

DPD 803: DESIGN REPORT

MELUSI
25°43'25"S 28°08'53"E
INFORMAL SETTLEMENT



NUDGE FOR GOOD

BRIDGING CHOICE ARCHITECTURE AND CO-CREATION FOR INCLUSIVE DESIGN

Public Interest Design in South Africa
Supervisors: Janri Barker and Carin Combrinck

Monique Teixeira | u23585898
BscMIntProf2024

Department of Architecture
University of Pretoria
South Africa

FIGURE 24 **Satellite image of Melusi.**
Source: © Mapbox, © OpenStreetMap, [edited]



DEDICATIONS

NUDGE FOR GOOD

This thesis is dedicated to the incredible individuals who have contributed to its completion, both directly and indirectly, with their support, inspiration, and guidance.

To my parents, who have been my unwavering pillars of support, thank you for your unconditional love, encouragement, and belief in me. Your sacrifices have made this journey possible, and your resilience has taught me the value of perseverance and hope.

To Shaqeel, my partner, thank you for your steadfast love, support, and encouragement. Your belief in me has been a guiding light throughout this journey.

To my brother, thank you for teaching me about choice architecture. Your encouragement has been a source of strength throughout this journey.

To my overseas family, thank you for your love and encouragement from afar. Your belief in me has been deeply felt and greatly appreciated.

To my supervisors, Prof. Carin Combrinck and Janri Barker, thank you for your guidance, patience, and insightful advice, which have been instrumental in shaping this work. I am deeply grateful for your belief in my vision.

To my friends—Darren, Loune, Lara, Julia, Jess, and Grant—and all the incredible interior architects and colleagues, thank you for your unwavering support and camaraderie, which have been a constant source of strength and joy.

To my Cape Town support system and cheerleaders, Maya and Ali, thank you for your unwavering encouragement, insightful guidance, and steadfast belief in me. Your support has been a true cornerstone of this journey.

To Jeannie, my dear friend, thank you for your kindness, and unwavering support throughout this journey. Your friendship has been a true blessing, brightening even the toughest days

To the community of Melusi, whose stories and creativity are at the heart of this research, thank you for welcoming me and sharing your invaluable perspectives. This work is dedicated to your strength and spirit.

Finally, to those who dared to dream alongside me, to those who inspired me to keep pushing boundaries, and to all who seek to make a difference in the world—this is for you.

ABSTRACT

THE IDLE YOUTH - RECIPE FOR MISCHIEF

The **Nudge for Good** project is a transformative initiative spearheaded by the Melusi Youth Development Organisation (MYDO) to address pressing socio-economic challenges in Melusi, Pretoria West, South Africa. Located on the vacant Vincent Sports Ground in Melusi 3, this community-driven Regenerative Design Hub provides a positive alternative to the prevalent tavern culture and engages local youth—those most impacted by high unemployment and substance use—in meaningful, skill-building activities.

This creative incubator offers makerspaces, workshops, sports, community events, and market days to promote social cohesion, economic empowerment, and personal growth. These activities support Melusi's youth by fostering a sense of belonging, well-being, and self-reliance, while also strengthening the broader community. Anchored by a collaborative approach, MYDO is supported by key stakeholders, including the Community-Oriented Substance Use Program (COSUP), the City of Tshwane, the University of Pretoria, and private investors, ensuring the project's sustainability and alignment with community needs.

Motivated by the need to provide constructive, engaging alternatives to substance use, the design integrates **Public Interest Design (PID)**, **Human Scale Development (HSD)**, and **Choice Architecture**. These frameworks guide a holistic, sustainable intervention that prioritises reclaimed materials and community participation, ensuring each aspect of the hub is co-created and tailored to residents' evolving needs. Through incremental, adaptive design, the hub fosters a sense of ownership, pride, and socio-economic resilience.

The *Nudge for Good* project addresses Melusi's immediate challenges while setting a foundation for long-term community empowerment. It exemplifies how strategic, inclusive design can catalyse positive change in informal settlements, creating safe, enriching spaces that uplift youth and support a more resilient, self-sustaining future.

Keywords: *Choice Architecture, Co-creation, Public Interest Design, Human Scale Development, Social Sustainability, Substance Use Intervention, Community Engagement, Participatory Design, Informal Settlements, Creativity, Participation*



GLOSSARY

Adaptive Design: Adaptive design emphasizes flexibility, allowing environments to evolve with changing community needs (Till, 2009).

Art Therapy: Art therapy leverages creative expression to support mental health, facilitating emotional exploration and healing (Malchiodi, 2003).

Choice Architecture: Choice architecture, a concept from behavioral economics, involves structuring environments to subtly guide individuals' decisions without restricting freedom (Thaler & Sunstein, 2008).

Co-Creation: Co-creation is a collaborative process where designers work with community members to develop interventions that reflect local needs (Sanders & Stappers, 2008).

Environmental Responsibility: This concept underscores sustainable practices that reduce environmental harm, conserving resources for future generations (United Nations, 2022).

Human Scale Development (HSD): Human Scale Development emphasizes fulfilling fundamental human needs over economic growth, fostering well-being through creativity, participation, and other essential experiences (Max-Neef, 1991).

Inclusive Design: Inclusive design creates environments accessible to all, regardless of age, ability, or background (Heylighen & Nijs, 2014).

Incremental Design: This approach supports gradual development, with flexible structures that evolve over time to meet changing needs (Hamdi, 2010).

Makerspace: Makerspaces provide collaborative workspaces with tools for hands-on activities, promoting skill development and innovation (Dougherty, 2013).

Nudge Theory: Nudge Theory uses subtle cues to influence behavior without restricting choices, aiming to reinforce positive behaviors (Münscher, Vetter, & Scheuerle, 2016).

Occupational Therapy: Occupational therapy assists individuals in engaging in meaningful daily activities, especially in recovery from health challenges (American Occupational Therapy Association, 2014).

Participatory Design: This approach ensures that users and stakeholders actively participate in the design process, fostering inclusivity (Robertson & Simonsen, 2013).

Placemaking: Placemaking involves designing public spaces that foster community well-being and social interaction (Hamdi, 2010).

Public Interest Design (PID): Public Interest Design prioritizes community engagement and social responsibility in creating inclusive and sustainable built environments (Anderson, 2014; Awan, Schneider, & Till, 2011).

Regenerative Design: Regenerative design goes beyond sustainability, aiming to restore and renew environmental resources, creating self-sustaining systems (Lyle, 1994).

