

SEARCHING FOR SUNNYSIDE

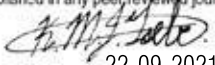


An investigation into Sunnyside's spatial conditions.



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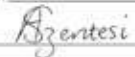
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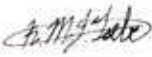
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SEARCHING FOR SUNNYSIDE



An investigation into Sunnyside's spatial conditions.

Kgoale Tsebe
863439

This document is submitted in partial fulfilment to the degree: Master of Architecture (Professional) at the University of the Witwatersrand, Johannesburg, South Africa, 2021.

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First and foremost I would like to thank the University of Witwatersrand for the opportunity to conduct this research. Secondly, I am extremely grateful to my supervisor Anita Szentesi for her invaluable advice, continuous guidance and patience over the duration of my Master's Research. Her advice has been clarifying and reassuring over the course of the academic year. I would also like to thank my friends for their insights and pieces of advice throughout the year.

Lastly, I would like to thank my family for their continuous support and encouragement. Without their support, this year would not have been possible for me.

Abstract

Sunnyside was a place made up of middle-class retirees. It slowly became a place for the middle-income workers of Pretoria. Steadily, the area became a residential hub for students of TUT, Unisa & UP. As time went on and economic challenges arose in the city and country at large, the area initially intended for short-term use and mid-term rentals became increasingly permanent. This came with challenges to the high-rise residential model in the area as this meant that internal courtyards in the area were rebuilt into parking lots for tenants. In later years, the area was subsumed by the crime and substance abuse it is well known for now. Many migrants from the Northern and Central parts of Africa were blamed exclusively for the unsafe and derelict conditions of the streets.

Although illegal immigration as well as its social ills may be a factor contributing to this toxic social fabric. I, a former resident of Sunnyside, don't think it accounts for all of it. I would like to argue that it may be the harsh and difficult political and social conditions visible at the regional scale that contribute to the area's social instability. Furthermore, cold surfaces replacing the playgrounds and courtyard fields are creating a problem. Some parts of Sunnyside's social fabric are being destroyed from the inside out, while others from the outside in.

The way in which I will do this is by introducing a concept: urban levels which will act both as a design and research concept throughout the book. This concept will bring the ethos of multi-layered analysis into view in hopes to identify and execute a selected programme: A wellness centre in Sunnyside that is focused on psychosocial and physiological wellbeing of residents in Sunnyside.

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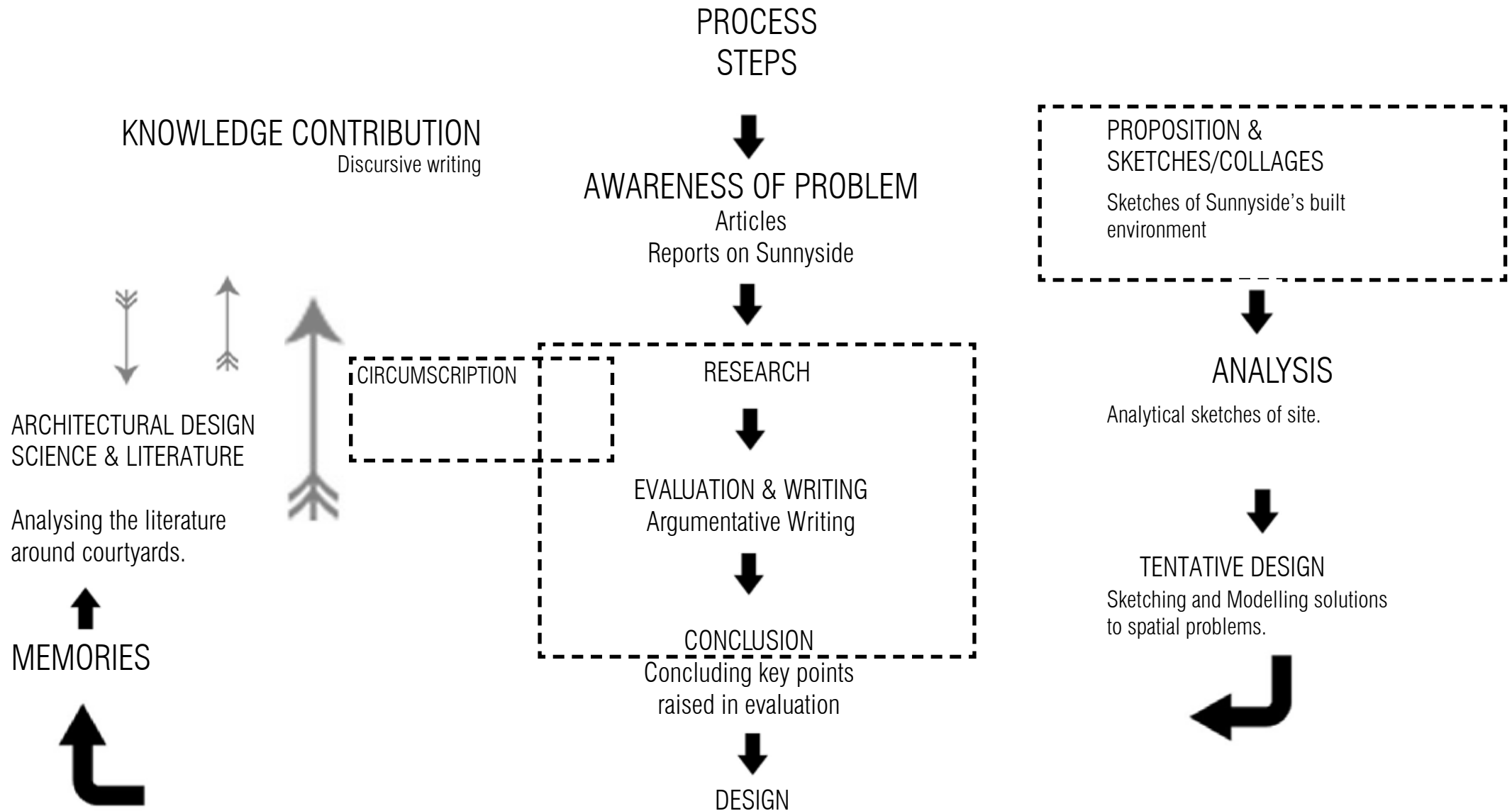
Research Question(s)

How can Sunnyside's Built Environment be better adapted to address social challenges in Sunnyside today?

Research Process Diagram

[KNOWLEDGE FLOWS]

[DESIGN OUTPUTS]



CHAPTER 1



Context

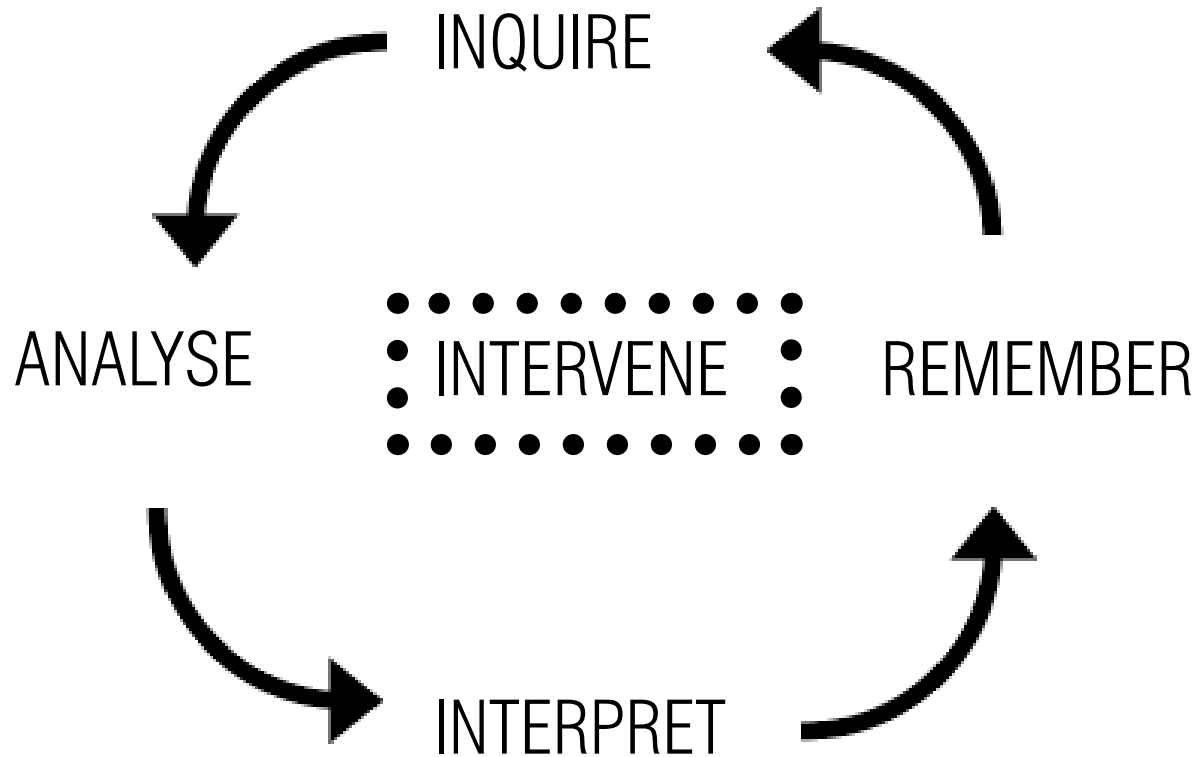
Context

1.1. INTRODUCING THE CONTEXT

Context explains WHAT the issues addressed in this document are and WHY they are. The issues will fall under many frames of thought including the political framework, the economic framework, and the social framework. The reason for this is that the research is meant to characterize the people of Sunnyside as individuals with real-life problems. The people are not just users that fall into or out of a building. More carefully, the research seeks to understand how building programmes arise out of political and economic conditions. In part, this is to establish what the political and economic motivations for changes in Sunnyside's built environment are. If there are courtyards with greenery being removed, are they being removed for architectural reasons? Or is parking, (including the safety and economic motives for providing it at scale) solely enough of an incentive for developers to remove facilities for children's play (i.e. shared courtyards). If it is the case that all changes made to Sunnyside's built environment can be laid at the cause of economic interests, then, current economic conditions can be re-interpreted to chart a more diplomatic course forward for changes to be made in Sunnyside's built environment.

Sunnyside is a place troubled by many social issues. These issues range from drug abuse and tribal violence to crimes involving motorvehicles. My motivation for choosing this area is both personal and intellectual. What I hope to achieve in the process of this research is a better understanding of the area through an economic, social, and political framework so as to suggest a more tactical method of urban development for Sunnyside.

PERSONAL (MICRO) PROCESS



1.2. INTRODUCING THE RESEARCH METHODOLOGY

The method for processing data throughout this research report was one where data was gathered through the use of the internet, photographs, interviews, and questionnaires of current and former residents, workers and visitors of Sunnyside. This part of the process would be called inquiry. This data was then analysed until I was able to find its informants at the relevant architectural scale (i.e national, regional, urban and suburban scale.). Once the causes of any issues raised were identified at the level of their informants, the data was then interpreted at the level of the individual (eg. How does this particular town planning condition affect the users of Sunnyside at the level of the individual people on the ground). This method of interpreting the data at the level of the individual was then verified by my memories as the researcher along with friends and family who were also former residents of Sunnyside and interviews with participants who were willing and knowledgeable.

Fig. 1.0: Tsebe. T. 2021. A diagram showing the process of investigation for “Searching for Sunnyside” research report. Drawing (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand).

MACRO PROCESS: ANALYTICAL INFORMANTS

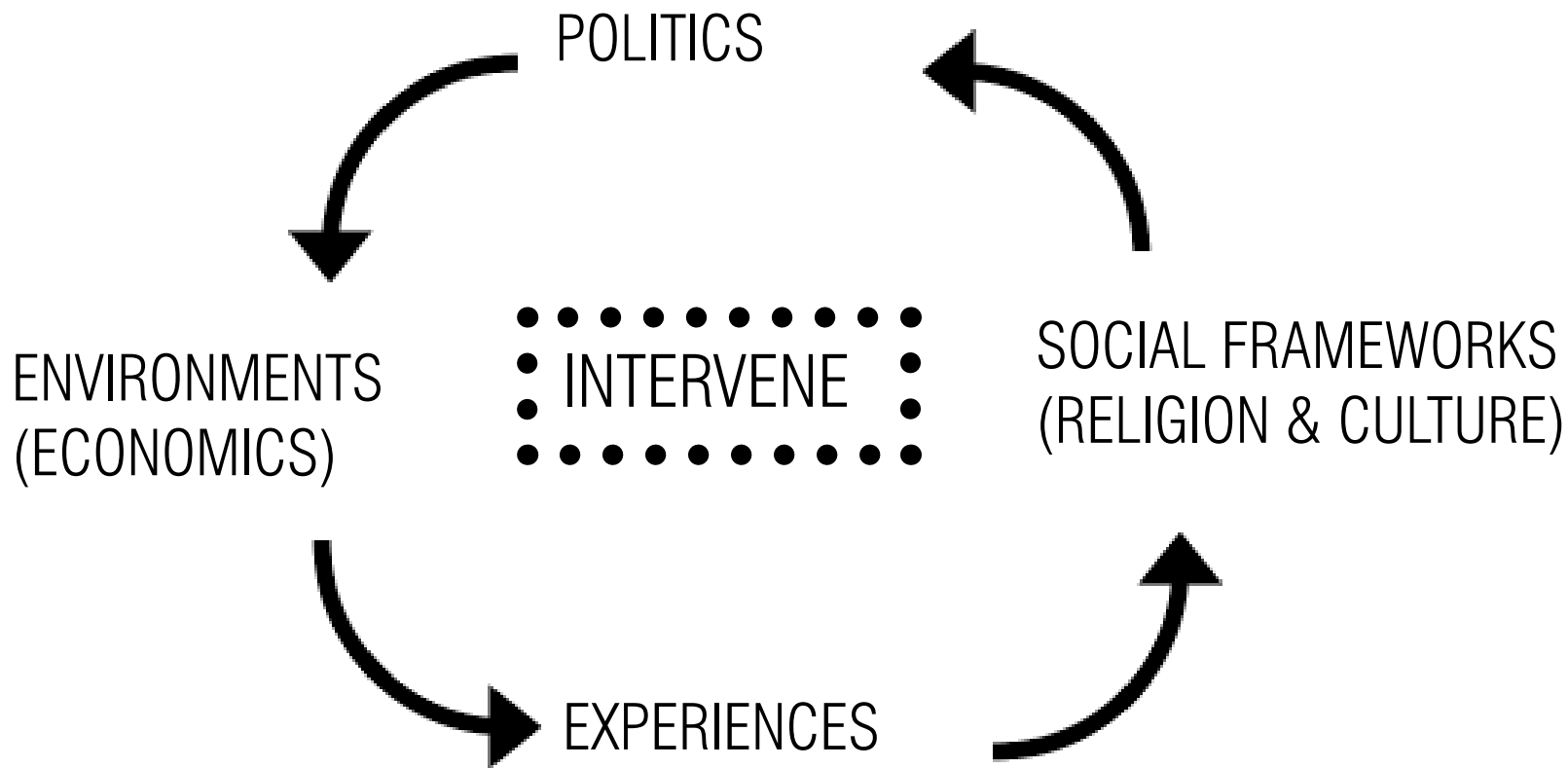


Fig. 1.1: Tsebe. T. 2021. A diagram showing the process of investigation for “Searching for Sunnyside” research report. Drawing (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand).

1.2. INTRODUCING THE RESEARCH METHODOLOGY

This research seeks to **LOCATE** Sunnyside within the greater urban framework of Pretoria. In doing so, identifying key social, political and economic issues that affect Sunnyside. This process of understanding issues from the social and political lens will allow a clearer understanding of their effects on Sunnyside, spatially, in the city's urban framework. These issues are then overlapped to understand what common themes affect the area at the most urban scales. Introducing a concept: **Urban Levels** which acts as a method of experimenting with design intentions and outlines important spatial devices that might be necessary for dealing with the site. The site, located adjacent to Netcare Hospital itself is then analysed to identify it's key informants to consider when making an architectural intervention.

The analysis carried out in the rest of this chapter also characterises the site's population in terms of their values, motivations and concerns for how they choose to occupy the area. This categorisation allows one to understand what the majority of Sunnyside's occupants are living in the area for thus allowing a designer to better understand what to offer in a proposal.

SITE

[INTERVENE]

**SUBURBAN SCALE
1:100**

CONCEPT

[INTERPRET]

[REMEMBER]

**URBAN SCALE
1:1000**

CONTEXT

[INQUIRE]

[ANALYSE]

**REGIONAL SCALE
1:10000**

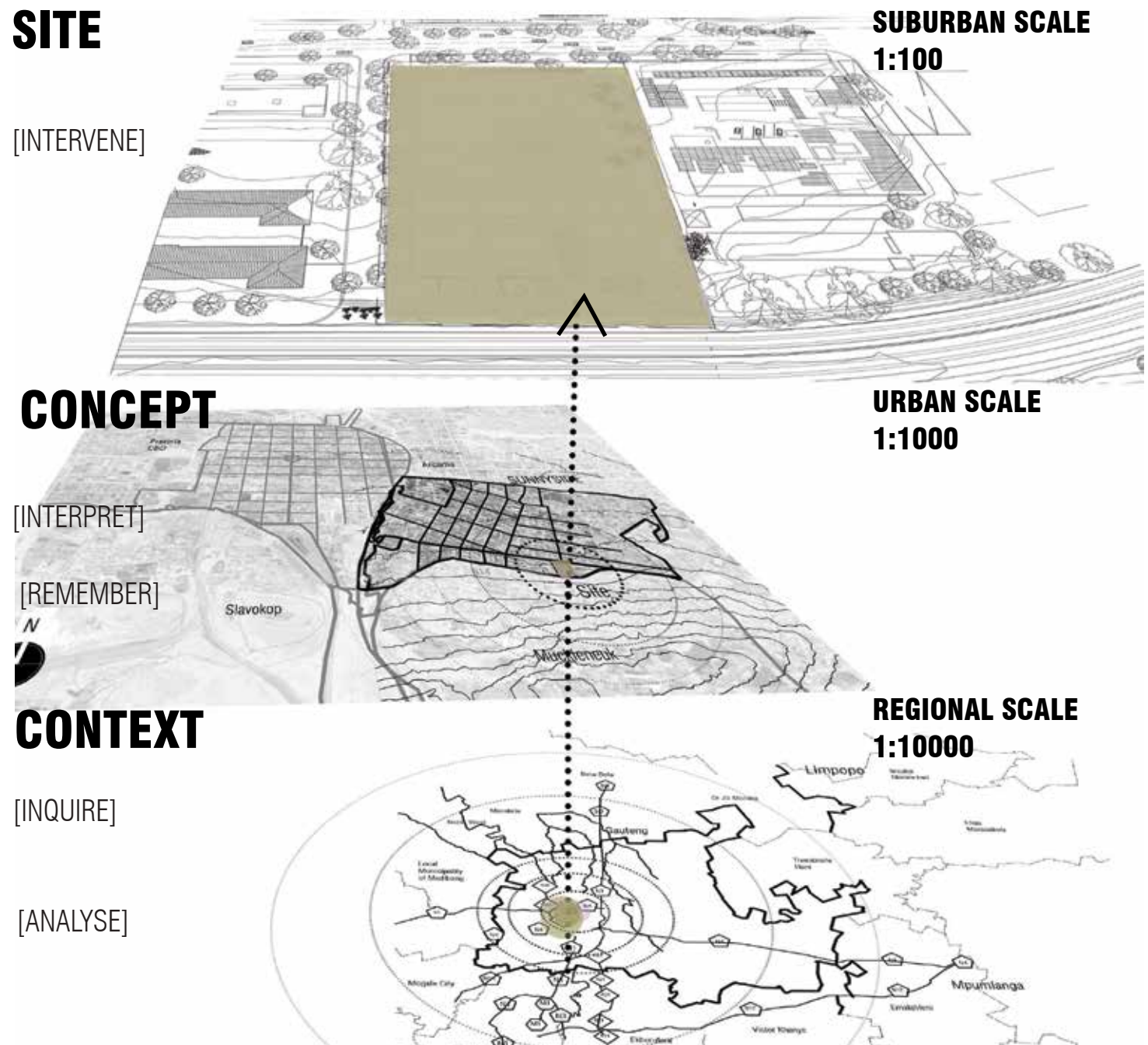


Fig. 1.2: Tsebe. T. 2021. A map showing the process of layering for “Searching for Sunnyside” research report. Digital Collage (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand).

1.3. REGIONAL CONTEXT

As one of the oldest suburbs in Pretoria, Sunnyside was initially populated by large houses and mansions belonging to white farmers in the 1800s. Over time, the demographics of the area changed and the city, along with Sunnyside, adapted to the needs of its users.

Today, Sunnyside's role, at the regional scale is one that would be described as a Node by the City of Tshwane's Integrated Regional Development Plan. (2015. REGION 3: REGIONAL INTEGRATED DEVELOPMENT PLAN. 1st ed. Tshwane, p.5.). This means that Sunnyside is a product of both public and private investment and is located along two major roads intersecting, namely the N1 and the N4. This places Sunnyside at the intersection between "mixed-use business areas" and "sub-urban density". It also has, across its area, scattered "natural features" and falls right on the boundary of Region 3, Pretoria's Central Business District.

Although, today, this combination of regional zones makes the area somewhat difficult to interpret, one can understand a little bit more about why the area is in this array of roles when looking at both Sunnyside and Pretoria's history.

REGIONAL SCALE MAP LOCATING THE SITE WITHIN GAUTENG'S REGIONAL FRAMEWORK

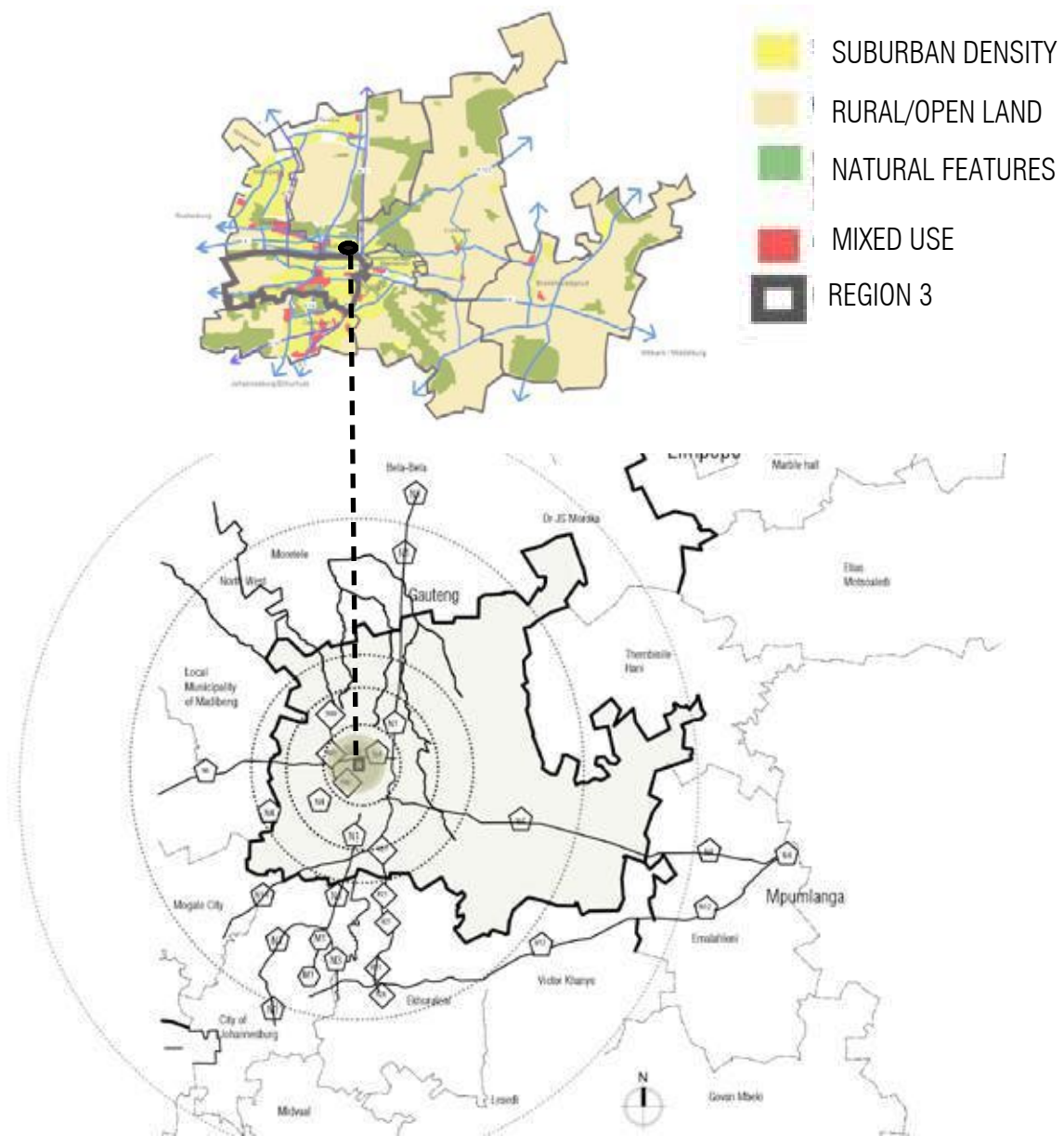


Fig. 1.3: Tsebe. T. 2021. A Regional Scale map locating the site within Gauteng's Regional Development Framework "Searching for Sunnyside" research report. Drawing (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand).

1.4. HISTORICAL CONTEXT



Sunnyside was created in 1894 as a break away from Arcadia and the CBD, which were established in 1889 and 1892 respectively. The suburb (like much of Eastern Pretoria) was created as a residential area for state officials who didn't want to live in the CBD but still needed the conveniences the CBD had to offer. Not only that, the soil in much of East Pretoria was rich in nutrients and this was the reasoning behind using some of the land area in Arcadia for farming, which it was initially before it was transformed into residences. It is no coincidence that the CBD is located where it is as the presence of a flowing river, the Apies River, made this area prime real estate given its proximity to what would have been considered an opportunity to create a trade route or settlement. There has also been speculation that the river was discovered by Ndebele tribes in the

From a regional planning point of view, the area's soil and water source (the Apies River) that connected it to other parts of Pretoria, made it a suitable location for an urban settlement as it was located along a trade route. It was these natural features that attracted private entities and officials to the area. So much so, that economic and political development in the area followed leading to the construction of the Union Buildings in Arcadia in 1913. (Sahistory.org.za. 2022. (Pretoria Timeline 1800-2009 | South African History Online. [online] Available at: <<https://www.sahistory.org.za/article/pretoria-timeline-1800-2009>> [Accessed 18 February 2022].

Fig. 1.4a: Tsebe. T. 2021. A timeline of the history of Sunnyside "Searching for Sunnyside" research report. Digital Collage (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand).

[A TIMELINE OF SUNNYSIDE'S DEVELOPMENT IN HISTORY]

1.4. HISTORICAL CONTEXT

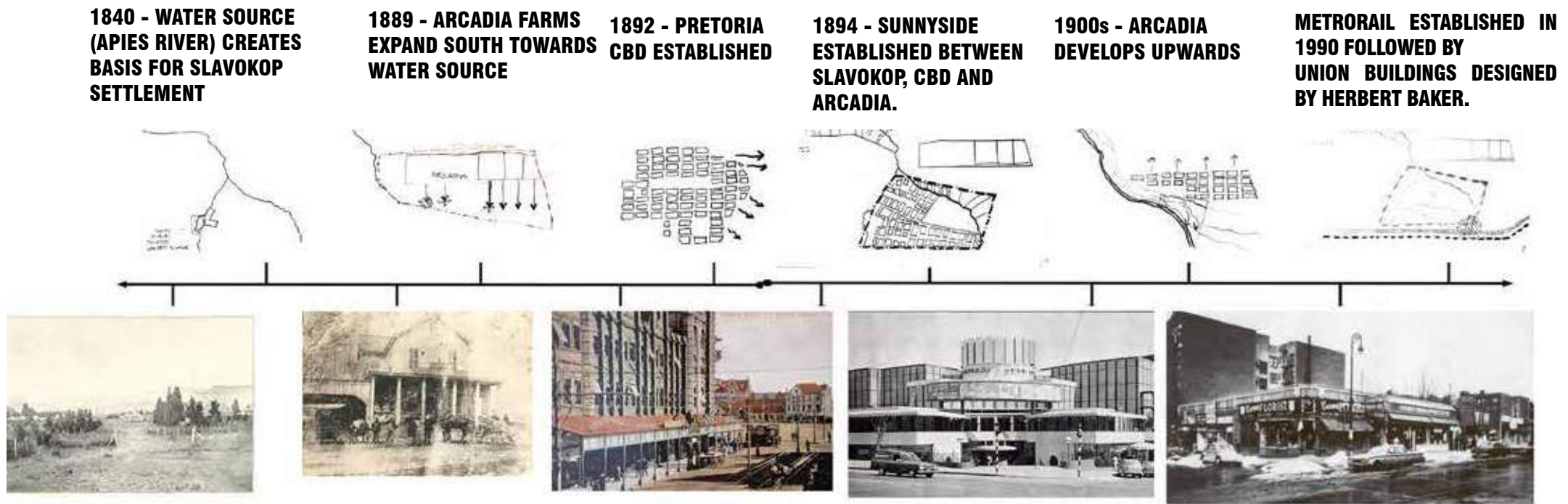


Fig. 1.4b: Tsebe. T. 2021. A timeline of the history of Sunnyside “Searching for Sunnyside” research report. Digital Collage (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand).

1.4. HISTORICAL CONTEXT

It is therefore in this range of roles played by the surrounding area's natural features, (i.e. A flowing river, as well as fertile land) that Sunnyside, along with its predecessors in Pretoria East, was created. The area was initially built upon using structures that would have indicated that it may have been for temporary use (shown adjacent).

HOW IS THE REGIONAL CONTEXT INFORMED BY THE HISTORICAL CONTEXT?

Today, the area has clearly become permanent, despite the fact that Sunnyside (like much of Pretoria East) was created in phases relevant to what the natural features of the area had to offer. The momentum of these phased decisions has continued making Sunnyside play a similar, economic and political role today, to what it did throughout the 19th and 20th century. The urban development of the CBD due to the country's growing economy and the Apartheid government's growing power bled outwards from the CBD and created a necessity to increase the density of residences in Sunnyside as well as Arcadia so as to efficiently get people (workers) to and from the CBD and Union Buildings. As the economy grew, new developments for business were proposed not only in the CBD but in Sunnyside and Arcadia as well. Today, following that trajectory, Sunnyside still finds itself at that intersection between residential density and absorbing the CBD's mixed-use logic. However, the residents of Sunnyside and the logic of the CBD have changed dramatically. These changes are best discussed at the urban scale.

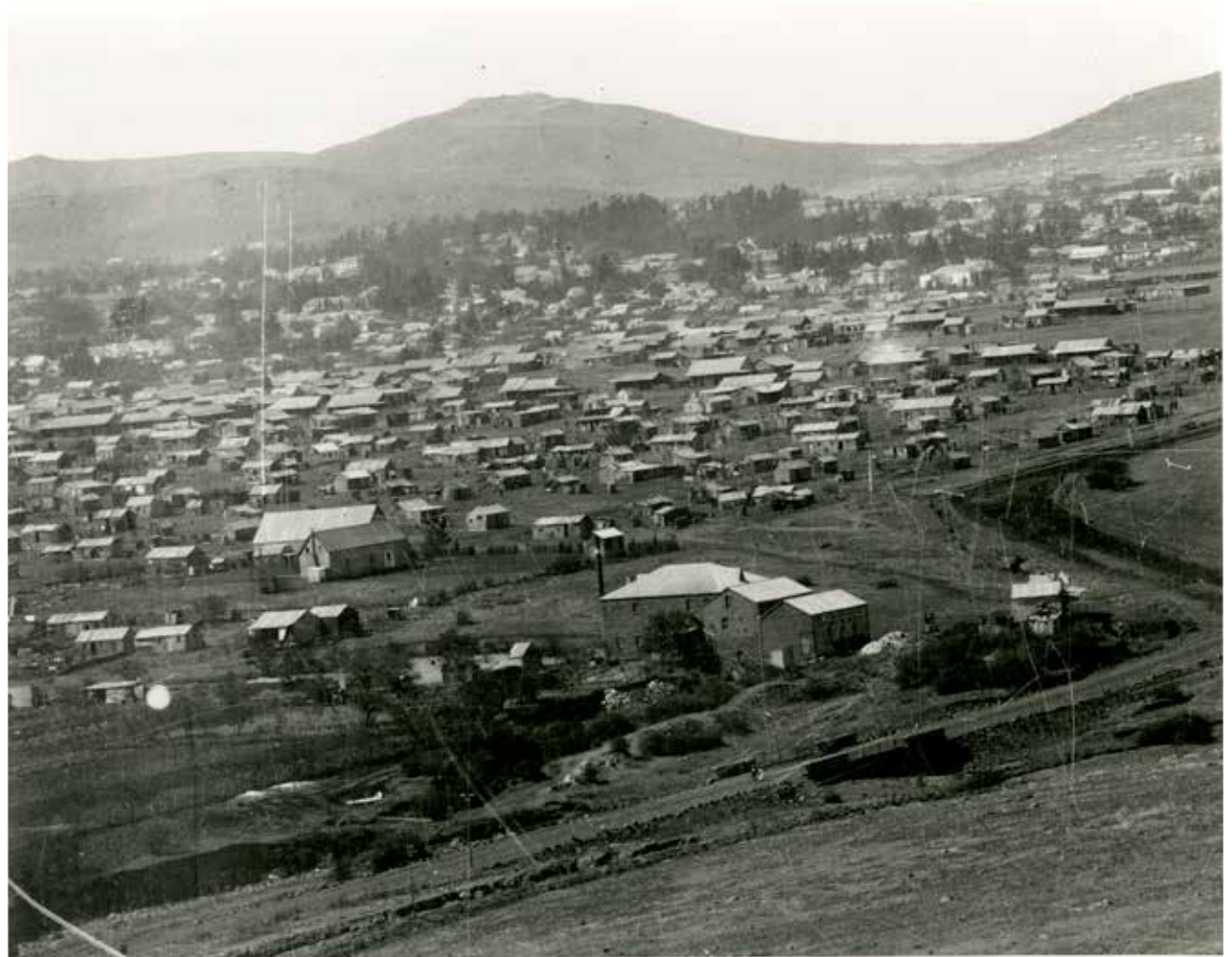
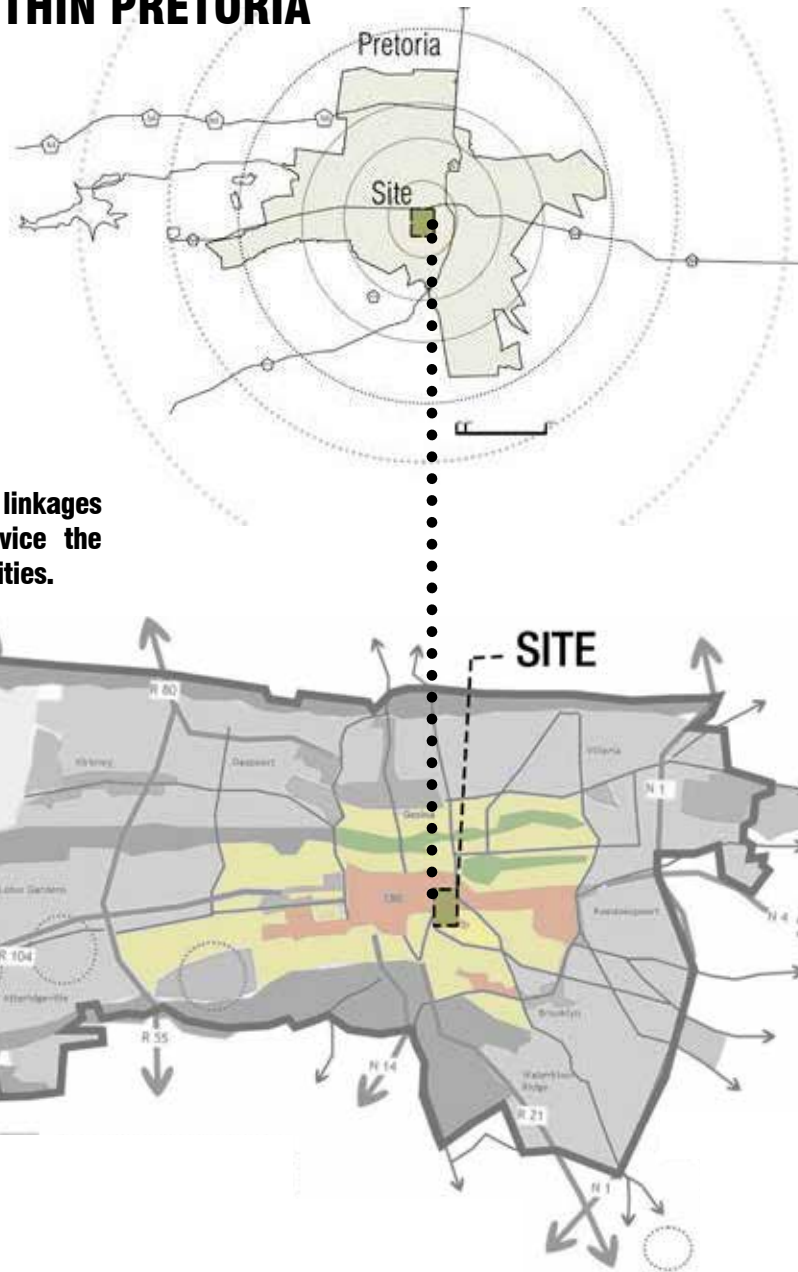


Fig. 1.4c: Tsebe. T. 2021. A timeline of the history of Sunnyside “Searching for Sunnyside” research report. Digital Collage (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand).

URBAN SCALE MAP LOCATING SITE WITHIN PRETORIA

- **SUBURBAN HIGH DENSITY**
Existing suburban areas with the opportunity for moderate densification. Areas to be developed with community service facilities in line with the City's standards for service delivery. Maintenance of existing facilities is important.
- **MIXED-USE BUSINESS AREAS**
Requires high levels of investment and upkeep. Public transport linkages are important. These areas service the community and offer job opportunities.



1.5. URBAN CONTEXT

At the urban scale, access to Sunnyside requires one to travel through the N4, the N1 or the N14.

Issues affecting the site's surrounding context at this scale, differ by the region of Pretoria (read Urban Edge of Pretoria) one is looking at. The east is populated largely by middle and high-income homes that now house many senior citizens, although not political officials. The West portion of Pretoria has more low-income senior and junior citizens (but the river that used to lead people there has dried). Most of the townships can also be found in the West. The North is made up of satellite suburbs and citizens that feed into the center of the city using routes that come from Limpopo but the river that used to lead people there has dried).

In the city's urban framework, Sunnyside's categorisation under "suburban density means it has "opportunity for moderate densification" (2015. REGION 3: REGIONAL INTEGRATED DEVELOPMENT PLAN. 1st ed. Tshwane,) and developments in the area are to be built "with community service facilities in line with the City's standards for service delivery".

According to the city's framework, the mixed-use description for the area prescribes that it requires high levels of investment and upkeep. This feature of the framework, however, might not fare so well in a developing economy like that of South Africa. Furthermore, Sunnyside's middle-income and low-income population might be burdened by high maintenance facilities although it's diverse population could benefit from maintaining existing facilities and areas that offer job opportunities to the community.

Fig. 1.5: Tsebe. T. 2021. An Urban Scale map locating the site within Tshwane's regional framework and Pretoria's extents. "Searching for Sunnyside" research report. Drawing (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand).



Fig 1.6. Unknown Author . Edited by Tumi Tsebe. [image] Available at: <<https://mapio.net/pic/p-31497733/>> [Accessed 14 February 2022].

1.6. SUB-URBAN CONTEXT

In relationship to its surrounding suburbs, Sunnyside is a place that offers a microcosm of what each of its neighboring areas have to offer. Arcadia is made of middle-income residential areas and low-density flats. Which can also be found in Sunnyside. Sunnyside is made of lower income residential blocks with high density flats. The CBD adjacent offers stores for small enterprise business which are largely owned by people of foreign descent. Sunnyside contains Barclay Square, Esselen Street, Sunnypark and MidCity Square which all act as small business centers for the area. Muckleneuk is home to many senior citizens due to its proximity to health care and easily accessible residences. In Sunnyside, Justice Mahomed Street contains a hospital, a train platform and residences with elevators. Justice Mahomed intersects with the highway that leads you out of Pretoria. It is the flats, roads and business hubs that allow Sunnyside to offer so much of what Pretoria has to offer to its inhabitants. Over and above it's current inhabitants, there seems to be an influx of inhabitants from other parts of the city and country at large seeking what Sunnyside has to offer.

As the CBD is located so close to the area, public transport to rural parts of the city and country is readily available. As a former resident, my recollection of the area is that this influx of people from outside of the area results in some tension in the social environment surrounding the ethics of migration and social integration.

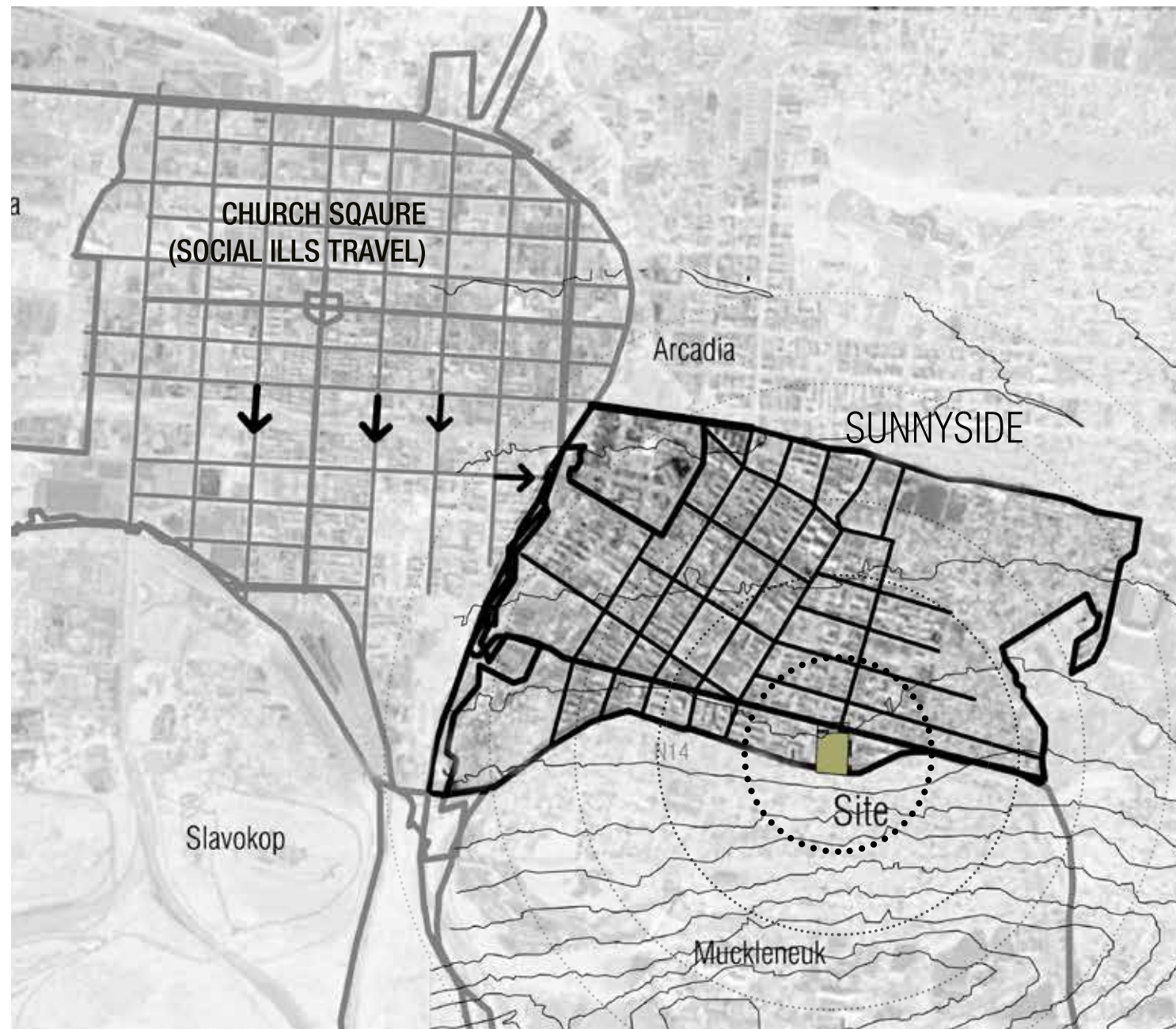


Fig. 1.7: Tsebe. T. 2021. A Suburban scale map locating site within Sunnyside “Searching for Sunnyside” research report. Digital Image (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand).

1.7. SOCIAL ENVIRONMENT: COMPONENTS OF AN EXPERIENCE

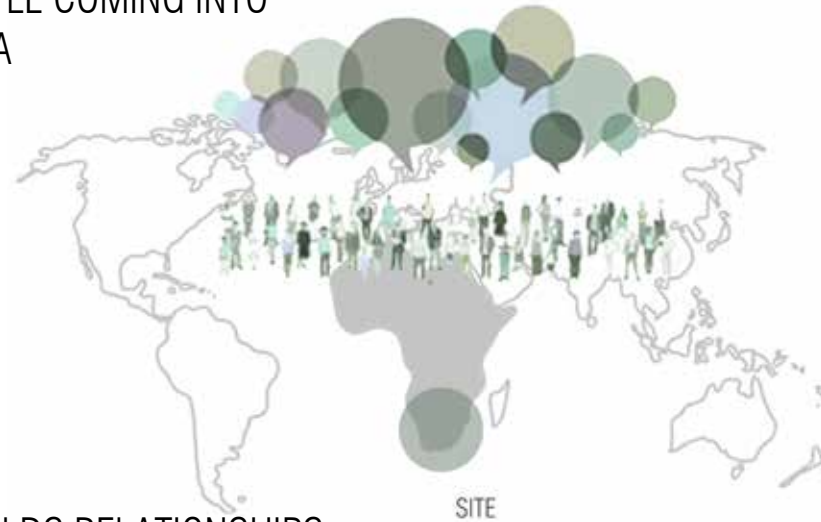
My experience of Sunnyside was one where I played a lot of soccer on a field of grass surrounded by high-rise residential units where young adults could sit on their balconies and watch me and my friends play. Often during school holidays, a cousin of mine or of one of my friends in the flats would come and join us for some games during the day. Often the kid would be from a different country and would not be very good at English. This wasn't much of a problem for us because the rules of football were the same regardless of your country of origin or home language. The rules of engagement between us were universally accepted and these provided a framework within which strangers could work productively towards a common goal.

1.8. ON ETHICS

One also learned a lot about people based on how they played football. Who was selfish, who shared the ball well? Who had good ball control (which was usually an indicator of effort put into practice)? Who was most supportive of their teammates etc.? I later learned that what was happening in that field is that I was observing, implicitly, the characterization of fair play, a milestone in the development of evolutionary human ethics as well as its implications on social life (Pellis, Burghardt and Schank, 2018).

The more you played fair and the more skilled you were, the more likely we were to see you on the field again and again.

DIVERSE PEOPLE COMING INTO SOUTH AFRICA



FAIR PLAY BUILDS RELATIONSHIPS



FAIR & ETHICAL INDIVIDUALS



Fig. 1.8: Tsebe. T. 2021. A diagram breaking down the social environment of Sunnyside into it's components, "Searching for Sunnyside" research report. Digital Collage (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand).

1.9. SAFETY: CONSEQUENCES OF A CHAOTIC SOCIAL ENVIRONMENT

Adults engage with the area a lot differently from what children do. In general, adults do not engage in the act of play very often. (Robinson, Smith M.A, Segal, Ph.D. and Shubin, 2020) This makes one wonder how the Adults in Sunnyside came to engage in fair social contracts with one another as the adults in Sunnyside and South Africa, more broadly, are often just as unable to speak fluent English as the foreign national children are. Thanks, in no small part to the city's deteriorating public education system (Mbuzi, 2021). The most pertinent effect of this dynamic is that many adults in Sunnyside seem not to engage with one another at all unless absolutely necessary

EDUCATIONAL AREAS

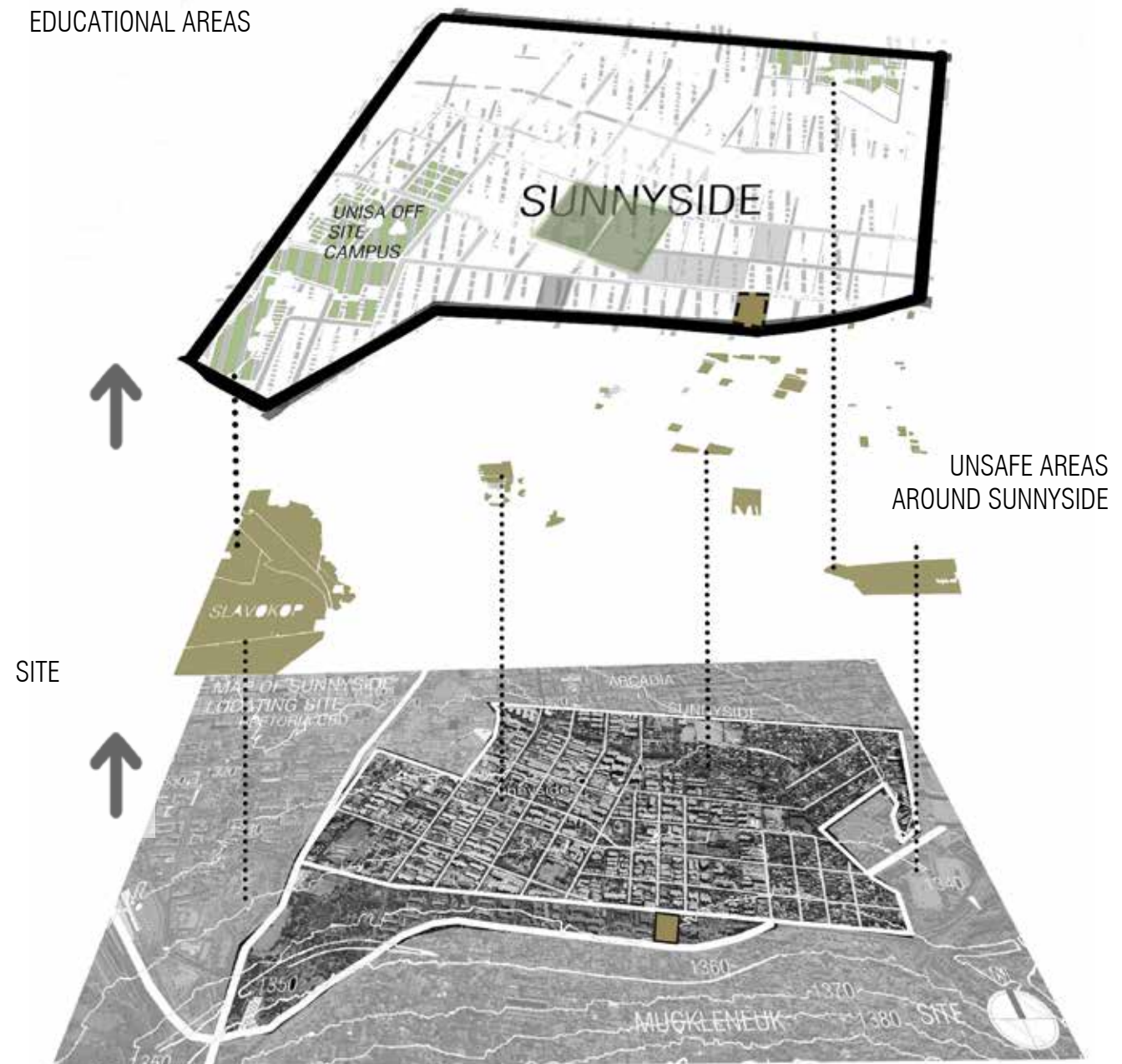
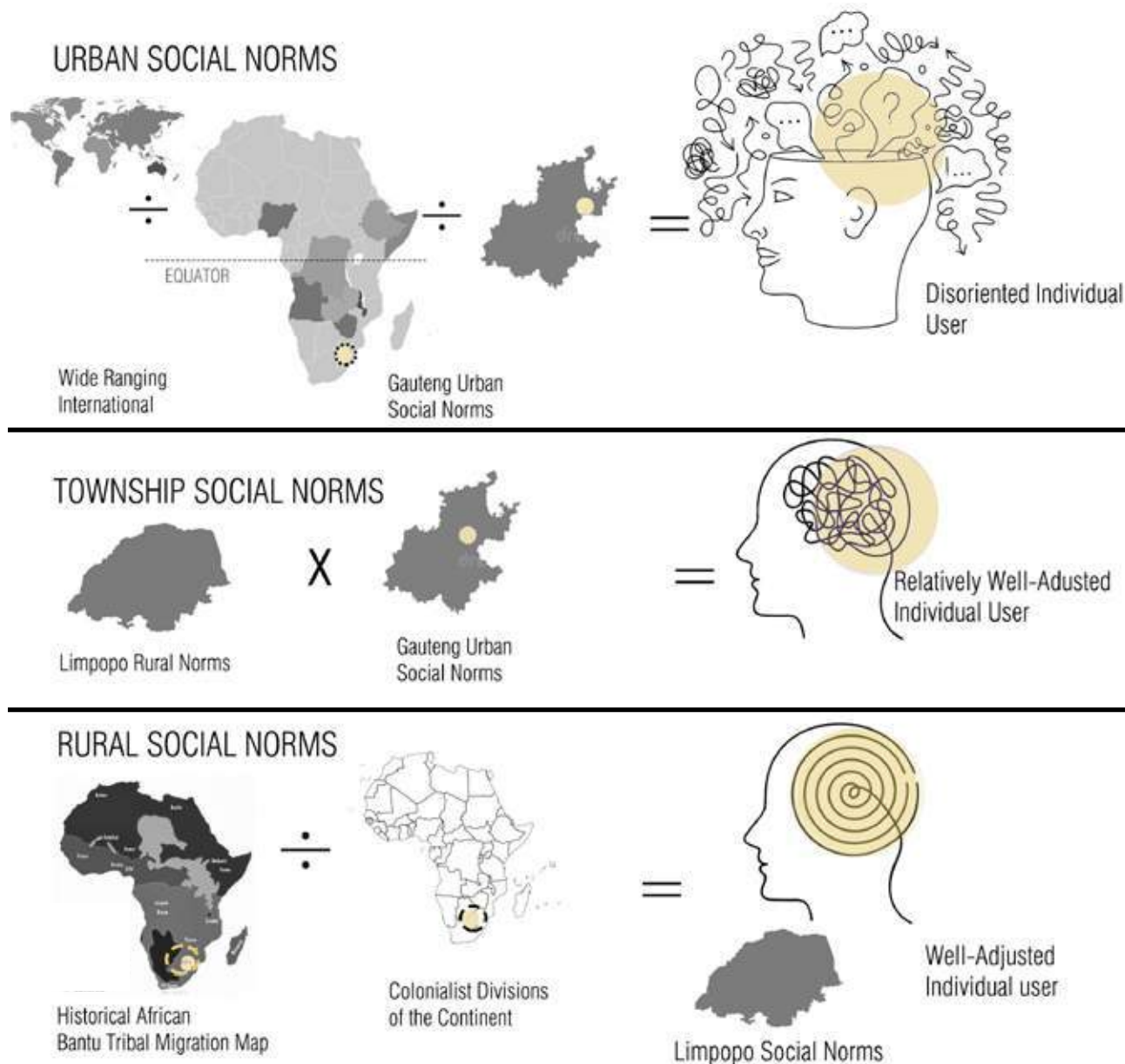


Fig. 1.9: Tsebe. T. 2021. A diagram showing the relationship between Education and Social Environment, "Searching for Sunnyside" research report. Digital Collage (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand).

1.10. HOW DOES A LACK OF SAFETY AFFECT THE USER?



The effect of the lack of engagement between adults is that Sunnyside becomes a place that lacks a degree of social cohesion. On one hand, you have residential units that house everyone from students of universities nearby to government blue collar employees. On the other hand, the area is heavily populated with both legal and illegal immigrants (News24, 2012). The local constituents are both rural and urban migrants, given that much of Pretoria's population is occupied by people from the rural areas of Limpopo and other predominantly rural provinces in the country (i.e. Limpopo Mpumalanga, Northwest etc.) (Census, 2011). Somewhere in between all of that, there are parents, of all nationalities and cultures trying to raise children as the area affords access to public transport which passes by some of the better schools in the city, for example, Brooklyn Primary School and Waterkloof Primary School. It is in this layering of these civic roles played by Sunnyside both in its Regional Framework and social context that the basis for my proposal lies.

It is possible that there are "too many illegal immigrants selling drugs and committing crimes" as has been stated by some residents (Pretoria cracks down on illegal immigrants | News24, 2021). It is also possible that many of the crimes that are currently taking place in the area are largely being committed by local citizens. What is not questionable is that each one of these possible explanations for the crime cannot divorce the community from its ethical responsibility towards children. (Child rights and why they matter, 2021). At the very least, the area's spaces should be prepared to accommodate some kind of humane development into the future that is not high maintenance and integrates positively with Sunnyside's physical and social environment.

Fig. 1.10: Tsebe. T. 2021. Diagram of urban, township and rural norms broken down into their effect on the public user, "Searching for Sunnyside" research report. Digital Collage (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand).

1.11. ON CRIME & SAFETY

In order to dissect social areas of concern for current residents of Sunnyside, there are some important distinctions to be made regarding the act of trespassing, differing degrees of trespassing, and forms of trespassing that should be considered criminal. To do so, it would be worthwhile to draw a differentiation between violence and crime. For the purpose of this report, we should consider that crime occurs when the law is violated. The Oxford English Dictionary states that crime is: “An act punishable by law, as being forbidden by statute injuries to the public welfare. An evil or injurious act; an offence, a sin; esp. of a grave character.” (CRIME | Definition of CRIME by Oxford Dictionary on Lexico.com also meaning of CRIME, 2021).

According to data published by the SAPS, Sunnyside Police Station ranks as one of the top ten police for “Community Reported Serious Crimes” nationwide (South African Police Services, 2019). The category of crime that Sunnyside is most notorious for is that of “Theft of or from motor vehicle”, for which it ranks second in the country. “Common robbery” is another regular occurrence and “Property-related crime” is a crime category for which the area is a leader in South African criminology. All of the above offences are not only punishable by law but reflect a grave character. This might be of interest to residents of Sunnyside in order to get to the bottom of social tensions in the area as well as concerns about crime.

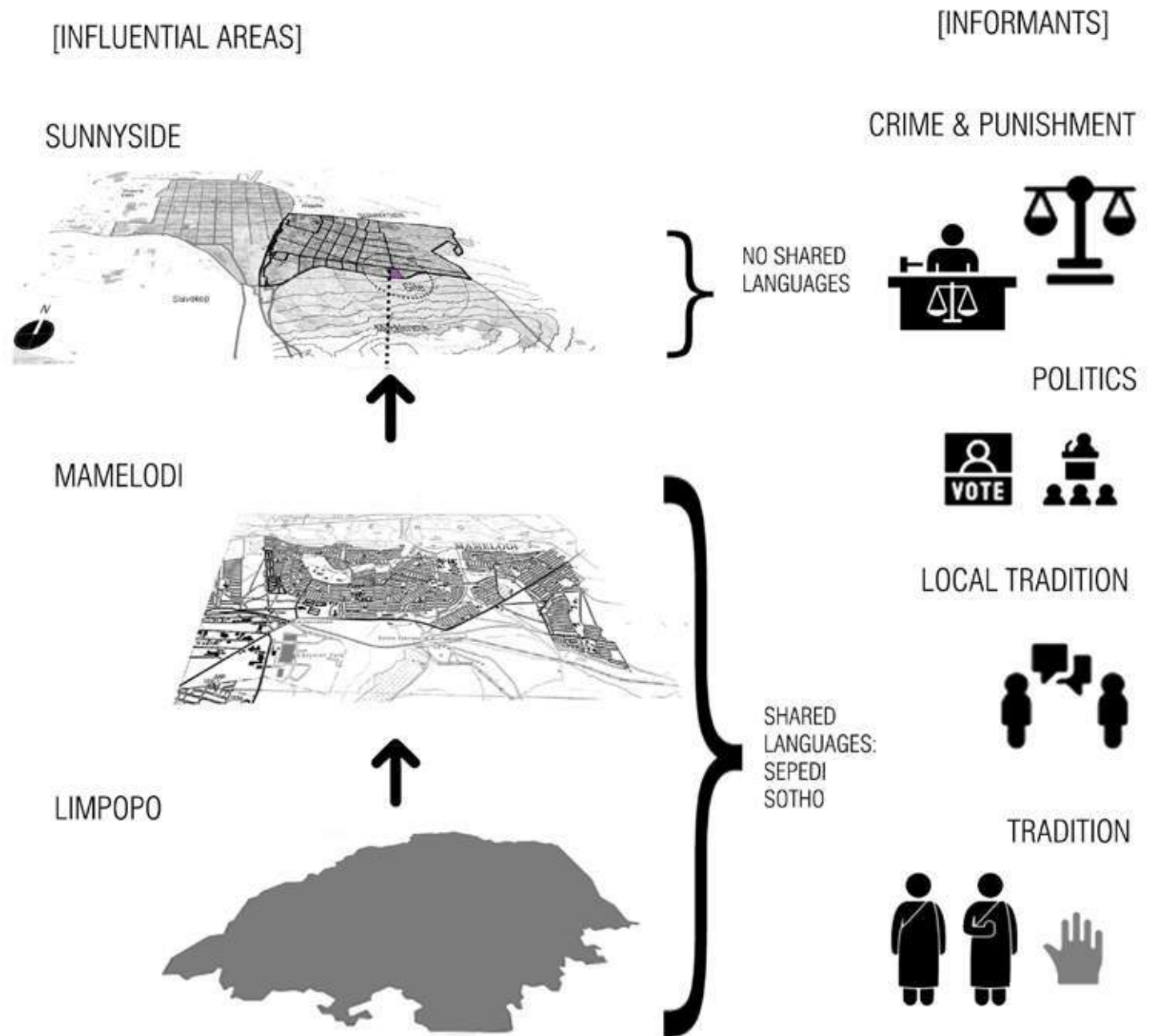


Fig. 1.11: Tsebe. T. 2021. Diagram of informants and influences, “Searching for Sunnyside” research report. Digital Collage (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand).

1.12. URBAN LEVELS: A LAYERING OF ANALYSIS

The crimes mentioned above are not what local residents seem most concerned about when it comes to crime in Sunnyside. What residents of Sunnyside are most concerned about in the area are drug-related crimes for which the area does not rank in the top thirty in the country, according to the SAPS data on this issue (South African Police Services, 2019). The residents of Sunnyside appear particularly concerned about drug crimes being committed by illegal immigrants otherwise referred to as “foreigners”. News reports and social media posts cite residents of Sunnyside holding rather unfavorable views of Nigerians (Nkhwashu, F., 2021). According to the residents and blog posts related to this issue, common reasoning for these attitudes include statements such as: “Nigerians are selling drugs in Sunnyside” or “Foreigners are taking our jobs”.

In order to maintain a rigorous approach to the research being conducted on Sunnyside, it is important to understand pieces of evidence such as that which is cited above, as a single layer or level of a multi-layered analysis. As the scale of the area is urban (more than 2,500 inhabitants), the issues that affect it are too

URBAN LEVELS

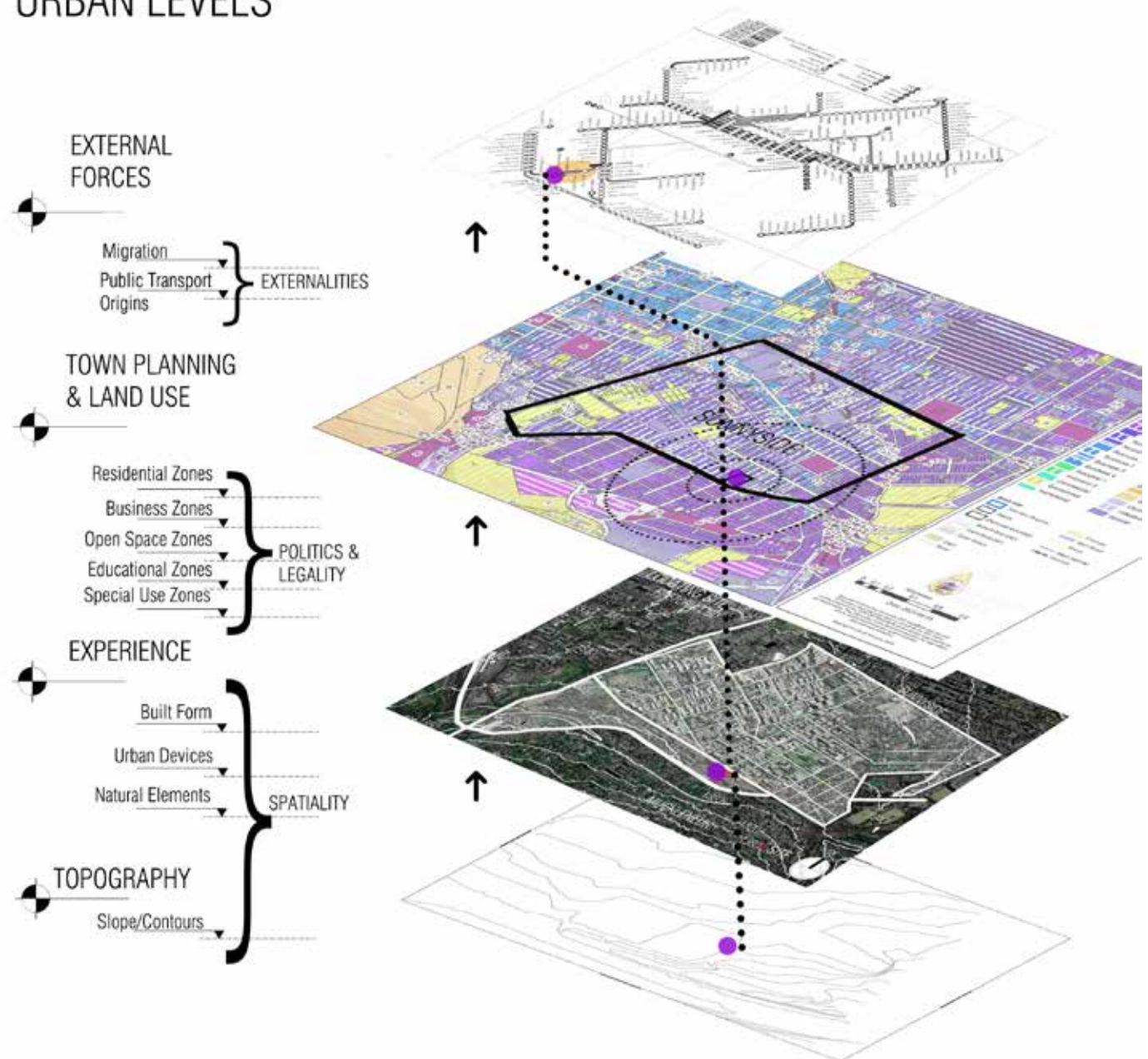


Fig. 1.12: Tsebe. T. 2021. Axonometric view of layers of analysis, “Searching for Sunnyside” research report. Digital Collage (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand).

1.12. URBAN LEVELS: A LAYERING OF ANALYSIS

While it may be true that drugs are being sold in Sunnyside (Jones, 2021), police data does not give any indication that the drugs being sold in any particular area are being sold by people of any particular nationality. With regards to jobs in South Africa, it does not make much sense to hold the view that foreigners are taking the jobs of local nationals because the jobs taken by legal immigrants in the country (i.e. People with work permits, dual citizenship, visas, etc.) tend to be jobs which require a deep level of tertiary education such as in fields like engineering, ICT professional services, executive-level finance, and executive-level mining jobs which many South Africans, particularly those in the age groups that are characteristic of Sunnyside, (ie. People aged 24-29) are simply not qualified to do. (Census, 2011).

Given the above data, it is safe to assume that a just approach to the built environment of Sunnyside would be one that uses the ethos of Urban Levels, which would allow a single design proposal to address a different set of problems for different constituents that engage with Sunnyside at different scales. To the resident of Sunnyside, the area appears to be a place of residence. To a travelling worker from the CBD, Sunnyside is a stepping stone to the CBD. From the perspective of a rural dweller seeking the city's healthcare infrastructure, Sunnyside is a gateway to better care. This set of profiles of people occupying the area is what's driving my inquiry which is as follows: How can a designer change the approach to designing in the area from one that tries to establish the primary stakeholders in Sunnyside to one which seeks to negotiate between different user profiles? Re-encouraging the ethos of fair play at the level of Sunnyside's built environment.

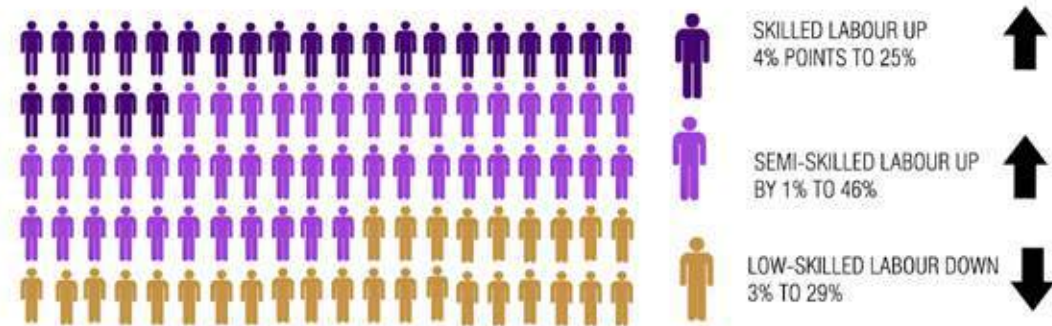
URBAN LEVELS: A LAYERING OF ANALYSIS

WHICH INDUSTRY HAS THE MOST NUMBER OF EMPLOYEES ?

PERCENTAGE OF 9218000 EMPLOYEES Y INDUSTRY IN THE FORMAL NON-AGRICULTURAL SECTOR JUNE 2016



BREAKDOWN OF THE SOUTH AFRICAN WORKFORCE BY SKILL LEVEL OVER THE PAST 20 YEARS



SINCE 1994 THERE HAS BEEN A SHIFT TO SKILLED EMPLOYMENT

Fig. 1.13: Tsebe. T. 2021. Diagram showing demographics "Searching for Sunnyside" research report. Digital Collage (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand).

1.13. URBAN LEVELS: THE STREET

Regardless of the views of various stakeholders in Sunnyside, it is without question that the city's infrastructure should not show any biases against any law-abiding citizens in its functionality, as stipulated in Chapter 10 of The South African Constitution (Assembly, 1996). City infrastructure found in the area includes roads, street lights, parks, train platforms and traffic lights. In order to understand what sort of architectural intervention might be appropriate for the area, it is important to understand what sort of approaches to urban technology (roads, parks, sidewalks etc.) are conducive to a desirable social environment and which approaches are not. "Cities For People" by Jan Gehl, (Gehl, J., 2010. Cities for People. Washington D.C: Island Press, pp.17, 18-21, 61, 235-239.) identifies the range of consequences that arise from taking specific approaches to this kind urban technology. The book seeks to address the ways in which certain kinds of architecture can have effects that don't attract social engagement between pedestrians but rather may repel them. An example of this is identified in the toolbox the book provides which puts forward that in order to create a safe public realm that provides a sense of security from crime and violence, one must provide: a lively public realm, eyes on the street, overlapping functions at both day and night as well as good lighting at night. (Gehl, 2010)



Fig. 1.14a: Tsebe. T. 2021. Image showing the lively public realm and eyes on the street in Sunnyside Analytical Image (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand).

Eyes on the Street



Fig. 1.14b: Unknown Author. Photograph of South Africa's N1 travelers. "Searching for Sunnyside" research report. Drawings (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand).

1.14. URBAN LEVELS: OVERLAPPING FUNCTIONS

For Sunnyside, all of the above are relevant features when dealing with an urban intervention as there is not much of a public realm at the urban scale due to the fact that most of the buildings in the area are private residential buildings. While the multi-level residences or “flats” may provide eyes on the street, they don’t observe much of the crime in part because there are little to no highly pedestrianized social hubs in the area. Most of the streets receive low pedestrian activity because the buildings boundary walls interfere with visibility around street edge.

The South African Cities Network has also released an informative development framework focused on providing equitable urban access to all citizens. The name of the framework is called “How to Build Transit Oriented Cities: Exploring Possibilities. South African Cities Network 2014.” In this book, which acts as a guideline for sustainable urban development, analysts state that: “Well-designed streets provide efficient, direct access to public transport stations, increasing first- and last-mile connectivity. A comfortable environment for pedestrians and cyclists also reduces the value of time associated with the trips to and from the public transport station by improving journey quality (Litman, 2015). It is believed that these urban characteristics (i.e. bicycle lanes, pedestrian lanes and well-designed streets) increase the perceived level of access for a public transport user, which is purported to increase ridership and financial viability. Given the age groups and financial profile of Sunnyside’s users, it would be beneficial to them for Transit Oriented Design, which echoes much of the priorities laid out by Gehl, to manifest in the suburb. Fig. 1.15: Tsebe. T. 2021.. Drawings of “Urban Toolbox for people oriented cities” traced by Tumi Tsebe (Original Drawings Source: Gehl, Gemzøe, Kirknæs, Søndergaard, “New City Life,” The Danish Architectural Press, 2006. Further developed: Gehl Architects — Urban Quality Consultants, 2009.).

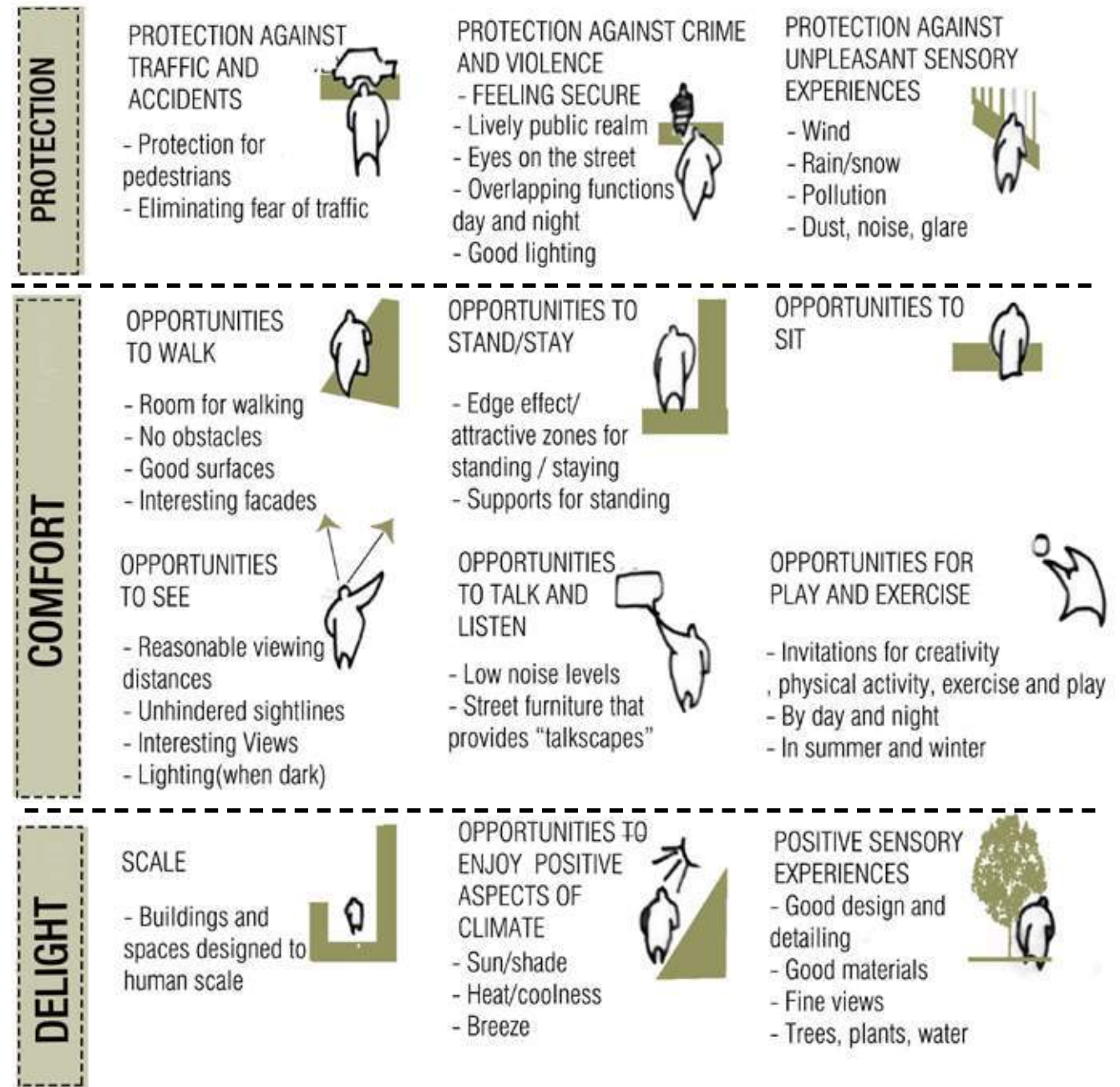


Fig. 1.15: Tsebe. T. 2021. Drawings of “Urban Toolbox for people-oriented cities” traced by Tumi Tsebe (Original Drawings Source: Gehl, Gemzøe, Kirknæs, Søndergaard, “New City Life,” The Danish Architectural Press, 2006. Further developed: Gehl Architects — Urban Quality Consultants, 2009.).

1.14. URBAN LEVELS: OVERLAPPING FUNCTIONS

This begs to question how this range of necessary civic functions and urban infrastructure can be representative or emblematic of the different user-profiles in Sunnyside. What does the built environment in Sunnyside look like when different functions for the same space overlap? In Gehl's toolbox, the different tools are arranged categorically under either delight, comfort or protection. In Sunnyside, as shown in the diagrams adjacent, these purposes aren't necessarily divorced from one another. The sidewalk is not only an edge but a platform from which business stalls operate. Balconies become the fixture onto which signage for business is mounted. More presciently, garage door openings that not only invite the public into stores but offer eyes on the street during the daytime, become less desirable spaces at night. These context-dependent features force a designer to be selective and considerate in deciding which tools from Gehl's toolbox are relevant.



Overlapping functions

Fig. 1.16a: Tsebe. T. 2021. Image showing overlapping functions on the street in Sunnyside. Analytical Image (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand).



Lighting at night

Fig. 1.16b: Tsebe. T. 2021. Image showing lighting at night in Sunnyside. Analytical Image (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand).

1.15. URBAN LEVELS: THE PARK

An interesting observation one can make about recreational spaces in Sunnyside is that almost all of the physically engaging recreational spaces are outdoors. From parks to basketball courts to swimming pools. While this means there are plenty of recreational activities to engage in during the summer, this begs the question; what do the residents of Sunnyside do during the winter? Furthermore, what should the role of a park be with regards to repelling crime or anti-social behaviour throughout the seasons of the year? While these can be read as rhetorical questions for the moment, one can look to various case studies such as those conducted in Tshwane for possible answers. Studies indicate that the categories of crime that Sunnyside is most notorious for (i.e. Property theft, common robbery etc.) tend to rise in their rates during the summer (Maina, 2018). Perhaps because people's activities are more diverse in the summer and as a consequence, urban behaviour is more difficult to monitor. Subsequently, vigilance declines, and criminals are left with plenty of opportunities to capitalise on (Simmons, 2018).

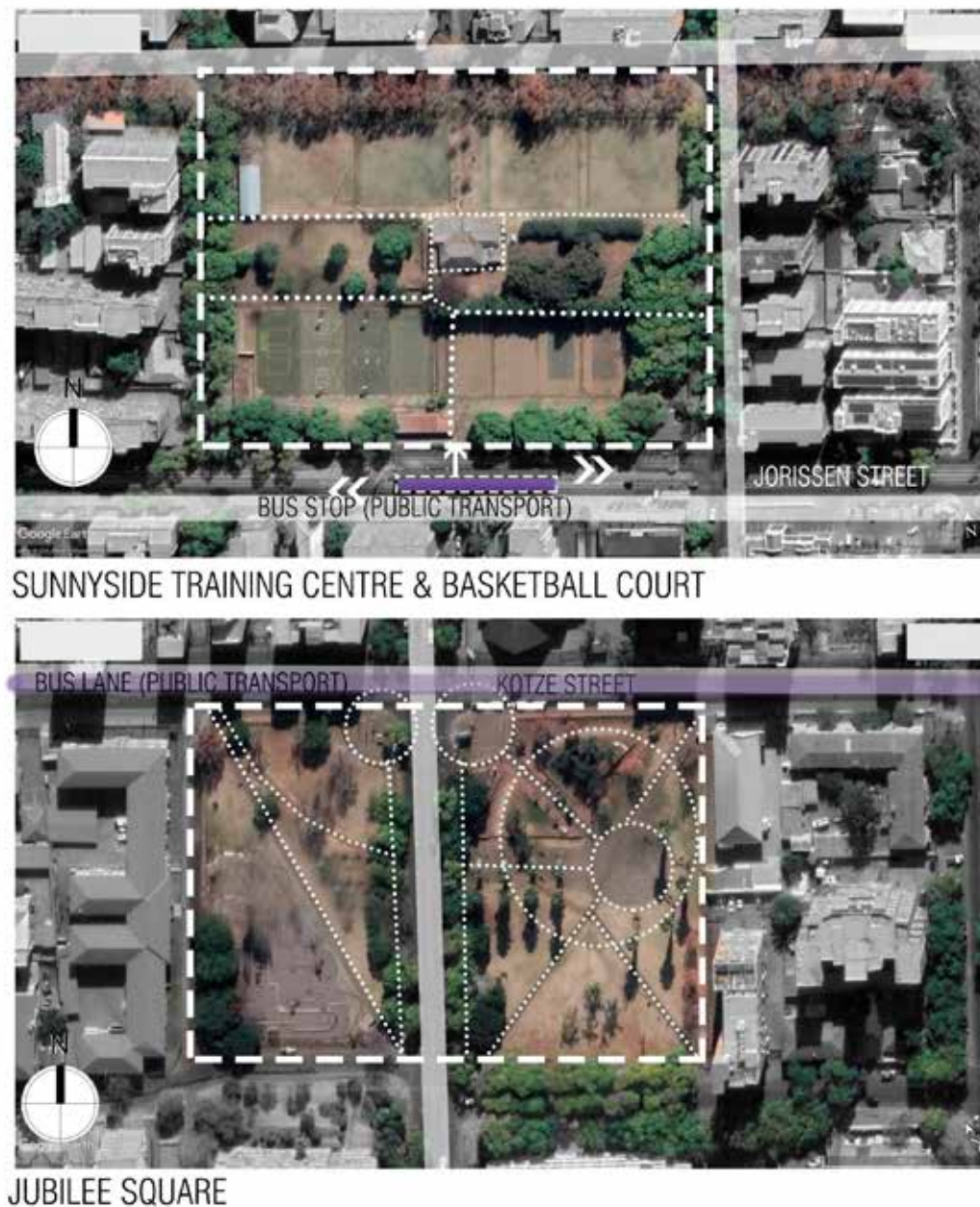


Fig. 1.17: Tsebe. T. 2021. Drawings analysing the parks of Sunnyside “Searching for Sunnyside” research report. Drawings (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand). Original Images Source: Available at: < <https://www.google.com/maps/@-25.7530469,28.2067684,3a,75y,193.91h,83.06t/data=!3m6!1e1!3m4!1sxeVzkJNDd2n2eW0UtdH5cg!2e0!7i13312!8i6656?hl=en> >



Fig. 1.18: Tsebe. T. 2021. Drawings analysing the proposed site as a parks of Sunnyside “Searching for Sunnyside” research report. Drawings (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand). Original Images Source: Available at: < <https://www.google.com/maps/@-25.7530469,28.2067684,3a,75y,193.91h,83.06t/data=!3m6!1e1!3m4!1sxeVzkJNDd2n2eW0UtdH5cg!2e0!7i13312!8i6656?hl=en> > [Accessed 11 September 2021]

1.15. URBAN LEVELS: THE PARK

This evidence surrounding the relationship between community vigilance and parks might be the basis for a park that includes seating arrangements for the public that face both the park and the street level, providing the opportunity for users of the park to provide passive surveillance for the park and the street. Perhaps even reconnecting Sunnyside to it’s Arcadian grassroots. This evidence also acts as a basis for my design proposal to leave a large portion of the site open to seating and shading structures only. The information gathered here is, therefore, a take-away for my design and site selection as a proposal like this would in turn act against crimes such as theft of or from motorvehicles. While surveillance may be one role for a park to play in the urban setting, it is not the only role it can play. A large and growing body of literature consistently demonstrates the therapeutic benefits of people–nature interactions. Research in this field indicates that although there may be a necessary variation in duration, proximity, scale and sensory experience, people interacting with nature is truly restorative psychologically and physiologically. (Cushing and Miller, 2021) This is, in part, the basis for the site selection of “Searching for Sunnyside” as the site exists on what is currently a park made up of three different erfs, outlining the opportunity for the addition of new, necessary public functions (e.g. A wellness center on one erf) whilst maintaining, already existing, ecological functions (e.g. The existing park).

TAKEAWAYS FOR A DESIGN PROPOSAL

- Site must be segmented in order to allow for portions of the site to be allocated to open vegetation/greenery.
- Design proposal needs to maintain visibility onto the greenery without compromising the privacy afforded by the edges.
- Edges must be permeable so as not to pose a time-dependent safety threat like existing storefronts.



Fig1.19.a. Tsebe. T. 2021. Analytical Image of Jubilee Park showing opportunities to walk, positive sensory experiences, eyes on the street, appropriate scale and opportunities to stand/stay. 2021 “Searching for Sunnyside” research report. Edited Google Earth Image Source: Available at: < <https://www.google.com/maps/@-25.7530469,28.2067684,3a,75y,193.91h,83.06t/data=!3m6!1e1!3m4!1sxeVzkJNDd2n2eW0UtdH5cg!2e0!7i13312!8i6656?hl=en> > [Accessed 11 September 2021]



Fig1.19.b.Tsebe. T Photograph of Jubilee Park showing eyes on the street and pedestrian activity. 2021 “Searching for Sunnyside” research report. Edited Google Earth Image (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand). Original Images Source:

1.15. URBAN LEVELS: THE PARK

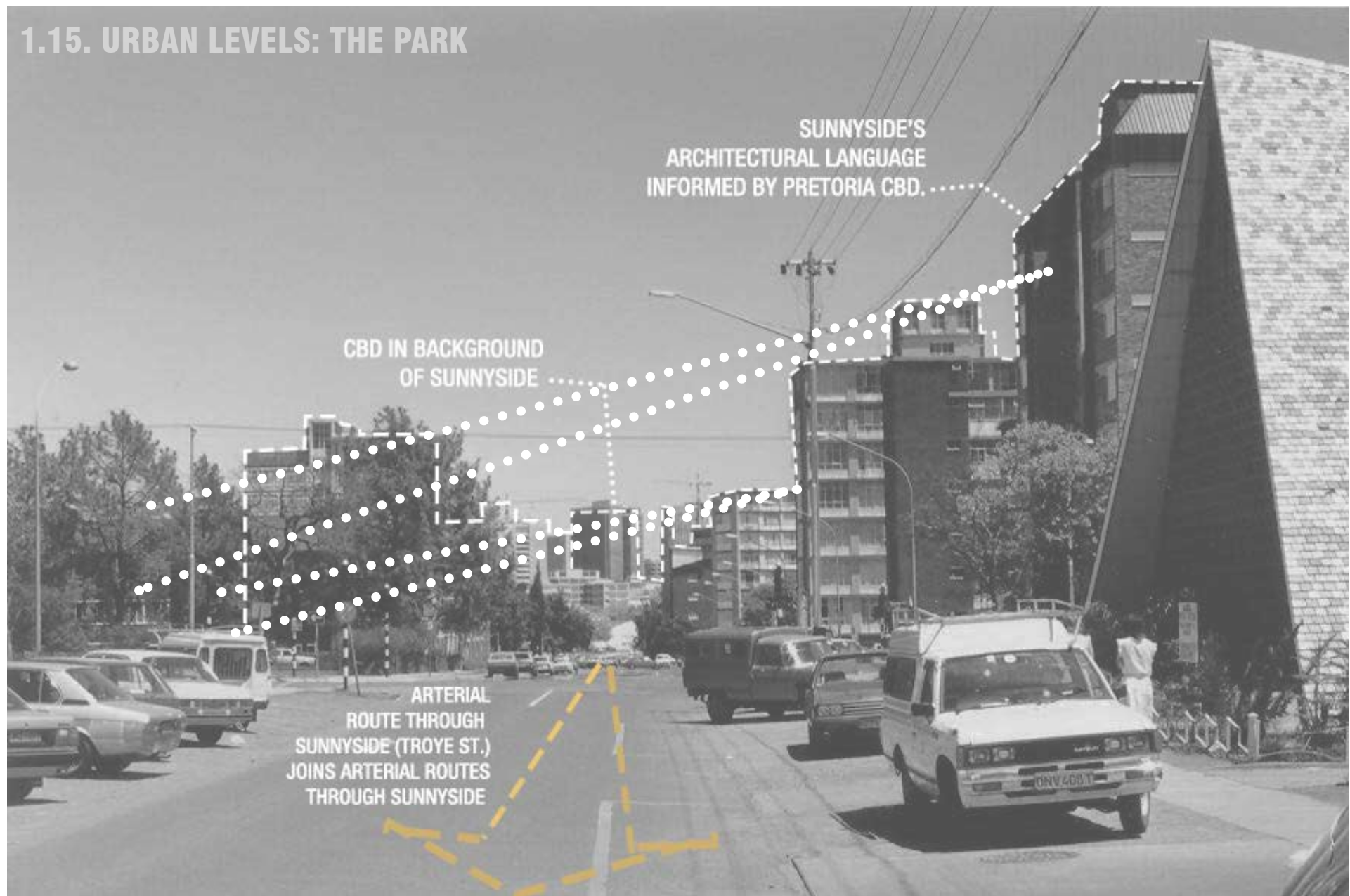


Fig 1.20. Tsebe, T. 2022 . Analytical photograph of Troye Street showing eyes on the street and architectural scale e continued from PTA CBD. "Searching for Sunnyside" research report. Edited Google Earth Image (Searching for Sunnyside, Master's Design Studio, University of the Witwatersrand). Original Images Source: Available at: < <https://www.google.com/maps/@-25.7530469,28.2067684,3a,75y,193.91h,83.06t/data=!3m6!1e1!3m4!1sxeVzkJNDd2n2eW0UtdH5cg!2e0!7i13312!8i6656?hl=en> > [Accessed 11 September 2021]

1.16. URBAN LEVELS: THE SOCIO-ECONOMIC CONTEXT

As mentioned earlier, a popular opinion held by citizens of South Africa, and often residents of Sunnyside, is that foreigners are taking their jobs. However, as shown by The World Bank, this is not true as the jobs being undertaken by foreigners are not those that South African citizens are typically qualified to perform (World Bank Group, 2018).

Even then, this is a rather confused and confusing set of resentments as noted by researchers at the Cape Peninsula University of Technology (Kalitanyi and Visser, 2021). Immigrants tend to not only be qualified for different jobs from those which South Africans qualify for, but they also tend to be more entrepreneurial than locals and therefore are able to capitalise on the aforementioned factors.

In order to understand why South Africans, as well as residents in Sunnyside, are not overrepresented among entrepreneurs and well qualified job holders, it is necessary to understand a little bit more about the South African economy, specifically about what happens when businesses are on the backfoot. It is also necessary to understand an important spatial relationship between I will address this in subsequent sections of this chapter.

