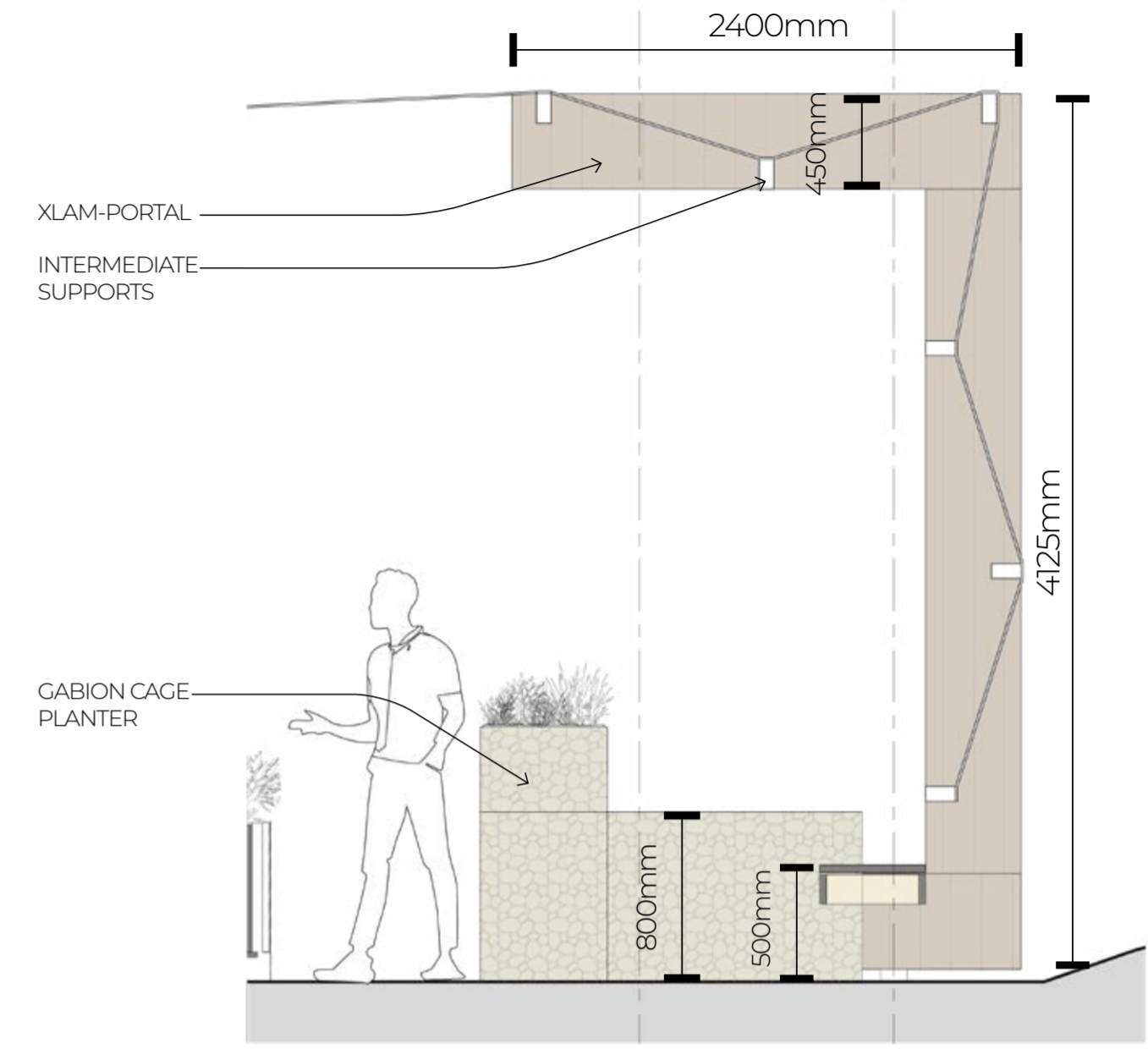
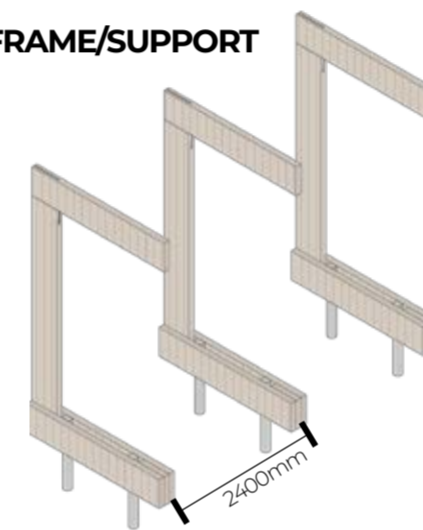
FRAME/SUPPORT



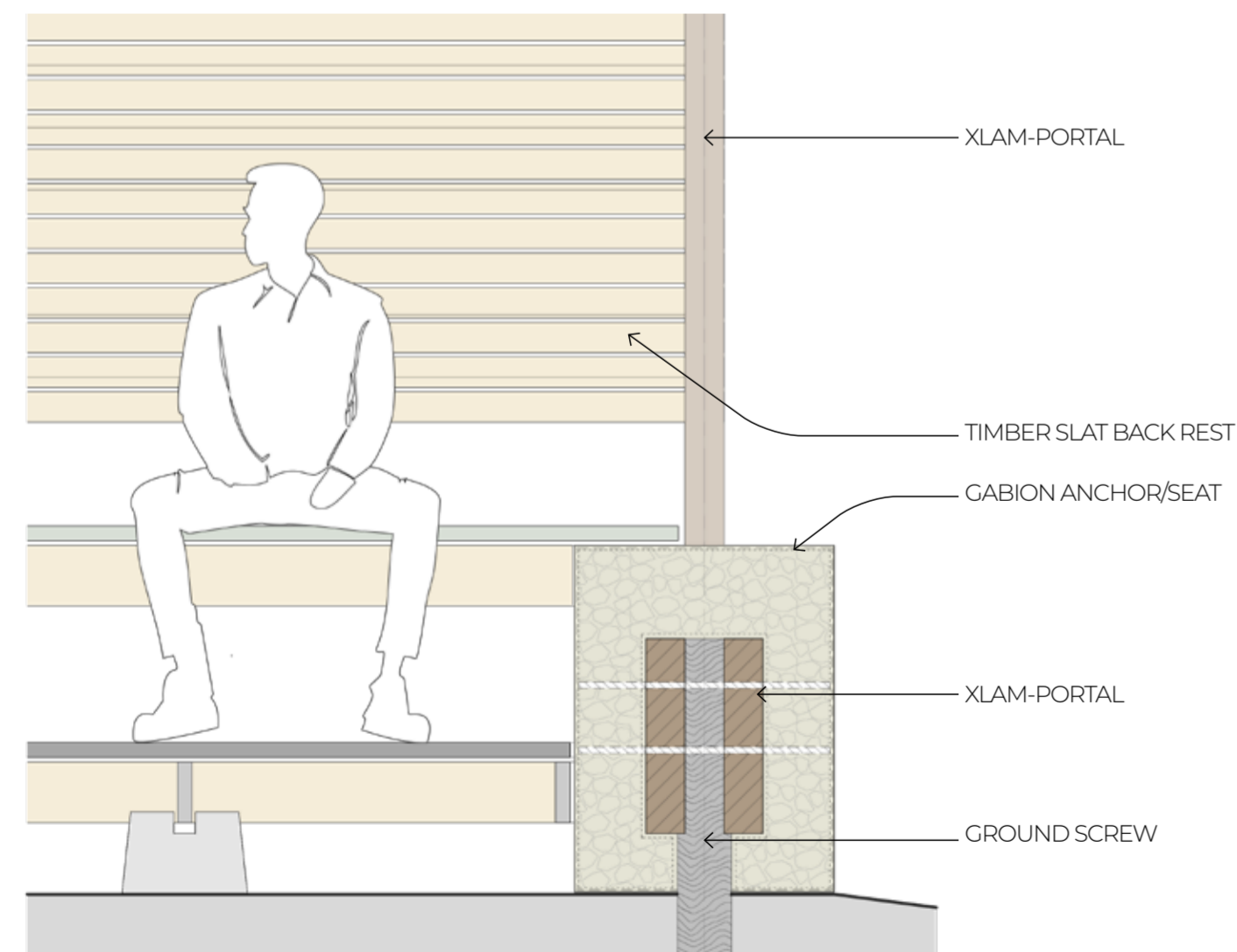
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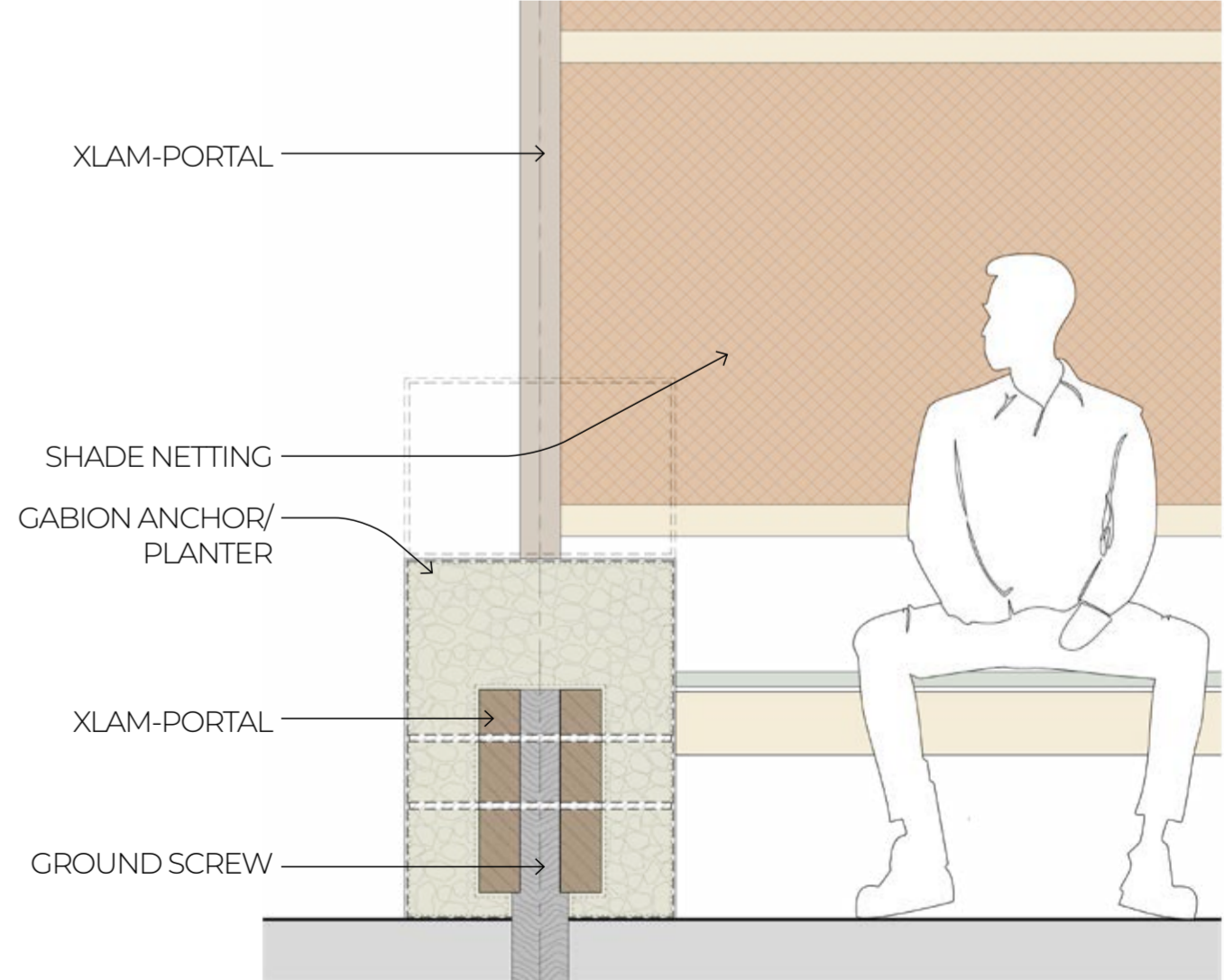
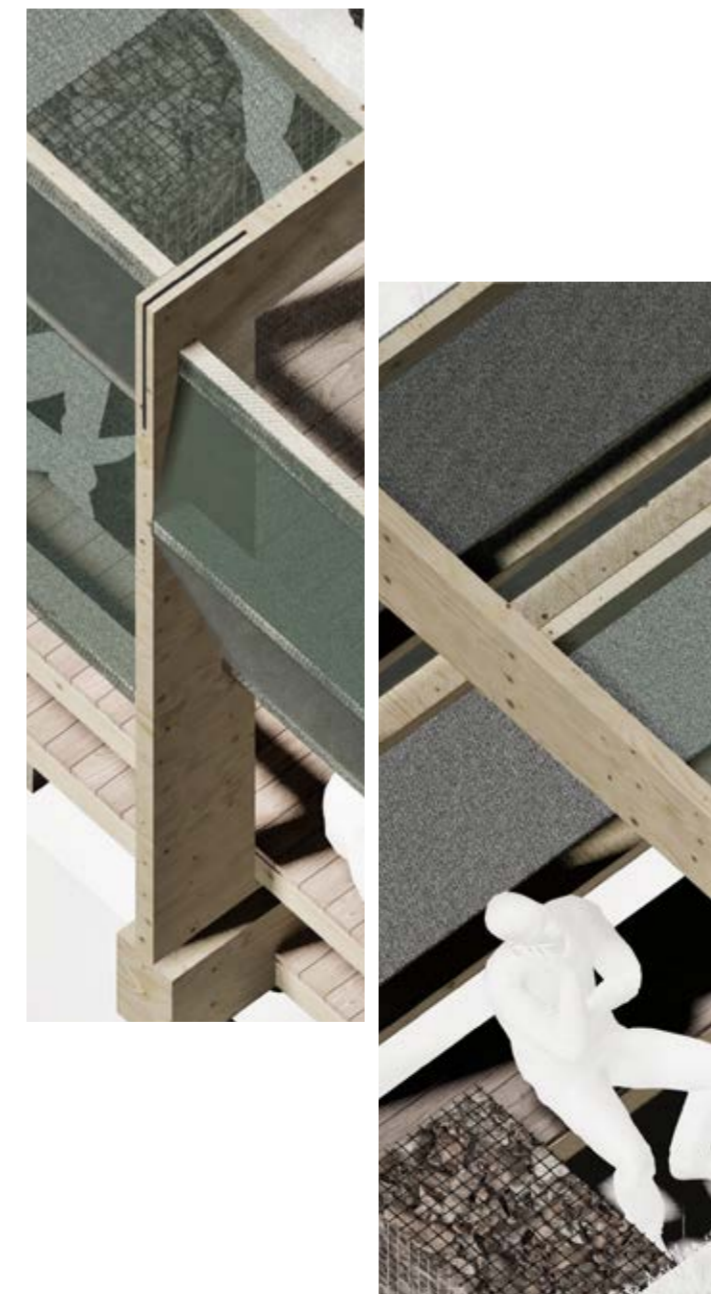
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TYPICAL SECTION