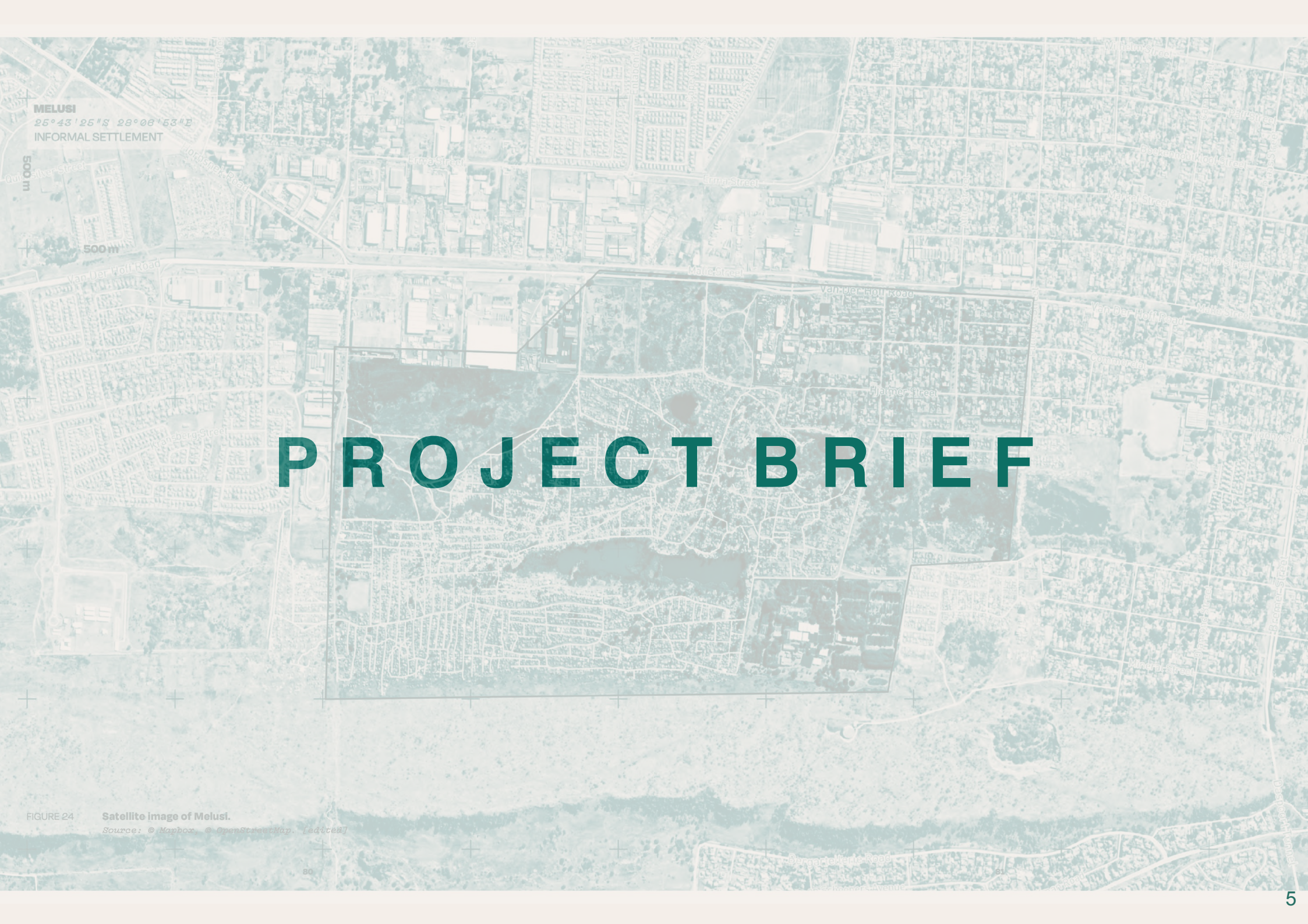
Resilience: Resilience refers to the capacity of systems and communities to recover and thrive amid adversity (Folke, 2006).

Socio-Economic Resilience: Socio-economic resilience enables communities to withstand and adapt to economic and social challenges (Ballard & Hamann, 2021).

Socio-Spatial Challenges: These challenges emerge from the interactions between social dynamics and physical spaces, often seen in urban informal settlements (Zorn, 2021).

Substance Use Intervention: Substance use interventions address the harmful impacts of substance use, providing support and promoting healthier choices (Combrinck, 2024).

Sustainable Development: Sustainable development balances current needs with the preservation of future resources (Brundtland, 1987).



MELUSI
25°43'25"S 28°08'53"E
INFORMAL SETTLEMENT

PROJECT BRIEF

FIGURE 24 **Satellite image of Melusi.**
Source: © Mapbox, © OpenStreetMap. [edited]

WHY?

INTRODUCTION & THE ISSUE AT HAND

Nudge for Good embarks on a transformative journey through Melusi, an informal settlement in Pretoria West, South Africa, where choices shape futures and creativity becomes a source of healing. Though marked by resilience, Melusi faces a pressing challenge: substance use among its youth, exacerbated by high unemployment and limited access to essential services (Combrinck, 2024). Taverns and informal liquor outlets outnumber community centres, normalising destructive behaviours and increasing social isolation and crime. This absence of safe communal spaces and positive activities has created a void that *Nudge for Good* seeks to address. The challenge lies in creating a space that offers meaningful, skill-building alternatives to help youth thrive and contribute to their community.

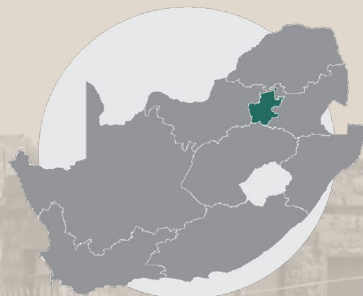
PROJECT RESPONSE

The *Nudge for Good* project, led by the Melusi Youth Development Organisation (MYDO), introduces the MYDO Regenerative Design Hub — a participatory, community-centred initiative grounded in Choice Architecture (Thaler & Sunstein, 2008), Public Interest Design (PID) (Anderson, 2014), and Human Scale Development (HSD) (Max-Neef, 1991). Located at the Vincent Sports Ground, this creative incubator provides education, vocational training, and opportunities for creative expression, offering constructive alternatives to the negative influences within the community. The hub's mission is to create an environment where Melusi's youth can realise their potential, build skills, and develop a sense of belonging, guiding them toward a future of personal growth, regeneration, and meaningful contribution. By integrating these principles, *Nudge for Good* offers a holistic, sustainable response to Melusi's socio-spatial challenges, establishing a foundation for community-driven development.

PROJECT BRIEF

DESIGN QUESTION:

How can a creative, participatory intervention catalyse a new MYDO branch that offers safer alternatives, fostering belonging, well-being, and skill development for Melusi's youth? Using Choice Architecture, the design nudges individuals toward positive behaviours, while preserving personal agency and freedom.



South Africa



Gauteng



Pretoria

WHY?

CONTEXTUAL BACKGROUND

Established in 2008, Melusi is home to over 15,000 residents and reflects the socio-economic struggles of marginalised urban communities in post-apartheid South Africa (Zorn, 2021). Despite being near industrial hubs, Melusi's informal status often leaves its residents disconnected from economic opportunities and deprived of essential services like running water and reliable electricity (Ballard & Hamann, 2021). Influenced by apartheid-era spatial policies, the settlement faces environmental stressors, including extreme heat and flooding, adding to its socio-economic vulnerabilities.

For Melusi's youth, the lack of safe and constructive outlets leaves taverns as default gathering spaces, fostering a culture of substance use (Combrinck, 2024). The proposed MYDO Regenerative Hub aims to counteract this by providing a community-driven intervention. It envisions a constructive, inclusive environment delivering holistic programs that promote individual empowerment and collective regeneration.

PROJECT BRIEF



WHAT?

PROGRAMME

The MYDO Regenerative Design Hub in Melusi addresses three core community needs: skill development, creative expression, and community engagement. This comprehensive program empowers residents, especially youth affected by substance use, with tools for socio-economic improvement, mental well-being, and a sense of purpose.

Skill Development

The hub offers vocational workshops in trades like carpentry, metalworking, and handicrafts, designed to equip participants with practical skills for employment while serving as therapeutic outlets. Through hands-on activities, individuals build a sense of accomplishment and purpose, countering the feelings of hopelessness often linked to substance misuse (COSUP 2024).

Creative Expression

Designated spaces within the hub support artistic and cultural activities, such as traditional crafts, painting, music, and sculpture, essential for personal and community identity. These activities allow residents to connect with their community and explore new forms of creativity, promoting positive self-expression in a setting with few such outlets.

Community Engagement

The hub also functions as a communal gathering space, hosting regular market days, cultural festivals, and exhibitions. These events provide opportunities for residents to showcase skills, sell products, and engage in cultural exchanges, creating economic empowerment and strengthening social bonds. Flexible outdoor spaces are designed to facilitate these gatherings with seating, market stalls, and performance areas.

Additional Programs

Therapeutic Spaces: Art and occupational therapy sessions support mental and emotional well-being, offering participants a safe space for personal healing and self-discovery.

Makerspace Workshops: Hands-on training in sewing, woodworking, and digital fabrication fosters creativity, skill development, and self-reliance.

Sports and Recreation: Facilities like a soccer field encourage physical health, teamwork, and social cohesion, drawing youth into positive, constructive activities.

Through skill-building, creative expression, and communal events, the MYDO Regenerative Design Hub fosters individual and collective growth, empowering the Melusi community.