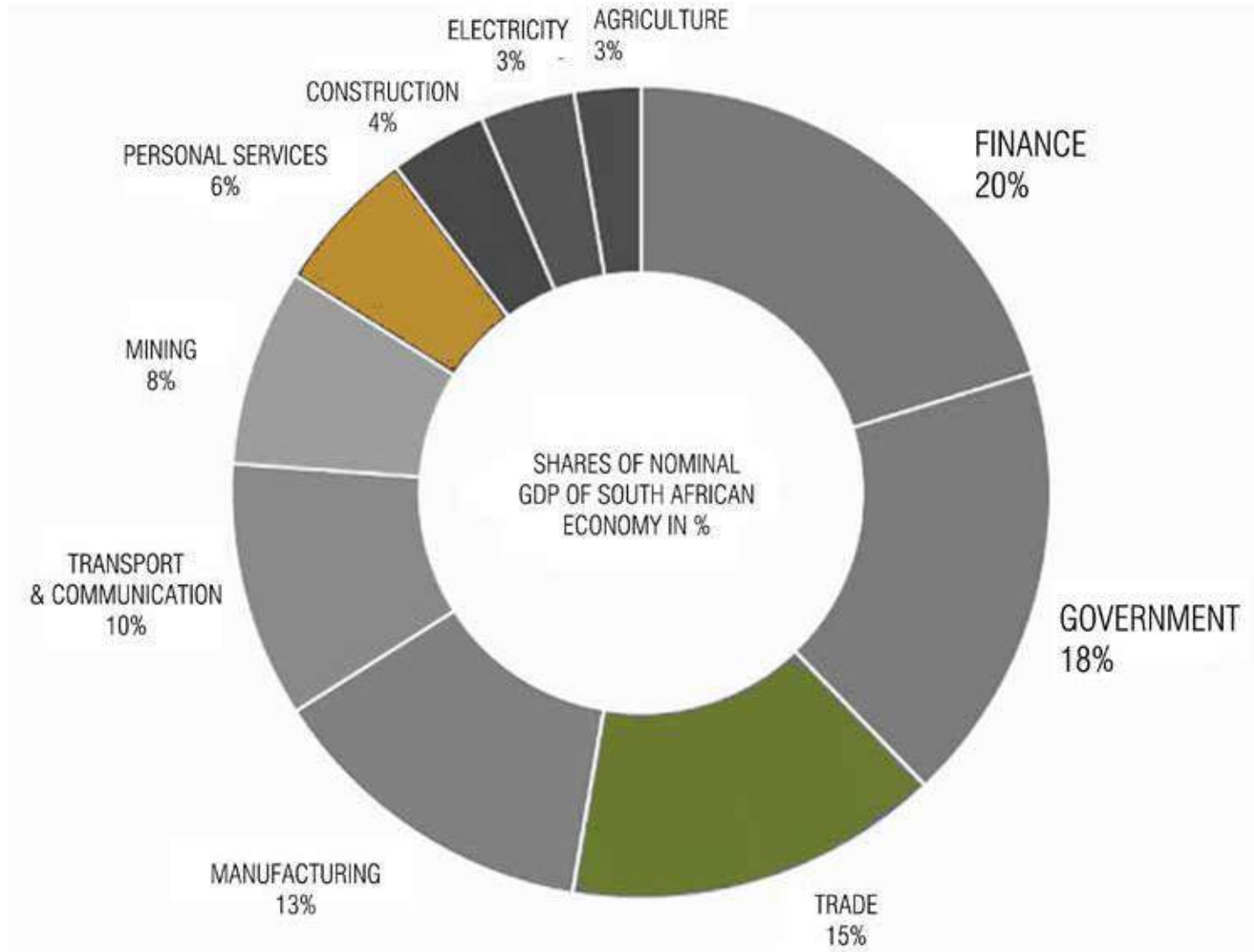


Fig. 1.21: Tsebe. T. 2021. Shares of Nominal GDP of South African Economy in %. "Searching for Sunnyside" research report. Pie Chart (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand). Original Images Source: Available at: < http://www.statssa.gov.za/publications/P0441/GDP_Q4_2017_Media_presentation.pdf > [Accessed 12 September 2021]

1.16. URBAN LEVELS: THE SOCIO-ECONOMIC CONTEXT

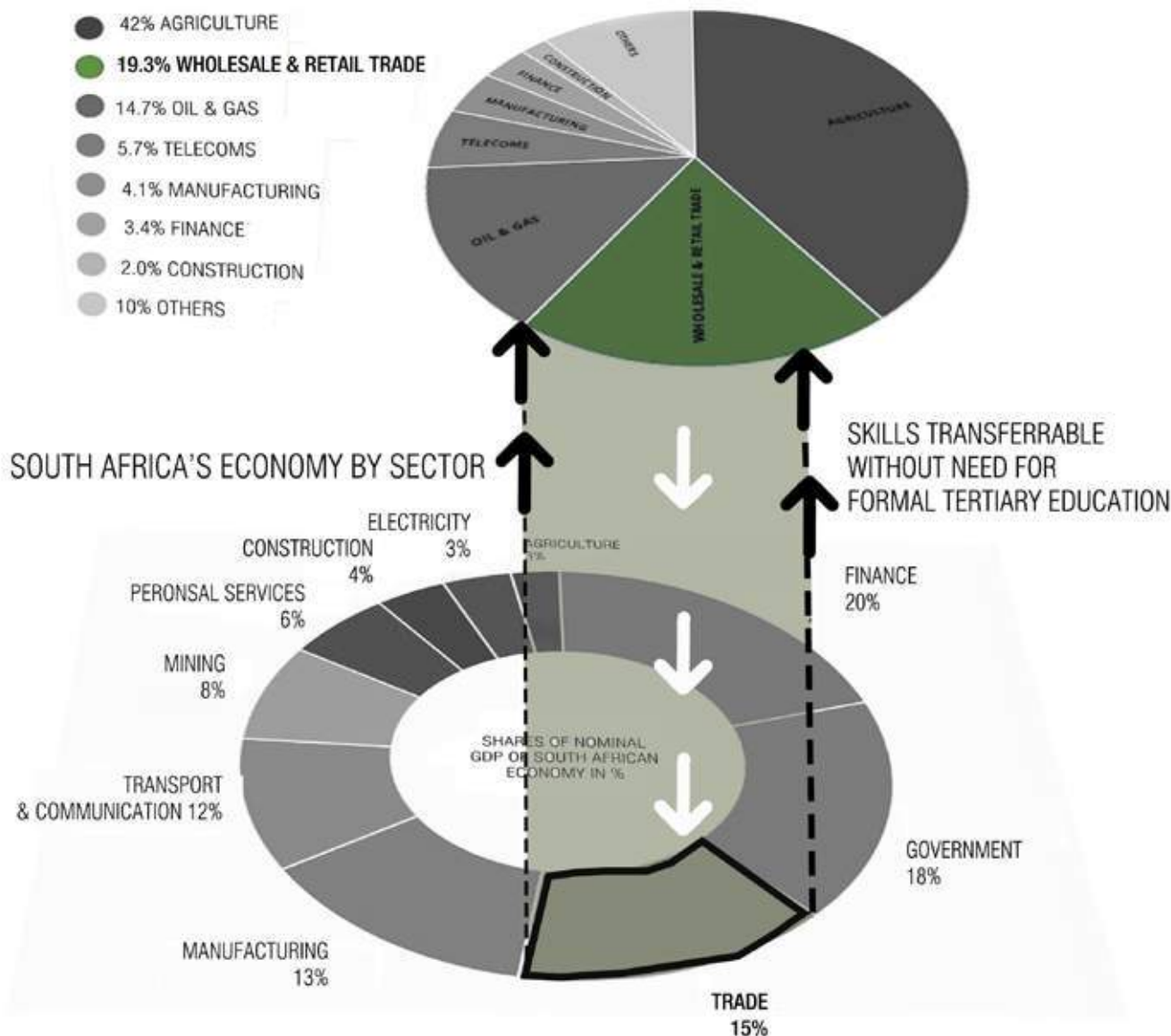


Fig. 1.22: Tsebe. T. 2021. Route from Beitbridge border to Pretoria's CBD. Edited Google Earth Image. "Searching for Sunnyside" research report. Google Earth (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand). Original Images Source: Available at: < <https://www.google.com/maps/search/beitbridge+border/@-22.2107155,29.9674839,13z>> [Accessed 12 September 2021]

The Beitbridge Border post is, for most Nigerians living in Sunnyside, the boundary between South Africa and other African countries. The border not only acts as the threshold into the country for Zimbabwean, Malawian and Zambian immigrants, but it is also the busiest border post in the southern parts of Africa. It is then worth asking what the sequence of events might be lead an immigrant from that border post to Pretoria? Although residents of Sunnyside are unhappy with the amount of immigrants residing in Sunnyside currently, research into transit routes from the Beitbridge border post reveal that Pretoria's Intercap bus station lies just 15 minutes from Sunnyside. What this means is that the CBD, and consequently Sunnyside, is the urban threshold for immigrants for most parts of Southern Africa into the country at large.

In light of this fact, taking into account the sheer volume of immigrants passing by the border post on a daily basis (with estimates of around 60 000 people per day according to News24 (News24. 2021.)). it is possible to see how Sunnyside's residents might feel overwhelmed by the influx on new, urban inhabitants and perhaps, more specifically, the resultant urban density. Although these facts cannot act as an excuse or endorsement of any xenophobia, they do force on to ask what kind of economic opportunities disappear as a consequence of economies of scale.

NIGERIA'S ECONOMY BY SECTOR



1.16. URBAN LEVELS: THE SOCIO-ECONOMIC CONTEXT

Studies have shown that the public education system in South Africa has been failing so rapidly that matric rates, as published by the department of education (Results and Results, 2021), are not to be used as indicators of academic or economic competence. The failing education system has been regurgitating millions of teenagers who fail to pass matric back into the townships (Du Preez, 2013, p.190). As there are plenty of structural failures in the system, it is estimated that somewhere in the range of 500 000 students who began school in 2002 have not completed matric today. This not only leaves teenagers vulnerable to the social ills of the larger national context such as drugs, violence and crime. It also brings to question the nature of the unemployment crisis in the country. Reports by some of the country's leading statisticians report: "It seems like the 550 000 children who drop out of the educational system and have no qualification, contribute to the overwhelming high unemployment rate of 50%, among the 18 to 24 year old group, which is twice the national average" (Statistics South Africa 2014).

In Sunnyside, this manifests itself as not only a crisis on unemployment but an apparent "trade" crisis in the city's business districts. As noted before, immigrants not only tend to be more educated than the average Sunnyside resident, but more entrepreneurial. In my scheme, I would like to find opportunities for both skills development and trade in order to address both of these concerns diplomatically.

Fig. 1.23: Tsebe. T. 2021. Nigeria's Economy by sector compared to South African Economy. "Searching for Sunnyside" research report. Edited Pie Charts (Searching for Sunnyside, Masters Design Studio, University of the Witwatersrand). Original Images Source(s): Available at: <<https://www.3psmars.org/why-nigeria-is-the-next-economic-power/>> <http://www.statssa.gov.za/publications/P0441/GDP_Q4_2017_Media_presentation.pdf> [Accessed 12 September 2021]

1.17. THE EFFECT ON YOUTH

While many accounts of this problem related to unemployment have pointed to the government's lack of ability to provide jobs, a more rational and dispassionate inquiry into the problem might beg to ask: What kinds of jobs can a teenager with sub-matric level comprehension reasonably be employed to perform? While there may be some genuinely productive answers to this question, one must remember that the minimum wage laws in this country state that the National Minimum Wage for each ordinary hour worked has been increased from R20,76 to R21,69 for the year 2021 with effect from 01 March 2021. (Department of Employment and Labour. 2021). This sums up to R3470 per worker per month assuming 8-hour workdays. The often unspoken truth underlying these numbers is that, under the current laws, in order to have every one of the abovementioned teenagers employed by private entities, the economy would have to be in a position where low-skill, labour dependent businesses in South Africa would have to generate revenue in the excess of R1.7 Billion on a monthly basis.

Given the unlikelihood of these figures, the solution to the problem seems to lie, at least in part, at the hands of currently unemployed youth. The primary issue in this regard is a lack of skills applicable to the economy and the consequence of this is an uptick in reports of mental illness and suicide, for which South Africa ranks 2nd and 3rd, according to different reports.

TAKE -AWAYS FOR DESIGN CONSIDERATIONS:

In my scheme, I would like to find opportunities for both skills development and trade in order to address both of these concerns diplomatically.



Fig 1.24a: Mahlanga. T. Photograph of Unemployed youth in South Africa. 2018. Edited by Tsebe T. Accessed Original Image(s) Source : <<https://mg.co.za/article/2018-02-13-unemployment-lower-but-black-women-the-youth-remain-the-most-vulnerable/>> Accessed 10 February 2022]

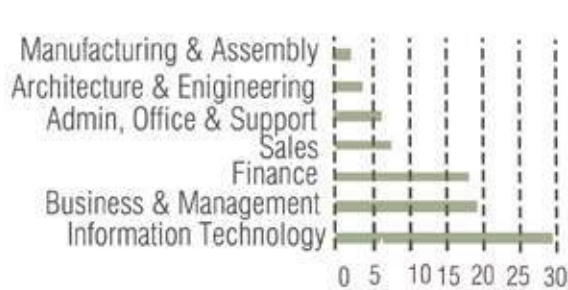


Fig 1.24b: Ward. R. Thousands of hopeful job applicants queue for 200 positions .2018. Edited by Tsebe T. Original Image(s) Source : <<https://www.dailymaverick.co.za/article/2018-04-16-youth-unemployment-in-focus-when-youre-job-hunting-so-long-that-youre-no-longer-young/>> [Accessed 10 February 2022]

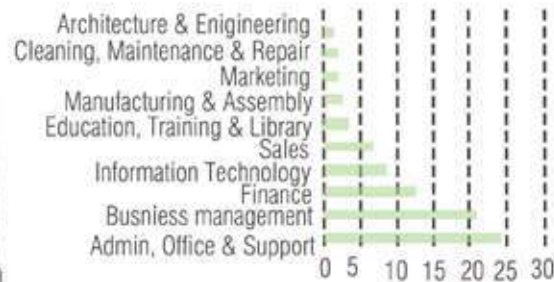


Fig 1.24c: Makgobe. P/Gallo Images. Photograph of Unemployed graduates from Kwa-Zulu Natal 2022. Edited by Tsebe T. Original Image(s) Source : <<https://mg.co.za/article/2018-02-13-unemployment-lower-but-black-women-the-youth-remain-the-most-vulnerable/>> [Accessed 10 February 2022]

High in Demand



High in Supply



Approximately 3.5 million (34.1%) out of 10.3 million young people aged 15-24 years were not in employment, education or training (NEET). The overall NEET rate increased by 0.8 of a percentage point in Q1: 2020 compared to Q1:2019

Youth NEET by Gender

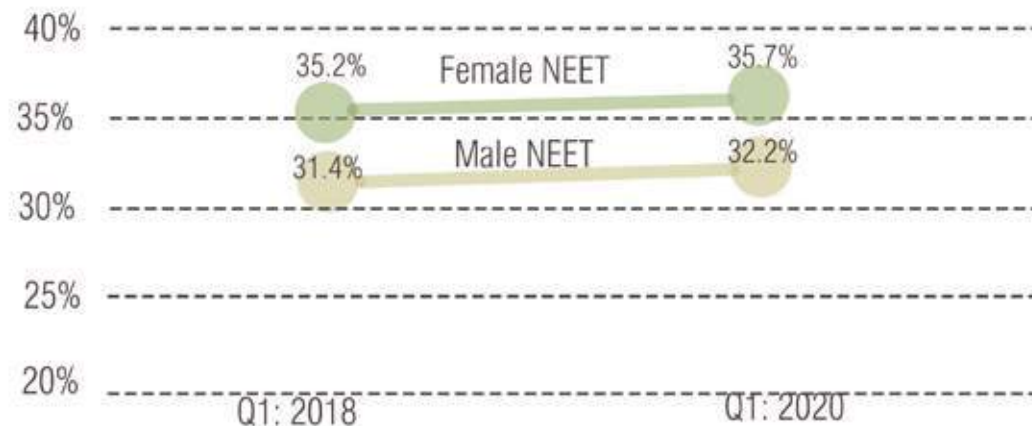


Fig. 1.25: Tsebe. T. 2021. Graphs showing jobs high in supply and demand. "Searching for Sunnyside" research report. Bar Graphs (Edited by Tumi Tsebe). Original Images Source(s): Available at: <https://businesstech.co.za/news/business/468298/the-most-in-demand-job-skills-in-south-africa-right-now-5/> [Accessed 09 September 2021]

1.18. THE UNEMPLOYMENT PROBLEM

The above reports regarding the education system and its effects on the economy should be alarming to people across the income spectrum. These reports, however, also might allow analysts to think of every South African citizen as "employed by the legal statutes of the country." This forces one to look more closely at the issue of unemployment through the lens of a failure of socio-economic integration into the country rather than a shortage of financially commodified occupations for human beings. The situation is no different in Sunnyside. In fact, Pretoria Secondary School, located in Sunnyside had a total number of 115 candidates, 85 of whom passed, (at the current, knowingly sub-par standards) representing 73.9 % of those who sat for the matric exam. If this statistical make-up is to be taken as a proxy for how well the typical teenager in Sunnyside is making contact with the job market, we can conclude that some 26% (i.e. 1 in 4) & of all youth in Sunnyside are economically displaced at any given moment. Studies have shown that one of the effects of unemployment on youth is a deterioration in mental health, a tendency to tilt towards substance abuse, and in some cases, resorting to crime. (Finch and Wilson, 2021)

This is relevant to my design in that one of the possible components of the programme in my design could respond to this socio-economic condition. It is statistics and studies like these that will inform my programme. Key issues identified so far are Unemployment, shared space, an influx of urban users, and mental illness as a consequence of unemployment. This could take place in the form of a skills development facility and/or a place dedicated to operating small businesses. This could take place in the form of a skills development facility and/or a place dedicated to operating small businesses.

1.19.THE INEQUALITY ISSUE

South Africa is a middle-income developing economy (South African Economy; A brief overview of key trends since 1994, 2013) and population differences in income and overall economic wellbeing have been a characteristic of the country since the inception of its democracy in 1994. This differentiation between economic classes is best summed up in the statistical measure known as the gini coefficient. Which measures the relative income inequality across class lines in any given region as a percentage. (Hayes, A., 2021). It is worth noting that on several charts measuring the gini coefficient in different countries across the planet, South Africa tends to rank first or close to first, meaning it is observed to be one of the most unequal if not the most unequal country on the planet. It is also worth noting that many of the countries that rank the lowest for inequality as measured by the gini coefficient, rank the lowest for crime and tend to be safer. While it might not be demonstrable that inequality causes crime, it is clear that there is a correlation between crime and inequality and this should be enough of a reason to suggest that income opportunities need be provided to much of South Africa's underserved communities, Sunnyside included. To say that opportunities should be provided is one thing but to say that they already exist as they are is another. When looking at the unemployment rate in South Africa, which has been at record highs since the dawn of the COVID-19 pandemic (Reuters, 2021), one might get an inaccurate picture of what the South African Economy is comprised of. It is quite possible that South Africa simply does not have enough jobs or enough businesses that have the operational characteristics necessary to provide opportunities to the economic profile of all of its citizens. This puts forward the question: What do jobs applicable for both Sunnyside and South Africa's residents look like?

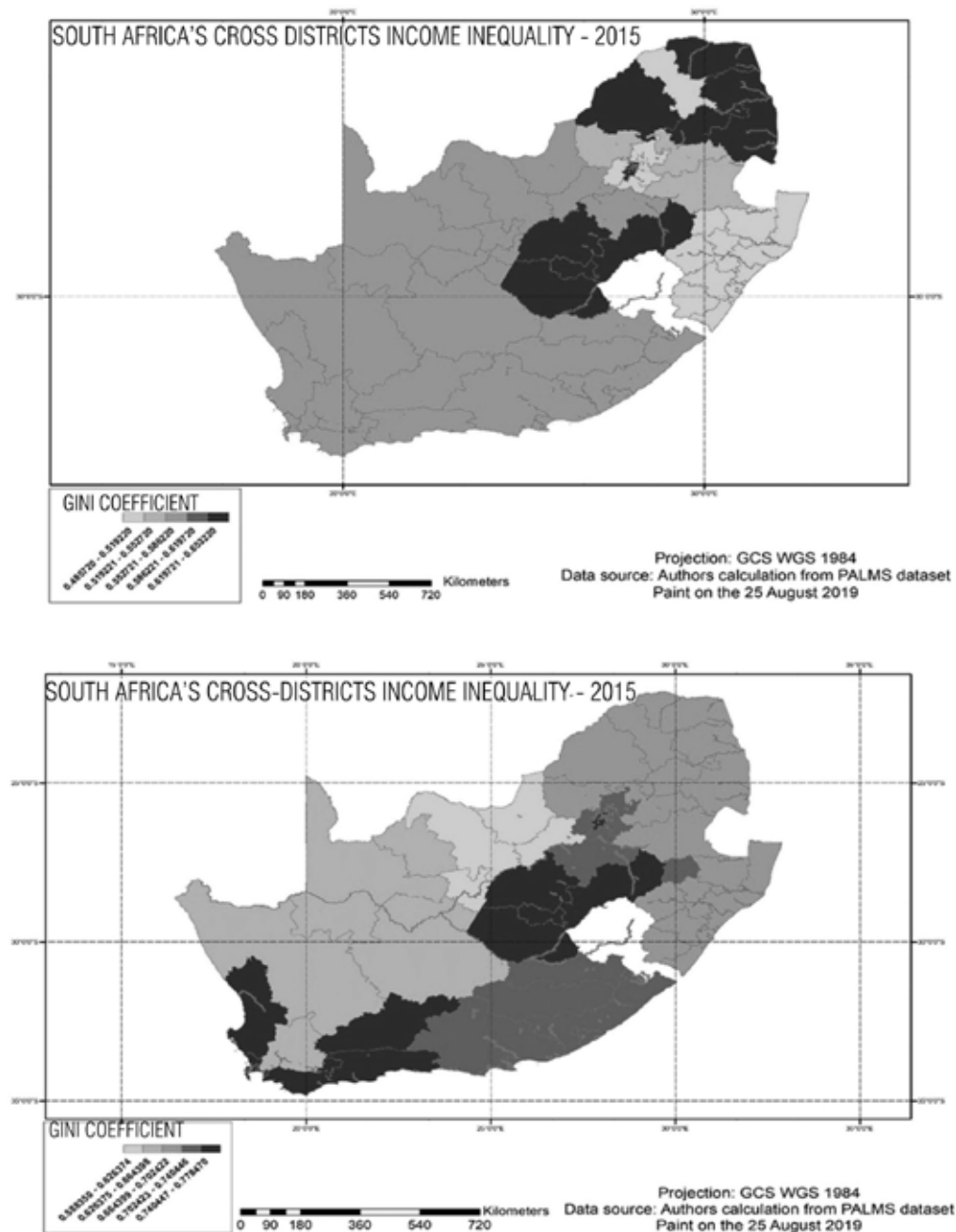


Fig. 1.26: Tsebe. T. 2021. Map showing inequality in different parts of South Africa . "Searching for Sunnyside" research report. Digital image (Edited by Tumi Tsebe). Original Images Source(s): Available at:
 < https://www.researchgate.net/figure/Spatial-distribution-of-income-inequality-across-South-African-district-municipalities_fig1_341421882>
 [Accessed 09 September 2021]

1.20. HOW ARE INEQUALITIES CONSEQUENCES RELEVANT TO SUNNYSIDE?

The South African government has responded to the long-lasting unemployment issue by advocating for a “culture of entrepreneurship” (SA News Agency, 2019) seeking to create opportunities for people who don’t have a profile that would be productive to the South African economy at the moment. People in this category include people who are not economically active, a group whose size is said to be on the rise according to the statistician, General Risenga Maluleke (Reuters, 2021). One begins to think of what the effect of this might be on the residents of Sunnyside, who are often students of the University of Pretoria, University of South Africa and Tshwane University of Technology. Many of whom may have never been economically active as they are in the process of completing their studies. A viable response to the unemployment crisis in the country might be one that takes into account existing training or qualifications of the unemployed while expanding upon these qualifications and offering equal or similar skills to those that are not economically active at all (NEET).

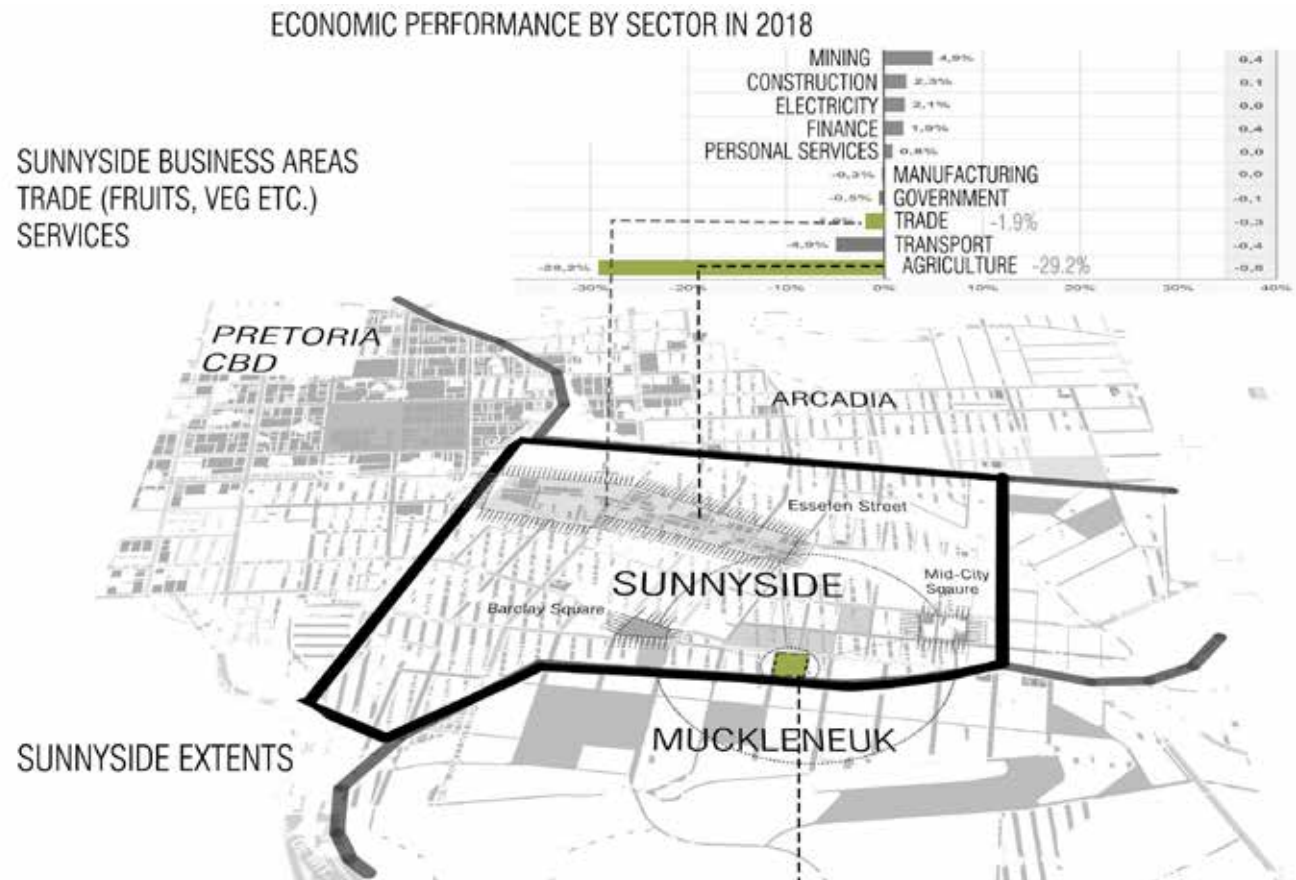


Fig. 1.27: Tsebe. T 2021. Axonometric view of business activity in Sunnyside in relation to national Economic Performance by sector. “Searching for Sunnyside” research report. Digital image (Edited by Tumi Tsebe). Original Images Source(s): Available at: < <http://www.statssa.gov.za/?p=11969> > [Accessed 8 September 2021] < https://e-gis002.tshwane.gov.za/E_GIS_Web/ > [Accessed 8 September 2021]

1.21. IS ENTREPRENEURSHIP AN ANSWER TO ECONOMIC DESPAIR?

While entrepreneurship may be a possible remedy to the unemployment crisis in South Africa, the market itself doesn't seem to be particularly inviting for the sort of financial risk-taking necessary for entrepreneurship. In order to understand this, one has to look at the mechanisms of the field of economics, one of which is the rise and fall of businesses. In chapter 6 of his bestseller, "Basic Economics", the economist Dr. Thomas Sowell presents the fact that almost one-third of all new businesses fail to survive for two years and that more than half fail to survive for four years. (Sowell, 2011). While this data may be referring to business in the United States, it's quite close to what is true of business in South Africa (Financial Solutions, 2019). This, according to analysts from Financial Solutions is due to the fact that entrepreneurs are not familiar with the range of factors required to keep a business running. The analysts refer to a "lack of planning, one-man shows, lack of separation between business and personal accounts, lack of proper financial records and poor management, late payments by larger businesses and an overall lack of appreciation for the fact that passion for any particular business venture is not equivalent to expertise in that field." (Financial Solutions, 2019) Furthermore, the taxpayer of South Africa regularly pays the price for all of the aforementioned failures as when businesses that use raw materials such as South African fresh produce fail, they fail along with their raw materials and take an inflexible natural time course to be recuperated. This is particularly relevant to South Africa's economy as it has not yet completely developed and so more business and economic pursuits are heavily dependent on the country's natural environment. As stated by Dr Sowell: "All of this, however, seems to be being said of businesses that operate on the complete timescale of a fiscal year."

ENTREPRENEURIAL AGE GROUPS SA

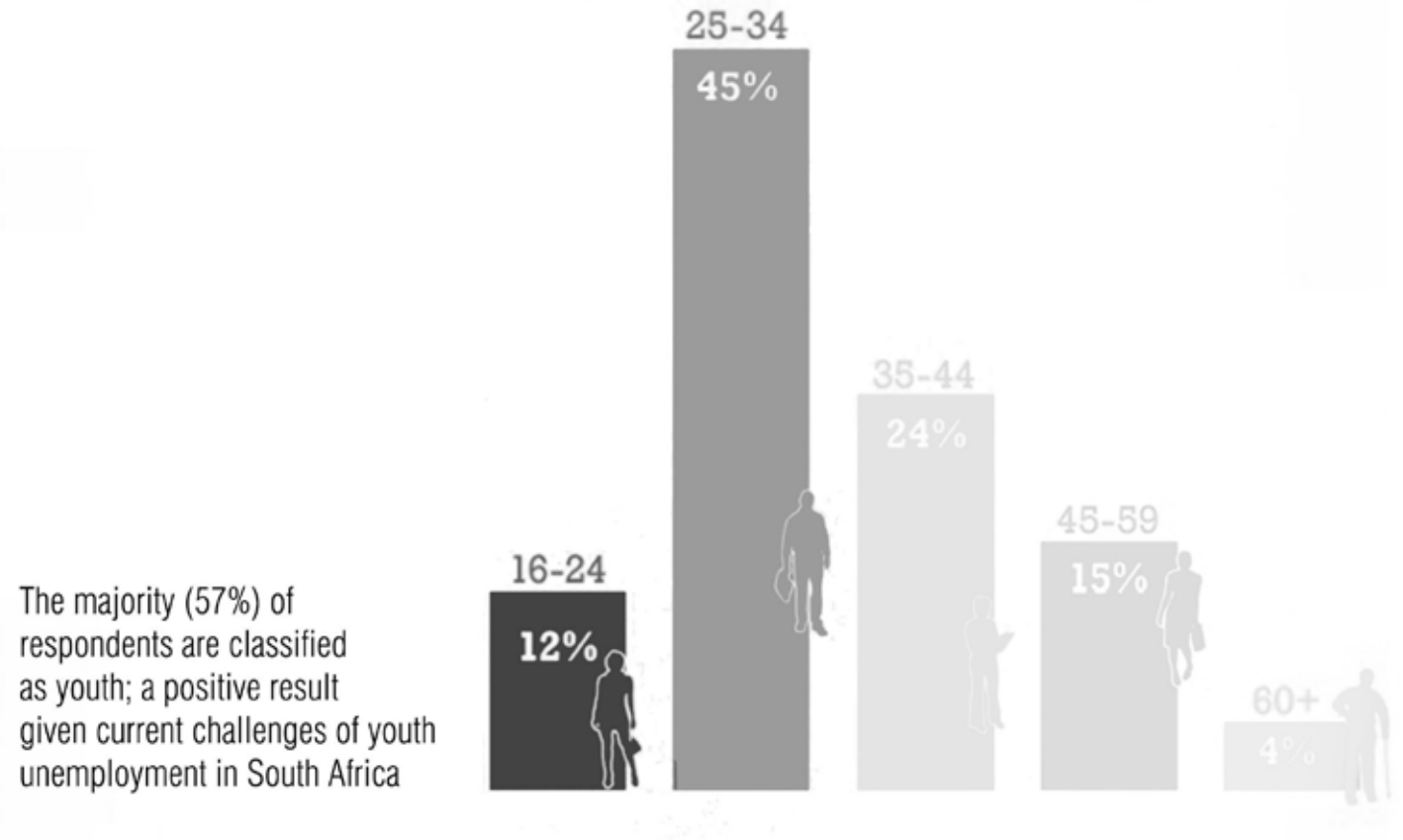


Fig. 1.28: Tsebe. T 2021. Graph showing youth unemployment in an area. "Searching for Sunnyside" research report. Digital image (Edited by Tumi Tsebe). Original Images Source(s): Available at: < <http://www.statssa.gov.za/?p=11969> > [Accessed 8 September 2021]

1.22. ANALYSIS OF THE ECONOMY

It's worth considering the possibility that businesses starting from the sort of capital the median South African can provide (i.e., A median wage of R3500.00) simply might not be enough capital to keep a business in the right operating habits for an entire fiscal year (Staff Writer, 2019). Similarly, a small business can be profitable from week to week and work at a loss from month to month or, more commonly, work at a loss from year to year. A solution to this that has been adopted by residents of Braamfontein in South Africa, is flea markets. The Neighborhoods Market is a good example of this as it has been operational for several years now and provides a strong network for local entrepreneurs. (The Neighbourgoods Market .2022). A similar network could be achieved for entrepreneurs in Sunnyside who are willing to buy into the idea of skills development and temporary trade facilities. This could be the groundwork for networks between small, but growing businesses and large, corporate businesses. In effect, large corporate businesses would be investing a fair share of their capacities into expanding the talent pool of the commercial market. This would likely decrease inequality, increase competition and generate more value for the end consumer.

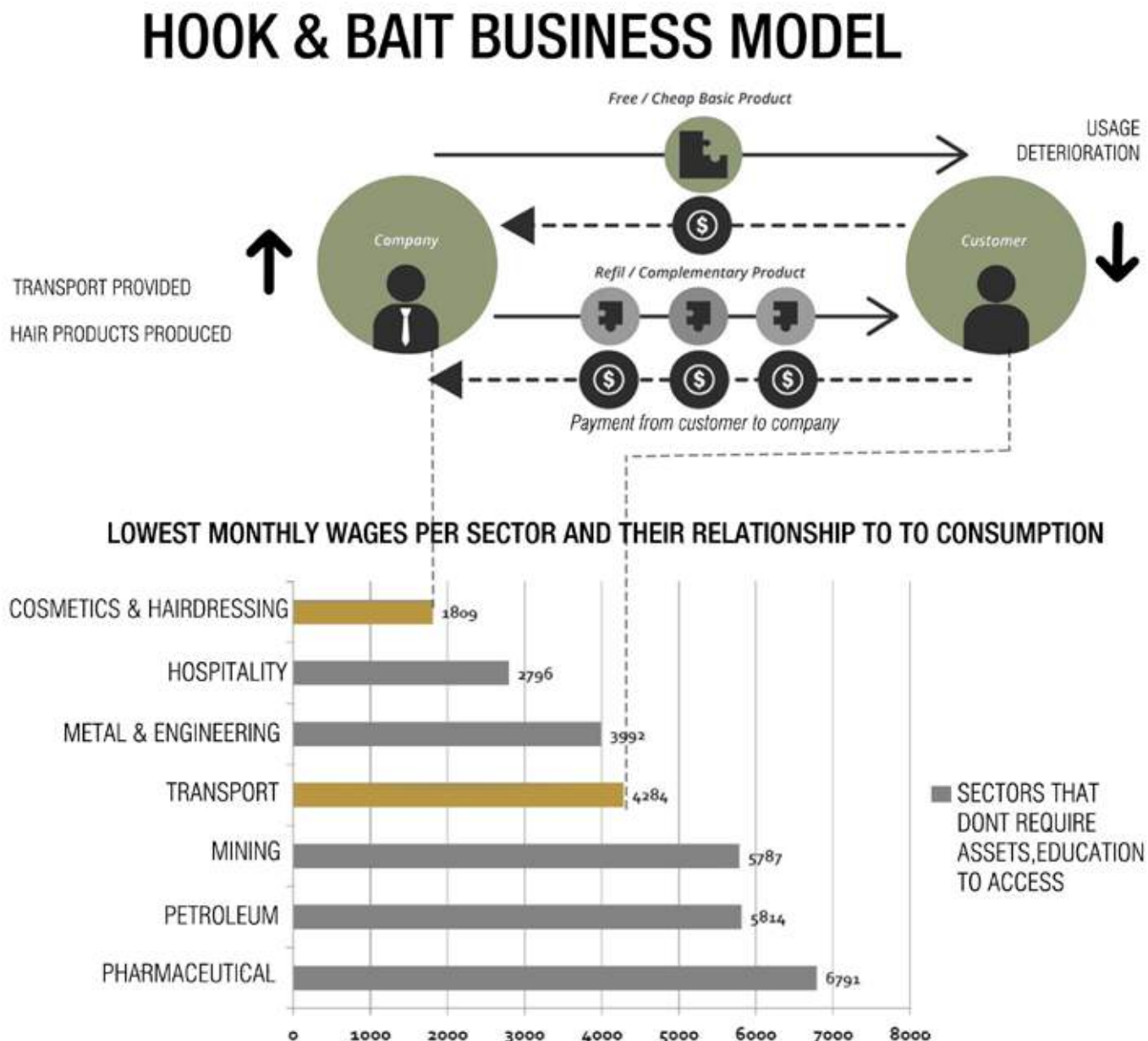


Fig. 1.29: Tsebe. T 2021. Hook & Bait Business Model. Business Model Toolbox. Digital image (Edited by Tumi Tsebe). Original Images Source(s): Randal C. Picker Available at:

< <https://bmtoolbox.net/patterns/bait-and-hook/> > [Accessed 8 September 2021]

1.23.THE RESPONSE TO THE ECONOMY

My conceptual scheme for Searching for Sunnyside is Urban Levels. This conceptual scheme is one that seeks to make a mixed-use proposal as a design strategy for addressing Sunnyside's problems. One of the propositions is that old information booths from abandoned train platforms could be repurposed into training booths for early tertiary school students who require some sort of apprenticeship. For example, psychologists and occupational therapists. In this design, small volumes of space (less than 6 square meters at a time) are leased by large companies with vested interests in seeing that their young, professional employees are competent by the standards of the company. This prototype is adapted from the current, illegal leasing arrangements reported by the Sunnyside Police.(Interview, 2021) It is known that of the foreign nationals who are occupying space illegally, many of them illegally sublet their space to accommodate other foreign nationals. In order to change the illegal nature of this situation where space is being maximally exploited while maintaining a sense of familiarity in future proposals, the same methodology of sub-letting space is used to hybridize leasing arrangements for businesses, creating an opportunity for currently unemployed, economically inactive youth. Training, for a young professional trying to build their repertoire, in relatively low-risk but nonetheless socially ill areas such as Sunnyside could be a great fit. Likewise, a hands-on approach to skills development for private care-focused business in South Africa could allow employers and big business to tailor their future employees to improve their company's current weaknesses. This idea could also be expanded to accommodate displaced, employable citizens, looking to gain marketable skills such as managing digital content, professional writing, and online marketing. The idea for repurposing the booths would be that as a skill previously honed becomes irrelevant or unattractive to the job market, that particular booth(or space) becomes repurposed to train people for a job that is more relevant. The highest bidder among private companies captures the most value-per-metre squared for their kind of business and as a consequence, Sunnyside's youth are increasingly well serviced and increasingly employable across time.

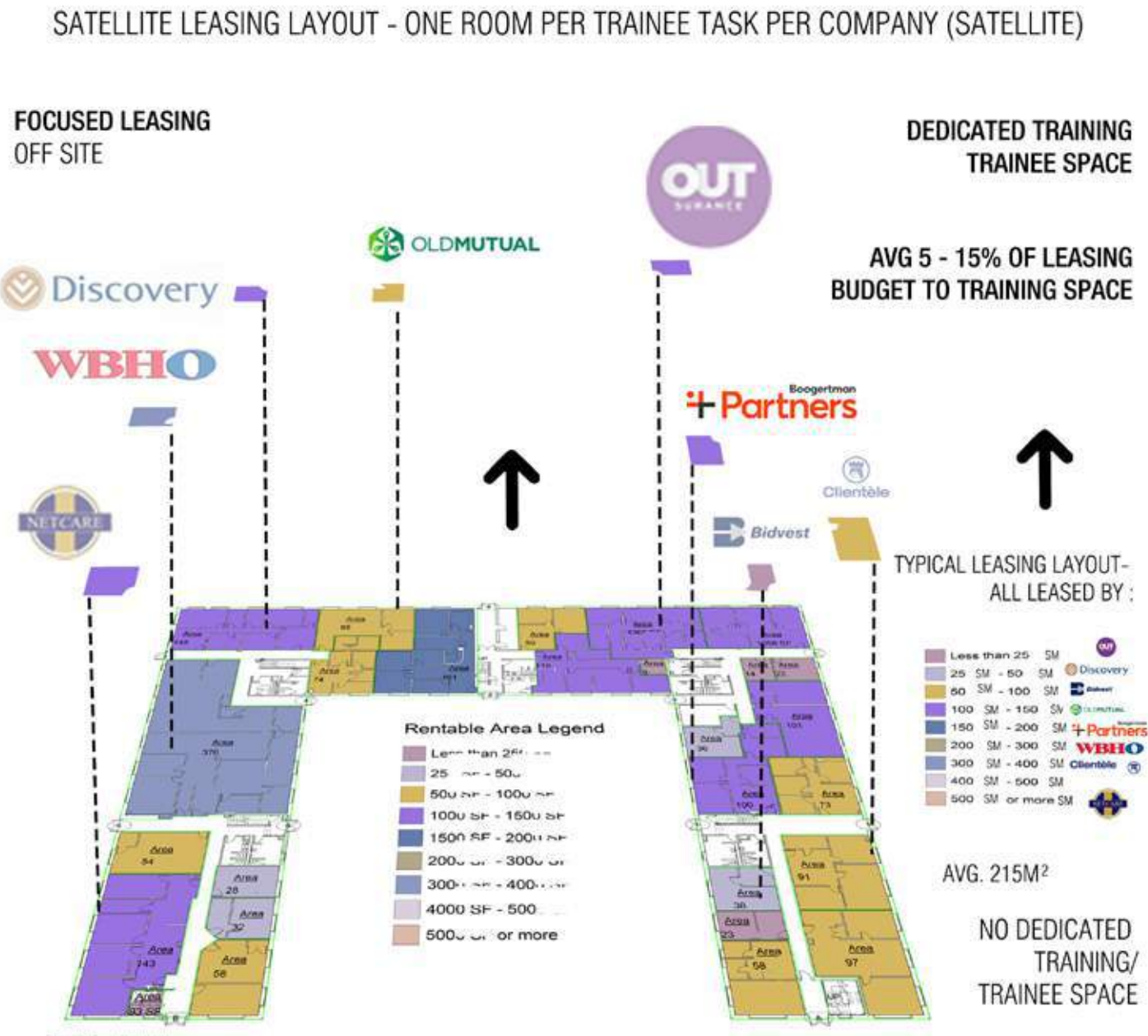


Fig. 1.30: Tsebe. T. 2021. Leasing Layout. "Searching for Sunnyside" research report. Bar Graphs (Edited by Tumi Tsebe). Original Images Source(s): Available at: < <http://www.statssa.gov.za/wp-content/uploads/2020/06/NEET-for-data-story-final.jpg> /> [Accessed 09 September 2021]

1.24. URBAN LEVELS: THE RESIDENCES

Local entrepreneurs in Sunnyside are often local residents. As can be seen in the zoning scheme provided by the City of Tshwane, the bulk of Sunnyside's built form is made of residences (2008. Tshwane Town-Planning Scheme. Tshwane: City Planning and Development Division, pp.22-26.). It is therefore safe to assume that most of Sunnyside's inhabitants are exactly that, residents. People live in Sunnyside and therefore proposals that are put forward for the area should take this into account. Furthermore, the fact that the areas are made up of residents who have children may explain some of the tension between residents of South African nationality and those of foreign nationality as tenants with children tend to be more concerned about the constituents of their neighbourhoods than those without children.

Perhaps of the key factors driving this interest between residents about who their neighbours are, is the tendency for parents to want to see their children raised in an environment that reflects their environment. In order to address this, it is important to understand what the values of Sunnyside's residents are and what is informing them.

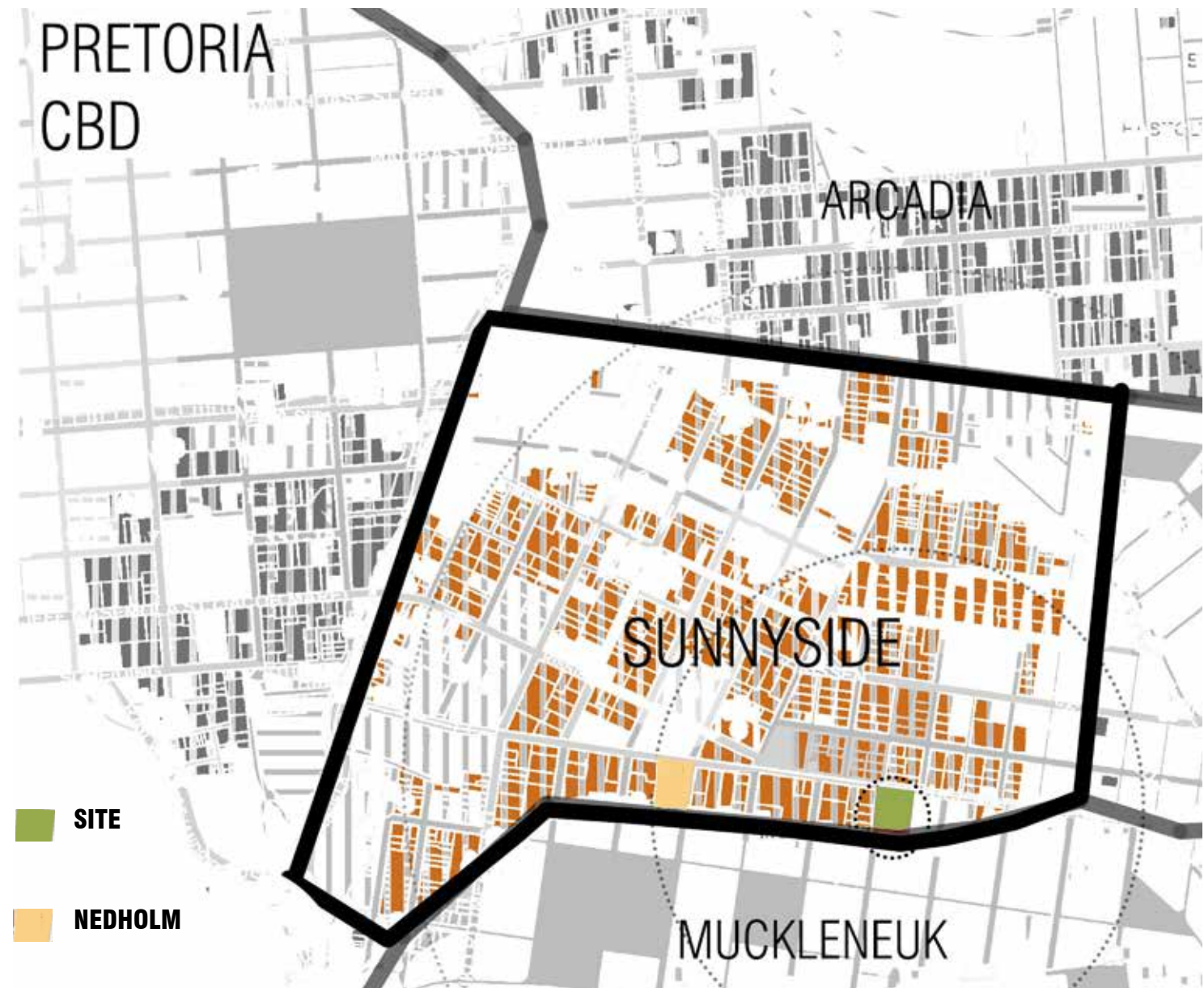


Fig. 1.31: Authors. T 2021. Pretoria Residential Zoning. "Searching for Sunnyside" research report. Digital image (Edited by Tumi Tsebe). Original Images Source(s): Available at: < https://e-gis002.tshwane.gov.za/E_GIS_Web/ > [Accessed 8 September 2021]

1.25.DEVELOPING A METHODOLOGY OF INTERPRETING FUNDAMENTAL BELIEFS

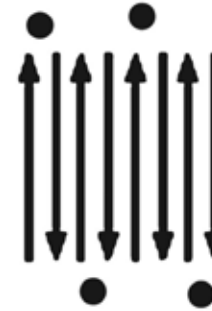
“Theology is the study of religion. It examines the human experience of faith, and how different people and cultures express it.” – (Times Higher Education. 2019)
.Historically, theologies have been known to be the basis for Nation building and political structures. For example, the United States of America has its own constitution, The Declaration of Independence, which sought to divorce the United States from Great Britain in July of 1776 and introduce “a nation of laws, not men” that were predicated on Judeo-Christian ethics (Milestones: 1776–1783 - Office of the Historian, 2021). Theologies have also been the basis for some of the world’s most violent wars (HISTORY. 2010.)

In present times, there are not as many wars. According to Canadian-American cognitive psychologist Steven Pinker, fatal violence, regardless of its motivations has been on a decline across the world. In his book “The better Angels of our Nature” Pinker describes the history of violence and gives a statistical analysis of the decline of violence in recent times.

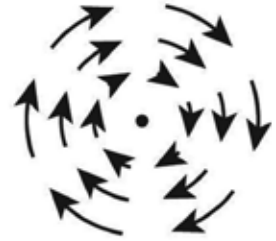
DIVERGENT THEOLOGIES



TRANSITIONAL THEOLOGIES



RIGID THEOLOGIES



CONVERGENCE

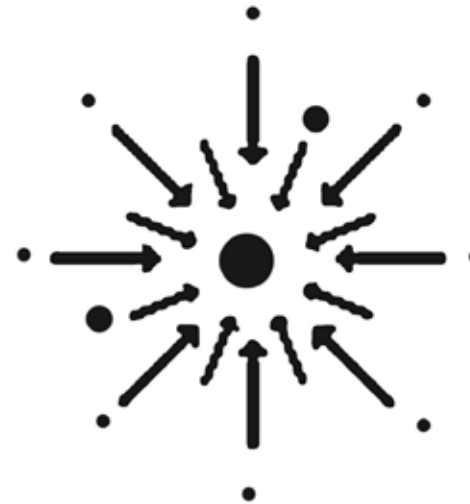


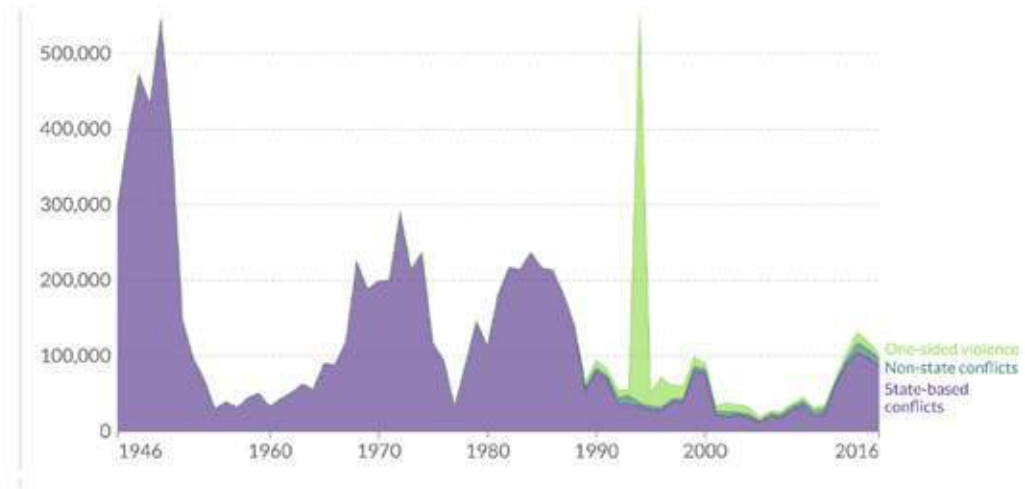
Fig. 1.32: Tsebe. T 2021. Theologies Diagrams. “Searching for Sunnyside” research report. Digital image (Edited by Tumi Tsebe). Original Images Source(s): Available at:
< <https://en.wikipedia.org/wiki/Divergence> > [Accessed 8 September 2021]

1.25. DEVELOPING A METHODOLOGY OF INTERPRETING FUNDAMENTAL BELIEFS

The book outlines possible explanations for the decrease of violence, describing a range of factors including the increase in the length and value of human life due to developments in technology, the development of monopolies on violence by nation-states, the development of non-zero-sum games that arise as a consequence of that and finally the “expanding circle of empathy”. (Pinker, S., 2012.).

Nonetheless, theologies have played a role in providing the context for these developments through their most fundamental texts and these texts are worth revisiting to understand the relationship between people, their beliefs, value, and violence or hostility that might arise as a consequence of contradictory beliefs and values

VIOLENT DEATHS IN CONFLICTS AND ONE SIDED VIOLENCE SINCE 1989, 1946 - 2016



STATE-BASED BATTLE RELATED DEATHS PER 100,000 SINCE 1946 - 2016

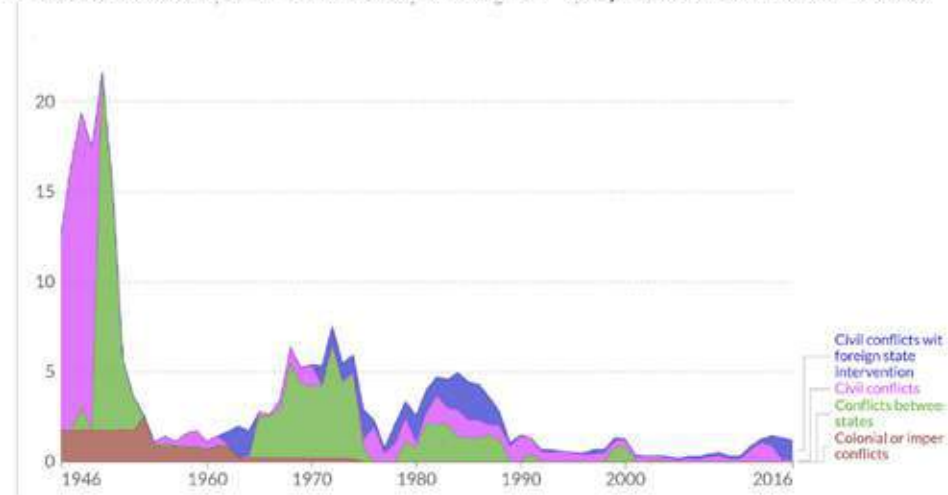


Fig. 1.33. Tsebe. T 2021. Violent Deaths in conflicts. “Searching for Sunnyside” research report. Digital image (Edited by Tumi Tsebe). Original Images Source(s): Available at: <https://ourworldindata.org/grapher/violent-deaths-in-conflicts-and-one-sided-violence-since-1989> [Accessed 8 September 2021]

1.26. SUNNYSIDE'S RELIGIONS AND THEIR PRESUPPOSITIONS: HOW DO RELIGIONS AFFECT SOCIAL FRAMEWORKS?

In looking at the prefaces and introductions to foundational texts, one can see clues to the beliefs of the authorities who write them and as a byproduct, gain insight into the nature of the theologies and social principles that surround them. For example, the United States' Declaration of Independence begins with the phrase "We hold these truths to be self-evident". Indicating that there is a "we" (i.e., Americans.) "Hold" indicating a temporary engagement with the truth (i.e., "We hold" as opposed to "We proclaim" or "we own"). "These truths" (indicating that the truths in question are not the totality of what is true but a subset of all that is true) "to be self-evident ". Indicating what would otherwise be an onus of reliance on evidence (scientific evidence) to be considered inept.

This reliance on truth and evidence is a phenomenon that can be found in most Judeo Christian Democracies and has, recently, been the basis for conflict between these democracies and people of Non-European, pre-colonial traditions.



Fig. 1.34: .Tsebe.T. 2021. Churches in Sunnyside. "Searching for Sunnyside" research report. Digital image (Edited by Tumi Tsebe). Original Images Source(s): Google Earth Available at: < <https://www.google.com/maps/search/churches+in+sunnyside/@-25.7537425,28.2067335,16z> > [Accessed 8 September 2021]

1.27. ISLAM: “SUBMISSION TO THE WILL OF GOD “

Islam is one of the most widely practiced religions on planet earth. Around 1.8 Billion people practice some denomination of Islam meaning that roughly 23 percent of the human population, 1 in 4 people, are Muslim. (Vaughan, D., 2021). In Islamic states, the common Arabic Phrase for “how are you” would be “As-salamu alaikum” Meaning “the peace be with you”. A possible reading of that phrase would be one that “the peace” is finite and deterministic. “The” pre-determined peace, as opposed to “peace” as it may come and go. In the early 2000s and in some years since, Islamic states and people of the Muslim faith have been criticised for being at some sort of odds with the values of liberal democracy and Judeo Christian states due to their alternative religious practices and values.

This friction between religions, including but not limited to Islam and Christianity, could be the basis for some of the tensions in the area as a large part of Sunnyside’s population come from Islamic states such as Somalia, Ethiopia and Sri Lanka. The majority of the area’s religious buildings are churches and it is safe to assume that if there is any dominant faith in the area, it is Christianity.

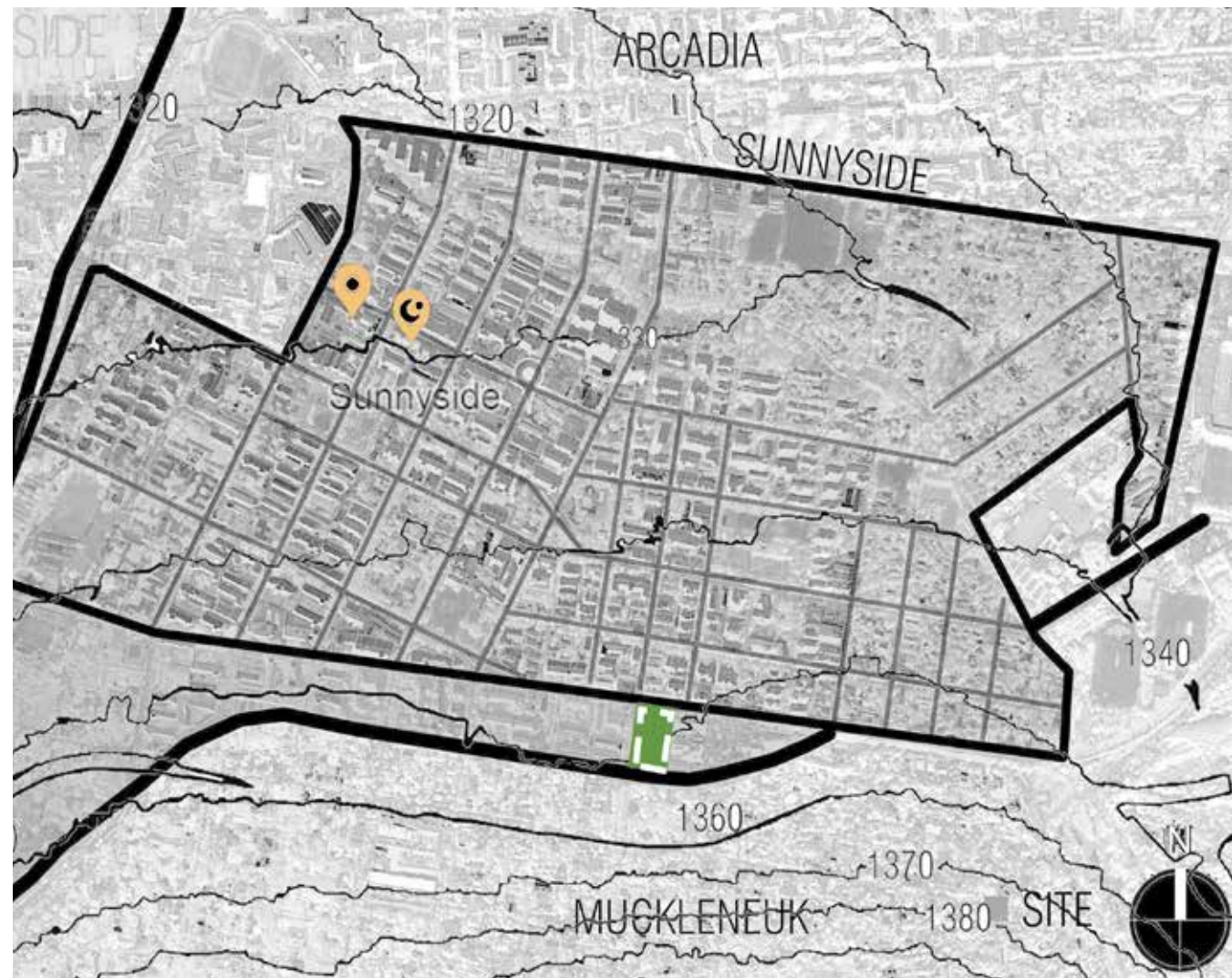


Fig. 1.35: Tsebe. T. 2021. Mosques in Sunnyside. “Searching for Sunnyside” research report. Digital image (Edited by Tumi Tsebe). Original Images Source(s): Google Earth Available at: < <https://www.google.com/maps/search/mosques+in+sunnyside/@-25.7535092,28.1993974,15.5z> > [Accessed 8 September 2021]

1.28. UBUNTU

Several words capture the importance of community in Africa. The most prominent is the word “ubuntu,” which designates human beings as individuals-in-community.” I am because you are”. In Zulu, the phrase would go “Umntu ngumuntu ngabantu” meaning “a person is a person through people”, indicating an almost complete dependence on people, typically those in immediate proximity to one another, to complete one’s experience of personhood. In a more advanced setting this could translate into a dependence on others to complete one’s livelihood.

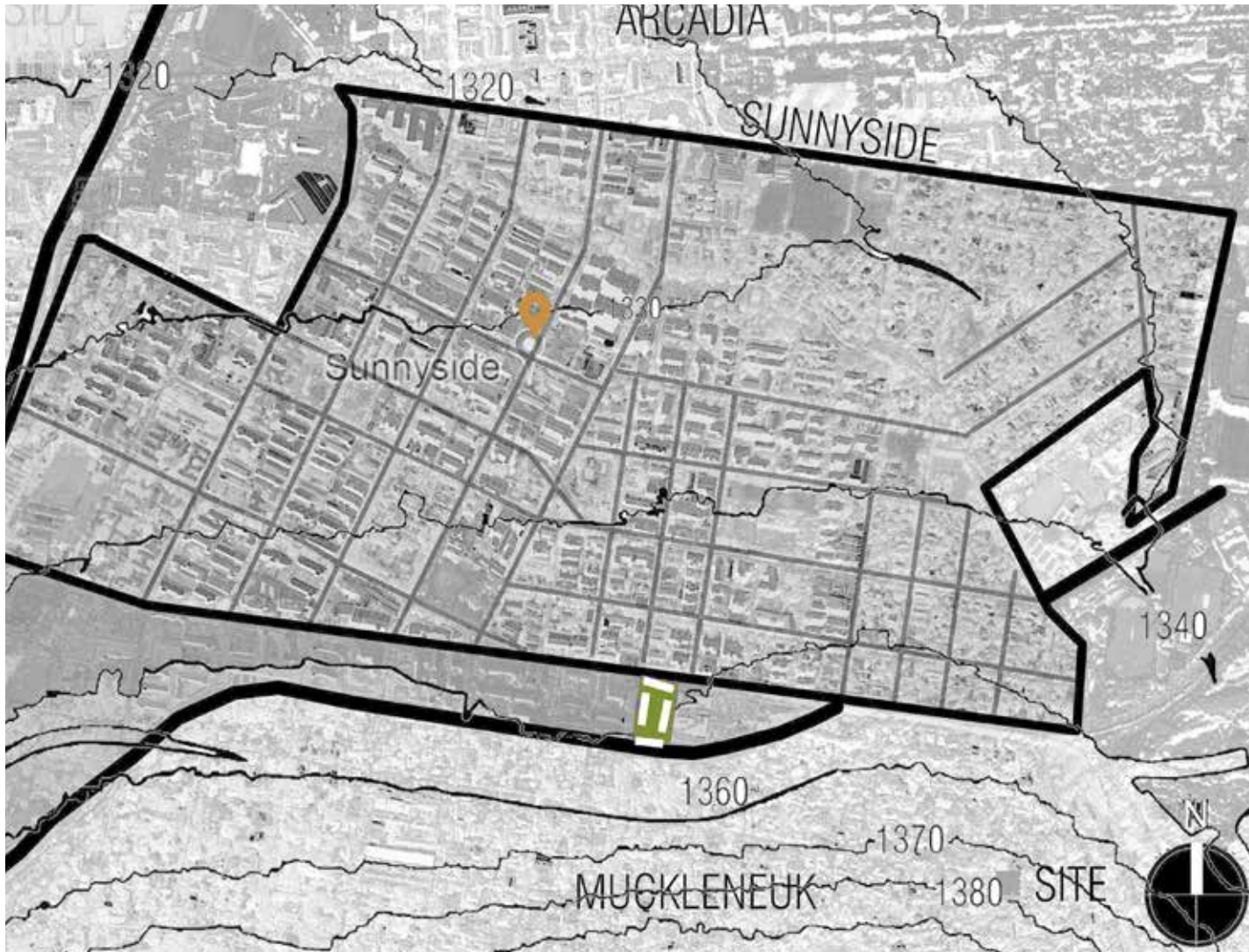


Fig. 1.36: Tsebe, T. 2021. Ubuntu in Sunnyside. “Searching for Sunnyside” research report. Digital image (Edited by Tumi Tsebe). Original Images Source(s): Google Earth Available at: <https://www.google.com/maps/search/african+food+in+sunnyside/@-25.75357,28.2004959,16z> > [Accessed 8 September 2021]

1.29. RIGID THEOLOGIES - CONCLUDING SUNNYSIDE'S DIFFERING RELIGIOUS DENOMINATIONS

As most religions have a traditional component and require some degree of dogmatic repetition to be maintained across changing social norms, it is worth questioning whether religions are increasingly detached from reality and as a consequence contributing to disorientation and lack of political integration of people with differing belief systems.

Residents of Sunnyside practice a wide range of religious beliefs including Islam, Atheism and various denominations of Christianity. The result of this is that people in Sunnyside have a wide range of ideals, and consequently social norms, to which they adhere. This is not only a condition that characterises Sunnyside but South Africa as a whole. The government of South Africa recognizes 11 official languages for the country with the right to be tried, legally, in the South African Language of your choice. This approach to politics where different cultures are practiced in the same place is known as “multiculturalism” in sociology. (Eagan, J., 2021.)



Fig. 1.37: Unknown Author. 1920 .St Michael's and All Angels Church. Photo Print “Searching for Sunnyside” research report. (Edited by Tumi Tsebe). Original Images Source(s): https://www.ribapix.com/St-Michaels-Church-Sunnyside-Pretoria_RIBA60051#



Fig. 1.38: Unknown Author. Masjid Rahmaani Sunnyside. Photograph “Searching for Sunnyside” research report. (Edited by Tumi Tsebe). Original Images Source(s): <https://masjidrahmaani-sunnyside.business.site/?fbclid=IwAR3ZiCGbp4j3mvZmeKL7W2BgMqpYtp2h96Tczx-ZrmXYIkC7t6xt2c2Foo18> [Accessed 8 September 2021]

1.30. THE RIGHTEOUS MIND: WHY GOOD PEOPLE ARE DIVIDED BY POLITICS AND RELIGION.

Although multiculturalism can be criticised for its political effects, it can also be credited for creating environments in which people of diverse religious backgrounds can co-operate non-violently. What the aforementioned religions have in common can be understood better when looking at the work of Jonathan Haidt, a sociologist from Yale University whose primary occupation is deepening our understanding of morality. In his book “The Righteous Mind” Haidt traces the commonalities between religious beliefs’ social mechanisms such as shame, guilt and ritual to understand the aims of religious practices in the framework of evolutionary psychology and morality. His findings indicate that morality is broader than reflexive altruism. (Haidt, J., 2021.). Instead, he argues that morality’s mechanisms can sometimes be used generate a kind of “in-group” or “us and them” dynamic. Often this can be seen in fundamentalist religious societies. Haidt concludes:

“Moral systems are interlocking sets of values, virtues, norms, practices, identities, institutions, technologies, and evolved psychological mechanisms that work together to suppress or regulate self-interest and make cooperative societies possible.” – Jonathan Haidt, The Righteous Mind.

Using this definition of morality and moral systems as the basis for resolving disputes between people of differing cultural and economic backgrounds in Sunnyside, we can propose methods of psychological inquiry and social norms that don’t produce in-group dynamics and social hostility. If we take the “co-operative societies” as the widest possible range of societies that seek to understand more about what is true and take an expansive view of reality, there is a de facto presupposition that positive sum-cooperation between people within voluntary groups is a moral good.

For this reason, any proposals which seek to diplomatically address social tensions in Sunnyside must take multiculturalism as a guide for viable and non-viable presuppositions. Sunnyside, given it’s divergent cultural makeup, must appeal to issues relevant to people on the basis of their humanity and not their religious beliefs.

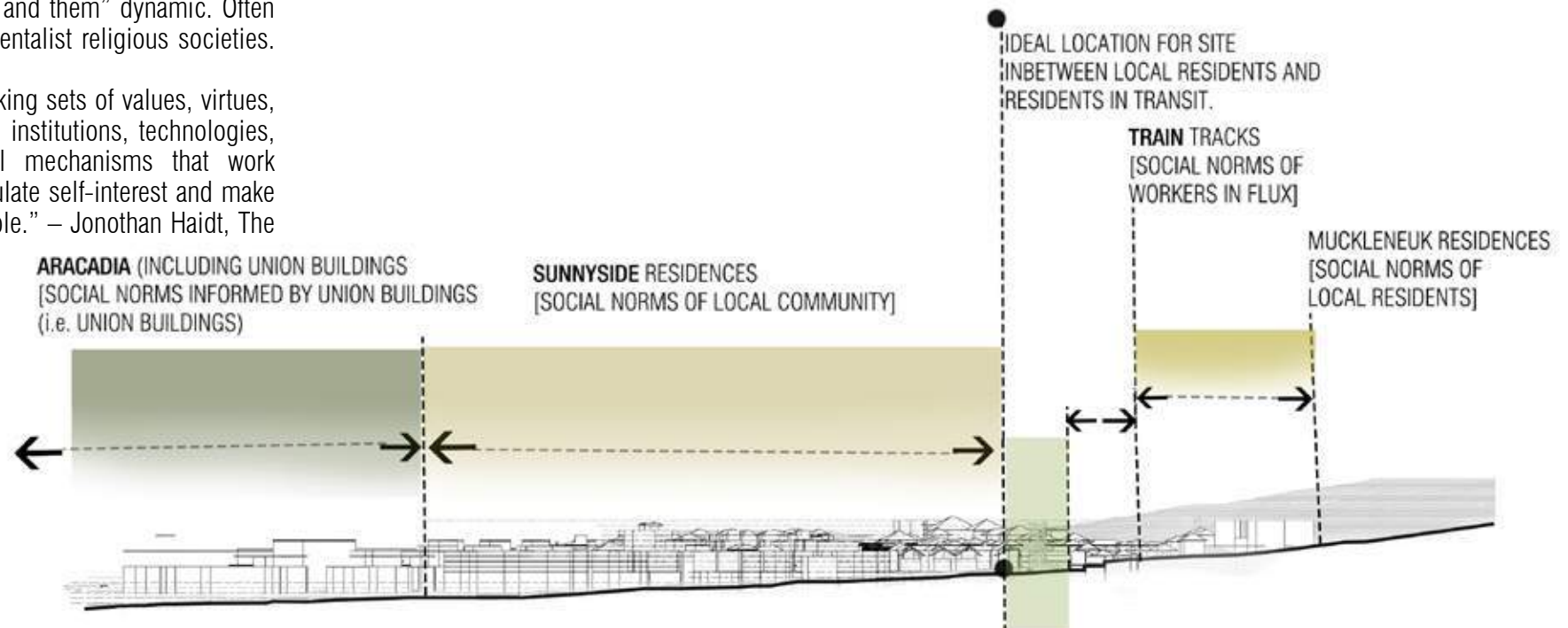


Fig. 1.39. Tsebe.T 2022. Urban Section Through Sunnyside showing social norms in various areas. Digital Drawing Edited by Tumi Tsebe. Searching for Sunnyside” research report. (Edited by Tumi Tsebe). University of Witwatersrand

1.31. DIVERGENCE: THE EFFECT OF MULTICULTURALISM ON POLITICAL STABILITY

The term ‘divergence’, describes a tendency of a set of entities to move in different directions. (divergent, 2021). This term is also used in economics to describe when the price of an asset is moving in the opposite direction of a technical indicator or moving contrary to other data. In economics, divergence warns that the current price trend may be weakening and, in some cases, may lead to the price changing direction. (Mitchell, C., 2021). Keeping these definitions in mind, it’s worth questioning how a divergence of ideas and economic priorities would affect a place like Sunnyside and what the implications of too much ideological diversity would mean for a fundamentally stable state. How moral are multicultural societies? Which ideas in a multicultural society are negotiable? Do any multicultural ideas pose a threat to political stability and if so, which ones? Recent developments in the United States, which is largely understood to be the most prosperous multicultural society on earth, have proven to be a cautionary tale. In the United States, political interests are divided along a two-party axis, being a liberal party (otherwise known as democrats) and a republican party (otherwise known as conservatives) and these parties have found themselves at odds with one another so deep that they appear to have compromised issues of national confidentiality and ultimately security. (Pillar, P., 2020. National Security)

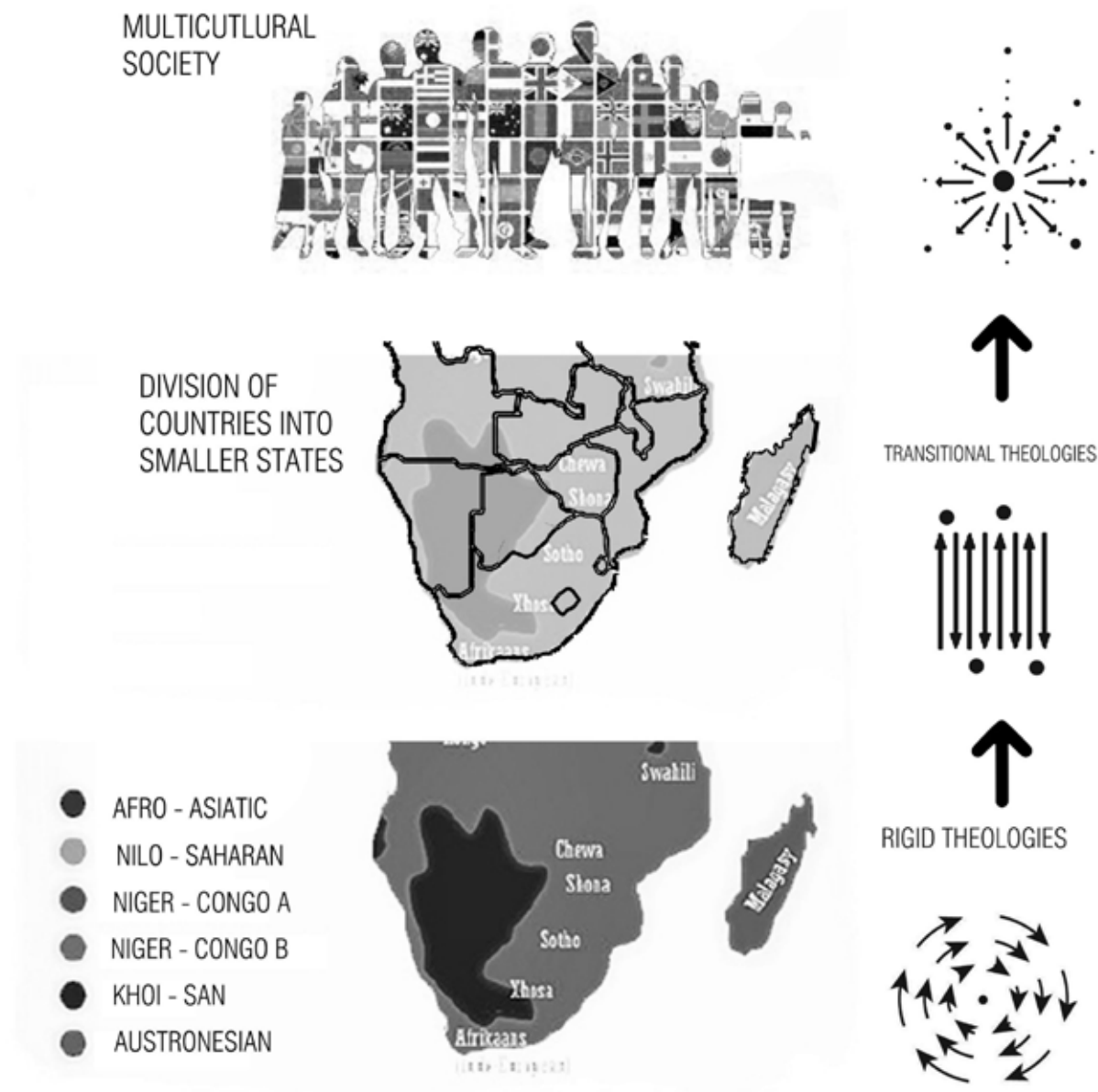


Fig. 1.40: Tsebe, T. 2021. Multiculturalism in African and Southern African countries. “Searching for Sunnyside” research report. Digital image (Edited by Tumi Tsebe). Original Images Source(s): Available at: < <https://wolfestone.co.uk/insights/blogs/benefits-multiculturalism-workplace> > [Accessed 10 March 2021]

1.31. DIVERGENCE: THE EFFECT OF MULTICULTURALISM ON POLITICAL STABILITY

Individualised studies have shown that assessing an individual's psychological profile using the "big 5 personality framework" can give insight into their political behaviours including their likelihood to be persuaded by liberal ideas. This brings about the question; are there individualised, fixed, political attitudes that are localised to people regardless of their geographical location? If so, could it be that Sunnyside's residents are more similar on a big 5 personality scale *given their insistence on borders between people". (University of Toronto. "Personality predicts political preferences." ScienceDaily.)

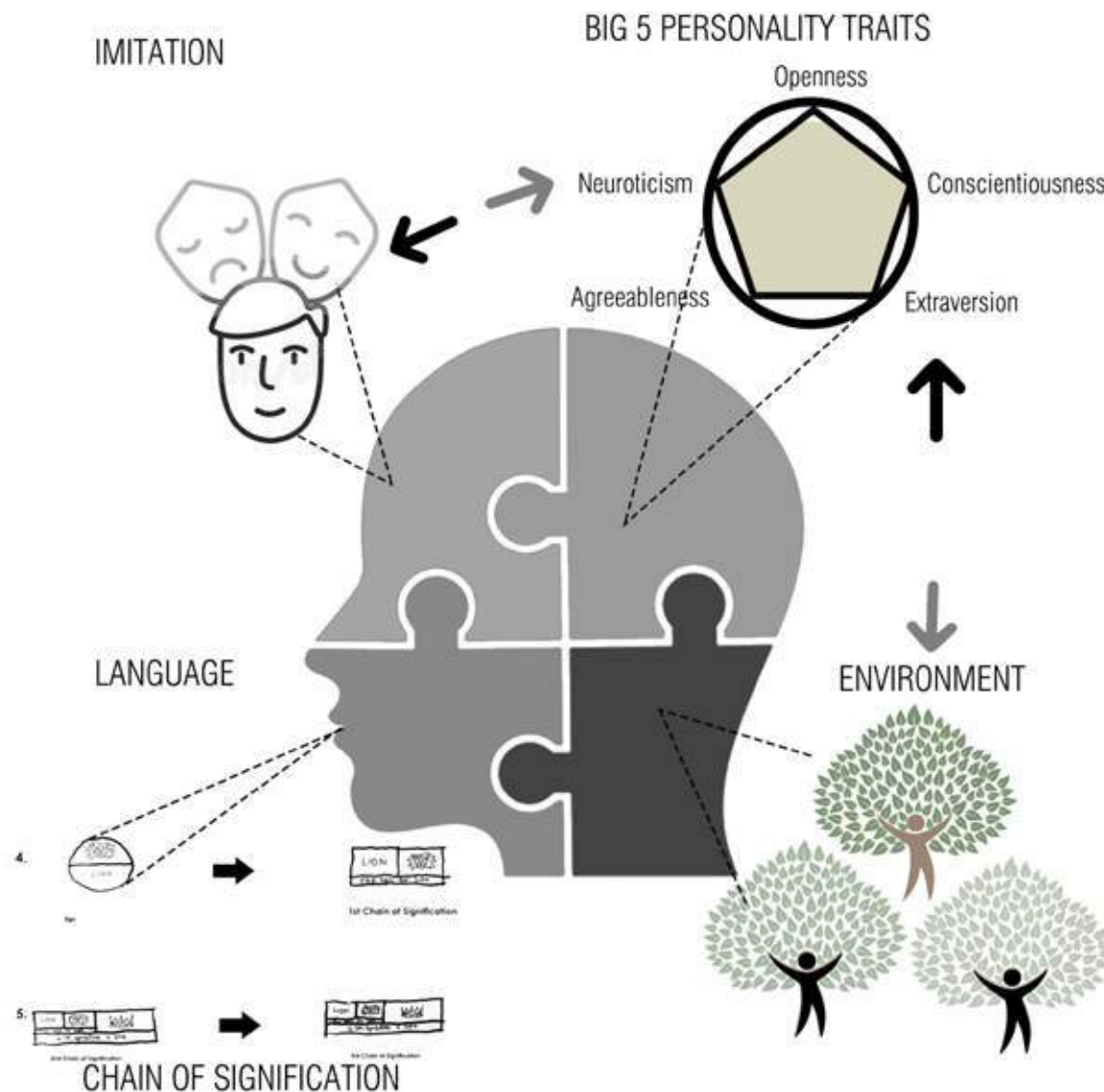


Fig. 1.41: Tsebe. T. 2021 “Four components of personality”. “Searching for Sunnyside” research report. Digital image (Edited by Tumi Tsebe).

1.32. GEOGRAPHY AND TRANSITIONAL THEOLOGIES

In order to establish whether it is personality, politics or religion that divide Sunnyside's residents, one must establish what ideas are being held by Sunnyside's residents as a consequence of migration and what views regarding "other" people are being held more generally.

Professor of evolutionary human biology, Joseph Heinrich has outlined a term that describes countries that people tend to immigrate to and their consequent social ideals. The acronym is W.E.I.R.D. which stands for Westernised Educated Industrialised Rich and Democratic. (Shulevitz, 2020) Countries like this display a level of civility that is attractive to people from unstable political regimes and seem to be the most prosperous countries on earth today and migration patterns show people going towards these countries instead of away from them. While there are a wide range of political characteristics that migrants are willing to be persuaded on, the functionality that they seek when leaving their countries of origin seem to be best encapsulated in the acronym described above. The acronym is also useful as the word "weird" means something out of the ordinary. Indicating the sense of scarcity or rarity of countries like this. Given this scarcity of religiously diverse yet cooperative cities, Sunnyside is not an anomaly given its social conditions. The question to be posed architecturally is, as mentioned, how can design proposals made in Sunnyside play a diplomatic role in its built infrastructure to mediate between socio-economic tensions?

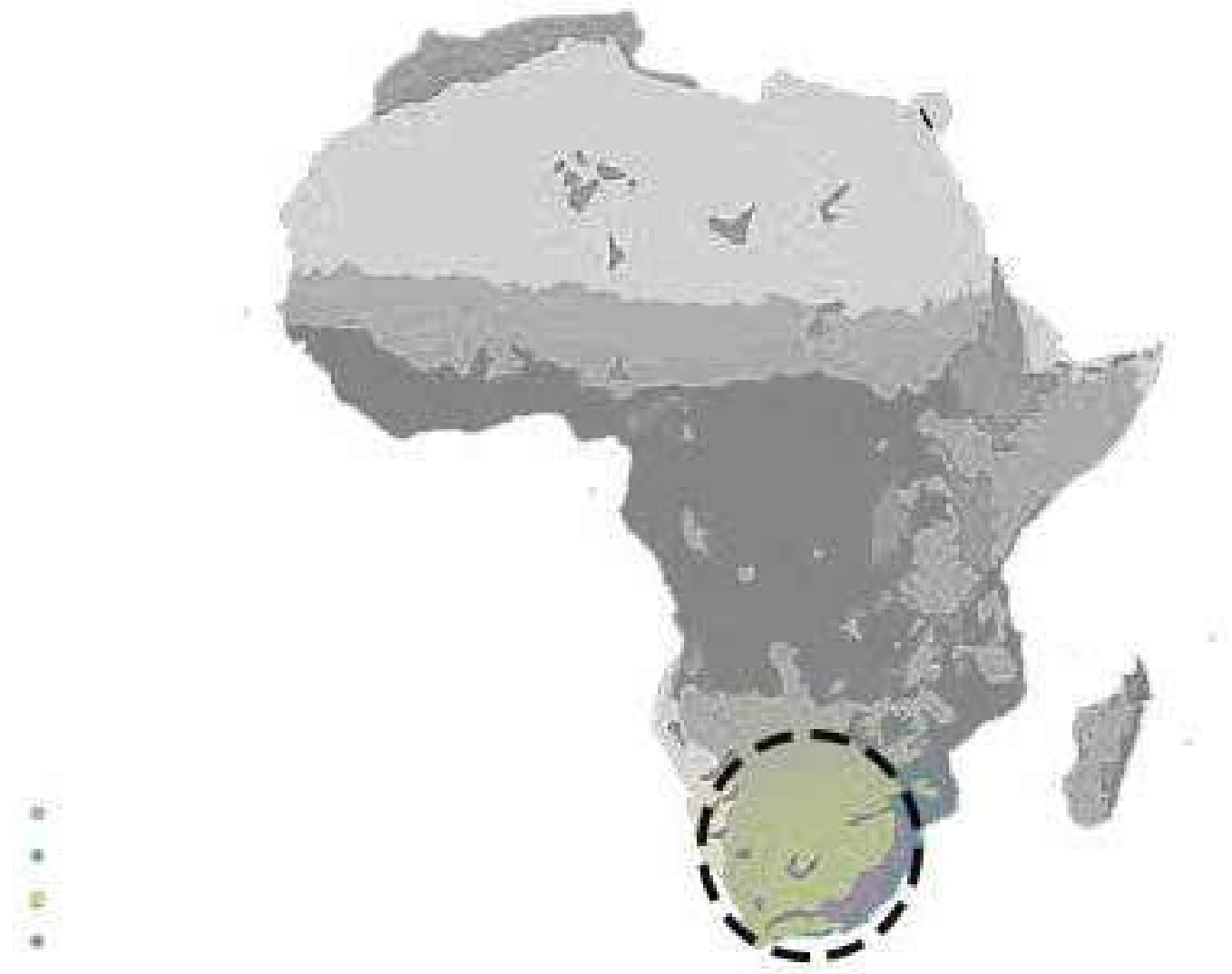
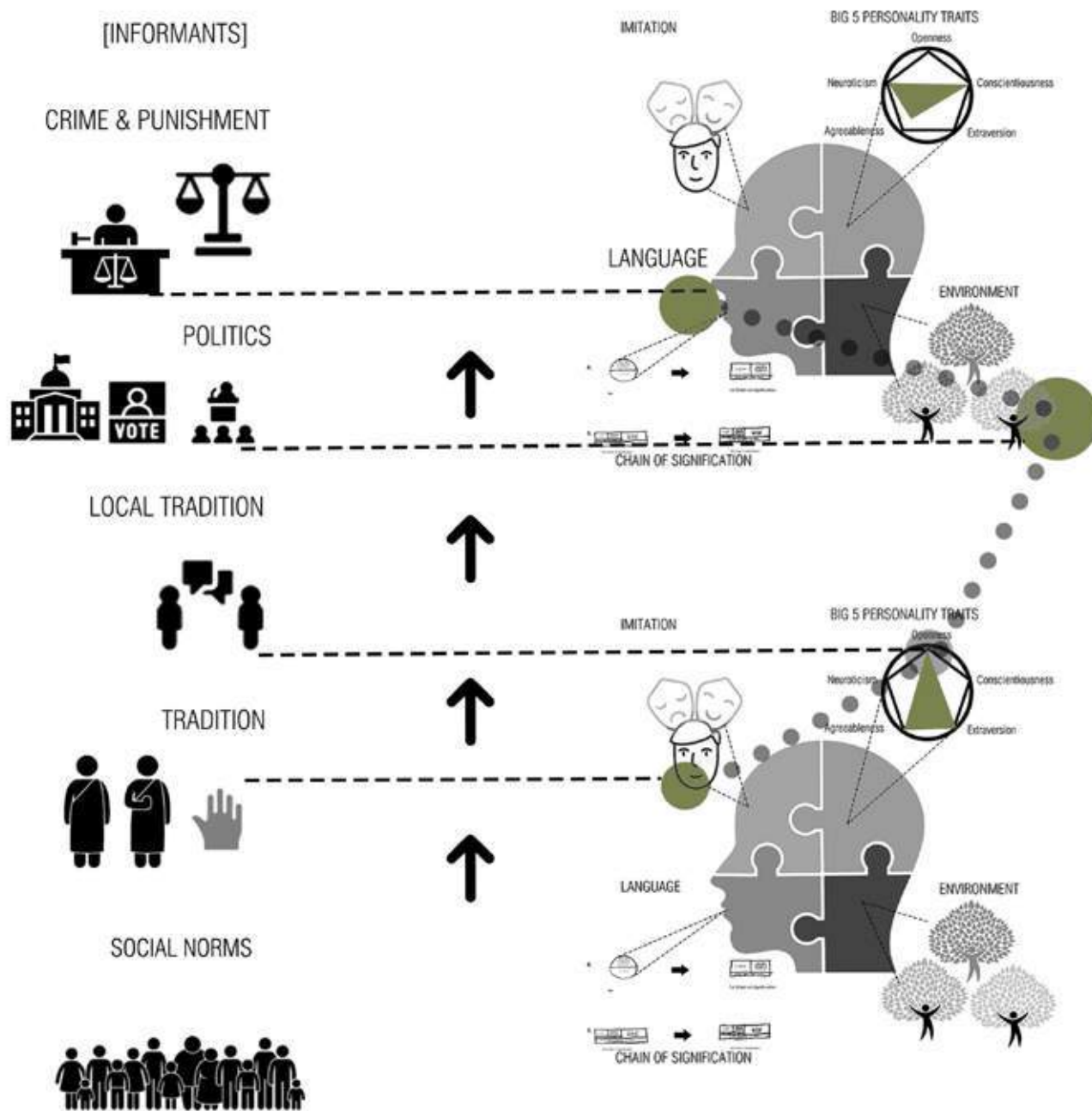


Fig. 1.42: Adjaye. D. 2021 "Africa Climate Zones". "Searching for Sunnyside" research report. Digital image (Edited by Tumi Tsebe). Original Images Source(s): Available at: <https://www.dezeen.com/2014/09/29/david-adjaye-book-of-interviews/> [Accessed 6 September 2021]



1.33. SOCIAL COHESION

At the moment, public buildings such as Home Affairs located in the CBD, are playing the role of diplomacy for both migrants and locals in Sunnyside. The distance, however, between home affairs and the experience of the citizen is surprisingly large. The department of Home Affairs is the department primarily responsible for dealing with the issues affecting immigrants as well as being the administrator for legal immigration. The department seems to view people in a rigid framework that it outlines in its own aims. In the department of home affairs, one is either a citizen, a refugee, an immigrant, or a diplomat. In other words, people are characterised by their status in relation to political social security. In reality, people, especially Sunnyside's residents, are characterised by much more than this. People, individually, differ in a number of ways that are not described in application form at home affairs or in other governmental institutions. People, in an urban setting, are often characterised by their culture. Culture, however, is not static. It is dynamic. In fact, the term culture has various layers and different subsets to each layer that can make it difficult to interpret whether or not any given aspect of culture is interchangeable with other, more universalized cultures.

Understanding more about the layers of culture will enable the scheme to interact with Sunnyside's multicultural context from a more informed place.

Fig. 1.43: Tsebe.T.. 2021 "Politics, Transition, Crime, Punishment and their bodies of authority ". "Searching for Sunnyside" research report. Digital image (Edited by Tumi Tsebe). Original Images Source(s): Available at: < <https://www.dezeen.com/2014/09/29/david-adjaye-book-of-interviews/> > [Accessed 8 September 2021]

1.34. CULTURE AND ITS LAYERS

The book *Sociology: Themes and Perspectives*, by Michael Haralambos and Martin Holborn and Robin Heald. Outlines the different layers of culture and their political manifestations. It defines culture as: “a whole way of life in a particular society” in the book, culture is broken down into its sub-components namely high culture, folk culture, mass culture, popular culture and sub-culture.

High Culture

High culture refers to high cultural artifacts that have a particularly high status. They exemplify the highest levels of human creativity. An example of which would be long-established art forms. High culture tends to be viewed as superior to other forms of culture to follow.

Folk Culture

Folk culture refers to the culture of ordinary indigenous people in a given geography. Folk cultures tend to be pre-industrial. Often described by the term “grass-roots”. This kind of culture is self-created and autonomous in a geographic locale. Examples of manifestations of folk culture would be traditional folk songs and attire as well as interpersonal traditions. In Sunnyside, this may have been the culture of the settlers around the Apies River mentioned in the “Historical Context” Chapter.

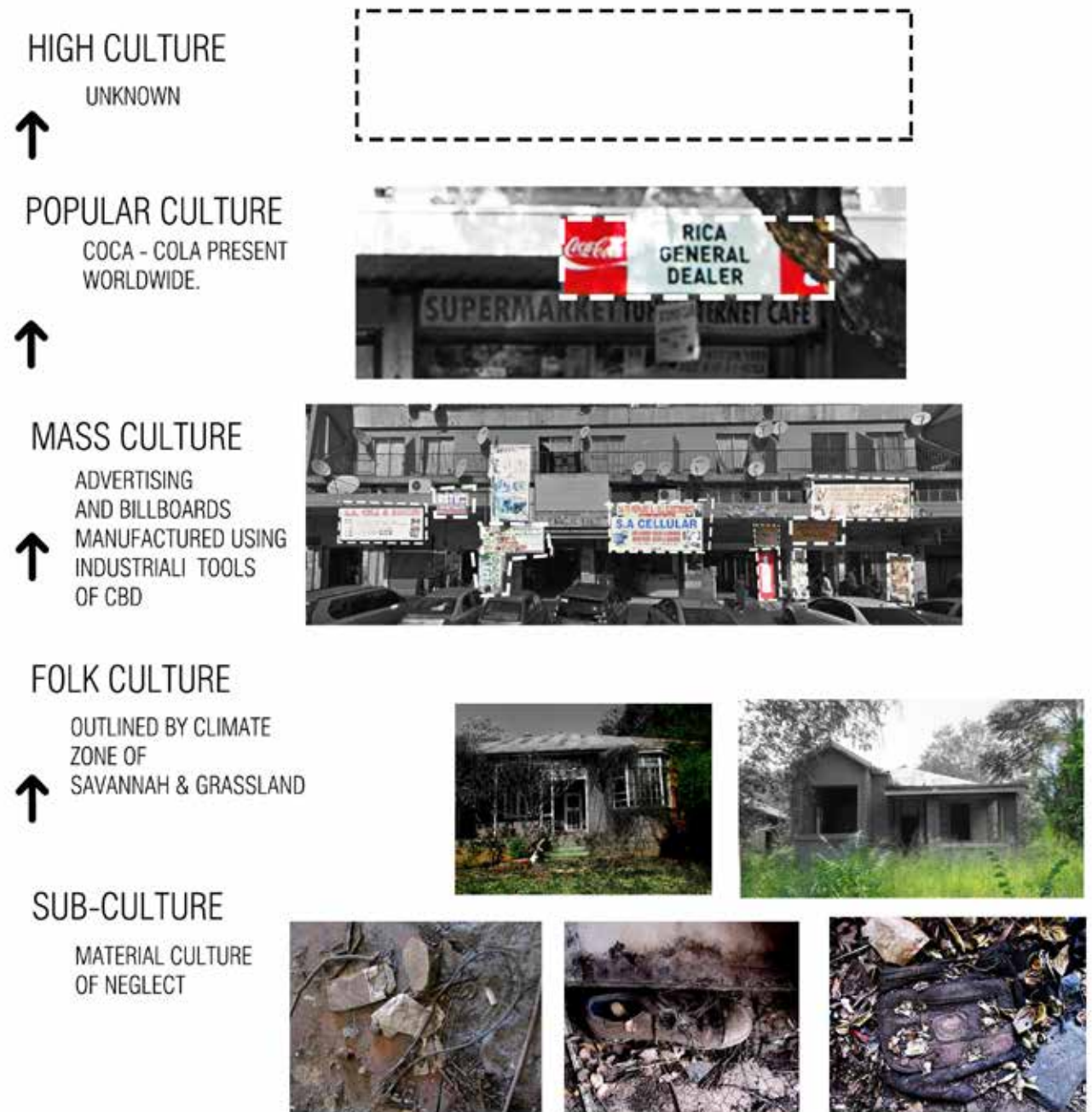


Fig. 1.44: Tsebe. T 2021. Exploded diagram explaining Sunnyside’s “Culture and its layers ” in “Sociology, Themes and Perspectives.” framework. “Searching for Sunnyside” research report. University of Witwatersrand. Digital image (Edited by Tumi Tsebe).