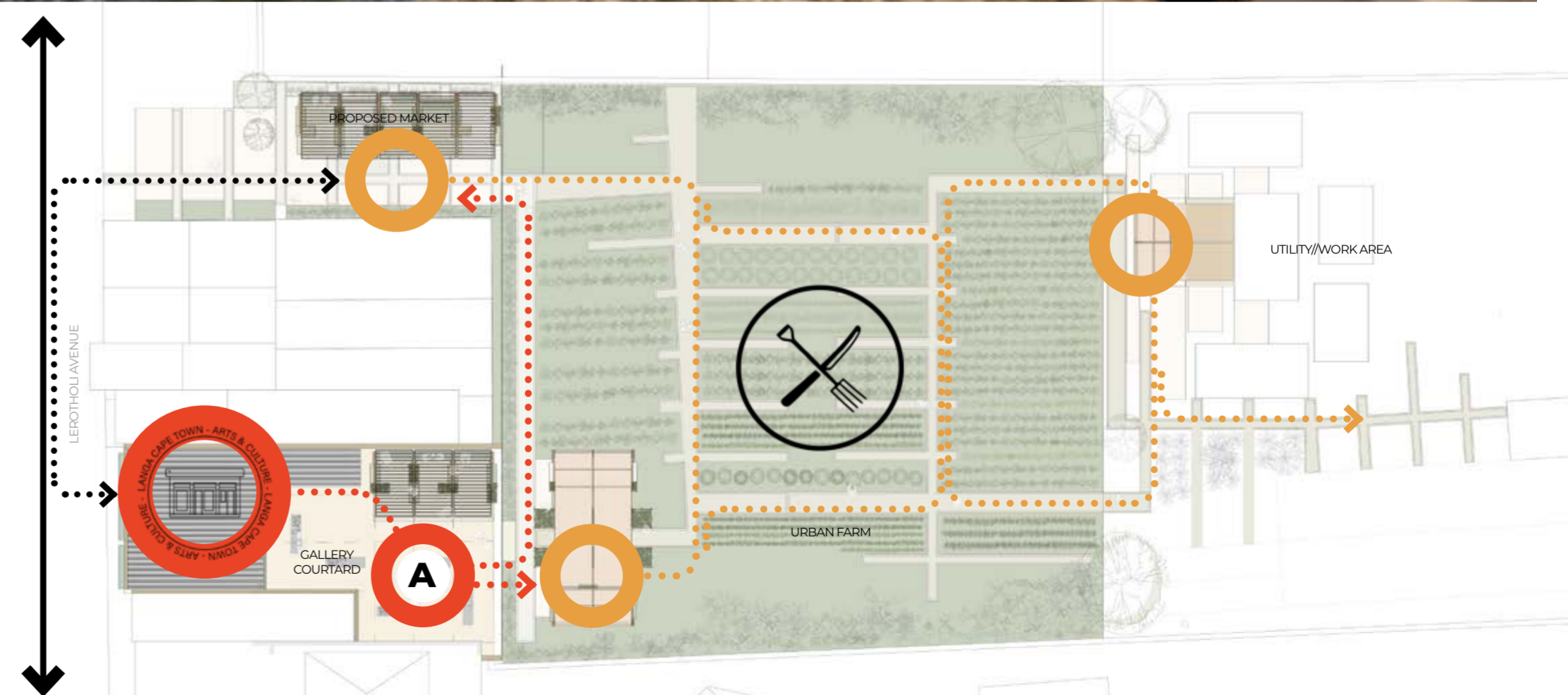
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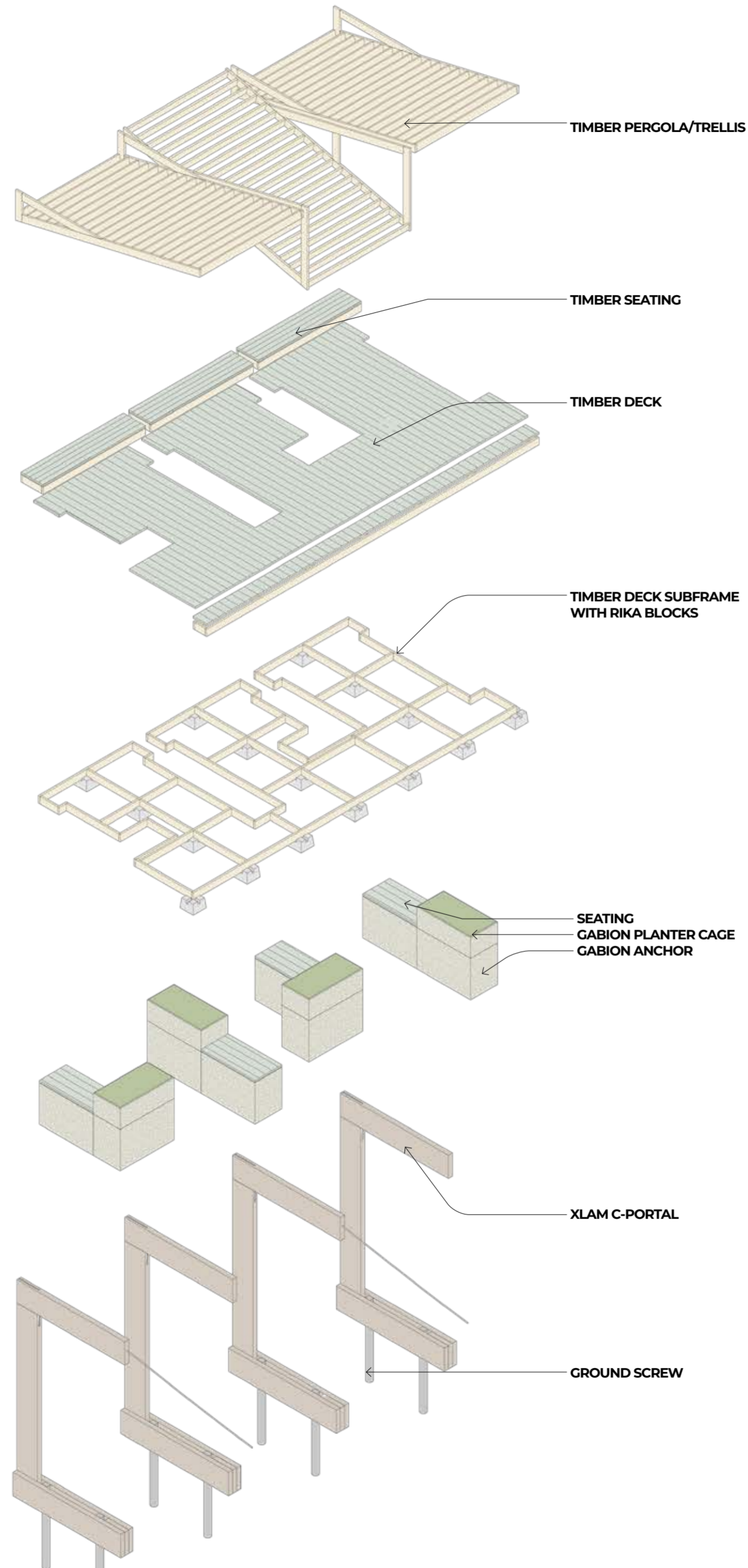


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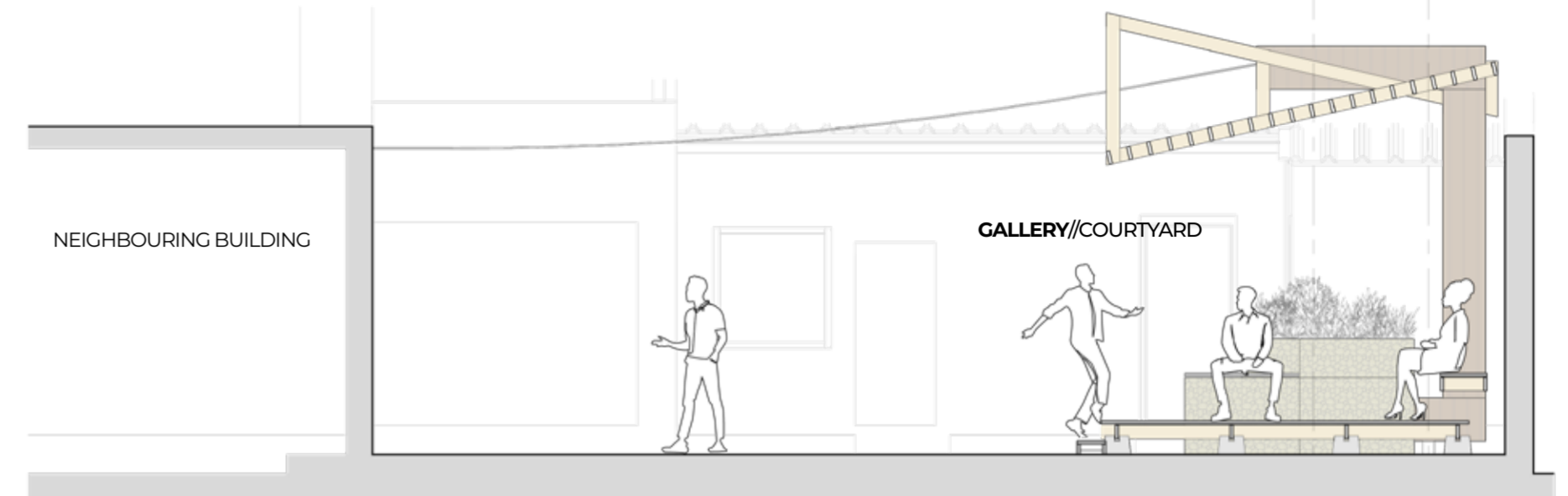


GALLERY/COURTYARD
PARCEL A.