PROJECT BRIEF

CURRENT MYDO?

PROGRAMME

- EDUCATION
- FEEDING SCHEME - Giving back to the community
- SPORTS & ARTS - Having fun!
- YOUTH EMPOWERMENT ENTREPRENEURSHIP PROGRAMME (YEEP) - Learning & earning opportunities



NEW MYDO?

PROGRAMME

- + CRAFT
- + DESIGN & ART STUDIO
- + WORKSHOPS | SKILL DEVELOPMENT



FUNDAMENTAL NEEDS:

CREATIVITY

Temporary & mobile spaces
 Cultural events
 Design studio
 Craft programmes

PARTICIPATION

Capacity building & development
 Skills training
 Community gathering
 Safe spaces for socialising

SUBSISTENCE

Market spaces
 Rentable spaces
 Community hub
 Capacity building

IDENTITY

Community hub
 Material & resource library
 Cultural centre
 Showcase & exhibit talent & accomplishments

UNDERSTANDING

Learning spaces
 Teaching programmes
 Educational spaces
 Events for dialogue



WHO?

PROJECT USERS

Primary Users

The main users of the MYDO Regenerative Design Hub are Melusi's youth, aged 12 to 25, who face high unemployment, limited educational opportunities, and vulnerability to substance use. This hub aims to provide safe, constructive alternatives by equipping young people with skills, support, and opportunities for growth, redirecting them from negative influences.

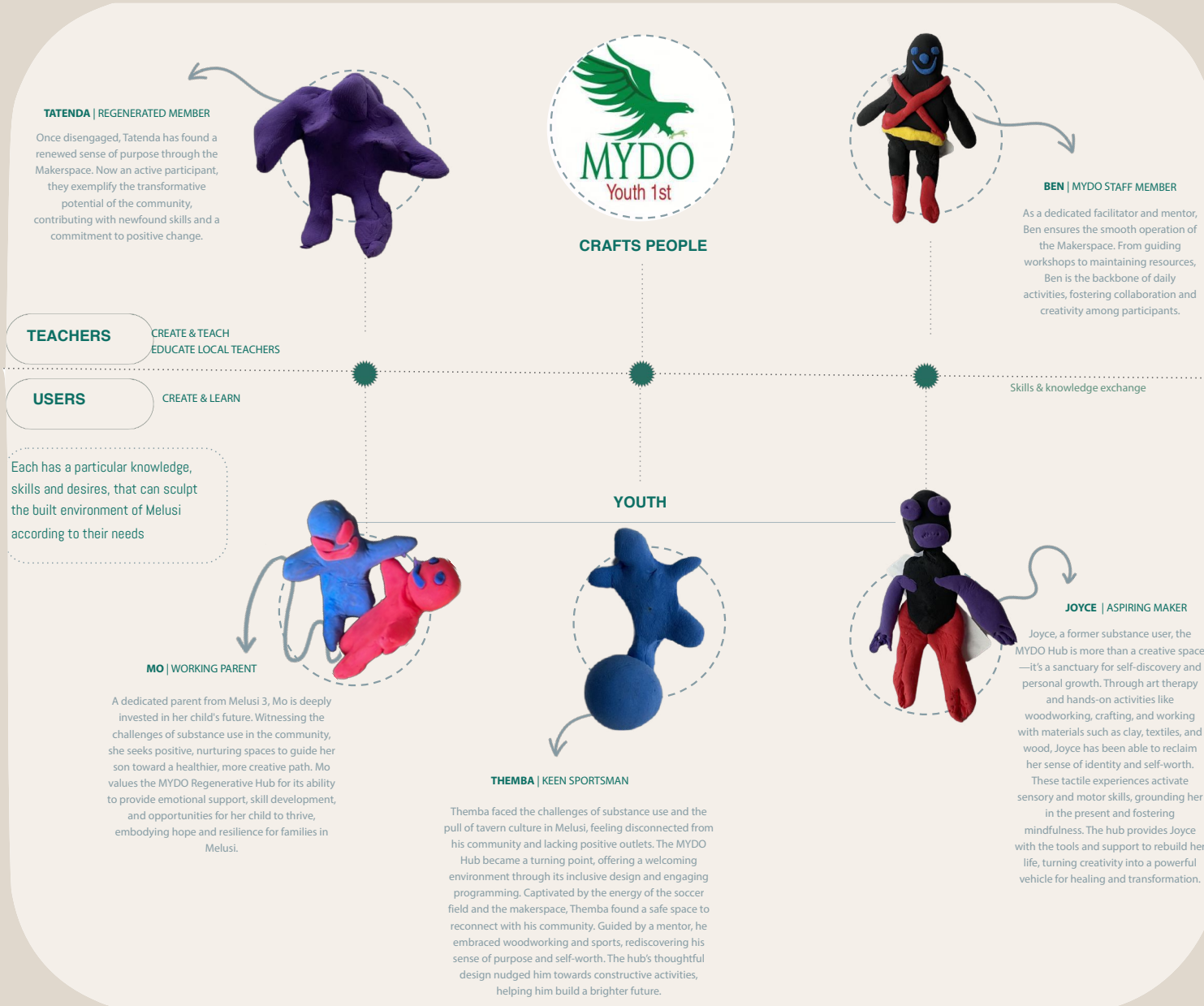
Secondary Users

Beyond the youth, the hub serves younger children through after-school programs offering supervised creative and educational activities, incubating curiosity and creativity from an early age. Additionally, local artisans, unemployed adults, and community leaders can access skill-building workshops, creative spaces, and community events, encouraging intergenerational collaboration and economic engagement. This inclusive approach strengthens social cohesion, cultural exchange, and economic opportunities across all ages, ensuring the hub's sustainability.

MOTIVATION

The *Nudge for Good* project seeks to address Melusi's socio-economic challenges by creating a nurturing environment that fosters belonging, pride, and agency. By offering positive outlets and accessible resources, the project counters cycles of substance use and poverty, empowering residents to build meaningful skills and connections that enhance personal and community resilience. Through inclusive engagement and alignment with PID principles, the MYDO Regenerative Design Hub serves as a catalyst for lasting positive change and regeneration in Melusi.