1.34. CULTURE AND ITS LAYERS

Mass Culture

Mass culture is a product of Industrial Societies. This is essentially the product of mass media, including television, feature films, soap opera and commercial music. Many critics of mass culture see it as a kind of disenfranchisement for the individual and destructive to the fabric of society. In this kind of critique, folk culture is created by ordinary people and mass culture is only consumed by them. The result is that the audience or consumers become passive members of society with an inability to think for themselves.

Popular Culture

“Popular culture” is often used interchangeably with mass culture. It refers to cultural intellectual and material products that are appreciated by a wide range of diverse people. For example, mass market films such as Titanic. Popular products such as coca cola. In South Africa, this might be local forms of music such as Kwaito, Gqom or Amapiano.

Sub-culture

Subculture is widely used to refer to groups that have something in common with each other that is different from the aforementioned manifestations of culture. Subculture often refers to “groups that have something in common behaviorally”. This means that people who share a sub-culture share a problem, an interest and a practice. In Sunnyside, this might be characterised by the behaviours of people travelling to and from the city on a regular basis for the purpose of employment or seeking employment. (e.g. The substance abuse that might arise as a consequence of unemployment.)



Fig. 1.45: Unknown Author. 2018 Photograph of women in traditional attire celebrating heritage day in Pretoria. Searching for Sunnyside” research report. Digital image (Edited by Tumi Tsebe).

1.35. LANGUAGE AND LAYERS OF CULTURALISM

“HOW ARE YOU?”- CONTRASTS BETWEEN CULTURES

Moving on from the observations of countries' foundational texts. (i.e. *Divergent Theologies: How Different Religious beliefs, represented in Sunnyside affect people's interpretation of other people*), one can begin to see how different theologies could produce different social norms. In doing so, one might also realise that the markers of wellbeing for one nation's ideals might not be the markers of wellbeing for another nation's ideals. More perniciously, the units of measurement of personhood are not identical cross culturally and this can pose some rugged intersections between people at the localised level.

In Sepedi language, it is a marker of respect to refer to people in the collective. When referring to parents or elders in a residence, for example, one will say “Bakgekolo ba ka mog ae ba gona naa?” which translates to “Are the elderly of the home here?”. When greeting people, respectfully, one would say “Le kae” Meaning “How are you”, however, the “you” in the aforementioned sentence speaks to people in the collective.

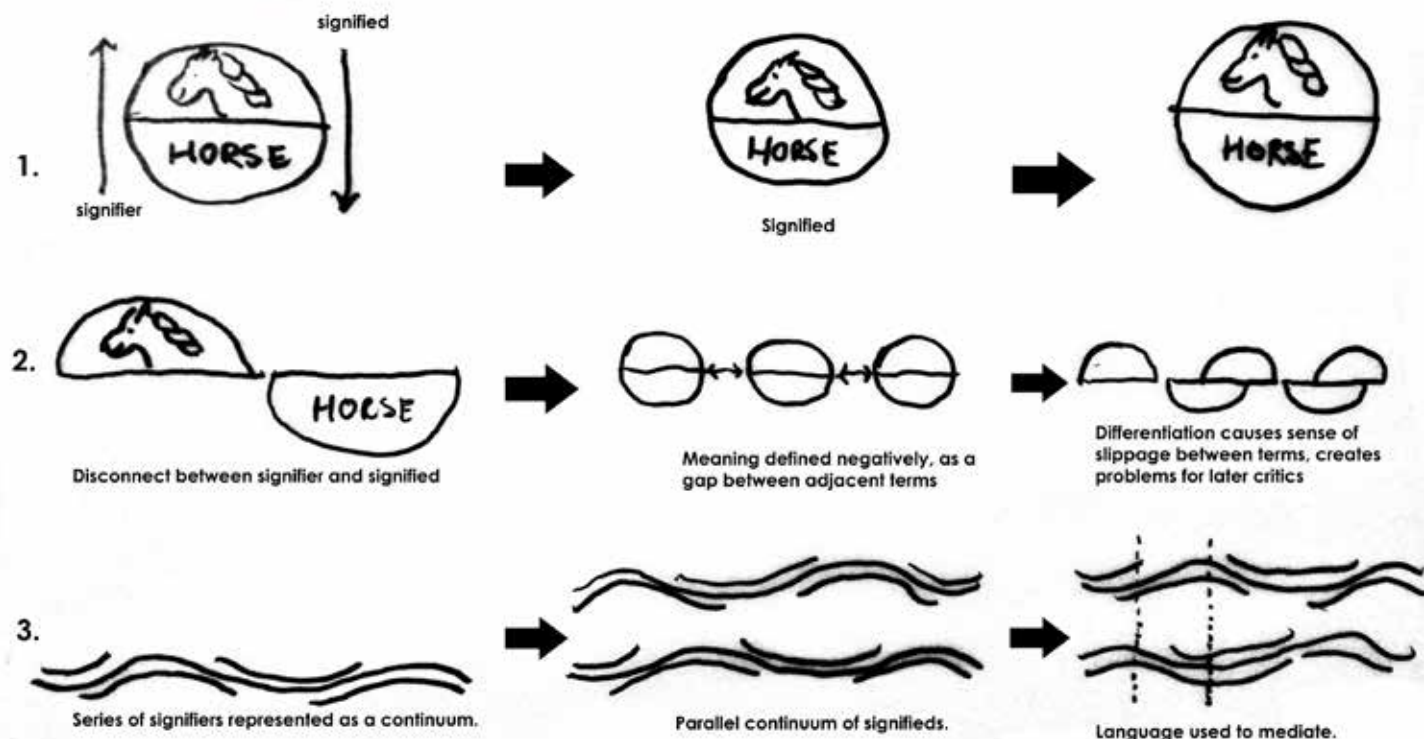


Fig. 1.46: Tsebe. T. 2021 De Saussure's Diagram of the chain of signification. Traced from Saussure, Ferdinand de. Course in general linguistics.(2011). Original Images Available at < <https://www.voicetube.com/videos/39631> > [Accessed 8 October 2020]

1.35. LANGUAGE AND LAYERS OF CULTURALISM

“HOW ARE YOU?”- CONTRASTS BETWEEN CULTURES

When referring to parents or elders in a residence, for example, one will say “Bakgekolo ba ka mo gae ba gona naa?” which translates to “Are the elderly of the home here?”. When greeting people, respectfully, one would say “Le kae” Meaning “How are you”, however, the “you” in the aforementioned sentence speaks to people in the collective. A direct translation of that inquest into English would be something along the lines of “How are you all?” This gesture invites people, even in the individual to consider their wellbeing in tandem with the wellbeing of a group of people surrounding them. This brings into question what effect does living alone, or in a more individualised setting, do to a Bantu person’s perception of wellbeing? Can the answer to “how are you all?” simply be “I am okay”? Does that not leave some part of an endearing question unanswered? Is the unanswered part of that question not the basis for psychological and consequently social tensions? Could it perhaps exacerbate with the feelings of isolation and a lack of belongingness that juvenile delinquents report feeling?

TAKEAWAYS FOR MY DESIGN

In the Wellness Centre for Searching for Sunnyside, an administration center that is linguistically competent according to the needs of the individual user will be paramount for this reason. Without a deep understanding of language, its etymology and the values of its country of origin, true psychological care for people of Non-W.E.I.R.D backgrounds will be somewhat sub-optimally informed.

1.36. RURAL AND URBAN LIVING

“Gauteng is Limpopo”

Limpopo is the most Northern suburb in South Africa. Comprised mostly of small Pedi and Venda speaking villages and towns. Limpopo's social fabric is hence made of people who tend to agree on the most relevant, civic issues like attitudes towards immigrants, the province's land use (although land ownership is becoming increasingly controversial), crime and education. The reason for this is because most of the citizens of Limpopo are from Limpopo speaking the predominant languages spoken in Limpopo including Sepedi (52,9%), Xitsonga (16,9%) and Tshivenda (16,7%). The languages mentioned above are all derivations of the older, Bantu tribes that were the indigenous people of South Africa before colonization. The result of this is that serious tribal tensions between the Pedi citizens and the Venda and Tsonga citizens is relatively low despite the fact that there is a clear majority-minority dichotomy prevalent.

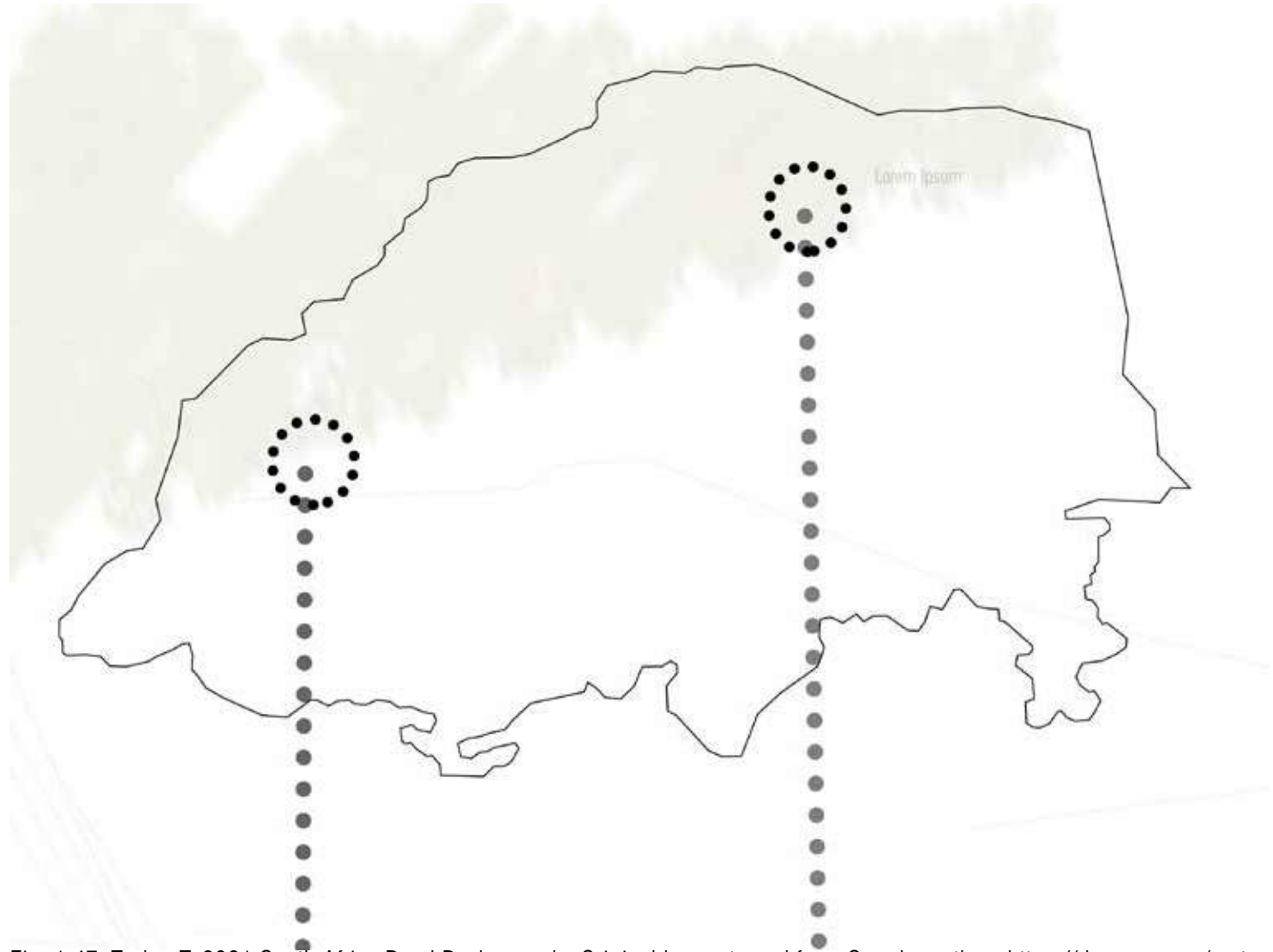


Fig. 1.47: Tsebe. T. 2021 South Africa Rural Backgrounds. Original Image traced from Google earth: <https://d-maps.com/carte.php?num_car=89603&lang=en> [Accessed 8 October 2020]

1.36. RURAL AND URBAN LIVING

There's also the fact that these share a set of economic resources such as community services which contribute to about 32% of the local economy, finance which accounts for 23%, and the trade sector at 22%, amongst other industries. Although at 1%, agriculture also plays a pivotal role in Polokwane's economy and South Africa's economy at large given the prevalence of informal traders who sell fresh produce for a living. Along with the fact that, as mentioned before, South Africa's economy is highly dependent on natural produce due to its status being that of a developing economy.

It is important to note that the economic activity in Polokwane is circular. Companies hire local residents to provide goods and services which are often manufactured in the town itself. Creating jobs for locals. In turn, this allows them to have more buying power and reinvest into the economy of Polokwane by the means of retail, wholesale and trade sectors. This "circular" approach to the economy, provides real value and propositions for co-operation on the part of informal trade in the area. The reason being that this posture allows for a sharing of the infrastructure that enables trade between the city and the village, creating a gradual, incremental progression from rural living standards to urban living standards in the area. This means that economic prosperity and thriving livelihood for one group tends to run in parallel with prosperity for another group, despite unequal outcomes

Pretoria's Central Business District, and Sunnyside more particularly, can benefit from this approach to economic relations between rural, agricultural economies because, as mentioned before, much of Sunnyside's residents suffer from unemployment and its social ills but given their more than likely relationship to Limpopo, an agricultural hub in the country, these problems can be addressed given the right, circular business models in the area.

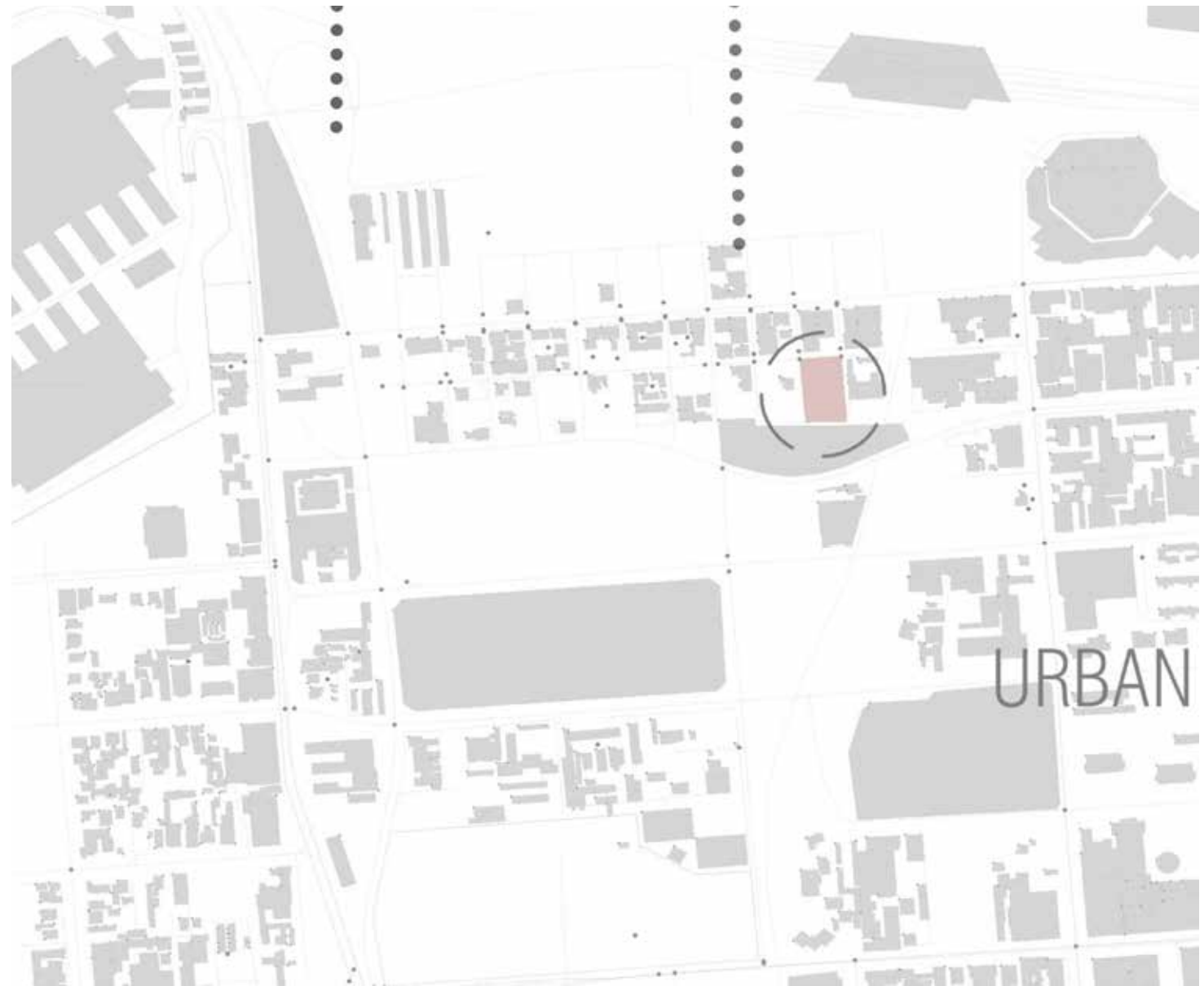


Fig. 1.48: Tsebe. T. 2021 South Africa Urban Backgrounds. Original Image traced from Google earth: <https://d-maps.com/carte.php?num_car=89603&lang=en> [Accessed 8 October 2020]

1.37. WHY IS RURAL AND URBAN LIVING RELEVANT FOR SUNNYSIDE?

Sepedi, otherwise referred to as Northern Sotho is the most commonly spoken language in Pretoria, followed by English, Afrikaans and Setswana. (Government, 2012) Part of the reason for this is that much of the labour force in Pretoria is made up of people who have their familial roots in Limpopo, making use of Pretoria as a place for secondary and tertiary education as well as a place to stay while pursuing work opportunities that follow the higher levels of education. The result of this is that the sub-culture of Pretoria is one that is heavily influenced by Pedi language. However, the culture itself exhibits much more liberal, progressive behaviour than what is seen in Limpopo. For example, attitudes towards homosexuality are more progressive in Pretoria than they are in Limpopo.

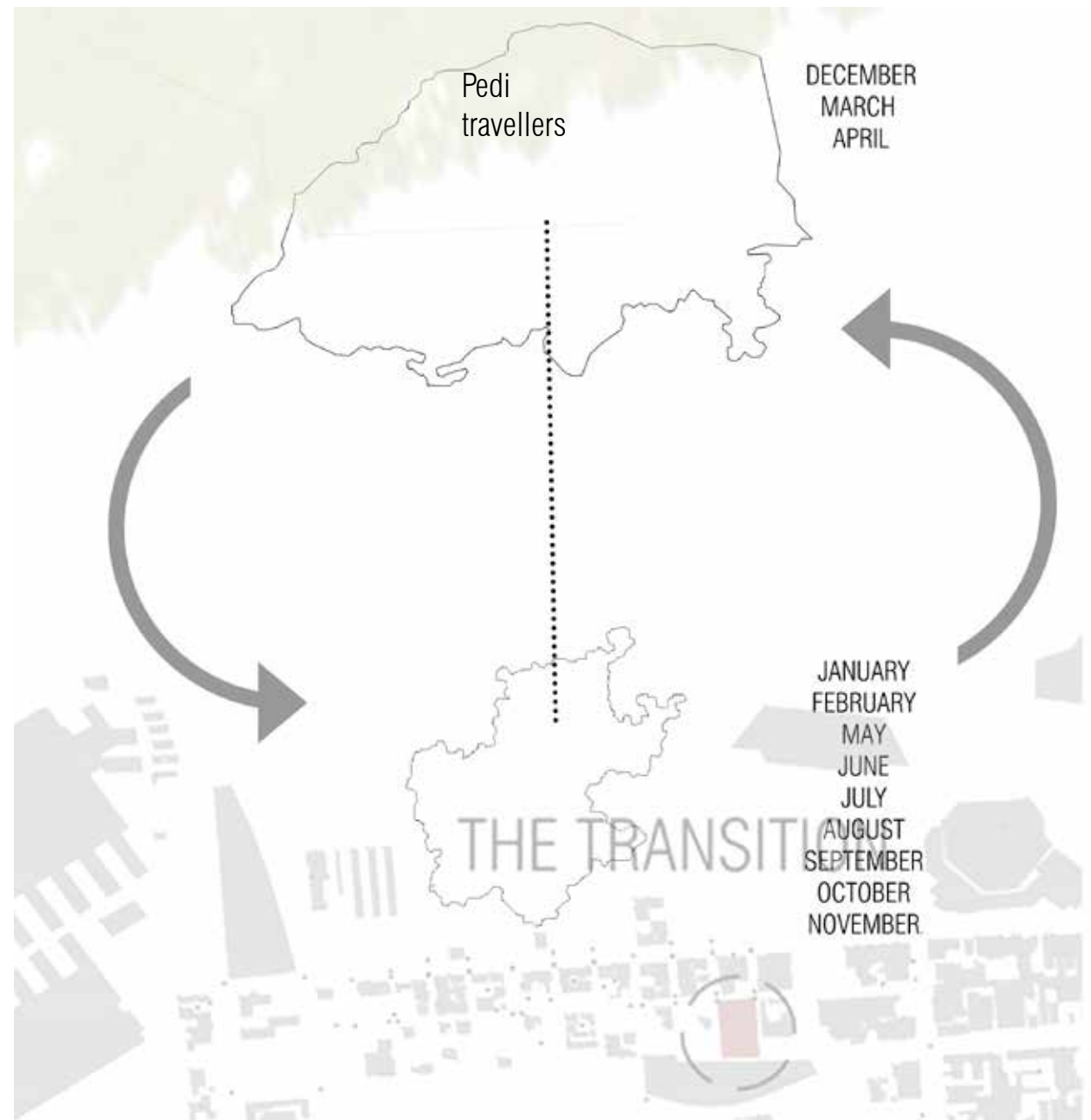


Fig. 1.49: Tsebe. T. 2021 South Africa Rural to Urban Backgrounds. Original Image traced from Google earth: <
https://d-maps.com/carte.php?num_car=89603&lang=en> [Accessed 8 October 2020]

1.38. THE TRANSITION BETWEEN RURAL SOUTH AFRICA AND URBAN SOUTH AFRICA

Given its geographical location, it plays a role in acting as a “buffer” zone between other African countries and South Africa’s more metropolitan cities (Pretoria, Johannesburg etc.).

In a rural setting, space has different markers of boundary than what it does in an urban setting. For example, looking at informal trade happening on the side of a road in Jane Furse, one can see that the road, for the most part, lacks a kerb, and this results in shared intermediate space in-between.

One unfortunate side effect of this migration between rural South Africa and Urban South Africa is the prevalence of

homelessness around city centres. As the standard of living in urban areas is higher, so is the cost. The effect of this is that users from areas and villages with collectivist values find themselves having difficulty integrating into the urban fabric as their collectivist values are challenged. My argument is that it is, in part, this transition that makes uncooperative practices such as delinquency so attractive to formerly rural users and my scheme seeks to address this by getting at the core of the problem: inadequate social integration into urban life.

URBAN SECTION SHOWING THE PROGRESSION OF INCREASINGLY INDIVIDUALIST NORMS IN SUNNYSIDE

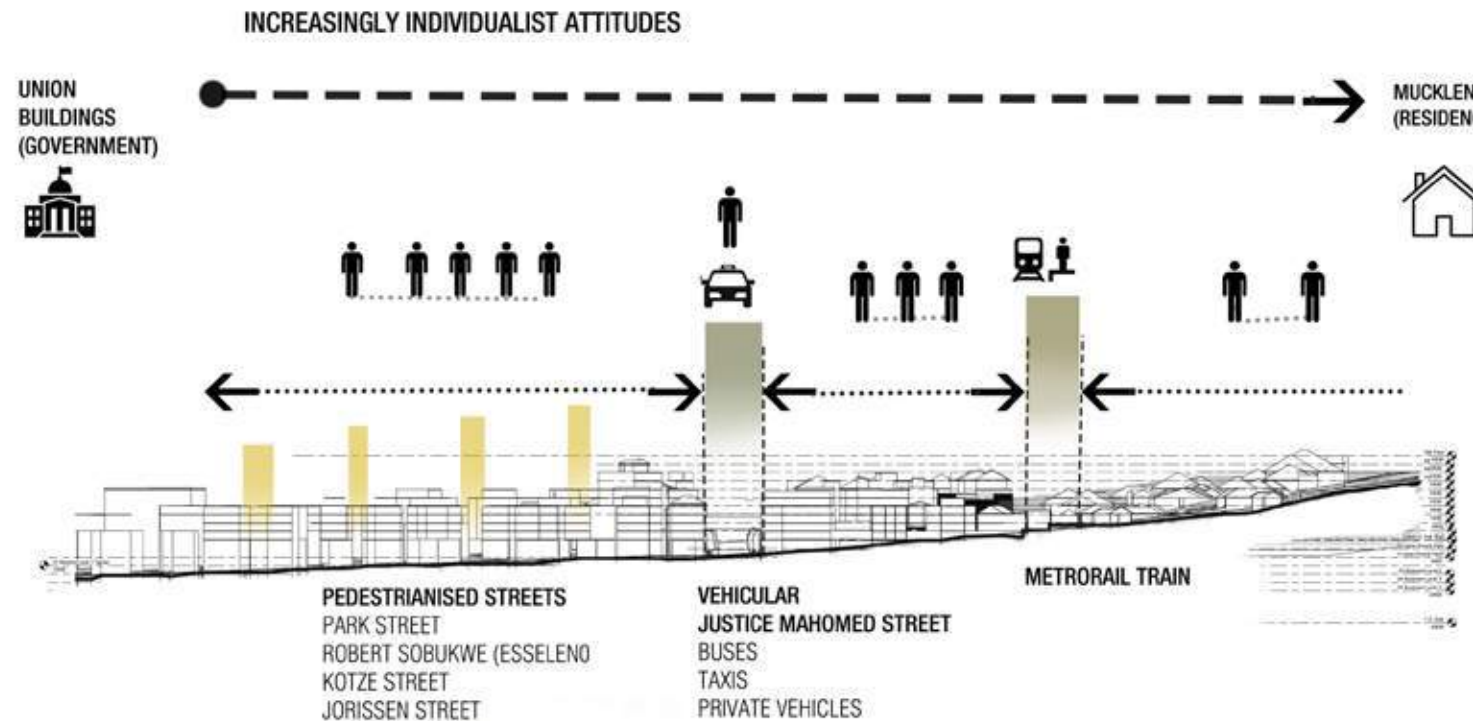


Fig. 1.50: Tsebe. T. 2021 Section Showing Increasingly Individualist Attitudes in Sunnyside. Digital Drawing (Edited by Tumi Tsebe)

1.39. PSYCHOLOGY AND THE INDIVIDUAL

Although rural social norms and urban social norms differ, the evolutionary biological instruments we use to interpret them do not. Moreover, these instruments have finite responses that are demonstrable and replicable. A basic and more apt description of human social responses is to co-exist, co-operate, and exploit one another. As seen, for example, in crime. The effect of socialising in an urban setting while coming from a rural background is one that is felt by many rural-urban dwellers. The differences in social norms result in a scenario where rural dwellers choose to co-exist and urban dwellers seek to co-operate with rural dwellers. An example of this can be seen when looking at natural materials are used to sell handcrafted goods on the side of the road by informal traders (e.g. Along Solomon Mahlangu Street as well as Esselen Street in Sunnyside). Products such as raw wood, doghouses and benches all made from raw wood are sold to urban residents of Faerie Glen and Garsfontein, more affluent suburbs in Pretoria. The relationship here is one where the informal trader is using rural practices (the chopping and crafting of wood) to sell products (benches and raw wood for fireplaces) to urban, affluent residents (homeowners and residents of a suburb). The rural trader, in this example, hasn't changed anything about their way of inhabiting space. They have simply changed the location that they choose to inhabit and sell products. Given that an informal trader can be considered.



Fig. 1.51: Tsebe. T. The Effects of Urban Environment on Natural User. Digital Collage Original Images <<http://www.differencebetween.net/miscellaneous/difference-between-collectivism-and-individualism/>> [Accessed 9 September 2021]

1.39. PSYCHOLOGY AND THE INDIVIDUAL

While urban living standards are largely dependent on rural and township labour for maintenance, the labourers themselves tend to remain in the rural frame of mind. As some workers go on to work for “high skill” level jobs such as a transition from a security guard to a social worker (Sekgwama, 2020). This dichotomy between the urban dweller and the rural dweller can also be correlated to a collectivist and individualist dichotomy. As people settle deeper into urban centres, their values tend increasingly individualistic. In an economic context, this translates to an exploitation-cooperation dichotomy between urban life and rural life.

Human beings are often described as a hyper-social species (Tomasello, M. & Vaish, A. 2013). A truer statement, however, would be that human beings are capable of a great deal of socialisation. There is no unequivocal, indiscriminate tendency among all human beings for pro-social behaviour. Instead, most reports show that when unattended, unsupervised, and unengaged, young juvenile men tend to exhibit signs of anti-social behaviour.

INDIVIDUALISM



COLLECTIVISM



Fig. 1.52: Tsebe. T. 2021 Individualism vs Collectivism. Digital Collage Original Images <<http://www.differencebetween.net/miscellaneous/difference-between-collectivism-and-individualism/>> [Accessed 9 September 2021]

1.40. VIOLENCE, CRIME AND DESPERATION

The dichotomy between exploitation and co-operation is one that has economic consequences such as crime. Scientists, Benoît De Courson & Daniel Nettle, created a mathematical model for assessing the probability of participation in criminal behaviour by a given individual based on several psychosocial indicators.

In the model, participants repeatedly decide between three actions: foraging alone, foraging cooperatively, or exploiting a cooperative group. Foraging describes the act of searching for provisions for oneself. In the study, foraging cooperatively is taken as analogous to legitimate economic activity, and exploitation is taken as analogous to accumulative crime or economic crime.

Agents have differing levels of resources, and their behaviour is state-dependent. “State-dependent” meaning that, rather than having a fixed strategy where one participant is always cooperating or always exploiting. Each participant, at each interaction, selects a behaviour based on their current level of resources. The behaviour of others is also considered in the surrounding population, and background parameters such as the probability and severity of punishment for exploitation (i.e. Criminal punishment), as well as the likelihood of resources improving through other means (e.g., Improved economy due to discovery of natural resources). Agents seek to maximize fitness (i.e. They seek to take the set of actions most likely to extend their ability to keep playing for the longest duration of time). The test assumes that fitness is positively related to resource levels (the more resources one has, the longer one can continue to play, but that there is a threshold. a critically low level of resources will incur a fitness penalty for falling.

1.41. THE SHIFT FROM RURAL TO URBAN: A MIGRATION

As mentioned before, when thinking about South Africa, and even Pretoria's population, it's important to understand that large cohorts of Gauteng's population are made of people from rural backgrounds who come to the city in search of an education and increased standard of living. This begs to question what cultural practices and ideas about identity are being sacrificed by the rural populous in order to integrate into the urban framework? In other words, can the shift from rural to urban be seen as something like a form of migration? In looking at studies by statistics South Africa, we can see that migration has a wide range of reasons and that most migration from rural settings to urban ones are "circular" meaning that millions of people use the city temporarily and send the fruits of their labour back to social networks in their rural roots. This is also a common practice among domestic workers in South Africa. Many report to work in South Africa purely because they believe there are work opportunities here, then they send money back home to their countries of origin, providing for their loved ones, who are also often in a rural context.

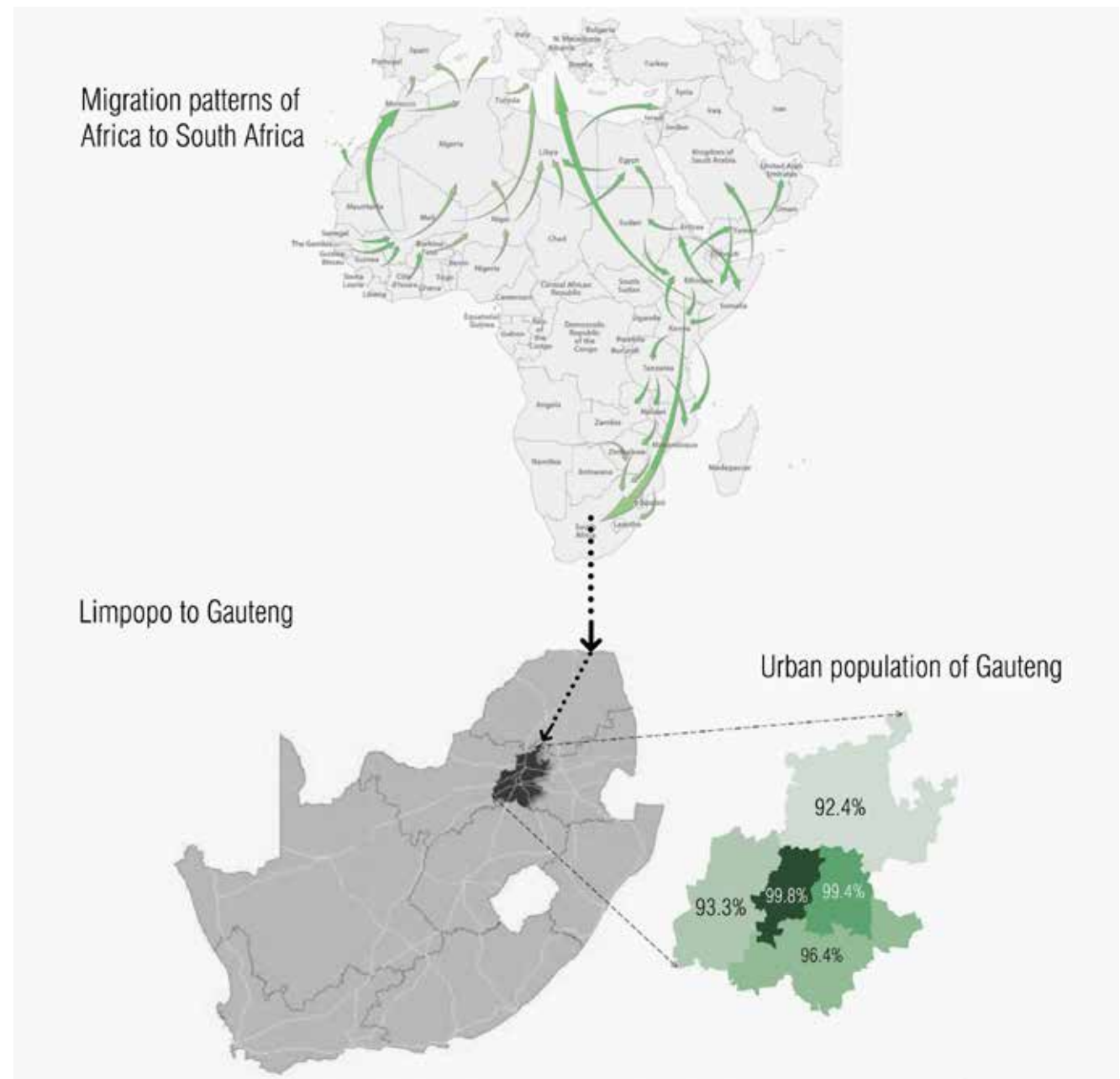


Fig. 1.53 :Tsebe. T. Migration Patterns of South Africa to Limpopo . Digital Collage Original Images < < <https://africacenter.org/spotlight/african-migrant-flows-reshaping-security-challenges-in-africa/>> [Accessed 3 September 2021]

1.42. THE SHIFT FROM RURAL TO URBAN: URBAN LEVELS

The site I will be working on is located near a train platform on Walker Street. This brings to question whether the character of the site is being influenced by social conditions outside of its boundaries. As the train brings more and more people through the site on their way to work in the CBD or perhaps at one of the public facilities in Sunnyside (schools, gas stations, police stations etc), the social fabric of the area changes and what was a quiet road with an empty sidewalk can quickly become a busy intersection with a populated sidewalk. In this analysis, we discover whether Sunnyside is built to handle such a wide range of urban conditions. Taking this into consideration, the scheme uses URBAN LEVELS as a tool for organizing the programme of the design interventions. So that each intervention is relevant to its scale or level of analysis.

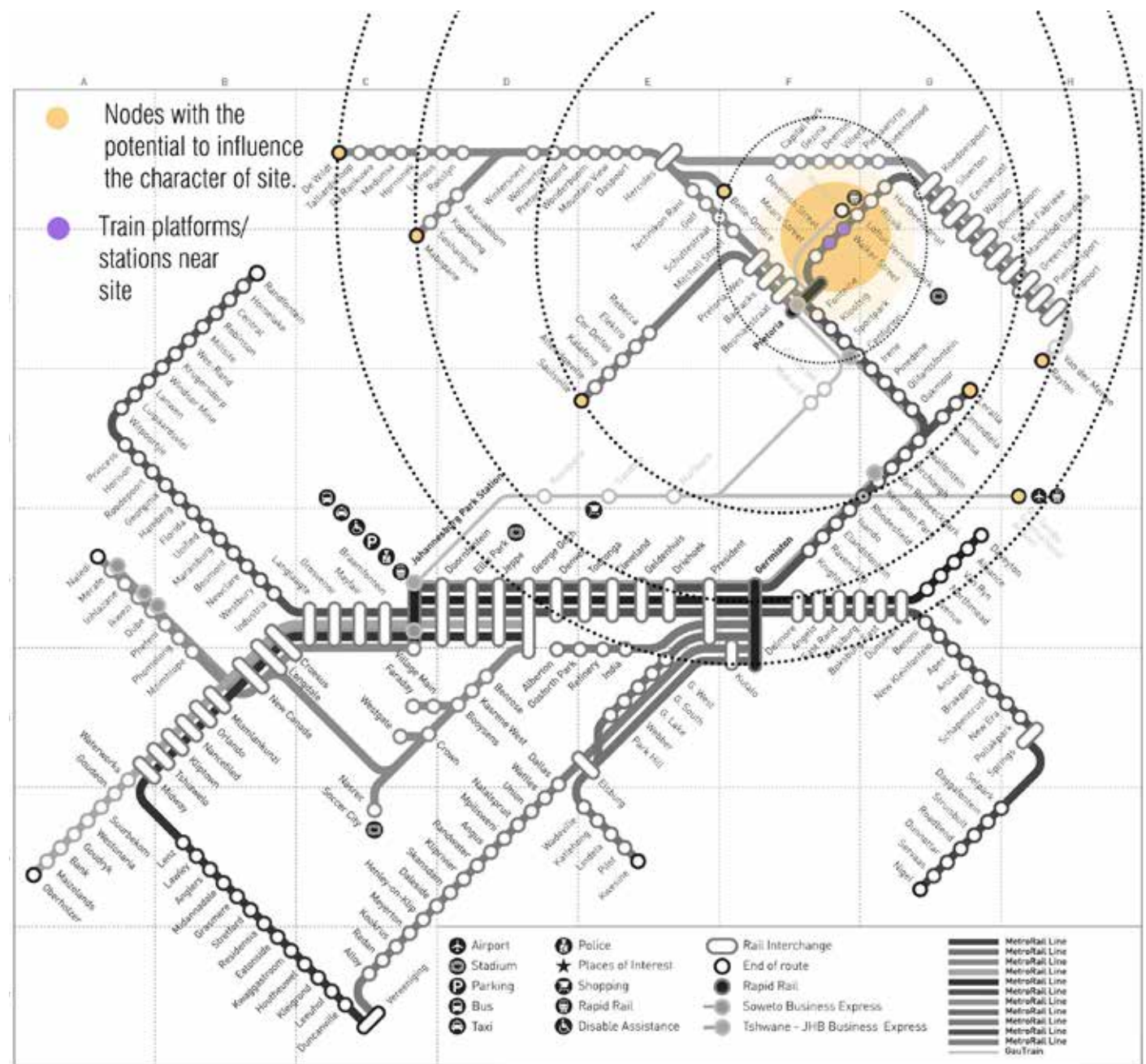


Fig. 1.54 .Unknown Authors 2010 Local Passenger Rail Routes Of South Africa, Gauteng, Johannesburg, Pretoria
Digital Collage (Edited by Tumi Tsebe) Original Images < <
< http://www.metrarail.co.za/maps/GAU_RailMap.pdf> > [Accessed 3 March 2021]



Fig. 1.55. Miller.J. Transition from Township to Urban . Digital Collage Original Images < < <https://www.economist.com/middle-east-and-africa/2021/09/23/unpicking-inequality-in-south-africa>> > [Accessed 6 February 2022]

There is also a shift in the cultural mindset of people from urban backgrounds. In South Africa's provincial make-up, (e.g. Limpopo, most populations are made up of largely indigenous Bantu people and the areas are maintained almost entirely by their social norms. Exhibiting tendencies towards more traditional gender roles for example. On the other hand, in an urban setting, traditional gender roles don't make any sense, meaning that relations between the genders are altered at the hands of a differing political ideology. One that is predicated on human social contracts as predicated on competence rather than the conservation of traditions. This also has implications for industrious workers from rural backgrounds as many jobs on farms, for example, are reliant largely on brawn or upper body strength which is more equitably distributed among people, particularly men. While Urban occupations tend to incentivize occupations that include a fair deal of cooperation and intellectual output.

1.43. THE SHIFT FROM TOWNSHIP TO CITY: A DAILY-MIGRATION

In South Africa, most of the population lives in either a township or a small village. This is in no small part due to the segregationist policies of the Group Areas Act, (Group Areas Act 1950) which sought to separate lower class, black labour force from the middle and upper-middle class bourgeoisie. These planning distinctions were so severe that often so severe that they resulted in. As these places are largely characterised by social norms derived from Bantu denominations, it is worth asking what the effect of that segregation has on the labourer? How does the person travelling to and from the township see themselves in the context of the city? Are there urban interventions in which the city can ask the labourer: How are you?

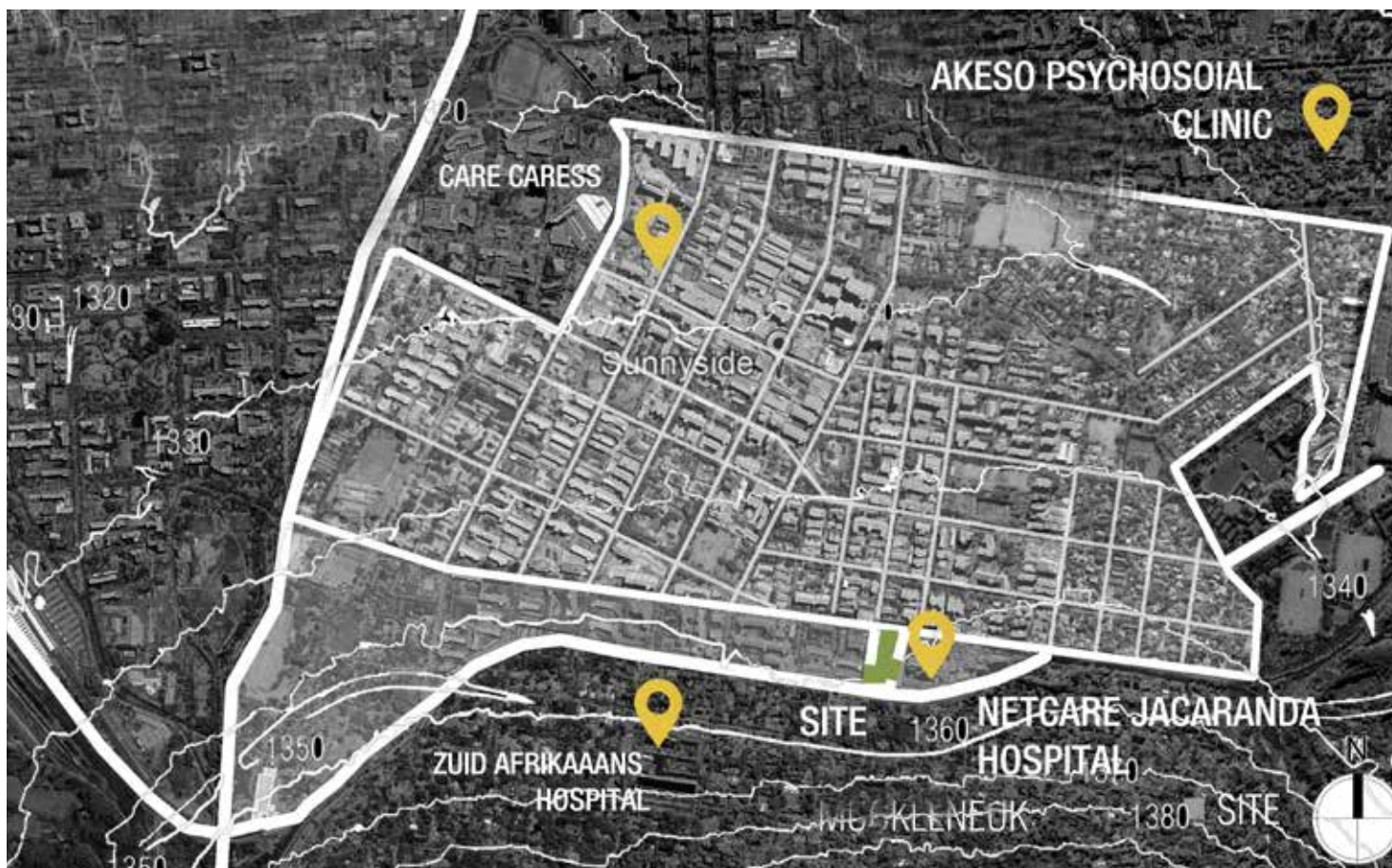


Fig. 1.56. Tsebe. T. Map showing health facilities in Sunnyside.. Digital Collage Original Images < < <https://www.google.com/maps/search/health+facilities+in+sunnyside/@-25.7543218,28.2058489,16.29z>. [Accessed 6 February 2022]

1.44. CRUCIAL OFFERINGS OF THE CITY: HOSPITALS

Hospitals, along with the range of healthcare services they offer their patients, are one of the key reasons why people migrate from townships to cities. As cities tend to have more qualified people to offer services like psychiatry, psychology and neurosurgery, extreme medical procedures and special medical professions tend to be highly sought after in cities rather than townships or rural areas. In Sunnyside, the area lends some of its healthcare infrastructure from the CBD, including psychiatry offices in Louis Pasteur Hospital. In Sunnyside, there is one active hospital, namely Netcare Jacaranda, however, this hospital is private and thus the community of Sunnyside cannot really access what it has to offer from a medical point of view.

1.45. CONCLUSION ON SUNNYSIDE'S CONTEXT

There are many issues facing Sunnyside's residents and users. These issues such as crime, a changing social environment, poor education and lack of safe transport facilities. This means that Sunnyside, despite being less than 10KM in length, is not homogenous and suffers from the social ills of a much more heterogeneous space., the CBD. This has affected how the space has been planned in that the closer you get to the CBD (i.e. Arcadia,) the larger and larger the buildings get in scale and the functionality of the buildings change from private functions being closer to Muckleneuk, the more residential side of Muckleneuk while the public functions stay closer to Arcadia, the more public side of Sunnyside.

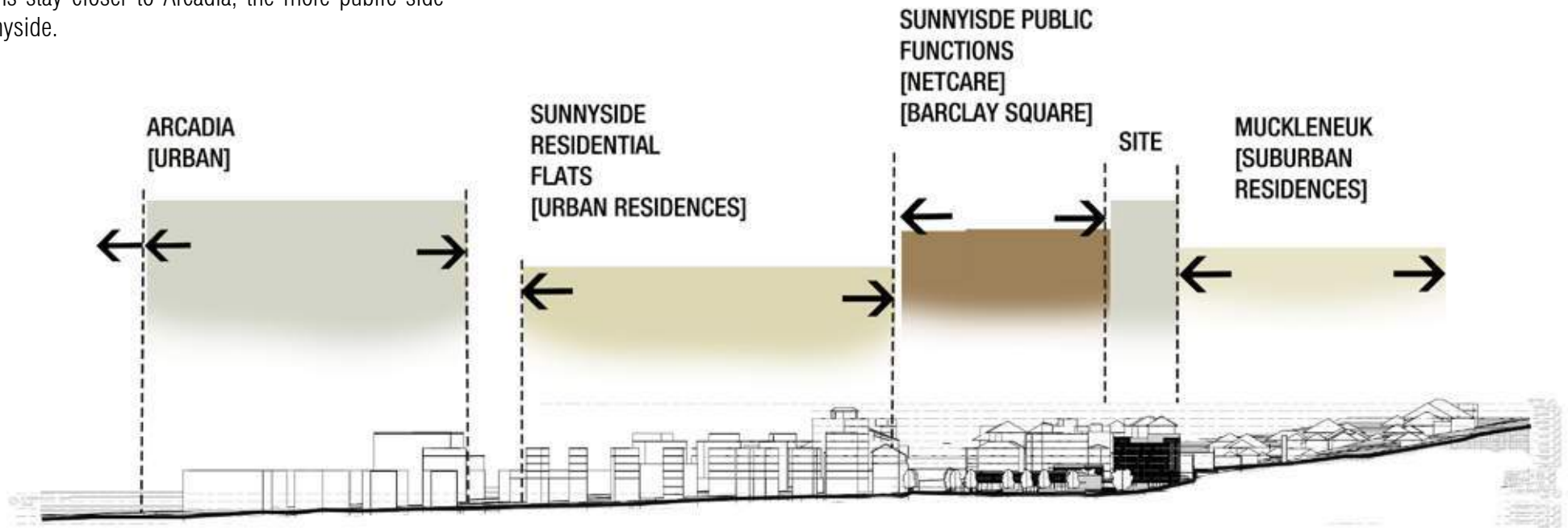


Fig. 1.57. Tsebe. T. Urban Section through Sunnyside showing the progression of urban functions towards/away from site. Revit Drawing. Searching for Sunnyside research report. University of Witwatersrand. 2021

CHAPTER 2



Concept

Concept

2.1. INTRO TO URBAN LEVELS

How did *Urban Levels* come about?

While staying in Sunnyside, I met a wide range of people from diverse backgrounds and a wide range of reasons for being close to, or inside of, the city. This diversity was enjoyable for me although, my observation, as the crime statistics would indicate, was that this was not the case for adults in the area. Space, well-considered space needs to address the programme of the sum of its users, the buildings in Sunnyside were primarily responsive to one aspect of the user's lives (the provision of residential space) but not responsive to most aspects of the user's lives such as the need for education, even self-education or the provision of preventative health care, which seeks to address illness before it arises to keep the cost of treating illness relatively low. As many of the residents in Sunnyside are at the lower ends of the economic distribution, what they have to offer is in effect a product of what Sunnyside has to offer them. Given that at the moment, the area is built primarily as a residential area, the effect of this is that many residents of Sunnyside remain exactly this: residents. To make them more than that, the kind of building program would need to be more diverse and more importantly, be a programme that they are motivated to engage with. How I intend to do this in my proposal is to offer the residents a programme that includes access to facilities that are typically out of reach due to their economic circumstances. These facilities include adequate healthcare, decent education, safe transit, and physical wellness. They don't see nor have access to, opportunities for skills development, training facilities for marketable vocations, or adequate healthcare. The result of this is that people become ill, psychologically and physically and the long-term effect of this is that they become hostile and ultimately are exposed to one or many forms of criminality.



Fig. 2.1. 2010 Unknown Authors Local Passenger Rail Routes Of South Africa, Gauteng, Johannesburg, Pretoria
Digital Collage Original Images < <
< http://www.metrorail.co.za/maps/GAU_RailMap.pdf > >

The things that Sunnyside has gotten right from an urban perspective are that the residential units are built upwards across multiple levels. This has allowed many Sunnyside residents the opportunity to afford homes. Sometimes for the first time in an urban setting. The reason for this is that in building the units up, the cost of the developments is lowered as less land needs to be purchased to build a project and fewer construction costs are necessary as fewer foundations need to be built, less necessity to obtain construction permits for interfering with traffic, etc.

To expand on what Sunnyside has gotten right while improving the aspects it has gotten wrong, a scheme would have to be proposed that takes advantage of the benefits of building up multiple levels while expanding upon what each level has to offer. This way, a scheme can stay within the building ethos of Sunnyside (Building Up, efficient planning of floor structures) while expanding the capabilities of each level. One of the ways in which one might do this is by first understanding that each user is different and that there are different categories of users (e.g. Urban dwellers, rural migrants, township migrations, workers) and that categorizing these users can allude to what a successful building programme would look like for each category. Once a set of programmes is identified, a scheme can begin to arrange these programmes in a way that makes the building accessible where it needs to be and less accessible where it needs to be.

The only way that this can be done, practically speaking, is by taking these programme categories or clusters and arranging them up multiple building levels. This takes advantage of the space offered by verticality and this, in part, makes Sunnyside an example of how to work against issues of urban sprawl. As some users might need a building to be a centre of urbanity for them (like foreign nationals, and others might need the building to be a threshold into or out of the city for them (like workers from townships), the building can be diplomatic to all of these concerns in that it can allocate the same floor area for each of these categories of users (or more specifically each building programme) while maintaining good urban development principle in building up and facilitating each user on a different level. This is the thinking behind the concept: Urban Levels.

This concept has been conceived in relation to the experiences of myself, the designer as well as a layered analysis of the Sunnyside area.

ESTABLISHING THE BASIS FOR A PROJECT BRIEF

An architectural brief that is relevant to the issues addressed in Sunnyside would be one that takes into account the complete set of social issues in the area and responds to them in a manner that doesn't lend itself to any particular political or religious partisanship. The kinds of programmes that tend to serve the greater human good. Programmes that might fall into this criterion would be agricultural programmes as well as religiously impartial programmes such as hospitals and schools.

Although the city is struggling with a deteriorating education system, the best way to approach Sunnyside today would be by including a centre that not only facilitates education for today but addresses the psychosocial issues that come along with a weak education system such as crime and substance abuse. For this reason, a wellness centre, with qualified professionals that can intervene in an individuals life before the civic failures of education systems and criminal justice systems make their way into their lives. Without at least a complete secondary education, citizens cannot fend for themselves legally and thus need a programme that will assist them in developing the skills necessary to make a way in urban society. These skills, however, are not only the skills that are inculcated in a school or university. There is also the complete set of social skills that are usually taught in the context of a home or community that allow individuals to take part, pro-socially and productively in classrooms, offices and various other work environments. Given that the residents of Sunnyside at the moment are from a wide range of places in South Africa and the world at large. The citizens need a place where they can be introduced to a common consensus on what constitutes a life that is viable within the confines of the city. This consensus on viable behaviors is not a given for any particular culture. Given that these answers are not rhetorical. It is worth bringing people from various backgrounds into the fold involving what kinds of views of themselves and others are worth holding. A common consensus along with shared social norms, and spaces that are conducive to policing the area would lead to less crime and create an environment where productive, healthy activities can take place for people of all backgrounds and ages.

TRANSPORT MODES.

The relationship between crime and boundaries is interesting and relevant to Sunnyside because the area is at the urban scale, this permeable, transitory space. In fact, this is so prevalent that one of the defining spatial devices for Sunnyside has been the use of spaces made for the provision of different transport modes. The urban boundary of the area, declared by the city of Tshwane, is the train track for the metro rail. In the suburb's heart, (i.e the residential area), parking lots have become increasingly prevalent in part due to the area being so popular for vehicle-related crimes. Vehicles becoming so popular in the 70s, made garages a selling point for selling residential units to buyers. Evidence of this can be seen in the spatial analysis of Sunnyside.

Cars are an important part of the movement component of being a user. At an urban level of analysis, this is considered in relation to creating an appropriate urban street section. The section seeks to accommodate all modes of transport including walking, driving, bus riding and trains. The reason for this is perhaps that the section seeks to address issues of economics of scale when thinking about transport (i.e. Users across the economic spectrum use different transport modes use those modes according to how befitting it is to their tax bracket. The reason for this is, for successful trade at the urban level. (i.e. The highest performing cities economically) Users should be able to get to and from centres of trade with maximal ease.

These centres of trade can also be seen as urban nodes. A node is a place where two or more significant routes/urban purposes meet. (EG transport and education)

2.1. INTRO TO URBAN LEVELS

DESIGN INTENT

The design intent for this project is to provide an accessible facility in Sunnyside that can address and alleviate the most pressing social and psychosocial issues in Sunnyside. These issues include the use of drugs in the area, and crimes of or from motorvehicle. The scheme should, in its material form, suggest a sense of healing and wellness not only to those suffering at the hands of a lack of safety but those who are on their way to contributing to a lack of safety.

URBAN LEVELS

Urban – Definition:

“in, relating to, or characteristic of a town or city.”

Levels Definition:

“a horizontal plane or line with respect to the distance above or below a given point”

Why is Urban Levels relevant to Sunnyside?

Sunnyside is an area that acts as a mediator between suburban, super-urban and rural areas/ townships. The way it does this is through mediating between suburban Muckleneuk, the urban CBD and the townships on the outskirts of Pretoria.

In this sense the term kind of encapsulates what Sunnyside is doing in the greater urban context for each of its users. It is literally measuring or decreasing each users barometer of urbanity depending on which side of Sunnyside they are coming from. Furthermore, the area begins to play on levels as the actual section of the area will reflect that the buildings in Sunnyside begin to suddenly divulge from the singular ground level plane that is evident in Muckleneuk while it is also gradually decreased from the ground level plane of the CBD in Pretoria.

How does this create a theoretical framework?

As many analyses of urbanity will use different planes as frameworks of analysis (ground planes, wall planes, roof planes). Planes become necessary for analysis. The idea behind Urban Levels spatially will act as a furthering or expansion of the idea of urban analysis. A case site-specific metric if you will.

This also acts as a framework for addressing social issues between users as one of the roles that Sunnyside plays is that of receiving people of different backgrounds. In order to do this for the volume of people coming in, residential developments were built upwards along multiple levels vertically and not horizontally. This is a common solution when dealing with issues of urban density. This also often results in a range of environmental issues within buildings such as inadequate lighting, inadequate ventilation, and water services. In Sunnyside, this seems to have resulted in various buildings scales (i.e. Various levels) inviting a different kind of social engagement with the building and its users.

The way that this is more clearly articulated can be seen in looking at the difference between the city and the suburb. These are areas that have different “mean building heights” and they clearly have different social environments. The CBD is too highly seated and this is disengaging for many users while Muckleneuk is suburban and intimate comparatively as each user gets their own garden and ground planes.

Levels are also an indicator for differentiation between surfaces when looking at sections. In a street section, a level change will indicate something changing in the material or function of a ground plane while this might not necessarily be the same in a rural area.

The spot level also is a tool used to identify how high a particular material is off of sea level. This visual convention can be used to make a new graphic language.

URBAN LEVELS AND SAFETY

As suburban environments are known for more safety than urban environments (eg. CBD) is this because of scale? Levels? Are boundaries. Boundaries are what divide spaces. Sometimes visually. Sometimes auditorily.

There are fewer boundaries in a rural area than in suburbs and fewer in suburbs than in super urban areas. This draws interesting relations between the level of crime in an area and the level of urbanity in it.

URBAN LEVELS AND CRIME.

In order to assess how the level of urbanity spatially (boundary walls, civic services, etc.) after the degree of crime, one must use case studies on a specific area. (E.g. Sunnyside vs CBD is Muckleneuk) to establish the differences in categories of crime between the three. Crime in Sunnyside is related to issues and assets of movement.

Movement is relevant because it allows people to get from one level to another. Urban dwellers. It can be the difference between a living space (i.e. a flat) and a working space. (shops)? This means that people have important opinions for lobby space as these set the tone for how wall units can be replaced. In buildings, this consideration is made through circulation routes.

2.2. INTERVIEWS



INTERVIEW FOR NURSES/CARE PROFESSIONALS OF “SEARCHING FOR SUNNYSIDE”

Have you worked in Sunnyside?

Yes

Do you currently work in Sunnyside?

Yes

How long have you been working in Sunnyside?

6 Years, I was at Dr Bika before this one. I worked at Medform for 5 years

Do/did you work near a train in Sunnyside?

How has the train affected your experience of the area?

I use private transport, not public transport

Have you noticed a change in the social conditions in Sunnyside?

Yes, it's always been a bit dicey (the whole environment) Especially since the increase in foreign nationals. Many murders occurred last year. Most of which were drug related. Many territorial issues too.

What social/ anti-social challenges are your patients facing?

Patients are facing drug-related issues (ingestion of drugs, exposure to drugs etc.) crimes etc.

Have the social conditions in Sunnyside affected your patients/clients positively or negatively?

It has been stable for over 6 years. Now it's getting worse.

How has your patients' experience of social spaces (internal courtyards/grass patches) in Sunnyside been?

There are none in the building but some in the area.

Patients have had social experiences in their buildings.

Do your patients enjoy any of the social spaces in Sunnyside?

Patients use parks and external spaces. People have kids and are seen occupying these spaces.

Does your place of work have communal spaces (shared playgrounds, exercise facilities etc)?

No

How are these spaces maintained?

RSA maintains the building. Part of that is pest control. For this service we, pay a service fee every month.

Can your patients/clients still use these spaces?

No. These spaces aren't enough. The spaces required would need the buildings to be held up by the body corporate (which they seldom do) . Hygiene is an issue in the building.

Can they use these spaces 24/7?

There are ups and downs in terms of upkeep. Inconsistent service.

If not, how has not being able to use these spaces affected your patients'/clients' wellbeing?

Through hygiene and ventilation issues.

What changes to Sunnyside's built environment do you think are most necessary for your work?

More greenery to facilitate a feeling of a healthy environment.

2.2. INTERVIEWS



INTERVIEW FOR RESIDENTS OF “SEARCHING FOR SUNNYSIDE”

Have you lived in Sunnyside?

No

Do you currently live in Sunnyside?

No

How long have you been living (or lived) in Sunnyside?

N/a

Do/did you live near a train in Sunnyside?

Yes, a bus station that passes by.

Have you noticed a change in the social conditions in Sunnyside?

Yes, a lot of changes have occurred in the area.

Have the social conditions in Sunnyside affected you positively or negatively?

Some of the conditions in the area aren't okay.

They have a negative effect. There's a lot of crime.

How has your experience of social spaces (internal courtyards/grass patches) in Sunnyside been?

They are not appealing. When people go there, it's okay but otherwise it's quite derelict. Once a crowd gathers, behaviour becomes reckless. People get arrested for public drinking.

How has your relationship with your neighbors in Sunnyside been?

Good. In one emergency a neighbor helped me.

Does your place of residence have communal spaces (shared playgrounds, braai areas etc)?

Yes. There are no green spaces though.

How are these spaces maintained?

There are cleaners who work in the building. They live in the building.

Can you still use these spaces?

Yes but people leave of their own accord. They don't leave because of rules.

2.2. INTERVIEWS



INTERVIEW WITH POLICE SGT. FROM SUNNYSIDE POLICE STATION

When did you begin working in Sunnyside?

I came in 2011. Until now, I saw the area as okay. Decent people lived here. After a while there were rumors of people being killed here. Selling drugs. Prostitution. Similar to Marabastad. It is no longer like the place it once was. It is overpopulated now.

What is a common crime issue for the area?

Daylight robbery is a disaster.

Who is supporting the community with regards to crime?

UNISA knows about CPF (the community policing forum).

What are residents most frustrated with in your opinion?

Living expenses are rising heavily. Water, electricity etc. Services are not delivered well and loadshedding is common

What services in particular are being complained about?

People complain about water cleanliness. They often buy water from Spar.

Why is public transport uncomfortable?

Public transport vehicles often have sex workers in disguise on them. Clientele often use the bus too. These people (sex workers) make business here (in Sunnyside) and live here (in Sunnyside)

What about substance abuse? Is this a problem?

Beer and alcohol abuse are contagious. It changes people's behavior. Changes the atmosphere.

Why are people frustrated?

Pipes are blocked and services are dysfunctional.

What do residents currently do about dysfunctional services?

Consulting a private servicing and repairs company is common for geyser issues.

Why do people not take landlords to task for these issues?

Because police are incompetent.

2.3. URBAN LEVELS OVERVIEW: FOUR PART PROGRAMME

Looking at important civic structures in the urban framework (Train platforms, taxi stops and playgrounds) and seeing how they could be adapted for responding to safety, economic and wellness concerns in Sunnyside.

1. PARK-ING
2. TRAIN-STATION
3. PLAY-GROUNDS
4. WELL-NESS (PT.1&2)

- Opportunities for non-intrusive urban vegetation
- Users and Transport Zones as per key 1

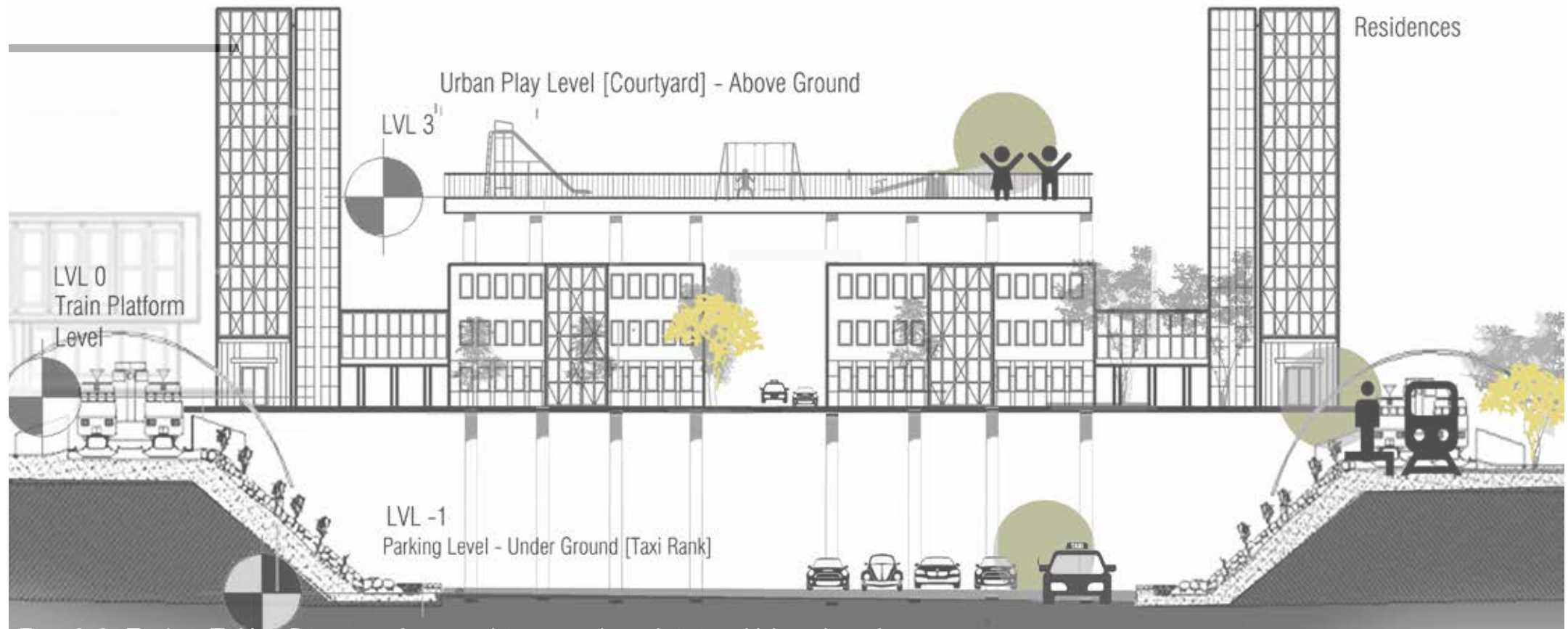


Fig. 2.2. Tsebe. T. Key Diagram for graphics used explaining Urban Levels concept
Digital Collage

2.3. URBAN LEVELS:
OVERVIEW



Fig. 2.3: Tsebe. T. 2021 Key Diagram for graphics used explaining Urban Levels concept
Digital Collage

2.4. URBAN LEVELS: PARK-ING

[PARK]-ING

Creating parking that prioritises the safety concerns of people as opposed to cars. Creating an opportunity for people of different backgrounds to share responsibilities in keeping their parking lots safe. Making the parking space a [social] space using open lots as stalls for parents to watch their children.

- 1. Parking for bicycles
- 2. Parking for cars
- 3. Parking for prams
- 4. Parking for people (balustraded walkways as viewing spaces for residents).

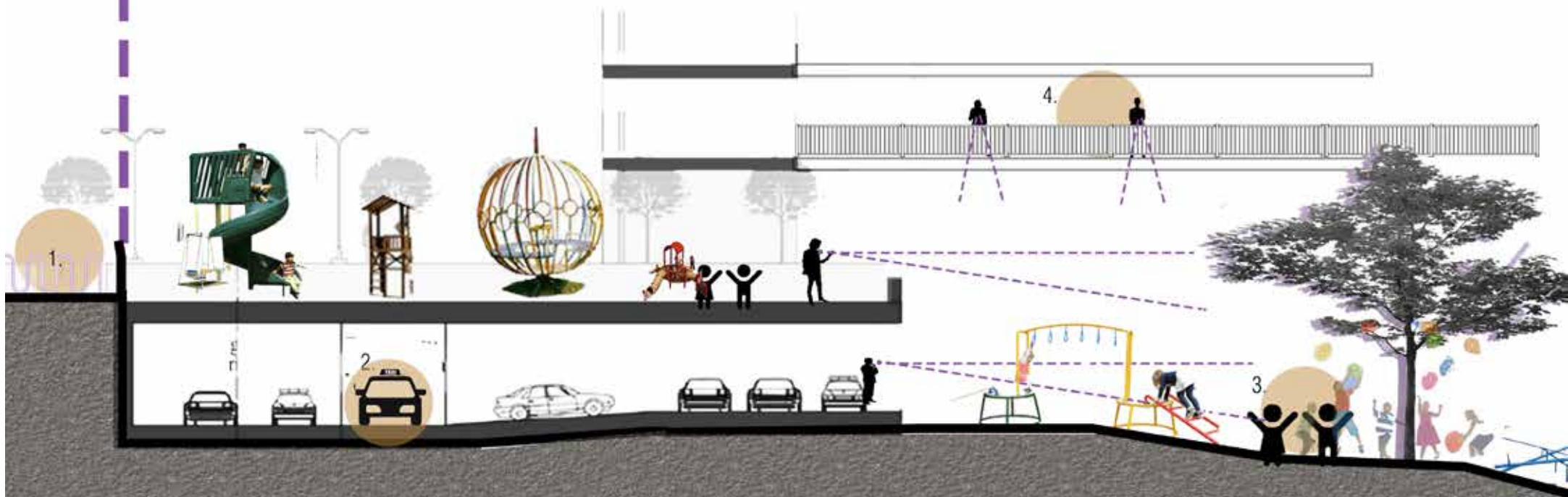


Fig. 2.4. Tsebe. T. 2021 . Urban Levels Diagram showing concept for [Park]-ing .
Digital Collage

PARK-ING



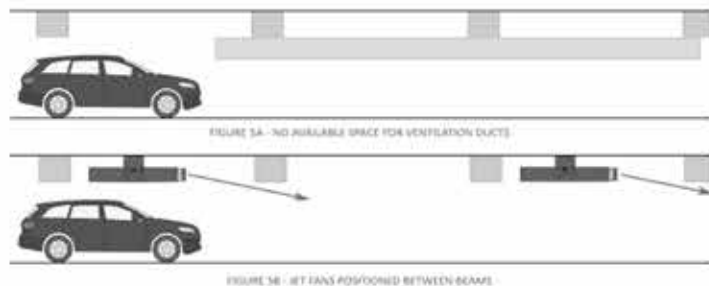
CONTROLLED BOOMS & SECURITY GUARD(S)

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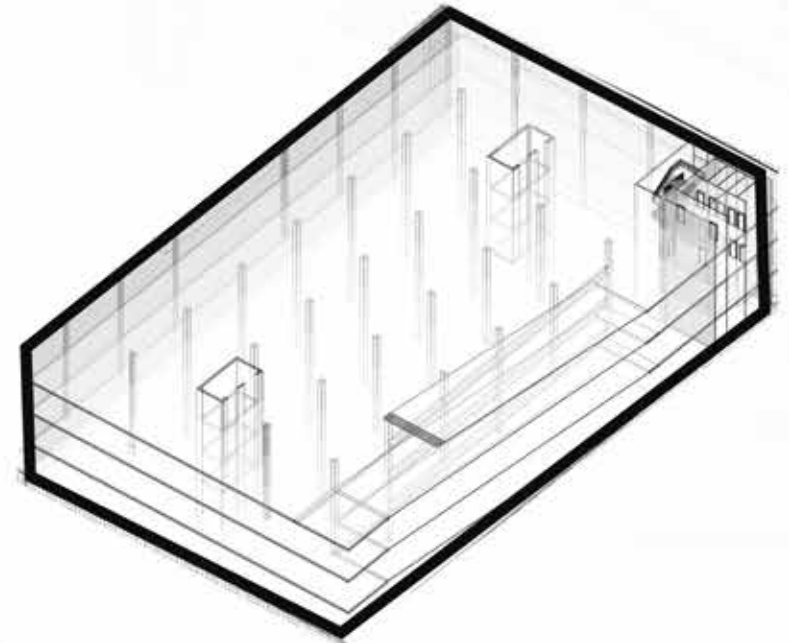
PARKING INFORMATION SYSTEMS TRACKING NO. OF CARS IN THE PARKING STRUCTURE

+



UNDERGROUND MECHANICAL VENTILATION SYSTEMS

=



2.4. URBAN LEVELS: PARK-ING

Fig. 2.5. Tsebe. T. 2021. Urban Levels Diagram showing breakdown for [Park]-ing. Digital Images and Axonometric Diagram (Edited by Tumi Tsebe)

2.4. URBAN LEVELS: PARK-ING

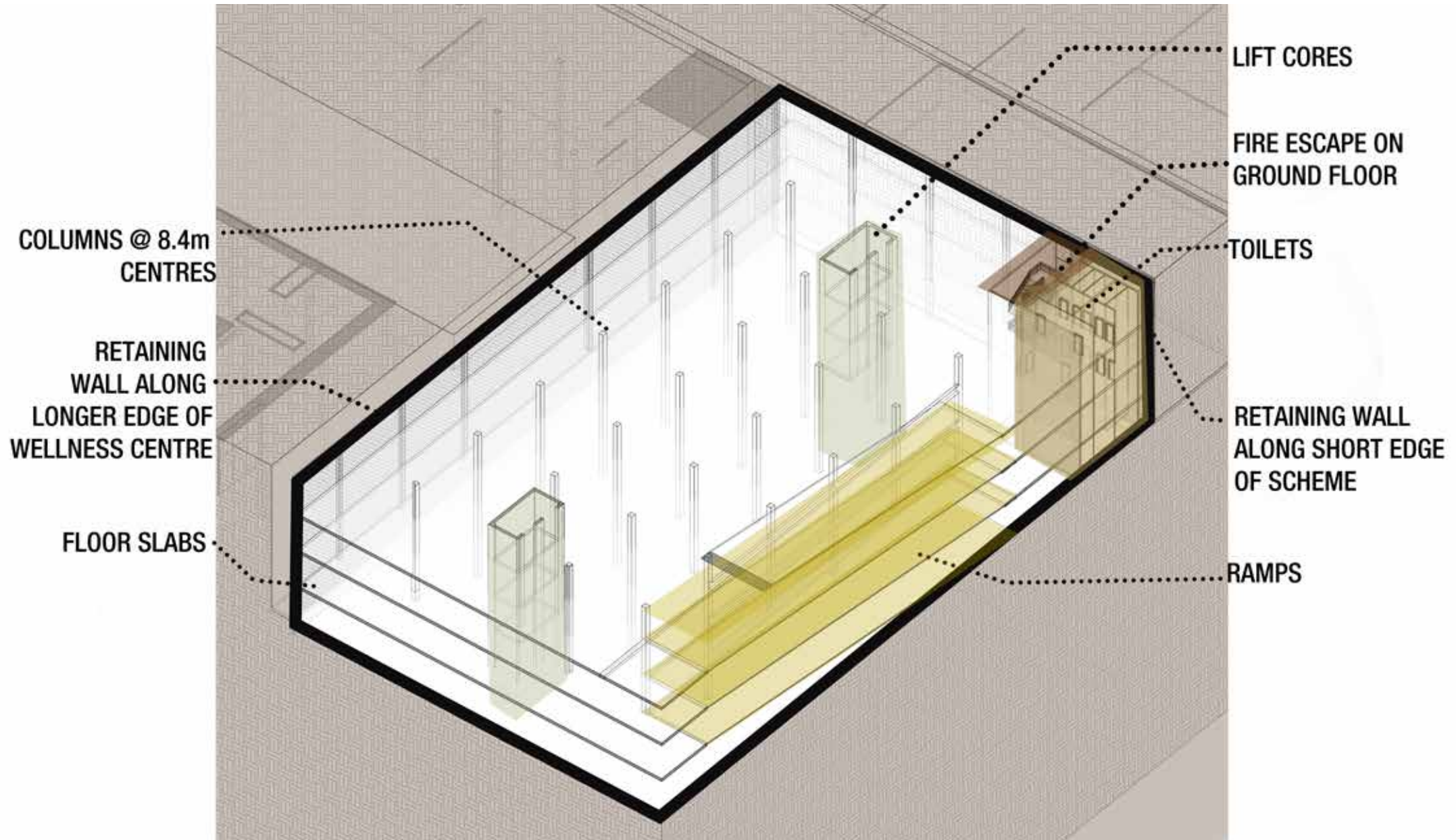


Fig. 2.6. Tsebe, T. 2021. Urban Levels Diagram showing individual elements for Park-ing structure. Axonometric Diagram. Searching for Sunnyside Research Report. University of Witwatersrand.

2.5. URBAN LEVELS: TRAIN STATION

[TRAIN] - STATION

A branch of clinical care that focuses on training mental health professionals. The outdoor space for said facility acting as an accompanied waiting station for metrorail train users. Alternatively, both of these programmes weave into one. Train users coming to the train platform an hour before or after their scheduled train, to receive counselling from clinical psychologists in training.

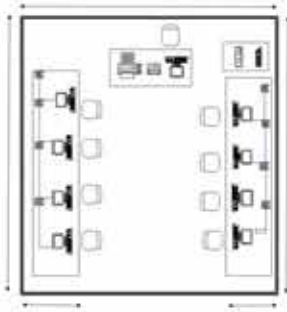


● CHANGING A TRAIN PLATFORM INFO BOOTH INTO A COUNSELLING BOOTH FOR TRAINING CLINICAL PSYCHOLOGISTS.



Fig. 2.7 Tsebe. T. 2021. Urban Levels Diagram [Train]-station showing concept for satellite training facility. Digital Collage. Searching for Sunnyside Research Report. University of Witwatersrand.

INTERNET CAFE



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SHARED OFFICE SPACE

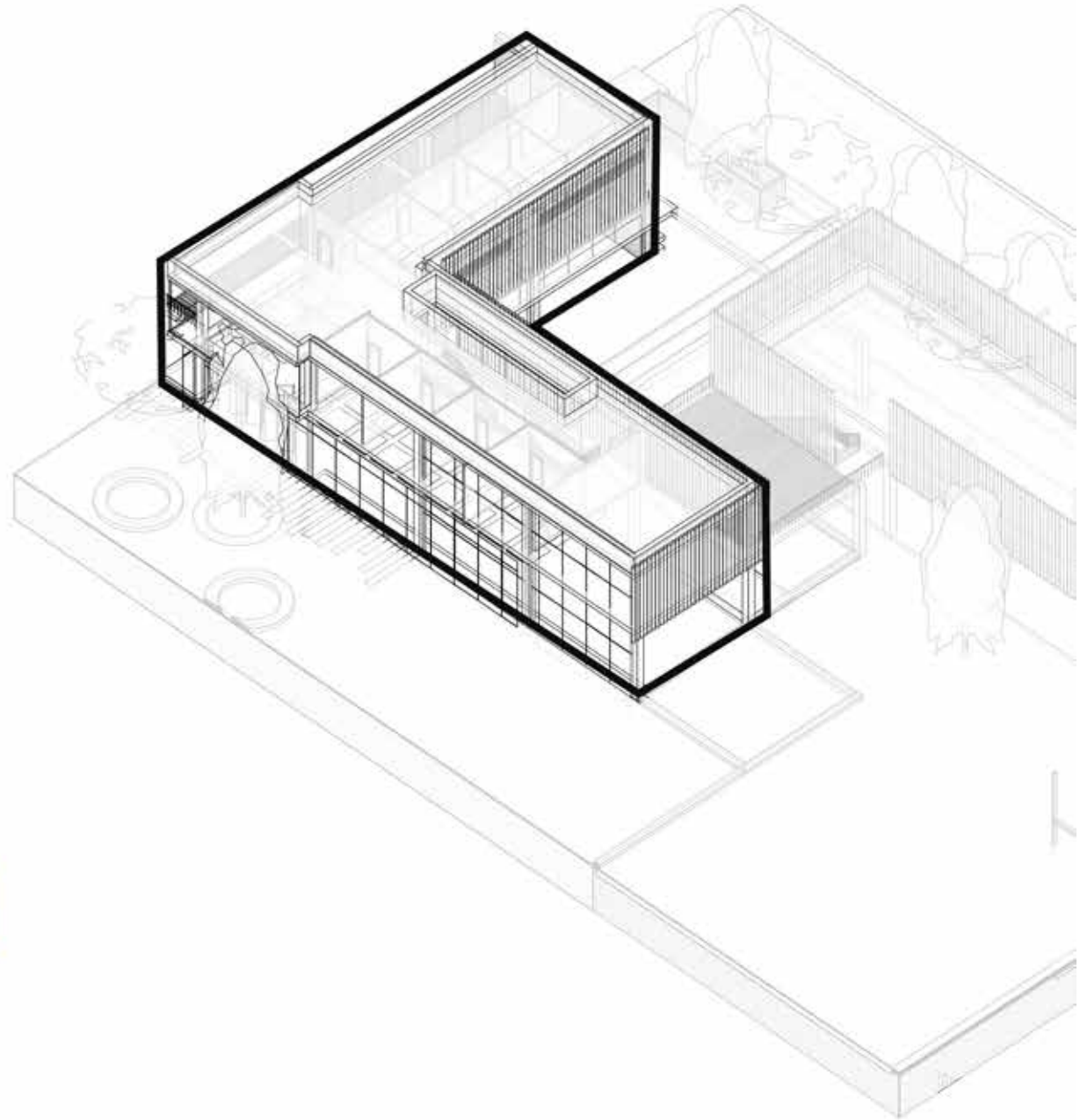
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wework



2.5. URBAN LEVELS: TRAIN STATION PROFESSIONAL TRAINING FACILITY



PROFESSIONAL TRAINING FACILITY PT 2

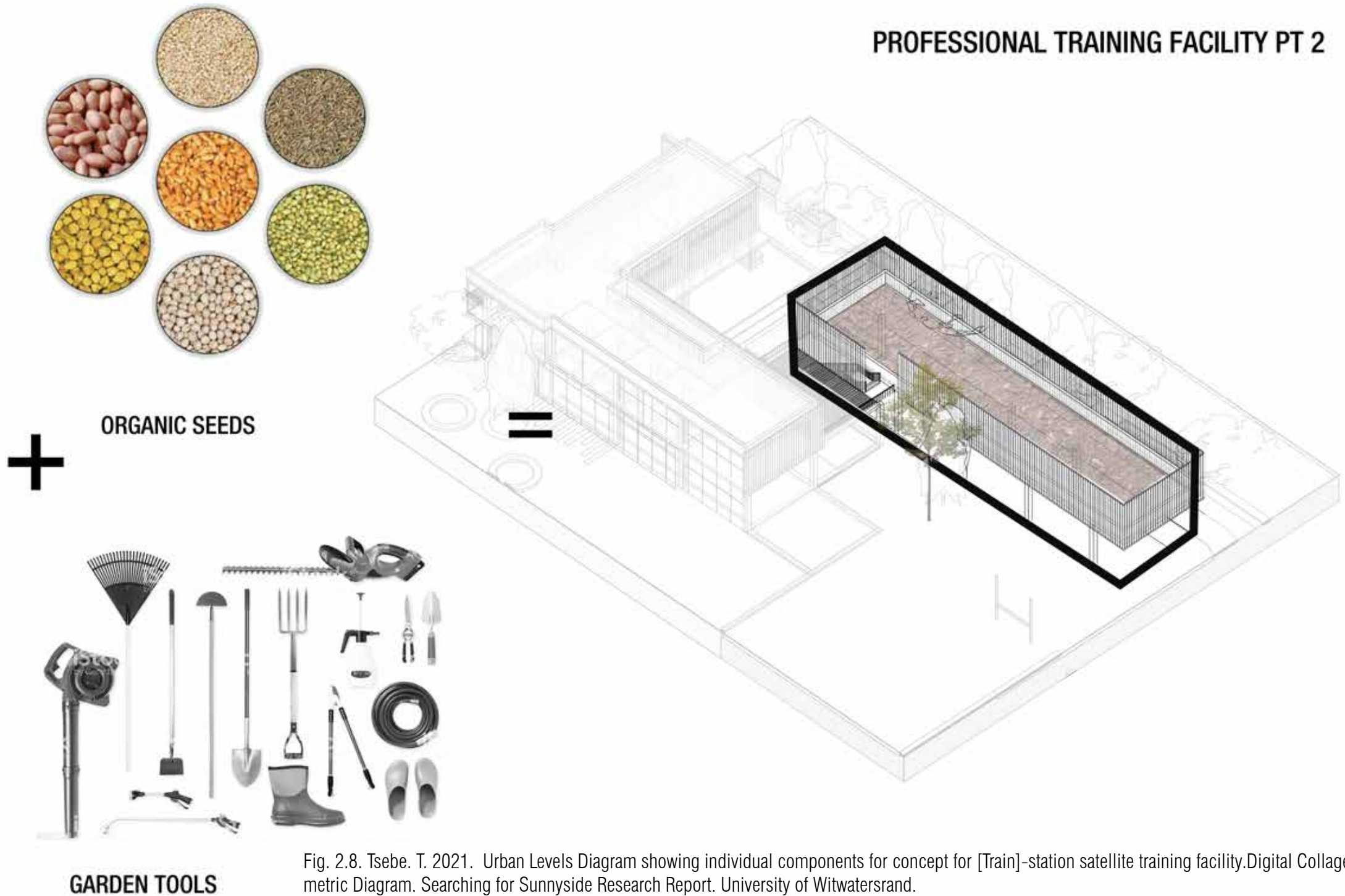
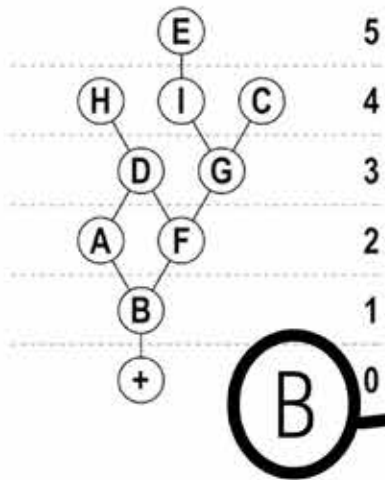


Fig. 2.8. Tsebe. T. 2021. Urban Levels Diagram showing individual components for concept for [Train]-station satellite training facility. Digital Collage and Isometric Diagram. Searching for Sunnyside Research Report. University of Witwatersrand.

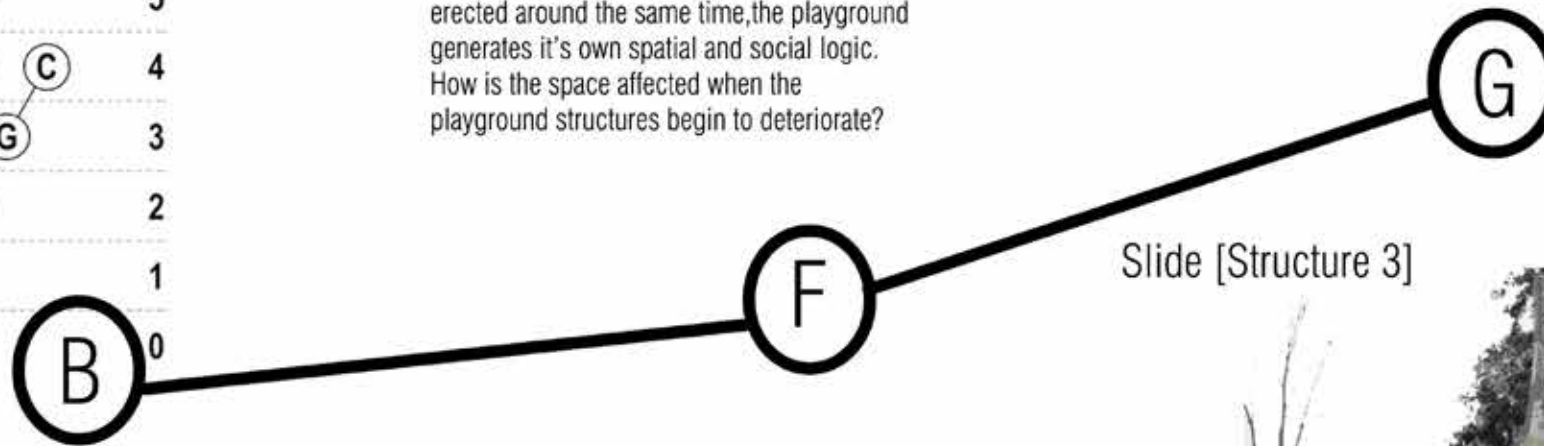
[PLAY]- GROUNDS

The Effect of Playground structures on public space [The Social Logic of Playgrounds]



As the structures in a playground are usually erected around the same time, the playground generates its own spatial and social logic. How is the space affected when the playground structures begin to deteriorate?

2.6. URBAN LEVELS: PLAYGROUNDS



Merry Go-round [Structure 1]

Swing [Structure 2]

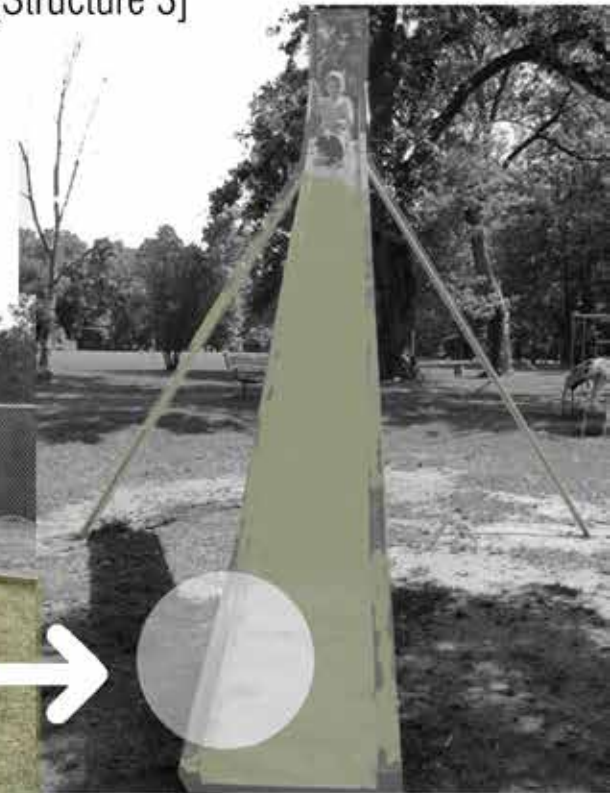
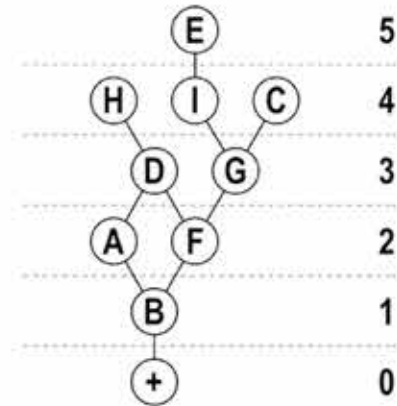


Fig. 2.9. Tsebe. T. 2021. Urban Levels Diagram [Play]-Ground showing concept for [Play]-Ground interactive playground outdoor facility. Digital Collage. Searching for Sunnyside Research Report. University of Witwatersrand.

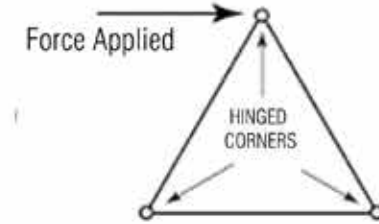
The effect deterioration of playground structures plays on a playground



As the structures deteriorate, structures that used to play a social role in the playground (eg. swings) can no longer do so, creating an isolated environment around other (functioning) structures.