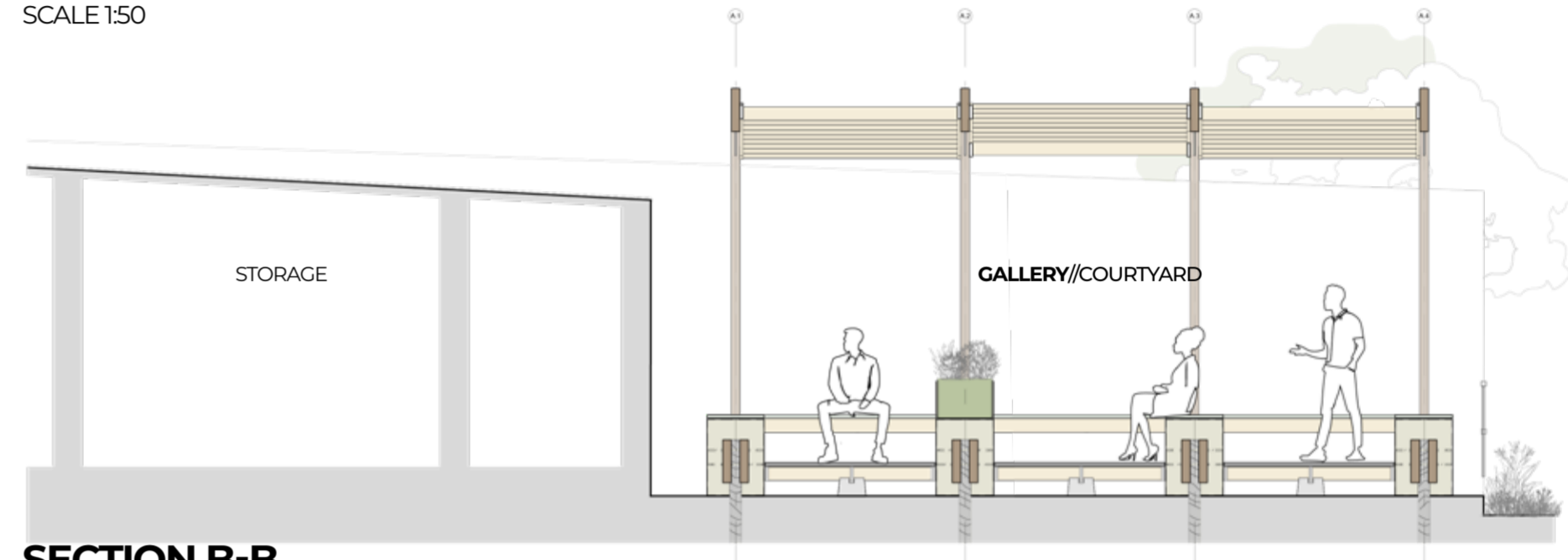




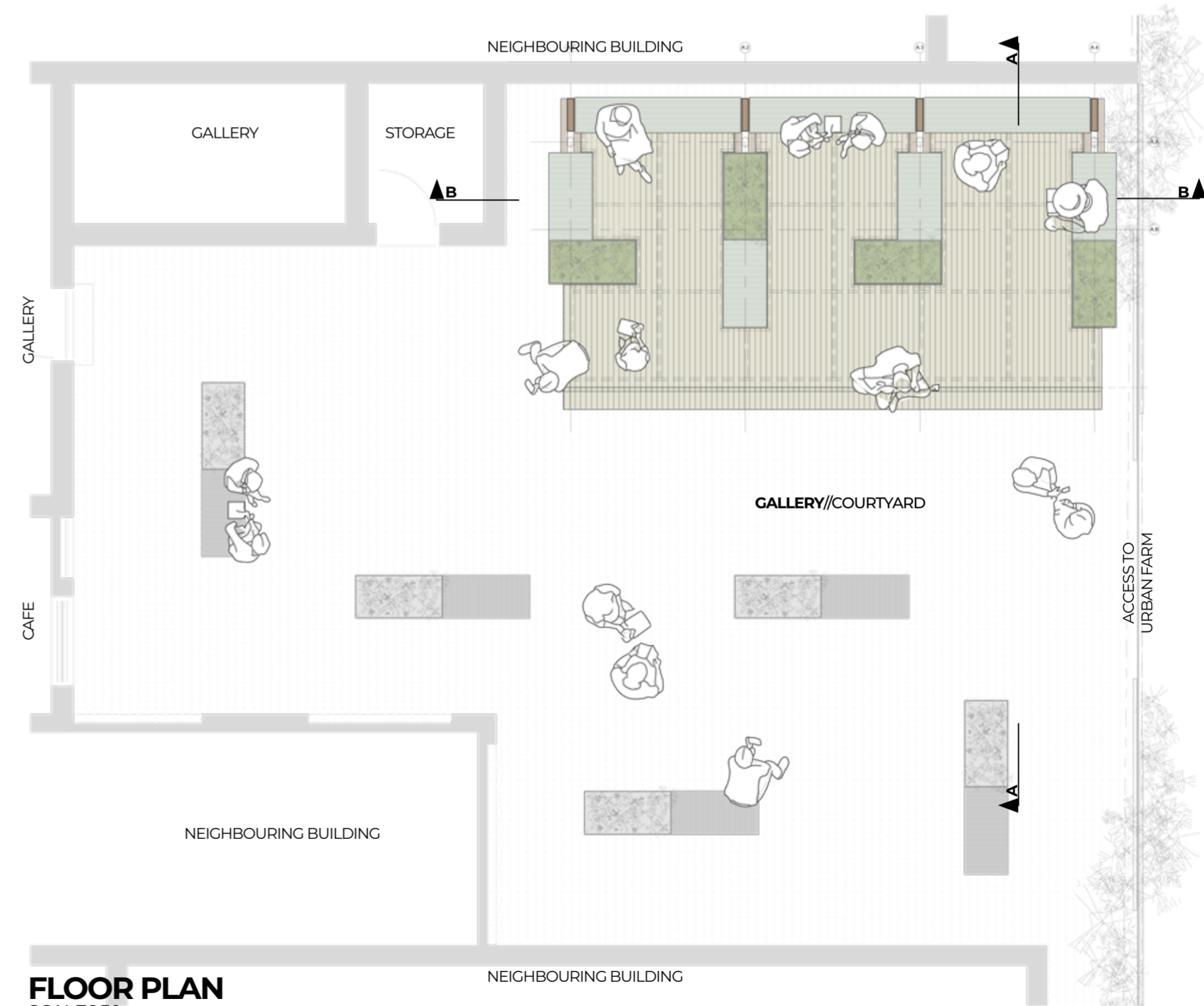
PARTS/ASSEMBLY



SECTION A-A
SCALE 1:50



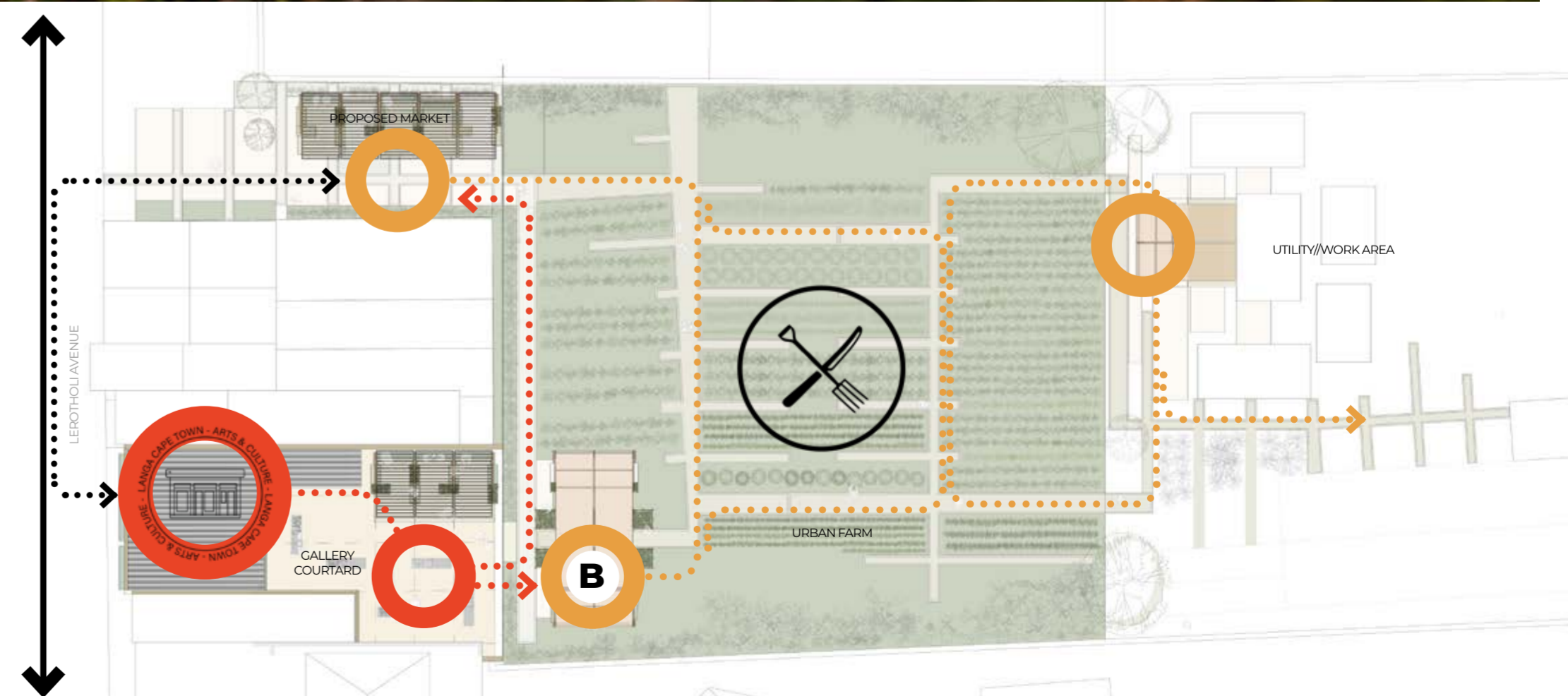
SECTION B-B
SCALE 1:50

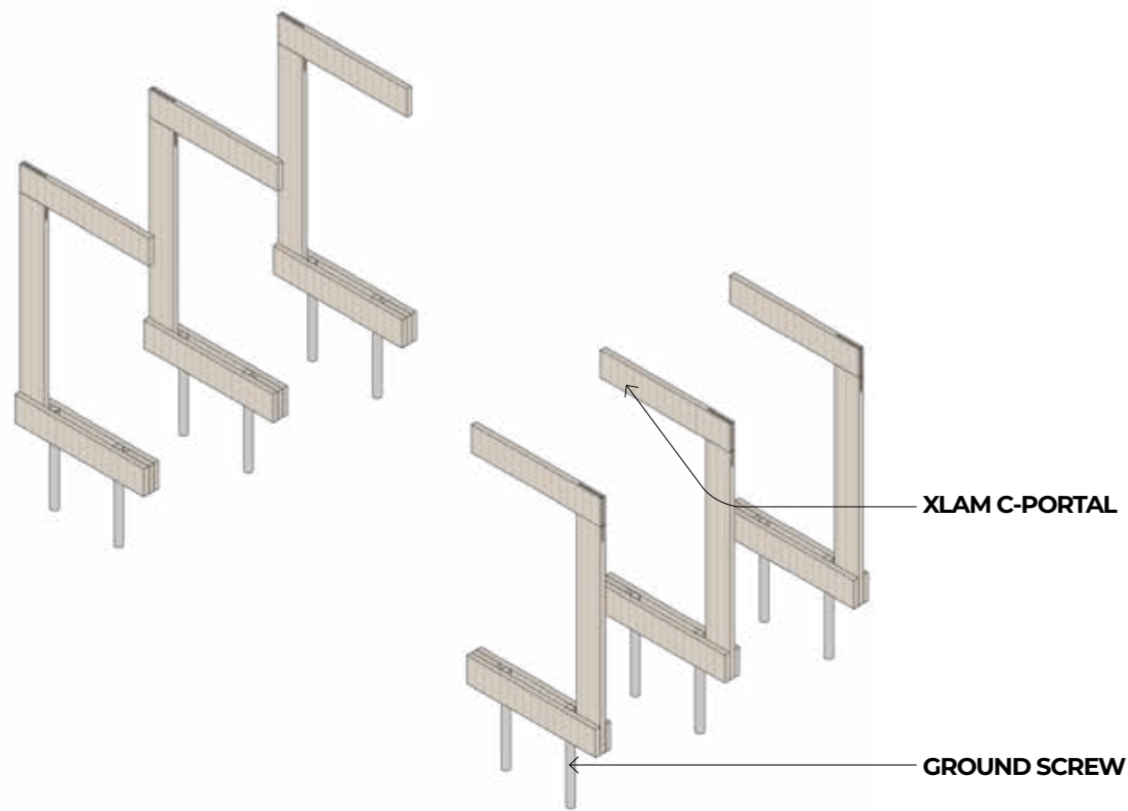
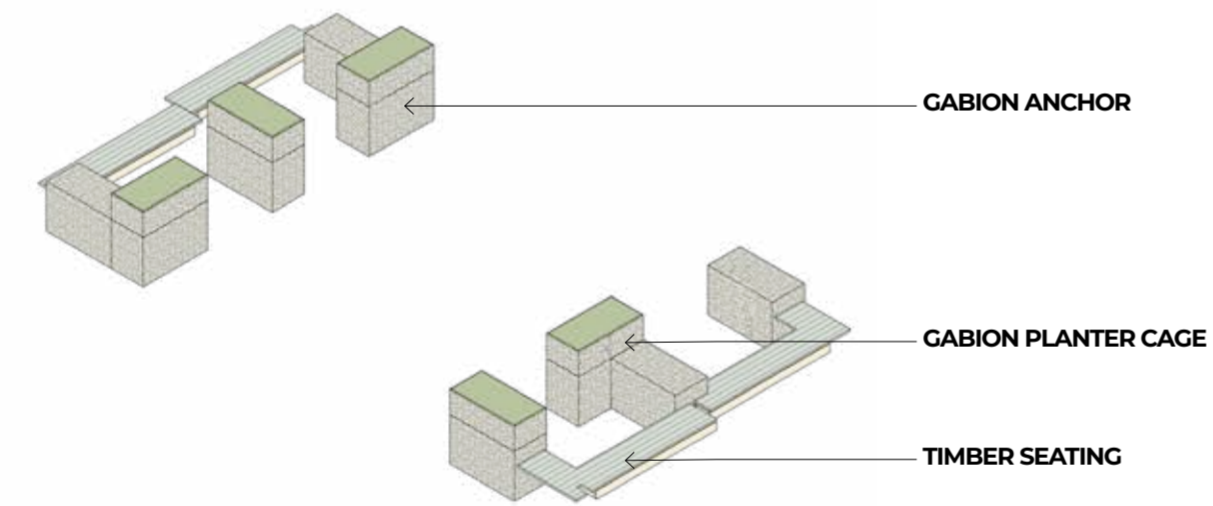
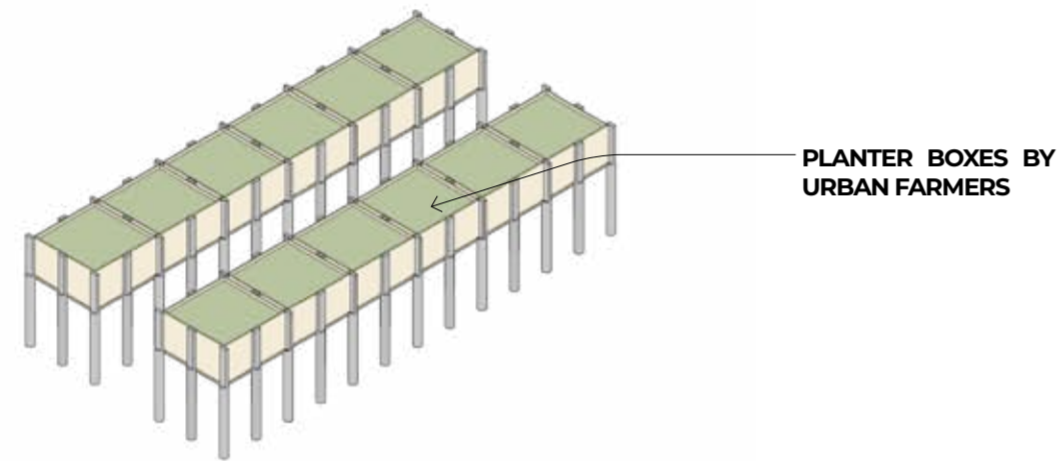
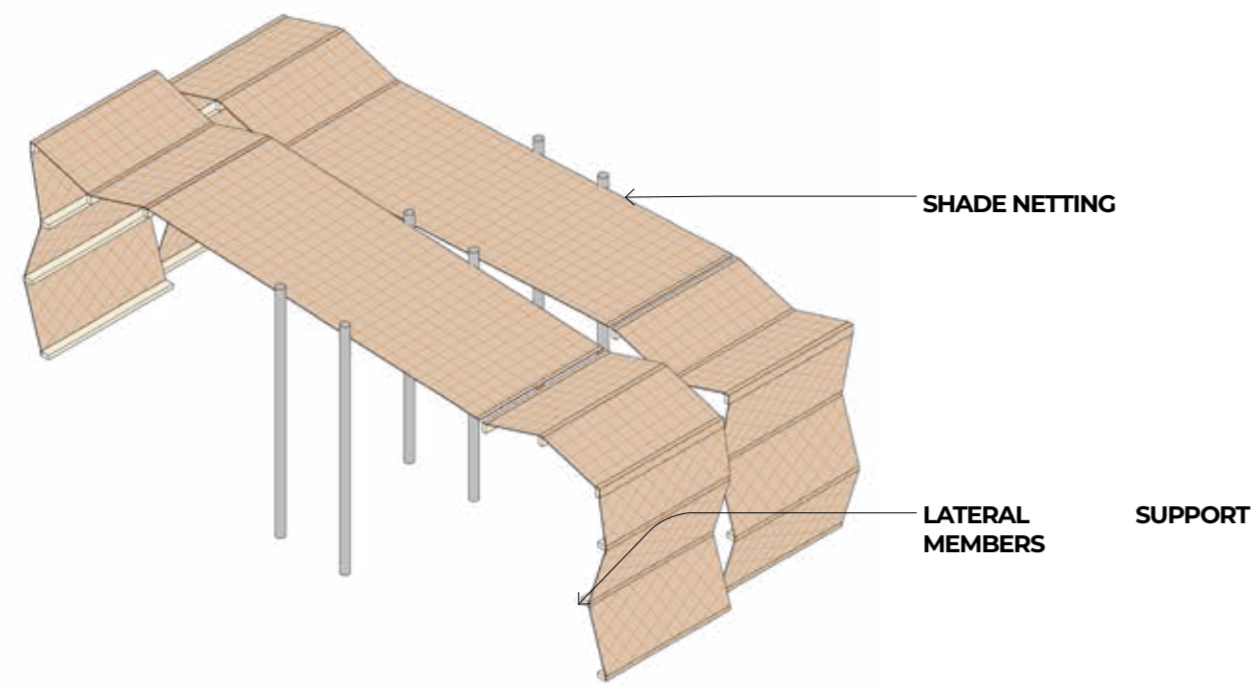