ARCHETYPES | USERS

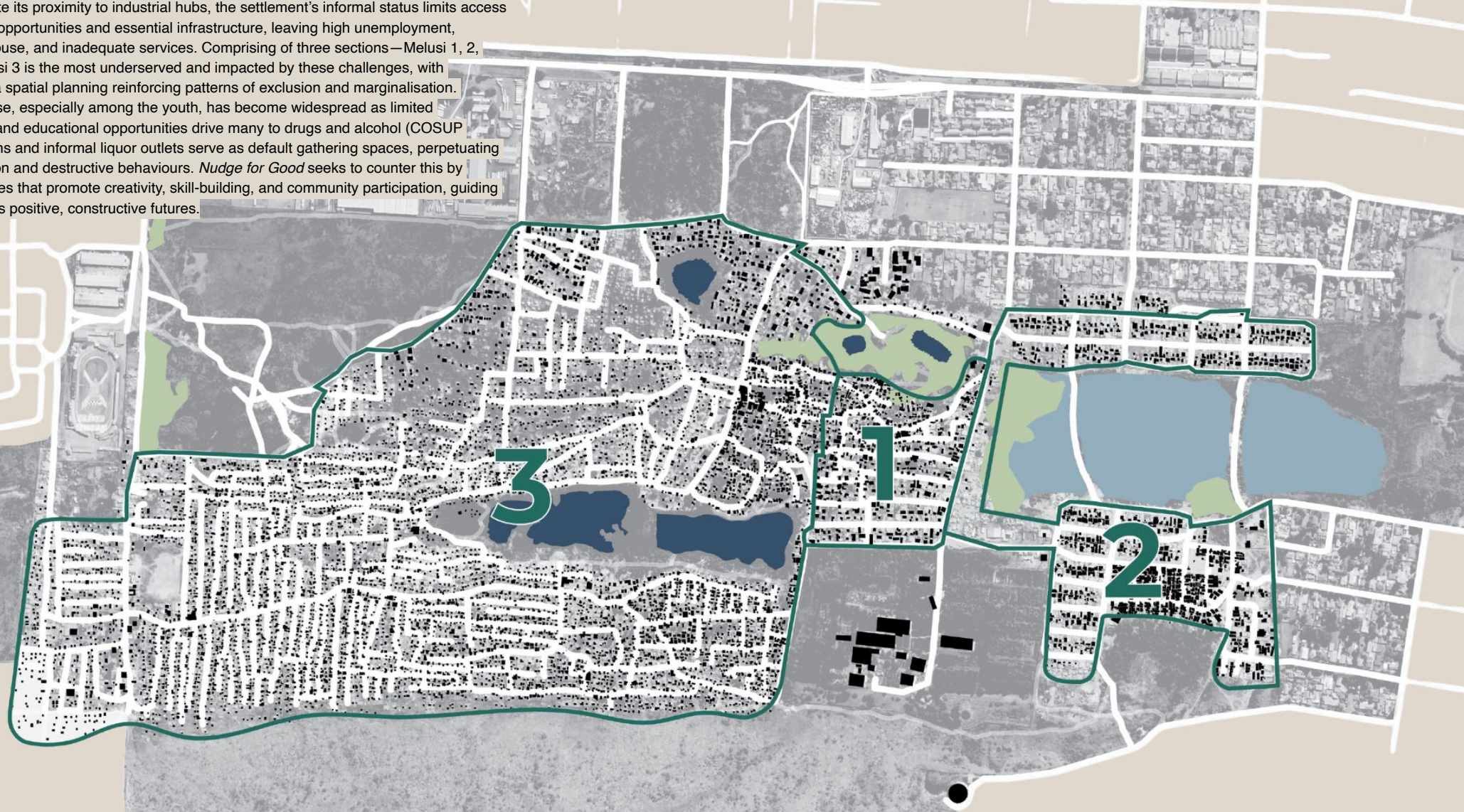


WHERE?

PROJECT BRIEF

SITE CONTEXT AND BACKGROUND

Melusi reflects the persistent struggle for socio-economic equity in post-apartheid South Africa. Despite its proximity to industrial hubs, the settlement's informal status limits access to economic opportunities and essential infrastructure, leaving high unemployment, substance abuse, and inadequate services. Comprising of three sections—Melusi 1, 2, and 3—Melusi 3 is the most underserved and impacted by these challenges, with apartheid-era spatial planning reinforcing patterns of exclusion and marginalisation. Substance use, especially among the youth, has become widespread as limited recreational and educational opportunities drive many to drugs and alcohol (COSUP 2024). Taverns and informal liquor outlets serve as default gathering spaces, perpetuating social isolation and destructive behaviours. *Nudge for Good* seeks to counter this by offering spaces that promote creativity, skill-building, and community participation, guiding youth towards positive, constructive futures.



- Melusi dwellings
- Melusi 1
- Green spaces
- Melusi 2
- Dam
- Melusi 3
- Wetland



SITE MAP

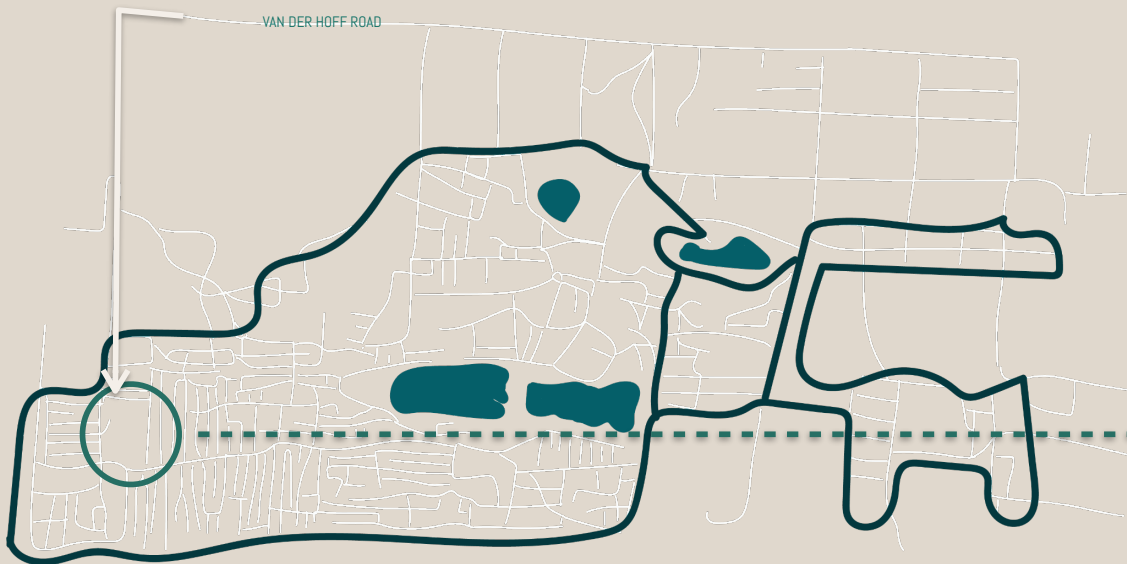
WHERE?

PROJECT BRIEF

SITE SELECTION: VINCENT SPORTS GROUND

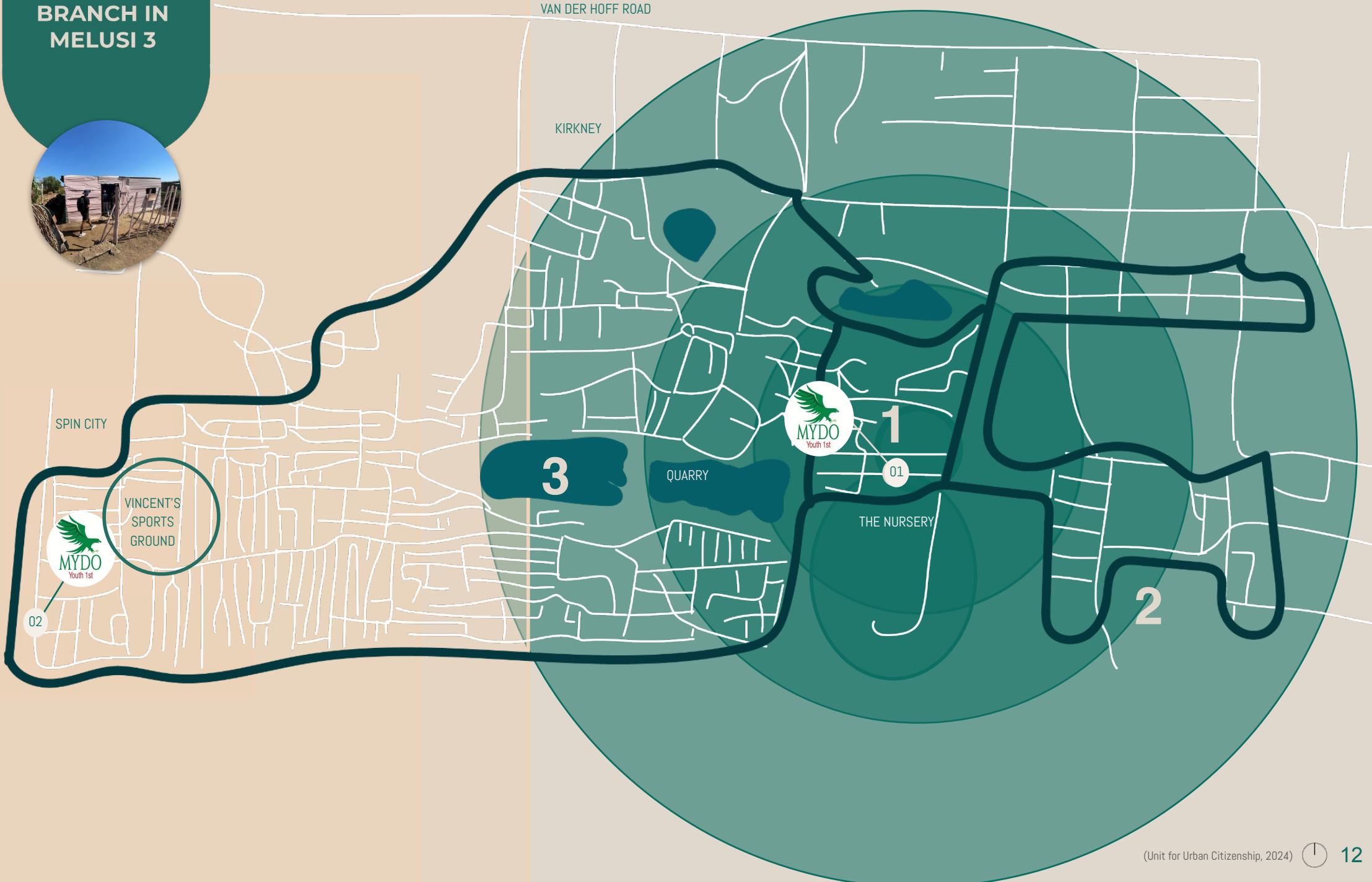
The MYDO Regenerative Design Hub is strategically situated at the Vincent Sports Ground in Melusi 3, an area in urgent need of intervention. This site includes informal residences and the Rooftop Tavern, a central yet under-resourced location that reflects the socio-economic fabric of Melusi. Originally operating in Melusi 1, MYDO has expanded to Melusi 3 to address increasing community needs. Currently operating from a modest *shack*, MYDO aims to enhance its impact through a permanent, well-equipped hub at this site. Establishing the hub here provides residents with accessible resources for skill development, creative engagement, and community support in a familiar environment, reinforcing the project's commitment to the area's regeneration.