2.6. URBAN LEVELS:PLAYGROUNDS



This is dependent on the robustness of the structures themselves. Swings deteriorate more regularly because they are dependent on many small links in a chain being in tact. If one link breaks, the whole swin is compromised. Slides on the other hand, rely on a practical triangulation of forces, giving them a longer lifespan due to their more robust structural systems

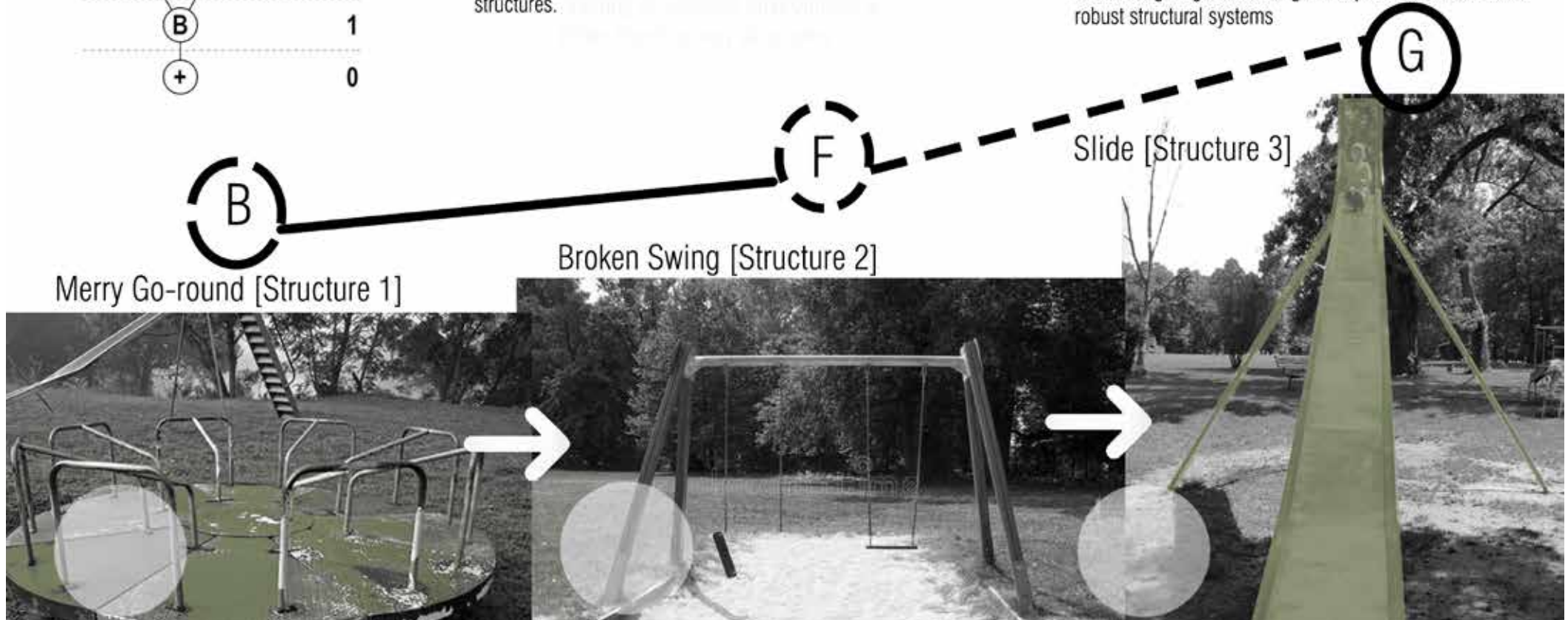


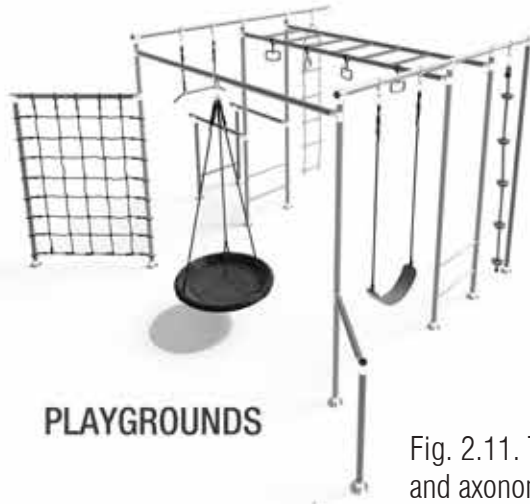
Fig. 2.10. Tsebe. T. 2021. Urban Levels Diagram [Play]-Ground showing concept for interactive playground outdoor facility. Digital Collage

2.6. URBAN LEVELS:PLAYGROUNDS

PLAYGROUNDS



BUS STOP



PLAYGROUNDS

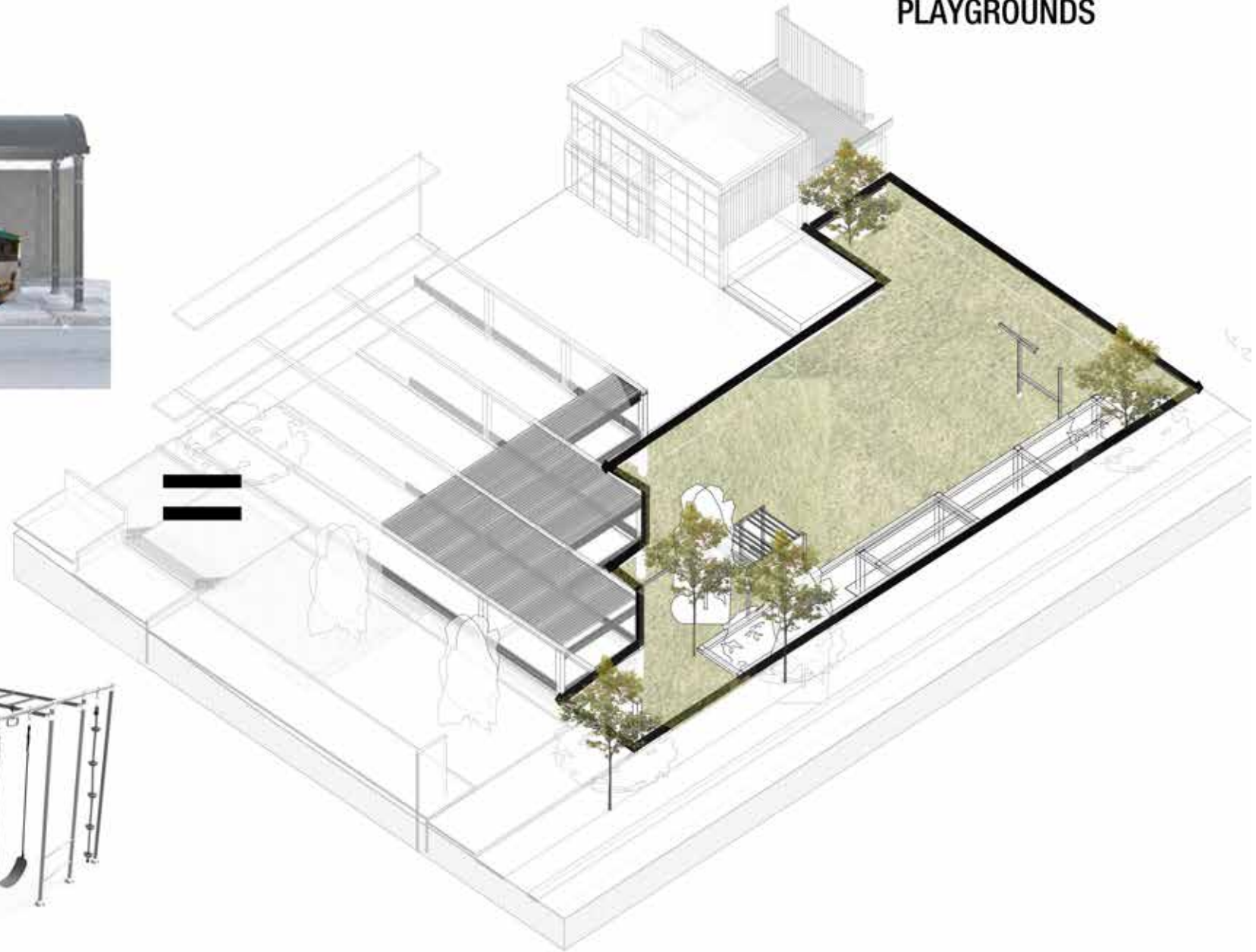


Fig. 2.11. Tsebe. T. 2021 . Urban Levels Diagram showing concept for [Play]-Ground interactive playground outdoor facility. Digital Collage and axonometric diagram,

[WELL]-NESS

Using nature/vegetation as a well of healing properties. A green space that services various stakeholders in the area with different vegetation relevant to their needs. Paying homage to the historical farms of Arcadia that were broken up to form Sunnyside.

2.7. URBAN LEVELS:WELLNESS



Fig. 2.12. Tsebe. T. 2021 . Urban Levels Diagram [Well]-Ness showing concept for [Well]-Ness Centre. Digital Collage

WELLNESS

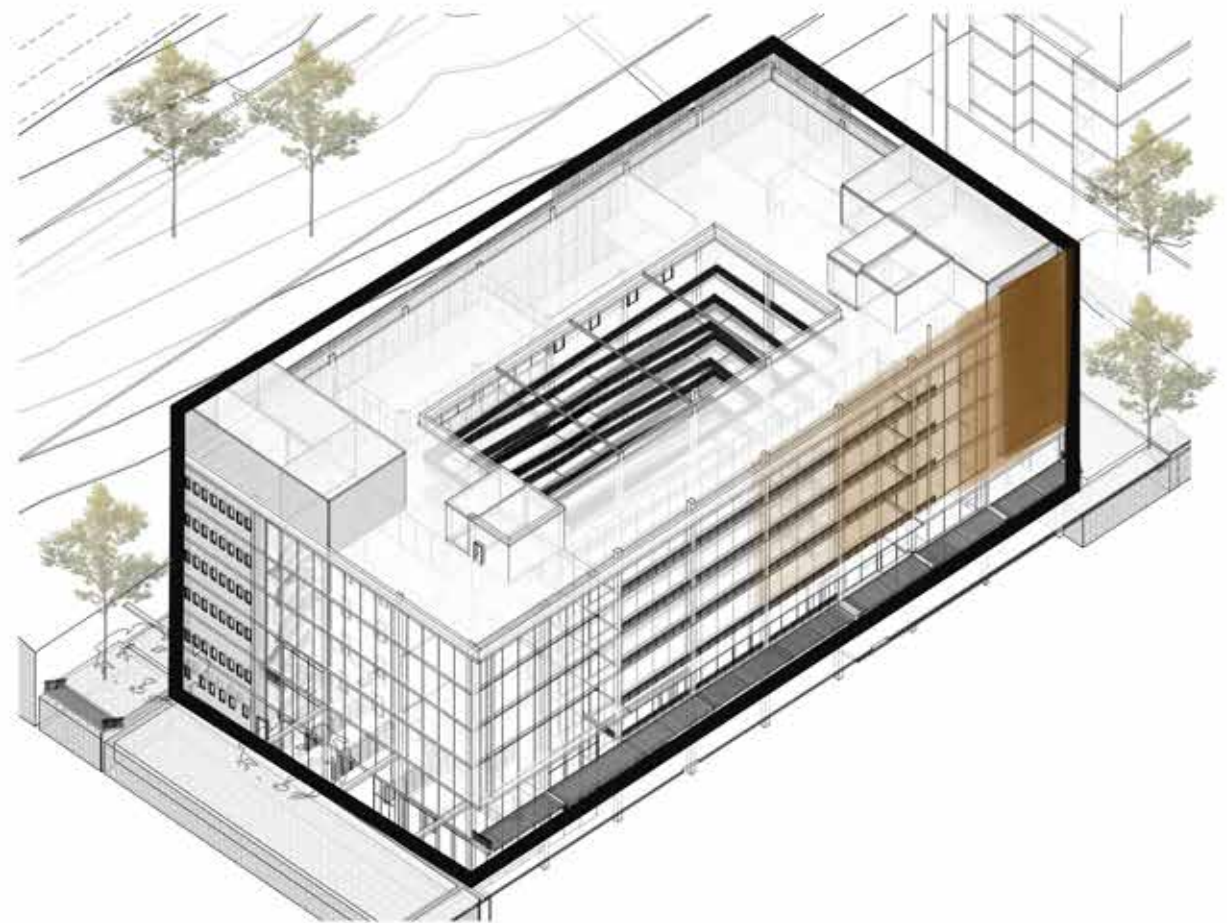
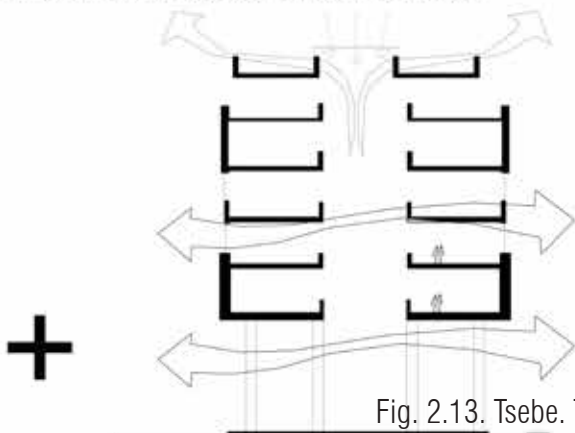


front view

PHARMACY



THERAPY ROOMS & OPEN CLASSROOMS



WELNESS CENTRE PT.1

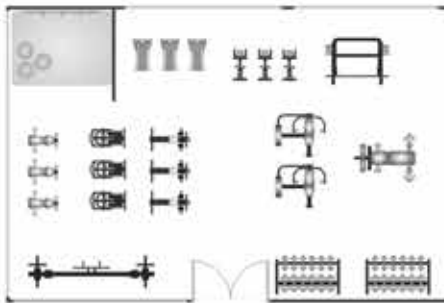
Fig. 2.13. Tsebe. T. 2021 . Urban Levels Diagram [Well]-Ness showing concept for satellite training facility. Digital Images and axonometric drawing.

2.7. URBAN LEVELS:WELLNESS



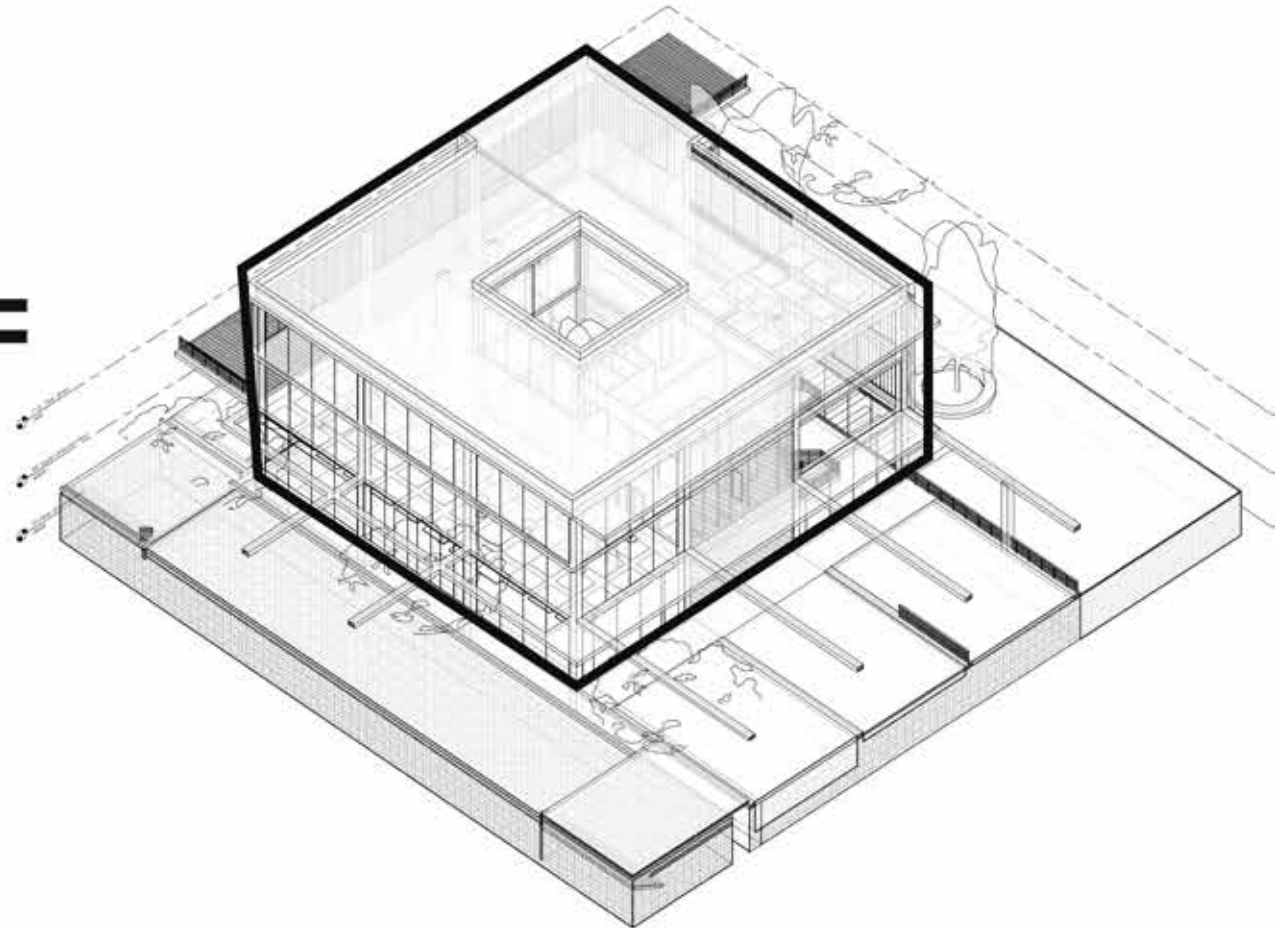
PHYSIOTHERAPY & YOGA

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GYM

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WELLNESS CENTRE PT. 2

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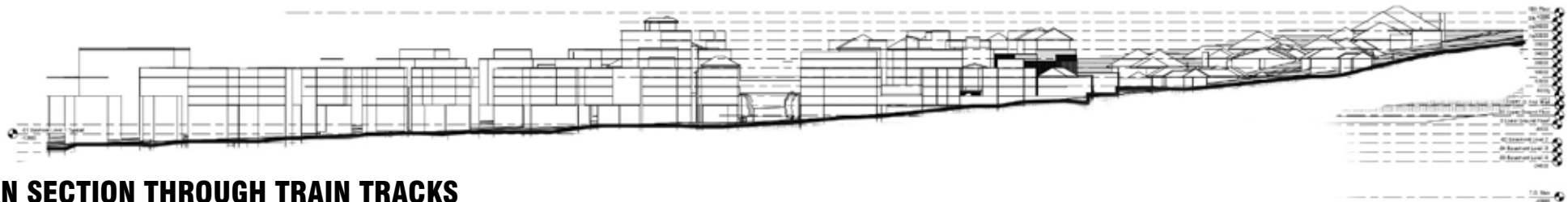
HEALTH CAFE

Fig. 2.14. Tsebe, T. 2021 . Urban Levels Diagram [Well]-Ness Part 2. showing concept for satellite training facility. Digital Collage and axonometric drawing. Searching for Sunnyside Research Report. University of Witwatersrand.

2.8. URBAN LEVELS: SECTIONS



URBAN SECTION THROUGH SITE



URBAN SECTION THROUGH TRAIN TRACKS

Fig. 2.15. Tsebe, T. 2021 . Urban Sections through site and train tracks. Sunnyside Pretoria. Revit Model. Searching for Sunnyside Research Report. University of Witwatersrand

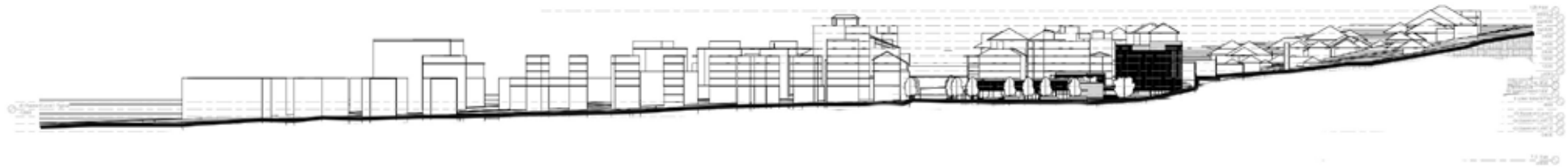
**URBAN ELEVATION OF SITE**

Fig. 2.17.. Tsebe. T. 2021 . Urban Section through Loveday Street showing elevation of site. Revit Model. Searching for Sunnyside Research Report. University of Witwatersrand.

2.9. CONCLUSION ON URBAN LEVELS

HOW WILL A SCHEME WITH THESE COMPONENTS BE GOOD FOR SUNNYSIDE'S RESIDENTS?

The programmatic elements selected above have been selected for their ability to deal with underlying issues in Sunnyside raised by selected interviewees. These issues are crime of or from motorvehicles, unemployment as well as the psychological side effects of it, social disarray, lack of care facilities and a lack of adequate social spaces in the area. Although this may not seem such a problem at first glance, some of these shortcomings exist in contradiction to Jan Gehl's "Urban Toolbox for people oriented cities".

Upcoming analysis on homelessness identifies key issues for successful urban integration including the provision of facilities against substance abuse and facilities that can integrate disaffected urban users into the city. The most basic premise for this argument being that if homelessness is the most easily identifiable demonstration of unsuccessful urban integration, what are its precursors and how can one intervene at the level of planning? This would entail urban development that is tactical enough to see the threats for these kinds of users beforehand and respond to them.

CHAPTER 3



Site.

3.1. INTRODUCTION TO SITE

The site chapter addresses WHERE these proposals will be made. This chapter looks more closely at the area's architectural tectonics and provides a clearer view of the experience of being in Sunnyside so that one can get an idea of how an architectural intervention can successfully integrate itself with this experience without appearing alienated from the area's current architectural language. In doing so, a site will be selected that is appropriate for addressing these issues and this site will then be used to deploy the appropriate building programmes identified in the CONCEPT chapter.

3.2. SITE ANALYSIS: ZONING

In order to establish whether or not the area is built for this, the following drawings show the zoning scheme (s) of the area, giving a brief description of what the site is dealing with.

3.2. SITE ANALYSIS: ZONING

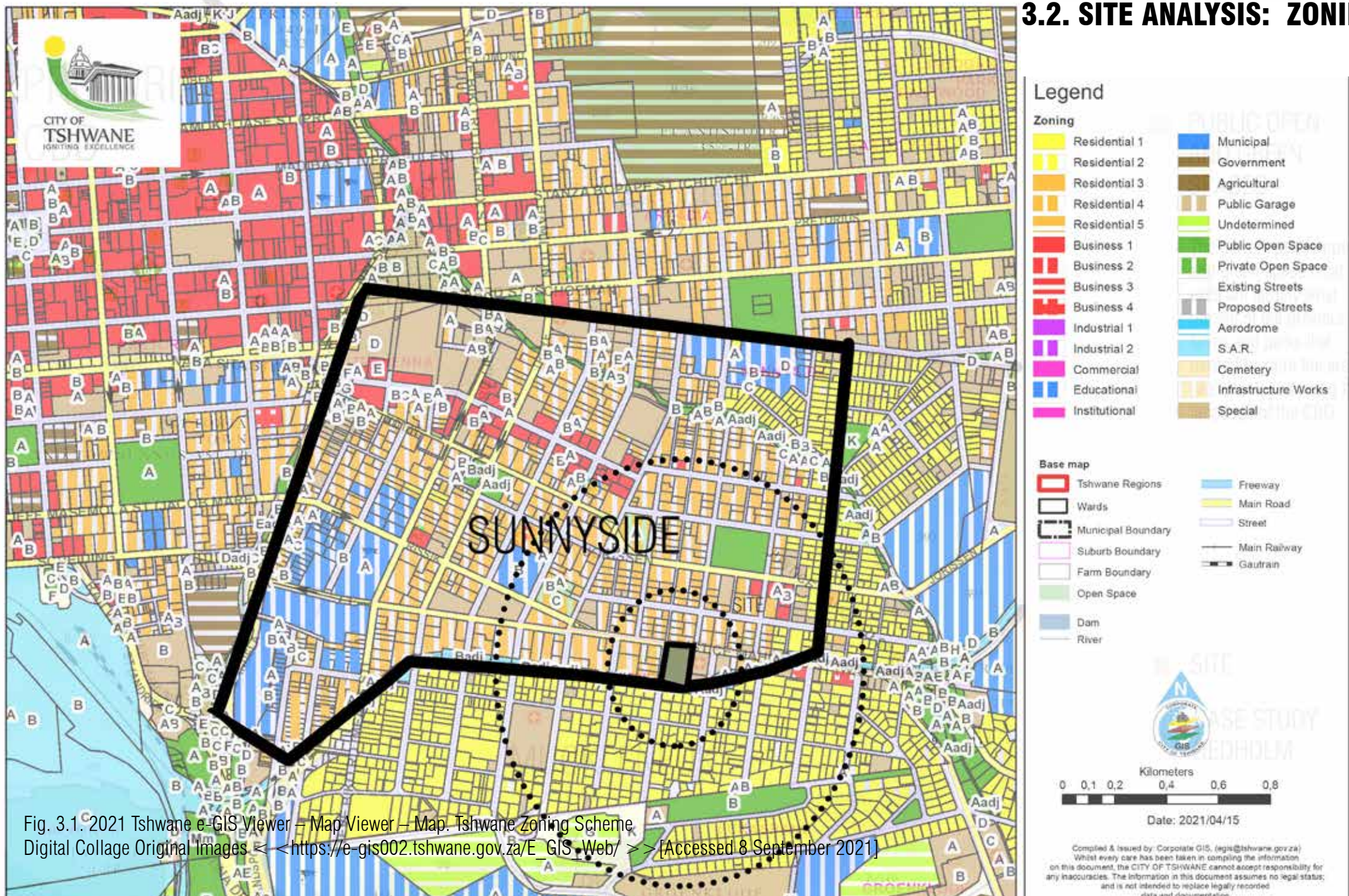
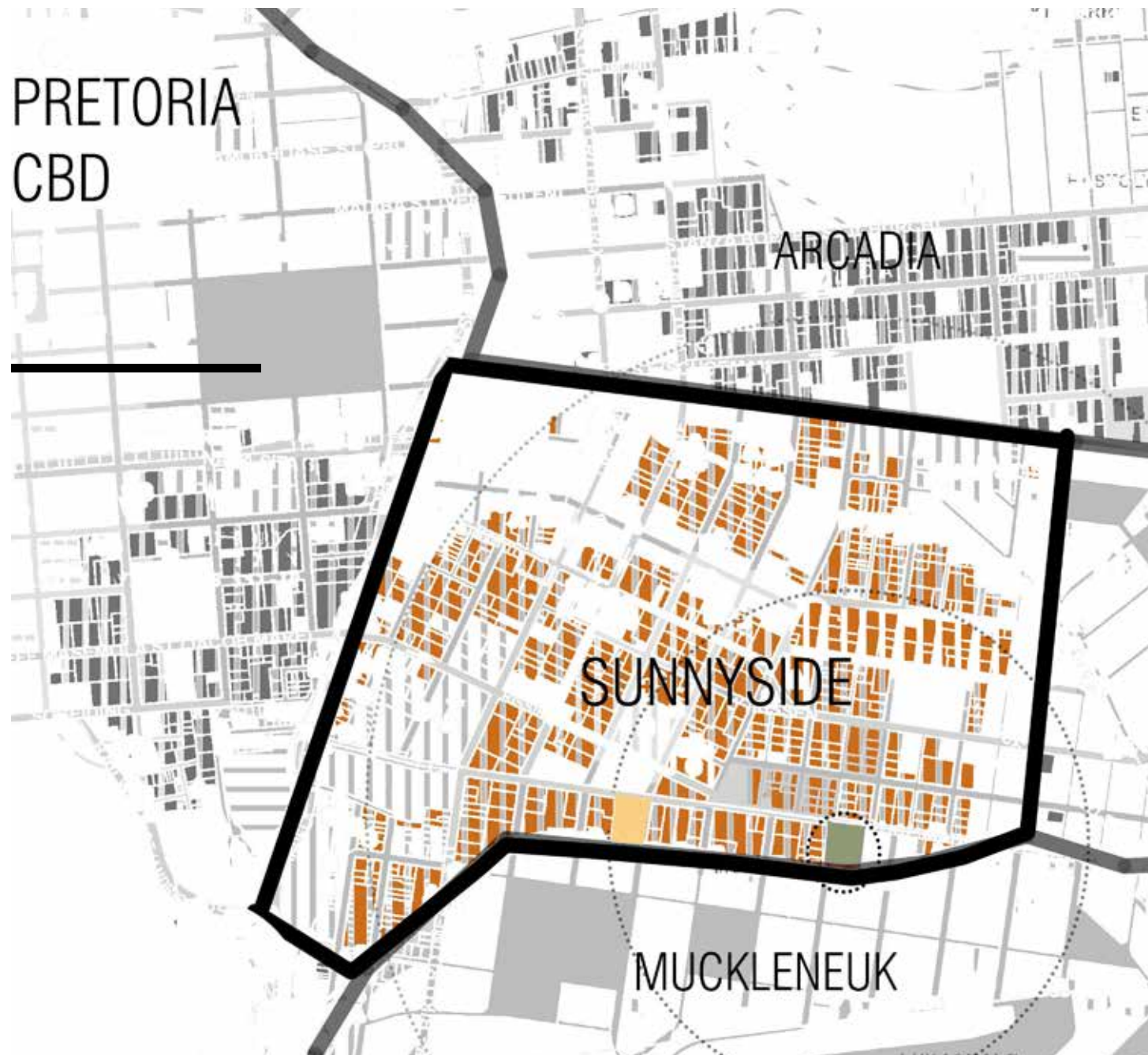


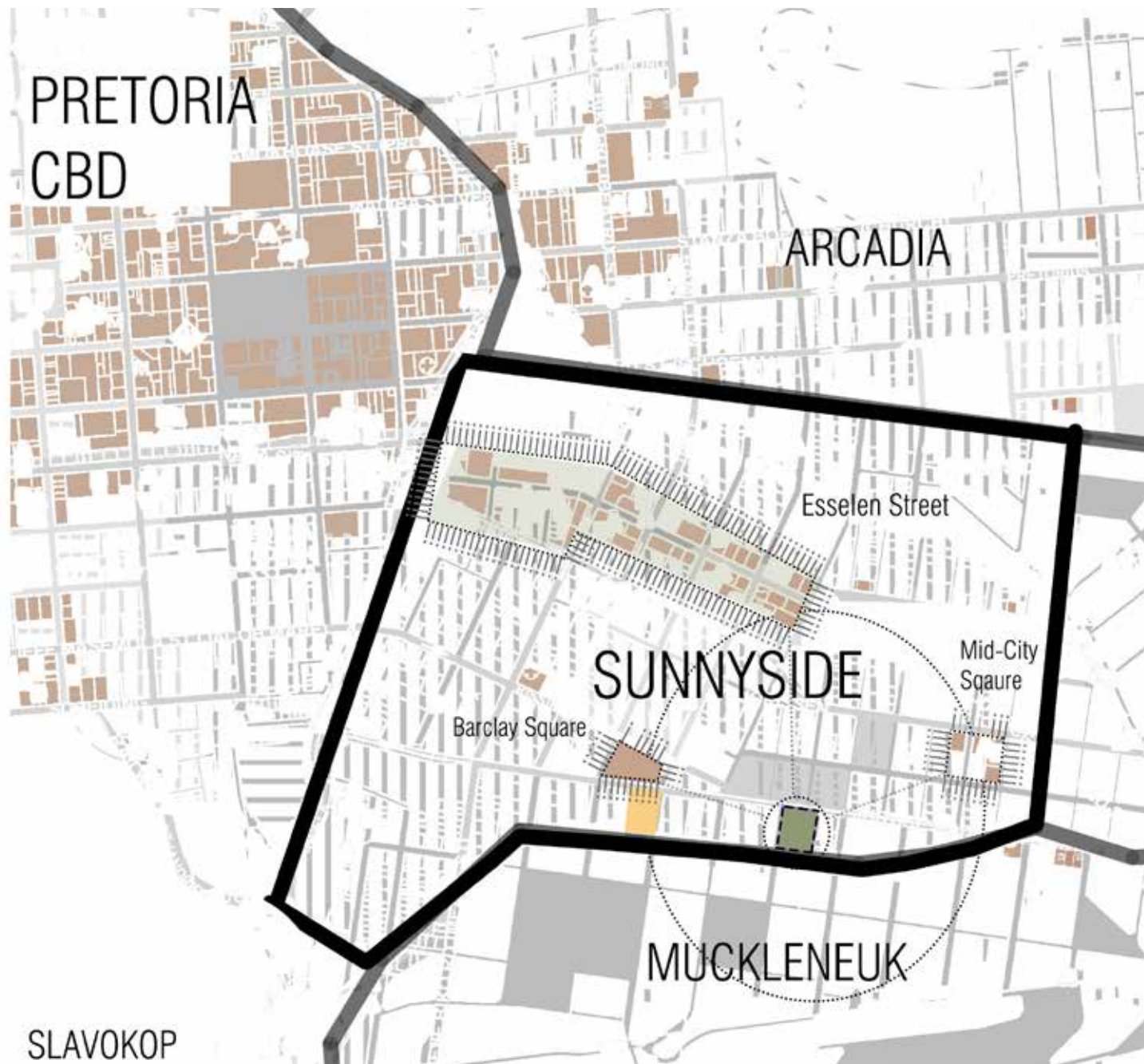
Fig. 3.1. 2021 Tshwane e-GIS Viewer – Map Viewer – Map. Tshwane Zoning Scheme. Digital Collage Original Images <<https://e-gis002.tshwane.gov.za/E_GIS_Web/>> [Accessed 8 September 2021]



3.2. SITE ANALYSIS: ZONING

Sunnyside is a primarily residential area. The map adjacent shows how much of the area is occupied by places of residence along with how these residential zones continue into the surrounding areas of the CBD, Muckleneuk and Arcadia. .

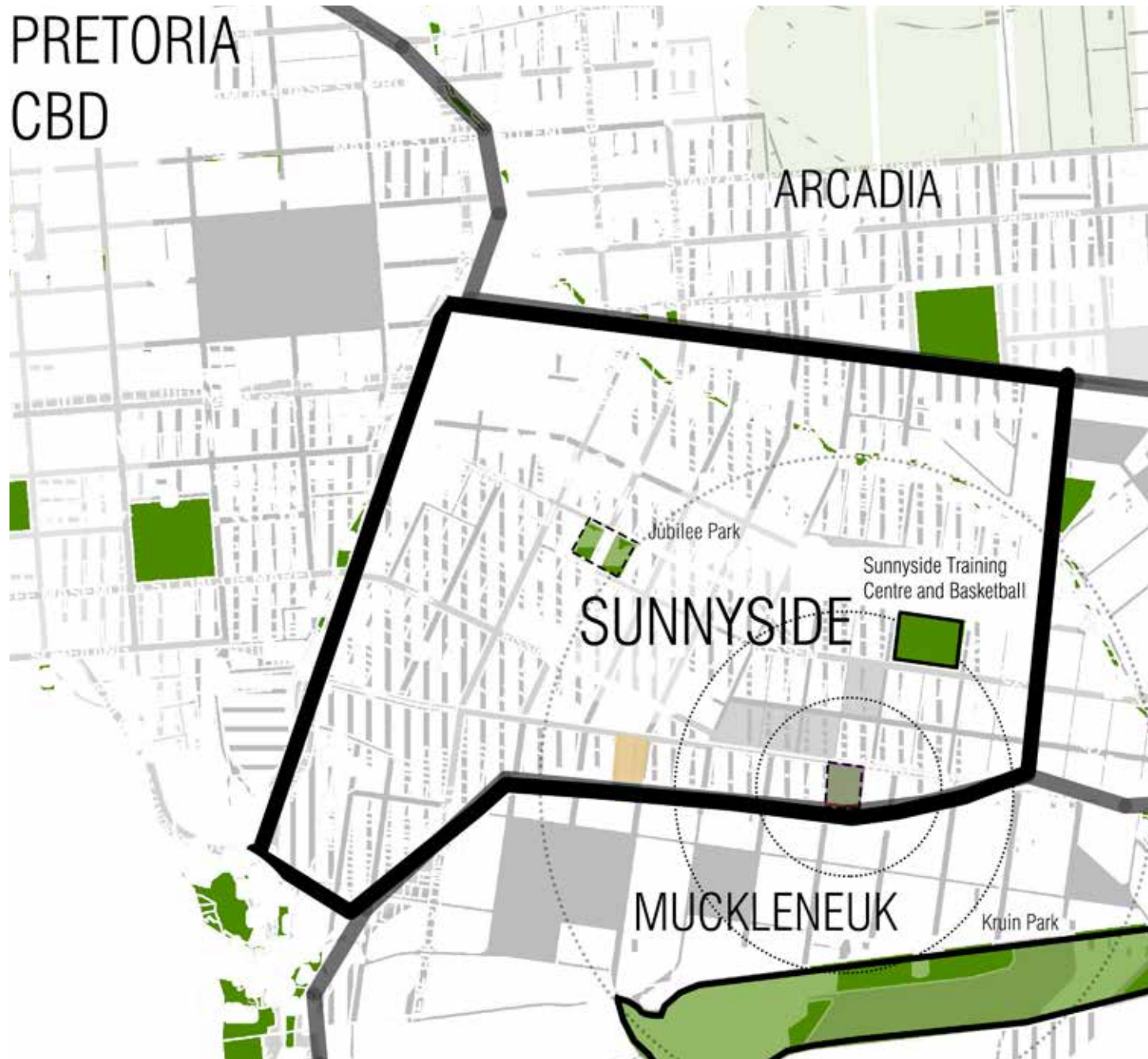
Fig. 3.2. 2021 Tshwane e-GIS Viewer – Map Viewer – Map. Tshwane Zoning Scheme showing Sunnyside residential area, site and Nedholm. Edited by Tumi Tsebe. Original Images < <https://e-gis002.tshwane.gov.za/E_GIS_Web/> > [Accessed 8 September 2021]



3.2. SITE ANALYSIS: ZONING

Although the area is primarily residential, there is a street that allows business from the CBD to thrive in the area. Highlighted adjacent, Esselen Street (now Robert Sobukwe), is the busiest street in Sunnyside. With shops ranging from Internet Cafe's to Hair Salons to cellphone repair shops.

Fig. 3.3. 2021 Tshwane e-GIS Viewer – Map Viewer – Map. Tshwane Zoning Scheme showing business areas in Sunnyside, site and Nedholm. Edited by Tumi Tsebe. Digital Image. Original Images < <https://e-gis002.tshwane.gov.za/E_GIS_Web/> >[Accessed 8 September 2021]



3.2 SITE ANALYSIS: ZONING

Most of the green zones in the area are remains from the Historical farms of Arcadia as well as larger plots of land from bigger houses that used to be the pride of Sunnyside.

Outside of the area, there is a nature reserve named Kruin Park that acts as a green space for Muckleneuk. This could present an opportunity to expand the project's biodiversity for the wellness centre.

Closer to the centre of Sunnyside is Jubilee Park which acted as a social hub for the area, and in some ways still does but the park is somewhat less appealing because of its diminished access. There is now a bus lane hindering access to it.

This means that apart from my site, the Sunnyside Training Centre and Basketball is the only green space remaining in the area.

This wouldn't have been the situation had the case study building (Nedholm flats, shown in yellow adjacent) remained the same as it was in the early 2000s. As the space has been forced to do more work for the residents, green spaces have been periodically removed from Sunnyside. More on Nedholm flats in the following chapter.

Fig. 3.4. . Tshwane e-GIS Viewer – Map Viewer – Map. Tshwane Open Greenery Zoning Scheme 2021
 Digital Collage Original Images < <https://e-gis002.tshwane.gov.za/E_GIS_Web/> > [Accessed 8 September 2021]

3.3. SITE ANALYSIS: MACRO

As Sunnyside was developed as a consequence of Arcadia's expansion, the ethos for the area (spatially) is one where built form and nature are well integrated. The streets are lined with Jacaranda trees and the area connects itself to the province's arid greenery through its trees and vegetation.



Fig. 3.5 Tsebe. T. 2021. Urban Levels Layering Analysis.

Digital Collage. Original Images < https://e-gis002.tshwane.gov.za/E_GIS_Web/ > > < < http://www.metrorail.co.za/maps/GAU_RailMap.pdf > >
< < <https://www.google.com/maps/place/Sunnyside,+Pretoria,+0002/@-25.7555141,28.1984141,15z/data=!4m5!3m4!1s0x1e95621931c5810f:0x929d60b2c94758de!8m2!3d-25.7534891!4d28.2078956> > >

3.3. SITE ANALYSIS: MACRO

What is the relevance of Nedholm?

In order to understand why Nedholm is relevant, it might be necessary to understand a little bit more about me, the researcher.

I moved a lot as a child and Sunnyside is the place I stayed in for the longest part of my childhood. My mother did her masters degree and PhD in Boston and my grandparents were coming into their most frail states around that time. Inbetween all of that, I was born. Amidst all the moving and the transitions (read social mobility), this place acted as a landing platform for me and does so for many people making their way through life. In doing so, sharing, of space as territory and of space as responsibility becomes important.



Fig. 3.6. Tsebe, T. 2021. Nedholm Flats memory diagram showing courtyards in. Digital Collage. Original Image < < <https://www.google.com/maps/place/Barclay+Square+Shopping+Centre/@-25.7590709,28.2047009,1437m/data=!3m1!1e3!4m5!3m4!1s0x1e956220b5c6643f:0x81a3c9db43eb31c!8m2!3d-25.7582058!4d28.2045422> > > [Accessed 8 September 2021]

3.3. SITE ANALYSIS: MACRO

This transitional nature of Sunnyside is something that is reflected in where and how people meet. Often people, pedestrians can be seen standing on the sidewalks catching up or strolling slowly to the nearest shop in their pajamas. Much of the socializing in the area is happening while people are on the go. Whether that's over a longer time frame ("I'm only staying here until I finish my studies") as said by many or a shorter timeframe ("I'm on my way to an interview, I'll see you later"). The spaces where people can both move and meet, place a meaningful role here. Perhaps because meeting people in your flat unit no. gives them too clear an idea of where you live exactly, where you sleep. Chats in the lift lobby allow you to retain some anonymity while chats behind your unit's front door, don't.

It's quite interesting that people would be so protective over their thresholds because they ultimately share one. (All walkways double as doorsteps). Amenities such as laundry lines and common areas for municipal trash bins are also shared in the area due to the necessity of the flat typology (not everyone can have their own clothing line). Between the parking lot, the dustbin common area and the laundry line, the shared nature of residential amenities in Sunnyside becomes clear. For many, this is a motivator for leaving the area.

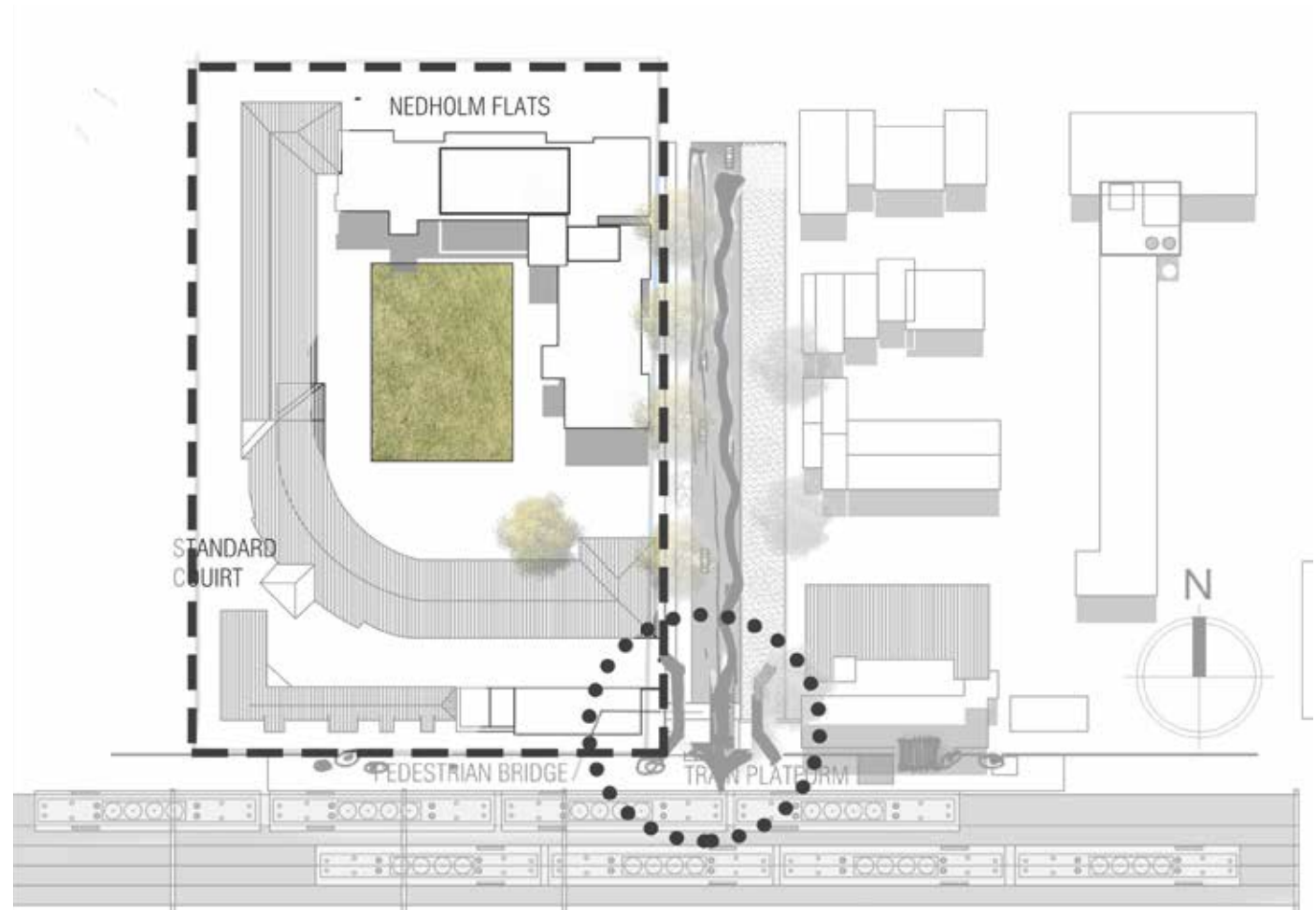


Fig. 3.7. Tsebe. T. 2021. Nedholm Flats plan showing relationship between Nedholm and Train line in. Digital Collage. Original Images <<https://www.google.com/maps/place/Nedholm+Flats./@-25.7595981,28.2035828,17.5z/data=!4m5!3m4!1s0x1e95622746b1ec23:0xfd79784ee517c0fd!8m2!3d-25.7594538!4d28.2050079>>

3.3. SITE ANALYSIS: MACRO

Can you come outside?

I learnt, from hearing the opinions of adults from my school and often children from my school that Sunnyside wasn't a good place to be. I heard that there were problems in the area. That it was "Dodgy". I never got much of this directly from how I engaged with the area though. Nedholm had one large grass field in its centre (Where I met almost all of my friends from Sunnyside) and from there I would find out which unit number they lived in and they would learn which unit number I lived in. The first experience I remember having with regards to letting my friends know where I stayed was a knock on the door the next day. Upon opening the door, all I received was a question from a friend I had made the previous day asking "Can you come outside?"

The question refers to whether or not I had permission from my parents to go outside and play but I think it could play a very telling role about the social relationships in the area if you would put it forward to adults. Can adults go outside? And if so, where do they go? And why don't any other adults ever ask?

I hope that my proposal, given its relationship to the Netcare Hospital and multi-storey residences, can become the sort of place where older residents can ask one another this same question.



Fig. 3.8. Unknown Author. Standard Court window openings. Edited photograph. Sunnyside Pretoria . Edited by Tumi Tsebe. Searching for Sunnyside Research Report. University of Witwatersrand.

3.3. SITE ANALYSIS: MACRO

RELATIONSHIP BETWEEN SITE AND NEDHOLM

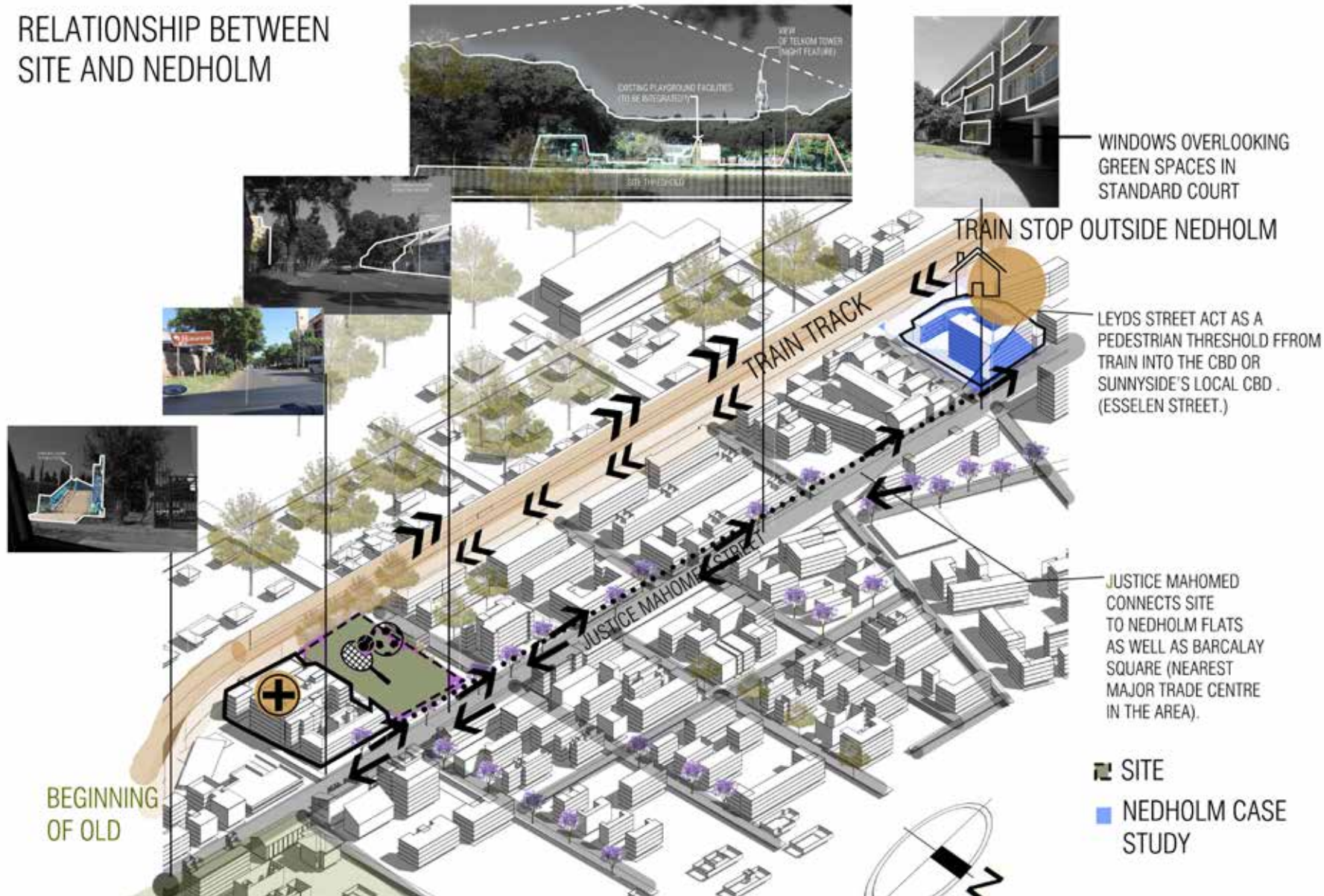


Fig.3.9.Tsebe. T 2021. Axonometric view of Justice Mahomed showing journey across site .
Digital Collage. Original Images <<https://www.google.com/maps/place/Nedholm+Flats/@-25.7595981,28.2035828,17.5z/data=!4m5!3m4!1s0x1e95622746b1ec23:0xf-d79784ee517c0fd18m2!3d-25.7594538!4d28.2050079>>

3.3. SITE ANALYSIS: MACRO

With 24-hour operation being an advantage for safety concerns, establishments in the area that operate in those hours are few and far between. This poses the opportunity for creating safety hubs in the area that could be densely populated and well lit.

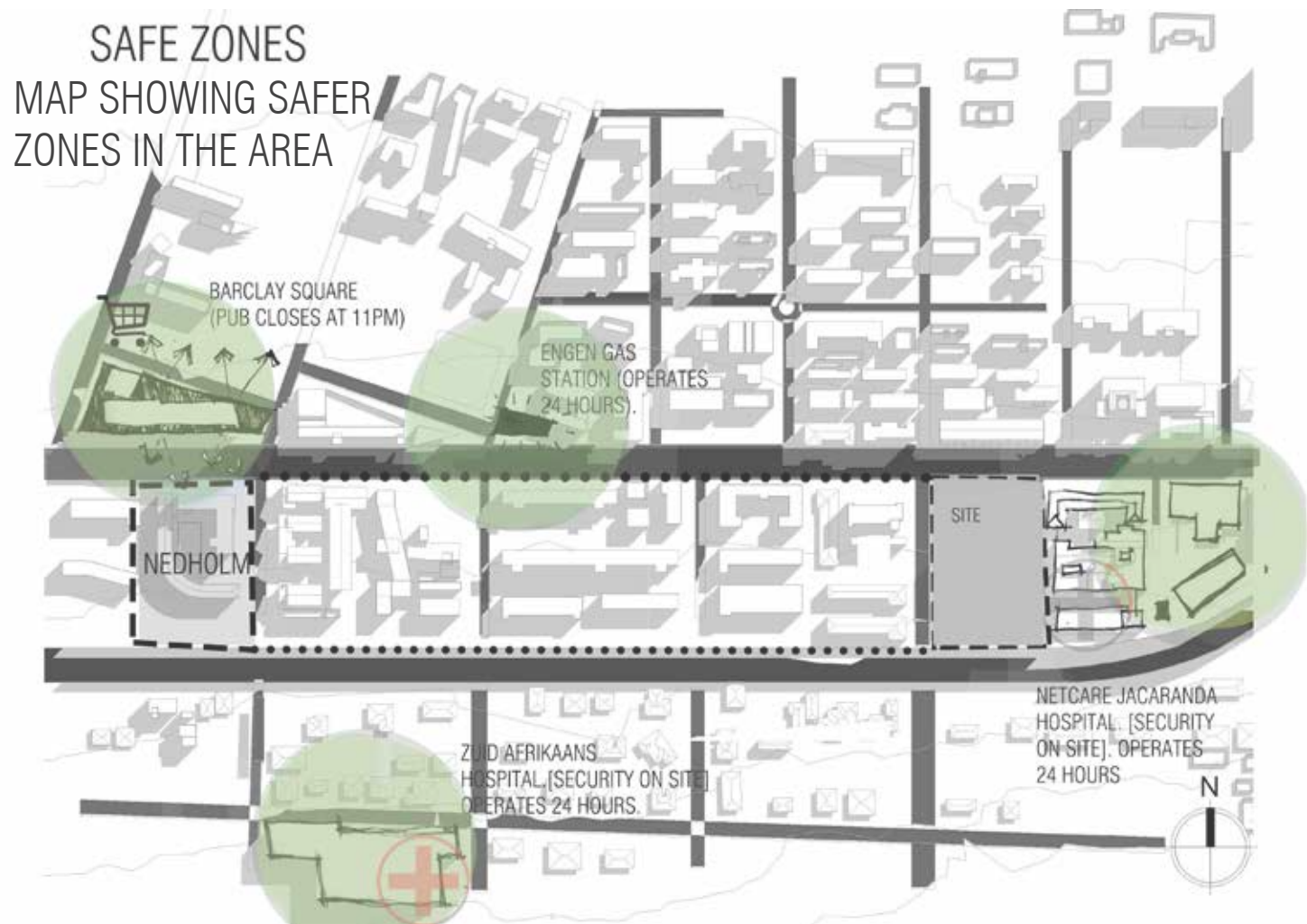
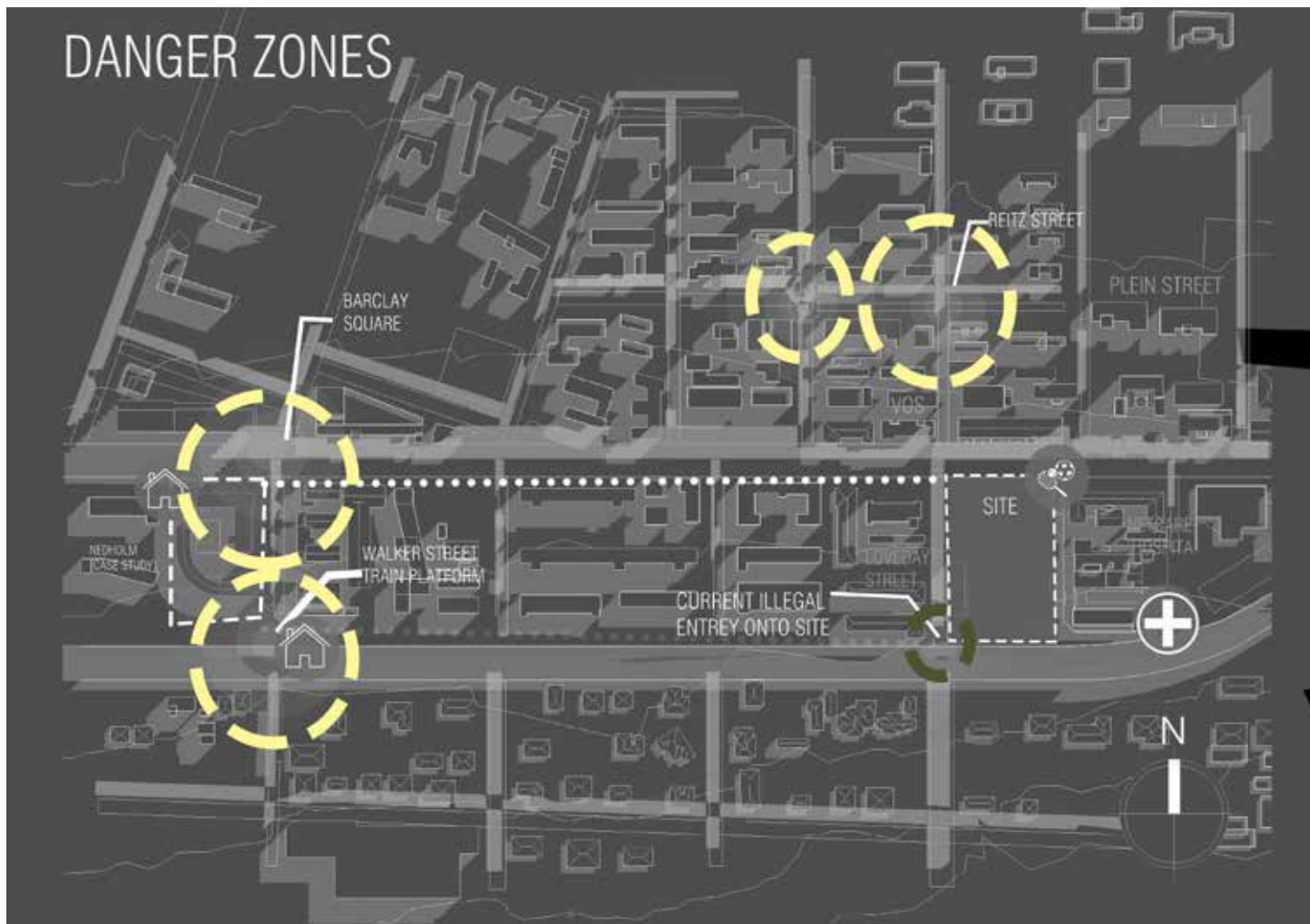


Fig. 3.10. Tsebe. T. 2021. Map showing safer zones in Sunnyside as recorded by experience and user accounts. . Digital Map. Edited by Tumi Tsebe. Searching for Sunnyside Research Report. University of Witwatersrand.

DANGER ZONES



3.3. SITE ANALYSIS: MACRO

The Danger zones of the area are shown in yellow in the adjacent diagrams.

These spaces are characterised by specific failures of consideration for safety architecturally.

Fig. 3.11. Tsebe, T.2021 . Map showing danger zones in Sunnyside as recorded by experience and user accounts. . Digital Map. Edited by Tumi Tsebe. Searching for Sunnyside Research Report. University of Witwatersrand.

3.3. SITE ANALYSIS: MACRO

As shown in “Courtyard Houses” by Gunter Pfeifer, the street, the notion of the undesirables and effective capacities of space. The courtyard is a multi-faceted tool which much to offer at different scales. From visibility to the opportunity for internal-external spaces, maximising ventilation and creating opportunities for spaces of wellbeing.

AXONOMETRIC DIGRAMS SHOWING THE BENEFITS OF COURTYARD SPACES

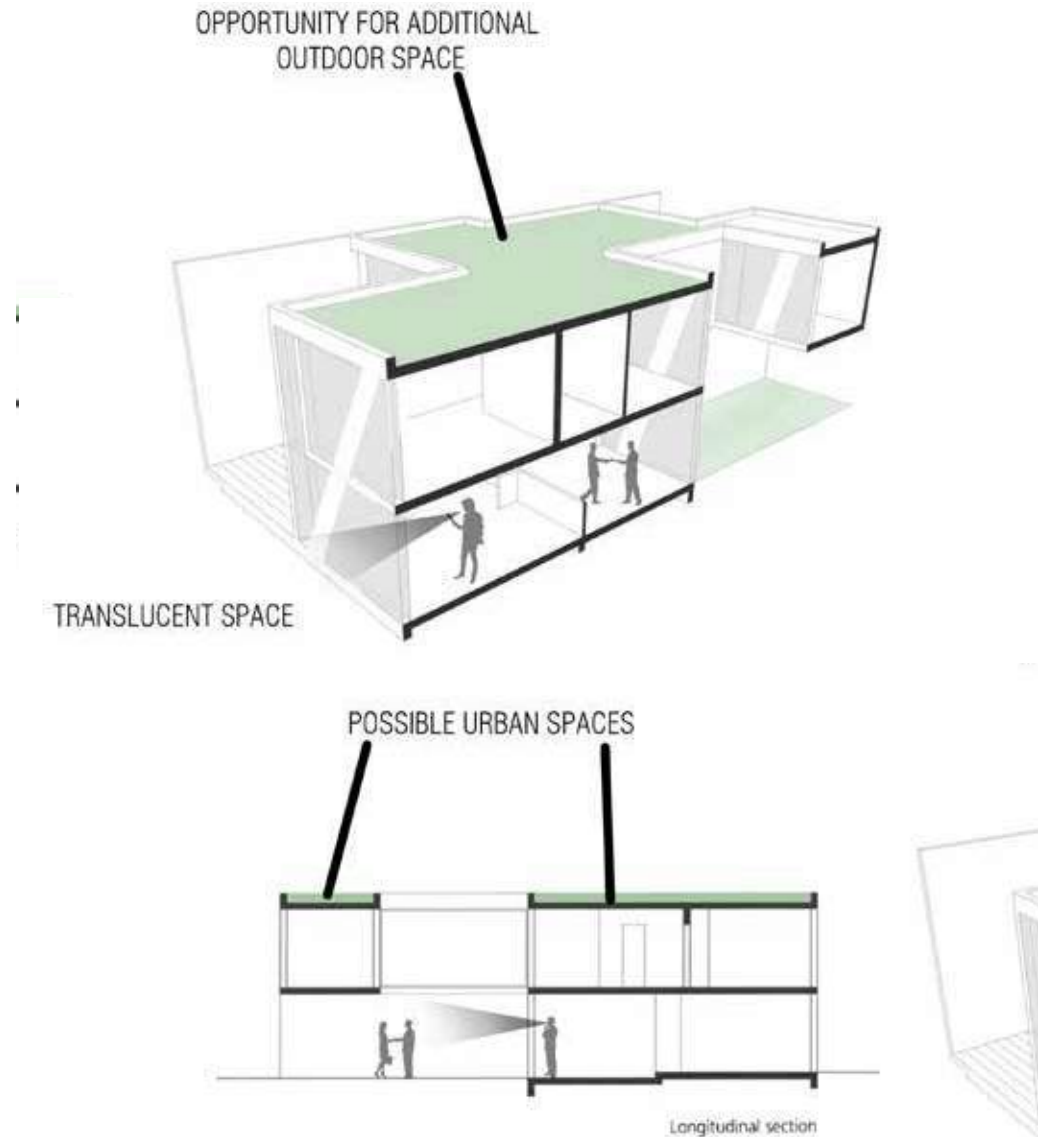


Fig. 3.12.. Unknown Author. Darmstadt University. Hong Vlet Duc. Diagrams showing the benefits roof terraces. Garden House Two Storeys. East-west orientation.. From “courtyard houses” by Gunter Pfeifer. (p.41). Edited by Tumi Tsebe. Searching for Sunnyside Research Rerport. University of Witwatersrand.

3.3. SITE ANALYSIS: MACRO

AXONOMETRIC DIGRAMS SHOWING THE BENEFITS OF COURTYARD SPACES

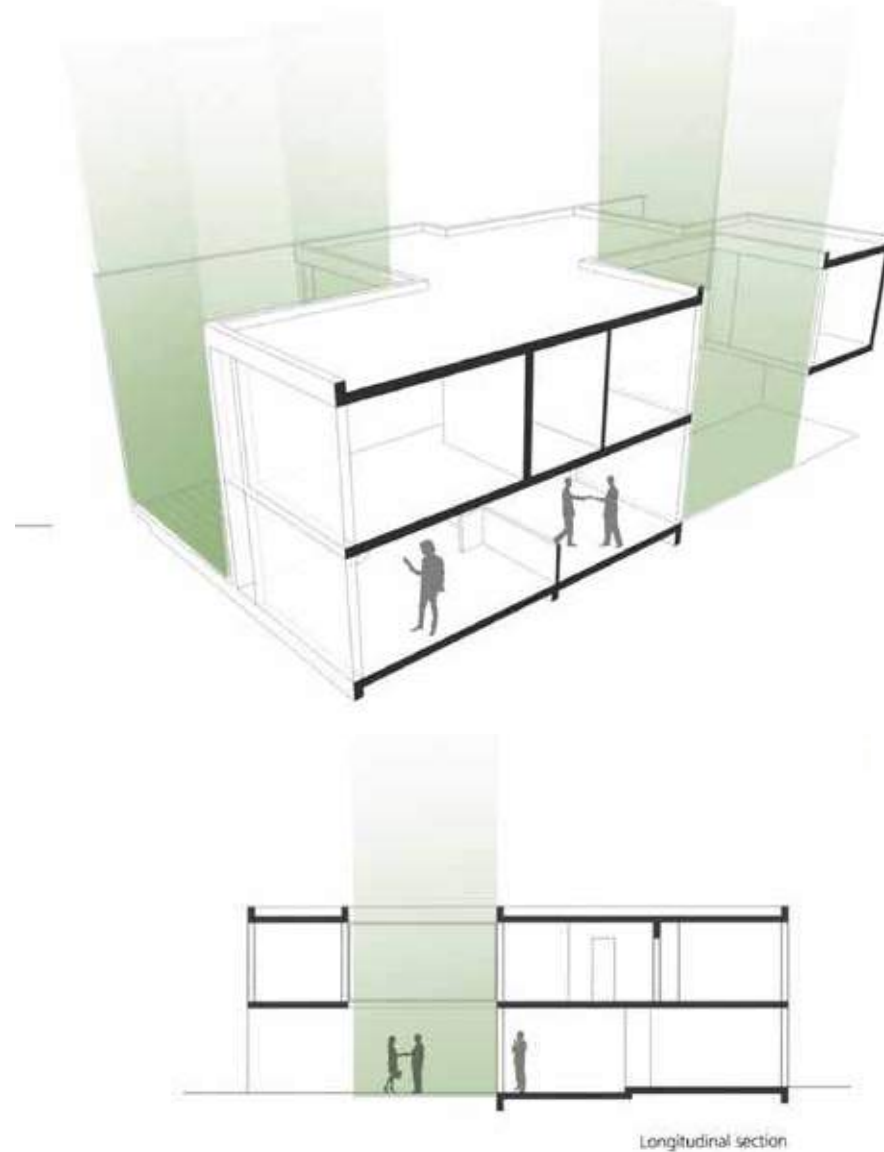


Fig. 3.13.. Unknown Author. Darmstadt University. Hong Vlet Duc. Diagrams showing the benefiits of courtyards. Garden House Two Storeys. East-west orientation.. From “courtyard houses” by Gunter Pfeifer. (p.41). Edited by Tumi Tsebe. Searching for Sunnyside Research Rerport. University of Witwatersrand.

3.4. SITE ANALYSIS: MICRO



Fig. 3.14. Tsebe. T 2021. Axonometric view of Justice Mahomed showing journey across site .
Digital Collage. Original Images <<https://www.google.com/maps/place/Nedholm+Flats./@-25.7595981,28.2035828,17.5z/data=!4m5!3m4!1s0x1e95622746b1ec23:0xf-d79784ee517c0fd!8m2!3d-25.7594538!4d28.2050079>>

3.4. SITE ANALYSIS: MICRO

SITE AXO

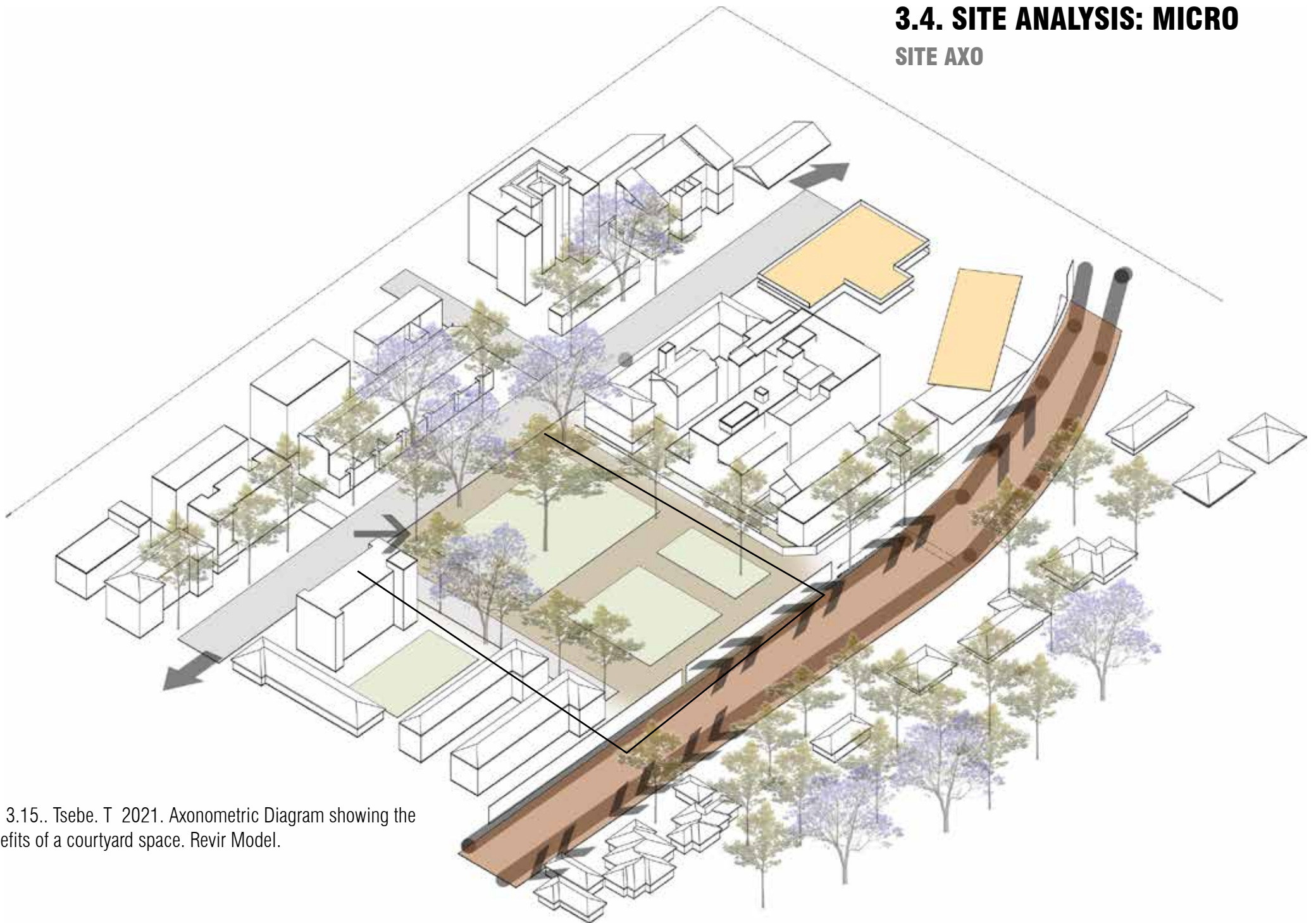


Fig. 3.15.. Tsebe. T 2021. Axonometric Diagram showing the benefits of a courtyard space. Revir Model.

3.4 SITE ANALYSIS: MICRO

EXISTING TREES



ig. 3.16. Tsebe. T 2021. Site Plan. Architectural Drawing. Edited by Tumi Tsebe Sunnyside, Pretoria. Searching for Sunnyside Research Report. University of Witwatersrand.

3.4 SITE ANALYSIS: MICRO SITE CONTOURS

The site has a four meter slope. From the south of the site to the north.

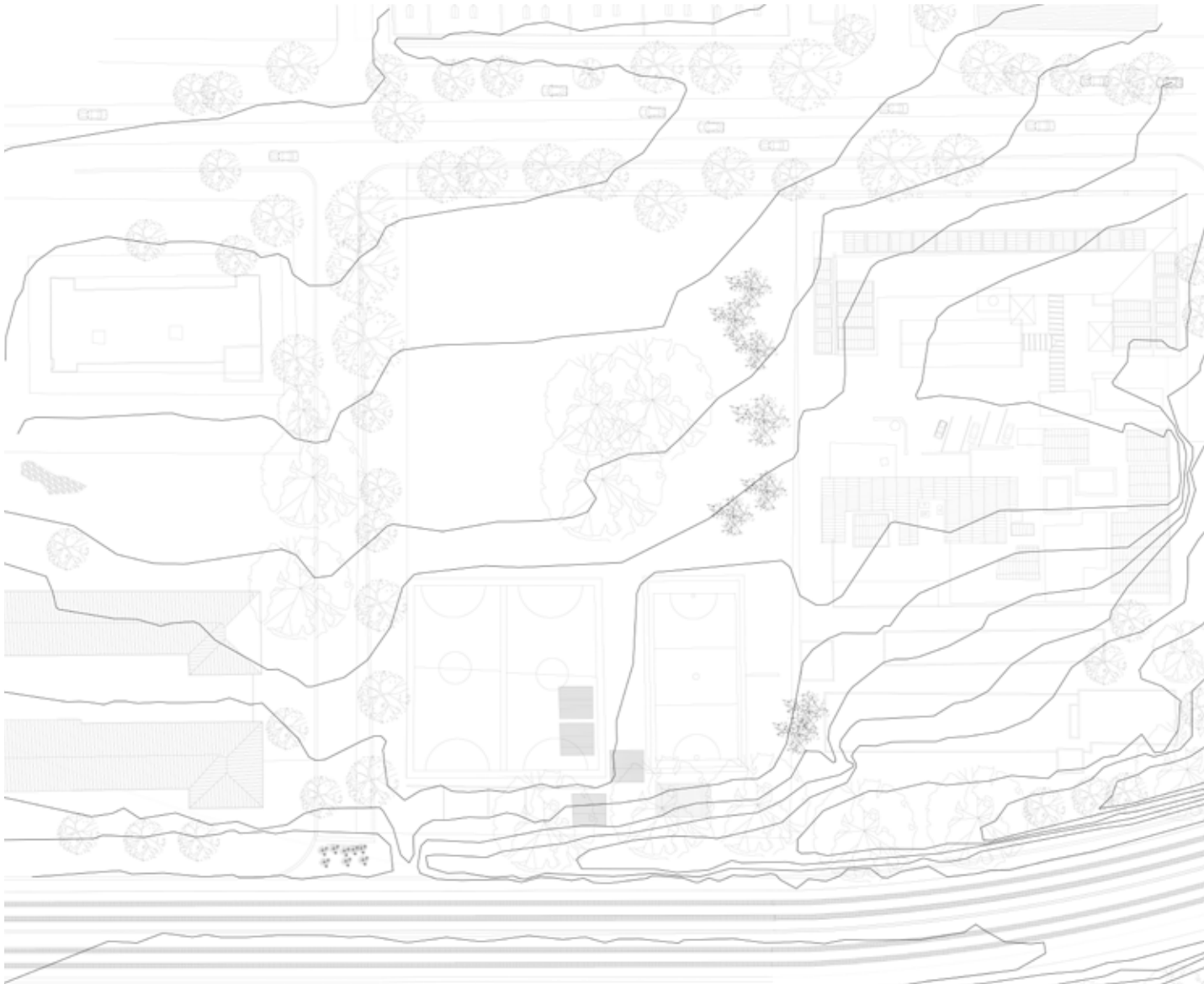


Fig. 3.17. Tsebe. T 2021. Contour Plan of site. Analytical Site plan. Sunnyside, Pretoria. Searching for Sunnyside Research Report. University of Witwatersrand

3.4 SITE ANALYSIS: MICRO MOVEMENT



Fig. 3.18. Tsebe, T. 2021. Analysis of Movement on site. Analytical Site Plan. Sunnyside, Pretoria. Searching for Sunnyside Research Report. University of Witwatersrand

3.4 SITE ANALYSIS: MICRO

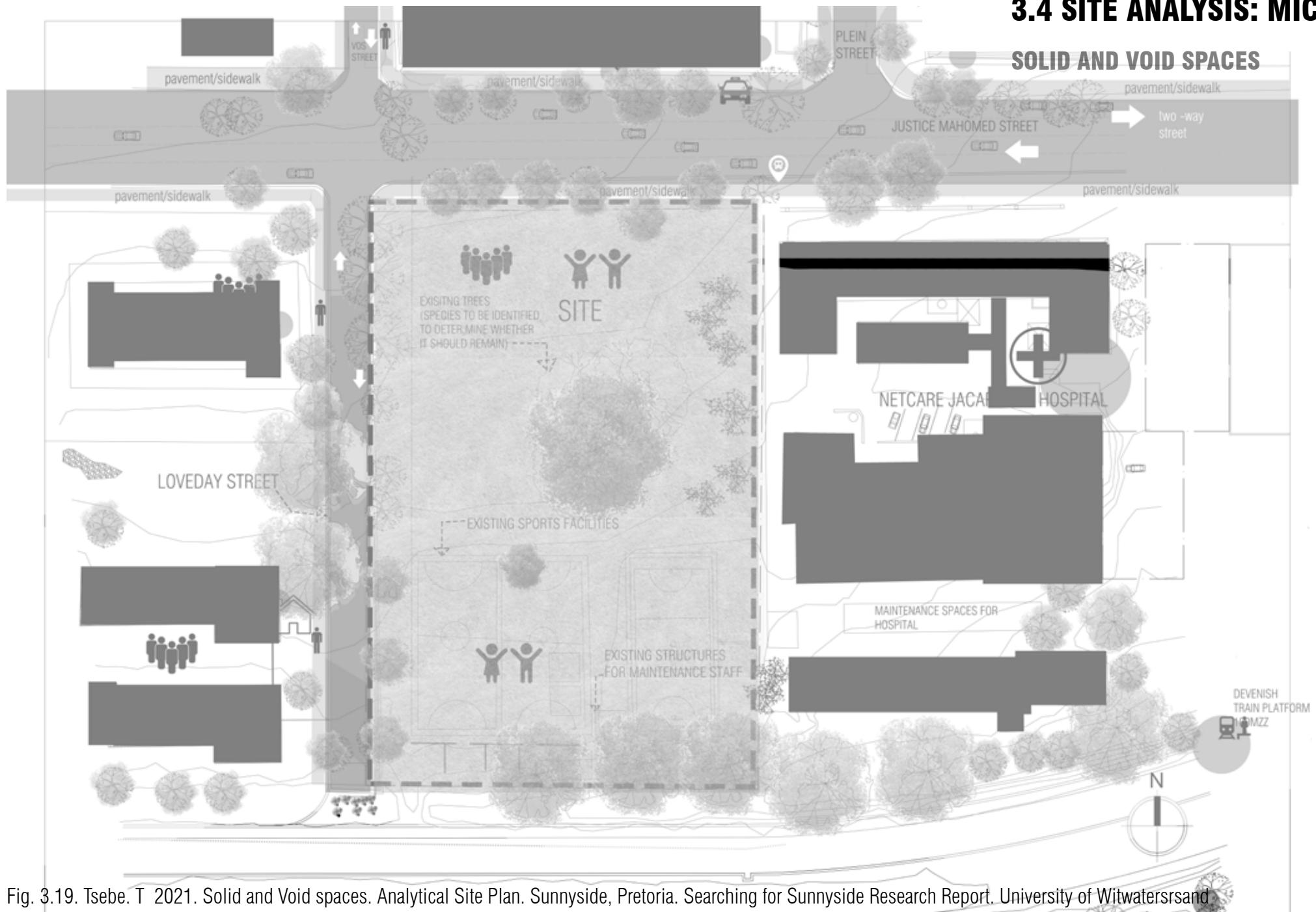


Fig. 3.19. Tsebe. T 2021. Solid and Void spaces. Analytical Site Plan. Sunnyside, Pretoria. Searching for Sunnyside Research Report. University of Witwatersrand

3.4 SITE ANALYSIS MICRO SUN ANGLES

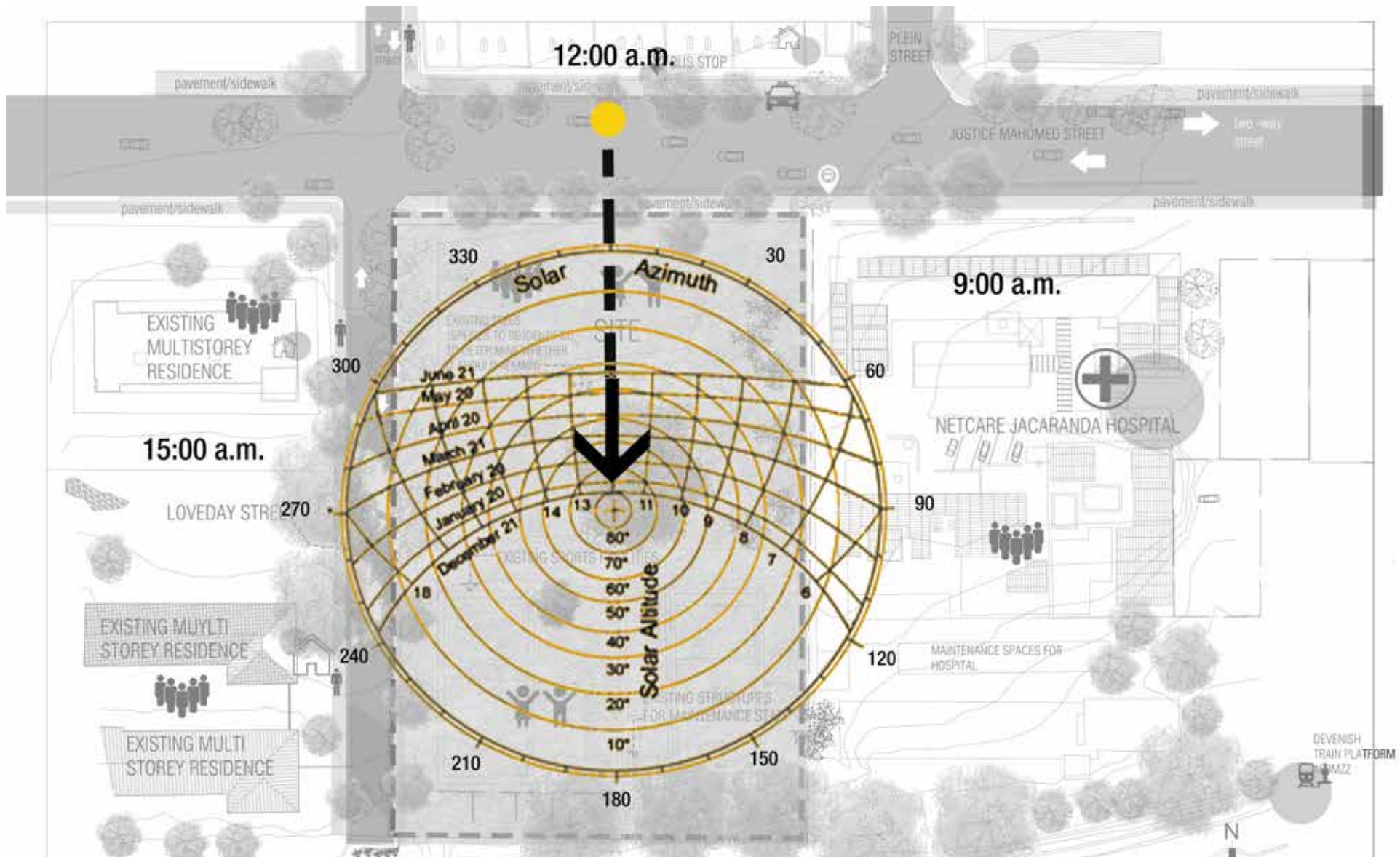
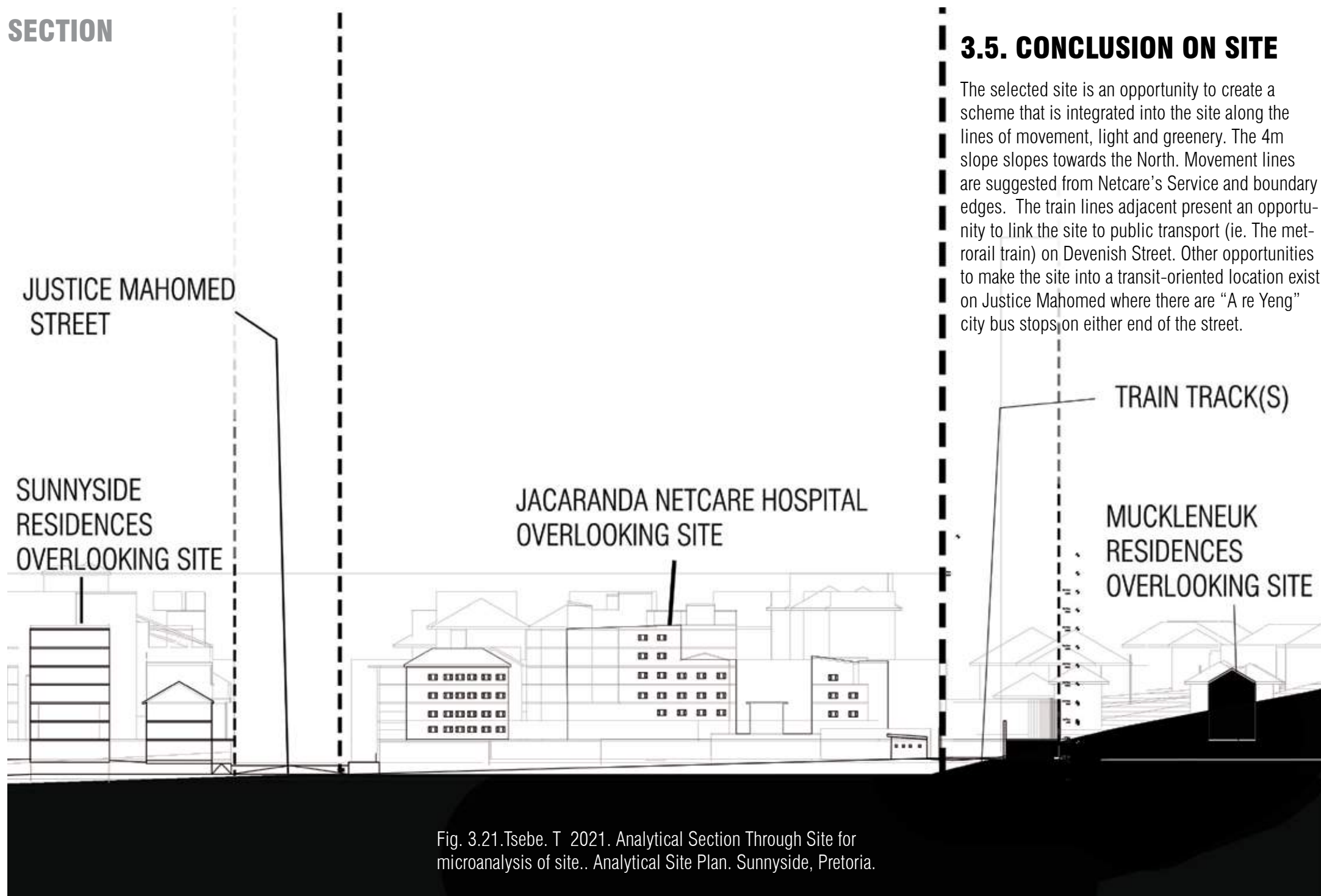


Fig. 3.20. Tsebe. T 2021. Sun Angles. Analytical Site Plan. Sunnyside, Pretoria. Searching for Sunnyside Research Report. University of Witwatersrand



3.5. CONCLUSION ON SITE

The selected site is an opportunity to create a scheme that is integrated into the site along the lines of movement, light and greenery. The 4m slope slopes towards the North. Movement lines are suggested from Netcare's Service and boundary edges. The train lines adjacent present an opportunity to link the site to public transport (ie. The metrorail train) on Devenish Street. Other opportunities to make the site into a transit-oriented location exist on Justice Mahomed where there are "A re Yeng" city bus stops on either end of the street.

CHAPTER 4

Case Studies and Local Types

Architectural Precedent



4.1 INTRODUCTION TO CASE STUDIES

Each case study is different. The case studies selected in this chapter are selected on the basis of their relevance to Sunnyside from a programmatic point of view. The programs looked at included wellness centres, mental health facilities and intermodal stations. These programmes are selected for their motivations outlined in the concept chapter.

4.2. IDOM INTERMODAL STATION

INTERMODAL STATION// IDOM Architects
 Bus Station, Tram Station, Parking lot
 Area: 25000 m² Year: 2020

Fig. 4. 1. Ortiz.A, Cardona. J. 2020. Intermodal Station//IDOM Architects. Photograph. Edited by Tumi Tsebe. Searching for Sunnyside Research Report. University of Wiltwatersrand. Original Image: << https://www.archdaily.com/960941/parking-and-intermodal-station-idom/6089b623f91c81bc23000013-parking-and-intermodal-station-idom-photo?next_project=no >> [Accessed 9 March 2021]

4.2. IDOM INTERMODAL STATION

The project pays special attention to the management of all flows in order to avoid crossings between pedestrians and vehicles, buses, and private cars. The scheme achieves this by separating the pedestrian routes, bus route and tram route into different edges on the site. The tram approaches the scheme from the outermost edge that is adjacent to the greenery on site. The bus route shares a waiting platform with the tram and acts as a central drop off zone for users of the building. The pedestrian route of the building is on the back end of the building so as to keep the scheme pedestrian-friendly but similarly, accommodating different kinds of pedestrian transport including walking and wheelchairs.

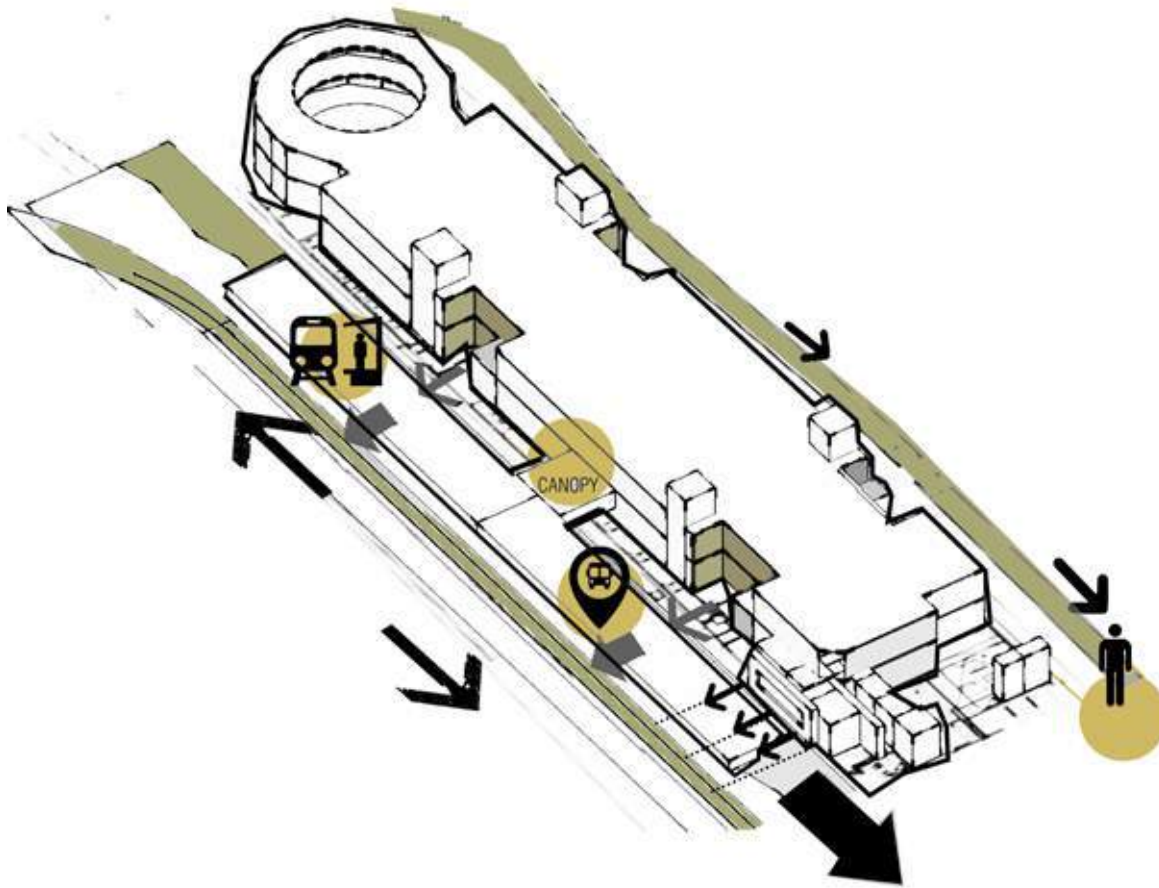


Fig. 4.2. Tsebe, T 2021. Intermodal Station Massing. Analytical Site Plan. Skeetchup model. Base Plan taken from: << https://www.archdaily.com/960941/parking-and-intermodal-station-idom/6089b623f91c81bc23000013-parking-and-intermodal-station-idom-photo?next_project=no>> [Accessed 09 March 2021]

4.2. IDOM INTERMODAL STATION

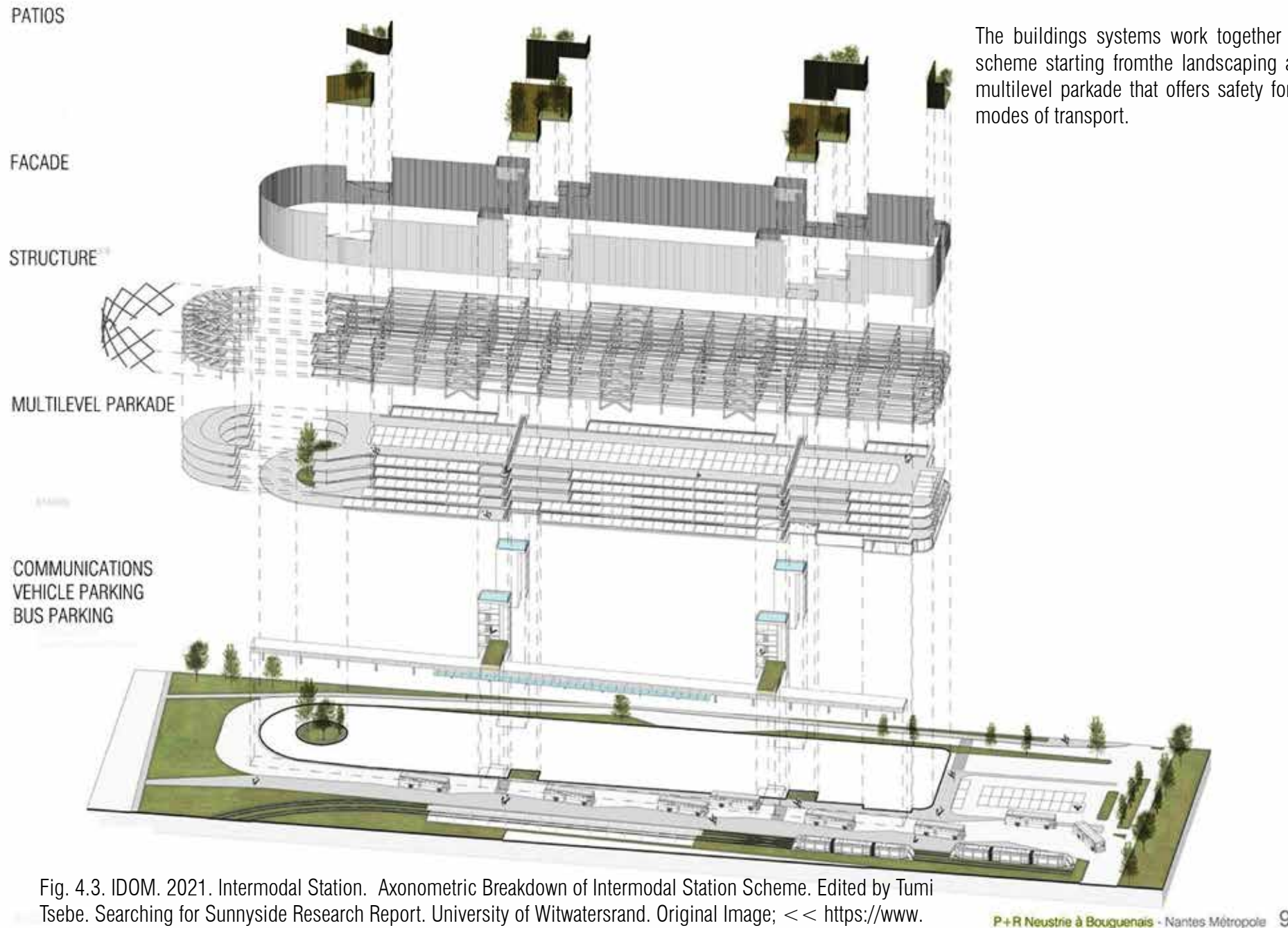


Fig. 4.3. IDOM. 2021. Intermodal Station. Axonometric Breakdown of Intermodal Station Scheme. Edited by Tumi Tsebe. Searching for Sunnyside Research Report. University of Witwatersrand. Original Image; << <https://www.archdaily.com/960941/parking-and-intermodal-station-idom>>> [Accessed 10 March 2021]

4.2. IDOM INTERMODAL STATION

The complex is made up of a car park and an intermodal bus and tram station connected to each other by a continuous canopy. Yet the scale of the scheme is designed around not making the experience of these different modalities one that drives away pedestrian activity.