FLOOR PLAN
SCALE 1:50

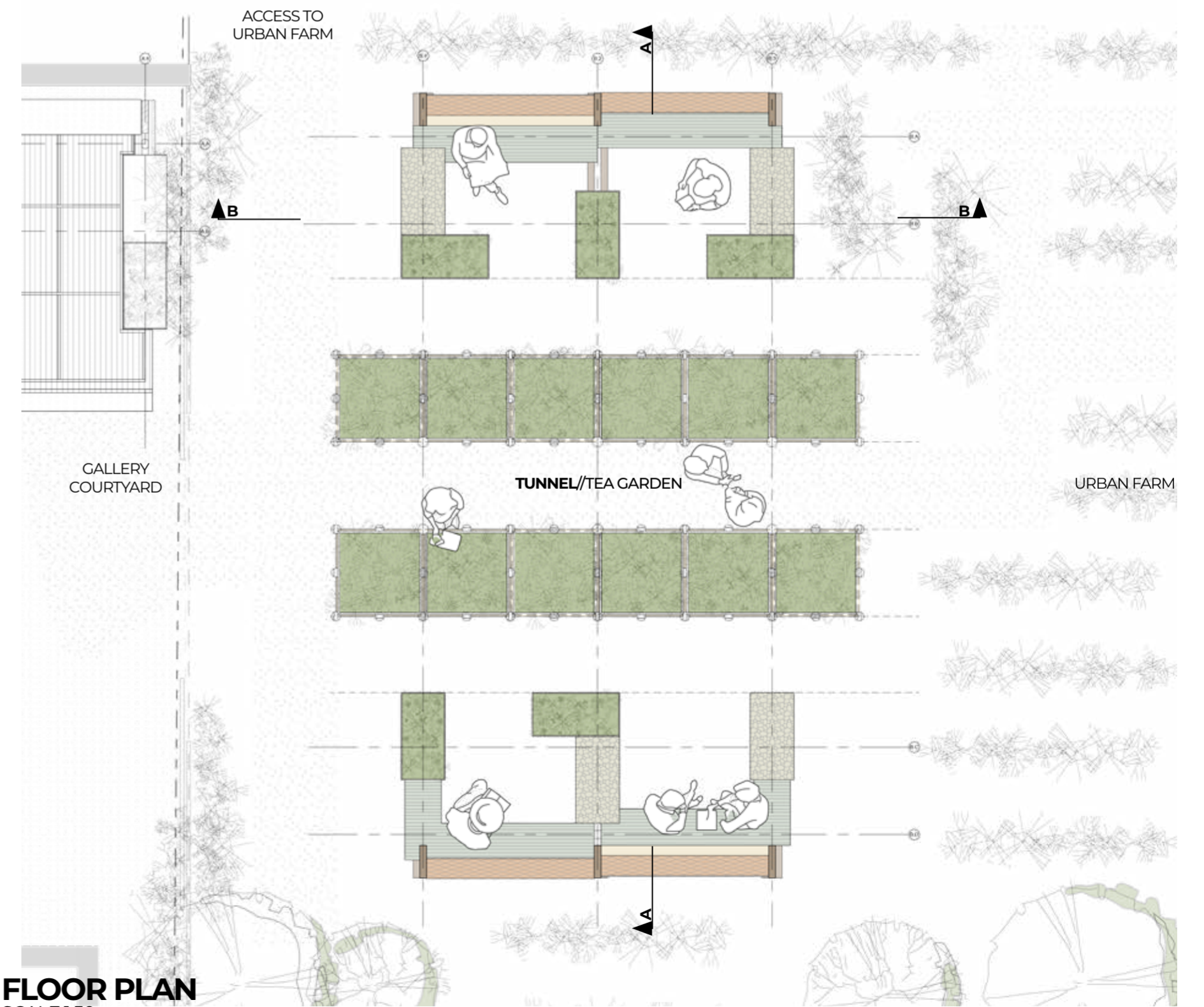
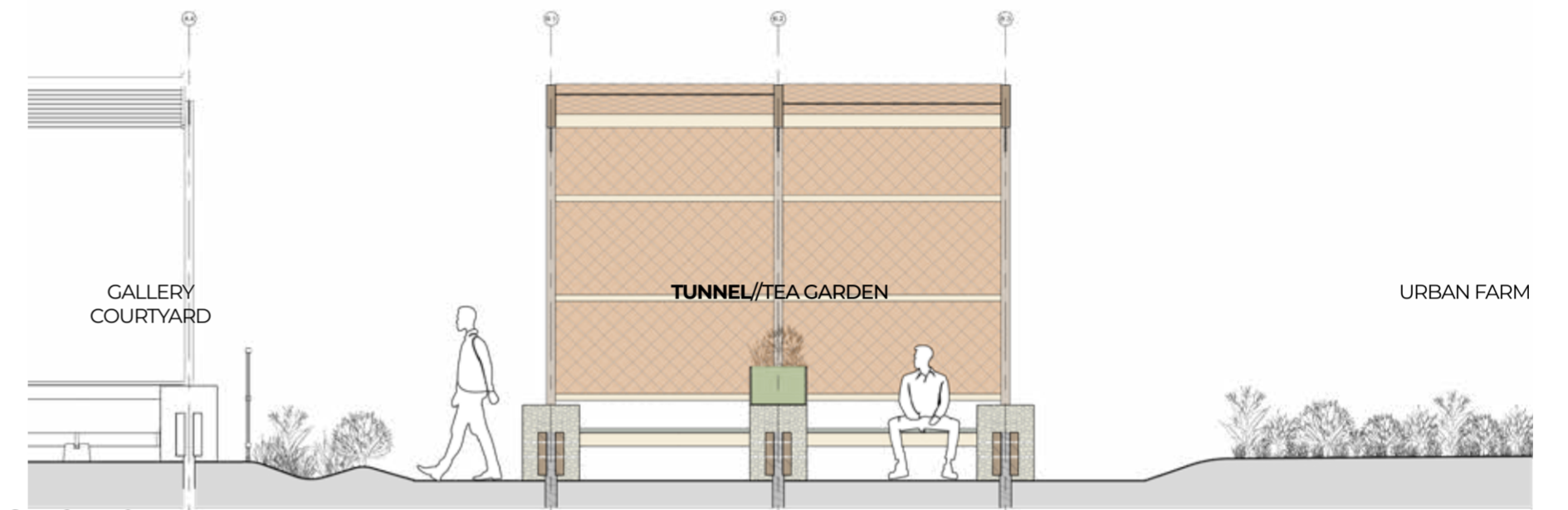
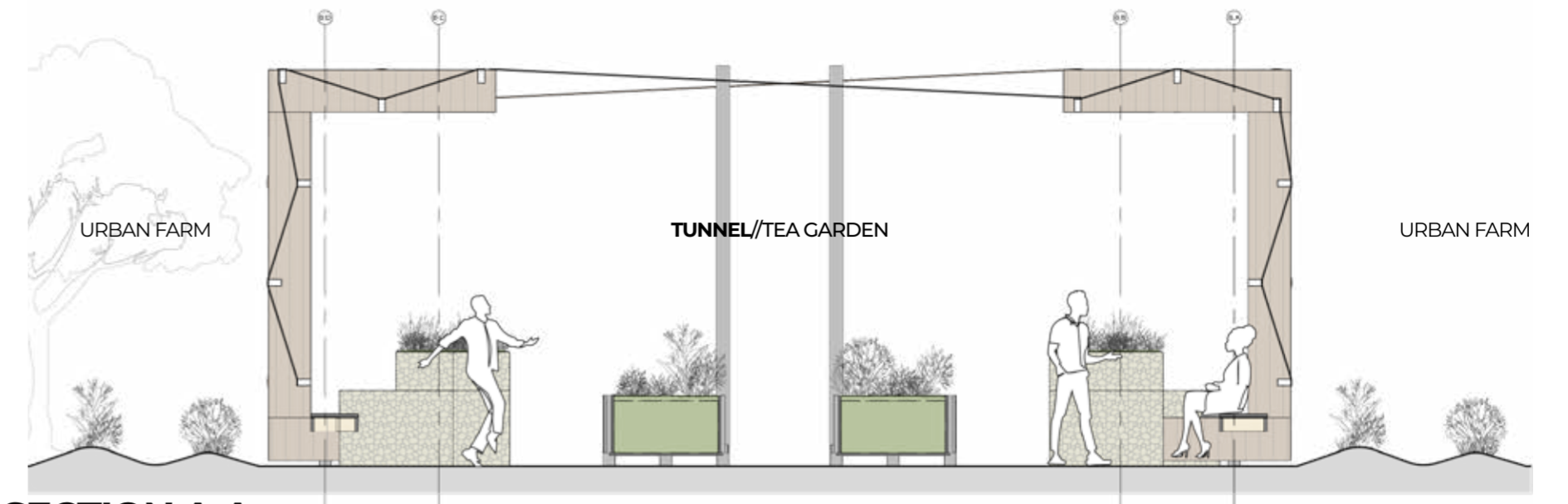


TUNNEL/TEA GARDEN
PARCEL B.