The site is accessible from Van der Hoff Road or via foot from other parts of the settlement. The design is structured around existing structures like the Rooftop Tavern, transforming the vacant sports ground into a community hub. This integration ensures the hub honours Melusi's social dynamics, becoming a community-driven space that respects and builds upon the area's existing fabric.



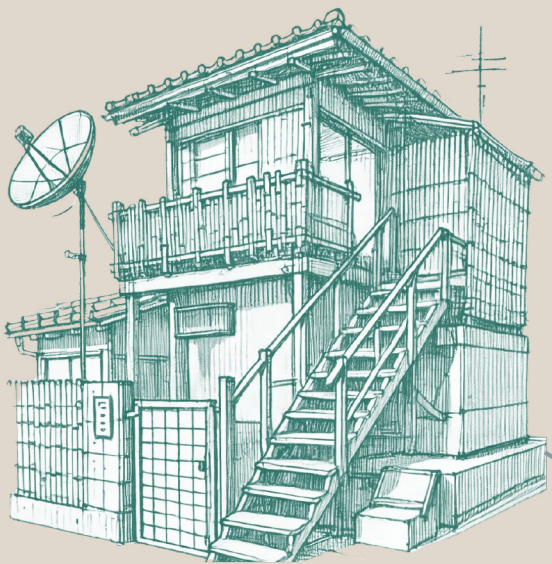
EXISTING MYDO BRANCHES IN MELUSI

MYDO'S NEW BRANCH IN MELUSI 3



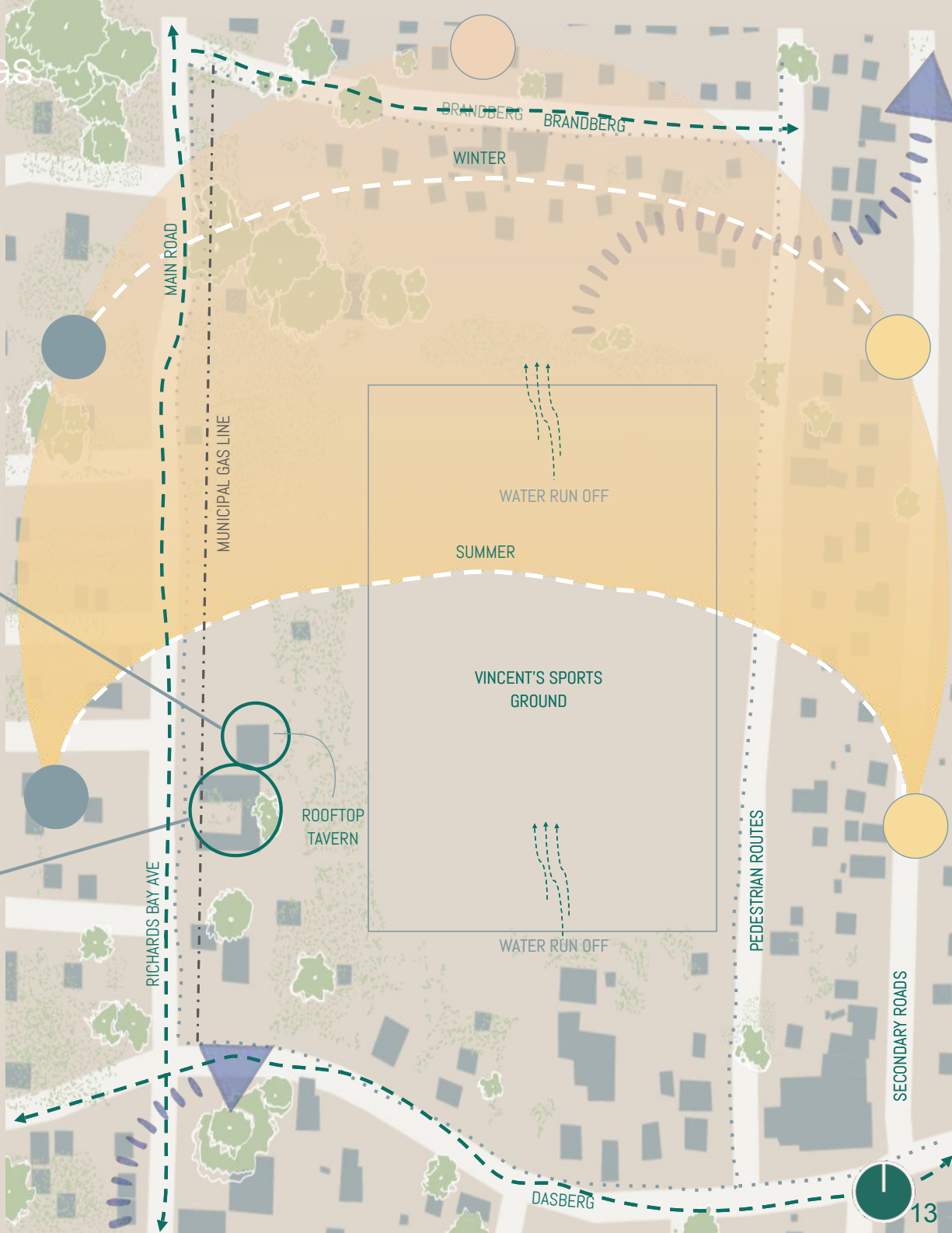
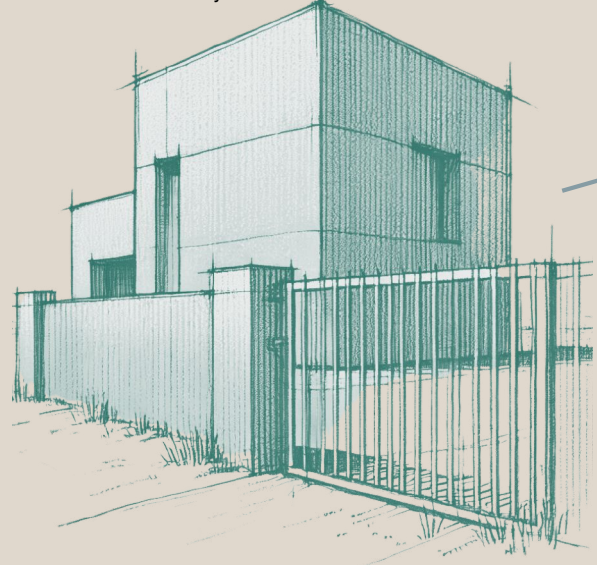
VINCENT SPORTS GROUND | EXISTING BUILDINGS

ROOFTOP TAVERN
A



The **Rooftop Tavern** is an existing element within the MYDO Regenerative Design Hub's environment, but the hub's design intentionally includes programmatic nudges to encourage participants to engage with alternative, constructive activities rather than choosing the tavern. Through the layout and program options—such as the makerspace, sports facilities, and creative incubator corridor—the design subtly guides individuals toward spaces that foster personal development, skill-building, and positive social interactions, offering healthier and more empowering choices than the tavern. This approach respects personal freedom while creating an environment that promotes productive and community-oriented behaviours.