The project pays special attention to the management of all flows in order to avoid crossings between pedestrians and vehicles, buses, and private cars. The scheme achieves this by separating the pedestrian routes, bus route, and tram routes into different edges on the site.

The tram approaches the scheme from the outermost edge that is adjacent to the greenery on site. The bus route shares a waiting platform with the tram and acts as a central drop off zone for users of the building. The pedestrian route of the building is on the back end of the building so as to keep the scheme pedestrian friendly but similarly, accommodating different.

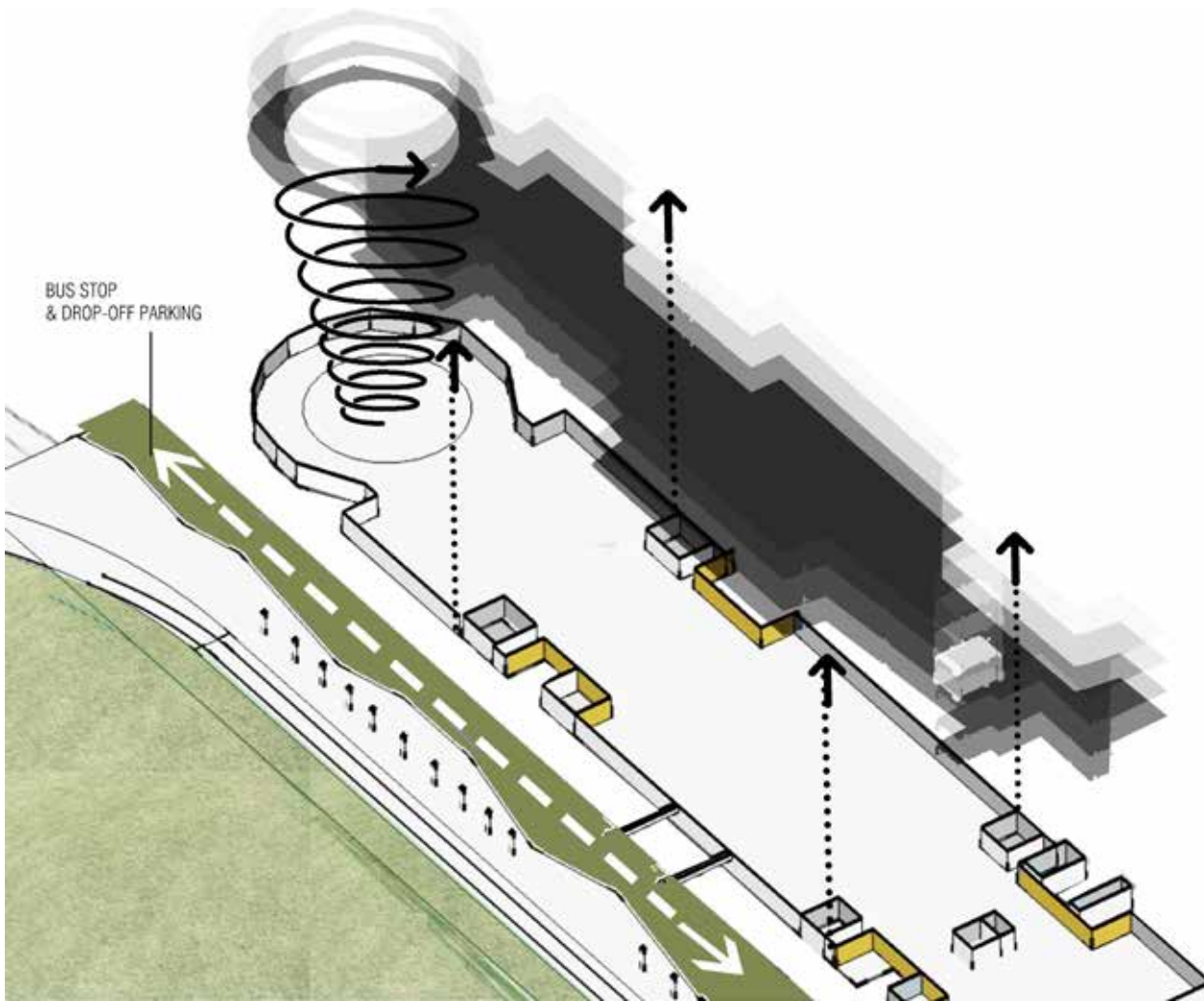


Fig. 4.4. Tsebe, T 2021. Parking in Layers. Axonometric Breakdown of Scheme. Sunnyside, Pretoria. Exploded Axonometric Diagram. Searching for Sunnyside Research Report. University of Witwatersrand. Original Image; << <https://www.archdaily.com/960941/parking-and-intermodal-station-idom>>> [Accessed 10 March 2021]

4.2. IDOM INTERMODAL STATION

TAKEAWAYS FOR MY DESIGN

What we can learn from the bicycle parking garage in the Netherlands is that an appropriate way to approach parking spaces is through the overlapping of platforms (levels) and ramps as internal courtyards for various forms of gathering. In this case, the storage of bicycles.

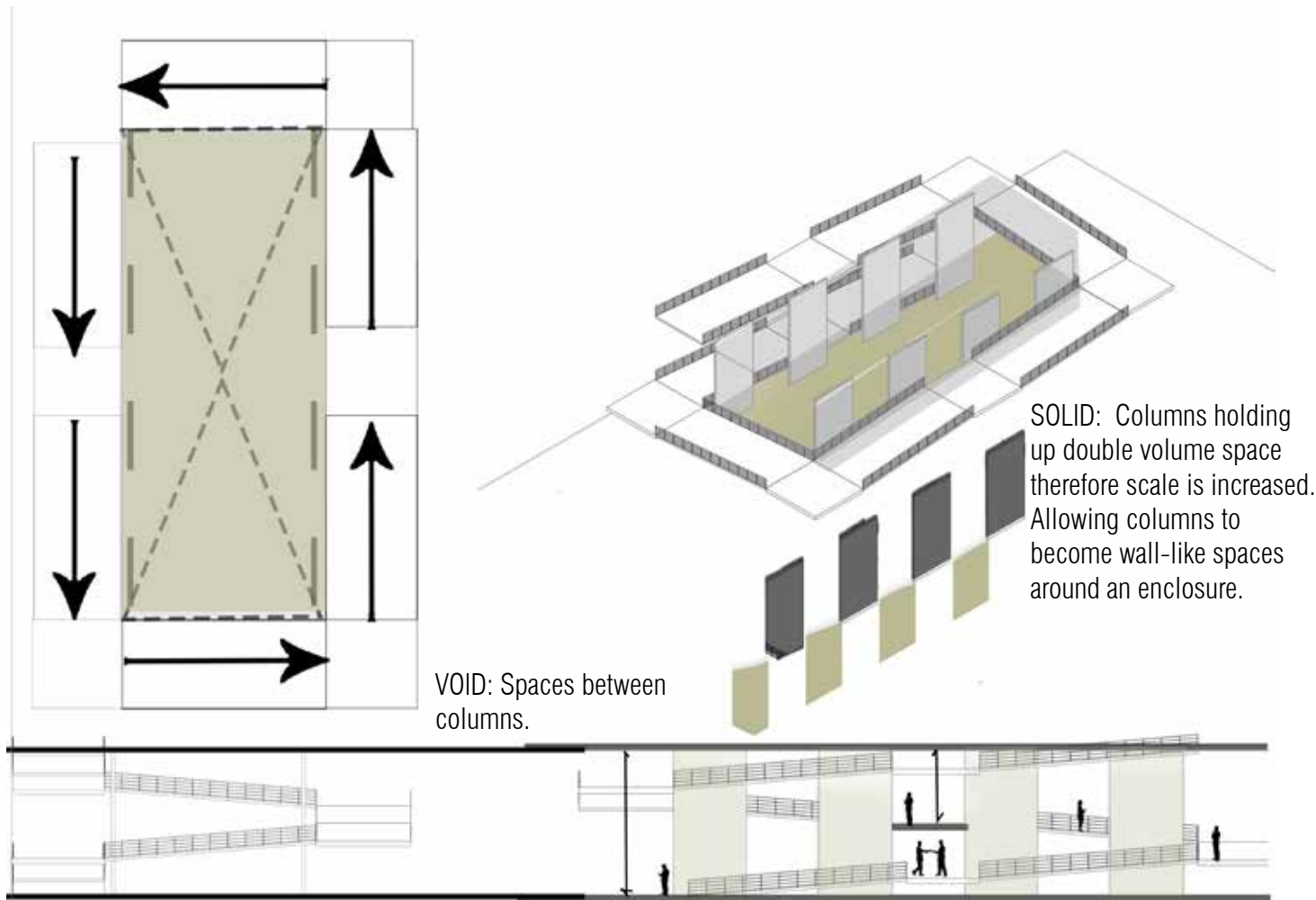
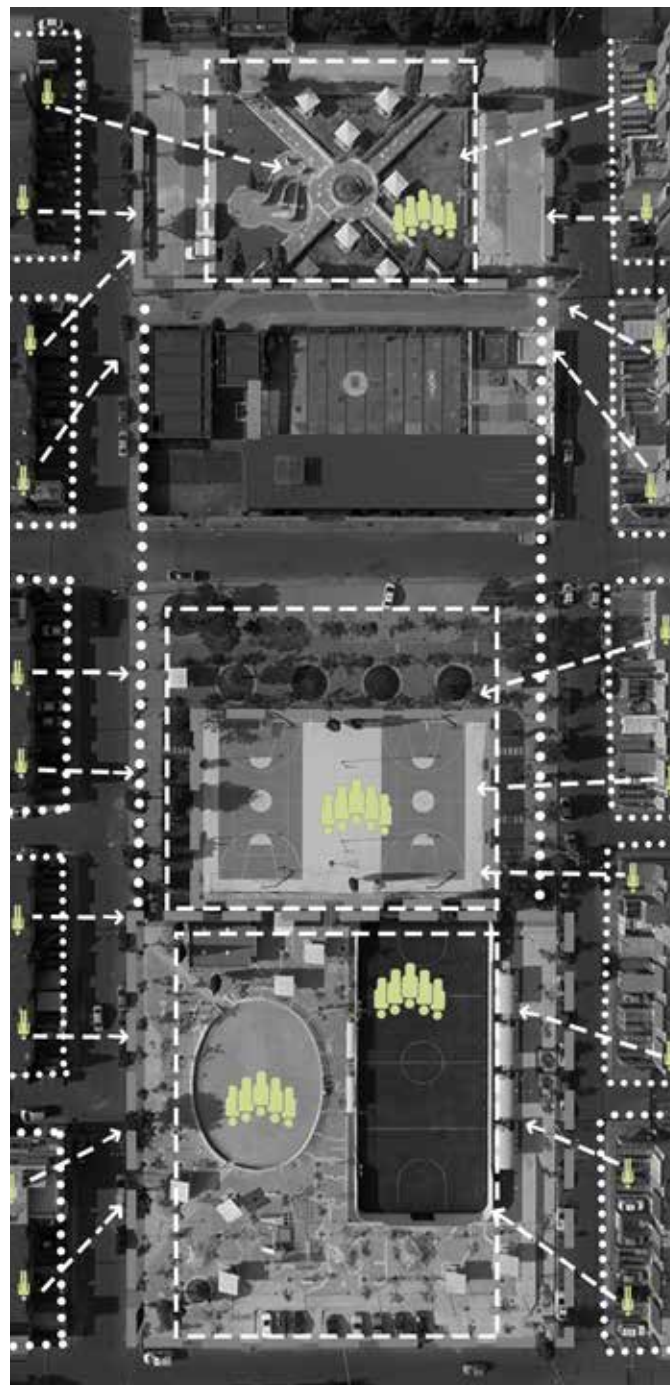
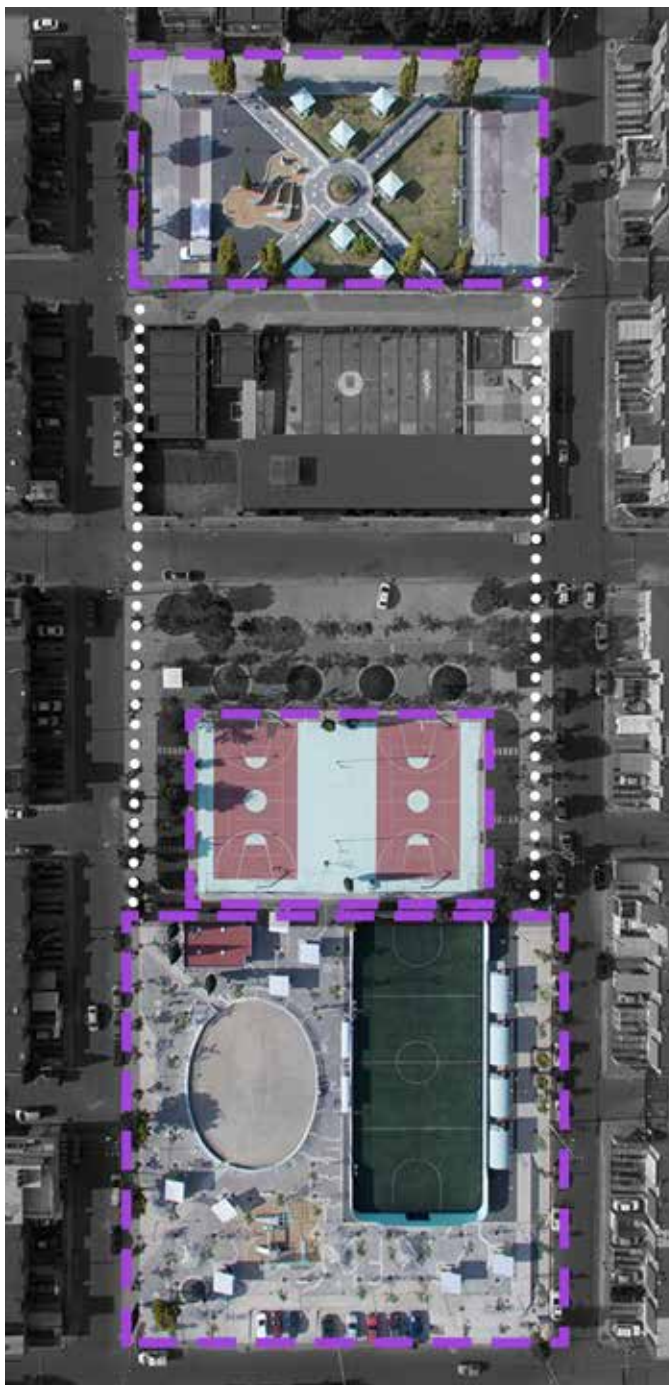


Fig. 4.5. Tsebe, T 2021. Diagrams showing How to Approach Parking taken from Idom Intermodal Station. Revit Model. Searching for Sunnyside Research Report. University of Witwatersrand.



4.3. PARQUE LOS HEROES FRANCISCO PARDO ARQUITECTO

Los Heroes Park is one part of a larger urban framework by Francisco Pardo Arquitectos. The scheme focuses on creating interactive social space in the heart of open space located between affordable social housing. The scheme makes use of various concrete-based materials to shape the ground plane into benches, playground structures and benches for the public. The result of this design approach is that the scheme acts as a social space where people in poor social conditions are able to create a sense of community by engaging with their neighbours when they are in the park. The secondary result of this design is that when residents are not at the park, they contribute to passive surveillance in the area.

Fig. 4.6. Navarro. J 2018. Parque Los Heroes. Axonometric Breakdown of Scheme. Public Parks in Mexico showing edges and public interaction.. Edited by Tumi Tsebe. Original Images. <<https://www.archdaily.com/901161/los-heroes-park-francisco-pardo-arquitecto?ad_source=search&ad_medium=projects_tab>> [Accessed 12 March 2021]

4.3. PARQUE LOS HEROES FRANCISCO PARDO ARQUITECTO

The scheme's paved floor are made up of hexagonal tiles that act as a modular system which allow paving to become slopes for skateboards. The layout includes children's playgrounds, a football field and a basketball court. The park is described as inclusive and has improved the quality of life of the adjacent housing units and nearby primary school.

The design framework. Including the paved floors, playground structures and concrete tiles that can be repurposed on a site-to-site basis, can repeated and integrated into different contexts depending on their needs.

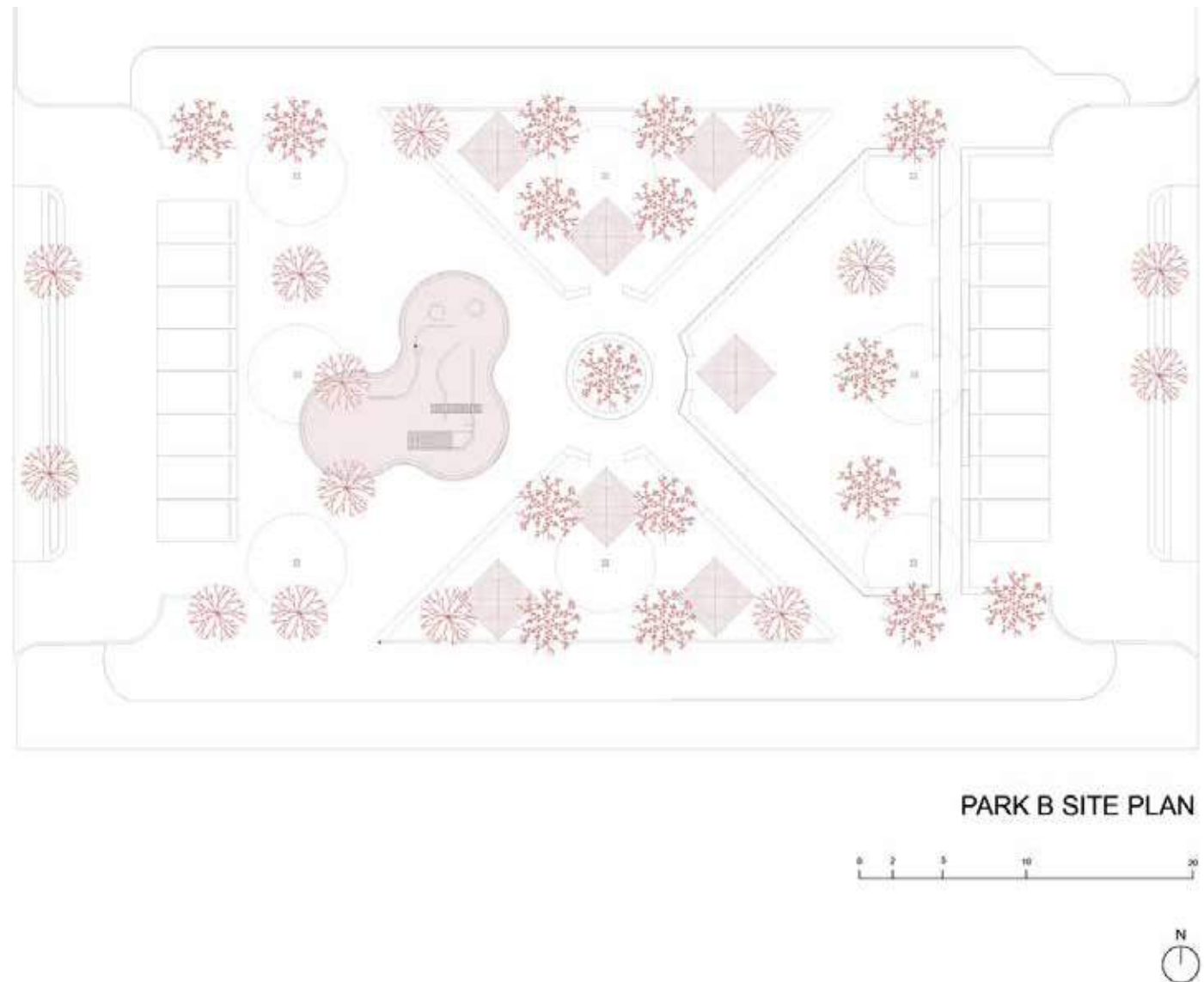
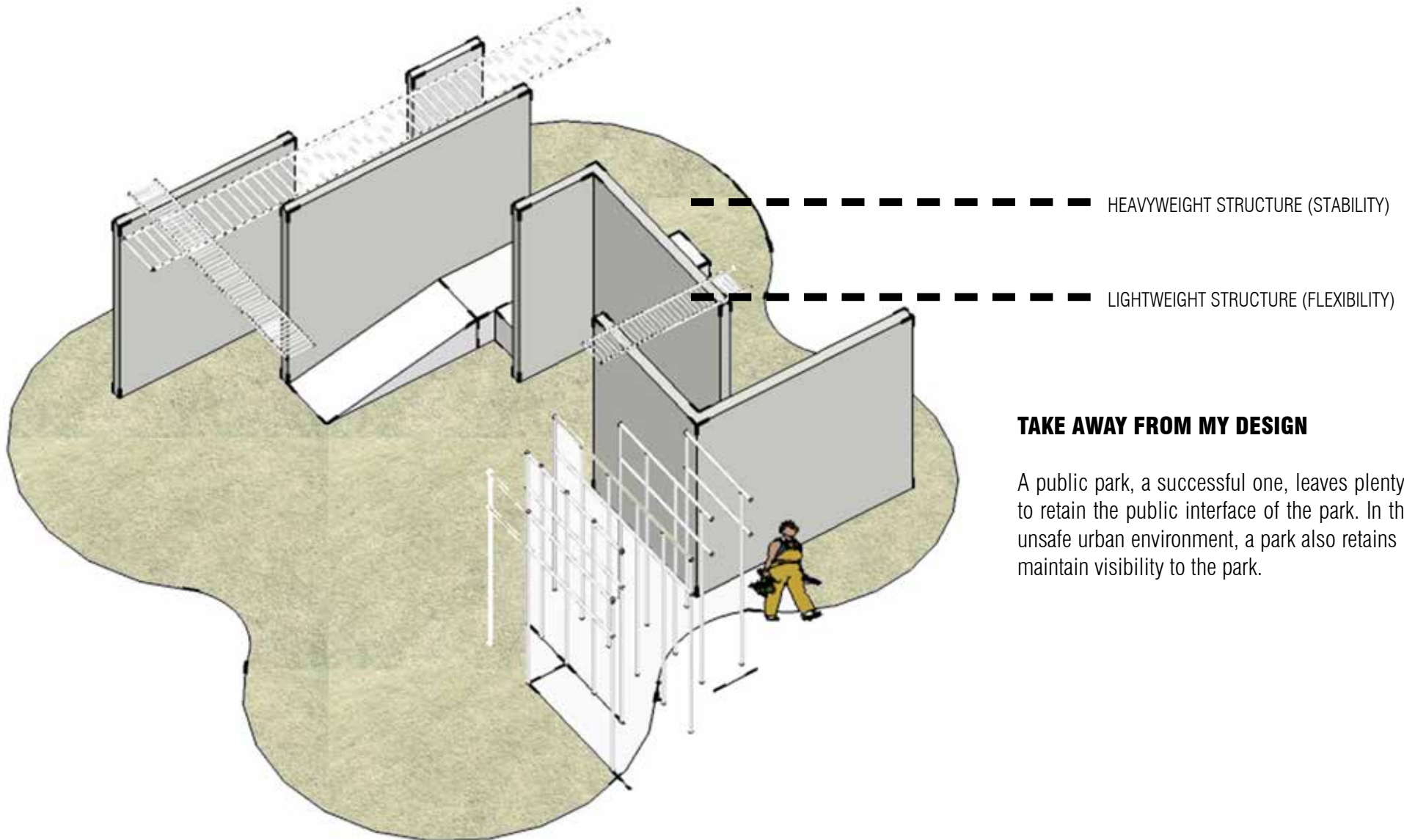


Fig. 4. 7. Navarro. J 2018. Parque Los Heroes. Analytical. Public Parks in Mexico Edited by Tumi Tsebe. Original Images; <
https://www.archdaily.com/901161/los-heroes-park-francisco-pardo-arquitecto?ad_source=search&ad_medium=projects_tab>>
[Accessed 12 March 2021]

CONCRETE STRUCTURE

[Strengthening the social logic of playgrounds]

4.3. PARQUE LOS HEROES FRANCISCO PARDO ARQUITECTO



TAKE AWAY FROM MY DESIGN

A public park, a successful one, leaves plenty of open space to retain the public interface of the park. In the context of an unsafe urban environment, a park also retains its openness to maintain visibility to the park.

Fig. 4.8. Tsebe, T. 2021. Concrete Structure analytical model of Francisco Pardo Arquitecto Architects Public Parks in Mexico. Sketchup Model. Searching for Sunnyside Research Report. University of Witwatersrand.



Fig. 4.9. Productura 2018. Pink Concrete Park. Tlalnepantla de Baz and Tultitlán, Mexico. Photograph. edited by Tumi Tsebe. Searching for Sunnyside Research Report. University of Witwatersrand.

4.4 PINK CONCRETE PARK PRODUCTURA

Pink concrete forms seats, steps and climbing walls in these two public parks designed by Mexican architecture firm Productura.

Infonavit, who design worker's housing in Mexico, asked Productura to create the two parks for residential communities in Tlalnepantla de Baz and Tultitlán, Mexico. Both of these public spaces are situated on narrow strips of land between apartment buildings and roadways much like the site that has been selected in Sunnyside.

Each park is outfitted with pink pigmented concrete playground equipment, seating and pavilions.

The studio chose this material to create a uniform design throughout the park and because concrete requires little maintenance." This is something that can be looked at in relationship to The Social Logic of Playgrounds where for most, the informants seem to be transport to site and therefore lightweight structures are introduced. The use of concrete allows a wider scale and range of playground structures to be fitted to site, bringing the scheme(s) new possibilities and dynamism.

4.4 PINK CONCRETE PARK PRODUCTURA

TAKE AWAYS FOR MY DESIGN

Retaining the park as a space adjacent to the public street edge allows the park to act as a softener to the street. Leaving majority of the park open while integrating it with greenery makes the park more permeable and invites more pedestrian traffic, more regularly. More specifically, the openness in contrast to the busy street can help the park take advantage of the busy street by inviting people in.

TYPE A



TYPE B



Fig. 4.10. Productora 2018. Pink Concrete Park Type A & B. Tlalnepantla de Baz and Tultitlan, Mexico. Original Image(s): << <https://www.dezeen.com/2020/07/06/productora-tlalnepantla-de-baz-tultitlan-pink-concrete-park-mexico/> >> [Accessed 9 March 2021]

4.5 THE NEPEAN MENTAL HEALTH CENTRE - WOODS BAGOT

Woods Bagot is an architecture firm based in Australia. Their design for the Nepean Mental Health Centre includes 64-mental health beds servicing high dependency, acute and Specialist Mental Health Services for Older Persons. The unit will include a dedicated inpatient ward and new facilities for the outpatient day program.

The Nepean Mental Health Centre is a demonstration of mental health facilities taking a design shift towards creating regenerative, healing environments for their patient's recovery. The design of the unit provides a restorative health care unit, integrated into the local community and linked to the adjoining health precinct. The patients have pedestrian access in and across the scheme and outdoor spaces (small vegetation beds).



Fig. 4.11. Trevor Mein , Ethan Rohloff. 2018. Woods Bagot Architects. The Nepean Mental Health Centre.2014. Photograph. Edited by Tumi Tsebe. Searching for Sunnyside Research Report. University of Witwatersrand.

4.5 THE NEPEAN MENTAL HEALTH CENTRE - WOODS BAGOT

The key components of a successful mental health centre as laid out by Woods-Bagot Architects are as follows:

1. The overall scheme is conceptualised considering the scale of the surrounding buildings.
2. The public zones of the building are placed along or facing the street edge.
3. The public zones of the building offer access into the public zone of the urban setting (i.e. the street).
4. The edges which are not permeable are lined with natural vegetation to soften the edge as well as reduce the negative impact of the building

TAKE AWAYS FOR MY DESIGN

To create an environment conducive to mental health, the scheme must bring together aspects of nature with public street edges. The scheme can also increase its public accessibility by allowing the street to continue through the building.



1. Overall Scheme



2. Public vs Private



4. Relationship between scheme and natural vegetation on site maintained



3. Relationship between access and public edges.

Fig. 4.12. Tsebe. T. 2021. Diagrams showing breakdown of scheme. Analytical Images and axonometric models. , . Woods Bagot Architects. The Nepean Mental Health Centre. K, AUSTRALIA.



Fig. 4.13. Trevor Mein , Ethan Rohloff. 2014. Photograph. Woods Bagot Architects. The Nepean Mental Health Centre. KING-WOOD, AUSTRALIA

4.6 BRMI YOUTH MENTAL HEALTH CENTRE - BVN ARCHITECTS

The mental health building that forms part of the brain and mind research institute faculty of medicine at the university of Sydney. The institute is involved in research in mental health and neurological, clinical issues. The building is made up of two floors for patient treatment as well as two floors for research laboratories. An upper level bridge connects to research labs in two adjoining buildings. This approach to the layout of the building allows the scheme to retain two-storey heritage façade. Additionally, the labs are placed in a sliding glass façade on top of the old façade.

In order to make the ground floor spaces unthreatening and welcoming, the floors are linked by an open stair and a small atrium which holds the social space of the centre. The spaces adjacent to the central spaces break away from this central space for more specific programmatic functions such as meeting rooms.

The elevation of the building reflects the materiality of its light-industrial context. The sliding glass is clad in translucent glass planks which ensure diffused natural light to the laboratories on the interior of the building.

The programme of the scheme includes a directorate, a generic research and office write-up, dry research offices, generic research labs, cell culture labs, an electron microscope with vibration isolation, and fish breeding tanks. In summary, the scheme seeks to locate research and clinical treatment in the same environment while integrating with existing buildings and the streetscape. The central space allows sharing of facilities without impacting its adjacent spaces and the materiality of the building creates warm, tactile, welcoming environments for patient comfort. The internal stair connects the facility to communal spaces.

4.6 BRMI YOUTH MENTAL HEALTH CENTRE BVN ARCHITECTS

Users have noted that the BRMI building succeeds in 'uniting patients, caregivers, clinicians and scientists working in the fields of neuroscience and mental health, in a refreshingly engaging off-campus facility.' The building takes form in an attempt to reprogram an office space into a research facility for mental health, neuroscience and psychiatry. The users' comments included 'internal public spaces are modest yet delightful, encouraging visitors to feel welcome by the unexpected use of timber in the main stairway, doors, handrails that anticipate and welcome human touch.'

TAKEAWAYS FOR MY DESIGN

Diffused lighting components such as sandblasted windows and polyester panels can be used to control lighting in a way that allows a more serene atmosphere to thrive in a building. Timber can be used to make the tactile experience of public architecture more inviting to the user.

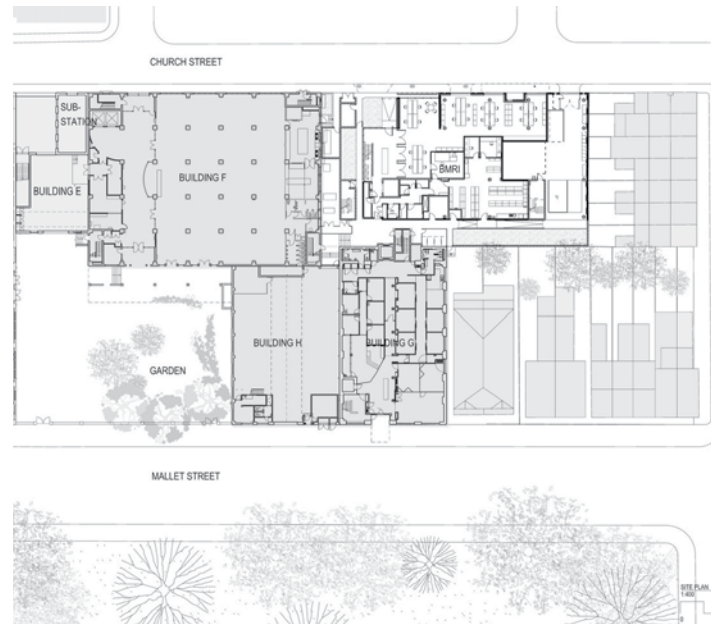
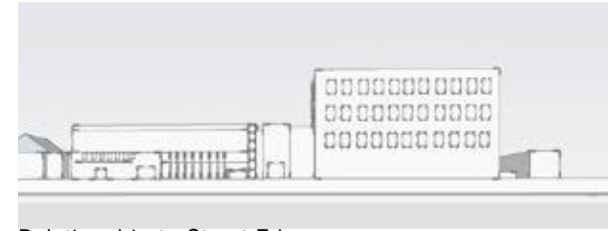
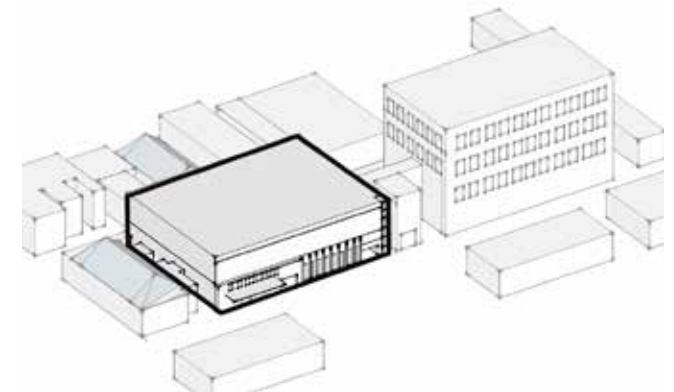


Fig. 4.14. Multiple Authors. 2021. Analytical Images and sketchup model. BVN Architects.. 2010 Photographs and drawings analysing Youth Mental Health Centre. Edited by Tumi Tsebe.



Relationship to Street Edge



Contextual buildings overseeing site

4.7 SOU FOUJIMOTO CHILDREN'S CENTER FOR PSYCHIATRIC REHABILITATION



Fig. 4. 15. 2006. Sou Fujimoto. Children's Center for Psychiatric Rehabilitation. Photograph. >> [Accessed 8 July 2021] <<

4.7 SOU FOUJIMOTO CHILDREN'S CENTER FOR PSYCHIATRIC REHABILITATION

Spatial Analysis

Although the scheme seems chaotic, Sou Fujimoto's Center for Psychiatric Rehabilitation allows children to inhabit a space freely. As the plan is broken up into free-flowing blocks arranged loosely on an undulating landscape.

The scheme is also comprised of small, exterior courtyard spaces that fill in between the blocks creating a series of outdoor spaces that can service each individual block. These courtyard spaces are spread internally and externally allowing communal indoor spaces to form between blocks. In the programme, these indoor spaces act as living areas.

TAKEAWAYS FOR MY DESIGN

Breaking the building up into its various programmatic components can help the scheme to perform better for EACH programmatic component. In building the scheme as a subset of smaller enclosures, each enclosure can have its own exterior space, and access control can be flexible and allow the scheme to respond more specifically to each enclosure.



Section



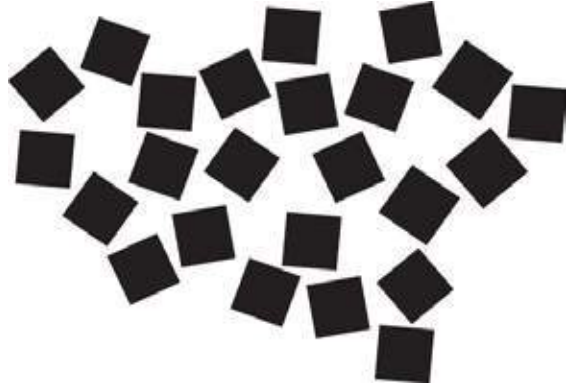
Ground Floor Plan



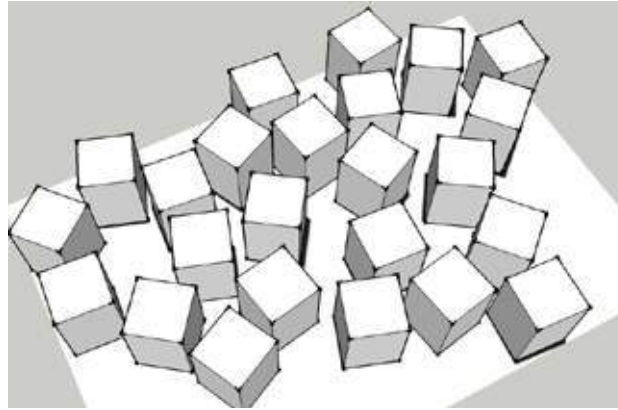
First Floor Plan

Fig. 4. 16. 2006. Sou Fougimoto. Children's Center for Psychiatric Rehabilitation. Drawings. >>[Accessed 8 July 2021] <<

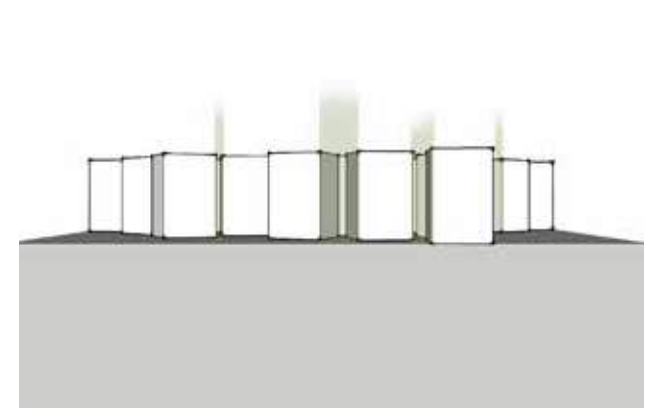
4.7 SOU FOUJIMOTO CHILDREN'S CENTER FOR PSYCHIATRIC REHABILITATION



Solid and Void Spaces:



Courtyards



Courtyards to external



Internal communal space: Forms connections between different spaces in same area.



Internal communal space: Forms connections between different levels on the same block.



Internal communal space: Forms connections between indoor and outdoor space.

Fig. 4. 17. 2006. Sou Foudjimoto. Children's Center for Psychiatric Rehabilitation. GPhotgrpahs and skeychup models
. > > [Accessed 8 July 2021] < <

4.8. UNIVERSITY PSYCHIATRIC CENTRE STÉPHANE BEEL ARCHITECTS

The university Psychiatric Center is characterised by a large internal courtyard. The internal courtyard falls under a large light well that provides light for offices and patient rooms. This creates a more vibrant and enlightening environment and allows patients to use this internal courtyard as a social and circulation space.



Fig. 4. 18. 2015. University Psychiatric Centre
Stéphane Beel Architects. PHOTOGRAPH. LEUVEN, BELGIUM

4.8. UNIVERSITY PSYCHIATRIC CENTRE STÉPHANE BEEL ARCHITECTS

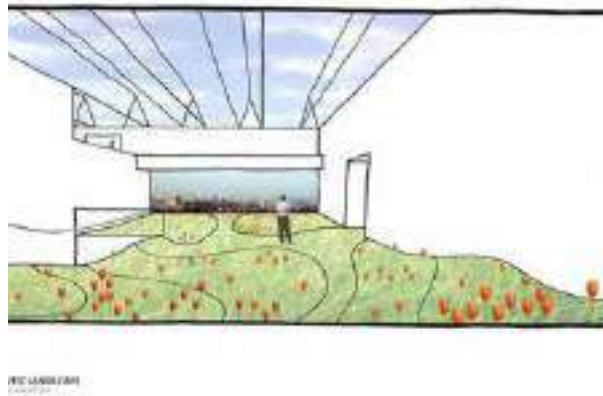
Light plays an integral role to the scheme, allowing breakaway spaces to borrow light from the central atrium. This arrangement is also mimicked in the breakaway rooms coming off of the atrium.



Internal Courtyard



Courtyards to external



Conceptual Drawing by architect.



Multiple points of entry

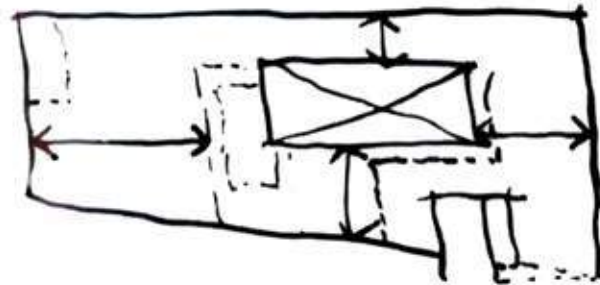
Fig. 4. 19.. 2015. University Psychiatric Centre
Stéphane Beel Architects. DIAGRAMS and photogrpahs.
LEUVEN, BELGIUM

4.8. UNIVERSITY PSYCHIATRIC CENTRE STÉPHANE BEEL ARCHITECTS

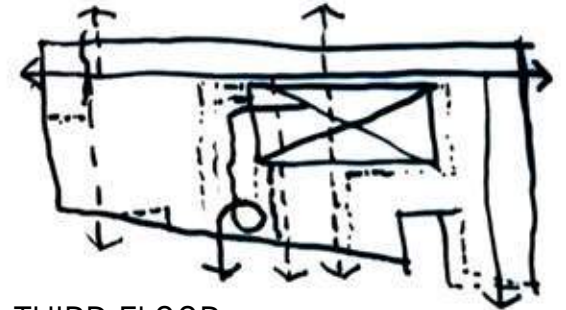
TAKEAWAYS FOR MY DESIGN

Central atrium spaces can act as internal courtyards for a building that has multiple levels allowing natural light to be evenly distributed to each aspect of a programme regardless of what floor level it is on.

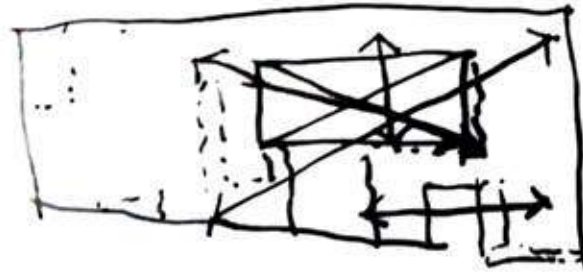
CIRCULATION AROUND COURTYARD/LIGHTWELL



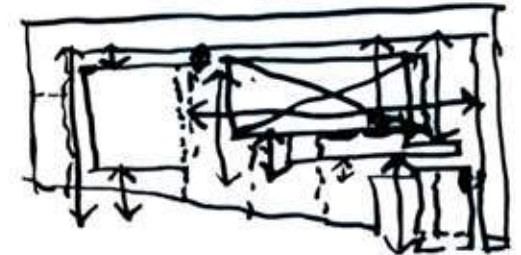
SECOND FLOOR



THIRD FLOOR



GROUND FLOOR



LOWER GROUND FLOOR

Fig. 4. 20. 2015. University Psychiatric Centre
Stéphane Beel Architects. DIAGRAMS. LEUVEN, BELGIUM

CHAPTER 5



Charette

Charette



5.1. INTRODUCTION TO CHARETTE

The charette brief asks students to engage with their scheme using representative techniques to dive deeper into the character of their site, program, and scheme. The purpose of this task is to allow students the opportunity to represent their interpretation of the site as a progression from the informative process they undertake in the research aspects of the report. As Urban Levels is the concept driving my design and research, I chose to use a process of layering materials to interpret my site creatively. The similarities between levels (being on top of one another) and layers (being on top of one another) is how the charette exercise ties into my broader research framework.

5.2. METHODOLOGY

For this charette exercise, I took on the idea of layering. This relates back to my larger concept of urban layers needing to be intact to keep social cohesion. A key concern for my project is safety seeing as it is based in Sunnyside. The primary informants for my site are the slope from the South End of the site to the north end, the Netcare Jacaranda Hospital Adjacent to my site the train tracks moving along site, the multi-storey residential units on the other end of my site, the current illegal entry on to my site from the train track, the bus stop and the road.

Keeping these concerns in mind as well as the general arrangement of my site, I began to layer representational materials over one another to develop a deeper understanding of the overall character of my site from which I could generate an approach to my program.

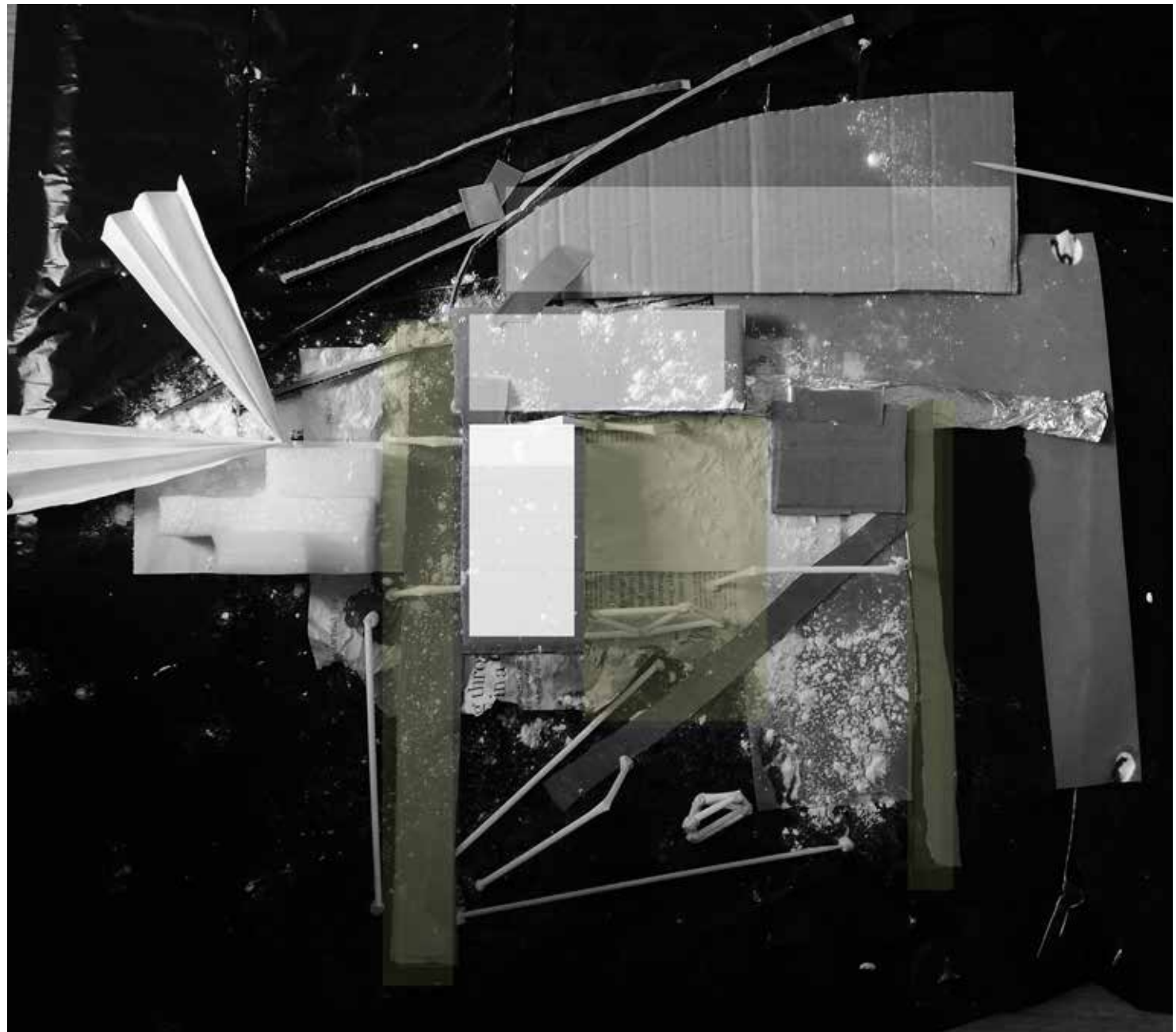


Fig.5.1. Tsebe. T 2021. Photograph of Charette Model. Edited by Tumi Tsebe. "Searching for Sunnyside" research report. University of Witwatersrand.

5.2. METHODOLOGY

CARE FACILITIES



LIGHTING



TRAIN TRACK



DRUGS



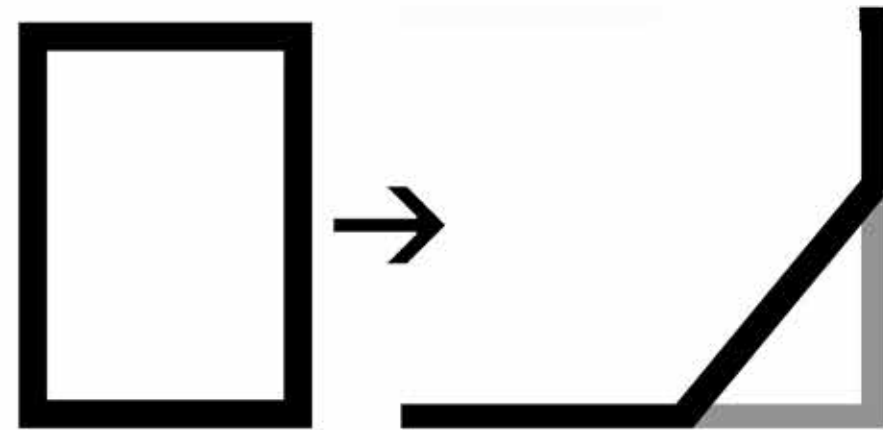
LACK OF SAFETY



LEVELS (PLATFORMS)



SQUARE EDGES TO TRIANGLE



CIRCULATION (VERTICAL)

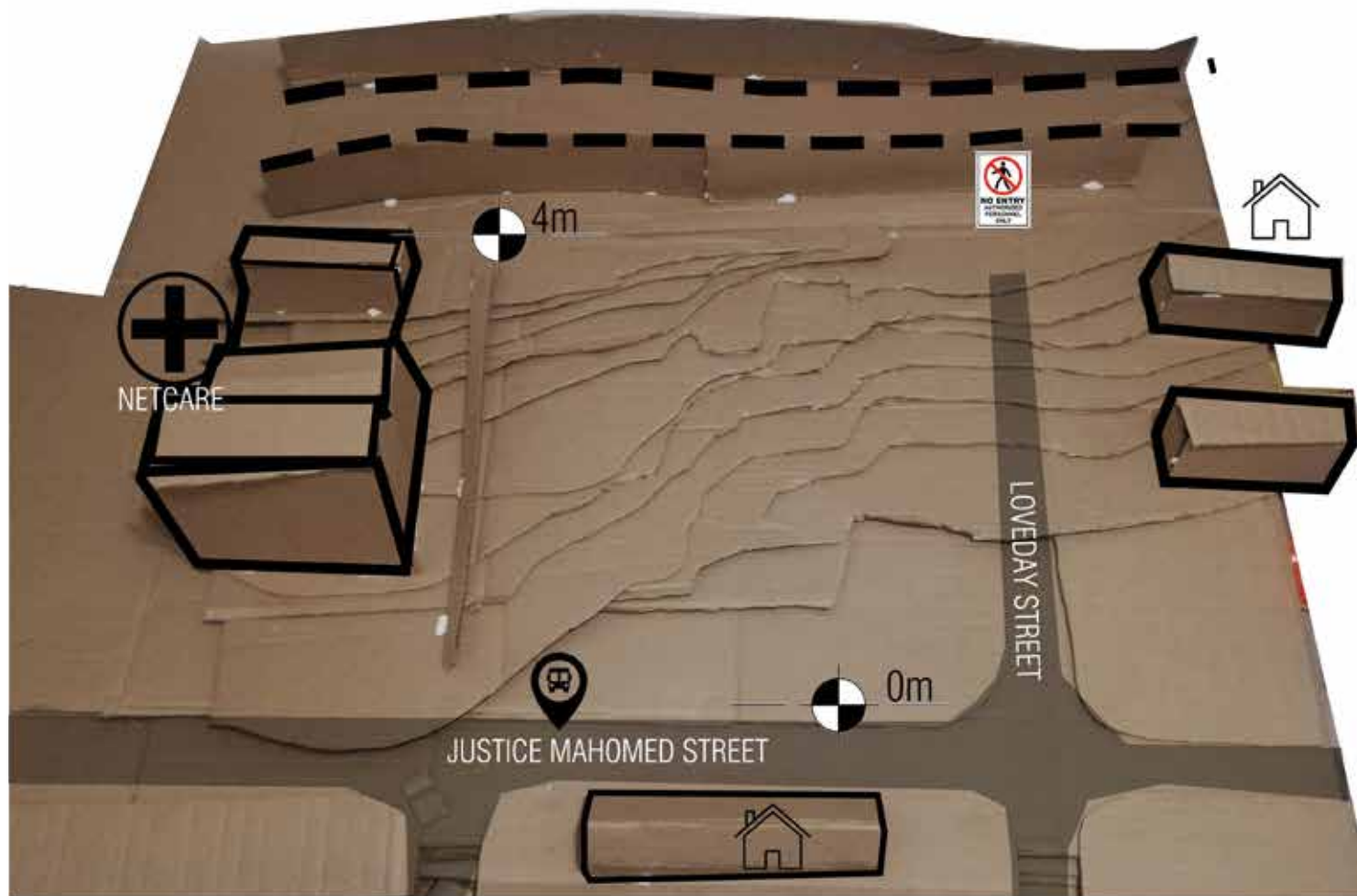
CIRCULATION (HORIZONTAL)



Fig. 5.2. Tsebe. T 2021. Charette Material Catalogue. Digital Collage. Sunnyside, Pretoria.

SITE INFORMANTS

5.3. SITE INFORMANTS



SLOPE = 4m

⊕ HOSPITAL/HEALTHCARE FACILITY

--- TRAIN TRACKS

🏠 MULTI - STOREY RESIDENTIAL

🚫 UNAUTHORISED ENTRY ONTO SITE

🚌 BUS STOP

ROAD

Fig. 5.3 Tsebe. T 2021. Site Informants. Digital Collage. Sunnyside, Pretoria.

URBAN LAYERS OF ANALYSIS



5.4. PROCESS

WHAT EACH MATERIAL REPRESENTS:

- 9. TAPE = CIRCULATION
- 8. CARDBOARD STRIPS = TRAIN TRACKS
- 7. CARDBOARD = POSSIBLE LAYERS
- 6. TOILET PAPER = HEALTHCARE FACILITIES (NETCARE JACARANDA)
- 5. FOIL = LIGHTING
- 4. NEWSPAPER = NEWS COVERAGE
- 3. POWDER = CHARACTER/ DRUGS
- 2. TRASH = DARKNESS/LACK OF SAFETY
- 1. SITE

Fig. 5.4. Tsebe. T 2021. Urban Layering Process. Digital Collage. Sunnyside, Pretoria.

5.4. PROCESS

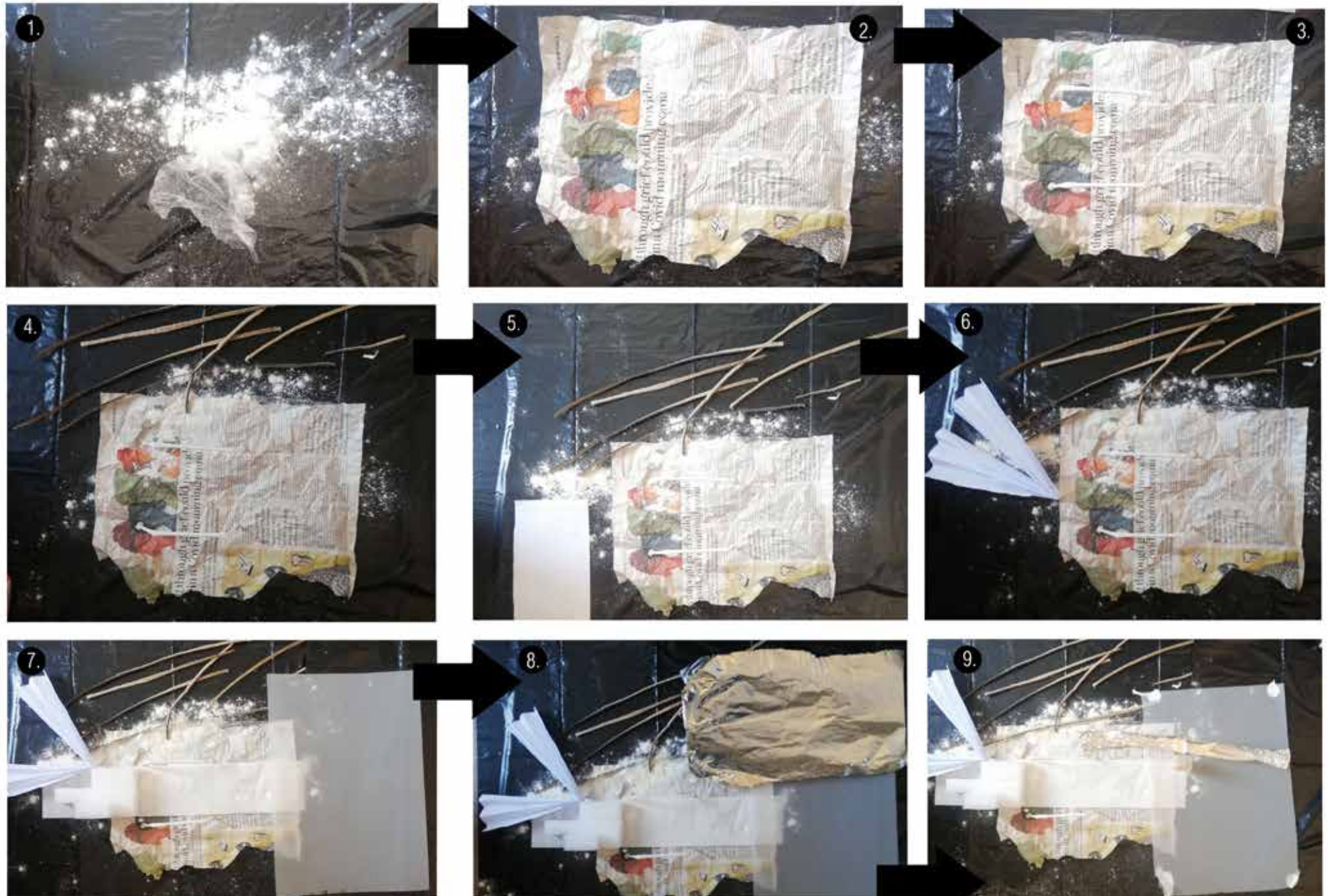


Fig. 5.5. Tsebe. T 2021. Charette Process. Photographs. Sunnyside, Pretoria.

5.4. PROCESS

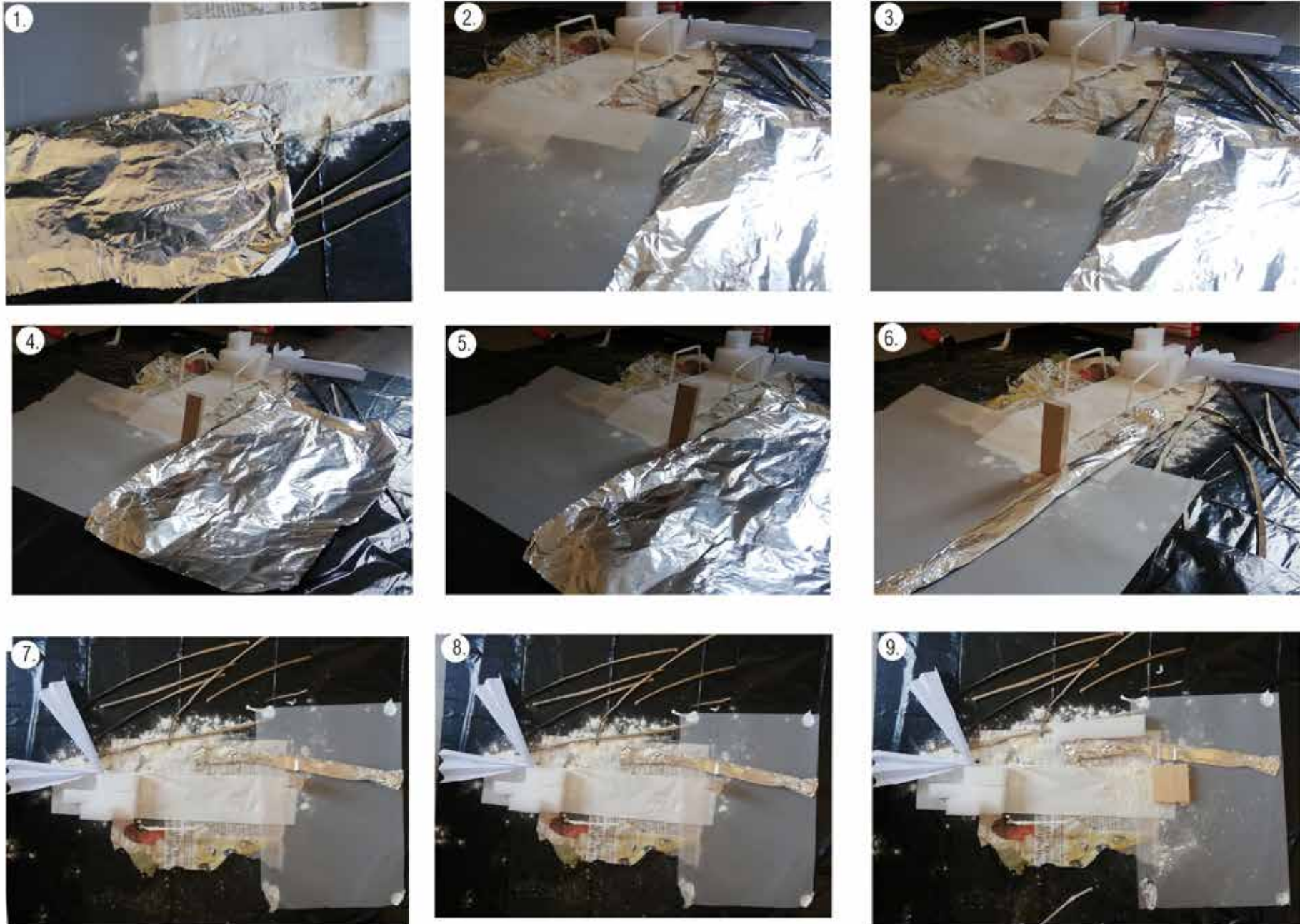


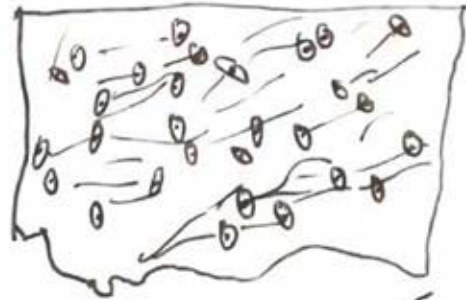
Fig.5.6. Tsebe. T 2021. Charette Process Sketches Continued. Photographs. Sunnyside, Pretoria.

5.4. PROCESS

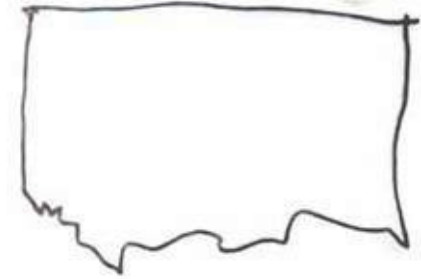
1. Powder poured on site to show Lack of safety engulfing area.



2. Newspaper used to represent dialogue acts as communication mechanism towards and away from safety.



3. More powder falls (events occur).



4. Cardboard strips cut to represent arriving train brings different character into space.



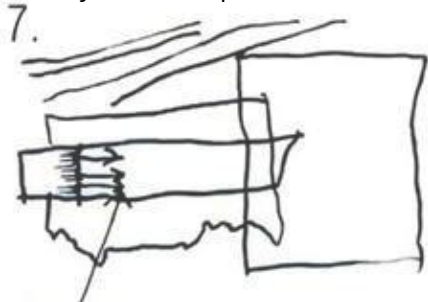
5. Toilet paper laid and rolled out to show healthcare facility overlooks train track and anti-social conditions on site.



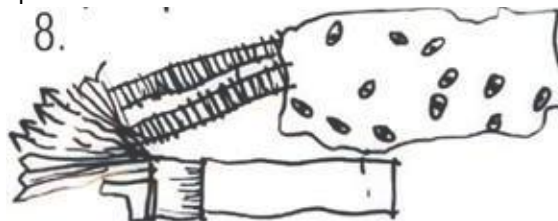
6. Paper folded and layered to represent access onto Site from opposite end.



7. Toilet paper layered in opposite direction to represent extended access directly from hospital onto site.



8. Foil layered over site representing Exploring well-lit platforms providing visual access between site and hospital access point (parking) creating open enclosure.



9. Lighting creates opportunities for human interaction on site after hours.

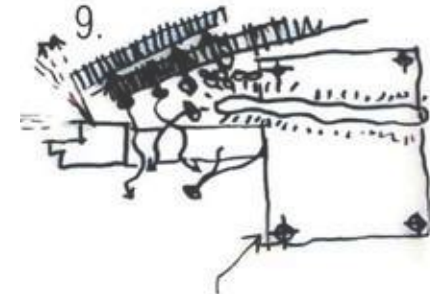


Fig. 5.7. Tsebe. T 2021. Charette Process Sketches. Sketches. Sunnyside, Pretoria.

5.4. PROCESS

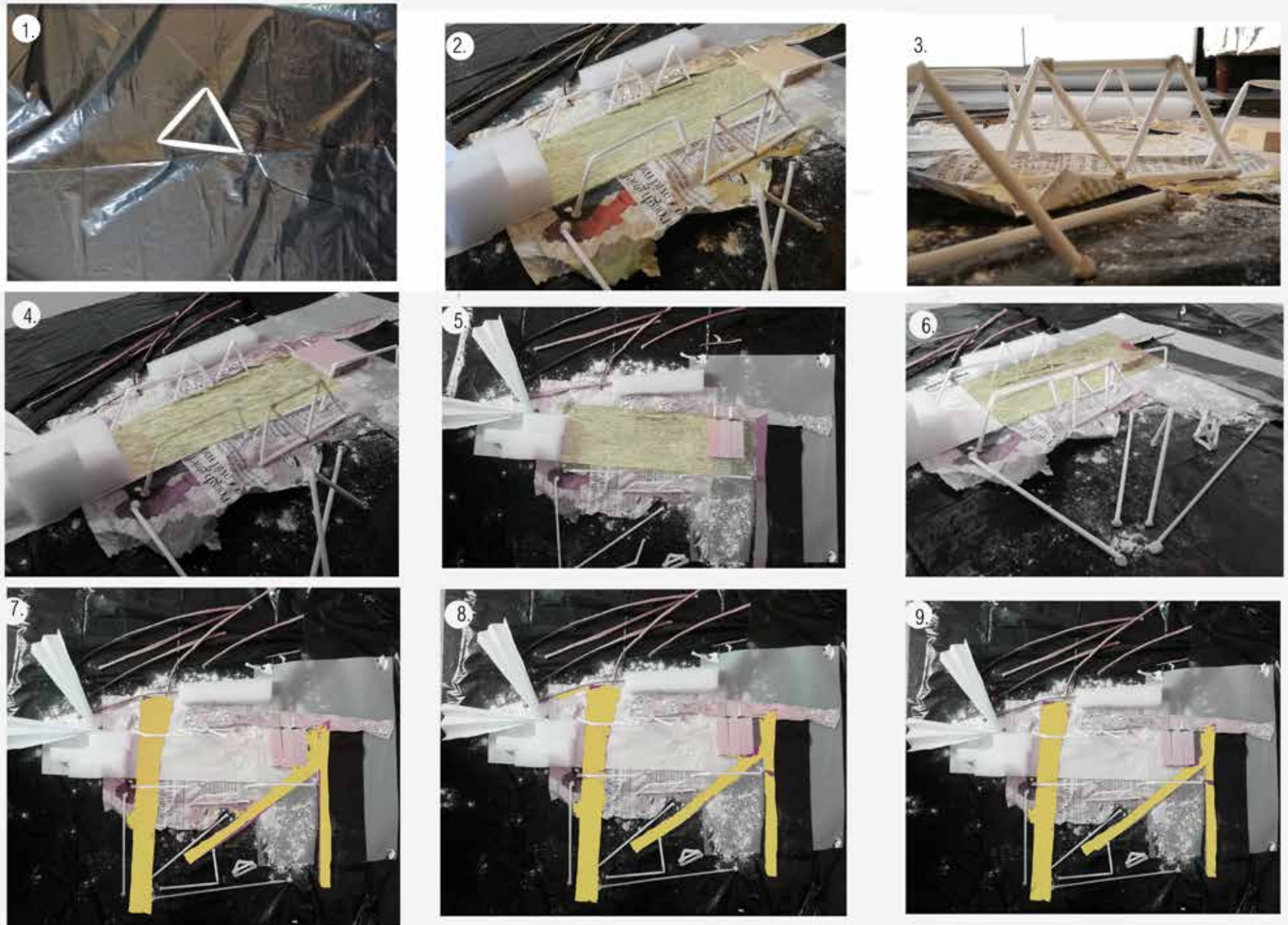
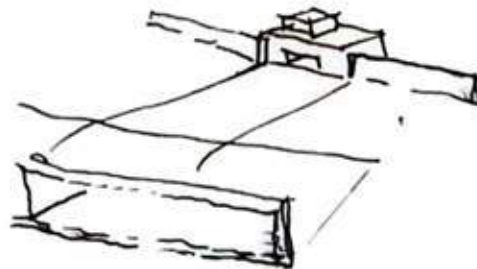


Fig. 5.8 Tsebe. T 2021. Charette Key Outtakes. Photographs. Sunnyside, Pretoria.

5.4. PROCESS

1. Straw folded on itself to create translation into tube because triangulating visibility via subtracting edges creates increased safety.

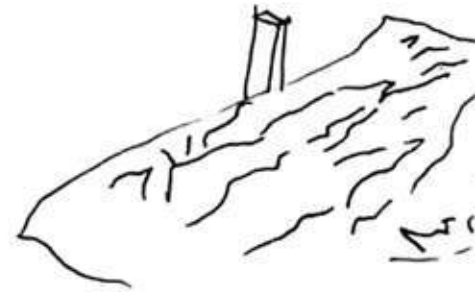


2. Administrative edges create increased safety, and vertical circulation.

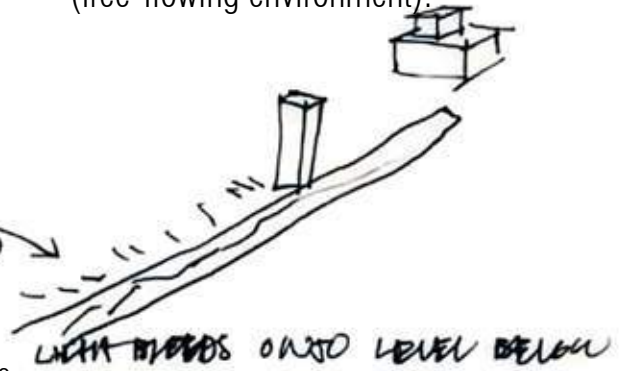
3. Triangulated structure creates a more pedestrian friendly environment (free-flowing environment).



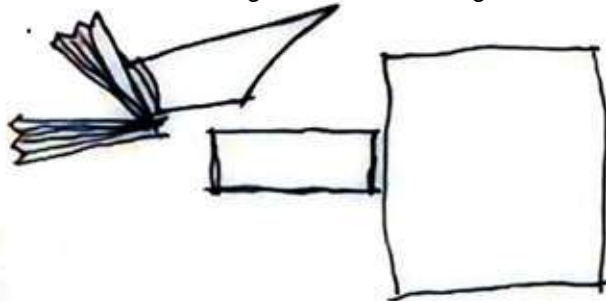
4. Re-considering levels beneath ground.



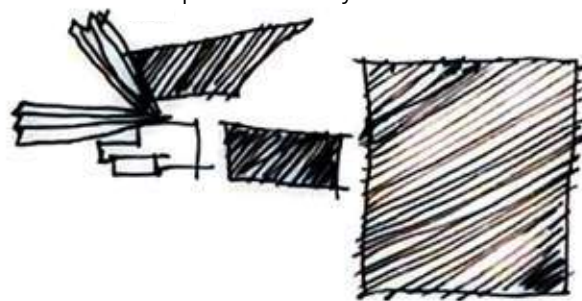
5. Exploring how control strip could feed onto the public walkway between site and hospital.



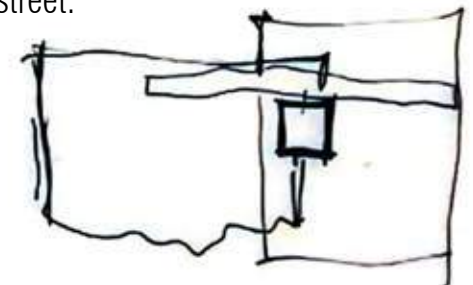
6. Exploring pedestrian circulation onto the street.



7. Circulation triangulated between two pedestrian routes through site.



8. Diagonal intersection creates abandoned corner.



9. Hospital programme bleeds onto site (nurses taking the elderly for walks etc.)

Fig.5.9. Tsebe. T 2021. Charette Process Sketches Continued. Photographs. Sunnyside, Pretoria.

5.5. PRODUCT/ KEY OUTTAKE(S)

1. Maintaining Diagonal Access across site.
2. Passage along site and Netcare.
3. Centralised entrance on Loveday Street.
4. Varying Platforms with interlocking levels .

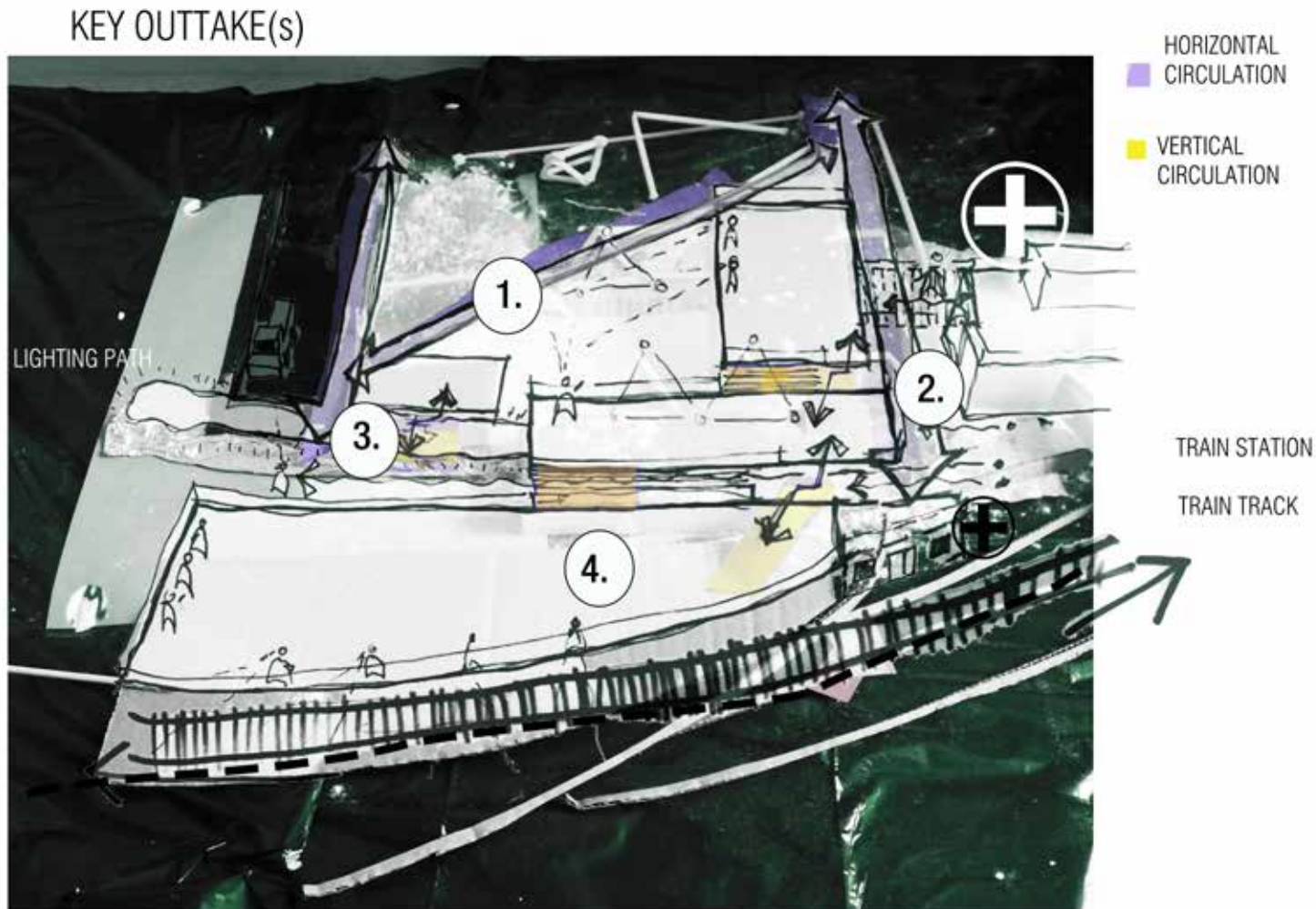


Fig. 5.10. Tsebe. T 2021. Charette Key Outtake Axonometric Diagram. Sketch over Photographs. Sunnyside, Pretoria.

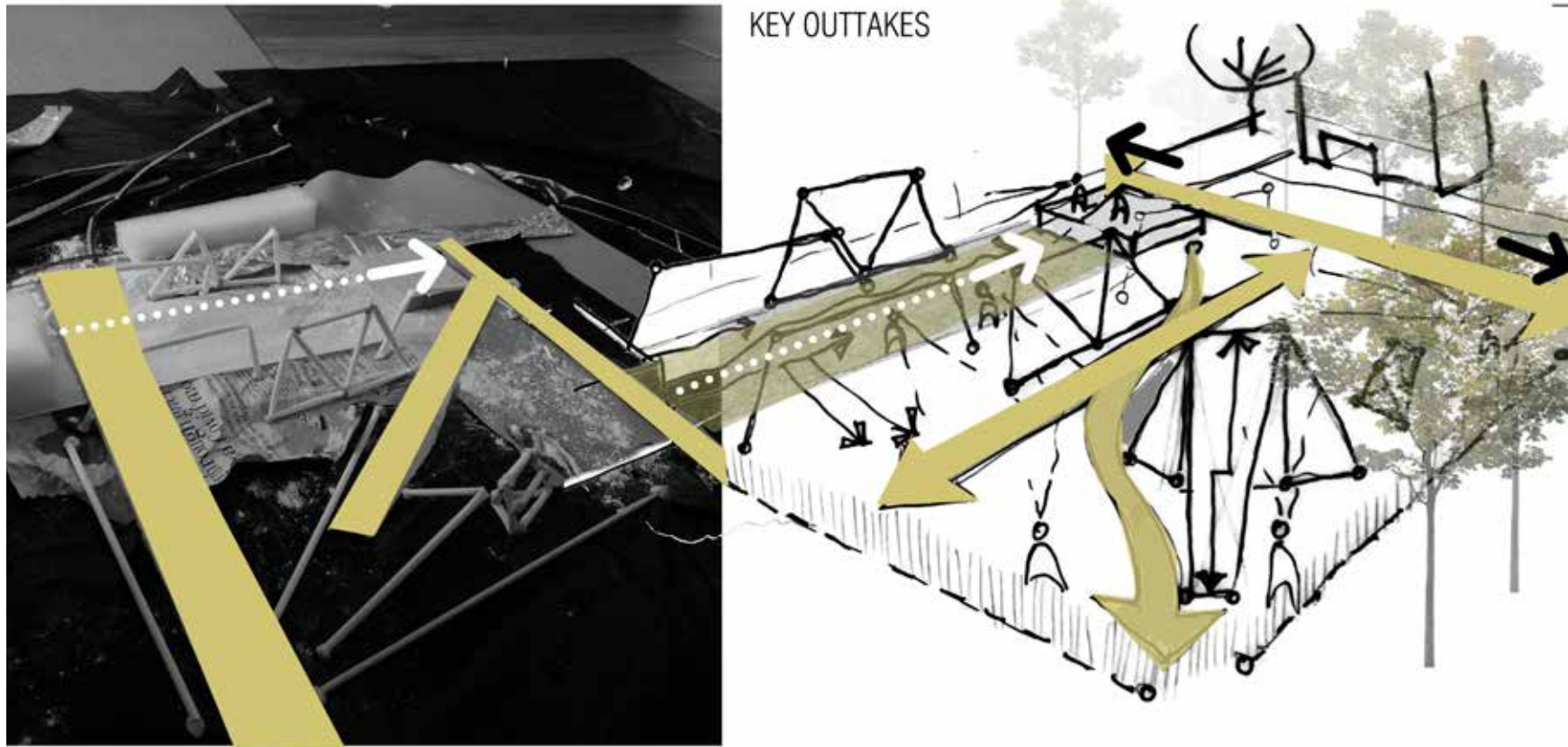


Fig. 5.11. Tsebe. T 2021. Charette Key Outtakes Axonometric Diagram. Sketches over Photographs. Sunnyside, Pretoria.

5.6. CHARETTE CONCLUSION

In conclusion, the charette exercise allowed me the opportunity to engage with my site in a manner that I had not done up until that point. Including creative engagement with the site's challenges as representational components.

HOW MY CHARETTE ALLOWED ME TO ENGAGE WITH MY SITE

How the charette allowed me to engage with my site in a way that I had not is that it had allowed me to reduce the forces acting on my site to something tactile and tangible. Before the charette, the research had been rather abstract, and understanding how the different social issues that affect the charette acted in relation to one another was difficult to conceptualize. In using different materials to represent these social issues and spatial opportunities such as the Netcare hospital adjacent, I was able to identify opportunities for a better harmony between the problems on the site such as drug abuse, and their solutions such as better integration between the scheme and Netcare.

CHAPTER 6



Essay

Literature Review

6.1. LITERATURE REVIEW: "PATTERN LANGUAGE" BY CHRISTOPHER ALEXANDER

AN ESSAY ON SOCIAL SPACE.

This essays seeks to identify and further investigate spatial mechanisms which are effective for a congregative space in an urban framework. Coming to a conclusion of what makes these spatial configurations effective for socially conducive conditions and why they have such an effect. An analysis of the "Languages" put forward by Christopher Alexander's "Pattern Language which generates multi-service centres", substantiated by the theories in Bill Hillier's "Social Logic of Space" and the application of the theories in "Space is the machine by Bill Hillier. To bring these down to a more tangible, scale. The findings of Ann Sussman and Justin B. Hollander's "Cognitive Architecture" will be used.

ENCLOSURES

Arena Enclosures, the spaces between the street and the services. A space which is characterised by a giant intimacy yet is public in its demeanour: must be warmer than the street in winter and cooler than the street in summer. The arena should also be comprised of equal frontage on all services puncturing the central space. This spatial theory is humbly rooted in the understanding that if an arena is to be truly public then it should be accessible to the pedestrians of the public on a walk in basis. Ann Sussman and Justin B. Hollander in "Cognitive Architecture: Designing for how we respond to the built environment, (Routledge. 2015) explains that physical navigation of space by humans is highly experienced visually and therefore the scale of buildings should be that the frontage communicates to the pedestrian with a welcoming, visual presence.

Le Corbusier's quotes in cognitive architecture as well as in his findings in "The Modulor: A Harmonious Measure to the human scale universally applicable to Architecture and Mechanics. Le Corbusier, Faber Paper covered editions" describes further the importance of the visual composition of the spaces around us and the measurable applications in which they are effective. His opinion is that a good architectural composition requires the use of very few elements, with each element requiring a distinct personality, a strong one at that. The architecture should present itself as a typology and the space which it encloses, big or small, should be part of a greater scheme of congregational space. Diagrammatically, these are the urban planning principles developed by Ebenezer Howard to logically organise ones movement through the urban realm, the garden city. Possibly because of the humans inherent connection with objects and creatures playing a role in a bigger kit of parts that add up to what is otherwise known as urban technology. These "spatial pockets" can be analysed diagrammatically under the scope of Bill Hillier's "The Social Logic of Space, Cambridge University Press 1984." Which illustrates nodes, axiality and the logic behind the interconnectedness of larger spaces. The use and the value of the spaces in between them.

Le Corbusier states that the responsibilities or "Active Tasks" bestowed upon the professional architect are the balance of the composition of space, adapting space to its surroundings, designing spaces that allow for standardization, adaptation etc and lastly, most important for the reinforcement of this statement, a resultant harmony of space. These principles, put forward by Le Corbusier ,also explain the nature of smaller dimensions, a smaller scale through which one looks at space to play a key roles in creating the character if the same space at a larger scale.

He states that the alphabet is made of twenty six letters yet forms thousands of words. The nature of literature in the metaphor can be seen as though a single drop of water in a pond does not change the fact that the drop is made of water. Each small pocket of space carries the same value to space, as large scaled space itself.

An understanding in this regard draws one to Christopher Alexander's "A Pattern Language Which Generates Multi-Service Centres". 1968, Berkley Graphic Arts. To understand the characteristics of a social space as congregative as a Multi-Service Centre or a public square, Alexander produces a spatial language that draws a common thread in successful schemes built for the public. Before introducing these schemes, Alexander exclaims that the patterns in the language have a very general contextual statement and so that is the lens through which this essay looks through, it is solely about spatial mechanisms and their functionality relative to the human experience.

The language speaks of a generally formulated context as all centres of this typology are likely to be in an urban framework, more specifically, at an active node in the city which brings the first and most important factor in the pattern language; location. The pattern identifies through analysis that the location of a multi-service centre should be within two blocks of a major intersection and consist of at least twenty stores and major pedestrian activity. Why? So that one navigating a city scheme that follows the planning principles of Ebenezer Howard, these principles make spatial organisation, even on a macro scale, legible. Pedestrian activity being the topic of more interest here, is enabled by the act of walking. Walking produces a series of images through which we identify space and the form of space, is important as it communicates the nature or the spirit of space. Cognitive Architecture speaks of our connection to symmetry and the forms which carry weight. Shapes carry weight and these shapes are informed by a greater understanding. We have a connection to bilateral symmetry. It traces back to early congregational spaces in Turkey, some of the first churches, their form and spatial characteristics. Across civilizations, a bilateral form has often been used on the façade of buildings to evoke power and convey universal, even spiritual, might.

The frontage of a public centre, visually, communicates how one enters a space and is likely to be a strong determining factor in the experience of shifting from one realm, “outside, to another, inside. . How humans behave outdoors is different to how they behave indoors, yet they are subconsciously, the same. Cognitive architecture traces patterns in human behaviour such as walking on the sidewalk, despite the grandness and quantity of space in the street, due to our subliminal desire to be near the physical artefacts around us. This biological feature, commonly referred to as “wall-hugging” a mammal characteristic. On a larger scale, the street edge, accompanied by the sidewalk and perhaps even the lamp-post, create the wall and so to create a harmony between these two realms. Le Corbusier speaks of his journey through a city being visual, a series of planes. (Le Corbusier “The Modulor” 1984.

LOCATION

The location of the entrance to a centre is, to the individual, just as important as the location of the centre itself because The Pattern Language that Christopher Alexander identifies states that entrances must be placed in such a way as to satisfy the following criteria; from any possible approach to the building, an entrance must be visible as soon as the building itself becomes visible. Regardless of the direction from which one approaches, one should not have to walk along the building for more than 50 feet before reaching an entrance. The entry of the centre itself should be visible and comfortable to navigate through.

THOROUGHFARE

Thoroughfare of a space is another point in the pattern language. an arena, is extremely important as it subtly welcomes its inhabitants to a space without suggesting any overpowering or unwelcoming undertone. An arena’s entry would be bilateral, spatially harmonious, given its form and given its various entrances, highly accessible. In order to create such an effect that an arena would have, A public space should have a natural pedestrian path through the area, if possible, a shortcut. This path, should preferably have no steps as it interrupts the cognitive navigation system thought process described in Ann Sussman and Justin B. Hollander’s Cognitive Architecture. In order to create continuity, the path has the same surface material as the sidewalk it touches. There should be other entrances to this central space, apart from that which evacuates people from the space. The reason behind this being that if a central social space is to have a fairly open public area within it, these conditions create an atmosphere whereby people will not come in and use the public space if they feel that the space they are entering, is used by a particular group of people, with a particular, more formal, goal in mind.

PUBLIC SPACES

Public spaces should allow people to wait in them and enjoy their surroundings as they wait. Immediately, within a sight’s grasp, should be the seat. The number of seats available should depend on the number of people waiting at any one time in order to allow for interaction. With the physical realm and the people which inhabit it. Spaces in which people wait or move around for more than one or two minutes, immediately give opportunity to overlooking spaces and a visible connection between people. For this connection, the language investigates the courtyard.

THE COURTYARD

The courtyard space should have all of its services pushed away from it such that a particular floor area should be identified as the main floor. On this floor, each service should feed itself spatially, onto and away from the main area depending on the physical position of the person who is inhabiting the central, more dominant, space. The services which an arena feeds the public are likely to be seen as the most important as if they are not present, the centre becomes exposed, as the human does towards the vast space around him. services are expected to be able to work in parallel with both the central space and the space outside the courtyard or arena. Alexander investigates further the utility of such spaces by suggesting they too, form a spatial network. “No one service should dominate others.”- Christopher Alexander .In order to make the spatial process they use successful, it must be very easy to get from one service to another. The success of these services, however different they are, anything from a seat to a café, must make themselves aware to the people in the building at all times.

In a courtyard, the buildings around the courtyard are pushed back from the centre at a visual angle of 40 degrees. If the buildings around an open court are too close around it, the people in the centre of the courtyard will not feel comfortable in the middle of the space, it will become more circulatory and less suggestive of settlement or congregation. The antithesis of this condition can be seen in edges between high-rise buildings. Where there is little or no congregation. The height of the building, relative to the width of the street or the centre between a group of buildings make it uncomfortable for the inhabitants to sit in as they feel uneasy.

The diameter of a space, should be something that is considered relative to the height of those around it. These dimensions should be proportional to one another as if they are not, they break the nuances of community territory, another principle identified by Alexander. A person's face, and therefore their emotions can be recognised at up to 80 or 70 feet. The same person's face can be recognized in closer detail at about 48 feet. Research in Cognitive Architecture, Patterns Matter: Many Visual Thresholds for reading the Human Body and face, states that in many of our favourite house and streetscapes and the faces which we regularly see in these spaces, that are likely to be so because of common use of particular space, make us have emotional attachments to these places.

DIMENSIONS

The diameter of the space also, ideally, takes the form of some kind of dish. A large scale public space that is being used for informal social gathering should have a ground slope of 7 degrees or less as this also connects people to the centre of the space, which is the premise for congregation. Public gathering spaces work when there is a sense of directionality and the people within a gathering space can see one another from across the space. If these emotional attachments are true and recognisable by a group of strangers, the use of activity pockets will become apparent. The language states that spaces where people linger will be surrounded by an alternating pattern of small activity pockets and access paths. This says a lot about the edge and how effective it is in drawing people towards it.

Looking at the value of these spaces in more detail, if the edge does not provide them with places where it is natural to linger, the space becomes a place to walk through and not one to settle as if the pockets begin to overpower, the centre, the visibility and navigational convenience of the space is compromised. People do not immediately make their decisions on whether they will linger, nor for how long they will linger therefore the activity pockets should be accompanied, like the street and its edge, by various entrances puncturing into the central public space. They are the niches of the public space.

THE STREET

Street Niches. They are not so common in recent developments as newer buildings lie a lot closer to the street however their spatial characteristics play a key role in one's journey whilst navigating an urban framework. This creates a duality of public space which makes it transparent, welcoming, and inviting. The niches usually would lie just off the sidewalk and display a service that the building offers, they provide relief from pedestrian path, for this, it could have seats, a surface texture relevant to the neighbourhood. They are five feet deep and vary according to the amount and nature of the building (ie. What the space inside, has to offer) The niches are a great way of creating transparent frontage to the public to avoid creating dead space or sterile space.

This ties in to the Pattern Language's theory that consideration of expansion is a crucial factor during the design process and all buildings created for social impact should allow for vacant land adjacent to the building/arena to allow the arena to expand onto it. A sustainable feature of successful schemes as it considers the services which a public centre, in this case, described as an arena, growing in programme for future use and improvement. The expansion must, however, be directed away from the centre of the arena as should that not be visible, the space will no longer become social or congregative but rather circulatory, a connection between to other spaces, better located and presented visually.

Such a factor being strongly influenced by location, it is imperative that in an urban framework, such buildings are located within two blocks of a major intersection. This principle can be explained by Bill Hillier's Social Logic of Space where he states that as settlement presents itself to our experience as continuous object by virtue of the spatial relations that connect the outsides of boundaries. The relations can be better understood if we build our knowledge of these exterior relations, until we have a picture of some sort of settlement structure. They are experienced one by one as individuals, there are no nuances that are experienced in isolation to their contextually relevant spaces. This property lies in the very nature of boundary, which functions particularly to disconnect interior space from a global system form which, without the boundary, it immediately becomes a part of the duality of inside and outside space adds an interesting dimension to the relation between social space (gathering space) and the public. The boundary between the two will develop a stronger and more homogenous structure and therefore emphasize the discreteness of the interior. Should these spatial dimensions work harmoniously to create an area, the interior as well as the exterior will be successful as they will have acquired a spatial relationship that connects them within the arena and towards the edge, within the greater scheme of things.

The societal conditions in which a medium – large social space can flourish are interdependent on appropriate configurations for large scale human activity. An accommodating Form. Architectural inventions, more modular in their presentation which are poised to serve social space and proved to be somewhat successful include: in "A Pattern which generates multi-service centres. Christopher Alexander. Berkeley Graphic Arts: 1968." (Include example:)

CONCLUSION

Location, entrance location, community territory and expansion are but a few of the spatial principles necessary to create a successfully congregative space. There are inherent connections which suggest an underlying intimacy in the public that are rooted in the biological characteristics of the human species. These biological connections, as interpersonal as they are, can help one make sense of the continuous use of specific spatial configurations around them. The principles of Ebenezer Howard, Le Corbusier, Bill Hillier and Christopher Alexander all bring spatial reasoning to the inhabitant.