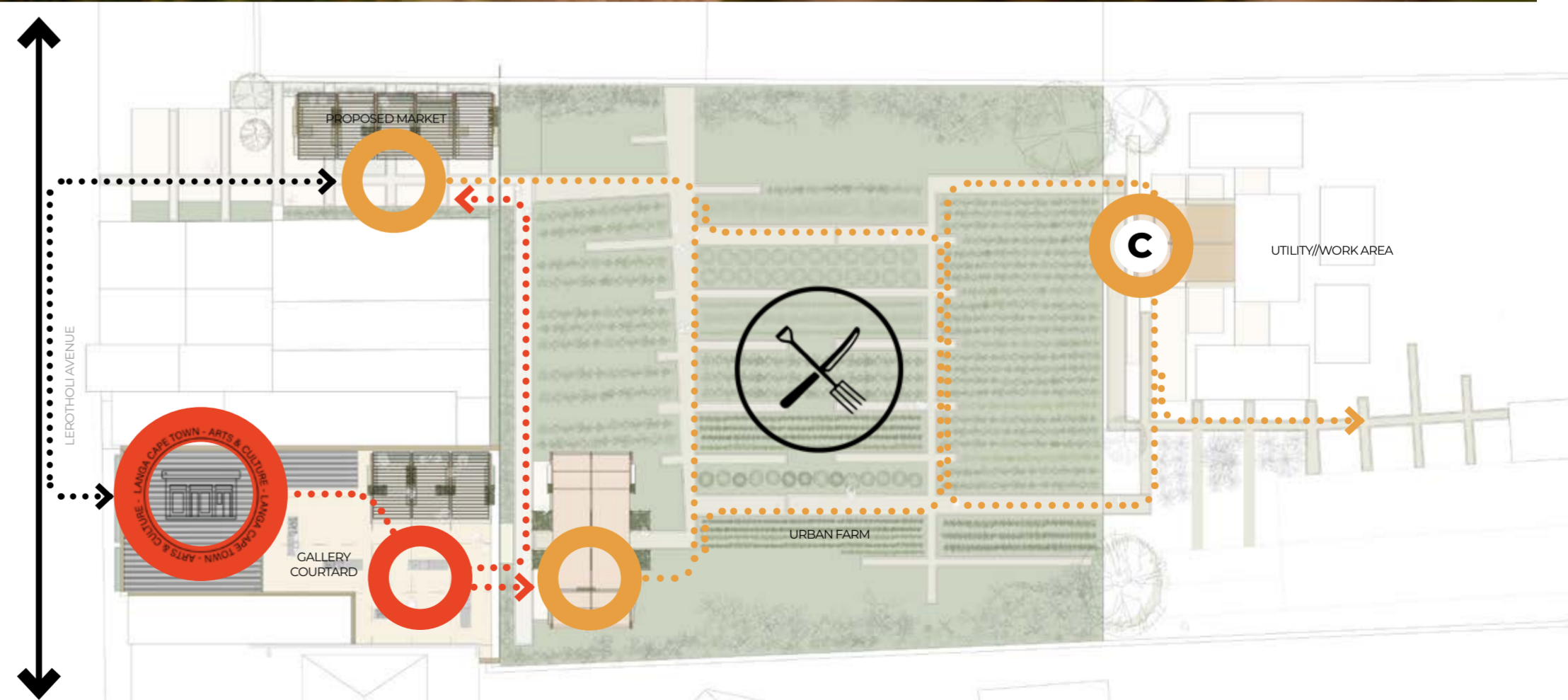


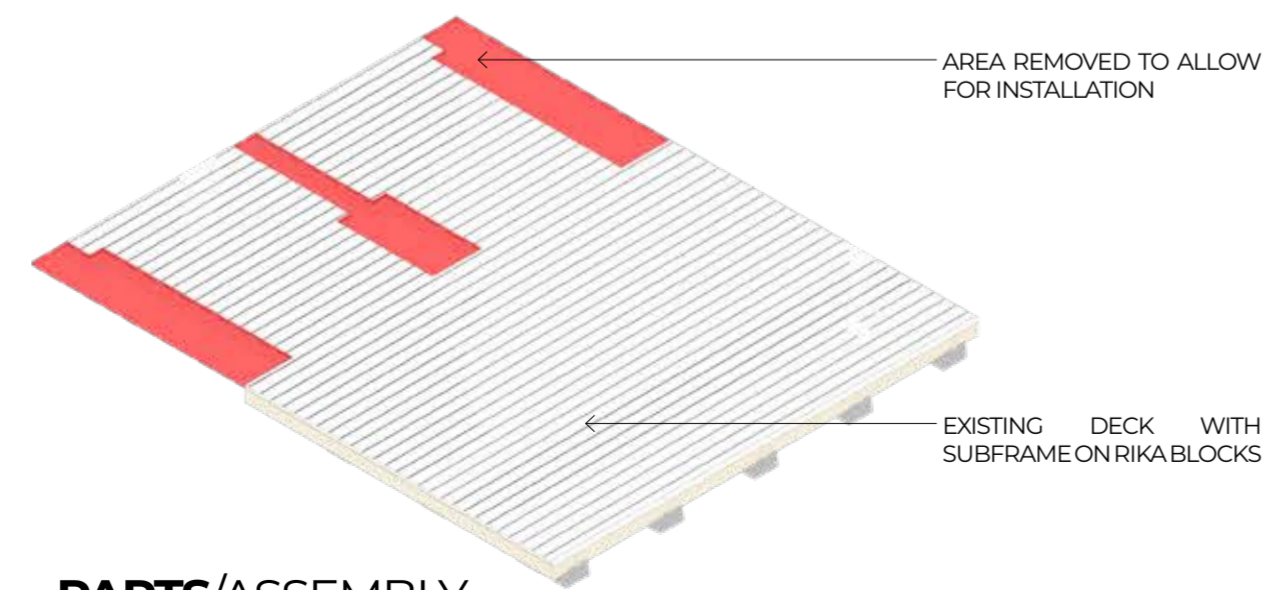
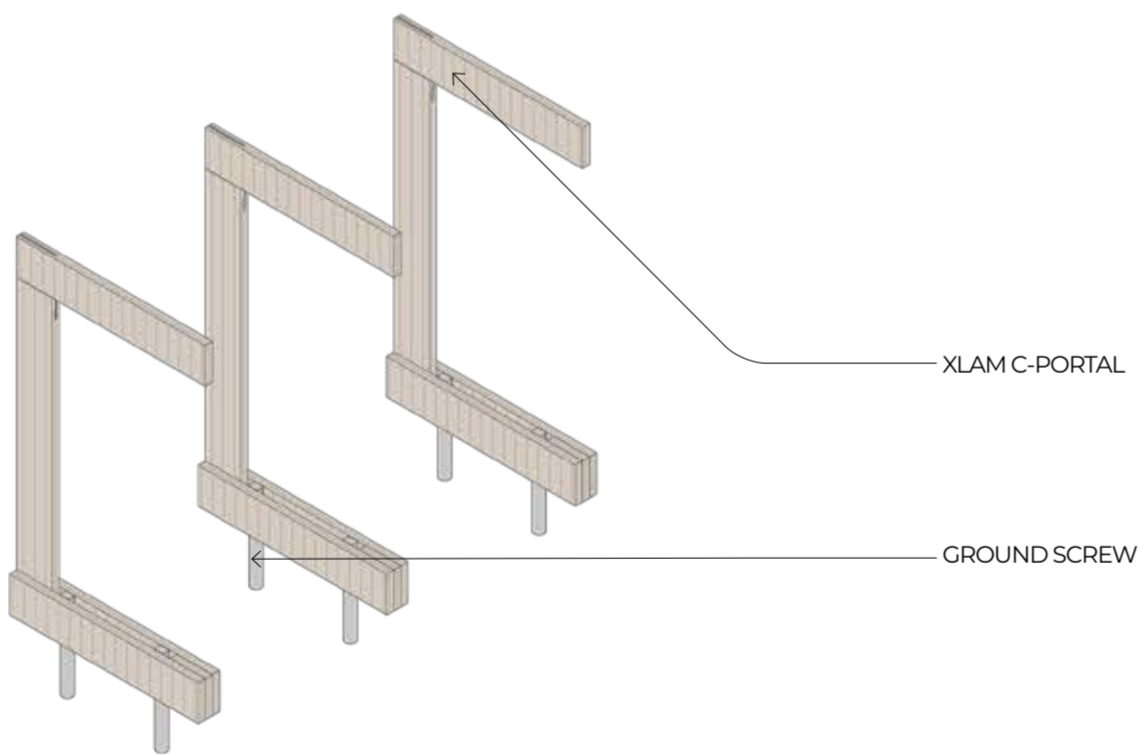
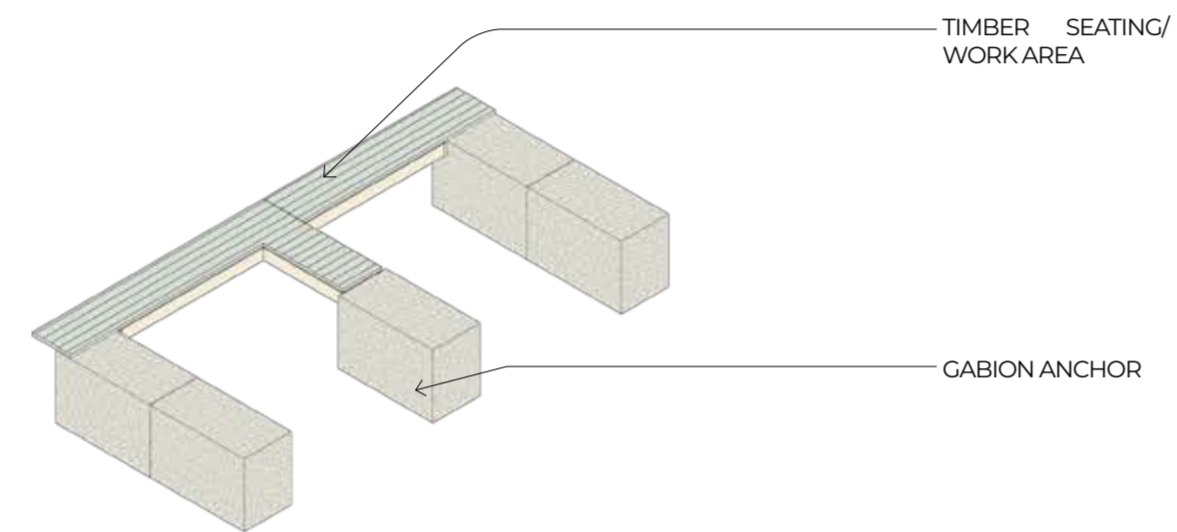
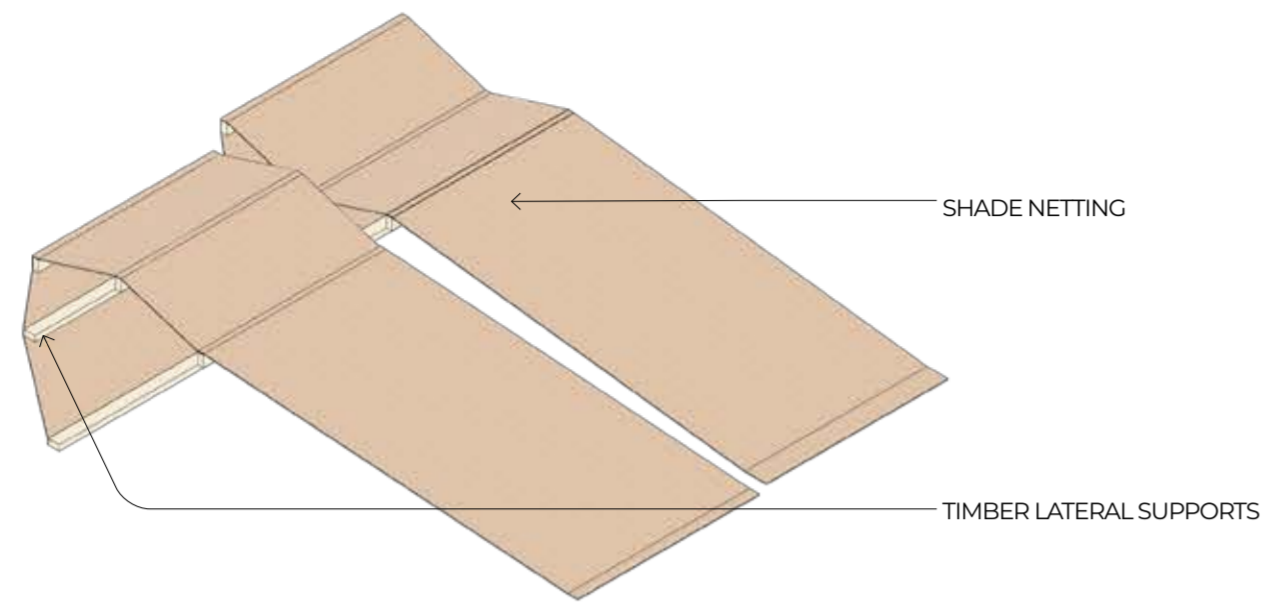
PARTS/ASSEMBLY