APARTMENT COMPLEX
B



VINCENT SPORTS GROUND | views

VINCENT'S SPORTS GROUND

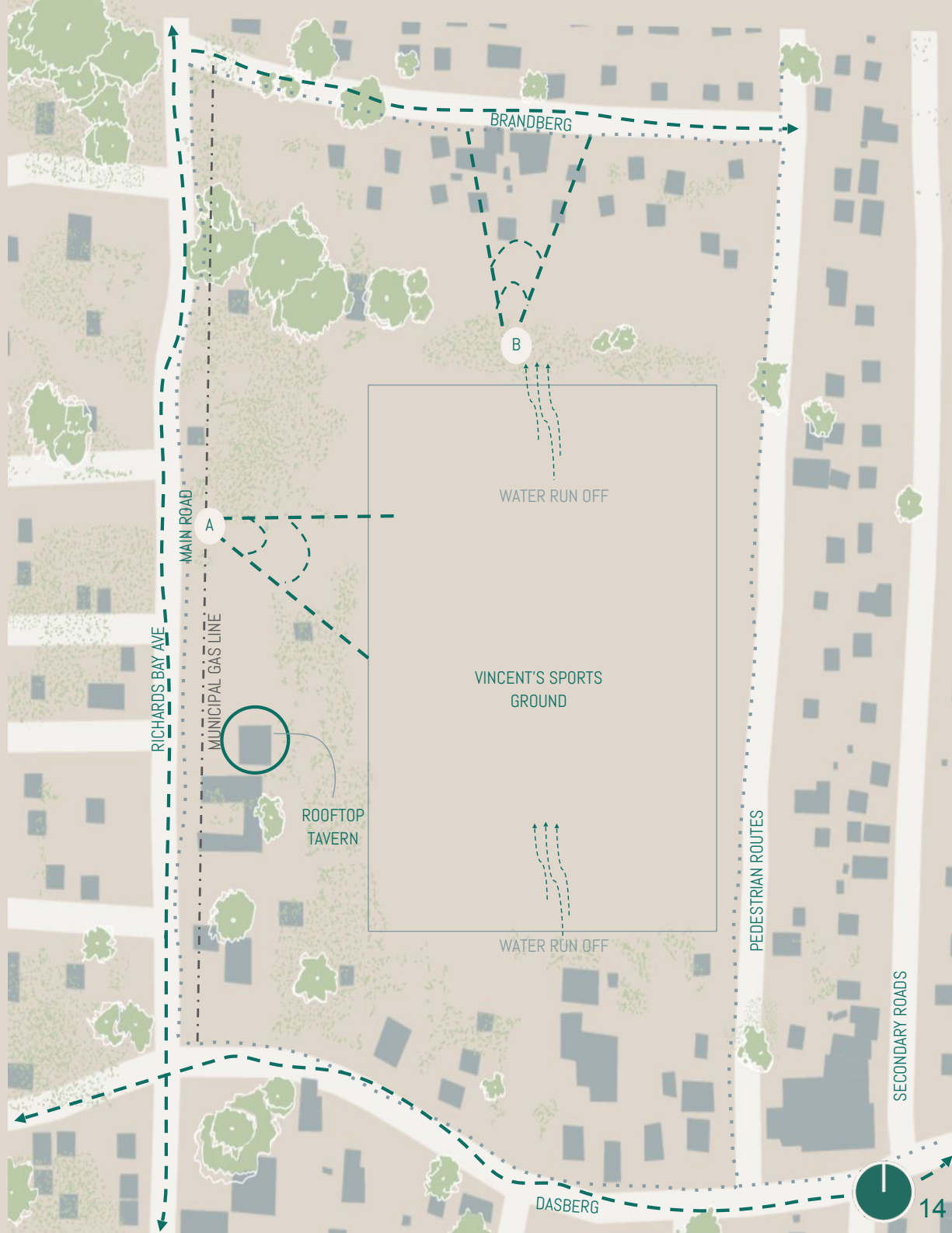


A



RESIDENTIAL

B



SECONDARY ROADS

PROJECT BRIEF

CONCEPT / CREATIVE INCUBATOR

The MYDO Regenerative Hub: A Catalyst for Personal and Community Renewal

The MYDO Regenerative Hub serves as a dynamic space for personal and community regeneration in Melusi, blending traditional crafts with sustainable practices to instil pride and ownership among youth. This creative incubator offers a pathway to empowerment, enabling individuals to be part of a broader movement towards creativity, resilience, and positive change.

Healing Through Making

Central to the hub's mission is the idea of *Healing Through Making*. The hub provides a therapeutic environment where creativity aids in healing. Here, youth like Joyce, once caught in addiction, find solace in hands-on creation. Whether through sewing, woodworking, or painting, the process is deeply therapeutic, promoting self-discovery, confidence, and mindfulness. Art and occupational therapy are woven into these activities, helping participants rebuild self-worth and process emotions through tangible achievements.

Skill Development and Creative Expression

Vocational workshops in trades such as carpentry, welding, and sewing equip participants with practical skills that lead to employment and provide therapeutic outlets. These hands-on activities instil purpose and counteract the despair often associated with substance use. Additionally, designated spaces for arts, music, and crafts enable residents to connect with their community and explore new creative avenues, fostering both individual and collective identity.

Community Engagement and Regeneration

Beyond individual growth, the MYDO Hub acts as a communal space, hosting events like market days, cultural festivals, and exhibitions. These gatherings provide economic opportunities and strengthen social bonds. Designed with multifunctional spaces, the hub facilitates community interaction and cultural exchange, making it a focal point for socio-economic growth and cultural revitalisation in Melusi.

This hub is more than a facility; it is a movement inviting Melusi's youth to redefine their futures. Offering alternatives to substance use, it promotes a culture of hope, creativity, and transformation. By merging local heritage with modern innovation, the MYDO Hub becomes a beacon of regeneration, fostering resilience and driving community-wide renewal in Melusi.