6.2. HOMELESSNESS AND TACTICS.

KEYWORDS FOR UNDERSTANDING URBAN INTEGRATION

DEFINING HOMELESSNESS:

Homeless; adj. not having anywhere to live. The term opens a discussion about the specific qualities of a person without a permanent dwelling. This is a multi-faceted condition that describes a living background under which a citizen is not accommodated by a conventional urban dwelling; housing. The conditions are usually responded to by large, low-cost housing schemes that appear somewhat alien

to the contexts other issues. Homeless residents become, in some way, doomed to the copy-paste scheme. These housing schemes are a formality in the way humans find place, but only a part of the human population has the access and the means necessary to maintain such a lifestyle or standard of living.

Poverty and homelessness are inextricably connected. It's difficult to make a distinction separating homeless individuals from the poor. This makes homelessness a condition that is heavily influenced by economic conditions & the political structures that take charge of the distribution of wealth and resources across different economic classes. Different economic classes; lower, middle and upper are spread out differently in different regions as different regions face different socio-economic, global, climatic and political issues. A closer look at the state of countries such as Britain, Canada and the United States after the world wars would be a prime example of the layered events that take place and the overall domino effect that global issues have on the people at the bottom of an economic food chain. In all these countries, the rate of poverty fell during as governments reduced social spending.

This political reaction caused a rise in homelessness as there were changes in the nature and location of jobs and the highest income group received a lot of the countries' income pot. The average income of families in different economic classes apart from the upper class, fell in the late 1980's and early 1990's. From 1980s the number of poor households grew in all three countries, particularly for single mothers and their children, young workers, disabled parents, ethnic minorities and inner city residents

The residents described, suffer from different injustices in the metropolitan system. They have certain things in common like health issues, low incomes and inadequate housing. In this one category of residents lies an array of social issues that work themselves into the overall problem at hand; homelessness. Amongst homeless people, women, for example are more prone to physical and sexual abuse. Statistics show that over half the overall population of single mothers have problems with housing. Children have a high incidence of learning disorders, emotional difficulties and problems coping with the social environments in schools. They have little or no education and this makes them a non-necessity for governments and democratic institutions. (Homeless. Daly, Gerald. A Comparative Assessment Of Programs Dealing With The Homeless Population In The United States) The way in which governments go about accommodating these people is unwholesome in its nature. Other categories of people who suffer from homelessness include immigrants, people with disabilities, refugees and frail older people on low, fixed incomes. These people aren't always served well by social servicing arrangements, the needs of bigger economic forces are often placed above the needs of the residents that populate development-ripe land. Homeless people are deinstitutionalized from all angles.

It is clear that there is not so much a lack of services as there are inappropriate, inflexible strategies or tactics to go about responding to the needs of these people. The socio-political framework lacks mechanisms that can help make these people fully functional members of the society that they exist in. AS said y Elizabeth Denby in Daly 1989:412, "Housing and related problems have been cruelly over-simplified: there is more involved than the substitution of a clean box for a dirty one".

Britain, Canada and The United States have a common approach to their housing. The solution focuses on three different issues that concern both governments and the people: control, access and identity. The projects include the users by allowing them to control the design of the interior of their houses and exterior space. People are allowed to live how they want. The users are allowed access to governmental services as they are sited in areas where service delivery is adequate. Spatially, this incremental building allows individuals to start small and maintain control over the development process. The community's organisations assigned to the self-help groups can help ensure access to communal spaces in the city. Economically, the houses increased the security of areas while they made home ownership for people possible for people who were previously homeless. This reduced the need for government to control and finance the areas. The cost-effective means of building these houses (ie. Using the residents as laborers) reduced front end-costs and lowered mortgage. Carrying costs enhance accessibility, affordability and availability. The overall environment of communities built off of self-help programs encouraged long-term community benefits, identity may be enhanced by job development, economic spin offs and skills training. It's apparent that ultimately, this solution focussed on re-institutionalising the homeless.

The foundations of these ideas play a decisive role in the countries efforts to deal with homelessness. Both Canadians and Americans develop self-help housing and small scale transitional, co-operative housing for women. Many of these projects are successful at including the residents into the small scale planning process of dwellings for the homeless. The roles of the public vary in terms of agencies and strategies to minimise homelessness. The self-help project helps one understand the method necessary and the importance of understanding the historical, cultural and institutional context in which programmes change. Instead of large scale mass housing projects, the self-help models include the users in the creation of their home. It's clear that it is more desirable to think in terms of adaptation and modification to suit local circumstances; to stimulate creative projects by allowing participants to develop new ways of attacking global crisis, of addressing known problems after evaluating the experiences of others.

URBAN TACTICS:

Poverty, unemployment, deinstitutionalization and economic dislocation are among leading causes of homelessness. A direct link between wealth distribution and population density shows the relationship between economics and accommodation as people in the lower class live in more dense conditions than the more affluent upper class. As urbanism continues to grow across the globe, the allocation/distribution of spatial and economic resources in cities becomes a vessel for the needs of the financially privileged only. Traditional forms of planning, approaching unforeseen circumstances, seem to fail as they cannot incorporate the issues that arise through poverty. I believe that the most common result of such conditions is gentrification: a form of development where the infrastructure placed in a particular context leaves people suffering from poverty unable to sustain the benefits of that infrastructure. Uneven Growth, Tactical Urbanisms describes a form of town planning where the "uninvited layer" of cities are attended to appropriately. In this form of growth, this new movement in urban planning, all holistic, comprehensive forms of urban planning are abandoned. ("Uneven Growth: Tactical Urbanisms for Expanding Megacities". Museum of Modern Art (2016): 67-73. Print.) The conventional forms of urban planning: zoning schemes, sewage plans, transport plans fail as the issues faced have evolved much further from just 'housing 2500 residents and making sure children get to school, workers get to work and everyone gets water and electricity'. Climate change, global economy and over-population ultimately overpower analogue urban infrastructure. A leader in economic growth, geographical change and population density: Hong Kong has tackled this disorganised form of growth in a tactical manner.

Hong Kong appears chaotic as urban territories face extreme forms of density. The state is informed by a complex geography created by the pollution resulting from the ambitions of the state government. The idea of concentric growth is challenged by a non-linear development of hyper- dense cores that lie adjacent to the natural landscapes of the country. Coastal regions in the state are under pressure from Beijing to absorb the large influx of urban sprawl in order to a huge population increase to existing inhabitants. Contrary to urbanism, this context fluctuates in a conflicting appropriation of land and sea.

The solution? A proposal by MAP Offices. "The Invisible Lands". A project that seeks to explore Hong Kong through a new perspective, by populating the sea. As Hong Kong faces a huge population density crisis along with a demanding economic context, this urban growth is a tactical response to the rising sea levels induced by climate change. Man-made islands are a possibly sustainable urban expansion with new modes of living, working and entertainment for the residents who had previously been dwelling on the little space they had left on the coast. These mechanisms are created on and supported by an endless, uncontrollable resource: water.

Water is not only a natural resource but a source of life and the islands are an organisation that incorporate the coast's fishing community into its aquatic structure. Not only the people's economic needs but the principles of the vernacular architecture of coast as well. The floating village is tactically amalgamated with the network of its "liquid" environment. Here, water is the source of economic survival.

This mechanism offers the possibility of a new economy, a more even economy as the residents are more involved in the processes of sourcing food; ie. A new form of food production. More environmentally friendly than their previously prescribed mega factories and business districts. Set directly on the water, on either side of a settlement, the fish replace the fields that the land has lost and the water replaces the dense roads in the city as local fishermen who had previously been overwhelmed by being forced to provide for an economy way bigger than their business can handle, are now controlling patches of water further from the coast than before, with more access to more aquatic life, giving them more product and thus a better standard of living.

Hong Kong man-made islands practically extract the benefits from a condition through which the city territory can be embraced from its past, present and future. Each Island focuses on a specific aspect of their weighted economy, ecology and community.

The Pearl River Delta Region is the natural context of Hong Kong's city territory and this territory is among the most populated states in the world and one of the most important and productive global economies. The location of these eight artificial islands across Hong Kong territory are based on the process of de-contextualisation. Each assigned the task of realising the values and needs of the state from a territorial, social and economic perspective.

In such a rapidly growing population and economy, the easy flow of ideas and products can be used to the governments advantage. Tactical thinking is now something that Hong Kong is trying to incorporate into its daily ever-shifting culture through public intervention. There are now banners, board games and maps, exposing the issues of the state to the people of it. A public intervention named Incl for free in Hong Kong, New City Reader, Symantics is a board game that teaches individuals to explore the relationship between strategic and tactical thinking. The one being thought of much more ahead of time, more like a plan. The other more like a response to a current condition, like a tactic.

Personally, the terms homeless and tactics present themselves as correlating phenomena. The lack of tactical thinking in urban growth has, and continues to, result in an increase in homelessness. The people of any urban infrastructure are constantly pushed into frantic responses to the manifestations of socio-political and socio-economic issues. The most effective method of response is not from the bottom up- nor from the top down but from the centre of the problem, incorporating all the different avenues around a particular context and site.

Given this method of response, a designer might begin to ask themselves what the role of transport stations would be in an urban framework that was previously conceived to keep people out of the city?

6.3 TRANSIT ORIENTED DESIGN - A TANGIBLE URBAN TACTIC FOR SUNNYSIDE

INTRO TO TRANSIT-ORIENTED DESIGN

Transit-oriented design is an urban framework developed by urban planners in South Africa. The framework seeks to address issues involving the spatial segregation that was characteristic of much of South Africa's development in the 20th Century. This segregated planning, conceived under the Group Areas Act was proposed by political leaders as a tool necessary to maintain social order in the country by separating ethnic and racial groups into their respective groups and allocating residential and workspace for them. The result of this segregated planning scheme is that today, 27 years into the country's democracy, people from native ethnic backgrounds are displaced from urban and economic centers. One of the consequences of this urban displacement is that a high number of citizens from native ethnic backgrounds are Not economically active or trained. (NEET, as mentioned in the Contextual analysis: Urban Levels, The economy). Transit-Oriented Design seeks to address this issue by focusing on transit mechanisms such as bus stations, train stations, and taxi parkades as priorities for successful urban development. The reason is that these mechanisms are, in the context of the city, the mechanisms that allow users to arrive at the city and then take advantage of what the city has to offer (healthcare, education, etc.). This framework would be appropriate for my scheme as it would address the issues of migration and micro-migration to and from townships and rural areas in South Africa

6.3. TRANSIT ORIENTED DESIGN:

The psychological studies aiming to predict criminal activity in the previous chapter(s) illustrate the importance of social mobility as a tool for mitigating exploitative social practices. One must consider the relationship between social mobility and physical mobility. How does the availability of transport to and from places of economic prosperity (ie. Places with a high amount of economic resources) affect urban areas socially?

In the introduction to *"How to build Transit Oriented Cities"*, Geoffrey Bickford outlines the relationship between land use transport and the post-apartheid era of South Africa. In the book, which acts as a guideline provided by multiple Urban Planners and spatial justice advocates, we see that the inherited spatial challenge for south African cities is the poor integration of the use of land and transport.

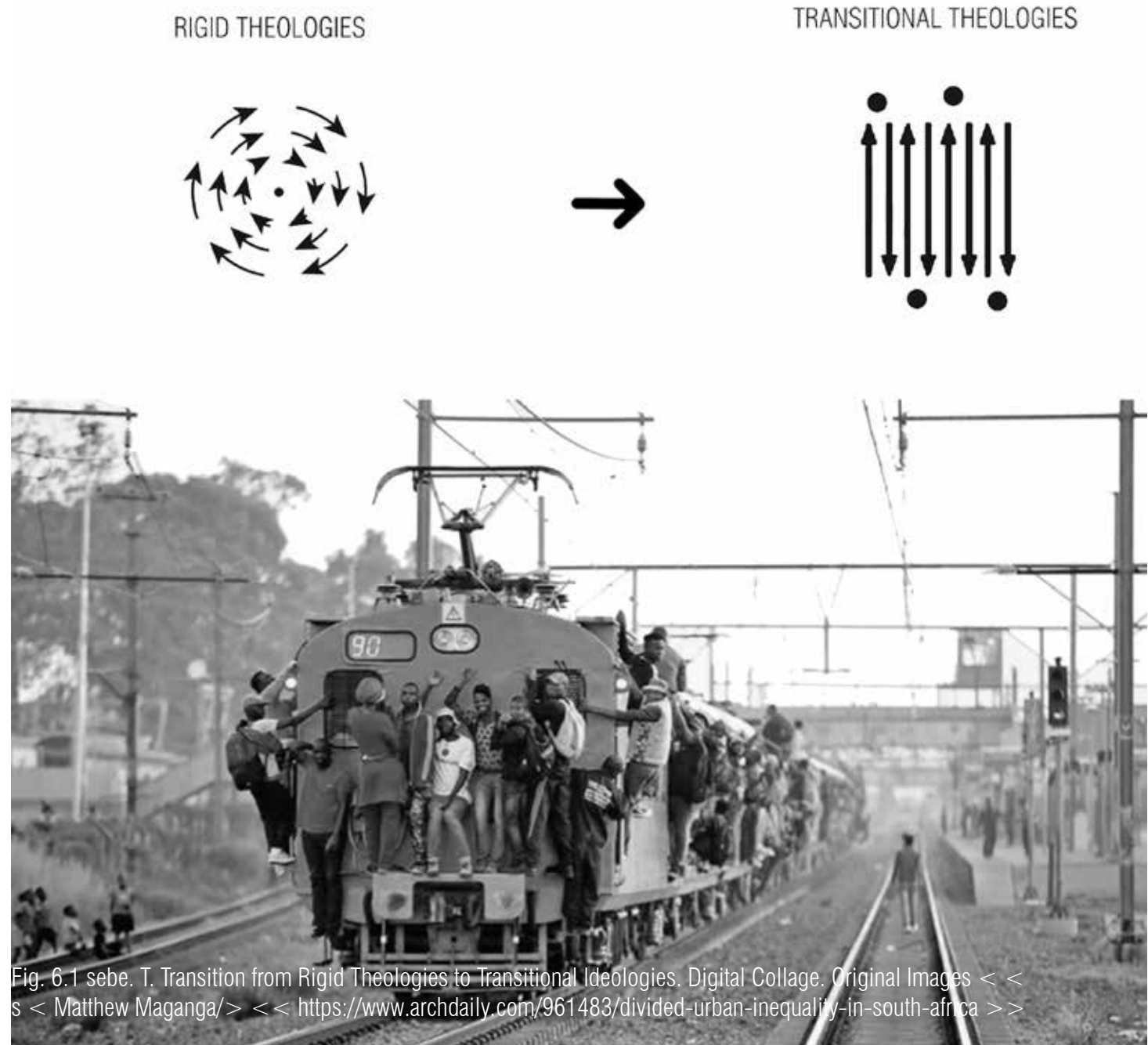


Fig. 6.1 sebe. T. Transition from Rigid Theologies to Transitional Ideologies. Digital Collage. Original Images < < s < Matthew Maganga/> << <https://www.archdaily.com/961483/divided-urban-inequality-in-south-africa> >>

6.3. TRANSIT ORIENTED DESIGN:

The White Paper on National Public Transport of 1996 states that public transport can play a leadership role in addressing the injustices committed by the Group Areas Act of 1950. For one, people who have been displaced to live outside the city centre, tend to be heavily displaced. Studies in Cape Town have revealed that 40 percent of Cape Town polity citizen lives 40km outside of the city centre and spends 40 percent of their earnings on travelling to and from the city centre.

An underlying benefit of transit oriented design could be that it seemingly could incentivise less and less unwarranted discrimination or “rigid ideologies” about people from different backgrounds. The reason for this is that using public transport exposes you to a range of people, their cultures and backgrounds being out of your control. The result of which would hopefully be a more tolerant, society with relatively equal access to the city’s offerings and relatively more humane relationships.

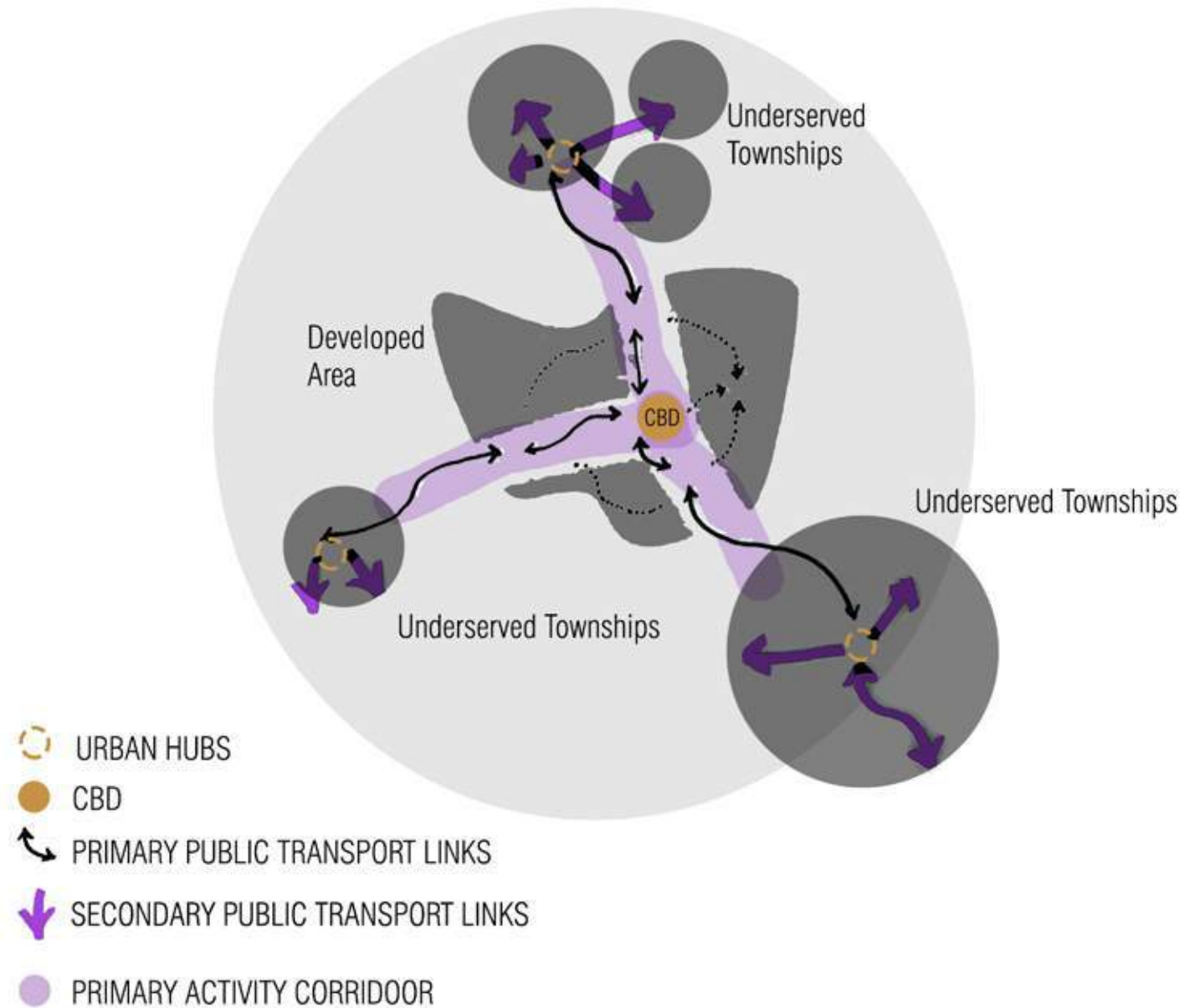


Fig. 6.2 Moosajee.R Creating transit-oriented cities THROUGH bold leadership. Digital Collage Original Images < < < < Source: <http://ndp.treasury.gov.za> > > [Accessed 8 September 2021]

CHAPTER 7



Feasibility

Feasibility

7.1. An Introduction to Searching For Sunnyside Feasibility

The project is a Mental Health Facility (otherwise referred to as a “Wellness Centre”) located in Sunnyside. As much of the green spaces in the area have been removed in favor of parking spaces and maintenance facilities, much of the social fabric has become denigrated and many of the previously pro-social spaces have become derelict and sometimes dangerous. Examples of this are the Nedholm Flats, located on the Cnr. Justice Mahomed and Leyds Street. Flamenco Flats, located on Justice Mahomed and Troyekot, located on Troye Street.

The CONSTRAINTS for the project are:

The available BUDGET for social ILLS in the area including CRIME, DRUG ABUSE and HUMAN TRAFFICKING. The design seeks to propose a SOLUTION to the complicated social fabric in an area that houses so many South Africans.

Given that this project could be taken up by a range of organisations and some of these organisations are non-profit organisations, that are particularly interested in the psychological wellbeing of the people in the country, a possible THREAT to the project could be financial mismanagement and administrative inefficiency. The OPPORTUNITY that this project could hold for all stakeholder organizations is that each stakeholder, provided they are an organisation or institution focused on social development, could achieve one of their aims as stated in their mission statement.

PROPOSAL For...

01. The **[CLIENT]** Body

An overview of the stakeholders undertaking the project. (SACAP Framework Stage 1: Inception)

02. The Client **[BRIEF]**

A combination of aims from each stakeholder. (Stage 1 & 2: Inception/Concept and viability - concept design)

Establishing a **[programme]** for the building (Stage 3: Design Development)

03. **[FINANCIAL]** Management

A financial model for vertical and horizontal management of finances for each stakeholder including the architect.

(Stage 4.1 & 4.2: Documentation for Local Authority)

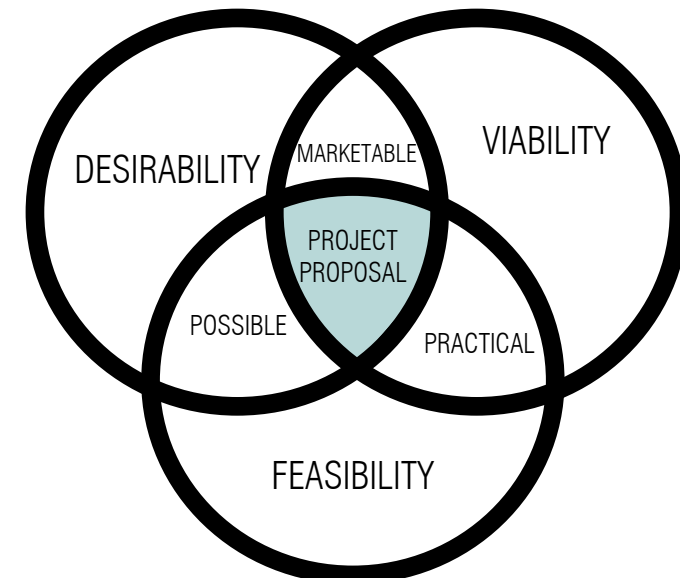
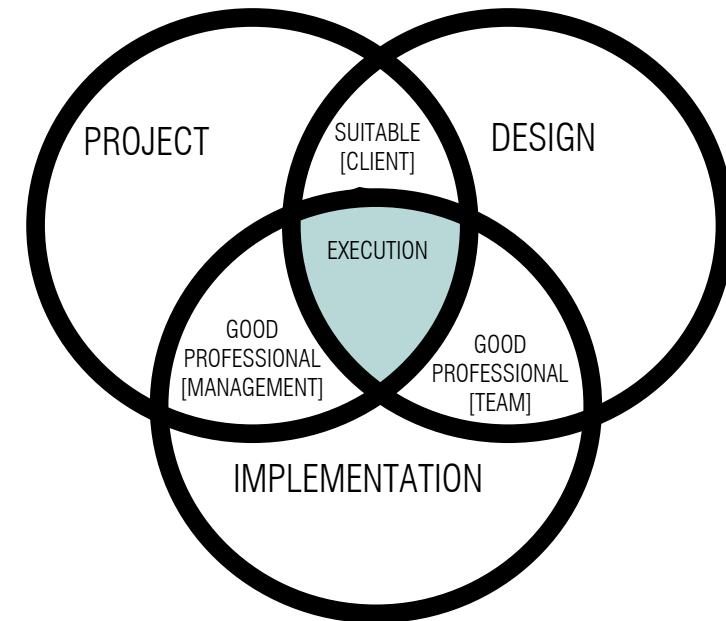
04. Project **[IMPLEMENTATION]**

Identifying Threats and opportunities when BUILDING on the ground. (Stage 5 : Construction)

05. **[DEVELOPMENT PLANNING]**

A simulation of the strategies applied to bring the project into completion and keeping the project well maintained (Stage 5&6)

EVALUATION in terms of...



7.2. The [CLIENT] Body

Searching for Sunnyside is a mental health facility that seeks to address mental health and social issues arising in Sunnyside. At the moment Sunnyside is an area in Pretoria where most of the residences are rented out to students and young workers of Central Pretoria. The effect that this has on the area is that the social environment is increasingly neglected, partly because the social environment is only the concern for a tenant for the duration of a tenant's lease. As there are children being raised in Sunnyside, this leaves the responsibility of the public safety of Sunnyside to public institutions that would otherwise be responsible for the wellbeing of vulnerable communities in South Africa. (e.g., South African Department of Social Development)

It's worth noting that the Department of Social Development is a large institution, perhaps too large to operate effectively on one construction project. For this reason, their role in the project should be one where they form a part of a client body. In this body, various mental health professional organisations (e.g., South African Federation for Mental Health) along with local policing forums (e.g., Sunnyside Policing Forum) form a managerial committee that act as the "Client" in a PROCSA agreement.

CONSTITUENTS & LEGISLATIVE FRAMEWORK

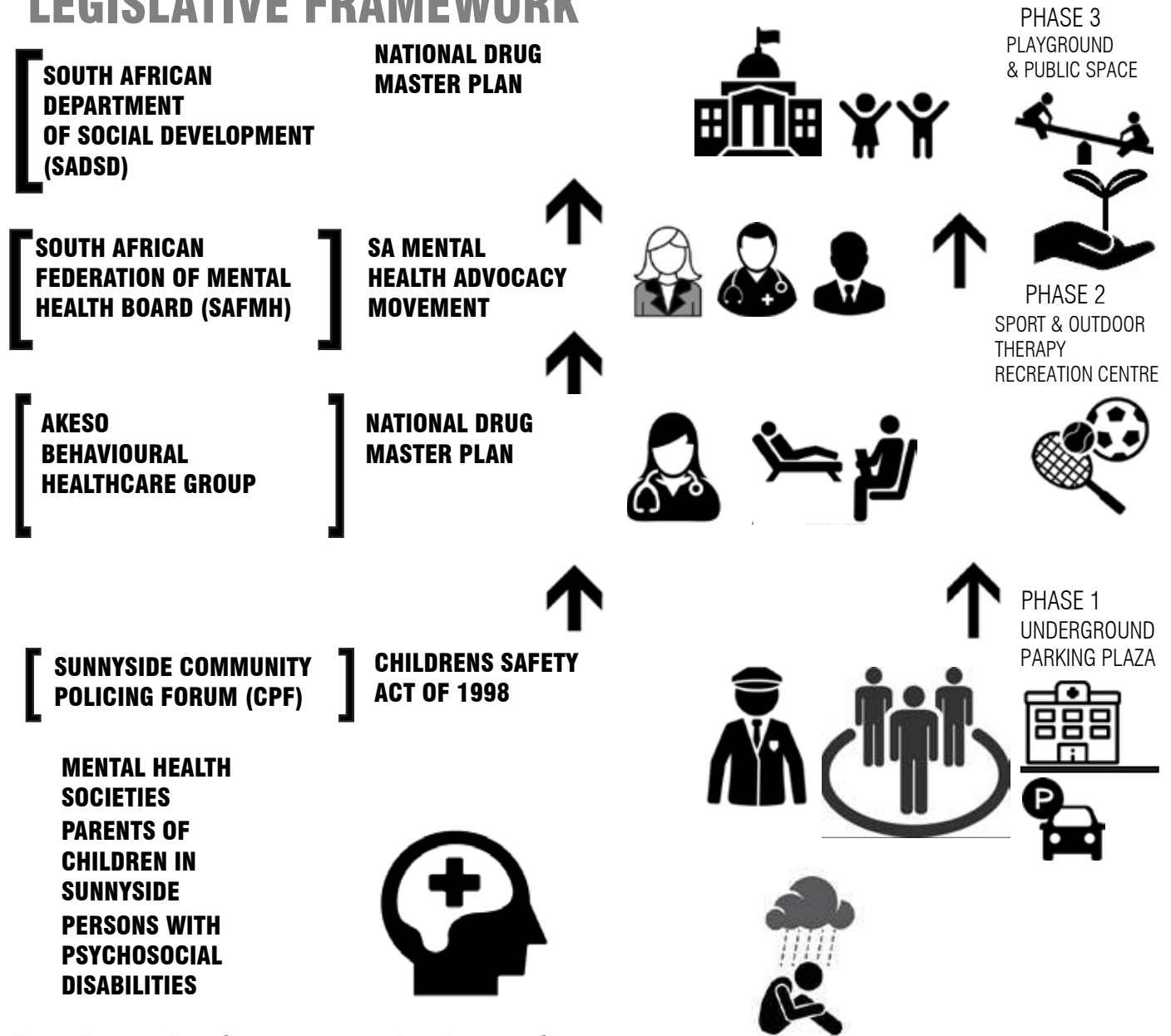


Fig.7.1 Tsebe. T. 2021. Flow Chart for Viability. Flow Diagram. Sunnyside, Pretoria. Searching for Sunnyside research report. University of Witwatersrand

7.3. [SITE] Appraisal

The site is located on the corner of 272 Loveday Street and Justice Mahomed Street, Pretoria. Currently a public park made up of three different erfs, City Parks has declared this a “Public Open Space” in the zoning scheme. This means that the space provides ecological, socio-economic and place-making functions and a proposal to for the site would have to keep this in mind. (Tshwane Town Planning Scheme, 2008).

The dimensions of the site are 83m x 120m. The area of the site is 10997m². City of Tshwane GIS data indicates that the slope of the site from corner to corner is 4-5m. As the site is made up of 3 different erfs, each phase of the project will be done on a different erf

PHASE 1 ERF 1

AREA: 3428 m²

DIMENSIONS: 39855mm x 86008 mm

SLOPE: 1.5m

OBSTACLES: **EXISTING BASKETBALL/TENNIS COURTS**

EXISTING MAINTENANCE

STRUCTURES (**STORAGE SHEDS**)

The erf is currently occupied by derelict sports facilities and a series of storage sheds. These will have to be demolished. On the east boundary of the erf, the site shares a boundary wall with Netcare Jacaranda Hospital. Behind this wall lies a concrete floor that goes between various maintenance facilities like storage sheds for the hospitals cleaning utensils. The South edge of the site butts up against the metrorail and Gautrain railway line. There is currently illegal access onto Loveday Street coming through a hole in the fencing between the railway line and the site. This needs to be addressed. The site also faces a line of Jacaranda Trees on the west end. Since these trees are alien and this is going to become an important point of access on to the site, these trees will be cut down.



PHASE 2 ERF 2

AREA: 3225 m²

DIMENSIONS: 37500mm x 86008mm

SLOPE: 2m

OBSTACLES: EXISTING **TREE(S)**
2m SLOPE

Erf 2 is slightly further north from Erf 1, acting as the centre of the site. Currently this erf is the most difficult to occupy as the slope on this portion of the site is TWO meters as opposed to one. This portion also has an obscuring tree on the west end of it. As the tree is indigenous, it would be preferred to keep this tree if possible. In the program, this portion of the scheme will be dedicated towards facilities for physiotherapy, yoga and occupational therapy. Research has shown that trees have a positive effect on wellbeing, which is central to the purpose of the project. Keeping the larger indigenous while levelling the surrounding groundline will allow the programme for Phase Two to be facilitated optimally. Another aspiration of this portion of the site is to break the boundary wall going into the maintenance lot for Netcare who owns the company that will be occupying phase two ((Netcare Limited Unaudited Interim Group Results for the six months ended 31 March 2021, 2021)



PHASE 3 ERF 3

AREA: 4343 m²

DIMENSIONS: 50500mm x 86008mm

SLOPE: 1m

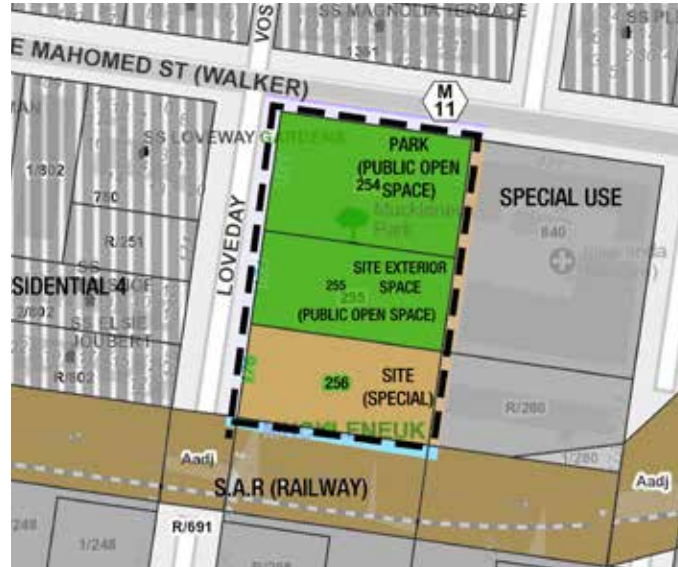
OBSTACLES: EXISTING **PLAYGROUND STRUCTURES**
EXISTING **TREES**

Erf 3 sits closest to the busiest vehicular traffic. This should act as the most pedestrianized portion of the site. Pedestrians should have an easy time accessing the site as the slope is 1m. This also acts as the erf with the largest individual footprint (43m²). Existing playground structures on the site are poorly maintained and don't invite the community or children to play with them. For this reason, existing steel structures should be removed and new, more inviting structures, (including benches,) should be installed. Phase 3 will be the phase with the most lightweight construction applied to maintain the sites “ecological, socio-environmental and place making features” (Tshwane, 2008)

7.4. [TOWN] Planning



STEP 1: IDENTIFYING THE EXISTING ZONING SCHEME



STEP 2: REZONING ERF 256 TO "SPECIAL USE"



STEP 3: REZONING ERF 255 TO PRIVATE OPEN SPACE



STEP 4: RELAXATION OF BUILDING LINE BETWEEN SITE AND NETCARE HOSPITAL

STEP 1: IDENTIFYING THE EXISTING ZONING SCHEME

The site is located "Public Open Space" according to the Tshwane Town-Planning Scheme = (Tshwane Town-Planning Scheme, 2008). This means the site provides ecological, socio-economic and place-making functions. These functions include natural areas, ecologically sensitive areas and parks. It is important to note that the site used to be three erf's that are now consolidated into one.

STEP 2: REZONING ERF 256 TO "SPECIAL USE"

As rates for "Special Use" are high, only one of the three erf's will be rezoning to this zoning scheme because rates are calculated per m². The building erected on the special use portion of the site will be used to build what the planning scheme refers to as MEDICAL CONSULTING ROOMS. This means land and buildings used for medical and dental practitioners including general practitioners, medical specialists, pathologists, radiologists, dentists, ophthalmologists and similar uses such as special therapists, psychiatrists and may include a dispensing chemist which does not exceed 36 m² but does not include the uses which are included under the definition of Institution.

The above zoning scheme will also allow for an easier integration of the mental health facilities in the scheme with Netcare Jacaranda Hospital adjacent, which is intended as this portion of programme is intended for Akeso, a subsidiary of Netcare Limited.

STEP 3: Rezoning Erf 255 To Private Open Space will allow for a Recreation Resort ,Sport and Recreation Club as per the Use of Buildings and Land expanding from phase one of the project.

STEP 4: RELAXATION OF BUILDING LINE BETWEEN SITE AND NETCARE HOSPITAL

For an easier integration of the mental health facilities in the scheme with Netcare, demolition of the boundary wall between Netcare and Site to be considered and proposed to Netcare in the best interests of their subsidiary, Akeso. Should they accept this proposal, their property will be consolidated with the site.

7.5. THE PROJECT

A PROCSA AGREEMENT

As there are various organisations involved with the project and these are not equally sized. A contractual framework that allows for fair distribution of risks and responsibility between parties needs to be established. A PROCSA agreement comprise a suite of documents prepared to regulate the terms of engagement between the client and the consultants. (PROCSA, Professional Service Agreements, 2021). As the range of constituents of the client body are too diverse in their functional profile, an agreement that allows each constituent organisation in the client body to understand their individual responsibilities is crucial. For this project, contracts will be broken down into the three phases of the project. Each phase of the project (1,2, & 3) will have its own contracts, tender documents and procurement. The reason for this is that the overall project will be done over time to accommodate changes in inflation and tax that may affect the financial viability of the project. Once phase one is complete, the client will evaluate the execution of the design, assess the value the project has brought to Sunnyside and decide whether or not phase two is viable. The same kind of assessment will be done between phases 2 & 3. Given that the client for each phase will be different, (Phase 1's primary client is the Department of Social Development as well as Sunnyside CPF, Phase 2's primary client is Akeso and Phase 3's primary client is the SAFMH).

RELEVANT PROFESSIONALS FOR RELEVANT PHASES

PROJECT MANAGER

Professional Project Manager (Pr. PM) Registered with Project Mangers South Africa (PMSA) (Phases 1,2 & 3)

TOWN PLANNER

Professional Planner with the South African Council for Planners (SACPLAN) statutory Council established in terms of the Planning Profession Act, 2002(Act 36 of 2002) (Phases 1 & 2)

ARCHITECT (PRINCIPAL AGENT)

Registered with SACAP To undertake design a building facilitating all client constituents and prepare tender documents for each of the 6 Workstages outlined by the SACAP Framework. (Phases 1,2 &3)

QUANTITY SURVEYOR

A Professional Quantity Surveyor (PrQS) registered as such in the ASAQS in terms of the Quantity Surveying Profession Act, 2000 (Act No. 49 of 2000, as amended). (Employed for Phases 1,2 & 3)

STRUCTURAL ENGINEER

Professional Engineer Engineering Council of South Africa (ECSA/CESA)

MECHANICAL ENGINEER

Professional Engineer registered as such in terms of As per Part O of the NBR.

FIRE CONSULTANT

Fire Protection consultant registered as a "competent person" as per SANS 10400

CONTRACTOR

Physically executes the project construction.

COMPLETION

APPOINTED FOR SPECIFIC WORKS

PROJECT MANAGER

Oversight Of Project execution and timeous execution of and ensuring all professionals and client parties operate withing their respective frameworks stipulated in the Joint Venture Agreement.

TOWN PLANNER

Rezoning erf 1 and 2 to "special use" and private outdoor space respectively. The reason for this is that the user will incur heavy rates for a property the size of the entire site, especially if the entire site is rezoned to "Special Use". Its current zoning scheme "public open space" doesn't allow for a building with as much bulk as the scheme has to be built. Relaxation of the building line between Netcare Jacaranda Hospital parking lot and site. As per Tshwane Town Planning scheme of 2008.

ARCHITECT (PRINCIPAL AGENT)

Design and documentation of each phase of the overall project from stage 1 (Inception) to Stage 6 (Close Out).

QUANTITY SURVEYOR

Prepare cost analysis based on the architectural drawings, engineering estimates, materials required and labour involved as per budget.

MECHANICAL ENGINEER

Design of mechanical ventilation, gas blender gas accumulator, inspiratory flow regulator, humidification equipment, patient circuit, expiratory pressure regulator, with regular consultation for advice pertaining to changes in spatial arrangements etc.as per Part O of the NBR.

FIRE CONSULTANT

Consulting for the placement of fire prevention and extinguishing equipment in the project in accordance with SANS 10400 Part T

CONTRACTOR

7.6. [FINANCIAL]MANAGEMENT

PROPOSAL

Practical and viable financial models

Sources of Funding:

The project is a mental health facility aimed an anti-social youth and adults with psychosocial disabilities in Sunnyside. As often people with this profile (particularly in low-income areas like Sunnyside) lean towards criminality, an appropriate organisation to deal with the funding of this project would be the Department of Social Development.

The annual budget for the Department of Social Development is R1,095 Billion. For this project, a portion of this project (R328 million) will be taken from this budget. The motivation for this is that currently Sunnyside Police Station where the project is located ,records the 10th highest crime rate in the country. In other words, according to South Africa’s Police Services, Sunnyside is the 10th most dangerous area in all of South Africa. The rationale behind taking the sum of money mentioned above (R325million) is that the project will help the department achieve three of its 10 desired aims. Assuming that the aims of the department are weighted equally from a prioritization point of view, a rational approach to the budget could be as follows:

$$R1.095b / 10 \text{ aims} = R109.5m \text{ per aim}$$
$$R109.5m \times 3 \text{ aims achieved} = R 328m \text{ for the project}$$

It is important to note that the project is broken down into three phases which don’t have an equal amount of built form intended for them. As the overall project (phase one, two and three) progresses, the less and less material costs will be necessary to complete the project. The implications of this on the budget are that Phase one will be allocated the largest individual budget among the three. Phase two will be allocated the second most and phase three will be allocated the least.

The cost of building Non-Residential Buildings in South Africa is roughly R6812 per m2 (Estimation QS. 2021.). The floor area of each site is different but for the sake of this calculation one can determine an average. 10996m2 is the total area of the site. Phase 1 , having an erf with an area of 3427m2 and a projected three levels below ground and four levels above will cost:

$$3427m \times R6812 = R 23\,344\,724 \text{ per level} \times 7 \text{ Levels} = R163\,413\,068.$$

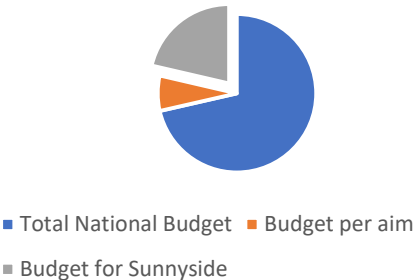
The allocated budget for this phase is R250 000 000. The reason for this is that complications like building below ground next to an existing hospital will come with complications (e.g. temporarily interfering with the water supply) will have financial implications especially when not managed

EVALUATION:

Phases	Allocated Budget in Rands (R)
Phase 1	220095000
Phase 2	65700000
Phase 3	42705000
Total	328500000

Total National Budget	1095000000
Budget per aim	109500000
Budget for Sunnyside	328500000

National Budget Allocated for Sunnyside



Allocated Budget

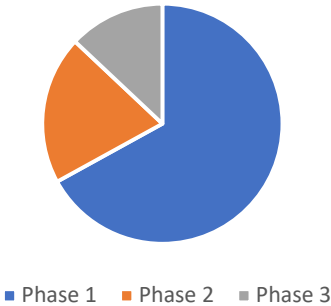


Fig.7.3. Tsebe. T. 2021. Pie charts showing national budget. Searching for Sunnyside Research Report.

7.6. [FINANCIAL]MANAGEMENT

	Professional Fees (%)		Base Cost (in Rands)	Sub-Total
Project Manager (3.58%)	7879401		7 353 000	15 232 401
Quantity Surveyor(4.1%)	9 023 895		7 086 400	16 110 295
Architect (5.75%)	12655462		87 000	12 742 462
Civil Engineer(5,5%)	12105225		4 498 125	16 603 350
Mechanical Engineer (5.5%)	12105225		4 253 125	16 358 350
Electrical Engineer (5,5%)	12105225		R4 253 125	R16 358 350
Contractor (3,5%)	6602850		3 840 315	10 443 165
Sub-Contractor(S) (2.5%)	4401900		3 125 685	7 527 585
Total				111 375 958

7.7. [IMPLEMENTATION]

- KEY CONCERNS:
- Building in an area notorious for theft of or from motorvehicles. (ie. Sunnyside)
 - Building underground adjacent to a hospital (Netcare)
 - Building near a railway line. (Metrorail)

- SOLUTIONS:
- Hiring of caravan office from nearest vehicle retailer. (Kwikspace)
 - Building works happening underground to be completed adjacent to non-medical spaces of Netcare. (ie. all work requiring foundations to be built adjacent to parking and storage spaces of Netcare so as not to interfere with medical practices.
 - Building works to be completed after successful underpinning of boundary wall to railway line.

- KEY CONCERNS:
- 2m slope
 - Existing trees

- SOLUTIONS:
- The filling of the site, (part of the cut and fill process) to be left to the completion of phase one.
 - Phase one to include retaining wall acting as boundary of phase 1.
 - Depth of roots on tree to be established by land surveyor, should the growth of the tree impact surrounding structures negatively in future. It may be uprooted. Otherwise the existing tree is to remain to maintain ecological features of site.

Breakdown Professional Fees (%)

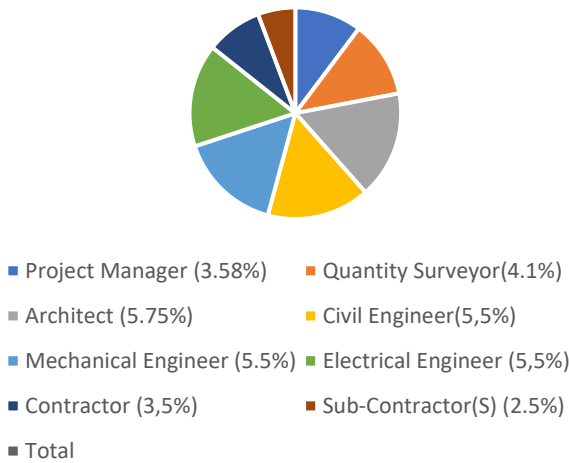


Fig.7.4. Tsebe. T. 2021. Pie charts showing national budget. Searching for Sunnyside Research Report.

- KEY CONCERNS:
- Existing Playground Structures
 - Existing Tree(s)

- SOLUTIONS:
- Playground structures to be removed. New steel and concrete structures to be installed on level ground.
 - Analysis of current vegetation to be completed, establishing (are they Saxifragaceae, Euphorbiaceae etc.)
 - New, ecologically suitable vegetation to be planted to enhance ecological features of the site.

7.8. [DEVELOPMENT PLANNING]

PHASE 1

ERF 1

STAGE 1 Inception

Appointment of architect for outlining a scope of work for the phase 1 design.

STAGE 2 Concept and viability (concept design)

Concept and viability of relaxing building line to be established. Material catalogue to include density of bricks etc.

STAGE 3 Design development

Design of underground parking facilities with wellness centre on ground level. Programme including individual psychologist's practices to be designed within concrete grid framework.

STAGE 4 Documentation for Local Authority Construction documentation.

STAGE 5 Construction

1. Existing storage sheds to be demolished using excavators jackhammers from Africa Demolition Contractor (Pty) Ltd.
2. Foundations to be built according to engineer's detail as per SANS Part H- Foundations
3. As theft from or of Motorvehicle is high in the area, workers are encouraged to use kwikspace caravan office for storage of valuables. Contractor to be held responsible for safekeeping of the caravan.

STAGE 6 Close out

PHASE 2

ERF 2

STAGE 1 Inception

Appointment of Architect for design of lightweight structures to fixed to existing phase 1 structure adjacent
Appointment of town planner to get erf 2 rezoned.

STAGE 2 Concept and viability (concept design)

Viability of rezoning to be established from appointed Town planner, if 'Private Open Space' is not viable. "Mixed Use to be proposed"

STAGE 3 Design development

Design of steel structures to be done by architect then deemed "satisfactory" by engineer in accordance with SANS 10400

STAGE 4 Documentation for Local Authority Construction documentation.

STAGE 5 Construction

1. Existing boundary between Netcare storage and site to be demolished pending approval jackhammers from Africa Demolition Contractor (Pty) Ltd.
2. Concrete Foundations to be built as per SANS Part- H. Retaining Walls to be built as per Part K of SANS 10400.
3. Before steel structures installed, SANS 10400-H, Foundations, requires that a site inspection is done by a competent person (geotechnical). This inspection will precede the design of aforementioned structures.

STAGE 6 Close out

PHASE 3

ERF 3

STAGE 1 Inception

Appointment of Geotechnical Engineer to establish vegetation types, soil types and viable vegetation to be planted.

STAGE 2 Concept and viability (concept design)

If soil types inhibit possible plants, pot plants and plant beds with low-maintenance succulents to be installed.

STAGE 3 Design development

Design of light, affordable playground structures.

STAGE 4 Documentation for Local Authority Construction documentation.

STAGE 5 Construction

1. Existing trees to be uprooted should the pose threats to adjacent structures in the future.
2. Lightweight steel playground structures to be installed pending structural engineer's advice as per ECSA Framework.

STAGE 6 Close out

7.9. [TECHNICAL ASPECTS]

STRUCTURE

CONSTRUCTION METHODOLOGY

The underground portion of Phase 1 of the project will be built using a pile foundation augered in line with the structural grid advised by the structural engineer. This foundation will run three levels below ground and will be the base upon which the levels above ground will be built. Most grids on a project this size tend to be between 4,6 and 8,4m meters apart depending on the parking allowances necessary in the area.

Phase 2 of the project will include a range of anchored retaining walls preventing the soil fill from Phase 1 of the project from falling onto the portion of the site allocated for Phase 1. The completion of this will allow for the levelling of phase 2 of the site.

The structural grid layed out in an 8,4m x 8,4m grid will allow the site to be divided along the three phases. With 18 grid lines from North to south and 10 grids from East to West. Each phase of the project will be responsible for completing the construction work of 10 grid lines across the site and 6 grid lines from East to West. (see fig.)
.)

PROPOSAL

Materials used for the project would include structurally reinforced concrete for the structural grid, brickwork, privacy glass and structural steel.]

The materials will be sourced from builders' warehouses on the outskirts of the CBD. (Cyan Painting & Construction on 238 Troye St, Kameeldrift Hardware & Building Supplies Plot 210 Kameeldrift East.) These outlets are somewhat small and perhaps only prepared to supply one of the three phases of the project with smaller construction materials (for non-structural walls etc). PPC is a larger, more capable construction company capable of handling the supply of construction materials for a project this size and therefore they will provide construction materials for the Structural components of the building (Cement, Sand, Crushed Stone etc.)

EVALUATION:

CHAPTER 8



Design Development

Design Development

Re-Addressing the Research Question

(1) How can Sunnyside's Built Environment be better adapted to address the area's social challenges today?

DESIGN INTENT

The design intent for this project is to provide an accessible facility in Sunnyside that can address and alleviate the most pressing social and psychosocial issues in Sunnyside. These issues include the use of drugs in the area, crimes of motorvehicle. The scheme should, in its material form, suggest a sense of healing and wellness not only to those suffering at the hands of a lack of safety but those who are on their way to contributing to a lack of safety.

8.1. EXPERIENTIAL (CONTEXTUAL) ANALYSIS OF SUNNYSIDE



Fig 8.1 Route to Sunnyside from Justice Mahomed Street. Highway street signs give clues to where the suburb is situated in relation to national roads.

INTRODUCTION TO DESIGN PROCESS JOURNEY TO SITE

Coming into Sunnyside from Justice Mahomed, one can see the change in environment from more private, low-density residential areas to more affordable, high-density residential architecture. This shift can also be seen in pedestrian traffic as the street edges and sidewalks are more populated at the street level. Revealing public building facilities such as lift cores and fire escapes create a more intimidating environment as the scale of the buildings becomes more apparent through these devices.



Fig. 8.2 Metrorail barrier showing the proximity of train station to the suburb.



Fig 8.3 Scale of buildings revealed in contrast to Muckleneuk which is a private, low-density suburb.

8.1. EXPERIENTIAL (CONTEXTUAL) ANALYSIS OF SUNNYSIDE

Site Photos



Fig. 8.4 Tsebe. T. 2021. .4 Photograph of site, showing Netcare's detachment from the site and Sunnyside.



Fig. 8.5 Tsebe. T. 2021. .5 Abandoned billboard showing how high Muckleneuk is situated above the site.



Fig. 8.6 Tsebe. T. 2021. Service lane of Netcare used as a boundary between Netcare and site.

8.1. EXPERIENTIAL (CONTEXTUAL) ANALYSIS OF SUNNYSIDE



Fig. 8.7. Tsebe. T. 2021. Eyes on the street. Analytical Photograph. Sunnyside, Pretoria.

8.1. EXPERIENTIAL (CONTEXTUAL) ANALYSIS OF SUNNYSIDE



Fig. 8.8 Tsebe. T. 2021. Analysis of Handrail. Analytical Photograph. Sunnyside, Pretoria.

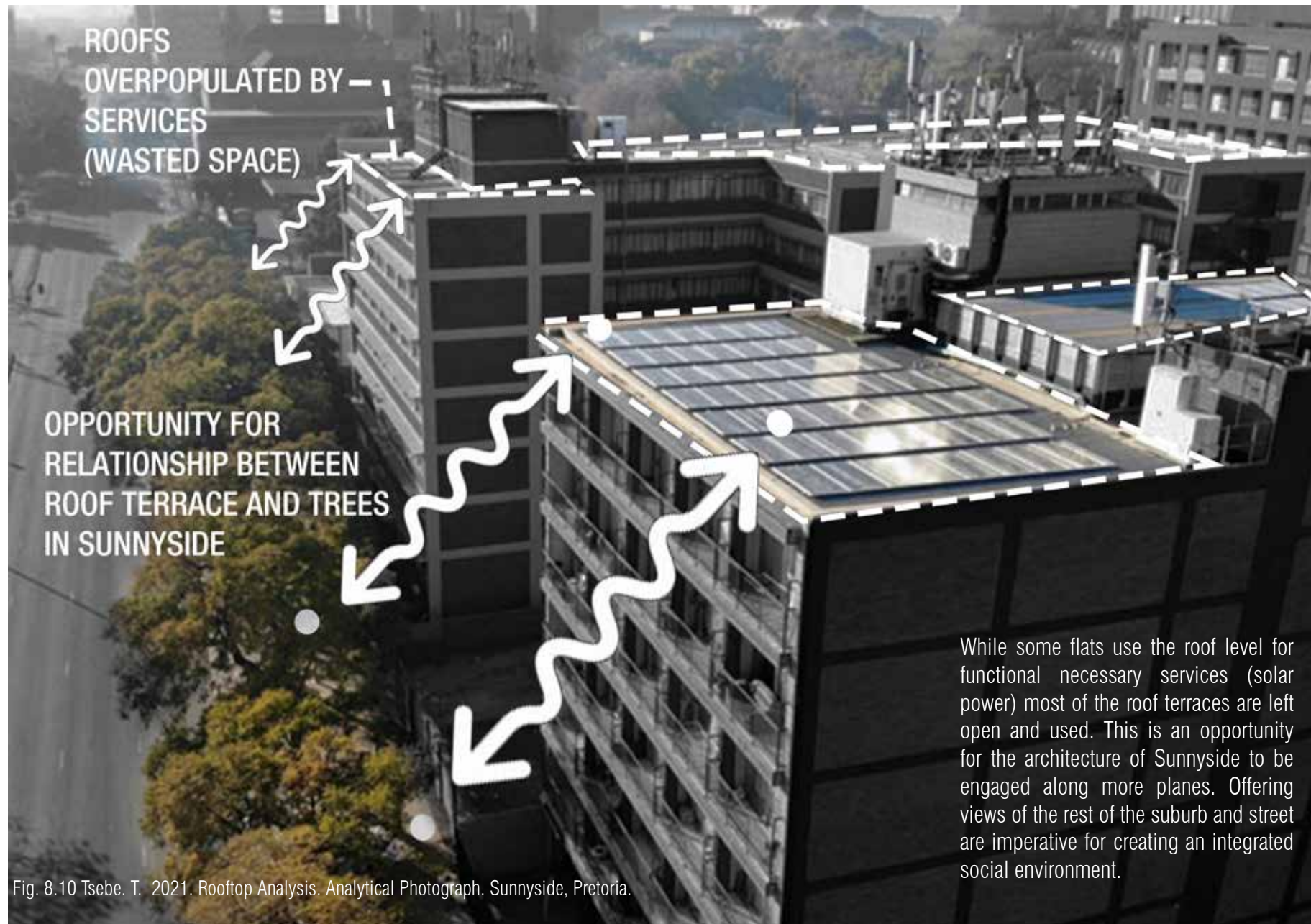
8.1. EXPERIENTIAL (CONTEXTUAL) ANALYSIS OF SUNNYSIDE



Fig. 8.9 Tsebe. T. 2021. Garage Door Analysis. Analytical Photograph. Sunnyside, Pretoria.

As many of the former residents of the area were vehicle owners, the flats often feature single garages on the ground floor for each unit. These units are often repurposed by the residents as storage for unused maintenance items and broken appliances.

8.1. EXPERIENTIAL (CONTEXTUAL) ANALYSIS OF SUNNYSIDE



8.1. EXPERIENTIAL (CONTEXTUAL) ANALYSIS OF SUNNYSIDE

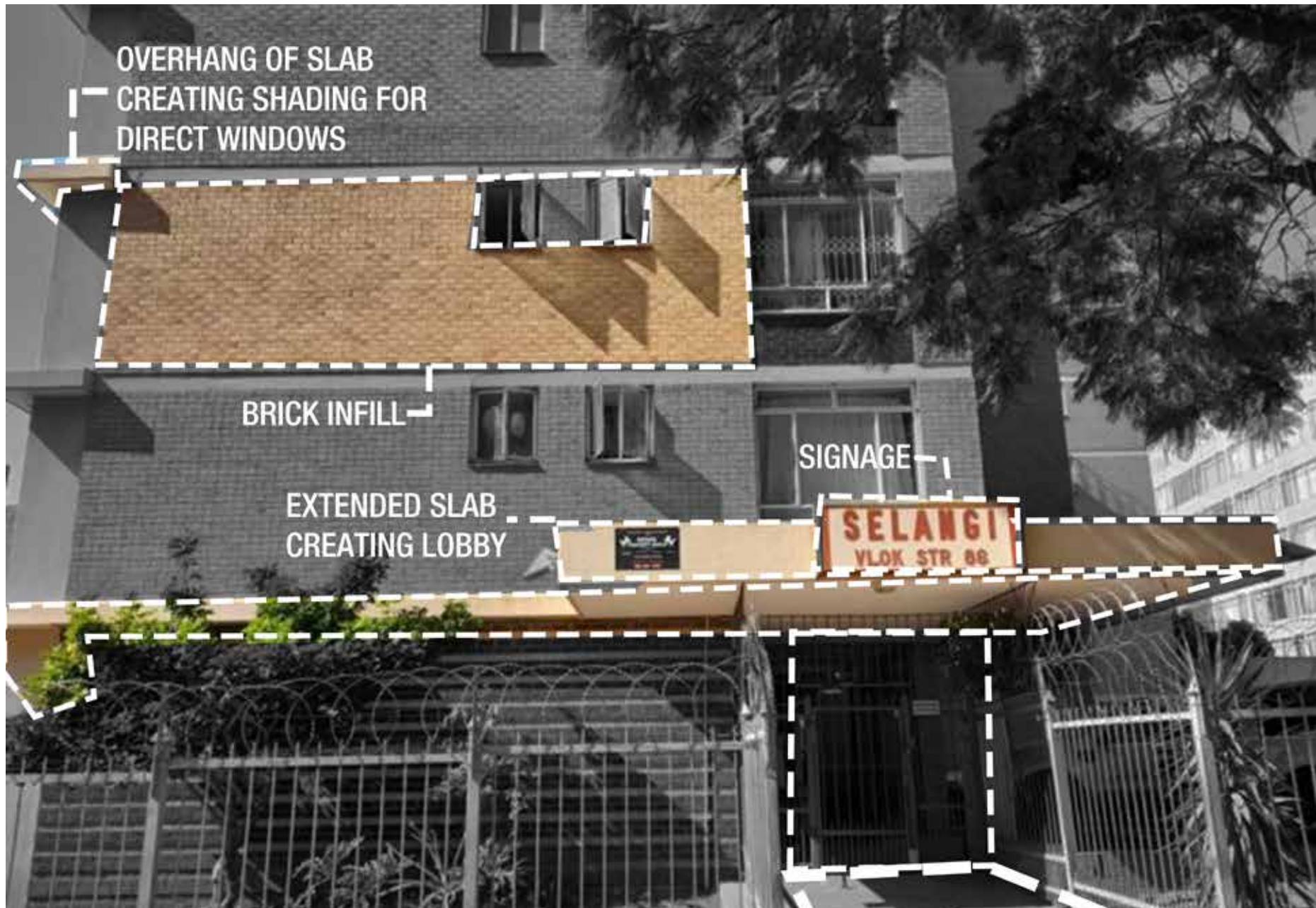


Fig.8.11.Tsebe, T. 2021. Overhang Analysis. Analytical Photograph. Sunnyside, Pretoria.

8.1. EXPERIENTIAL (CONTEXTUAL) ANALYSIS OF SUNNYSIDE

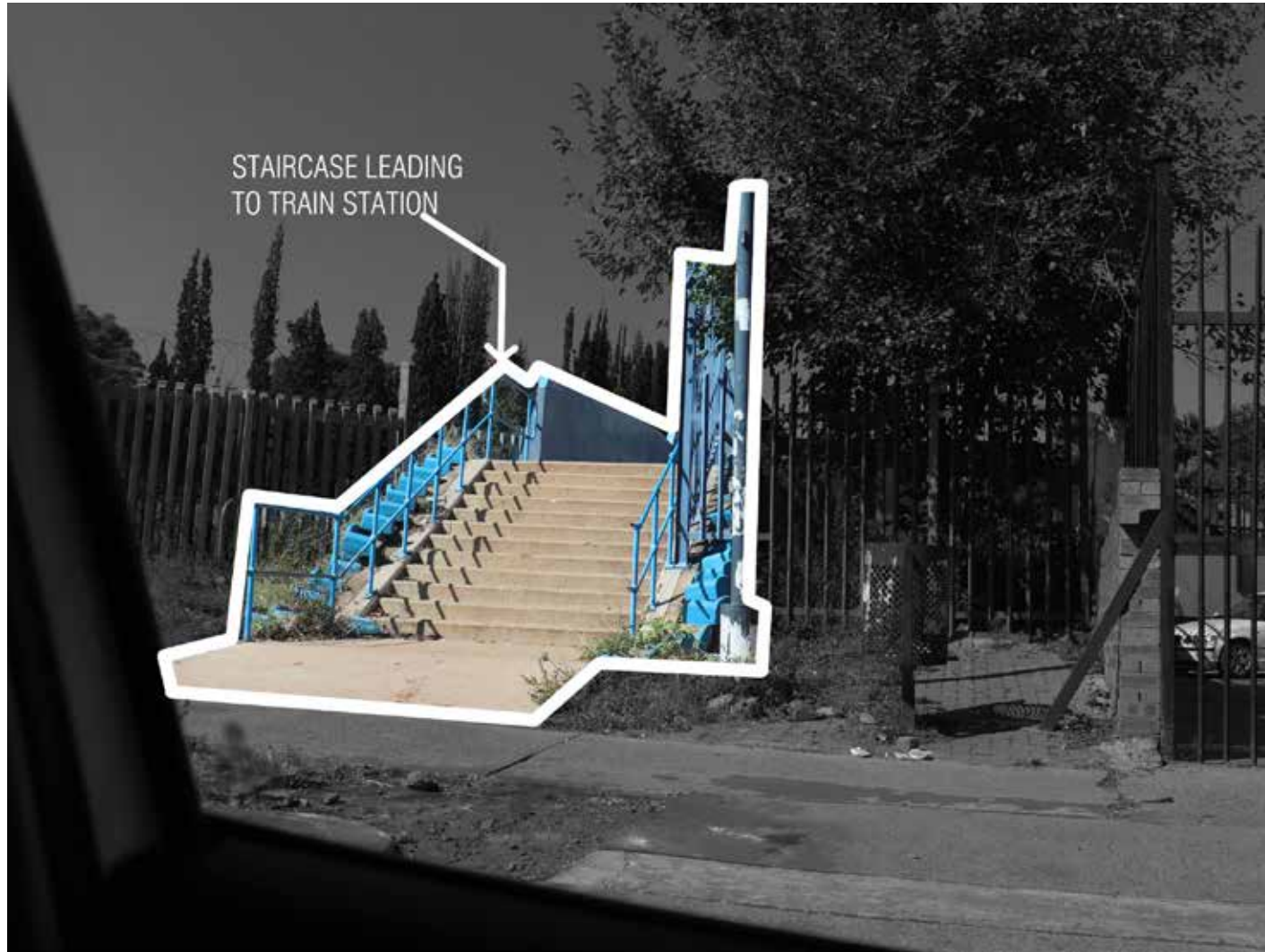


Fig. 8.12 Tsebe. T. 2021. Staircase Leading to Train Station. Sketches over site photographs. Sunnyside, Pretoria



Fig. 8.13. Tsebe. T. 2021. Sketch showing early proposal for train



Fig. 8.14. Tsebe. T. 2021. Sketch showing how natural environment can be retained.



Fig. 8.15. Tsebe. T. 2021 Photograph showing how lift cores articulate space.

8.2. PROGRAMME

PHASE 1:

PARK-ING
WELLNESS CENTRE

PHASE 2:
[TRAIN]-STATION
WELLNESS

PHASE 3:
PLAY - GROUNDS

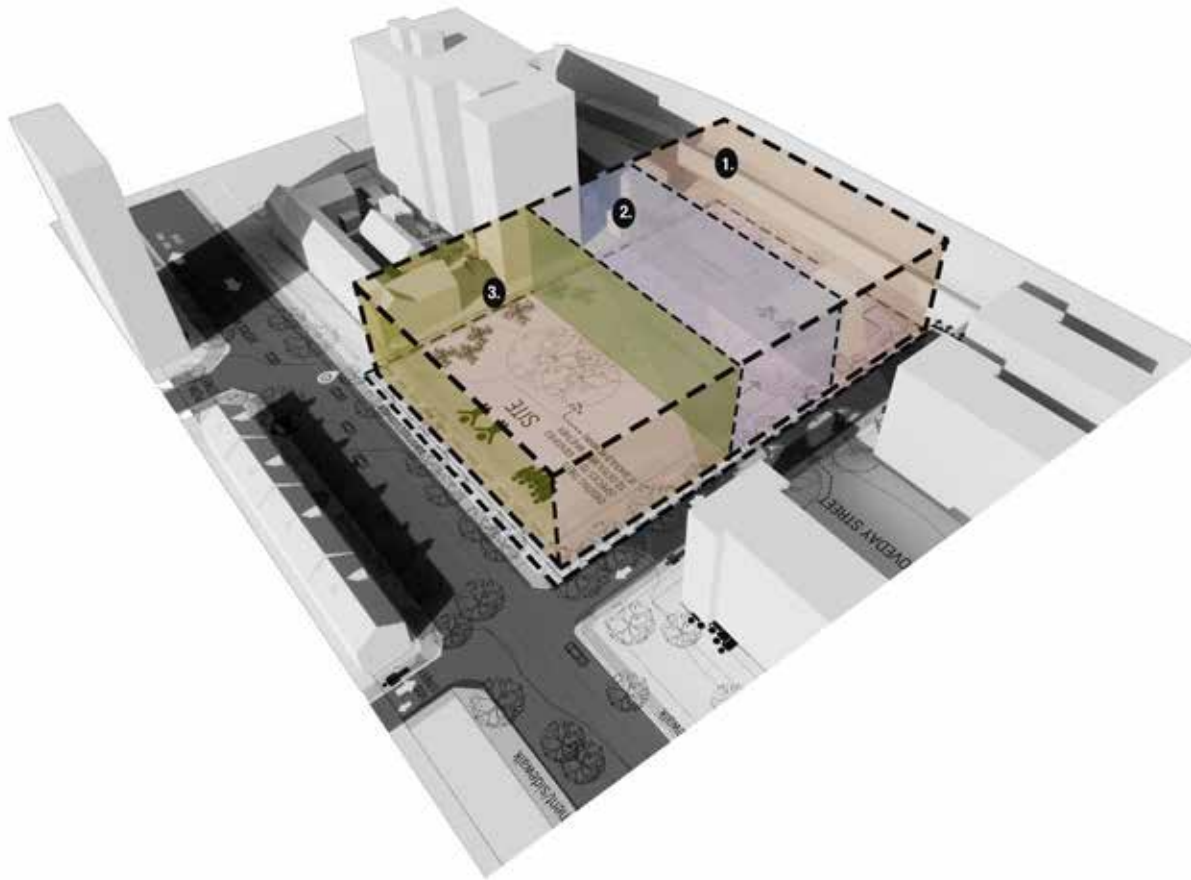


Fig. 8.16. Tsebe. T. 2021. Phasing of Wellness Centre. Sketchup Model, Searching for Sunnyside Research Report. University of Witwatersrand.

8.2. PROGRAMME

Parking

The parking element of the scheme is dedicated to addressing issues surrounding theft of or from motorvehicles in the area. This is a category of crime that Sunnyside deals with regularly. In order to address this challenge of safety, one might begin to ask if safeguarding motorvehicles alone is something that can be achieved enthusiastically in and of itself. Schemes in Nordic countries have dealt with intermodal transport stations where different modes of transport can be accessed by the public in one place. This means that there is a safe space for bicycles, scooters, motorvehicles and pedestrians. This also means that people can change their mode of transport regularly to suit them and their financial needs. Not placing too much strain on one form of transport over the other. This translates to an urban environment where mobility is seldom compromised as people never have their eggs in one basket with regards to getting from A to B (ie. A flat tyre doesn't mean you cannot get across town. In Sunnyside this could work well for residents who are concerned about the safety of their vehicle (motorvehicle parking) or people without vehicles looking to get around town. The Intermodal (park-ing) centre will not have a train on site but link users to the nearest train platform (on Dougall street, 270m away from site) using a pedestrian route.



Fig. 8.17.Tsebe. T. 2021. Programme Floor Area Calculation. Scaled table. Sunnyside, Pretoria.

8.2. PROGRAMME

Well-ness

As Sunnyside will become increasingly mobile once phase 1 is completed. The area will become increasingly difficult to interpret socially for the youth and migrants from outside the city. There is also the issues of language barriers that plague not only Sunnyside but the country at large. As literature has shown that places with varying languages tend towards violence, it is worth noting that the South African Depression and Anxiety Group estimates that 17 million people in South Africa (roughly one third of the country) are living with some kind of mental illness, although most cases go undiagnosed.

A wellness centre that focuses on the mental health of users of Sunnyside and gives them the knowledge and tools necessary to take care of their mental health would be beneficial to the residents of Sunnyside in that it could help them prevent anti-social behaviors from developing into fully fledged illness or criminality. As most street vendors sell some kind of fruit, the lower ground floor level of this part of the scheme could be dedicated to a health café supplied and operated by the street vendors of Sunnyside. Integrating the local informal economy into the scheme and creating another opportunity for partnership with Netcare as healthcare professionals from that facility only have a small a cafeteria in the hospital for all their nutrition.

The goal of this part of the scheme is to integrate human psychological wellbeing using all the tools the site has to offer from the natural features of the site, the fruits and nuts sold by vendors and the expertise of the currently practicing care professionals of Netcare all to provide a range of recuperative health services such as psychotherapy, occupational therapy and an ethos of wellbeing to residents of Sunnyside.

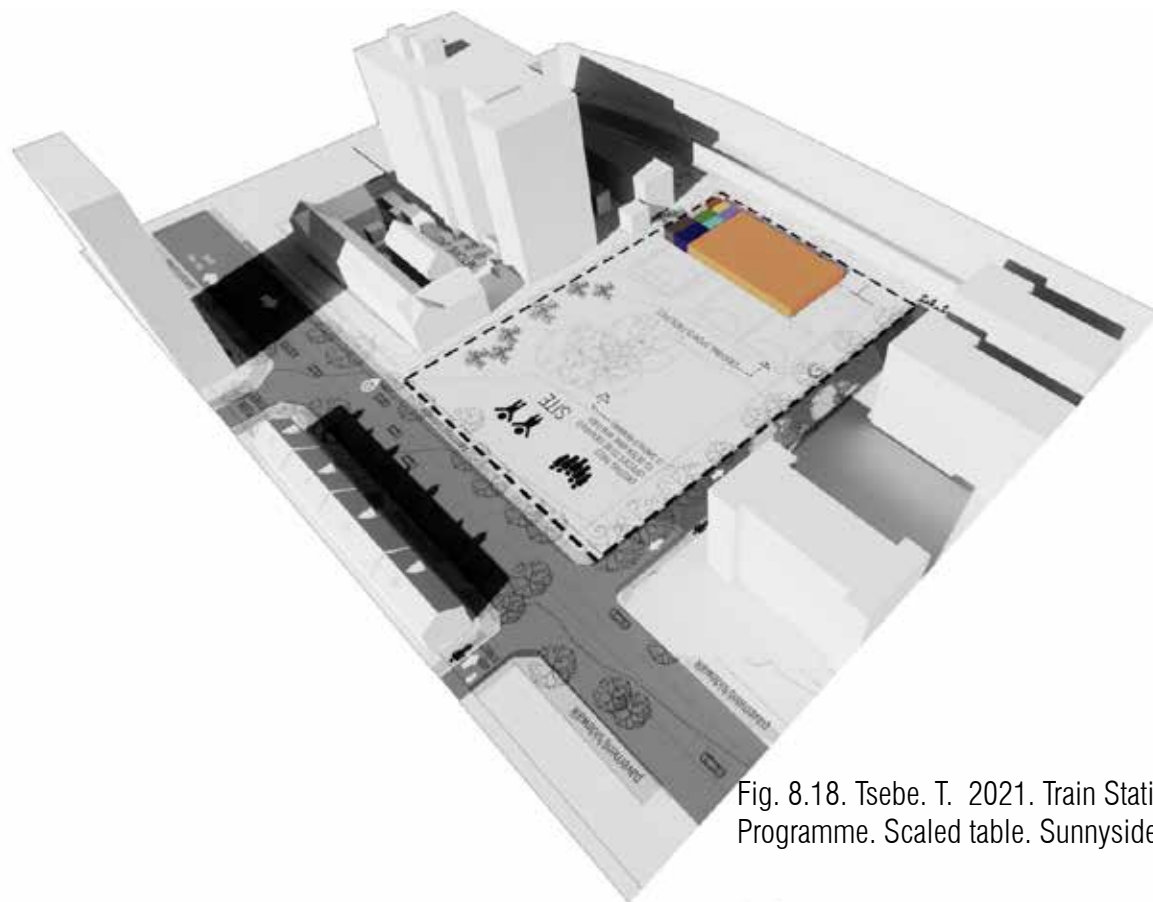


Fig. 8.18. Tsebe. T. 2021. Train Station Axonometric Programme. Scaled table. Sunnyside, Pretoria

FLOOR AREA ALLOCATION

Assignable Area (s)

Facility	Approx size (m2)	No of	Total size (m2)
PARK-ING			
Entrance Foyer (Reception)	30	1	30
Vehicular Parking	12,5	80	1000
Security Office	10	2	20
Store Room	20	1	20
Staff Room	30	1	30
Kitchenette	30	1	30
Bicycle Parking	60	1	60
Disabled Vehicle Parking	20	1	20
Taxi Servicing	50	1	50



Fig. 8.19 Tsebe. T. 2021. Train Station and Wellness Programme. Scaled table. Sunnyside, Pretoria

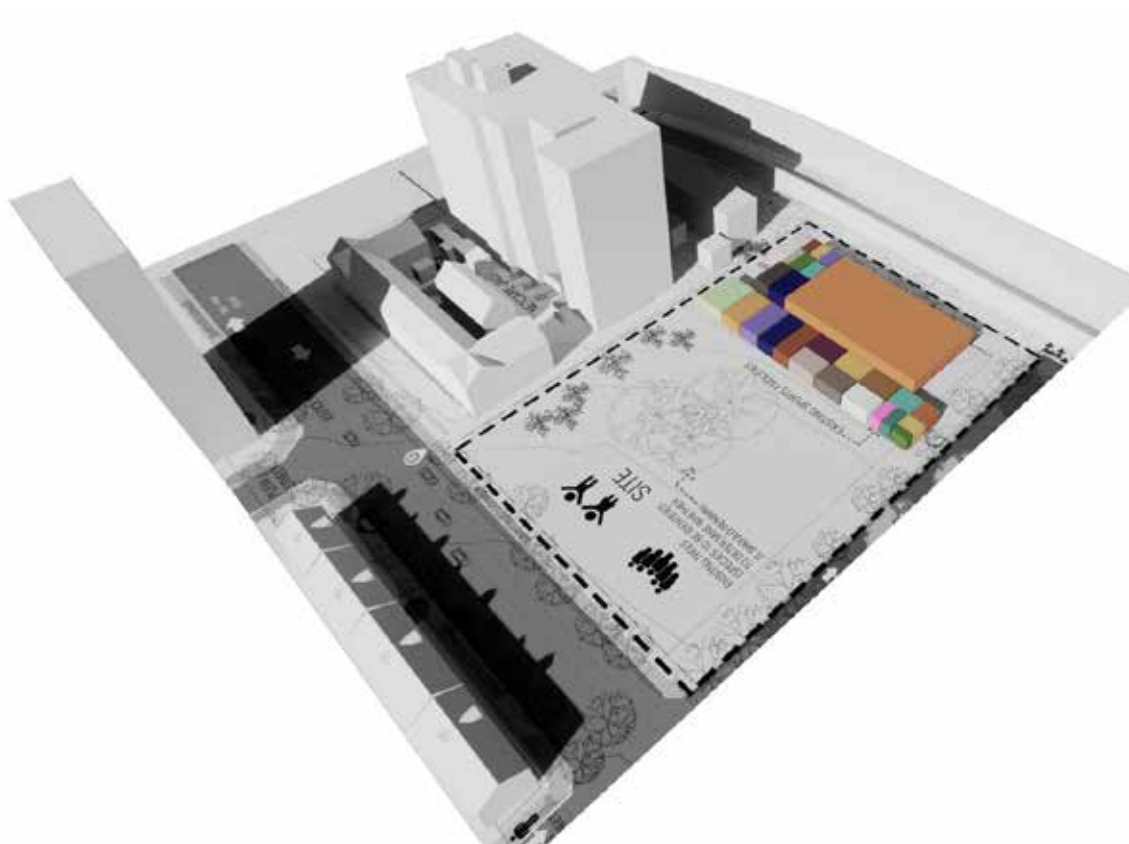
8.2. PROGRAMME

Train Station

As there are currently university students in Sunnyside who are not yet integrated into the economy due to the country’s unemployment crisis yet would like to take part when the opportunity presents itself, the notion of training and skills development becomes increasingly important for a sustainable South Africa. This means that places where people can come and develop their skills will become more and more valuable to the urban environment. As no such places currently exist in Sunnyside, the scheme could present an opportunity to currently inactive residents in Sunnyside. A place with all the necessary facilities (internet, printing, computers, related job openings and skills developers from around Gauteng). Another Opportunity this presents is as a facility to get Netcare’s junior professionals up to speed with Akeso’s professionals with regards to standard practices in their relevant fields. The result is that Netcare’s professional intake from Akeso or elsewhere is more well-trained and competent. This model could also be applied to professionals in healthcare or any other filed that are not Netcare. Companies could lease pods (rooms) to train tertiary students or high school

8.2. PROGRAMME

FLOOR AREA CALCULATIONS



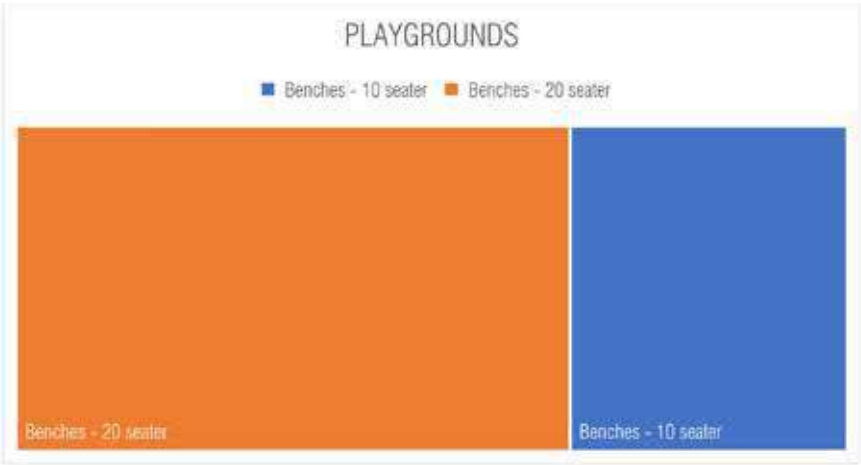
	Approx. Size (in metres squared)	No. of spaces	Total floor area in m ²
WELL-NESS			
Health Café	80	1	80
Therapy Rooms	20	6	120
Dialectical Behavioural Therapy	20	4	80
Cognitive Behavioural Therapy	20	4	80
Family Therapy	30	4	120
Psycho Education	80	2	160
Therapy for Substance Abuse	20	5	100
Trauma Debriefing	20	5	100
Trauma as part of multidiscipline	40	2	80
Couples Therapy	20	4	80
Reception	30	1	30
Supportive Therapy	10	2	20
Meditation	30	1	30
Yoga	40	1	40
Bathrooms	20	4	80
Services	30	1	30
Circulation	60	1	60
Subtotal			1290

Fig. 8.20 Tsebe. T. 2021. Programme Section. Sketchup Model. Sectional Perspective. Sunnyside, Pretoria

8.2. PROGRAMME

As identified in the case study as well as the essay on transit-oriented design, the building will have to have a programme that links Sunnyside into a larger urban development framework of Transit Oriented Design while maintaining a synergized relationship with existing aspects of Sunnyside. This means that the building will have to add to what Sunnyside already has to offer and lead users to what other parts of the city have to offer as well. Sunnyside’s current lack of adequate healthcare facilities. For the above considerations to be successfully executed, my proposal is a phased approach allowing each of the three erfs that make the site to be built to varying degrees. In this scheme at least one of the erfs will be dedicated to leaving the site mostly unbuilt to accommodate a park with a playground.

The diagram adjacent shows the programme for the playgrounds in relationship to the benches that will be used on the playgrounds. The sum total of built form on the park.



PLAY-GROUNDS			
Benches - 10 seater	20	2	40
Benches - 20 seater	40	2	80
Sub-total			120

Fig.8.21.. Tsebe. T. 2021. Play-grounds. Floor Area Calculation. Scaled table. Sunnyside, Pretoria

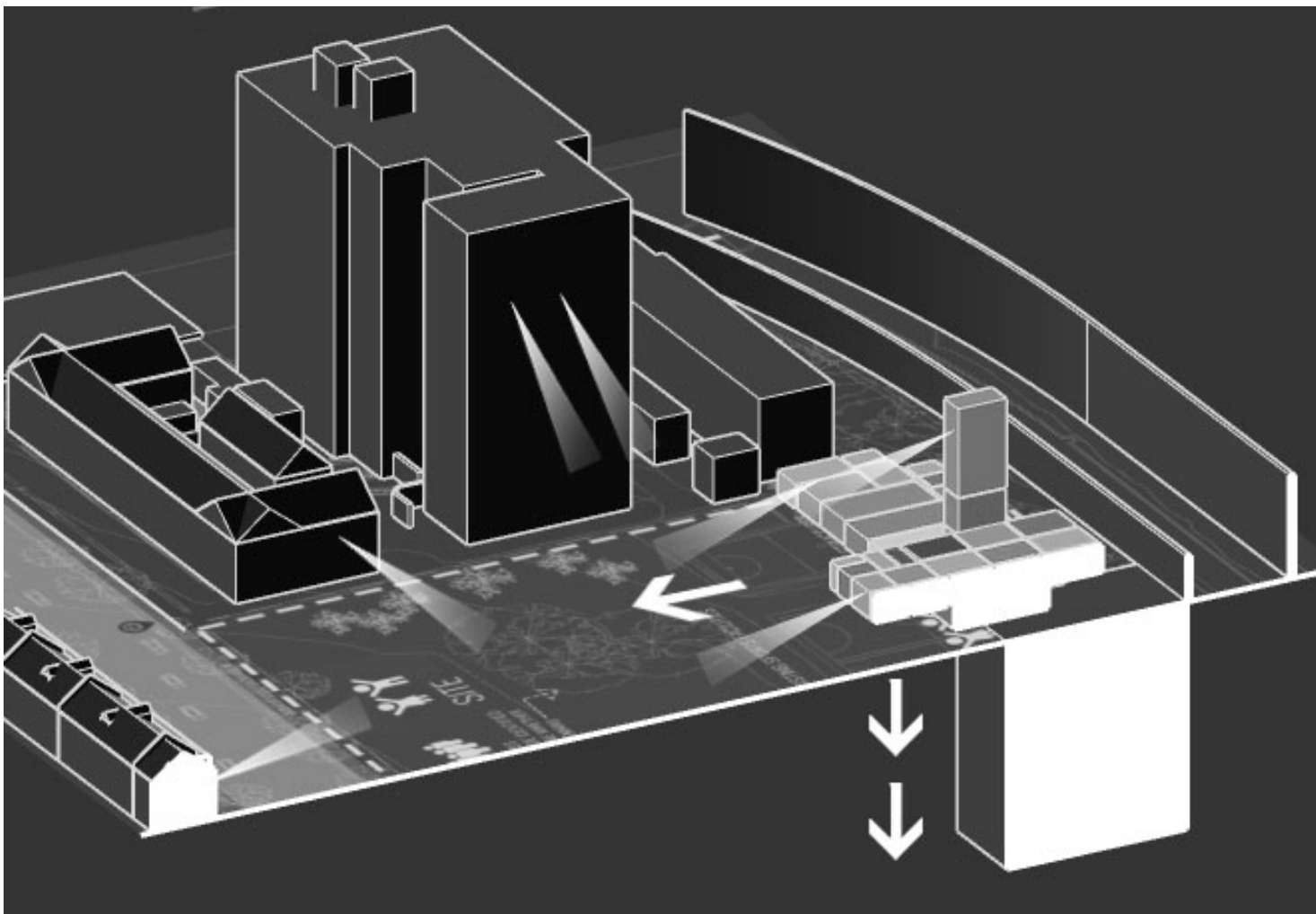


Fig.8.22.. Tsebe. T. 2021. Programme Section. Sketchup Model. Sectional Perspective. Sunnyside, Pretoria

8.2 PROGRAMME

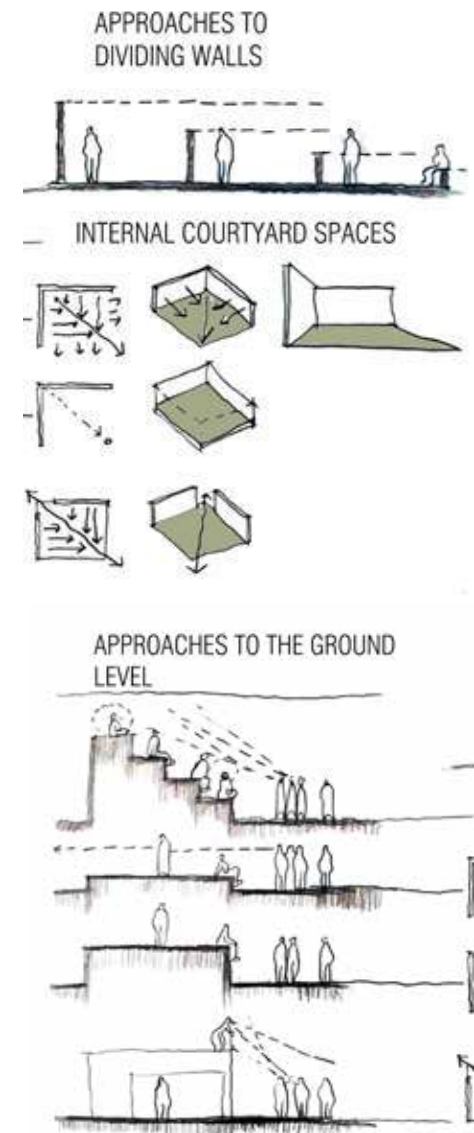


Fig. 8.23. Tsebe. T. 2021. Architectural approaches to Levels and courtyards. Sketches over site plan. Sunnyside, Pretoria

8.2. PROGRAMME

In order to tie the concept together, the use of stacked volumes holding each Phase of the project (as listed above) is necessary.

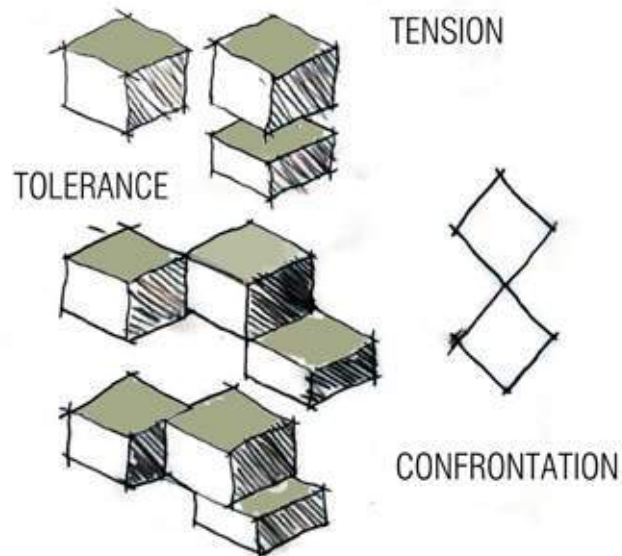


Fig. 8.24. Tsebe, T. 2021. Architectural approaches to interlocking volumes. Sketches over site plan. Sunnyside, Pretoria

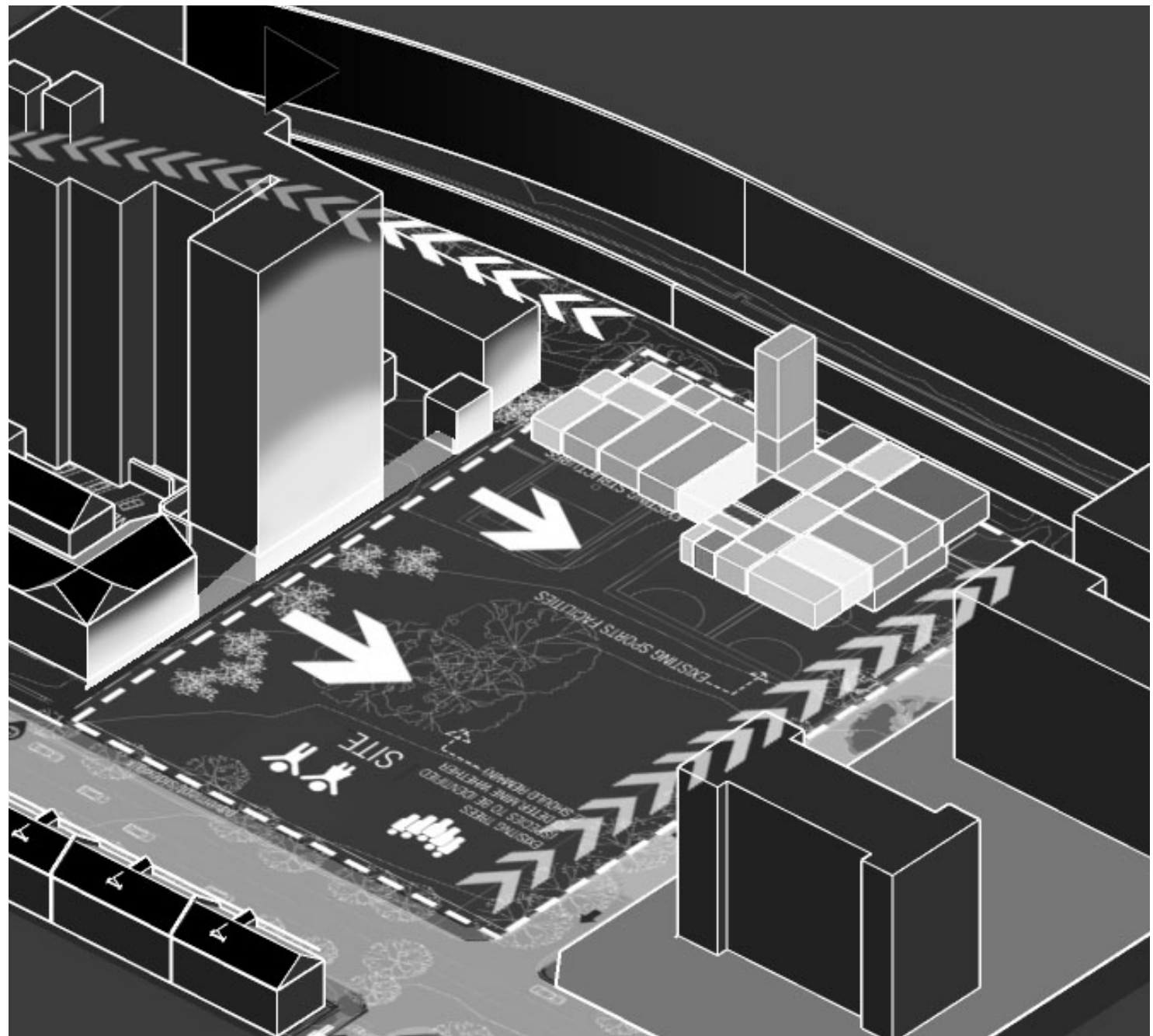
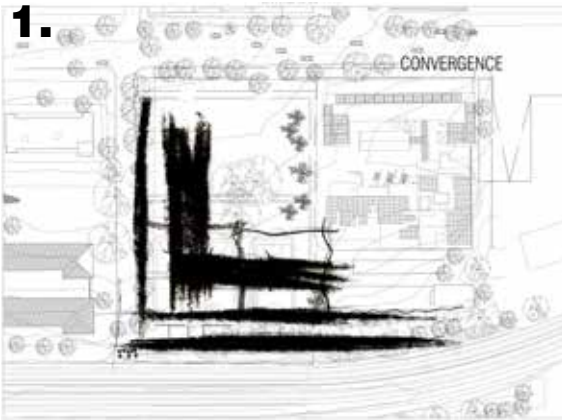
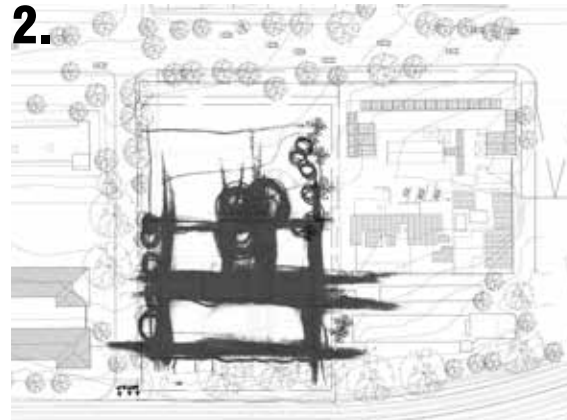


Fig. 8.25. Tsebe, T. 2021. Phasing Flow chart. Sketches over site plan. Sunnyside, Pretoria

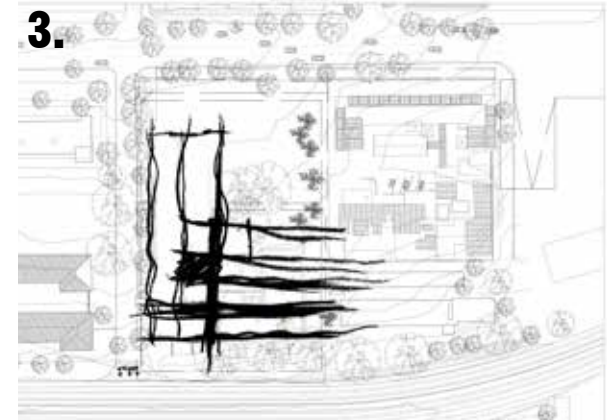
8.3. DESIGN PROCESS



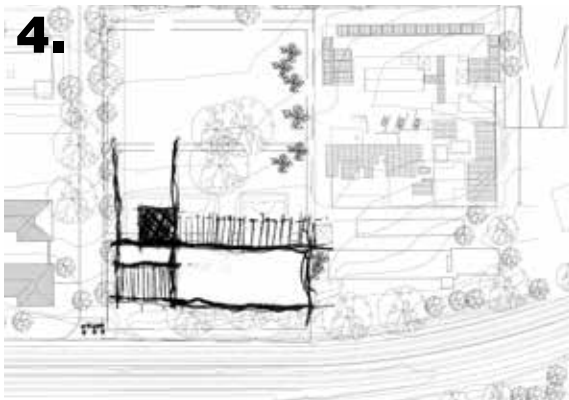
1. Articulating existing continuity on site.