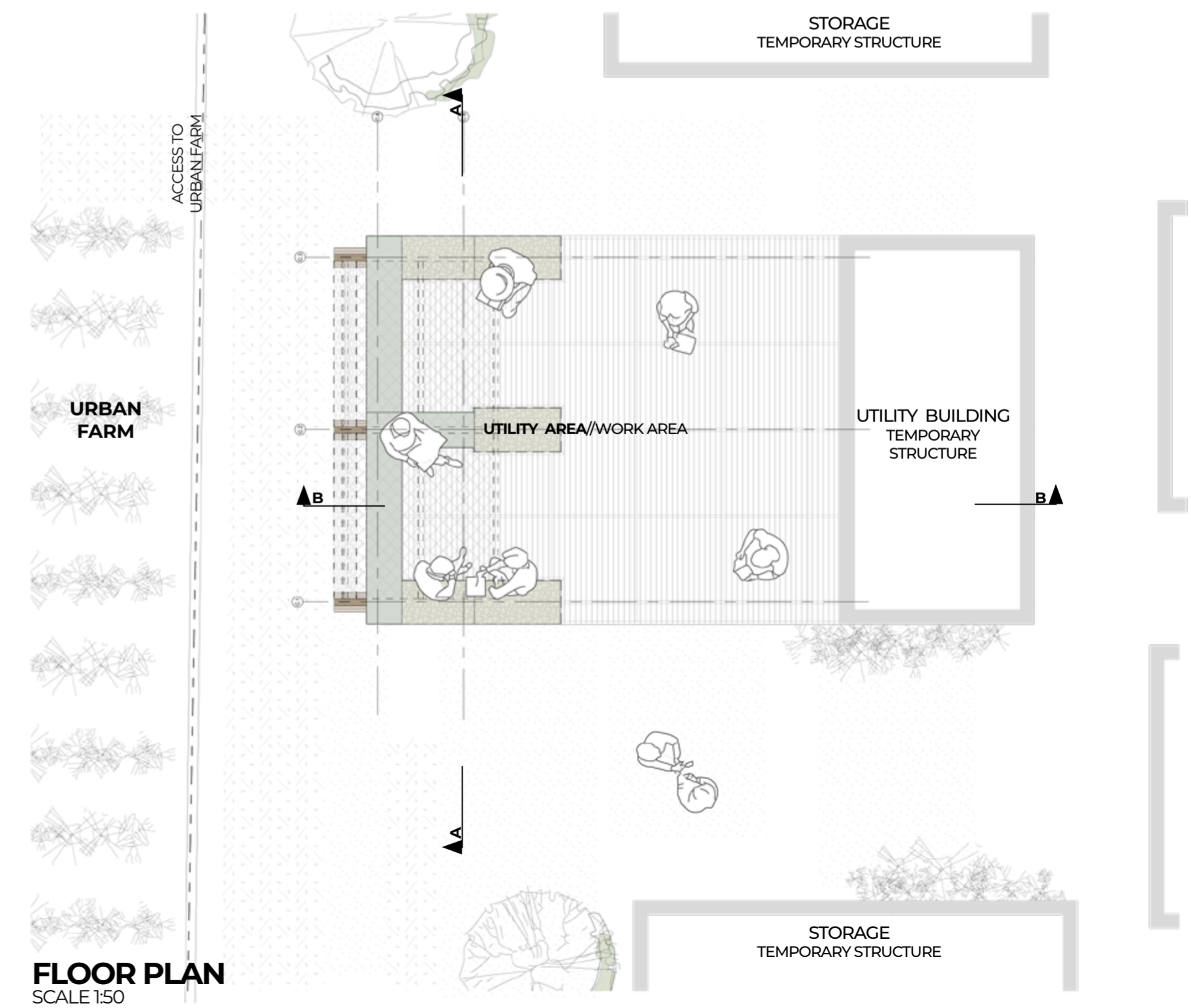
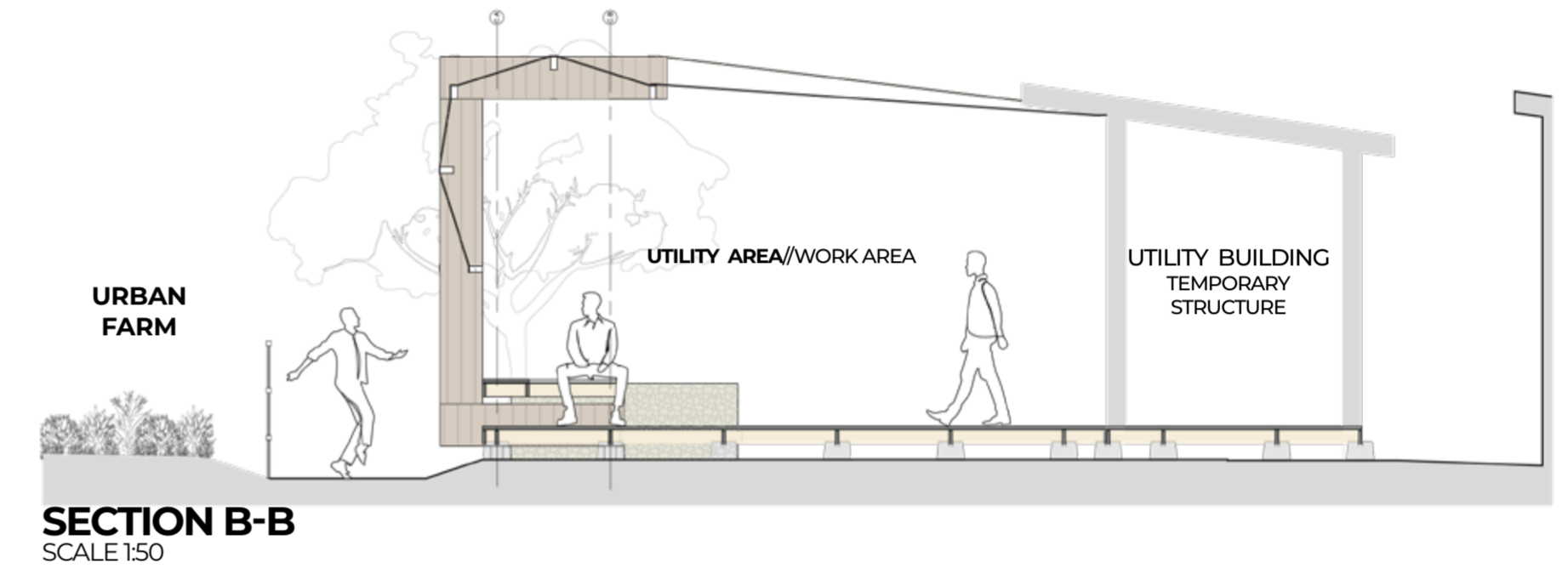
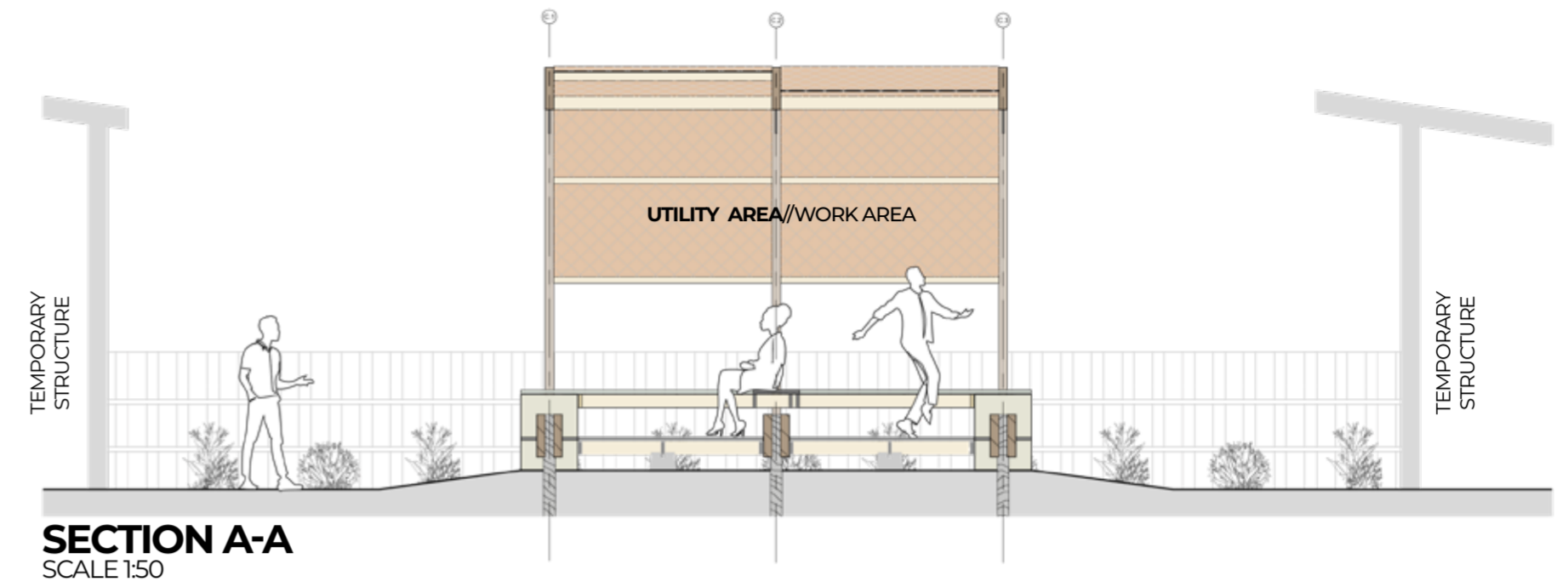


UTILITY/WORK AREA
PARCEL C.