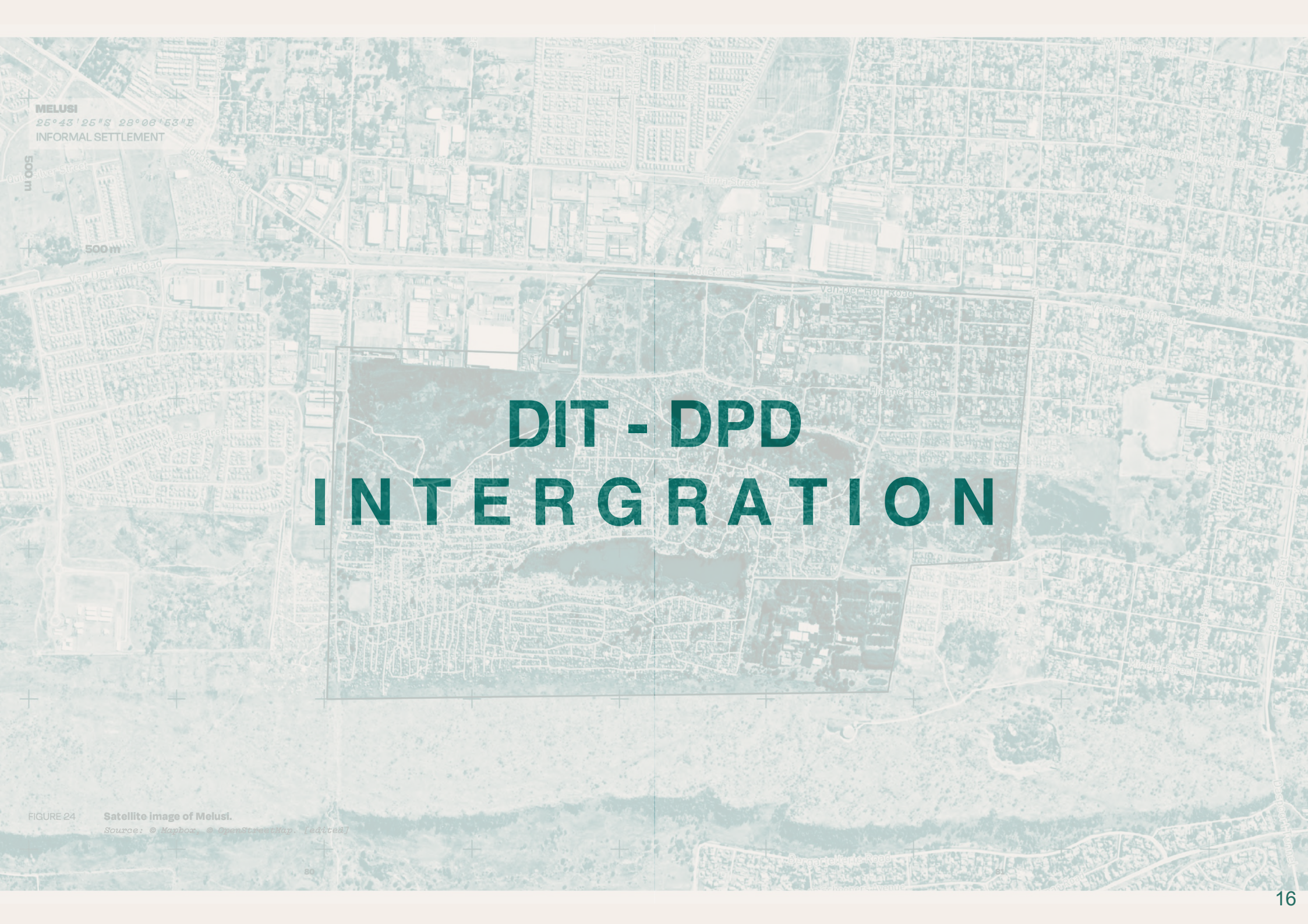
AIM: CREATIVE INCUBATOR

OBJECTIVES:

- Develop responsive strategies to unlock the creative potential of Melusi
- Empower residents through skill-building and participation in support of holistic wellness
- Enhance capacity building and community cohesion
- Respond to the human scale development needs of Melusi

HOW?

- Create makerspaces for self expression focusing on creativity and participation
- Creating a space for learning skills and exchanging ideas
- Create a space that instills a sense of belonging and purpose
- Create a safe space for sharing stories



MELUSI
25°43'25"S 28°06'53"E
INFORMAL SETTLEMENT

DIT - DPD INTERGRATION

FIGURE 24 **Satellite image of Melusi.**
Source: © Mapbox, © OpenStreetMap, [edit]

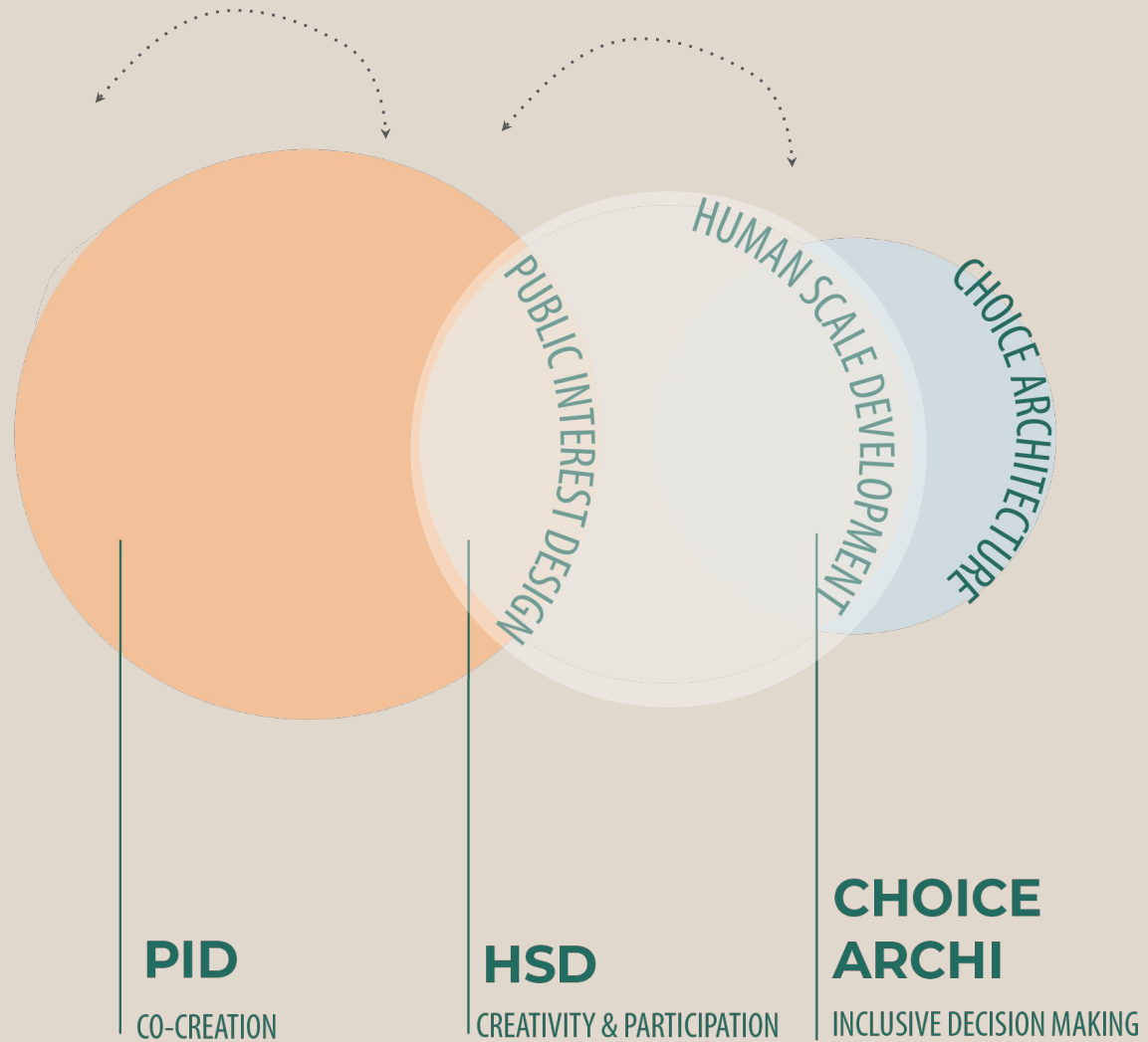
DIT THEORETICAL FRAMEWORK

The *Nudge for Good* project integrates Choice Architecture, Human Scale Development (HSD), and Public Interest Design (PID) into a transformative design approach that addresses Melusi's immediate challenges while establishing a foundation for sustainable community development. Each framework is embedded in the MYDO Regenerative Design Hub to foster empowerment, healing, and growth, resulting in a holistic strategy for community regeneration.

The design intervention for is deeply informed by a comprehensive needs-finding assessment based on Max-Neef's (1991) Human Scale Development (HSD) matrix. This assessment, as outlined in the DIT report, focused on fundamental needs within the community of Melusi, specifically around creativity and participation, to support a holistic approach to choice architecture in the design.