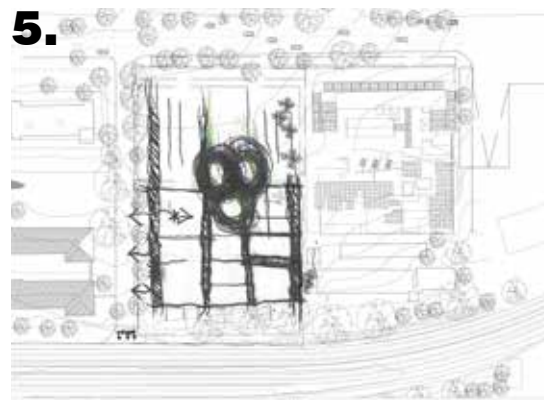
2. Orienting building edges around existing trees on site.



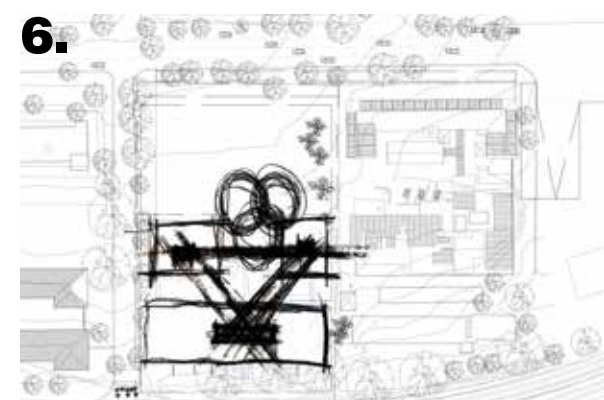
3. Beginning to see necessity for anchoring the movement on site using vertical circulation core.



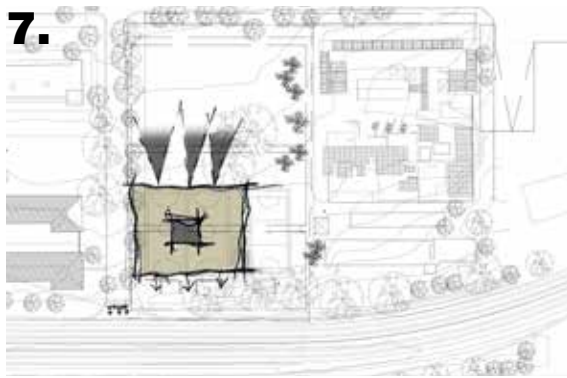
4. Using vertical circulation core as anchor for thresholds into site on either side.



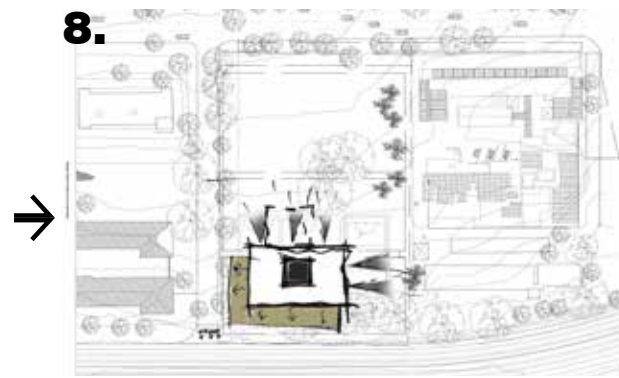
5. L-shaped plan emerges circulating around existing trees. Additional courtyards beginning to emerge.



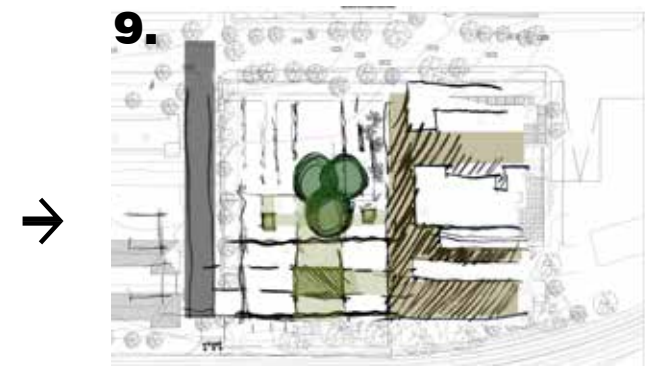
6. Separating the scheme to three different internal courtyards for increased circulation and airflow.



7. Levels above ground offer views over the park, creating surveillance over the site.



8. On the back end of the building, balconies create views over Muckleneuk.



9. All external spaces integrated into the surrounding green spaces using roof terraces and internal courtyards.

Fig. 8.26..Tsebe. T. 2021. Design Process Flow chart. Sketches over site plan. Sunnyside, Pretoria. Searching for Sunnyside Research Report. University of Witwatersrand

KEY SPACES - GROUND FLOOR

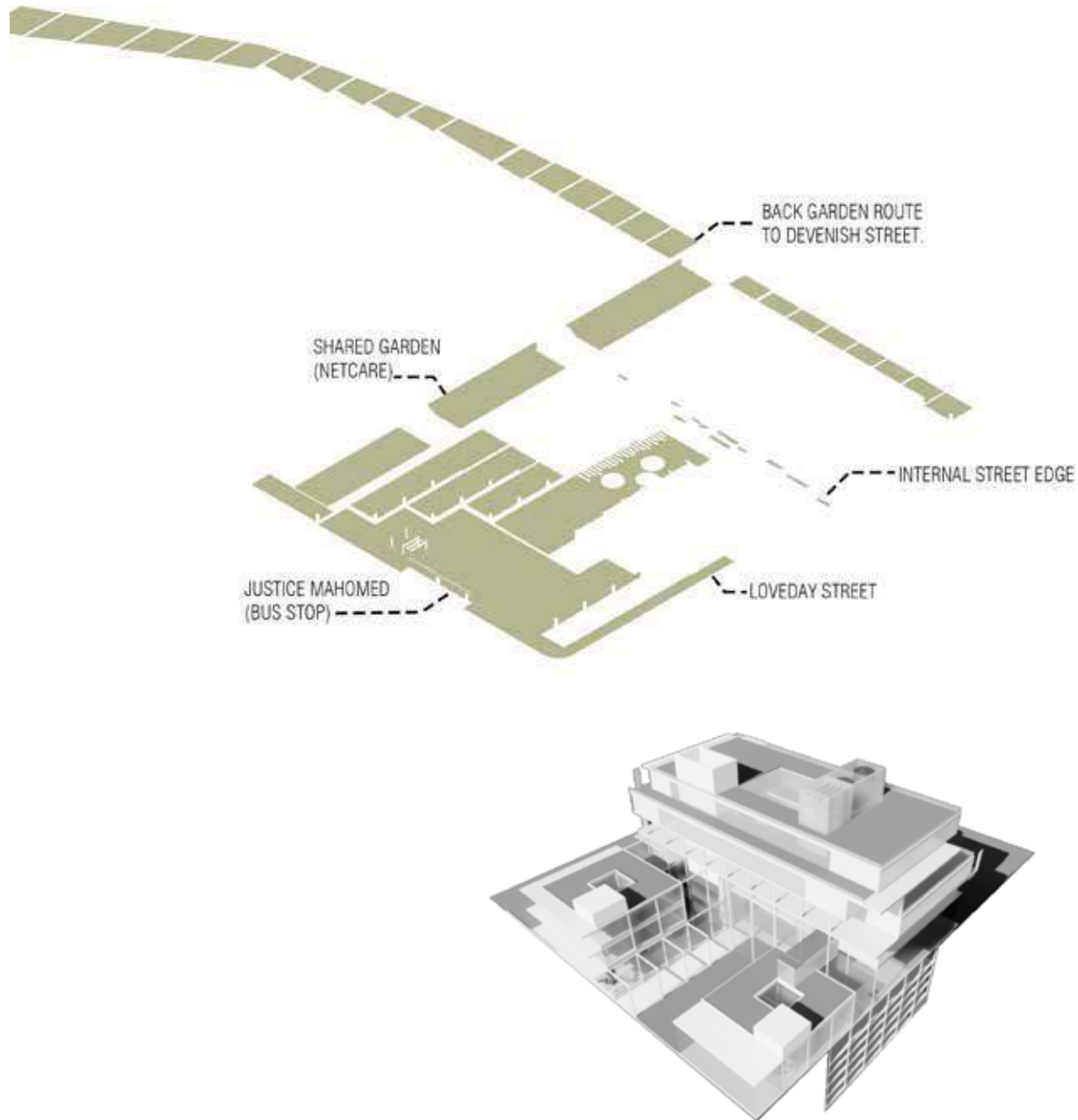
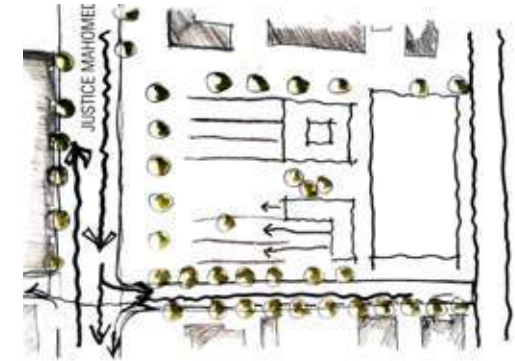


Fig. 8.27. Tsebe, T. 2021. Axonometric conceptual diagram. Sketches over site plan. Sunnyside, Pretoria. Searching for Sunnyside Research Report. University of Witwatersrand

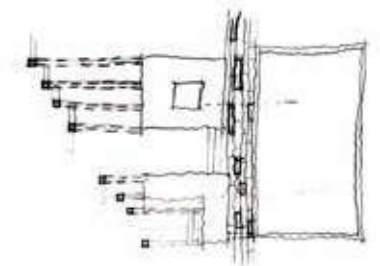
8.3. DESIGN PROCESS



BUILDING ORIENTED TOWARDS JUSTICE MAHOMED.



FLOOR DECKING ON FIRST FLOOR CONNECTS THREE DIFFERENT PHASES.



COLUMNS AND BEAM ARTICULATING SPATIAL COMPOSITION FOR PARKING.

Fig. 8.28. Tsebe, T. 2021. Design Process Flow chart. Sketches over site plan.

KEY SPACES - FIRST FLOOR

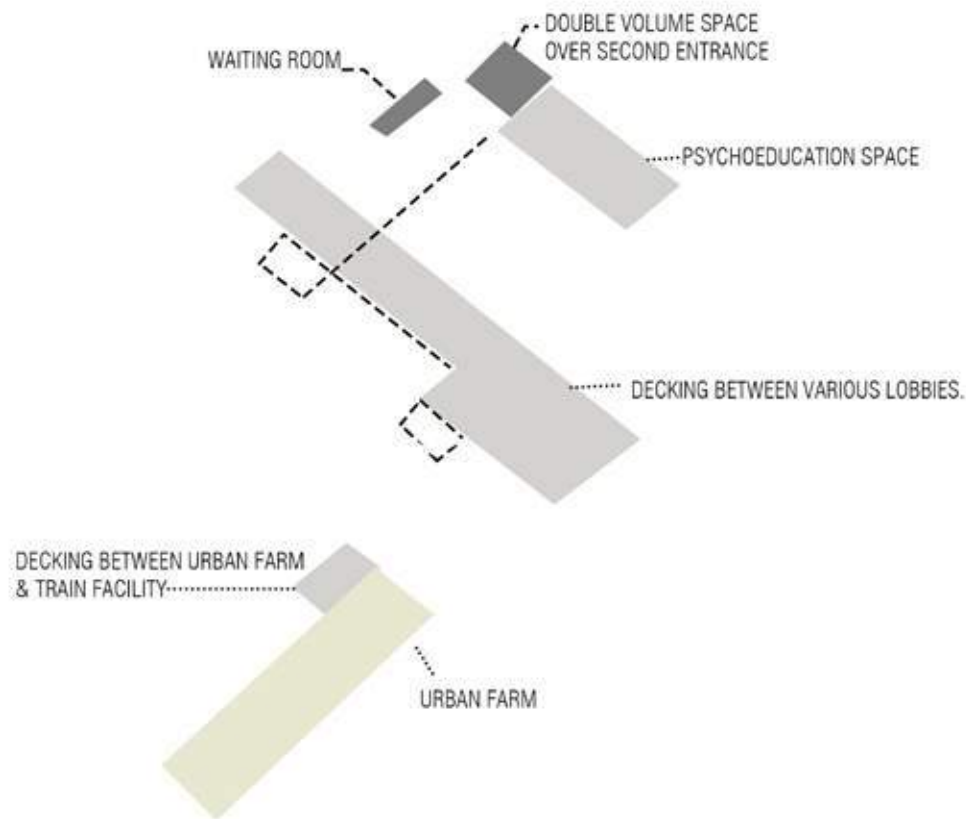
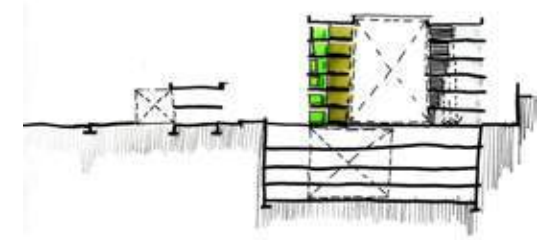
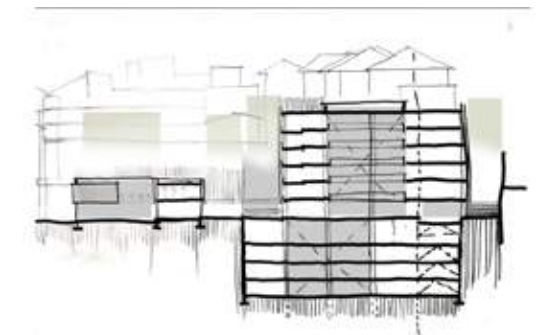


Fig. 8.29. Tsebe. T. 2021. Axonometric conceptual diagram. Sketches over site plan. Sunnyside, Pretoria. Searching for Sunnyside Research Report. University of Witwatersrand

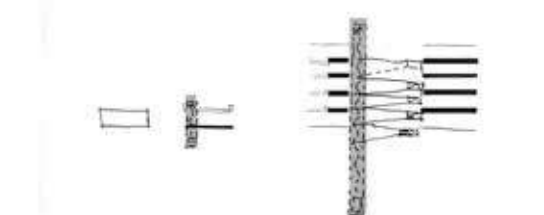
8.3. DESIGN PROCESS



PUBLIC TO PRIVATE SECTION
SPACES INCREASINGLY PRIVATE AS LEVELS GO UP TO ACCOMMODATE PRIVACY IN



INTERNAL VOIDS
CENTRAL SPACE IN BUILDING
USED AS OPEN SPACE IN ORDER TO RE-
CREATE VISIBILITY ETHOS OF FLATS IN
SUNNYSIDE (EYES ON THE STREET).



VERTICAL CIRCULATION USED TO CONNECT
DIFFERENT ASPECTS OF PROGRAMME.

Fig. 8.30. Tsebe. T. 2021. Section Design process diagrams. Searching for Sunnyside.

KEY SPACES - SECOND FLOOR

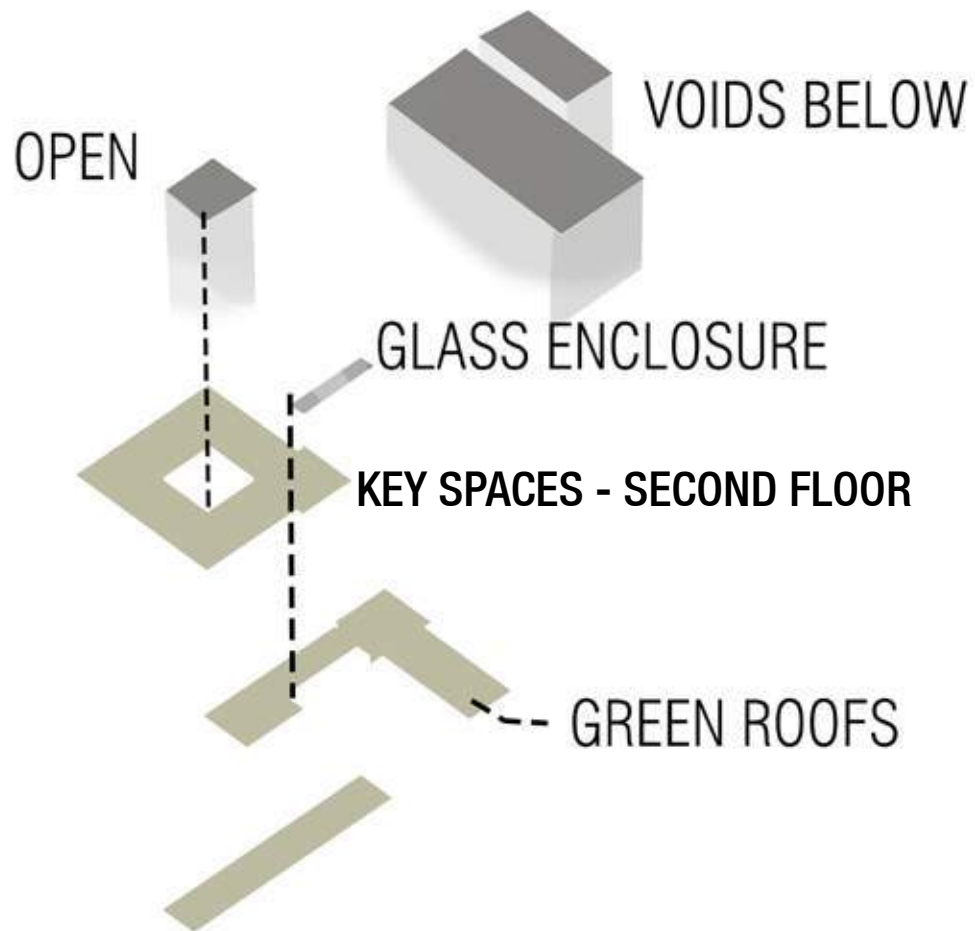
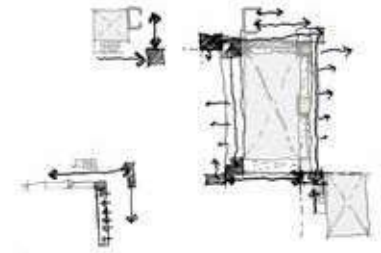
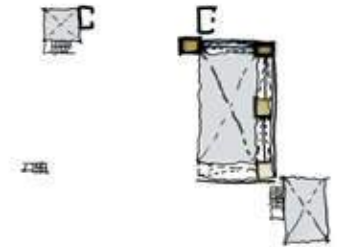


Fig. 8.31 Tsebe. T. 2021. Axonometric Conceptual Diagrams, Edited image over Sketchup model. Searching for Sunnyside Research Report. University of Witwatersrand.

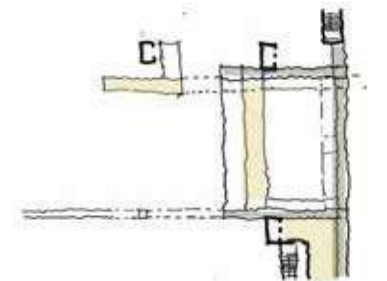
8.3. DESIGN PROCESS



MOVEMENT RESTRICTED VS MOVEMENT UNRESTRICTED. MOVEMENT ROUTES DIRECTED ALONG COURTYARDS



RELATIONSHIP BETWEEN VOIDS AND LANDINGS. LANDINGS LOOK OVER COURTYARDS



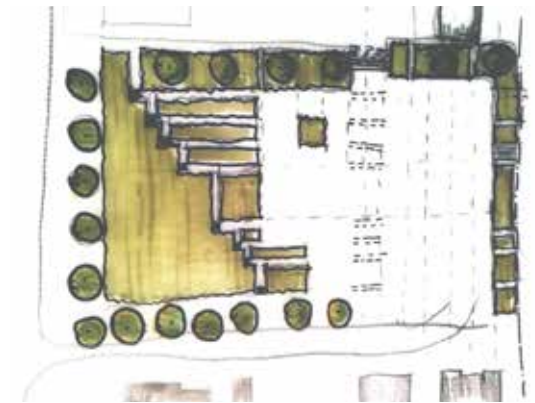
VERTICAL CIRCULATION LOBBIES IN RELATIONSHIP TO HORIZONTAL CIRCULATION. CIRCULATION CORES ORIENT USER TO AND FROM COURTYARDS

Fig. 8.32 Tsebe. T. 2021. Design Process Diagrams. Hand Sketches. Searching for Sunnyside Research Report. University of Witwatersrand.

8.3. DESIGN PROCESS



PROGRAMME IN RELATIONSHIP TO VOIDS (COURTYARDS)



GREENERY

Fig. 8.33.Tsebe. T. 2021. Design Process Diagrams. Hand Sketches. Searching for Sunnyside Research Report. University of Witwatersrand.

8.4. SITE PLANNING

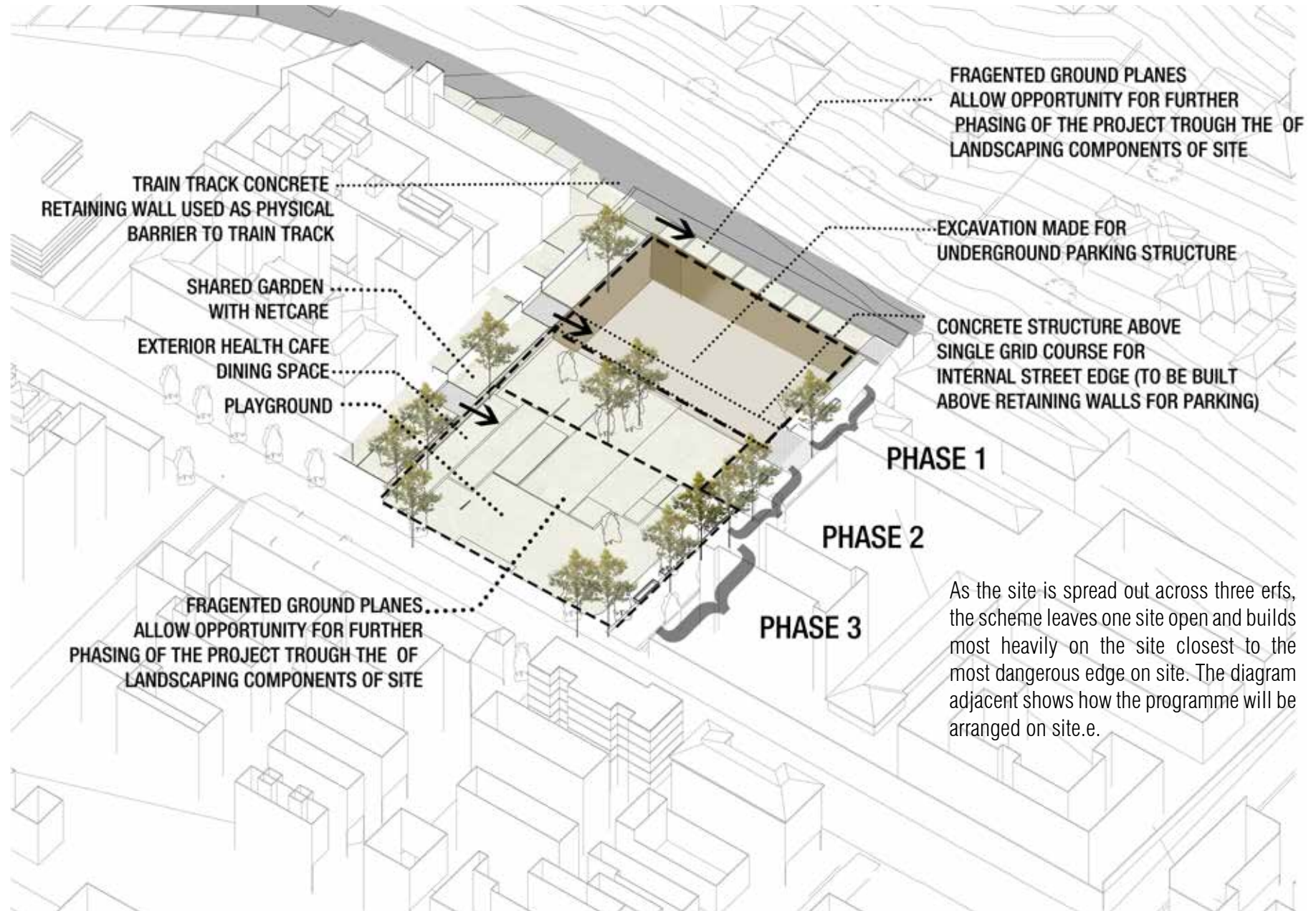


Fig. 8.34. Tsebe, T. 2021. Site planning. Axonometric Diagram. Revit Model. Edited by Tumi Tsebe. Searching for Sunnyside Research Report. University of Witwatersrand.

8.4. SITE PLANNING

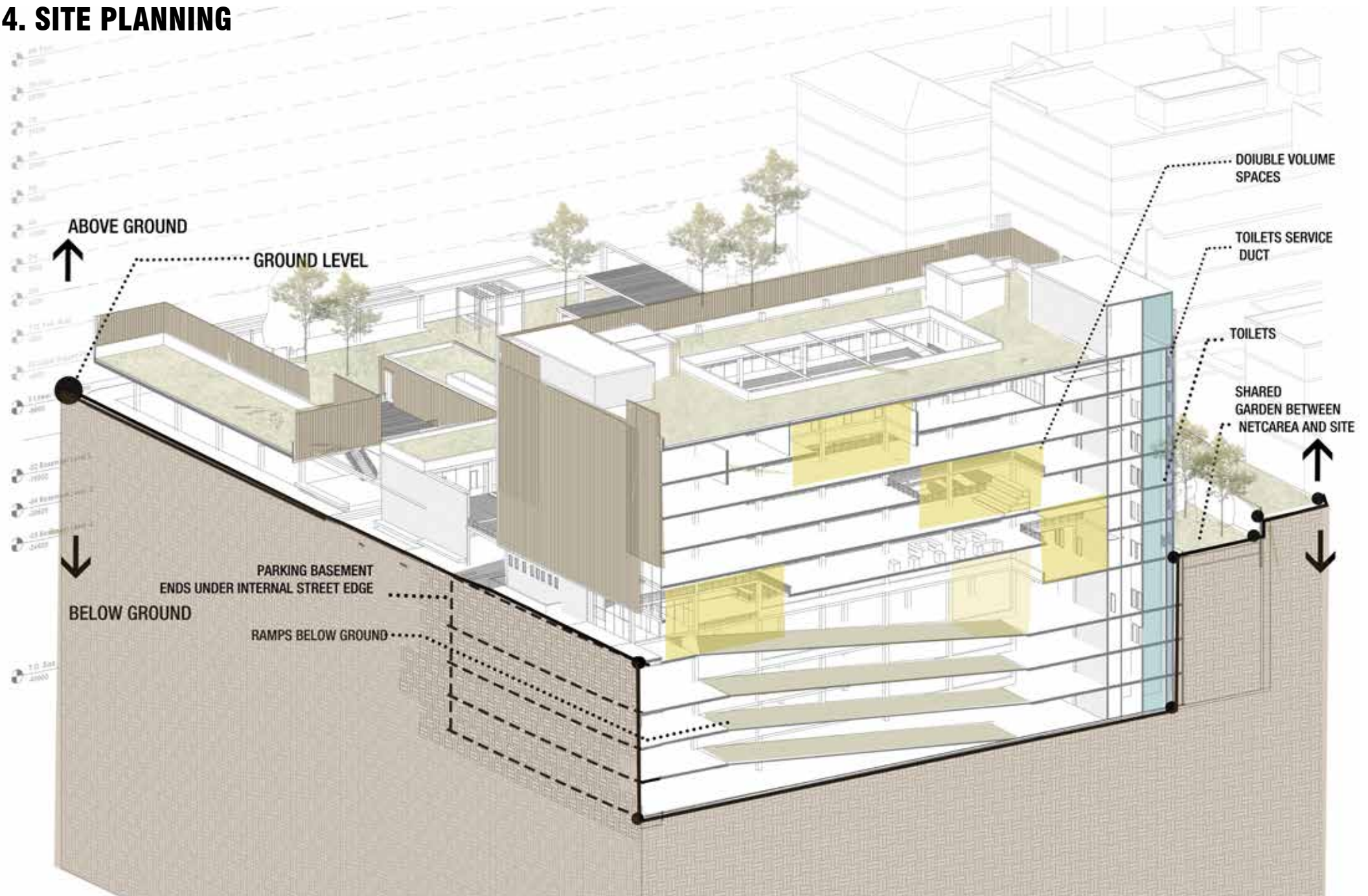


Fig. 8.35. Tsebe, T. 2021. Site planning. Above and below ground facilities. Revit Model. Edited by Tumi Tsebe. Searching for Sunnyside Research Report. University of Witwatersrand.

8.4. SITE PLANNING

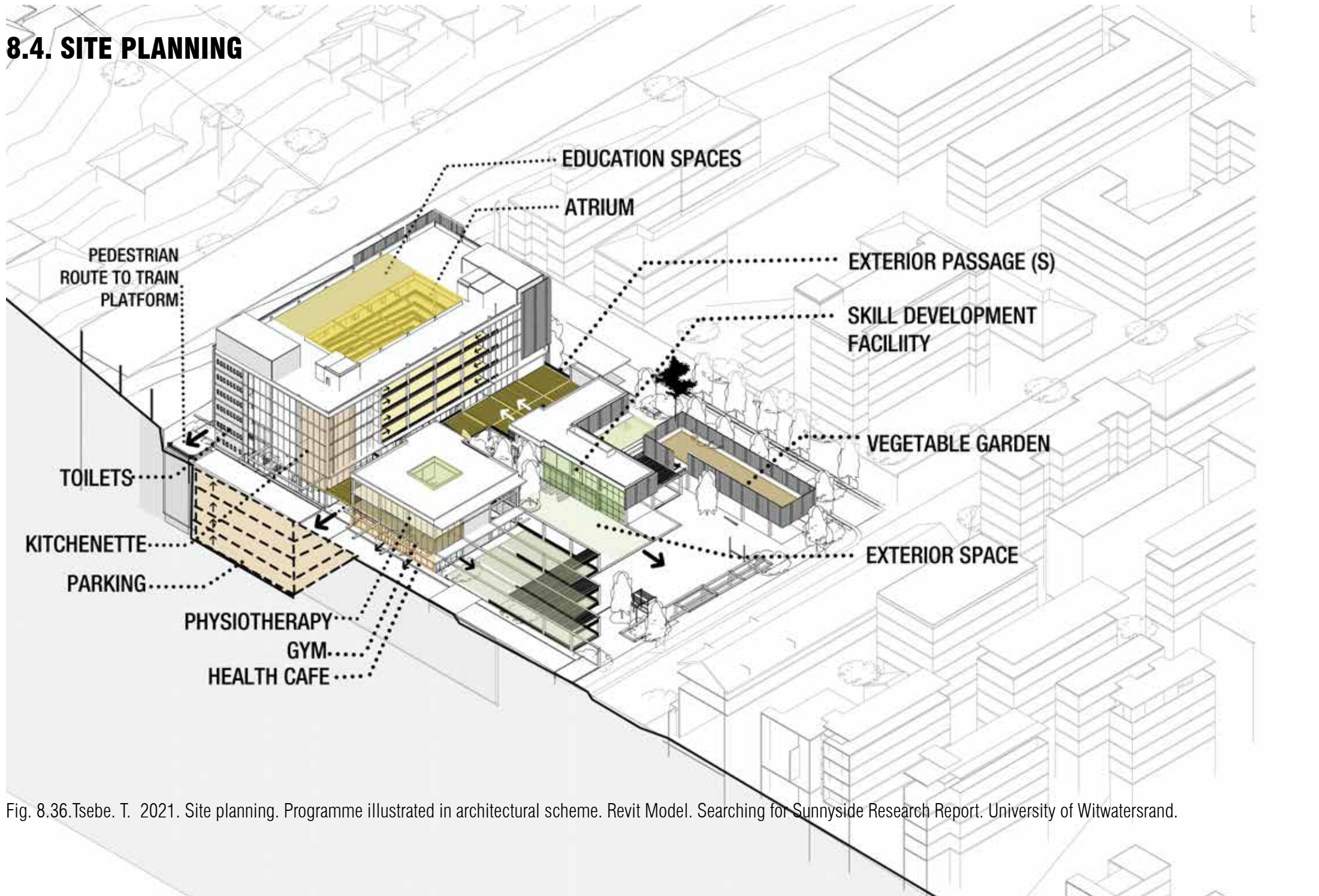


Fig. 8.36.Tsebe. T. 2021. Site planning. Programme illustrated in architectural scheme. Revit Model. Searching for Sunnyside Research Report. University of Witwatersrand.

8.4. SITE PLANNING

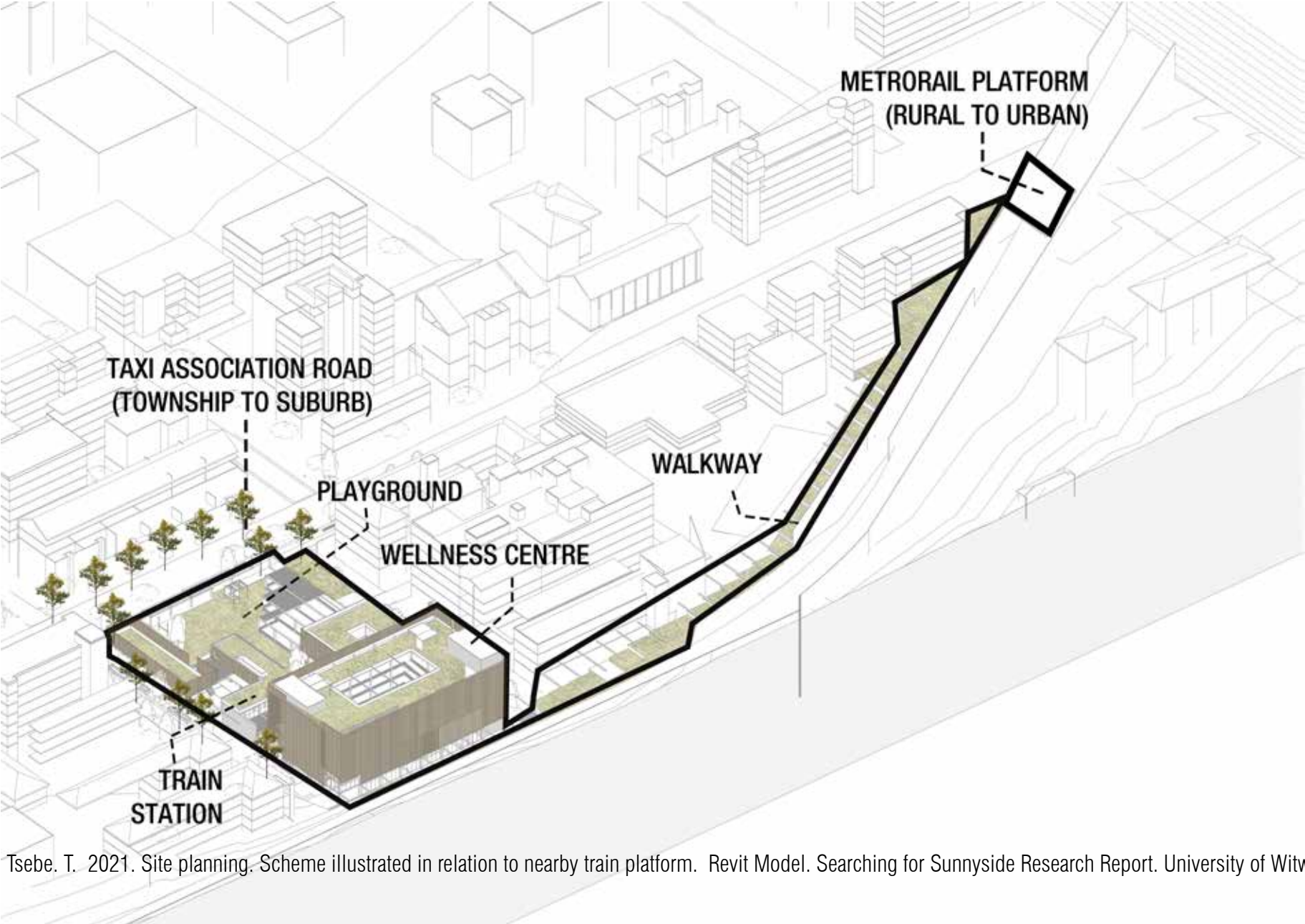
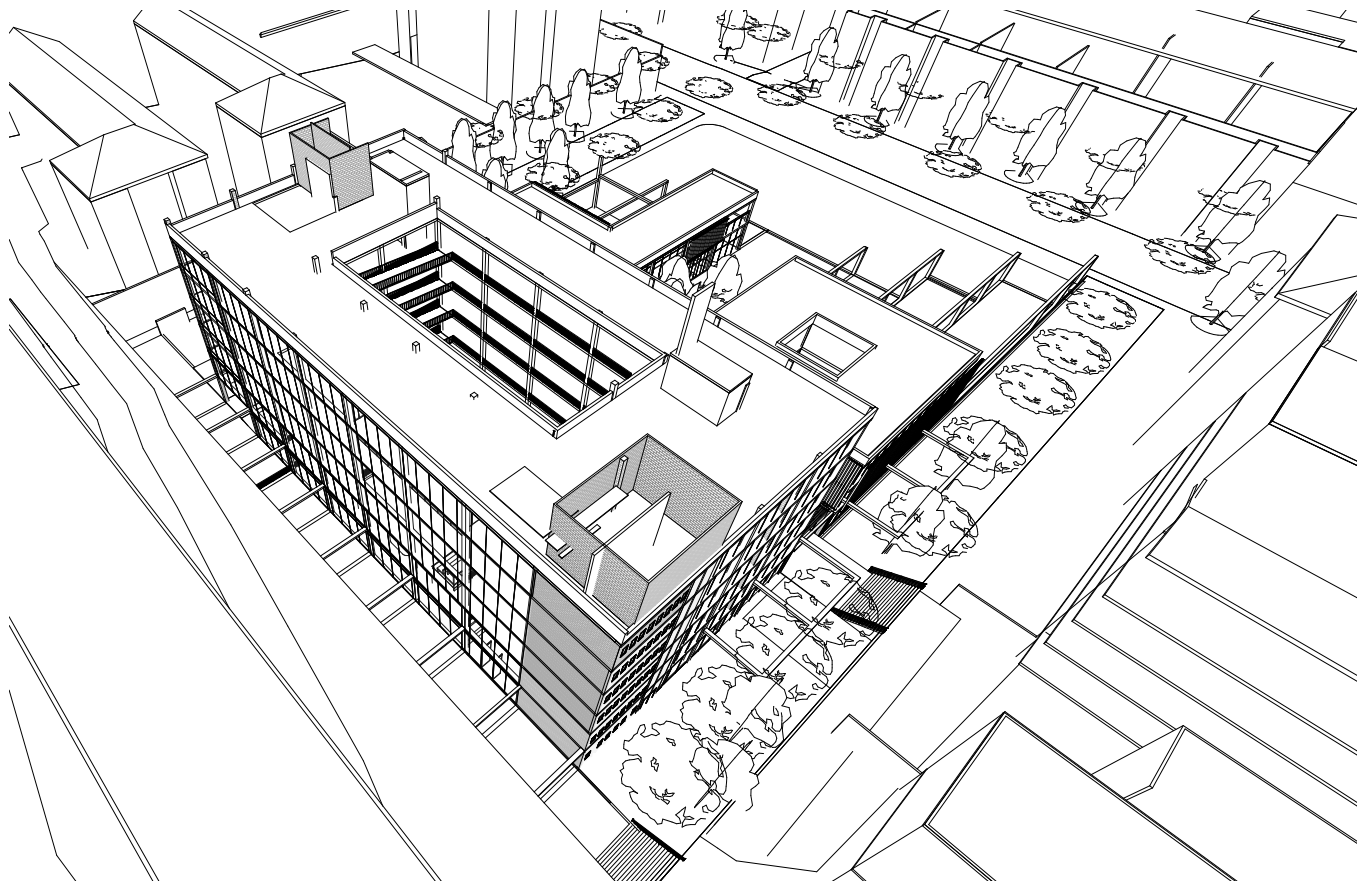


Fig. 8.37. Tsebe, T. 2021. Site planning. Scheme illustrated in relation to nearby train platform. Revit Model. Searching for Sunnyside Research Report. University of Witwatersrand.



8.5. EDGES

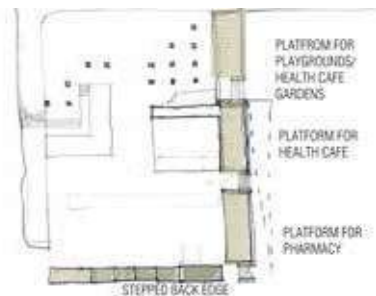
One of the key ideas to successful site planning is the use of appropriate street edges and the ability to use the street edge both as a way of allowing the building to make contact with the public's movement routes and urban infrastructure as well as to invite the public into the building. In the scheme for Searching for Sunnyside, the street edge on Justice Mahomed is one that will respond to Justice Mahomed by using urban transport structures such as bus stops and pedestrian sidewalks to enhance its capacity to act as an arterial route in and out of Sunnyside.

In order for urbanists to create efficient transport routes at the urban scale, they have to follow the path of least resistance. It is much the same at the architectural scale. In buildings, even in Sunnyside, the busiest buildings are the ones with the least spatial resistance to movement. (i.e. Sunnyside) It is also worth noting that these are also the building with the least surveillance. (i.e. Eyes on the street)

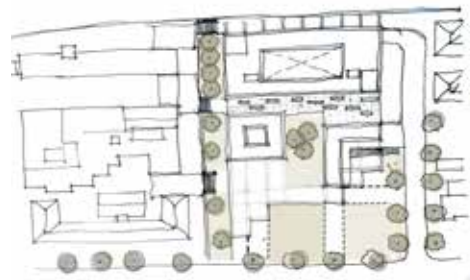
This creates high pedestrian traffic opens an opportunity for users to become buyers should the products be readily available. In the context of Sunnyside, this is seen in the wide walkways in the mall. This also allows shop owners the opportunity to show products for users to engage. More engagement meaning allowing more sales. Interesting similarity between Sunnypark, Sunnyside and the typical urban section.

This logic is also reapplied by informal traders on the street as they tend to set up stalls in between the residential property boundary and the pedestrian sidewalk.

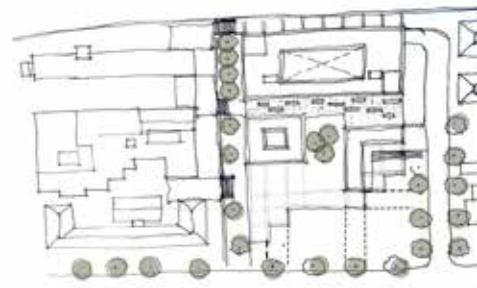
PRIVATE EDGES WITHIN SCHEME



NETCARE EDGES



JUSTICE MAHOMED STREET EDGES



LOVEDAY STREET EDGES

Fig. 8.38. Tsebe, T. 2021. Edges Design Process Diagrams Hand Sketches.



Fig. 8.39. Tsebe, T. 2021. Render of Justice Mahomed Street. Searching for Sunnyside Research Report. University of Witwatersrand

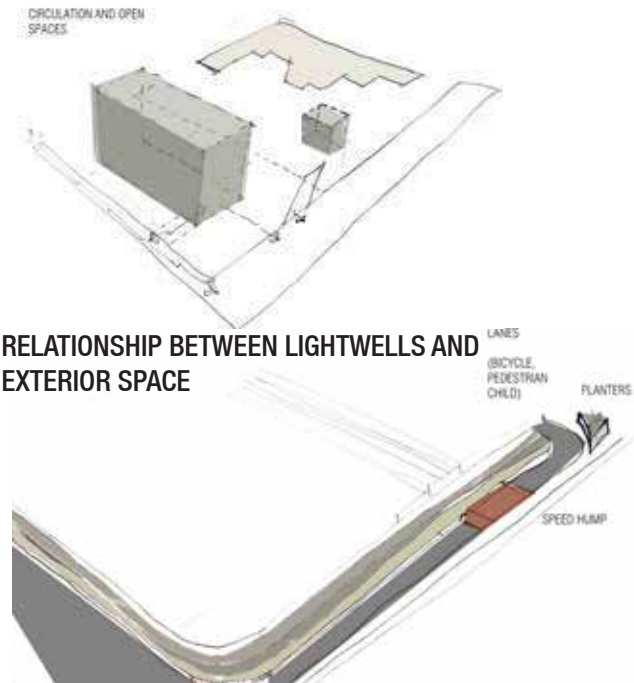
ON LOVEDAY STREET

Loveday street is the primary pedestrian route into the site and therefore should make use of traffic control such as speed humps and booms in order to keep the urban street edge. The intersection between Loveday Street and Justice Mahomed is a stationary point for pedestrians and is also where the existing informal traders have set up their stalls.

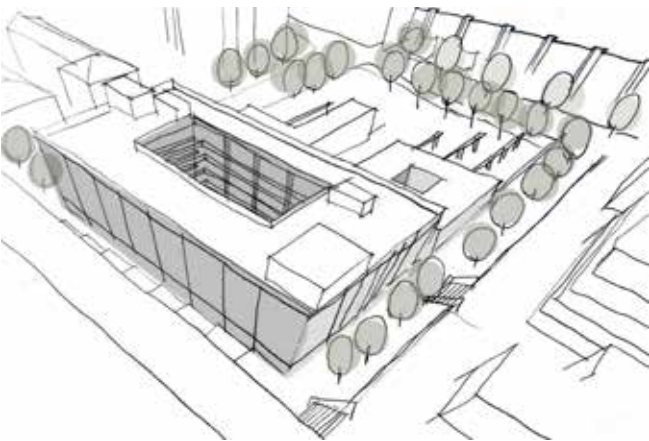
ON NETCARE

As Netcare Jacaranda Hospital is located adjacent to the site and as a consequence shared a boundary wall between the site and Netcare. In the proposal, the site will share an edge with Netcare as the current boundary wall will be demolished. Creating an “internal public edge” between the site and Netcare.

8.5. EDGES



MULTILAYERED STREET EDGE



RELATIONSHIP BETWEEN BACK GARDEN AND PUBLIC OPEN SPACE

Fig. 8.40. Tsebe, T. 2021. Design Process Diagrams on Edges. Hand Sketches. Searching for Sunnyside Research Report. University of Witwatersrand.

8.6. ARCHITECTURAL COMPONENTS

FOUR LEVELS OF BELOW GROUND PARKING FOR VEHICLES AND VARIOUS FORMS OF TRANSPORT WITH CENTRAL VOID ACTING AS RAMP TO ADDITIONAL LEVELS.

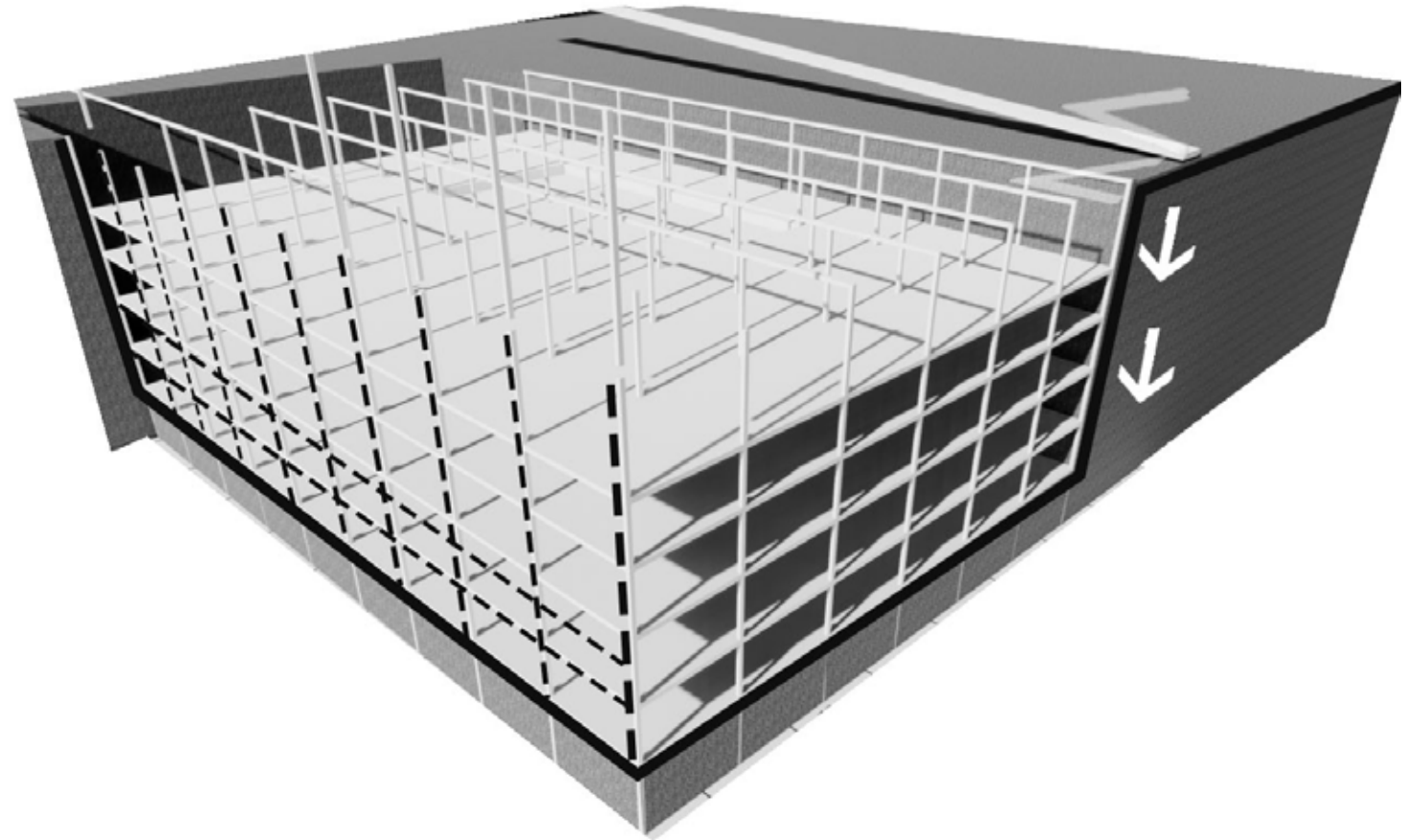


Fig. 8.41. Tsebe. T. 2021. Axonometric View of Park-ing concept. Sketch Up. Sunnyside, Pretoria

8.6. ARCHITECTURAL COMPONENTS

INTERNAL AND EXTERNAL COURTYARDS INTEGRATED .

8,4 X 8,4m GRID CONTINUOUS INTO EXTERNAL COURTYARDS.

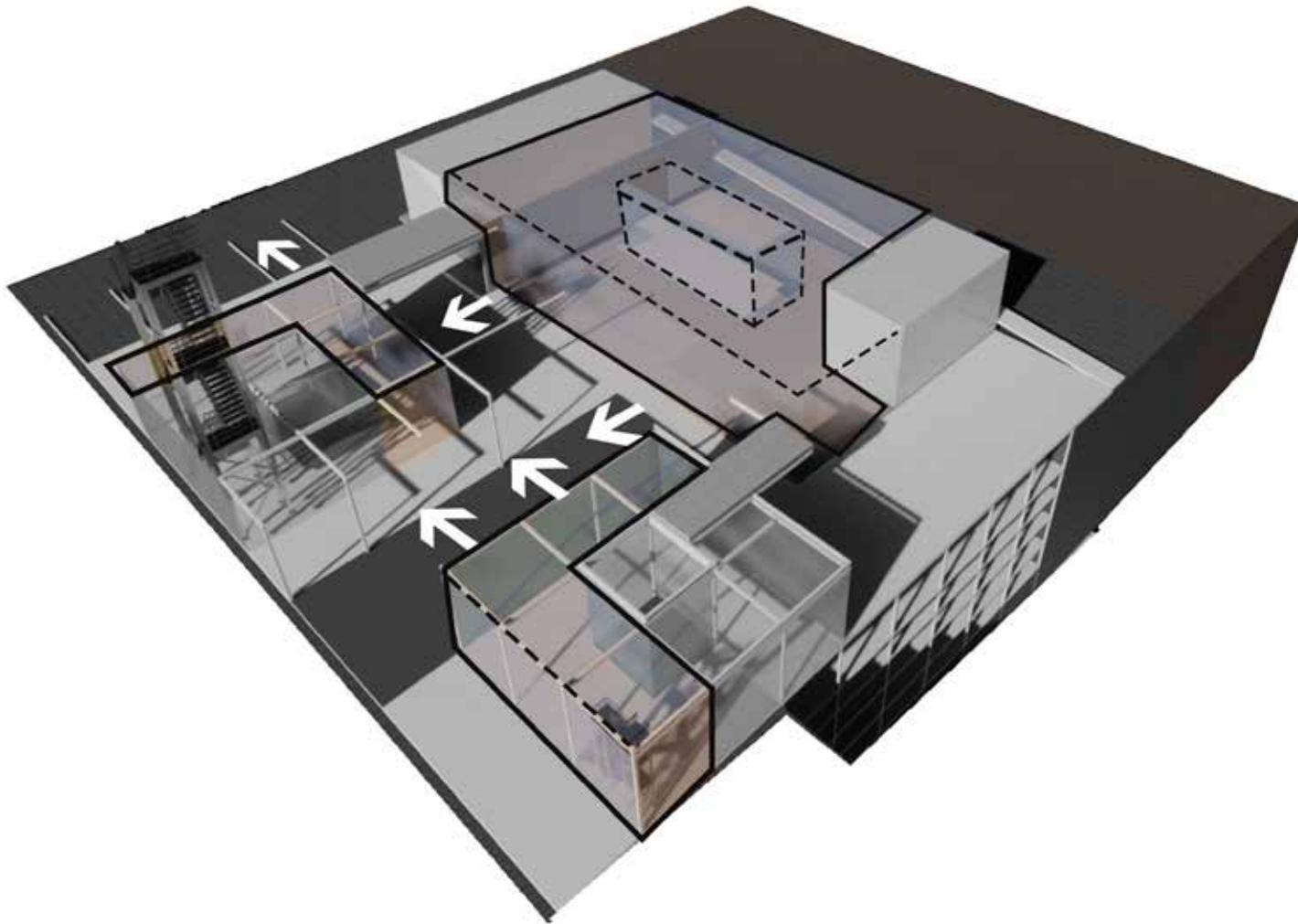


Fig. 8.42. Tsebe. T. 2021. Axonometric View of Courtyards concept. Sketch Up. Sunnyside, Pretoria

8.6. ARCHITECTURAL COMPONENTS

Above double volume courtyards in phase 2 of the scheme, green roofs connected to phase 1 through a bridge, increasing circulation and opportunity for engagement across the schemes.



Fig. 8.43. Tsebe. T. 2021. Axonometric View of vertical circulation concept. Sketch Up. Sunnyside, Pretoria. Searching for Sunnyside Research Report. University of Witwatersrand.

8.6. ARCHITECTURAL COMPONENTS

Above the second floor, the scheme opens onto a large external balcony space available to healthcare workers and patients.

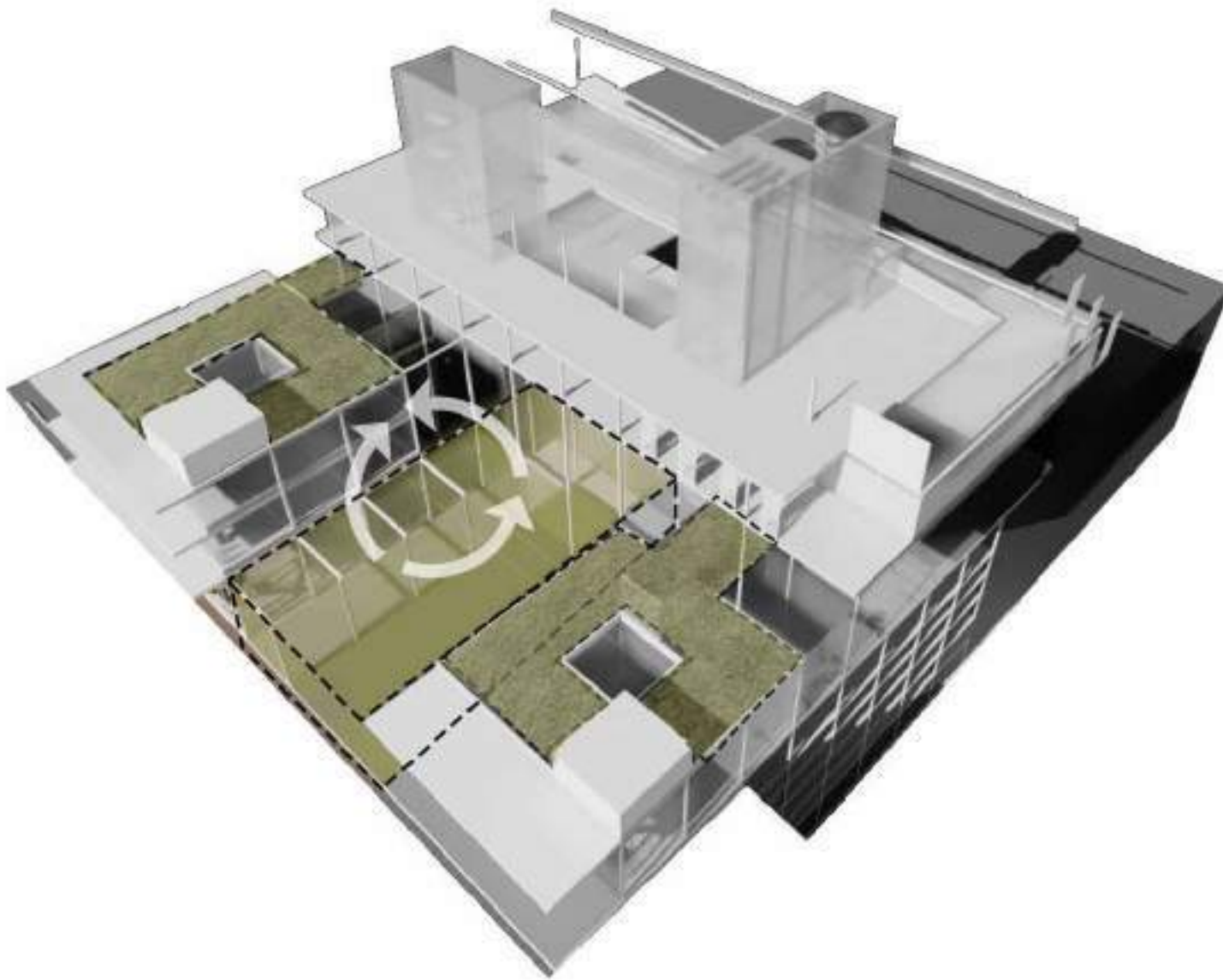


Fig. 8.44.. Tsebe, T. 2021. Axonometric View of terracing concept. Sketch Up. Sunnyside, Pretoria

8.7. CONCLUSION

The overall ethos of the scheme is one where nature and greenery facilitate services around wellbeing and health in a series of roof terraces. Connecting this spatial ethos to the ground, the scheme is integrated into what Sunnyside already has to offer its residents.

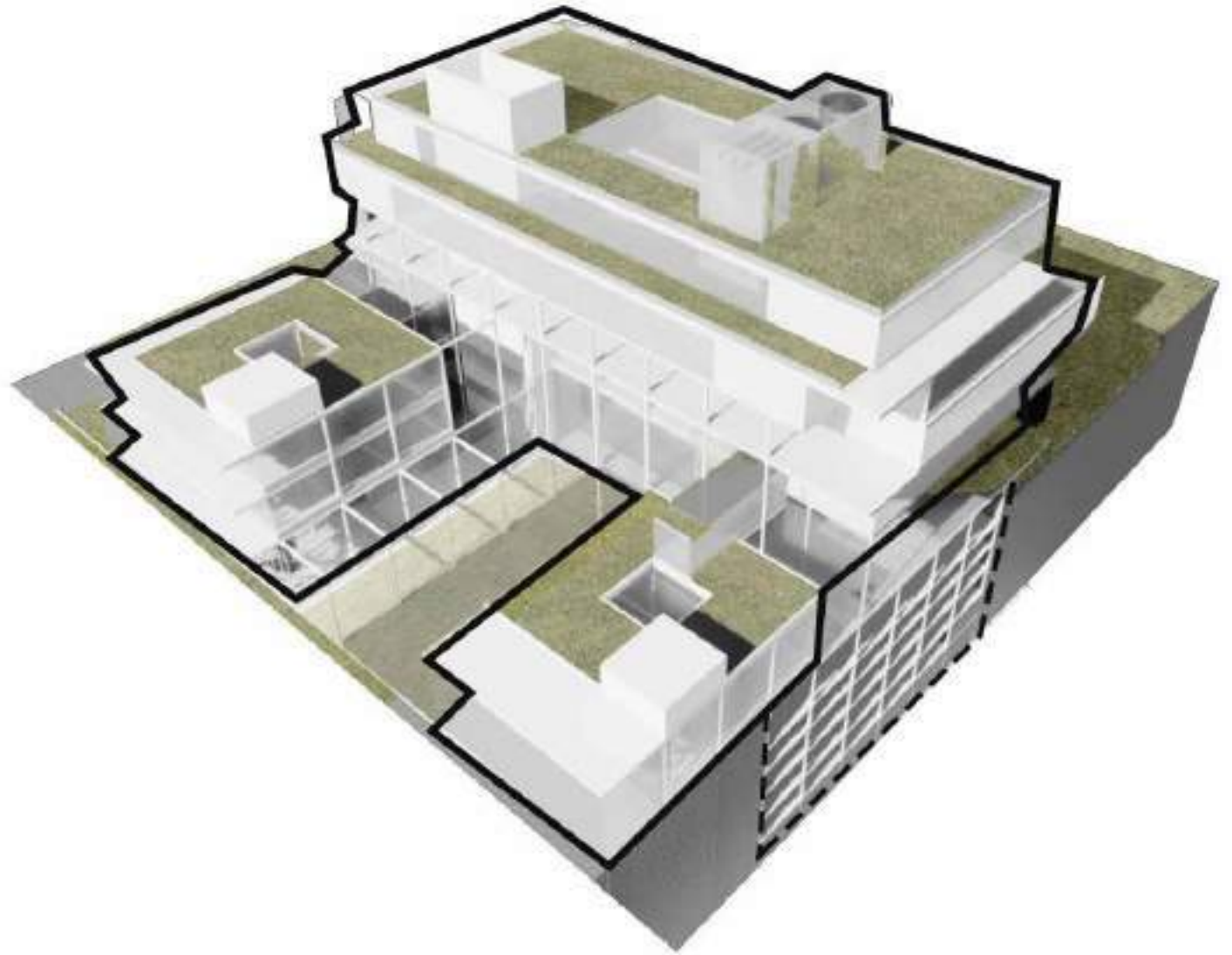


Fig. 8.45. Tsebe. T. 2021. Axonometric View of conclusive concept. Sketch Up. Sunnyside, Pretoria

CHAPTER 9

Technical Aspects

CHAPTER 9

Technological Design

9.1. TECHNICAL ASPECTS CONCEPT INTRODUCTION

The technical aspects of the building are inspired by the construction details of Sunnyside as it is today. Including the use of perforated brick walls and orthogonal forms. These forms are built for practicality and economy of construction. Hence the exposed brickwork and conventional 8,4m x 8,4m grid. While the grid is primarily informed by the parking spaces and their necessary spacing, above the ground levels the grid is allowed to skip intervals in order to create double and multiple volume spaces (more than 4 levels). This creates an environment where space, light and air are available to be shared for therapeutic purposes.

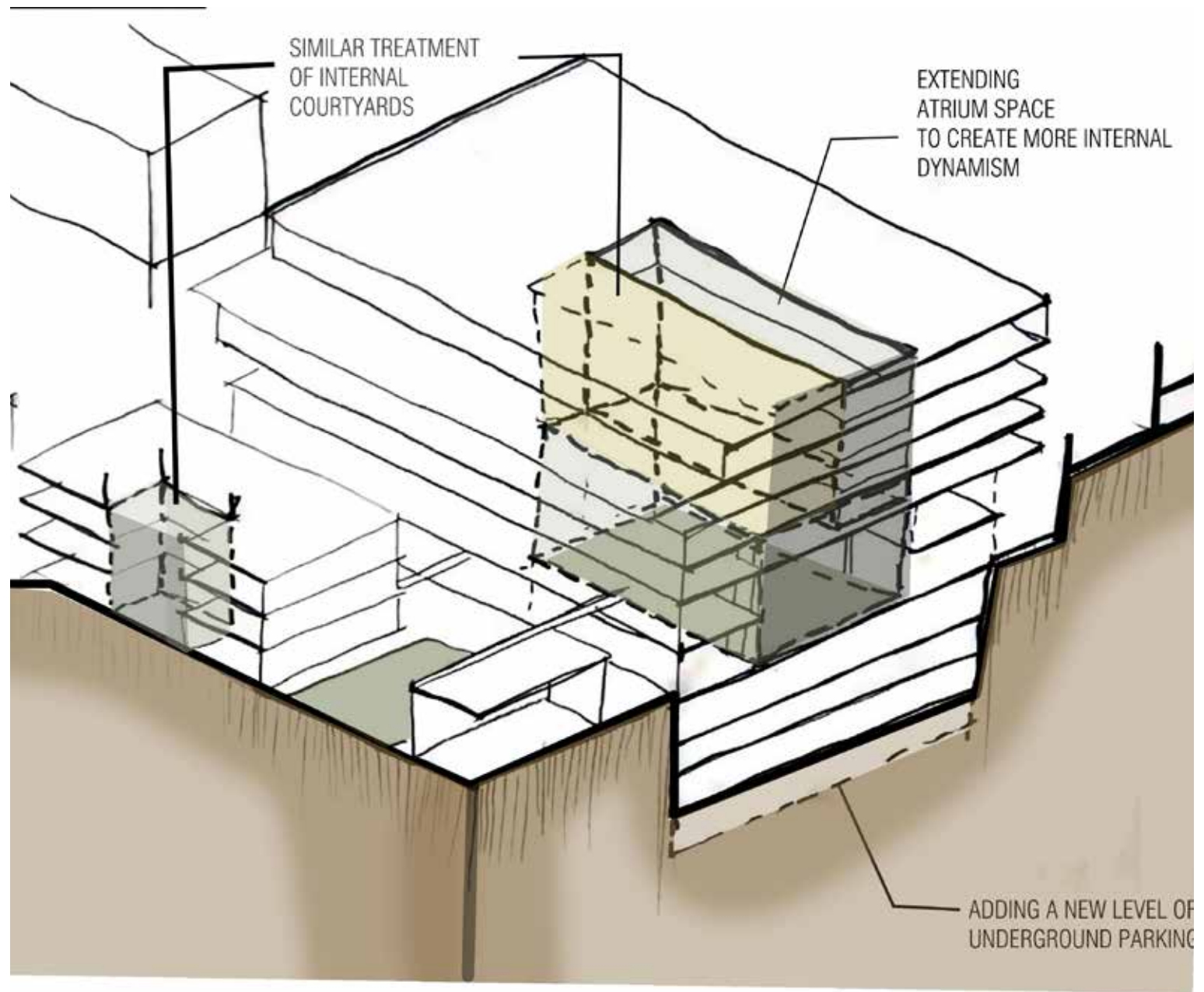


Fig. 9.1 Tsebe. T. 2021. Axonometric Sketch of Atrium Concept. Conceptual Sketch. Sunnyside, Pretoria.

9.2. PROCESS DIAGRAMS

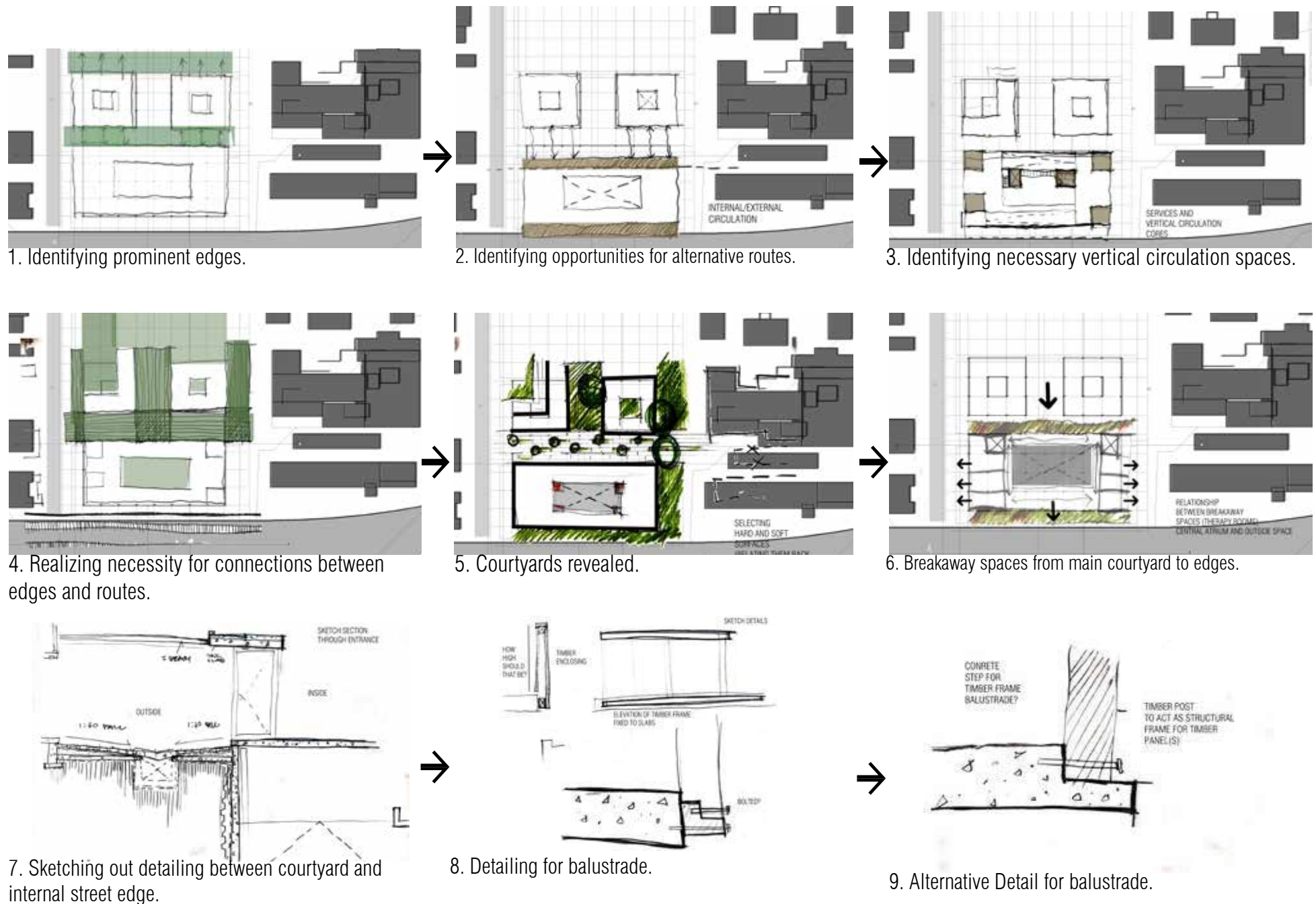


Fig. 9.2. Tsebe, T. 2021. Flow chart showing process diagrams of design development.

9.3. SELECTED ELEMENT (ATRIUM)

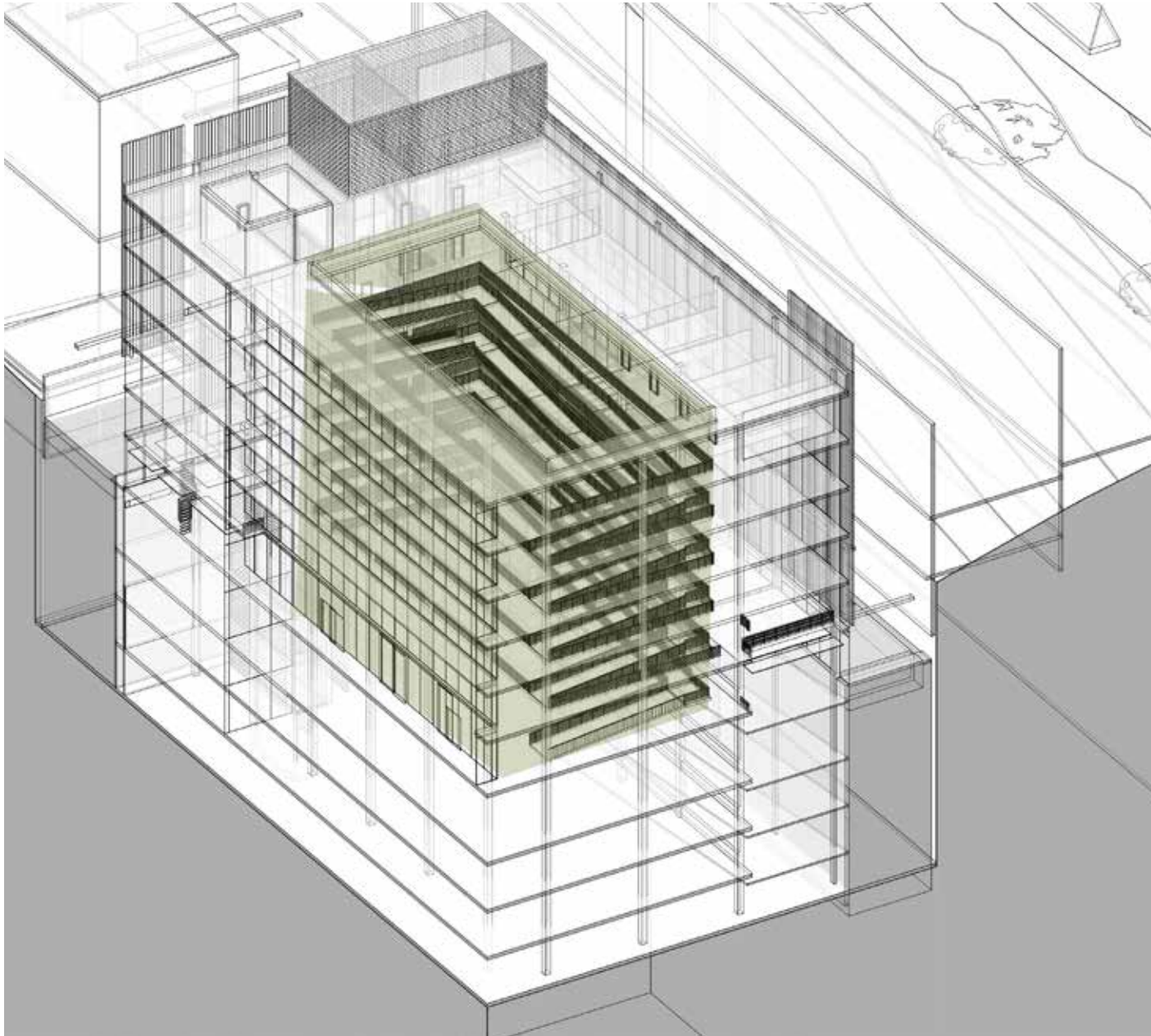


Fig 9.3 . Tsebe. T. 2022.Axonometric Diagram. Stripped away axonometric diagram showing atrium space. 2021 . Searching for Sunnyside Research Report. University of Witwatersrand.

WHY IS THE ATRIUM IMPROTANT?

Atrium spaces are useful in public buildings for a variety of reasons including the opportunity they present for successful ventilation across multiple levels. The integration of natural lighting with public aspects of the building program and energy efficiency. In Sunnyside, most buildings don't have an atrium. Although this might be because of financial models for buildings that seek to take advantage of as much of the floor slabs as possible, this doesn't negate the necessity for these kinds of spaces that create breathing room in the context of public buildings in a city. Not to mention their capacity to invite a larger number of users to occupy the buildings more casually. Whether simply using the atrium as a lobby space or using it as a gathering space. For these reasons, the atrium in my scheme is a key element to detail successfully. The atrium not only forms an important part of the program but the technical exploration as well.

THE ATRIUM IN THE SCHEME

In the scheme for Searching for Sunnyside, the atrium acts as a bridging space between the more private aspects of the program and the more public aspects of the program. In doing this, the atrium becomes an important space that mediates between public and private. In order to do this, the atrium's boundaries become increasingly important and the architectural devices around it, especially the shading devices, become important devices for making the character of the atrium space important.

9.4. ARCHITECTURAL DEVICES AROUND ATRIUM

Perforated Brick walls

Which act as shading devices. This method of shading can be found in other parts of Sunnyside as identified in the Site Analysis. Timber cylinders as shading to be considered for environmental reasons (in particular, the life-cycle of the building).

An 8.4 x 8.4m Concrete Grid

Concrete grids can be found in Sunnyside's other high-rise buildings, mainly flats. The grid is informed by the parking bays width.

Timber Acoustic Dividing Walls

These dividing walls allow the spaces around the atrium to separate themselves acoustically from the atrium which is likely to have the highest noise levels in the building as the building. Timber's sound absorption properties maintain privacy and intimacy in the therapy rooms.

Elbow height non-permeable balustrades

Balustrades focus on ensuring the atrium space doesn't become a safety hazard allowing people (especially those on wheelchairs) to fall off of the higher levels in the atrium, resulting in accidental death. Timber balustrades not only diffuse sound from the atrium but also act as a steady barrier between circulation routes and voids.

Considering approaches to North Facing facade

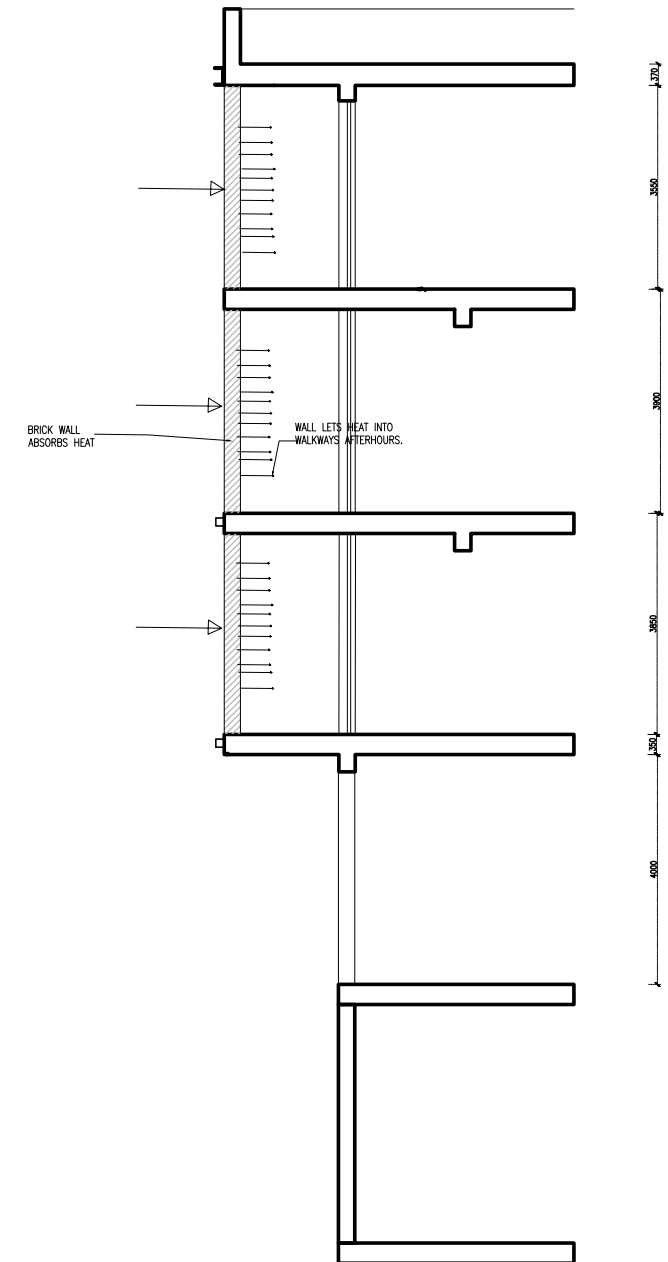


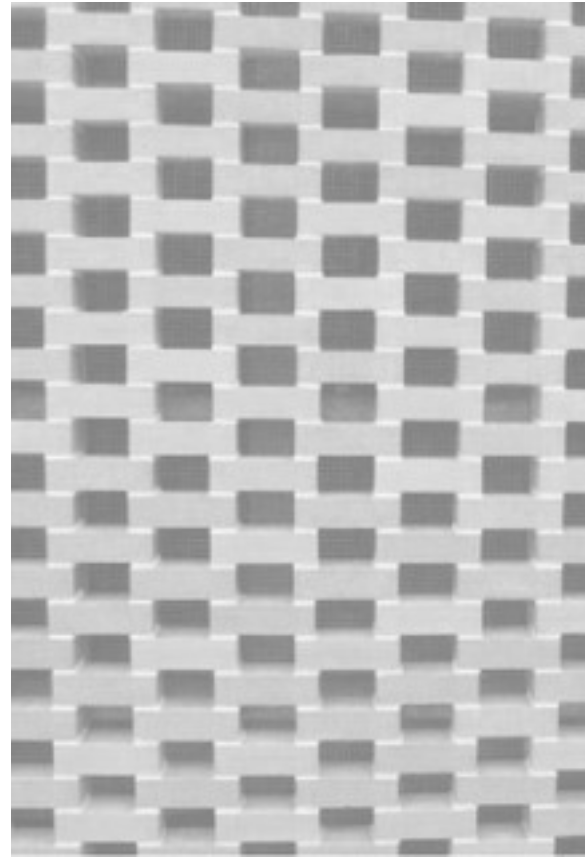
Fig. 9.4. Tsebe. T. 2021. Section of Brick shading device. Digital Drawing. Sunnyside, Pretoria. Searching for Sunnyside Research Report. University of Witwatersrand.

9.4. ARCHITECTURAL DEVICES AROUND ATRIUM

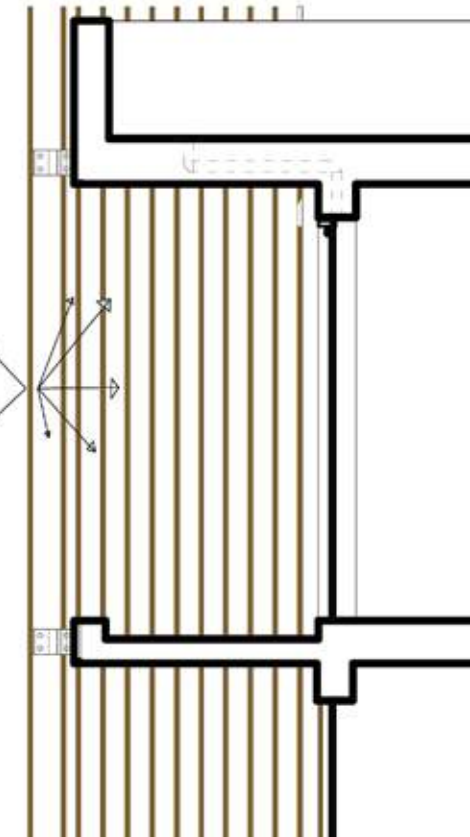
Reconsidering shading around atrium

After further consideration for children, I concluded that the perforated brick walls along the perforated brickwork in the external passages would become a safety hazard. due to children's tendency to climb up the walls by using the spaces between the open bricks as climbing tools.

Considering approaches to North Facing facade

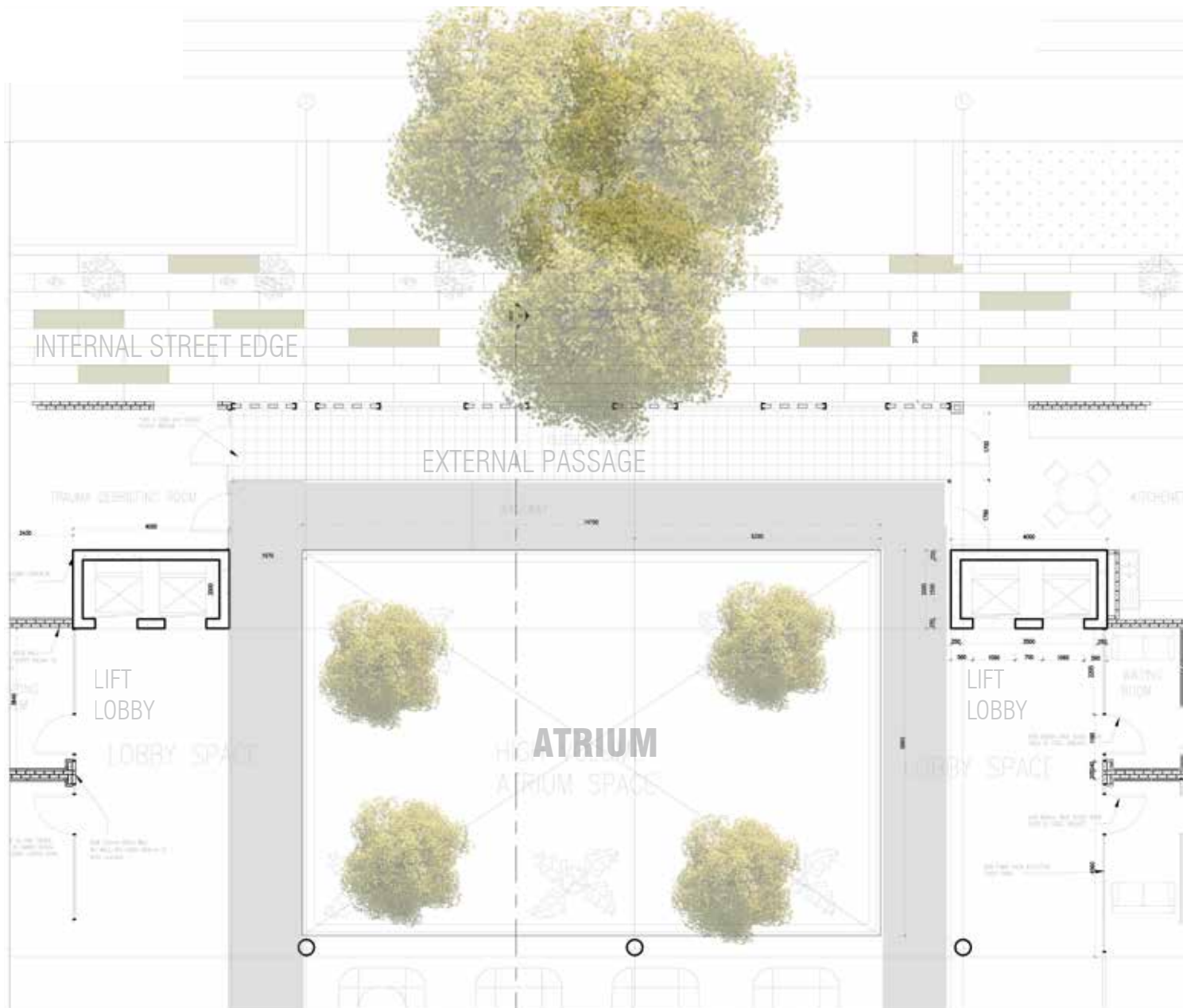


PERFORATED BRICKWORK



TIMBER SLATS

Fig. 9.5. Tsebe. T. 2021. Image showing reconsidering of brick facade in favor of timber. Digital Drawing. .Sunnyside, Pretoria.



9.5. MATERIALS

The materials to be used in the scheme will be concrete for structural stability, perforated brickwork for controlled solar/shading response and timber frame wall panels for acoustically controlled spatial division. The glass used in of the building will be reflective making reference to reflection as a necessary and inevitable component of psychological development.

Fig 9.6. Tsebe. T. 2021. Plan Showing spaces surrounding atrium. Digital Drawing . 2021. Sunnyside, Pretoria. Searching for Sunnyside Research Report. University of Witwatersrand.

9.6. COURTYARDS

The Internal Street Edge

The internal street edge made of hard surfaces such as cement paving bricks. Trees and green roofs linking the ground plane to the natural environment seamlessly. This also links the scheme to the greater context. Bringing the urbanity of Sunnyside into the pedestrian spaces within the wellness centre. The relevance of both the internal courtyard and the atrium spaces are key to the success of the scheme given their relationship to breakaway circulation and therapy spaces.

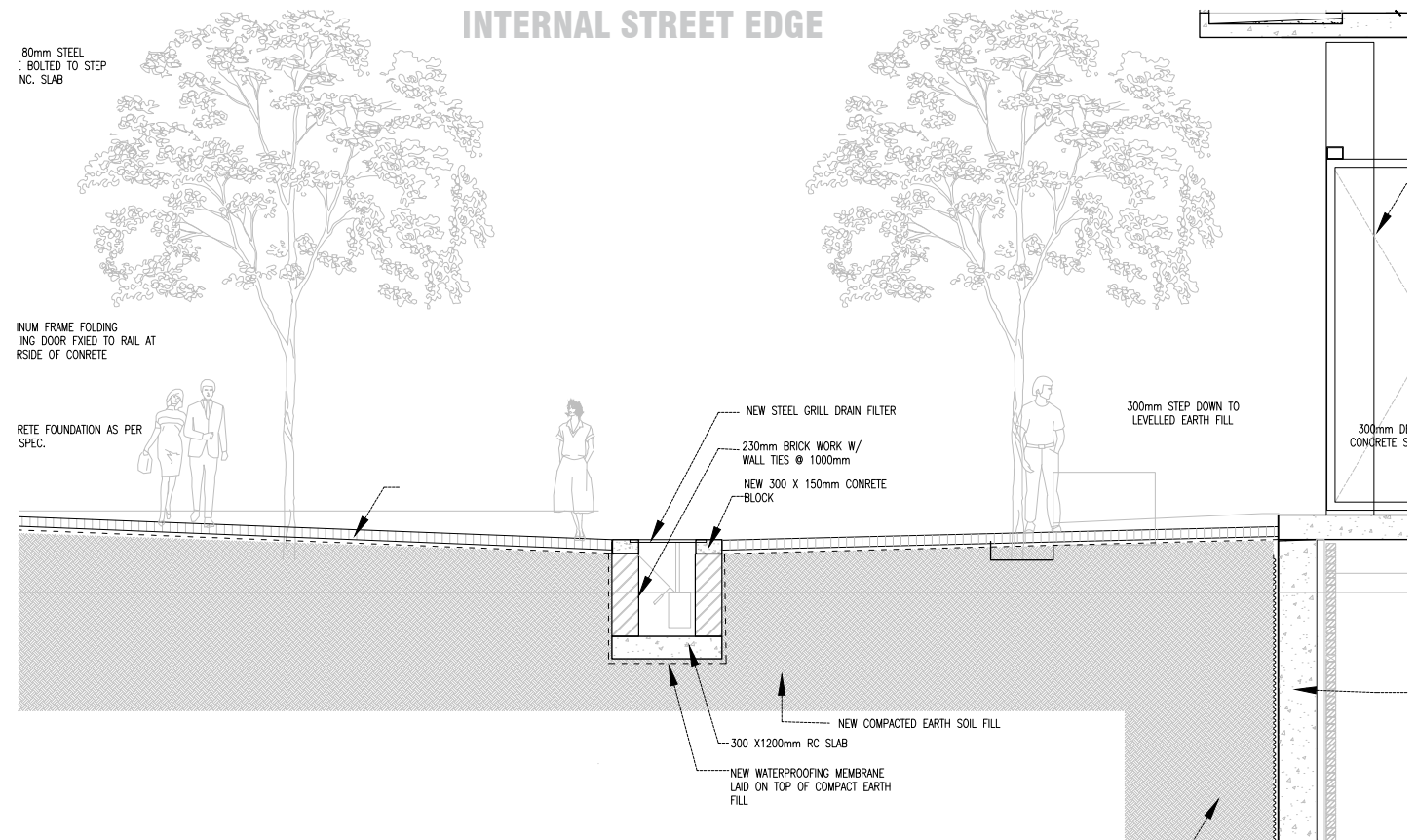


Fig.9.7. Tsebe. T. 2021. SECTION THROUGH INTERNAL STREET EDGE Digital Drawing. Sunnyside, Pretoria. Searching for Sunnyside Research Report. University of Witwatersrand.