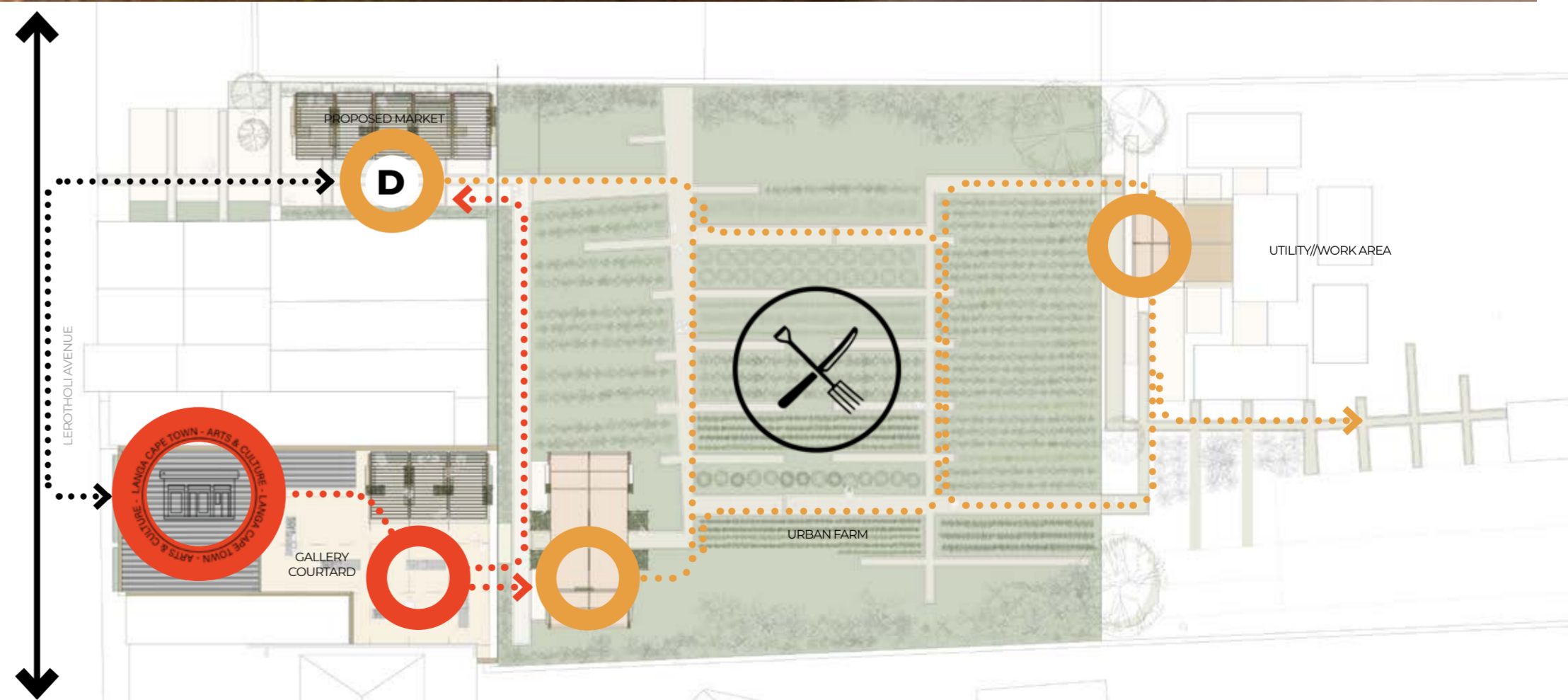


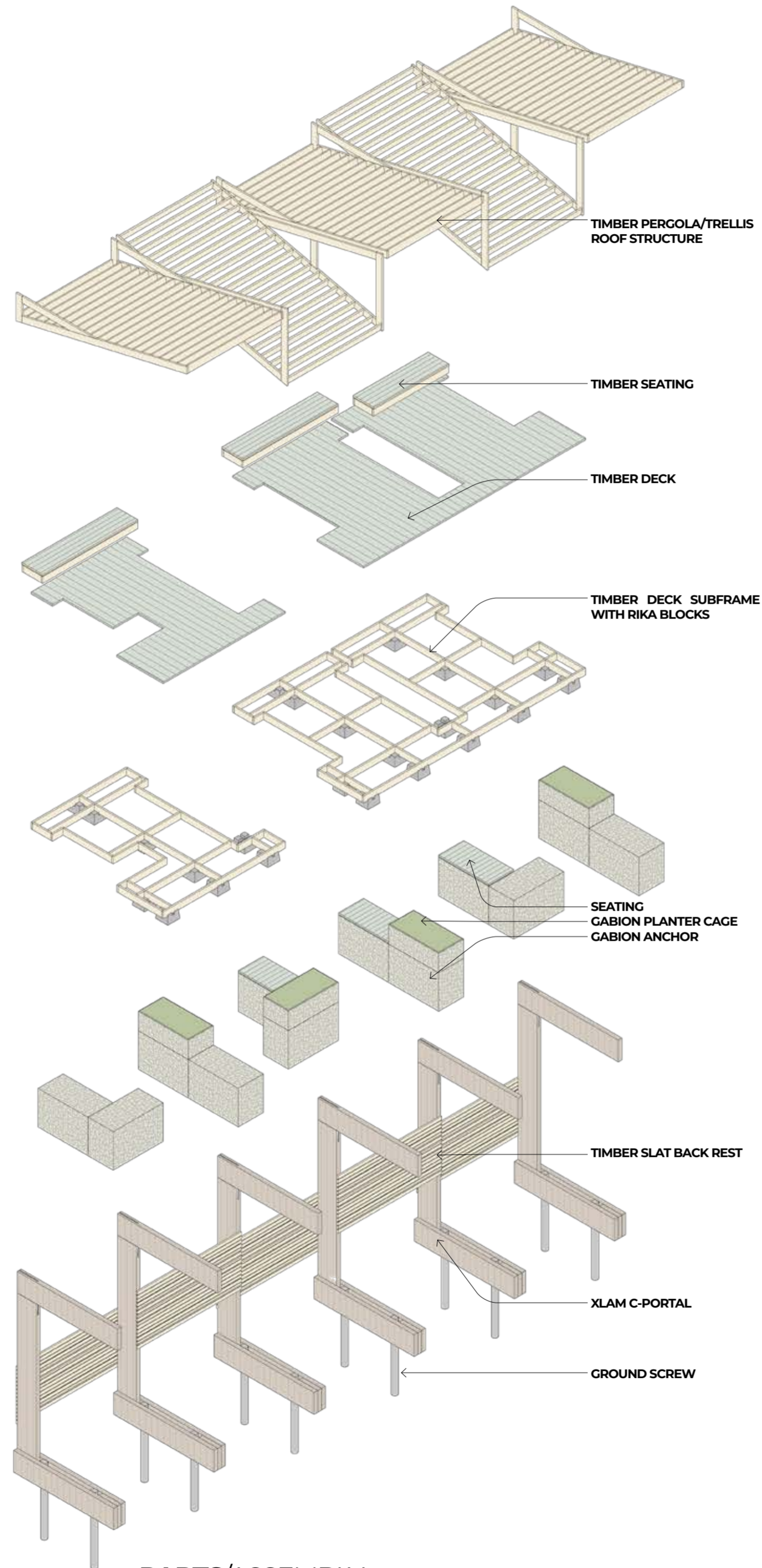
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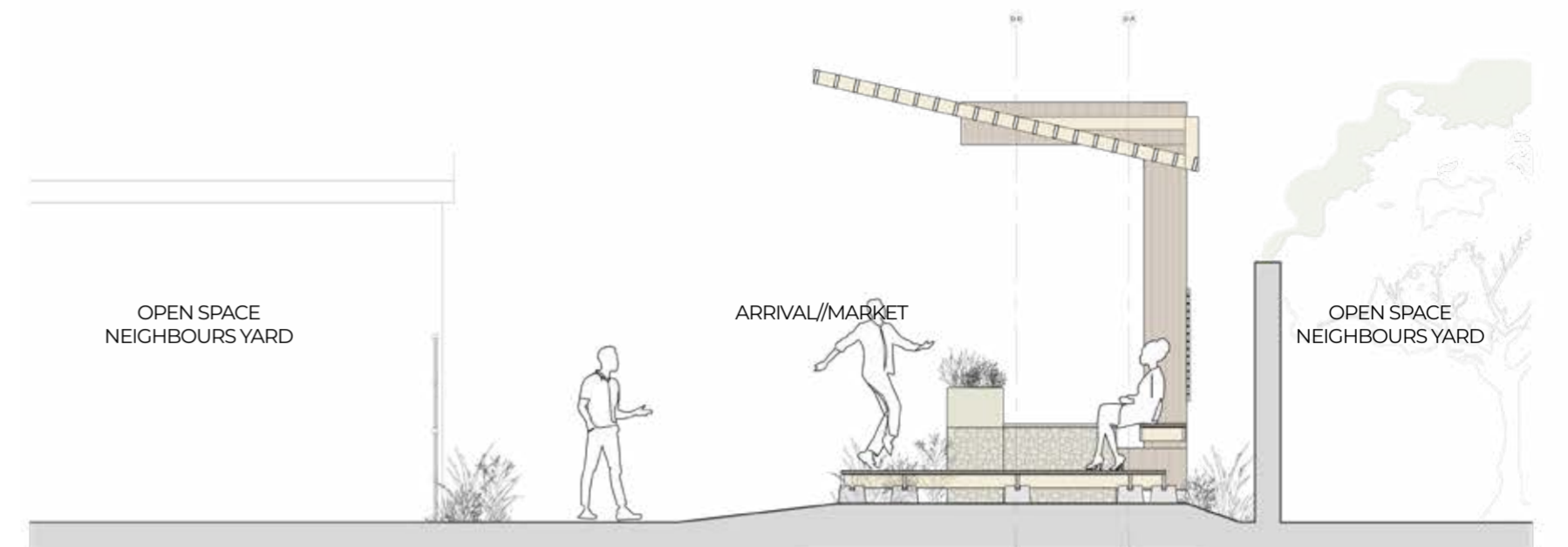


ARRIVAL/MARKET
PARCEL D.