By actively engaging with the community through participatory methods like focus groups, gameplay, and co-creation sessions, the research gathered insights into Melusi residents' socio-economic conditions, challenges, and aspirations. Serious games such as the Making Game and the Matrix Board Game provided interactive avenues for residents to express their needs and ideas, aligning design interventions with local priorities (Zorn 2021). This approach not only informed the theoretical framework but also ensured the design resonated with the lived realities of Melusi, creating a sustainable, community-driven model for regeneration and empowerment.

Further details about the spatial layout and design specifics will be illustrated later in the report to provide a complete understanding of how these frameworks shape the hub's physical and functional environment.



DIT - DPD INTERGRATION

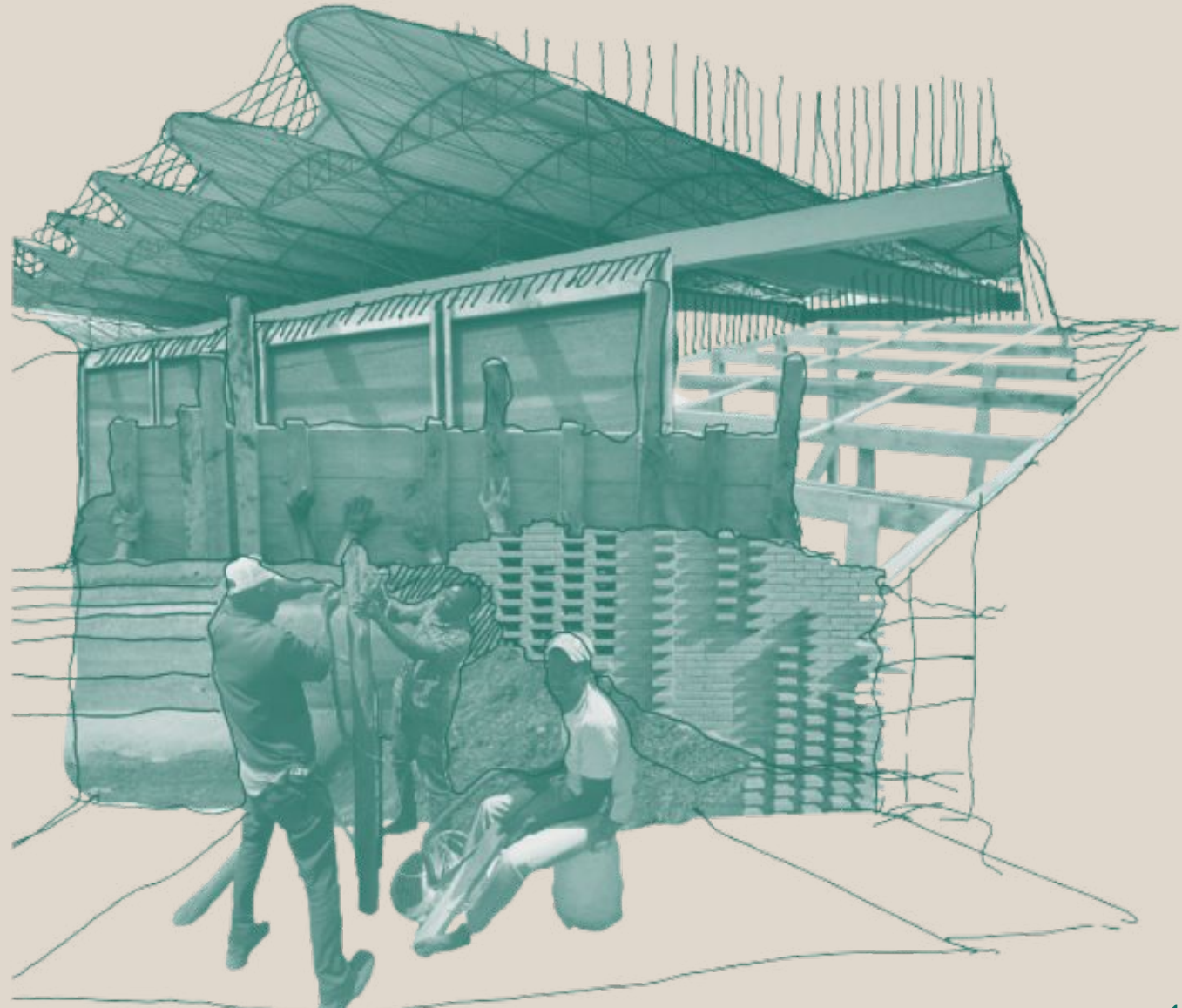
Public Interest Design (PID): Co-Creation and Empowerment

PID is a participatory design approach that centres on community engagement and social equity (Anderson, 2014). It emphasises working alongside communities, rather than for them, to co-create environments that meet their unique needs and aspirations. This process ensures that design outcomes are both relevant and sustainable, fostering a sense of ownership and pride among community members. PID is deeply rooted in ethical considerations, aiming to serve marginalised or underserved populations by actively involving them in decision-making and implementation.

The hub involves residents in planning and design decisions, allowing them to shape aspects like material selection, spatial layout, and programming.

This participatory approach fosters economic empowerment and pride, as reflected in the *Incubator Corridor's* market stalls, where local artisans can generate income and connect with the community (see page 26). By using local labor and materials in construction, PID reinforces the hub's role as a co-created space that embodies community values.

PID



DIT - DPD INTERGRATION

Human Scale Development (HSD): Meeting Fundamental Human Needs

Human Scale Development, conceptualised by Manfred Max-Neef, (1991) is a framework that prioritises the fulfilment of fundamental human needs over economic growth, emphasising human well-being and development. HSD identifies nine fundamental human needs—subsistence, protection, affection, understanding, participation, leisure, creation, identity, and freedom—which are universal across cultures and time. Max-Neef asserts that poverty is not simply a lack of income but a lack of satisfaction of these fundamental needs.

In the MYDO Regenerative Design Hub, HSD is applied by ensuring that each space addresses one or more of these fundamental needs:

Subsistence and Protection: The hub offers a safe, secure environment where youth can gather without fear, addressing basic needs for security and shelter.

Understanding and Participation: Through educational workshops and collaborative events, residents are encouraged to learn, share, and participate in community-building activities.

Affection and Leisure: The hub fosters social interaction and provides a space for relaxation, allowing residents to build relationships and feel a sense of community.

Creation, Identity, and Freedom: The Makerspace and Bridging Facility support creative expression and self-discovery, helping individuals explore their identity and find a sense of autonomy through personal projects and community contributions (see page 26).

HSD NEEDS

CREATIVITY

Temporary & mobile spaces
Cultural events
Design studio
Craft programmes

PARTICIPATION

Capacity building & development
Skills training
Community gathering
Safe spaces for socialising

SUBSISTENCE

Market spaces
Rentable spaces
Community hub
Capacity building

IDENTITY

Community hub
Material & resource library
Cultural centre
Showcase & exhibit talent & accomplishments

UNDERSTANDING

Learning spaces
Teaching programmes
Educational spaces
Events for dialogue

INCREMENTAL & PHASED | SYNERGISTIC SATISFIER

NOW | FIXED CATALYST



FUNDAMENTAL NEEDS:

CREATION
PARTICIPATION

FOCUS:

CREATE & MAKING
SKILLSHARING

QUALITY

PERMANENCE

PROGRAMME:

DESIGN STUDIO & HUB
WORKSHOPS
WATER TANKS
COURTYARD
ABLUTIONS

SOON | INSERTION



FUNDAMENTAL NEEDS:

IDENTITY
UNDERSTANDING

FOCUS

ADAPTABILITY & FLEXIBILITY
SHARE | DISPLAY | EXHIBIT

QUALITY:

INFILL

PROGRAMME:

CLASSROOMS
EXHIBITION SPACE
OUTDOOR
AMPHITHEATRE
STAIRWAY

LATER | NETWORKS



FUNDAMENTAL NEEDS

IDLENESS
PROTECTION
AFFECTION

FOCUS

CHANGE
NETWORK OF UPGRADES

PROGRAMME:

MARKET SPACE
OFFICES
COMPUTER ROOM
STORAGE
LIBRARY
SPORTSGROUND