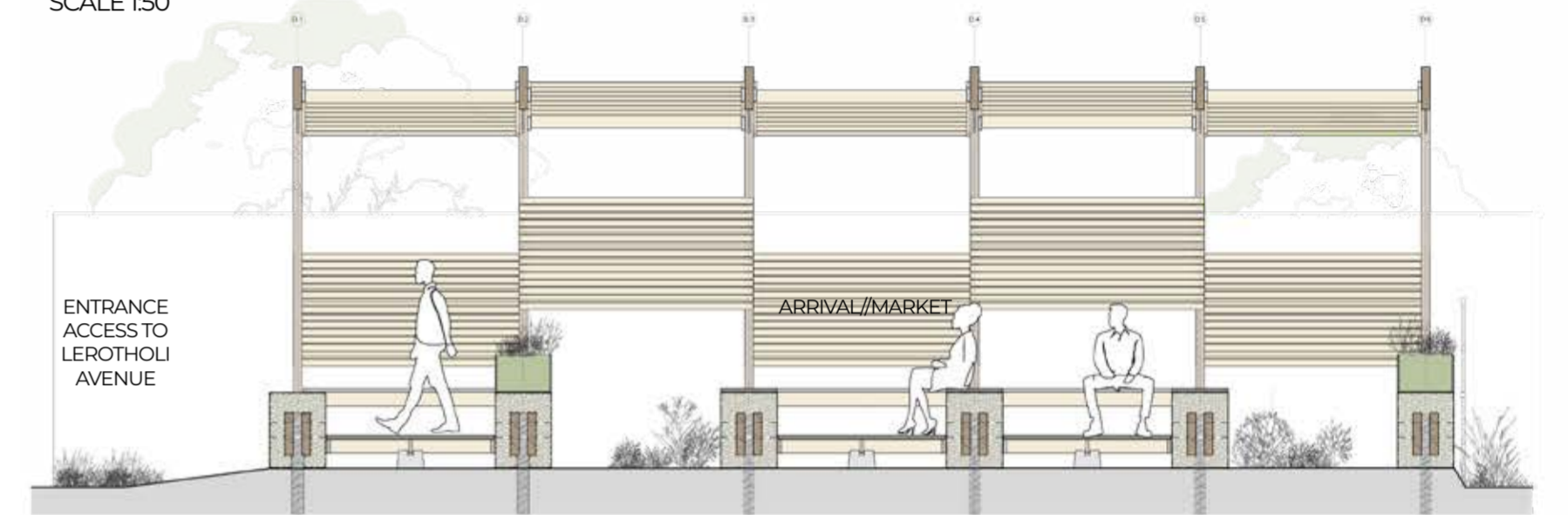




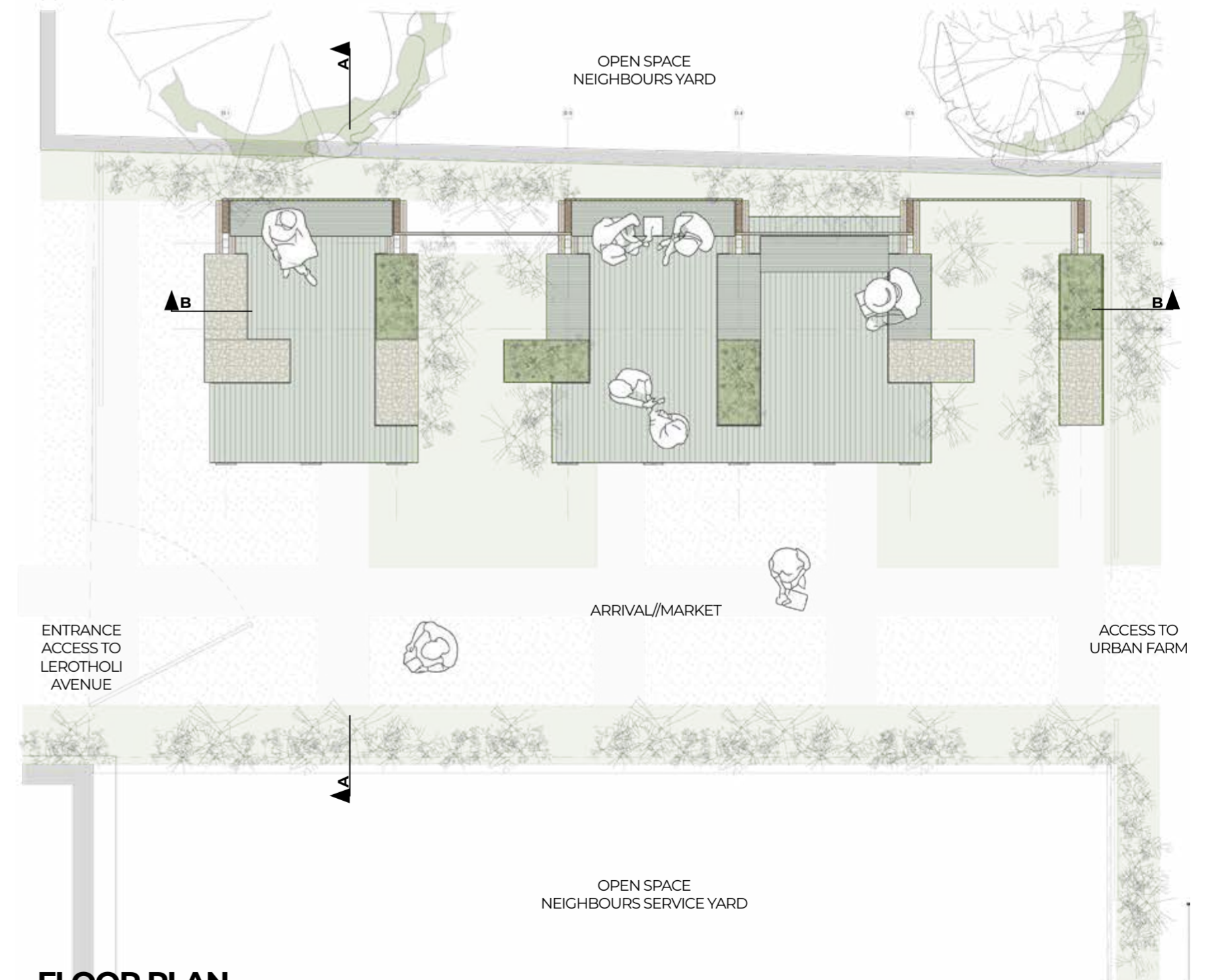
PARTS/ASSEMBLY



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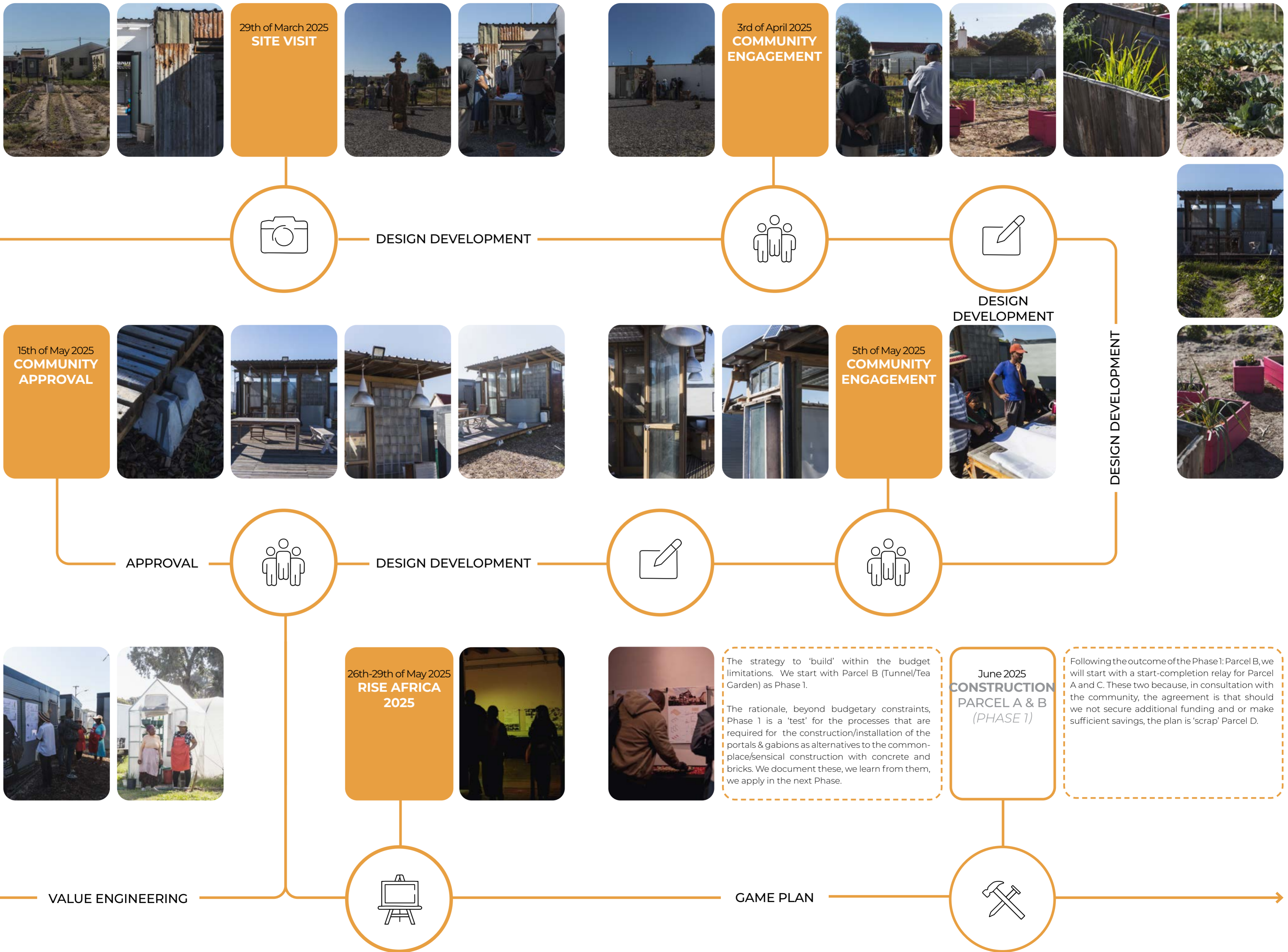


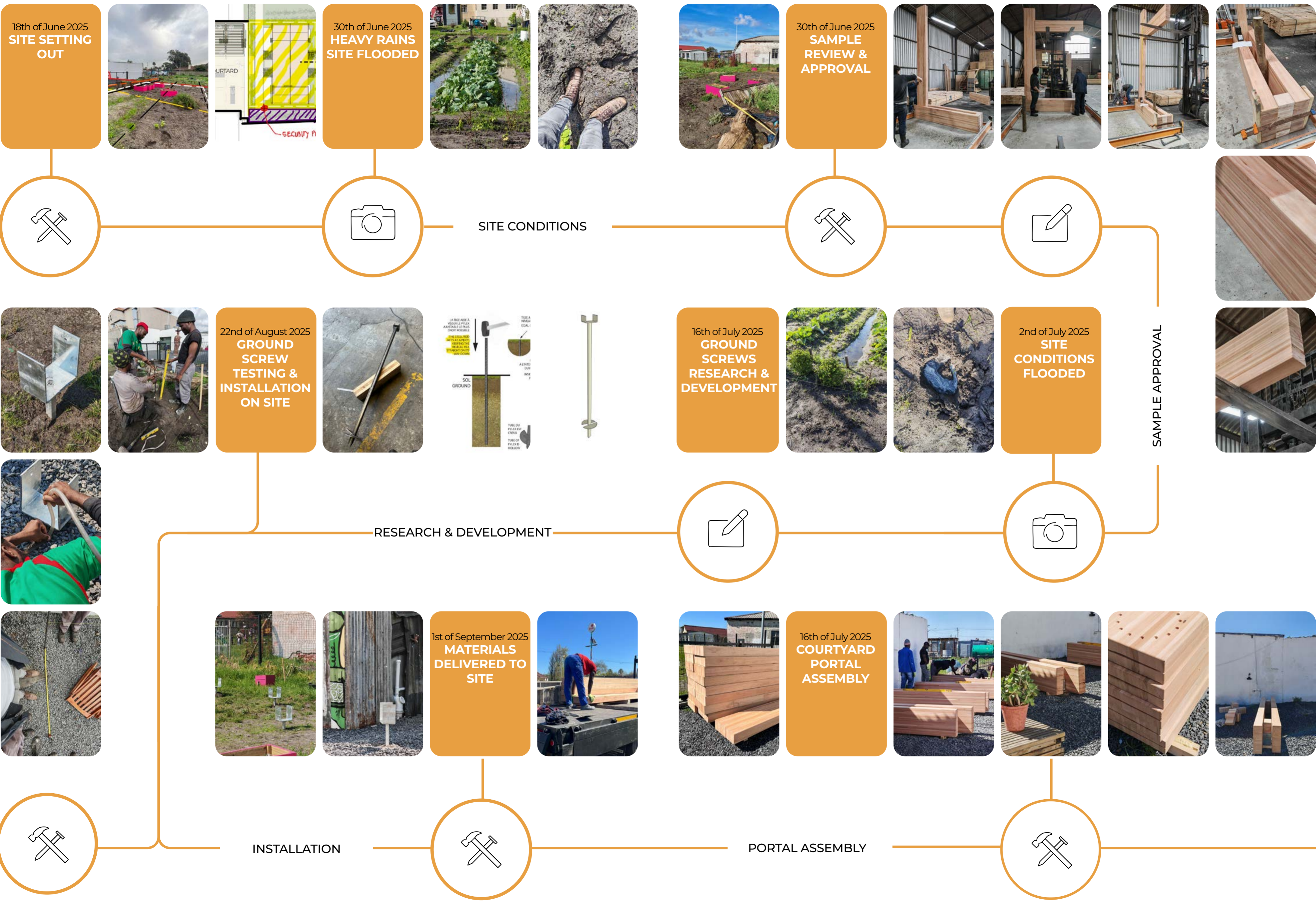
SECTION B-B
SCALE 1:50



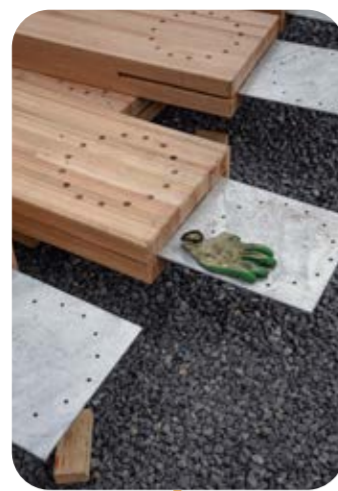
FLOOR PLAN
SCALE 1:50

**PROGRESS
TIMELINE**

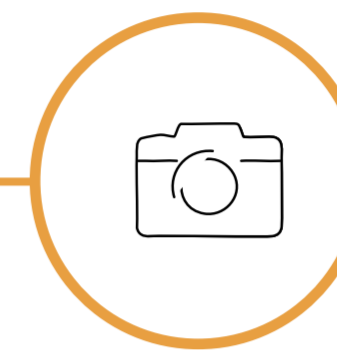
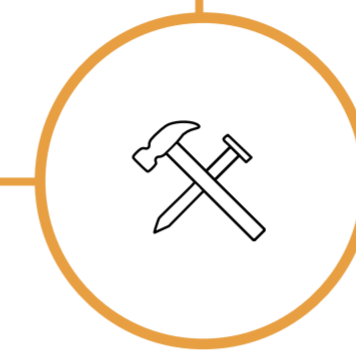
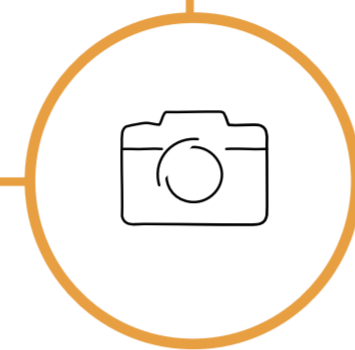
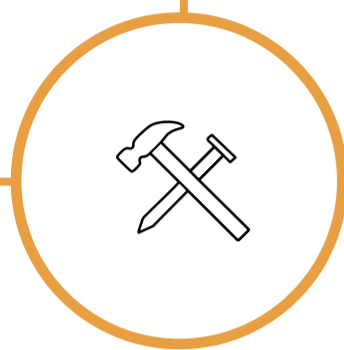




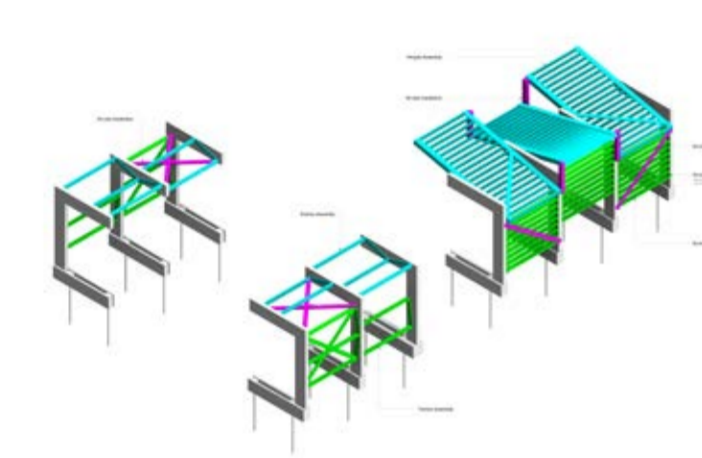
5th of September 2025
**COURTYARD
PORTALS
ASSEMBLY
COMPLETE**



11th of September 2025
**SITE PROGRESS
& TEA GARDEN
ASSEMBLY
PROGRESS**



18th of September 2025
**SITE PROGRESS
PARCEL A &
B PORTAL
ASSEMBLY
COMPLETE**



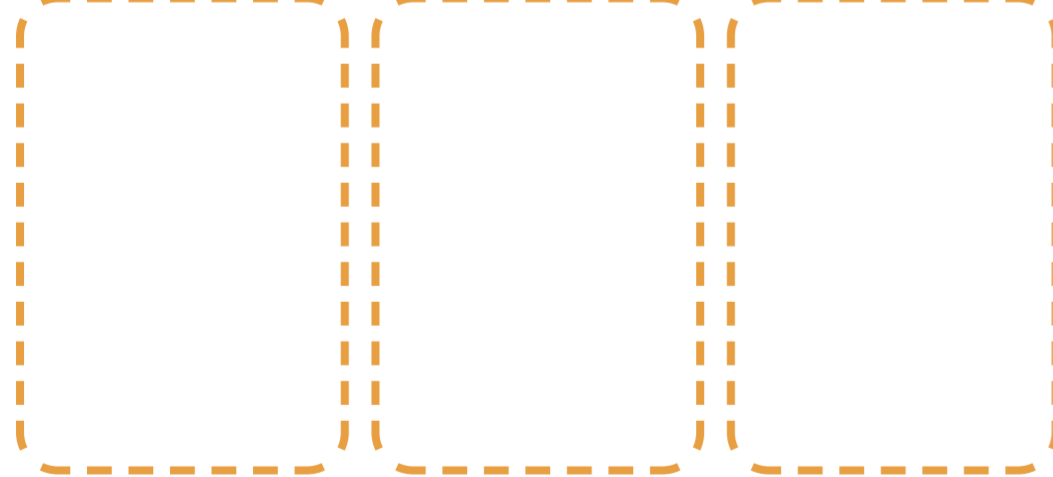
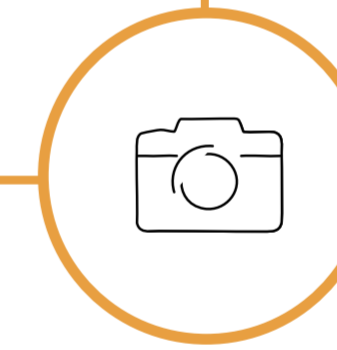
18th of September 2025
**BRACING
LAYOUTS
ISSUED BY
STRUCTURAL
ENGINEER**



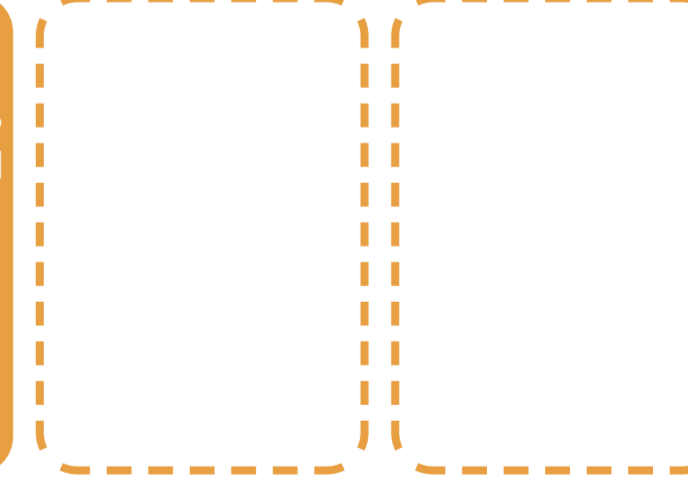
October 2025
**ROOF
STRUCTURE
GABIONS &
DECKING TO BE
INSTALLED**



COURTYARD & TEA GARDEN



26th October 2025
**OPEN STREETS
LANGA @16 ON
LEROTHOLI**



EXPECTED COMPLETION



thank you.