9.7. SECTION (REFERENCE IMAGE)

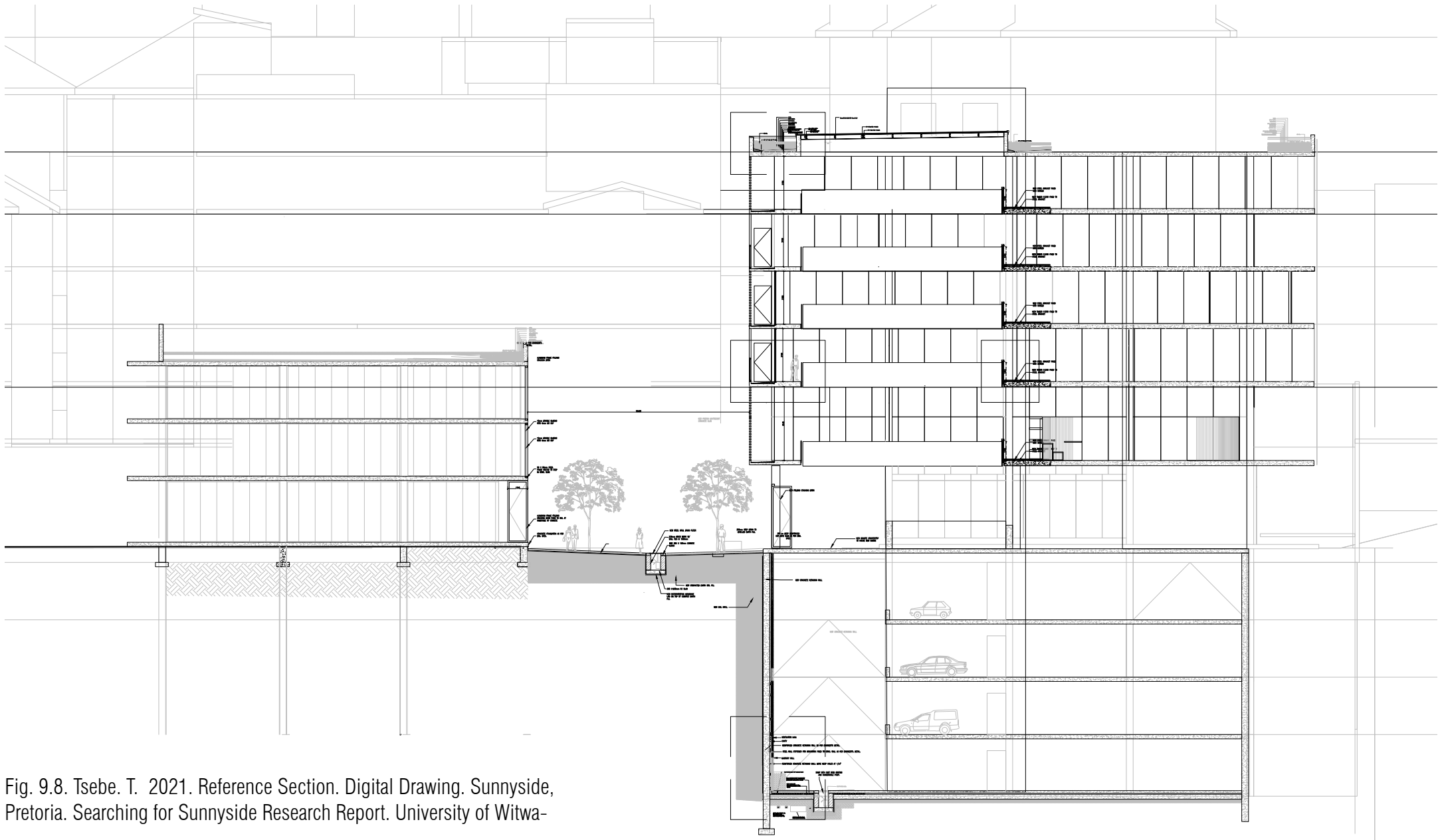


Fig. 9.8. Tsebe. T. 2021. Reference Section. Digital Drawing. Sunnyside, Pretoria. Searching for Sunnyside Research Report. University of Witwa-

9.8. REFERENCE AXO

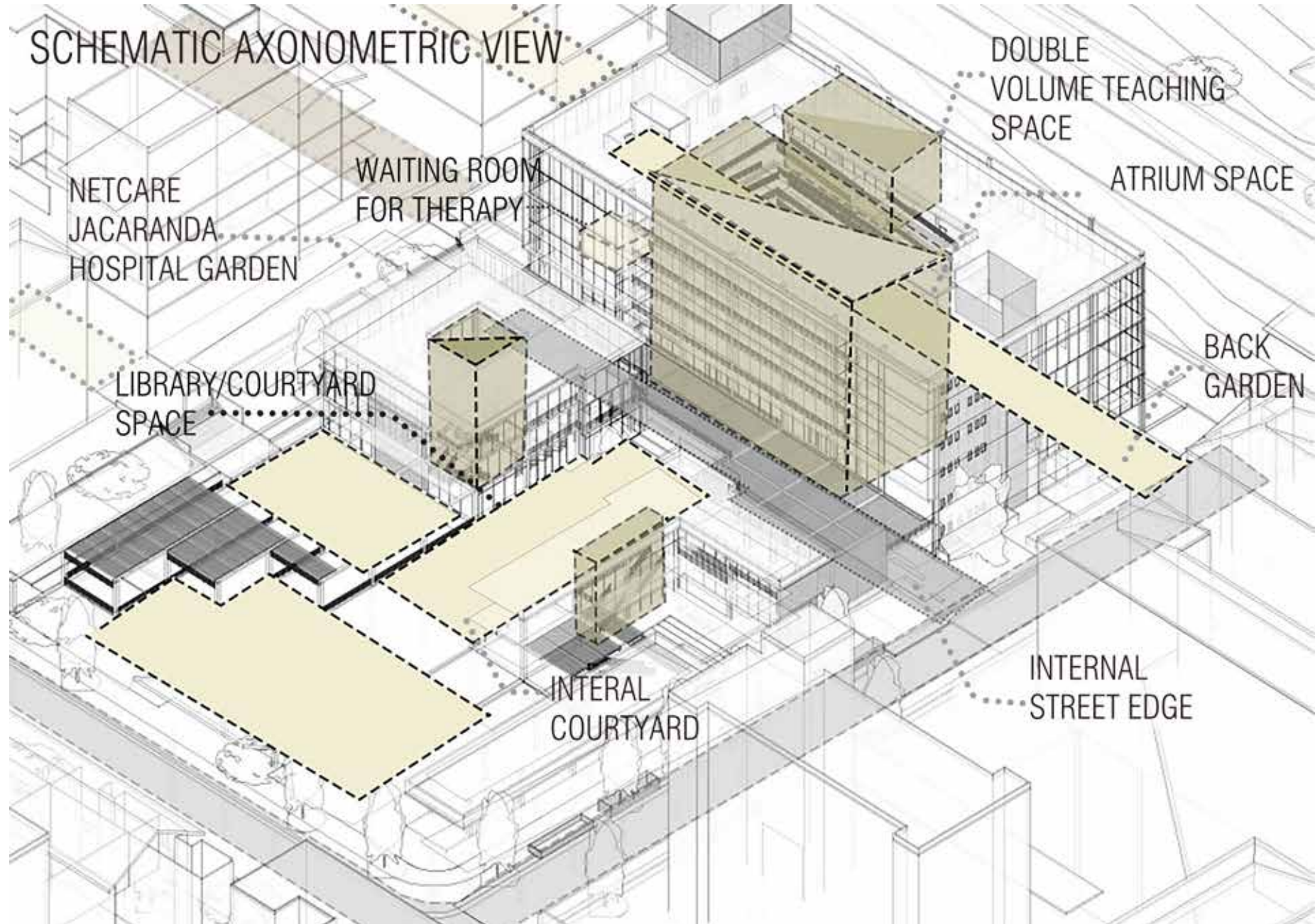


Fig. 9.9. Tsebe, T. 2021. Reference Section Detail A. Digital Drawing. Sunnyside, Pretoria. Searching for Sunnyside Research Report. University of Witwatersrand

9.9. SECTION DETAILS
DETAIL B

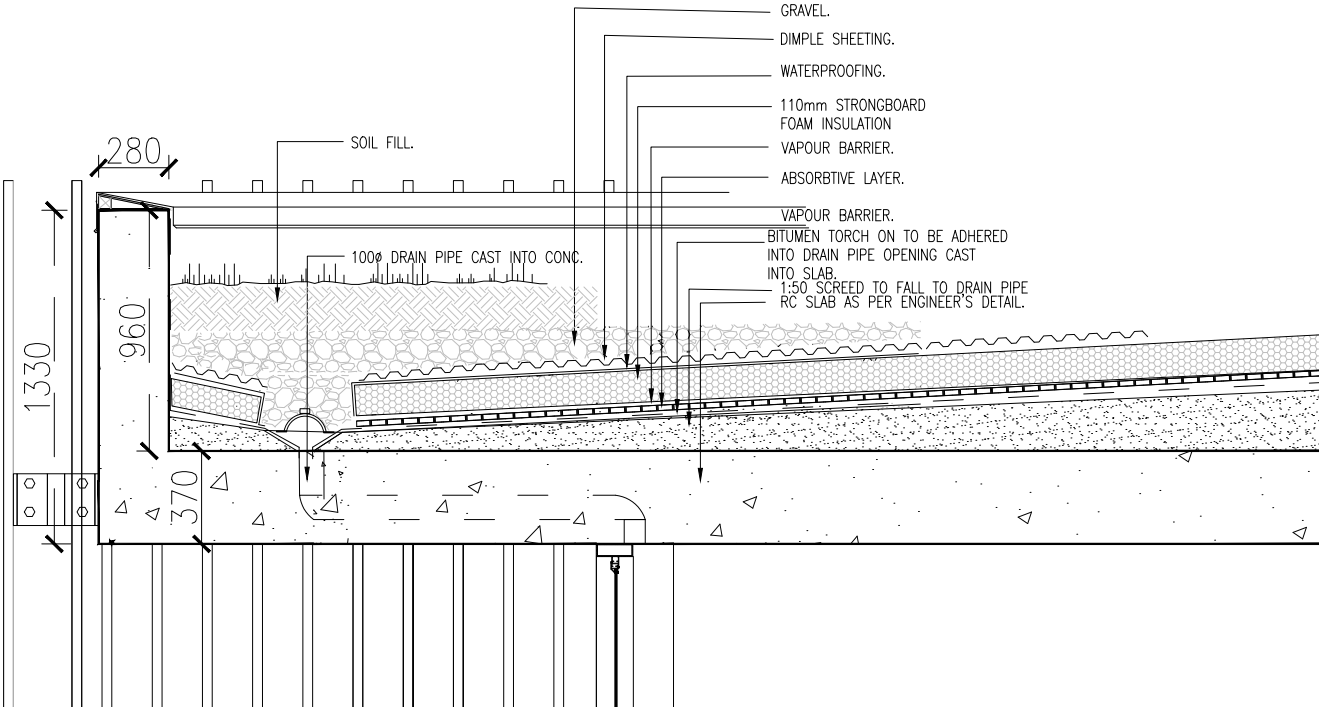


Fig. 9.10. Tsebe. T. 2021. Detail B. Digital Drawing. Sunnyside, Pretoria. Searching for Sunnyside Research Report. University of Witwatersrand.

9.9. SECTION DETAILS - DETAIL C

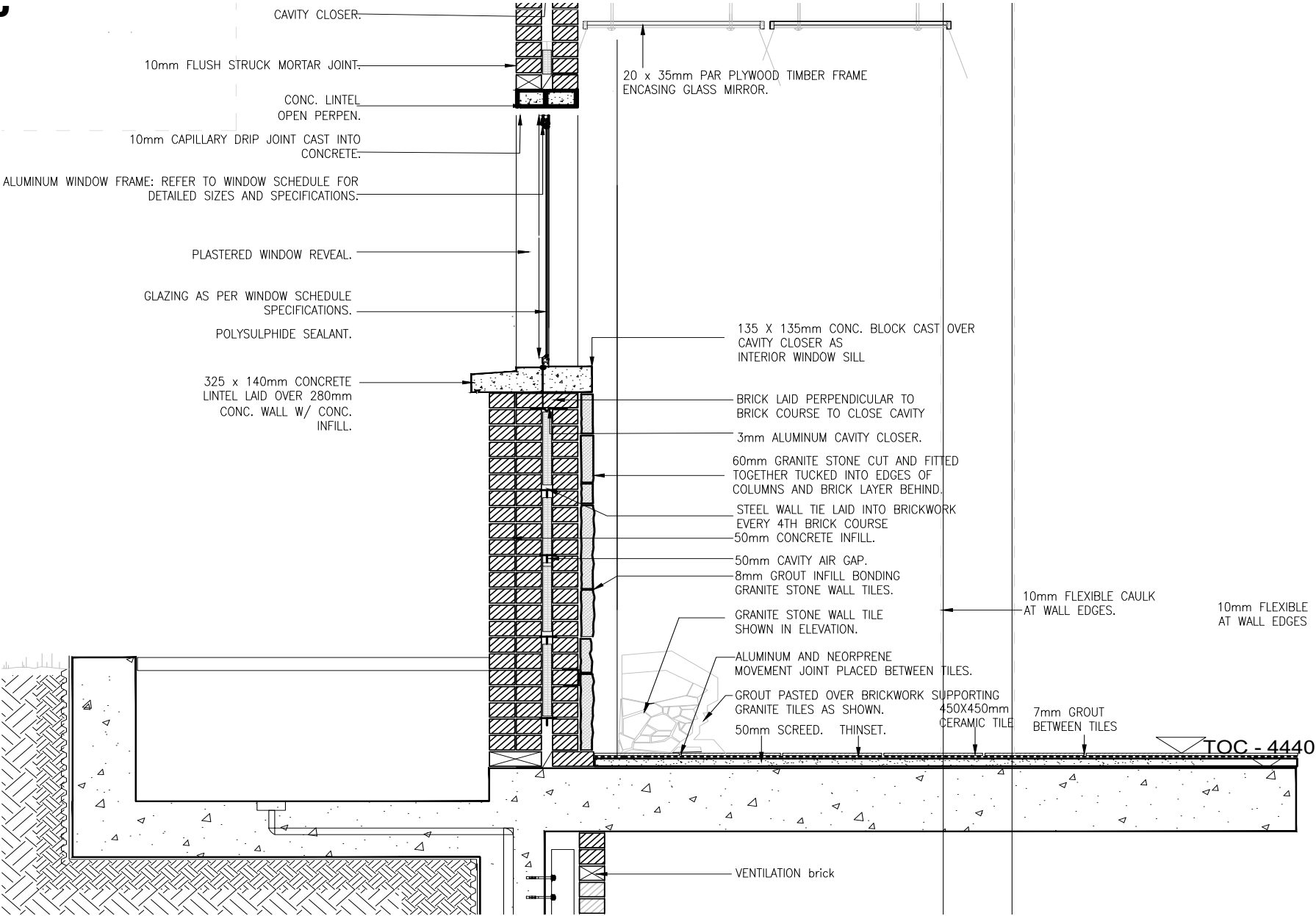


Fig. 9.11. Tsebe. T. 2021. Detail Section Digital Drawing. .Sunnyside, Pretoria

9.10. ATRIUM (DETAIL)

The Atrium

The atrium and courtyard space, adjacent to one another are meant to connect the various aspects of the programme (i.e. Park-ing, Well-ness, Train-station and Play-grounds). These spaces are different in their spatial needs and thus different in their material needs. Despite these differences, one requirement for all spaces that are designed to act as spaces conducive to wellbeing is the provision of natural light and visual access to natural elements such as trees or greenery.

The significance of this atrium in relation to the rest of the concepts driving the building is that of well-ness. As the scheme seeks to assist Sunnyside in it's challenges, socially and spatially. The wellness center takes on a new meaning. That light and connection to our most natural context, will allow spaces and buildings to perform to the best of our abilities.

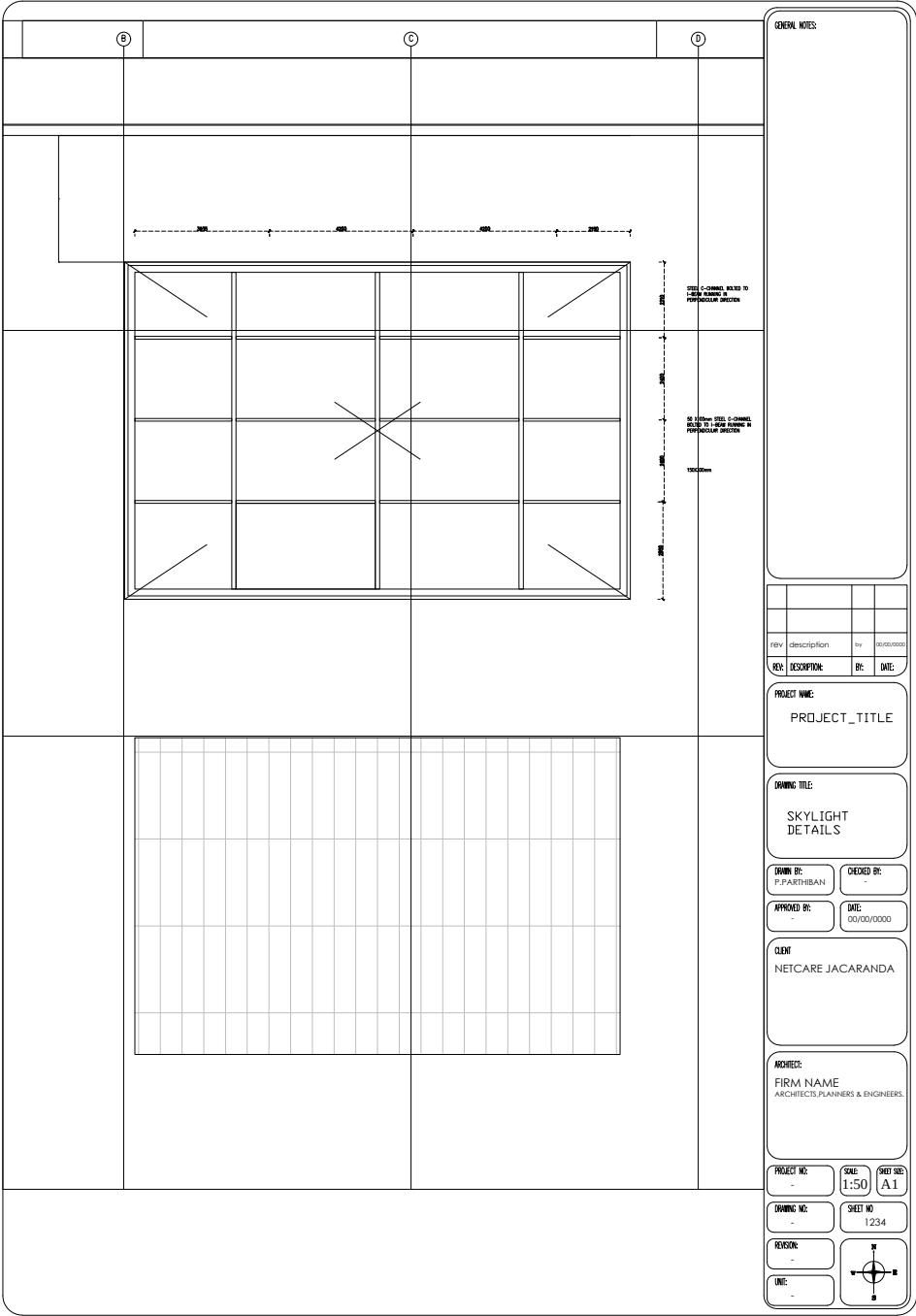
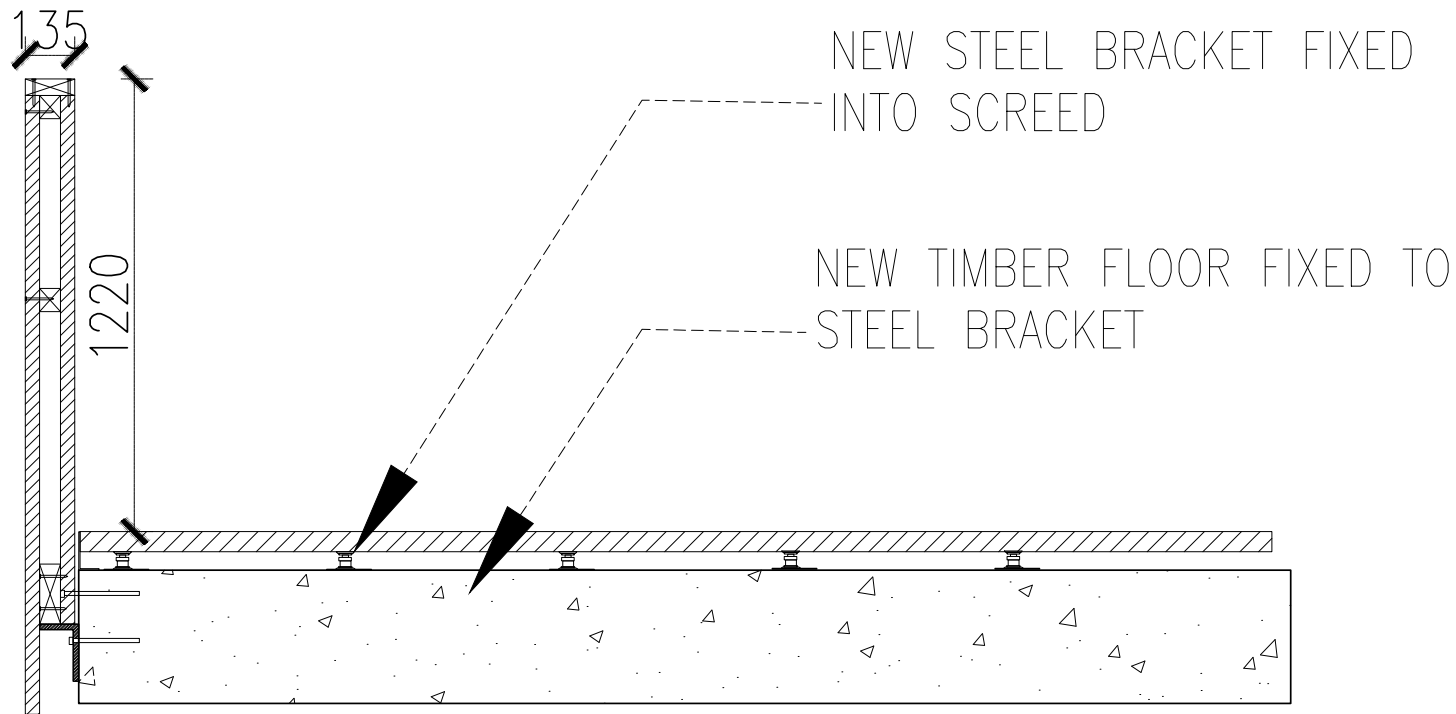


Fig.9.12. Tsebe. T. 2021. Atrium Skylight Details. Digital Drawing. Sunnyside, Pretoria. University of Witwatersrand

9.11. BALUSTRADE (DETAIL)



The Balustrade

Among all the devices that assist people in moving around the building. The balustrade is the most prominent. This is in part due to the fact that balustrades assist not only in acting as a boundary between permeable and non-permeable space but also acts as a guide to navigating the circulation routes in a building.

Fig.9.13. Tsebe. T. 2021. Balustrade detail; Digital Drawing. Searching for Sunnyside Research Report. University of Witwatersrand

CHAPTER 10

Part 2. Design Drawings

CHAPTER 10

Part 2 . Design Drawings



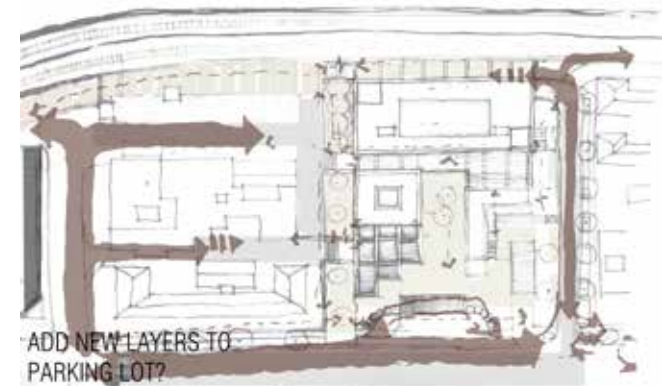
SITE & CONTEXTUAL PLAN

Fig.10.1. Tsebe. T. 2021. Balustrade detail. Digital Drawing. Searching for Sunnyside research report. University of Witwatersrand

10.1. SITE



SITE & CONTEXTUAL AXO



SITE & CONTEXTUAL CIRCULATION

RENDER

SEARCHING FOR SUNNYSIDE

10.1. SITE

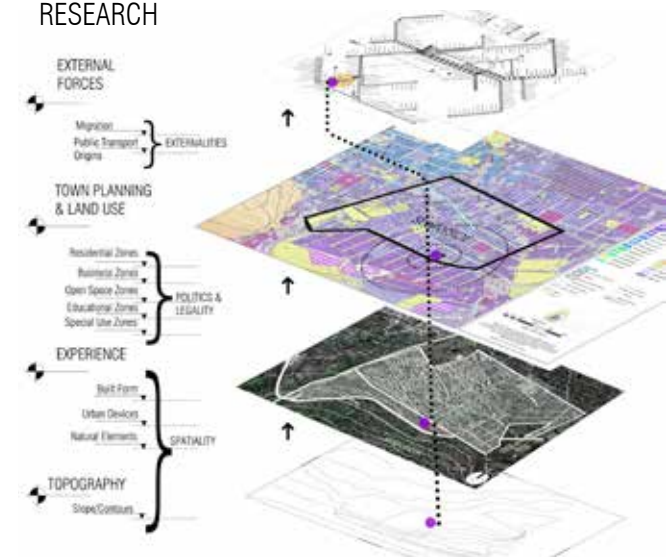


Fig.10.2. Tsebe, T. 2021. Render of Scheme. Searching for Sunnyside Research report. University of Witwatersrand

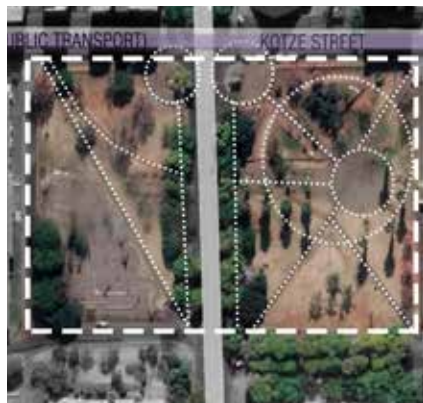
10.2. LINKING SITE TO CONCEPT

[URBAN] LEVELS

RESEARCH



RENDER FROM WALKWAY TO TRAIN PLATFORM



JUBILEE PARK ANALYSIS



SUNNYSIDE PARK ANALYSIS



SITE PARK ANALYSIS

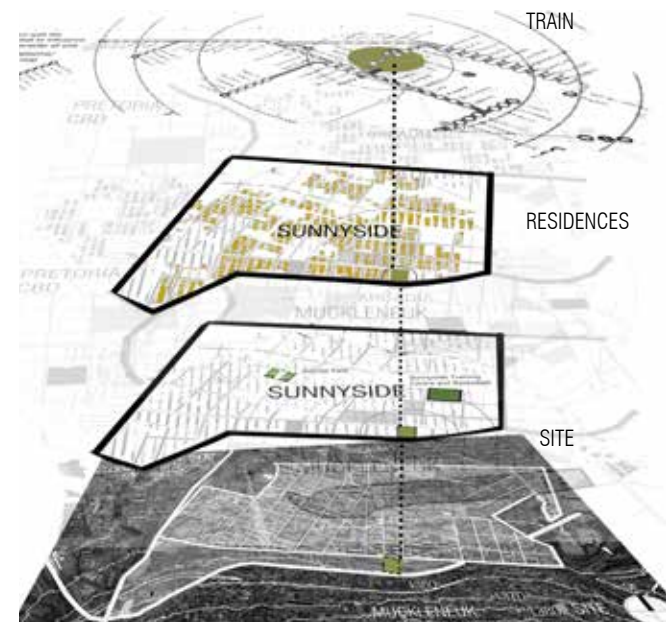
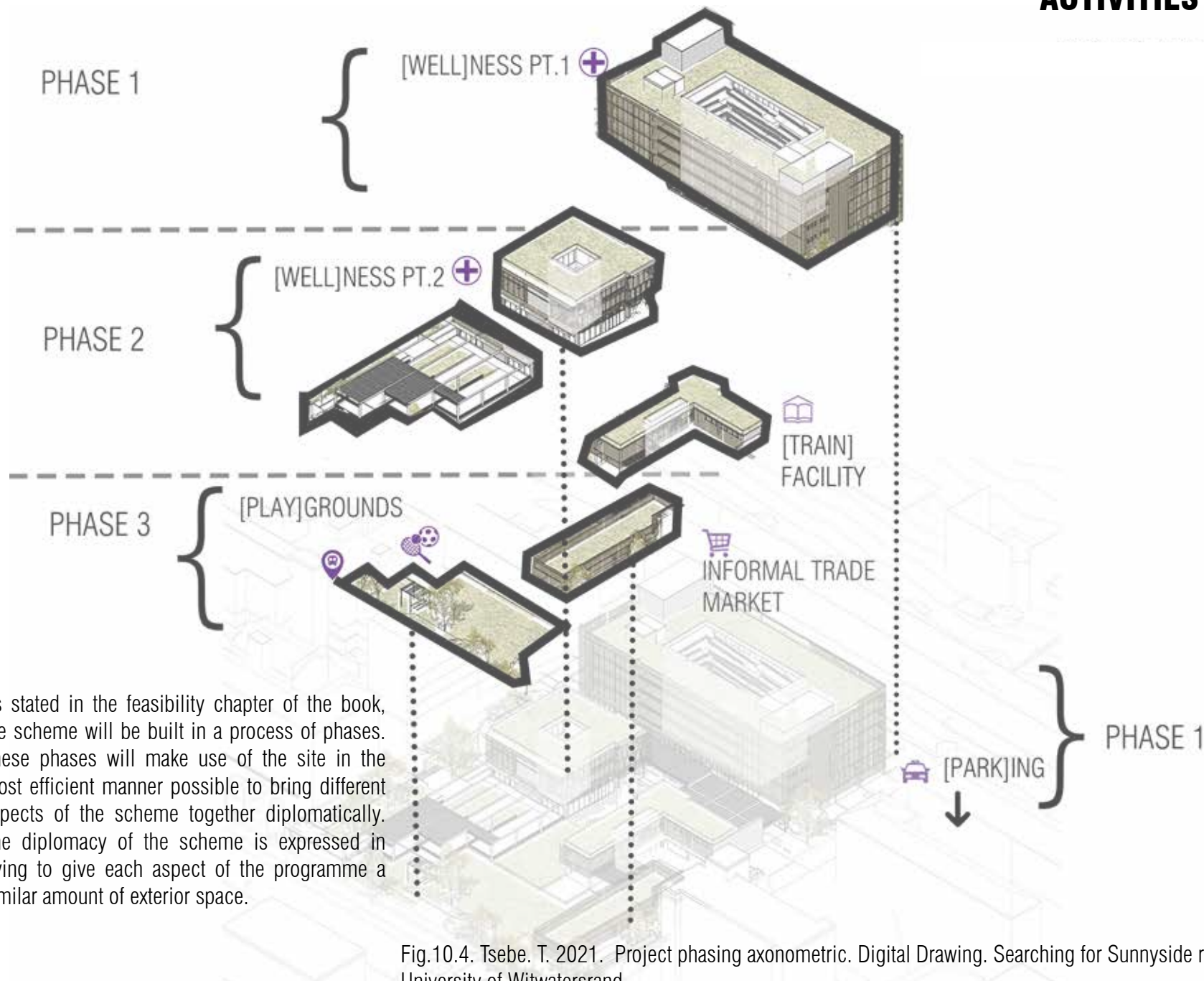


Fig.10.3. Tsebe, T. 2021. Diagrams linking site to research concept Digital collage. Searching for Sunnyside research report. University of Witwatersrand

10.3. PROJECT PHASING



As stated in the feasibility chapter of the book, the scheme will be built in a process of phases. These phases will make use of the site in the most efficient manner possible to bring different aspects of the scheme together diplomatically. The diplomacy of the scheme is expressed in trying to give each aspect of the programme a similar amount of exterior space.

REVISED PROGRAMME OF ACTIVITIES

PHASE 1:

[PARK]-ING:

- PARKING BAYS
- PUBLIC TOILET
- 24 HOUR SECURITY BOOTH

[WELL]NESS PT. 1:

- 3 X PSYCHOEDUCATION SPACES
- 1 X PUBLIC ATRIUM
- 8 X THERAPY OFFICES
- STAFF OFFICES
- 8 X TOILETS (MALE & FEMALE)
- 1 X PHARMACY
- 3 X KITCHENETTES

PHASE 2:

[TRAIN]-STATION:

- 8 X SHARED OFFICES
- 1 X RECEPTION
- 1 X SHARED LOBBY

[WELL]NESS PT. 2:

- 1x HEALTH CAFE
- 1 X YOGA STUDIO
- 1 X GYM

PHASE 3:

[PLAY] - GROUNDS:

- PLAYGROUND STRUCTURES
- OPEN GREENERY
- BUS STOP

Fig.10.4. Tsebe. T. 2021. Project phasing axonometric. Digital Drawing. Searching for Sunnyside research report. University of Witwatersrand

10.4. SPACES BETWEEN PROJECT PHASES

RENDER OF INTERNAL STREET EDGE
(BETWEEN PHASE 1 & 2)



RENDER OF LOVEDAY STREET EDGE
(BETWEEN PHASES 1,2 & 3)



RENDER OF SHARED EDGE BETWEEN TRAINING FACILITY AND INFORMAL TRADERS
(BETWEEN PHASES 2 & 3)

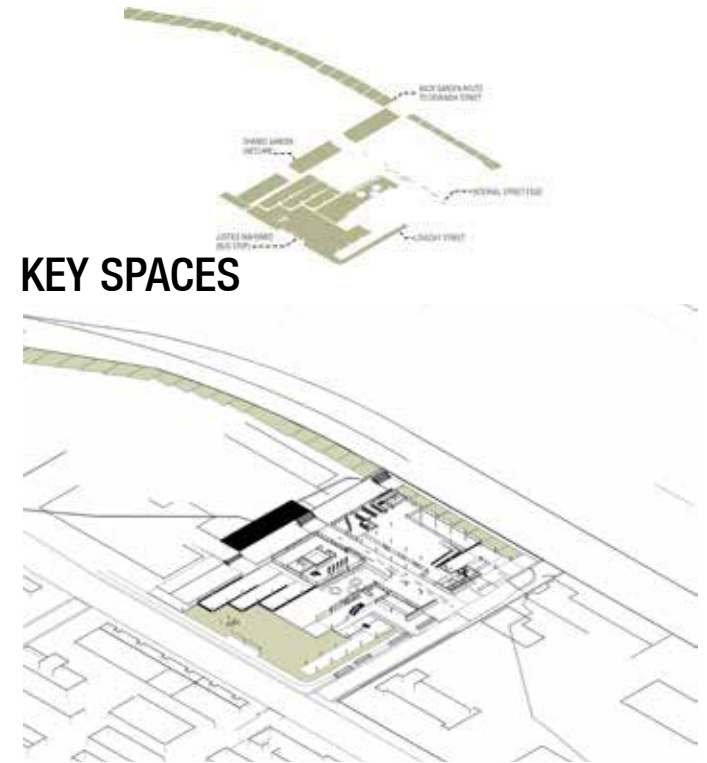
Fig.10.5. Tsebe. T. 2021. Renders of Spaces between project phases.

10.5. GROUND FLOOR



GROUND FLOOR PLAN

KEY SPACES



GROUND FLOOR AXO

PROGRAMMATIC SECTION

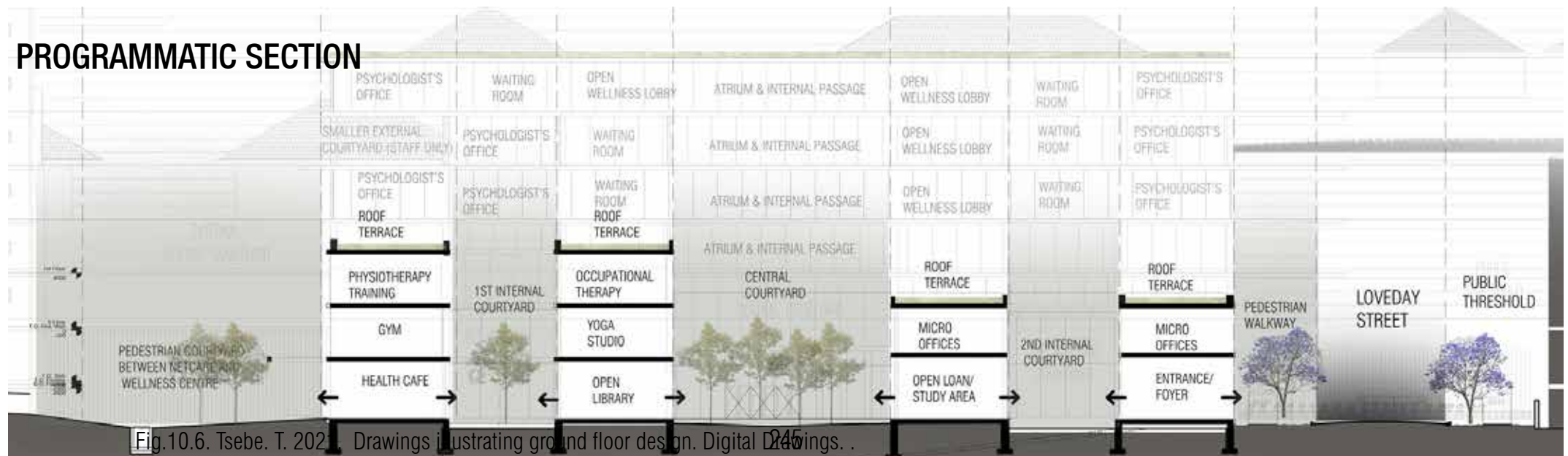


Fig.10.6. Tsebe, T. 2021 Drawings illustrating ground floor design. Digital Drawings. .

10.6. SOFT EDGES



RENDER OF OPEN LIBRARY SPACE INTERNAL EDGE



RENDER OF SHARED EDGE BETWEEN
NETCARE AND SITE



BACK GARDEN LEADING TO
WALKWAY TO TRAIN PLATFORM



PERMEABLE (SHARED) EDGE BETWEEN
NETCARE AND SITE

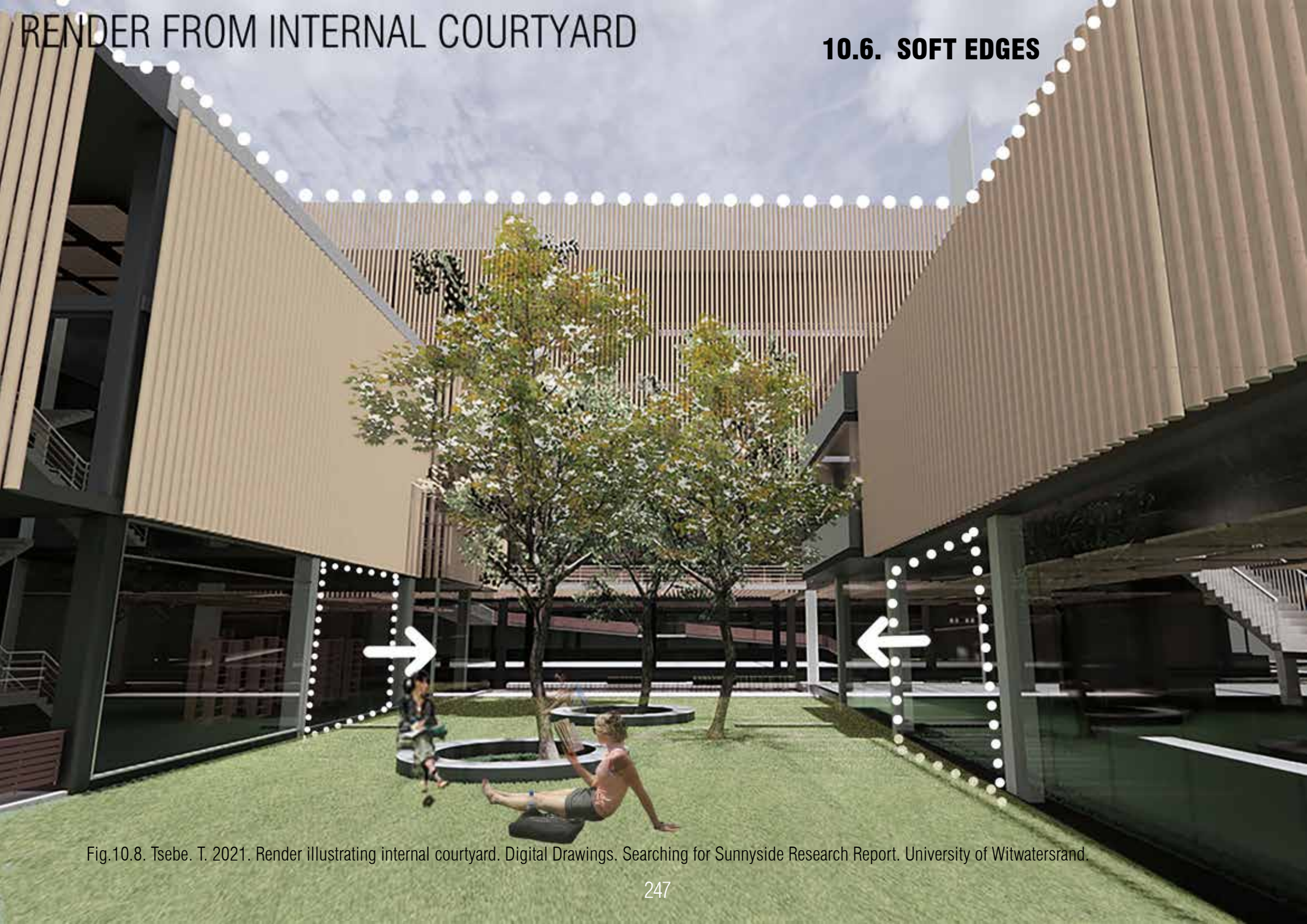


Fig.10.8. Tsebe. T. 2021. Render illustrating internal courtyard. Digital Drawings. Searching for Sunnyside Research Report. University of Witwatersrand.

10.7. FIRST FLOOR



FIRST FLOOR PLAN AXO

SECTION B-B DIAGRAMMATIC SECTION

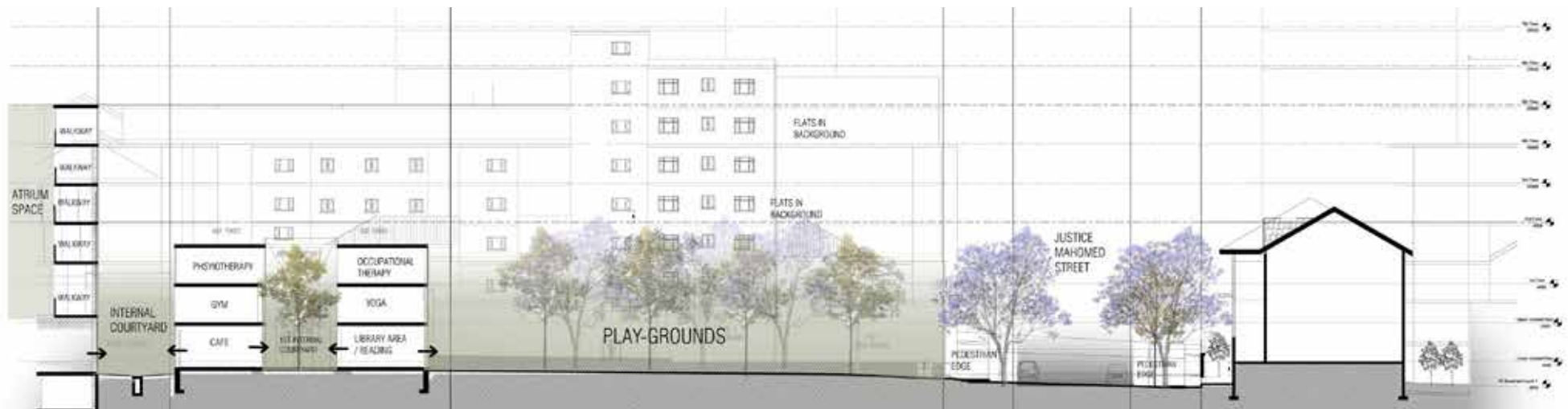


Fig.10.9. Tsebe, T. 2021. Drawings illustrating first floor. Digital Drawings. Searching for Sunnyside Research Report. University of Witwatersrand.

10.8. SHARED SPACE BETWEEN PROGRAMMES



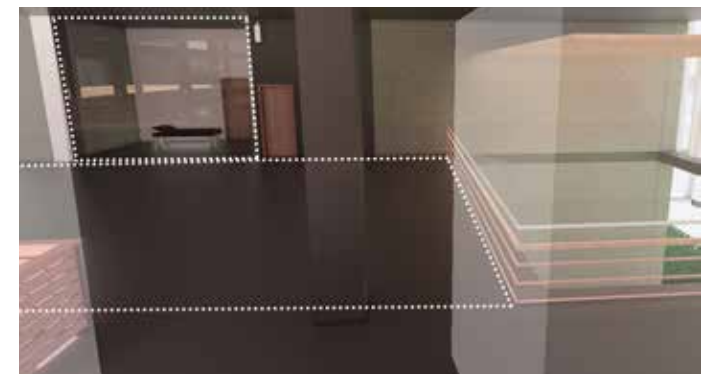
RENDER OF DOUBEVOLUME SPACE ABOVE PSYCHOEDUCATION SPACE



RENDER OF TRIPLE VOLUME SPACE



INFORMAL TRADING ROOF GARDEN



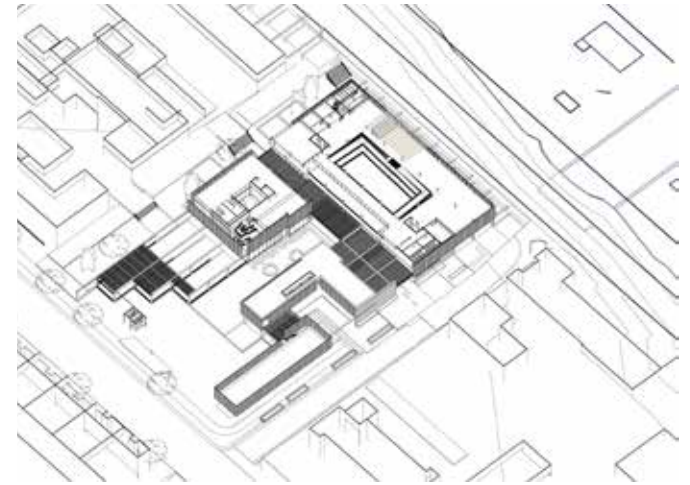
RENDER SHOWING THERAPY WAITING ROOMS

Fig.10.10. Tsebe, T. 2021. Drawings illustrating shared space between programmes. Digital Drawings. Searching for Sunnyside Research Report. University of Witwatersrand.

SECOND FLOOR PLAN



10.9. SECOND FLOOR



SECOND FLOOR PLAN AX0

SECTION A-A

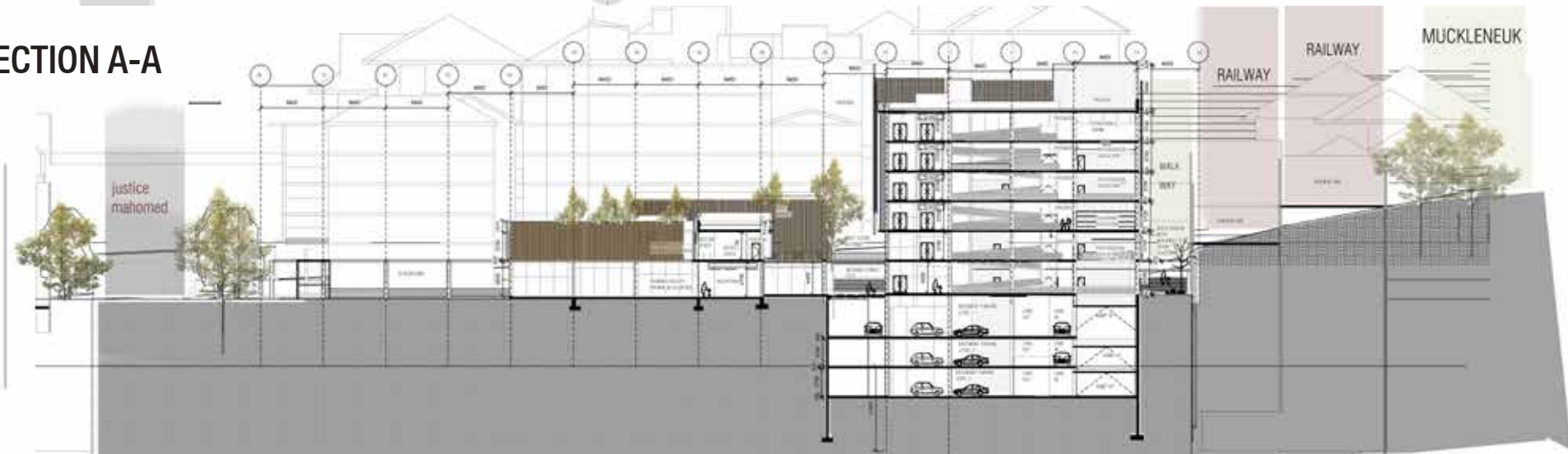
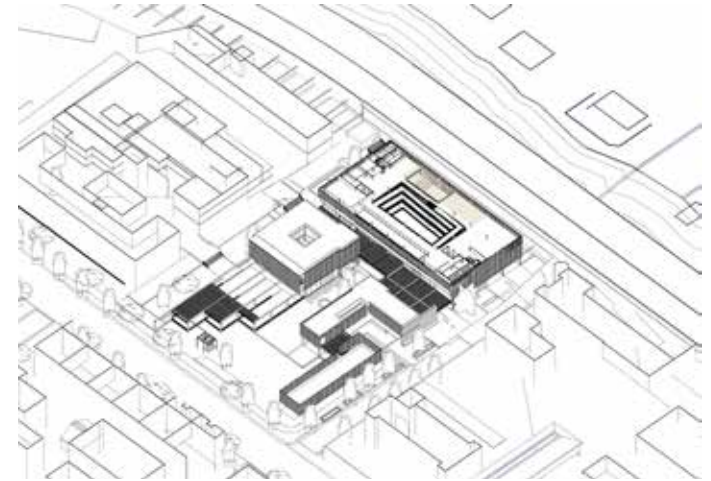


Fig.10.11. Tsebe. T. 2021. Drawings illustrating second floor design. Digital Drawings. Searching for Sunnyside Research Report. University of Witwatersrand.

10.10. THIRD FLOOR

THIRD FLOOR AX0



SECTION B-B



Fig.10.12. Tsebe. T. 2021. Drawings illustrating third floor design. Digital Drawings. Searching for Sunnyside Research Report. University of Witwatersrand.

SECTION THROUGH TRAIN-FACILITY ENTRANCE AND WELLNESS-PT.2

10.11. PROGRAMME SECTION



RENDER OF TRAINING FACILITY LIGHTWELL



RENDER OF YOGA STUDIO

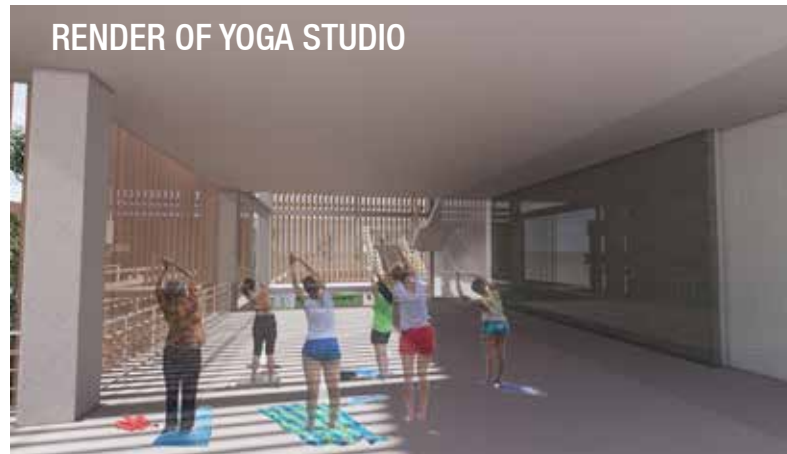
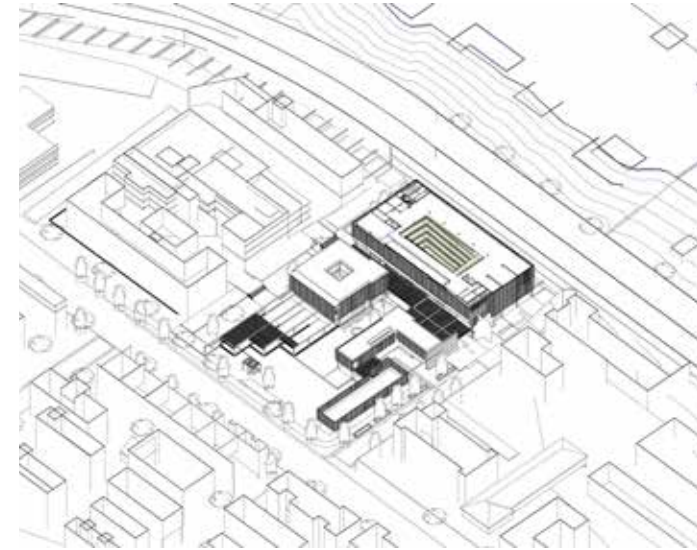


Fig.10.13 Tsebe. T. 2021. Drawings illustrating programme. Digital Drawings.. Searching for Sunnyside Research Report. University of Witwatersrand. .

10.12. FOURTH FLOOR (TYPICAL)



SECTION C-C

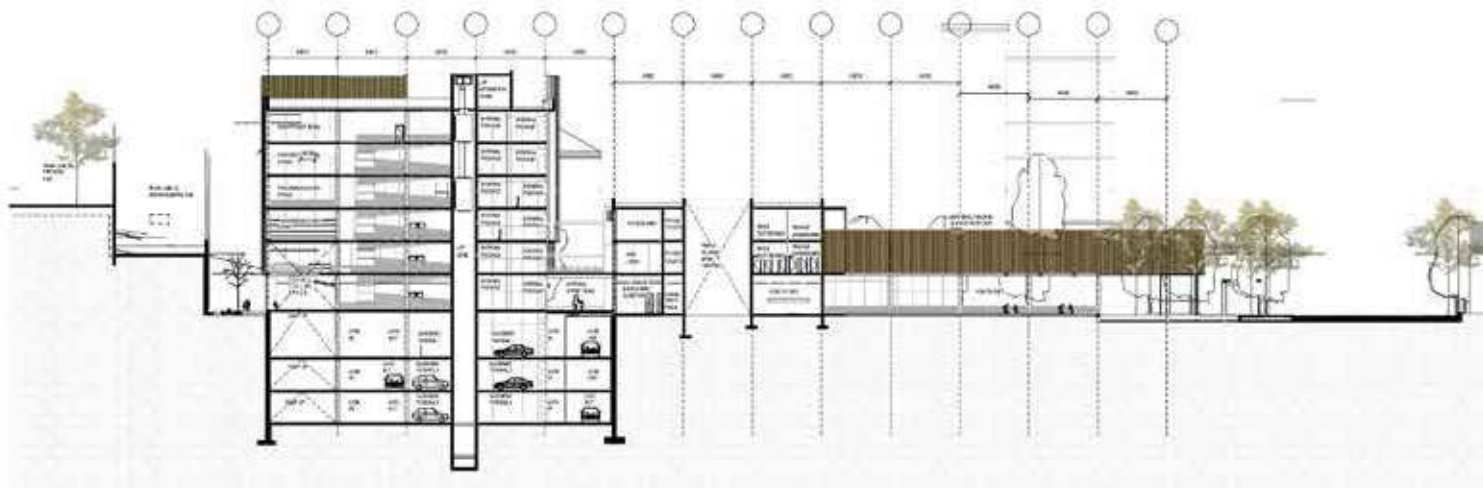


Fig.10.14 Tsebe. T. 2021. Drawings illustrating fourth floor design. Digital Drawings. . Searching for Sunnyside Research Report. University of Witwatersrand. .



10.13. SIXTH FLOOR (ROOF)

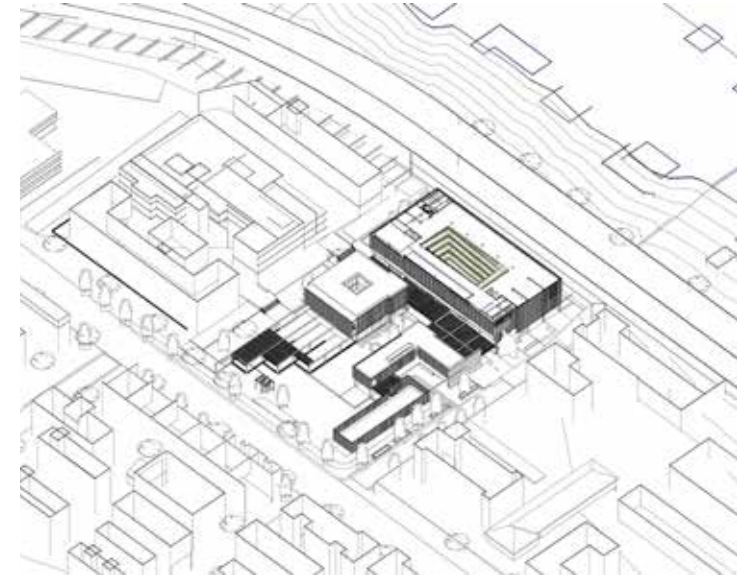
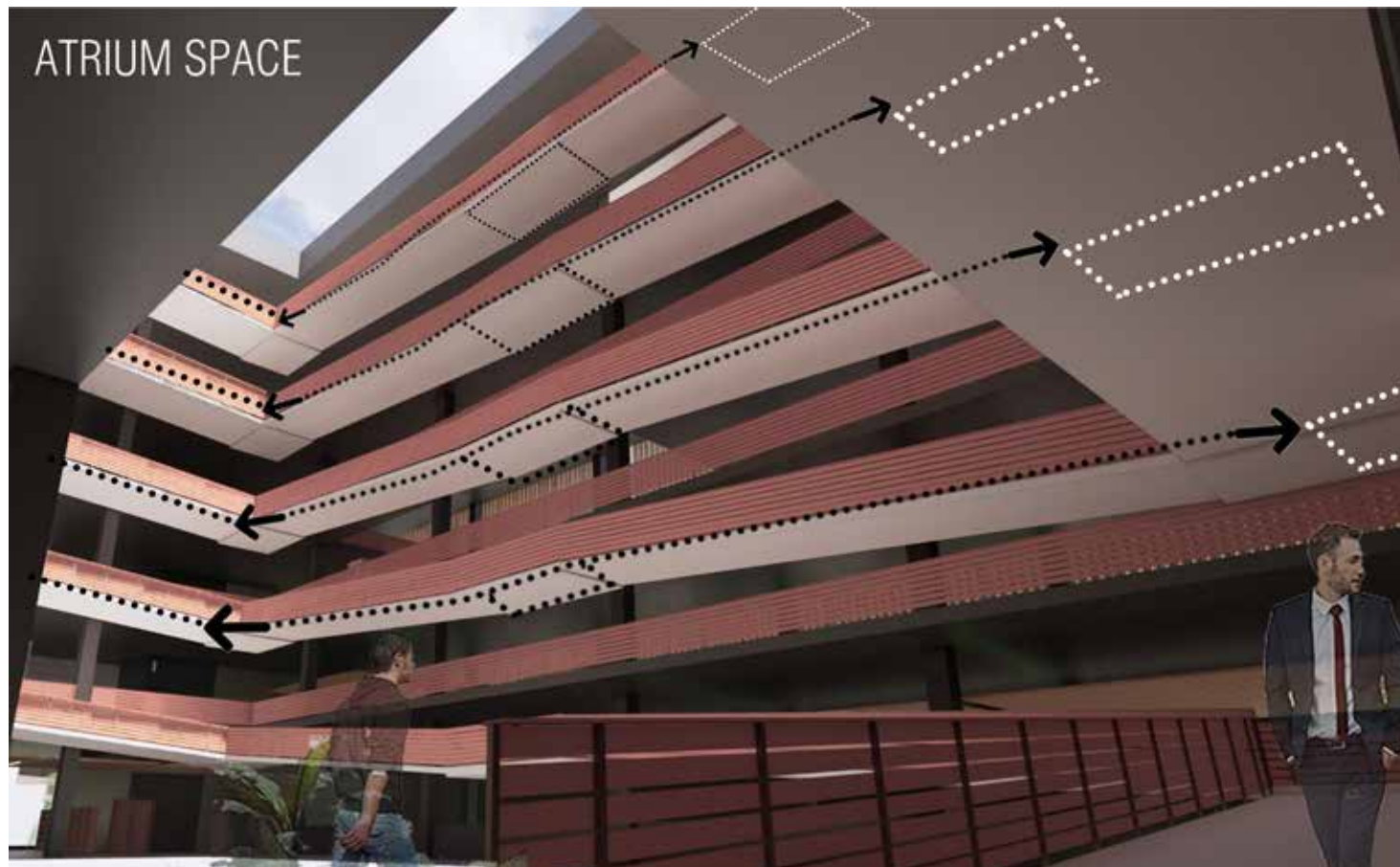
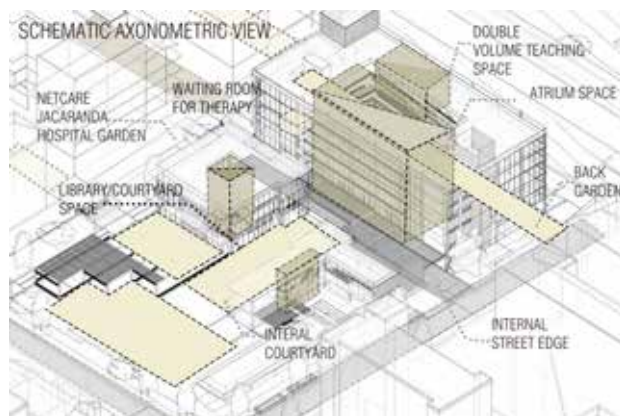


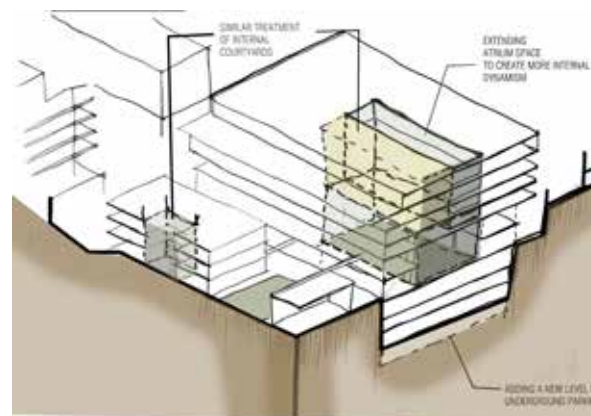
Fig.10.15. Tsebe, T. 2021. Drawings illustrating roof design. Digital Drawings. Searching for Sunnyside Research Report. University of Witwatersrand. .



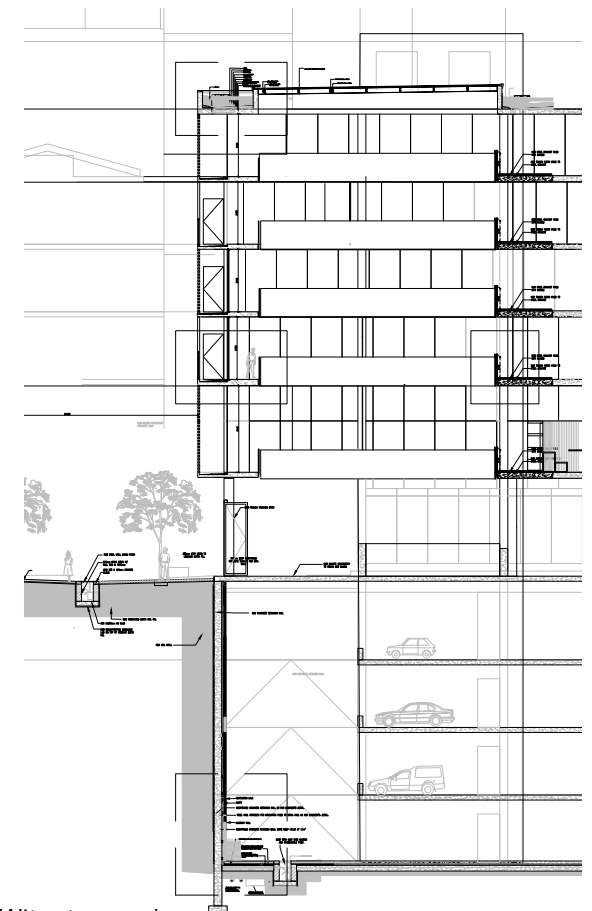
10.14. ATRIUM SPACE



SCHEMATIC AXO



ATRIUM CONCEPT



TECHNICAL SECTION

Fig.10.16. Tsebe, T. 2021. Drawings illustrating atrium space. Digital Drawings. Searching for Sunnyside Research Report. University of Witwatersrand.

SECTION A-A - DETAIL A THROUGH INTERNAL STREET EDGE

10.15. DETAILS

SCALE 1:50

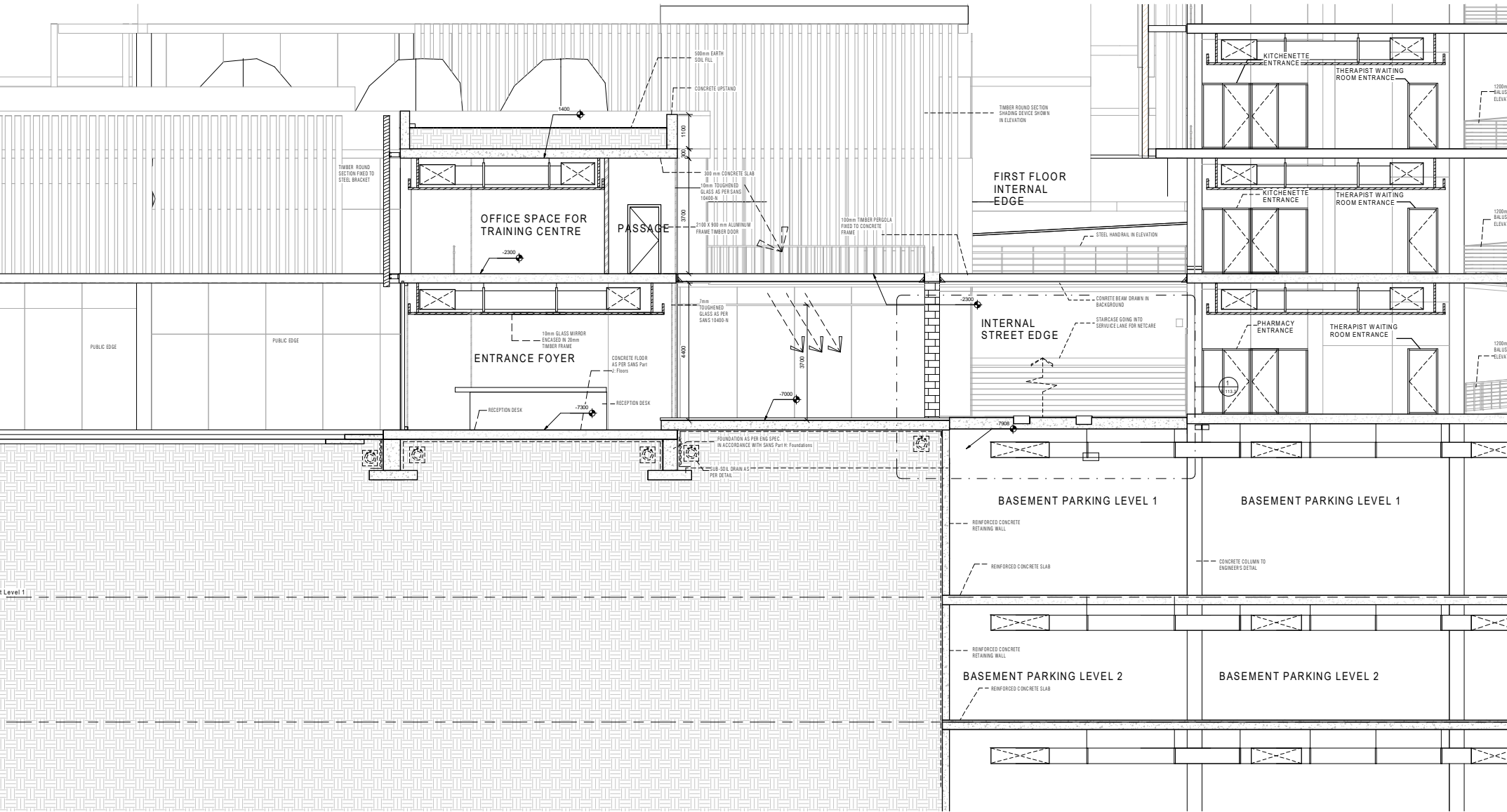


Fig.10.17. Tsebe. T. 2021. Detail A-A Scale 1:50 Technical Drawing. Searching for Sunnyside Research Report. University of Witwatersrand. .

SECTION A-A - DETAIL B THROUGH INTERNAL STREET EDGE

10.15. DETAILS

SCALE 1:20

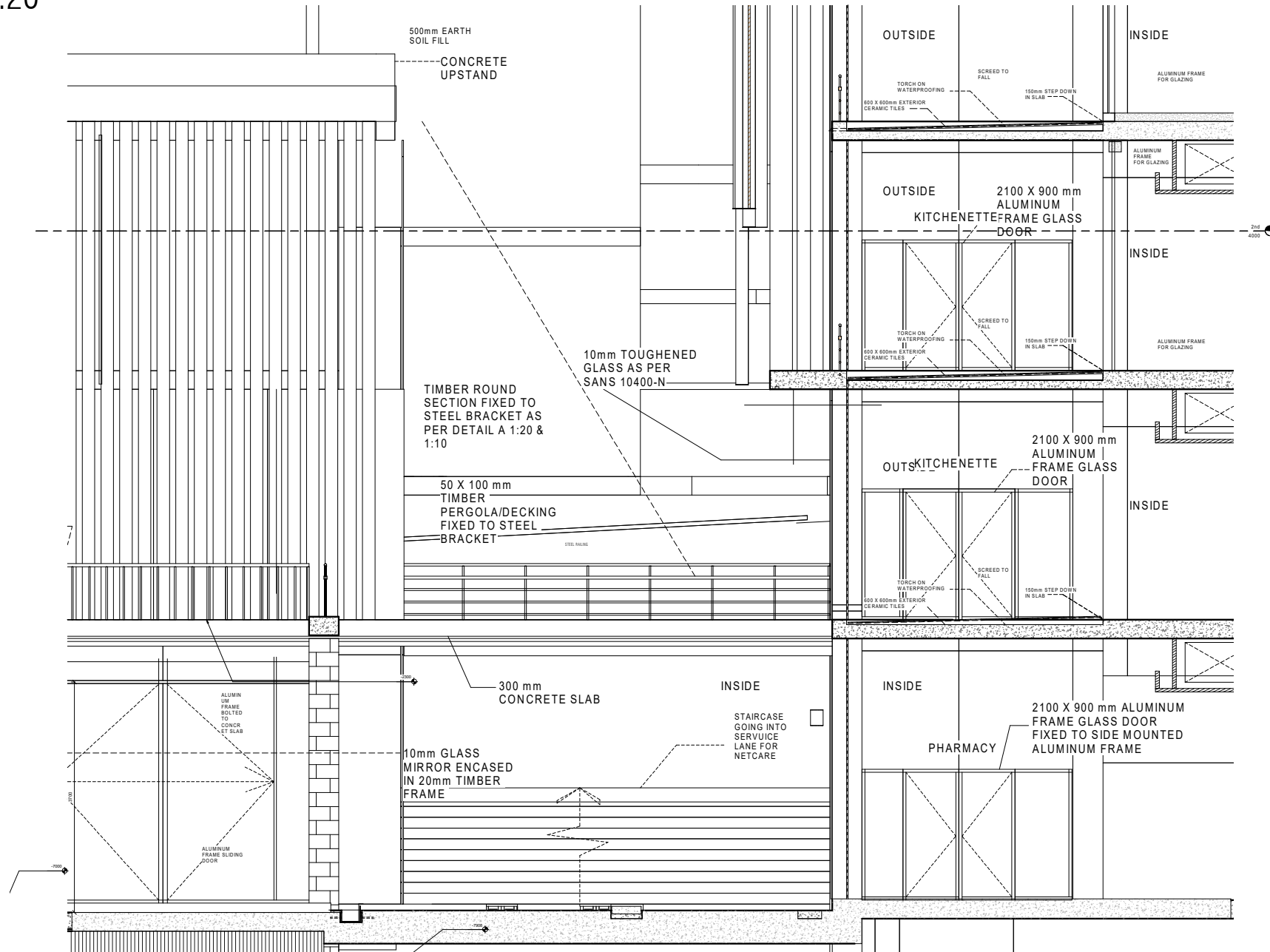


Fig.10.18. T.sebe. T. 2021. Detail A-A Scale 1:20 Technical Drawing. Searching for Sunnyside Research Report. University of Witwatersrand. .

SECTION A-A - DETAIL C OF INTERNAL STREET EDGE

SCALE 1:10

10.15. DETAILS

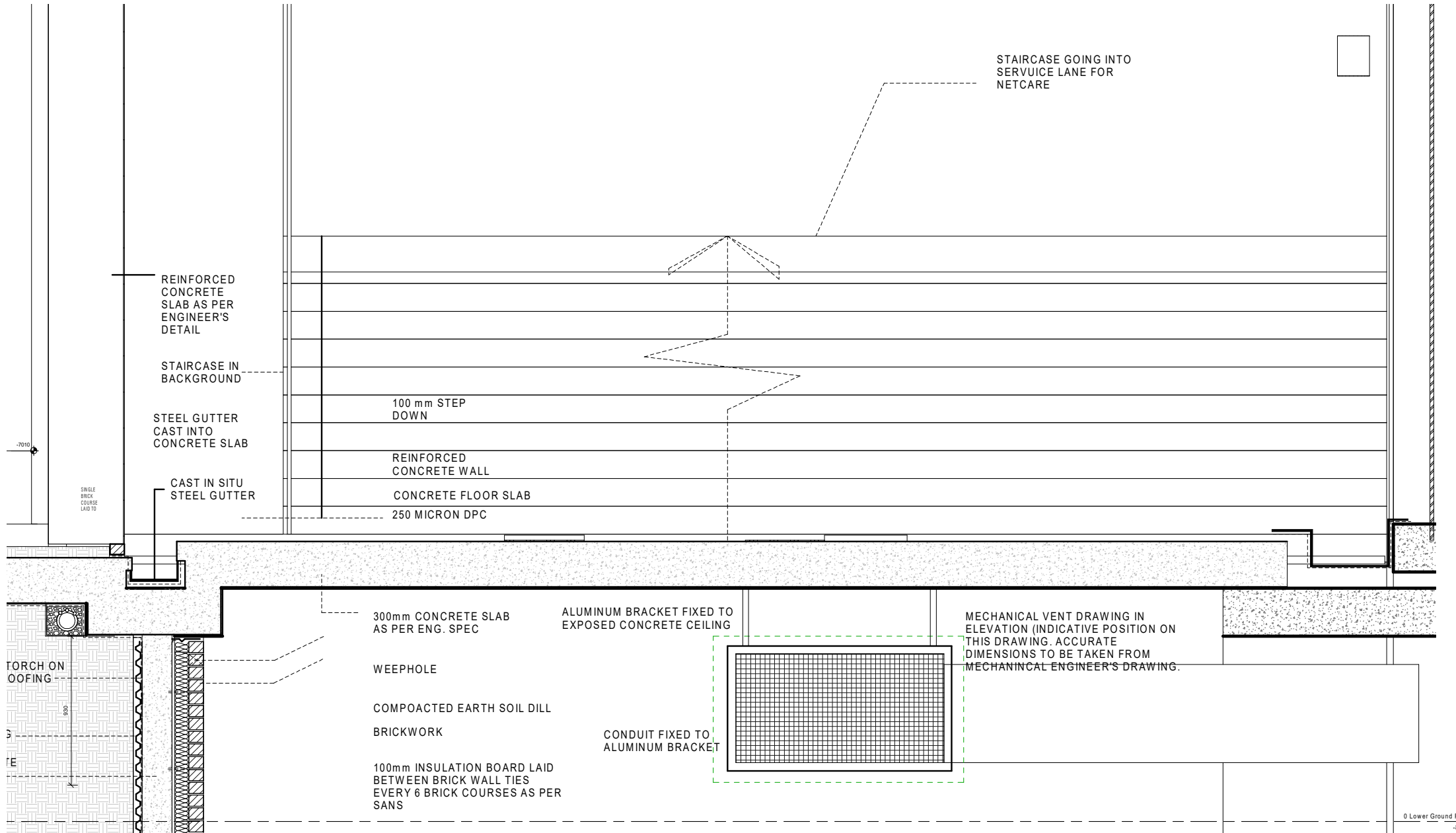


Fig.10.18. Tsebe. T. 2021. Detail A-A Scale 1:20 Technical Drawing. Searching for Sunnyside Research Report. University of Witwatersrand.

SECTION A-A - DETAIL D SHOWING GREEN ROOF
SCALE 1:10

10.15. DETAILS

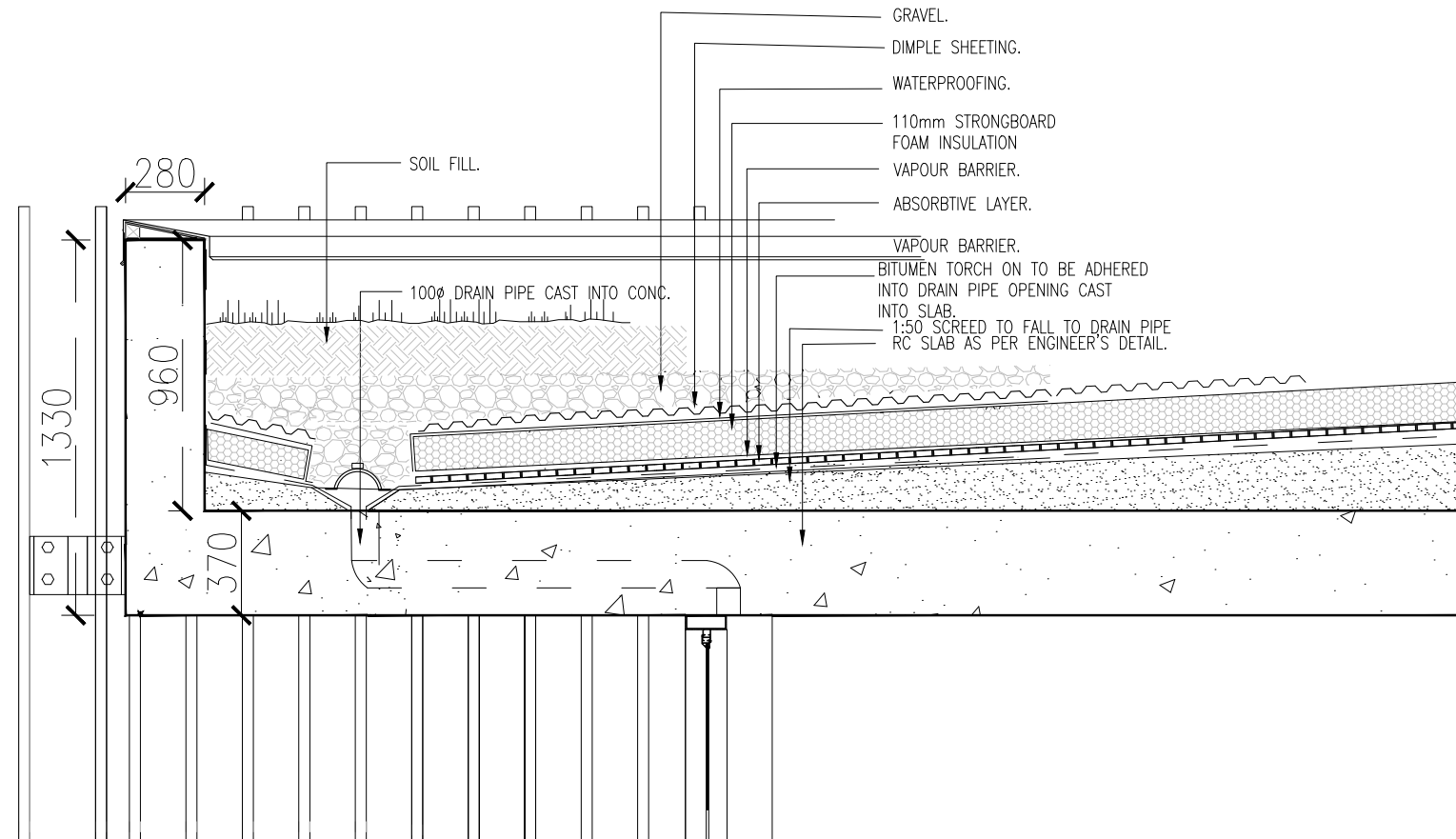


Fig.10.20. Tsebe. T. 2021. Roof Detail Technical Drawing. Searching for Sunnyside Research Report. University of Witwatersrand. .

SECTION B-B- DETAIL A - 1:50

10.15. DETAILS

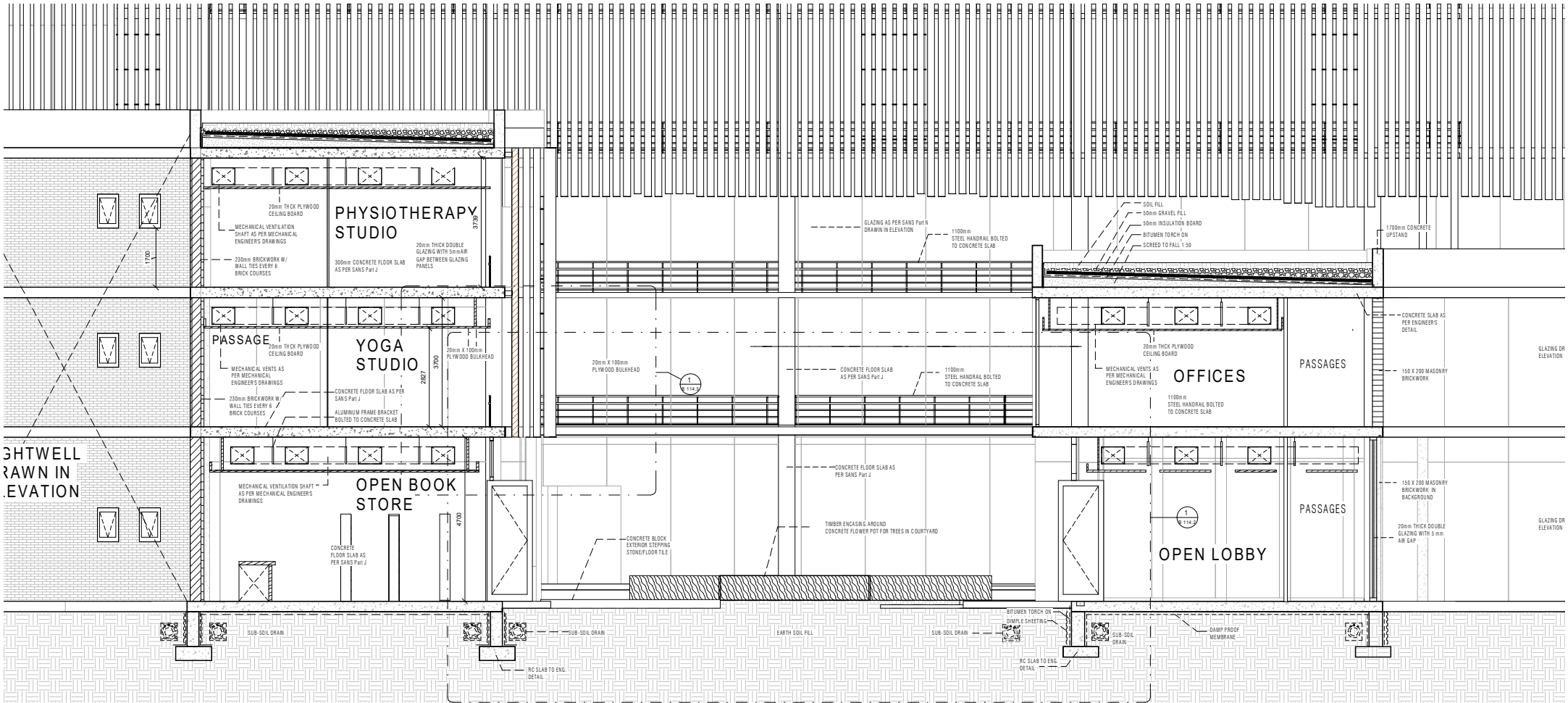


Fig.10. 21..Tsebe, T. 2021. Detail B-B Scale 1:50 Technical Drawing. Searching for Sunnyside Research Report. University of Witwatersrand. .

SECTION B-B - DETAIL B - 1:20

10.15. DETAILS

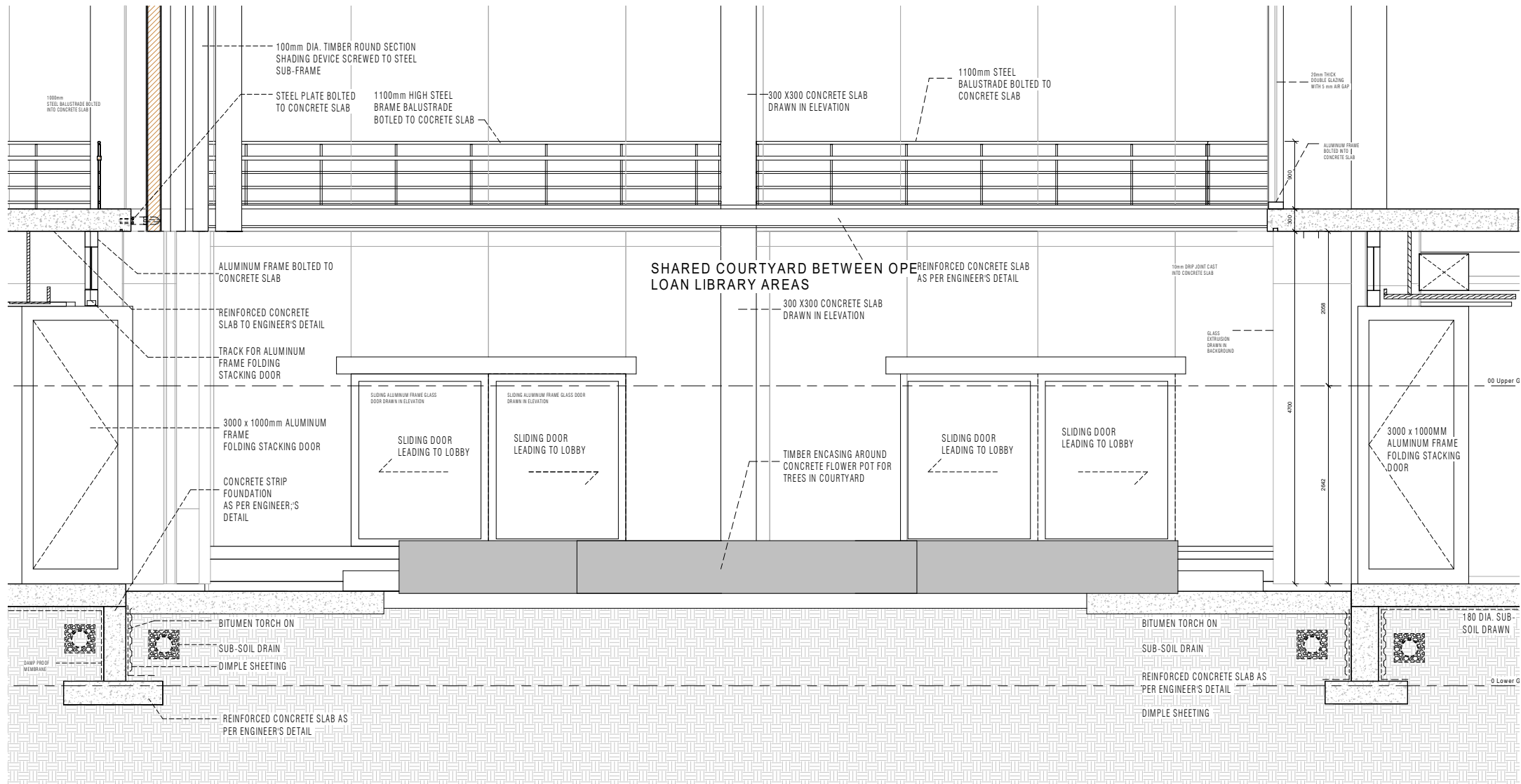


Fig.10.22. Tsebe. T. 2021. Detail B-B Scale 1:20 Technical Drawing. Searching for Sunnyside Research Report. University of Witwatersrand.

SECTION B-B - DETAIL B - 1:10

10.15. DETAILS

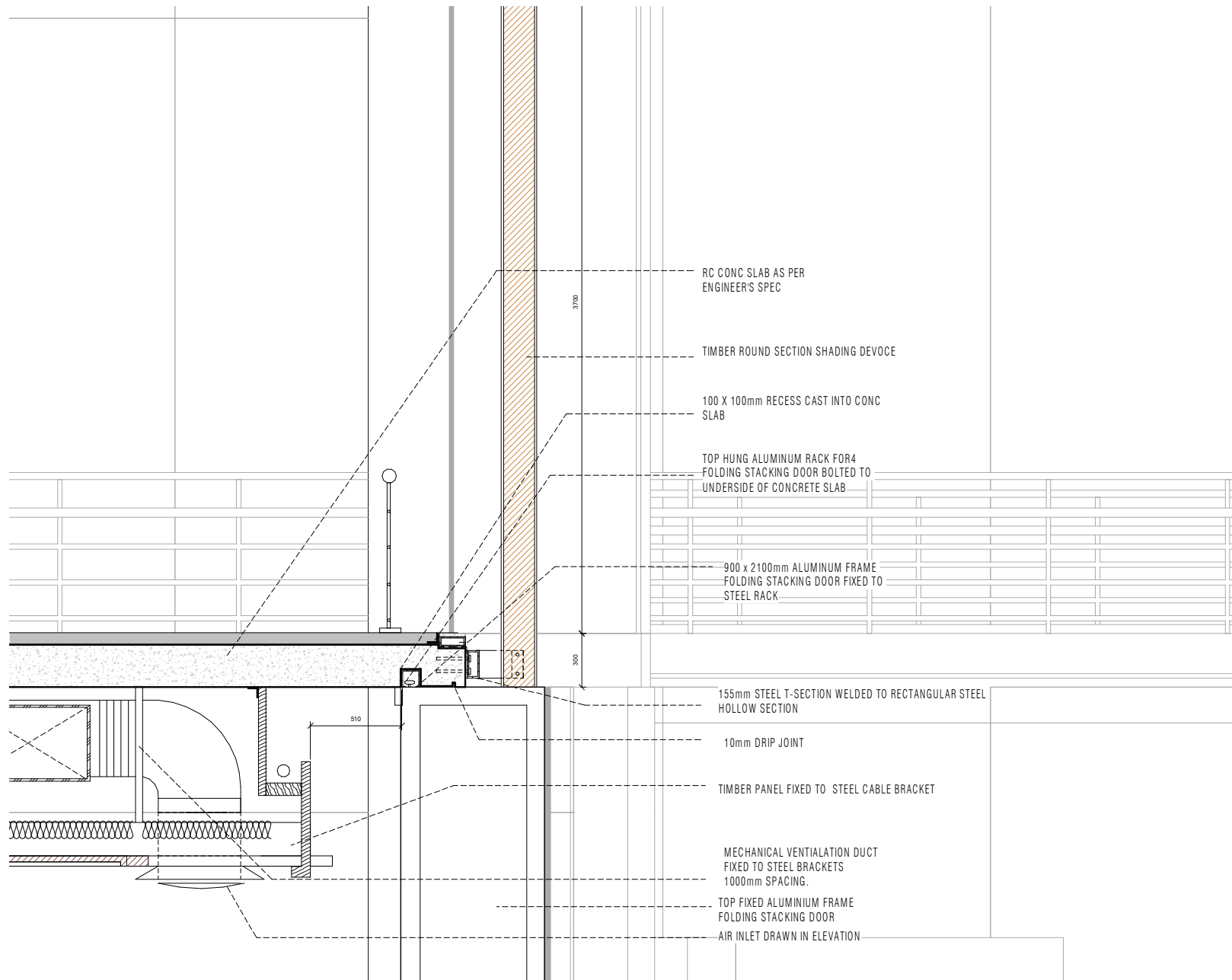


Fig.10.23. Tsebe. T. 2021. Detail B-B Scale 1:10 Technical Drawing. Searching for Sunnyside Research Report. University of Witwatersrand. .

10.15. DETAILS

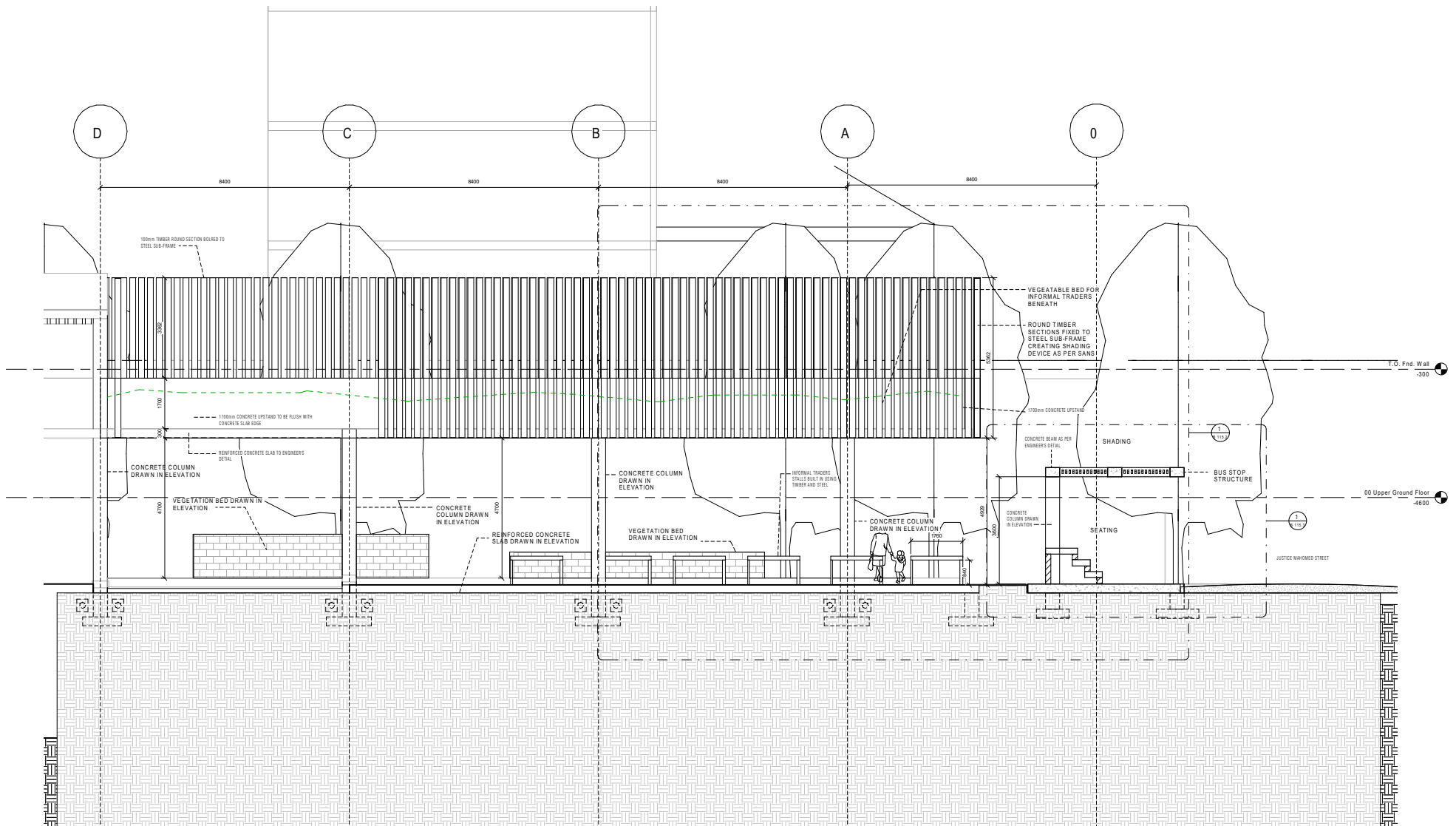


Fig.10. 24.. Tsebe. T. 2021. Detail B-B Scale 1:50 Technical Drawing. Searching for Sunnyside Research Report. University of Witwatersrand..

SECTION C-C DETAIL B SCALE 1:20

10.15. DETAILS

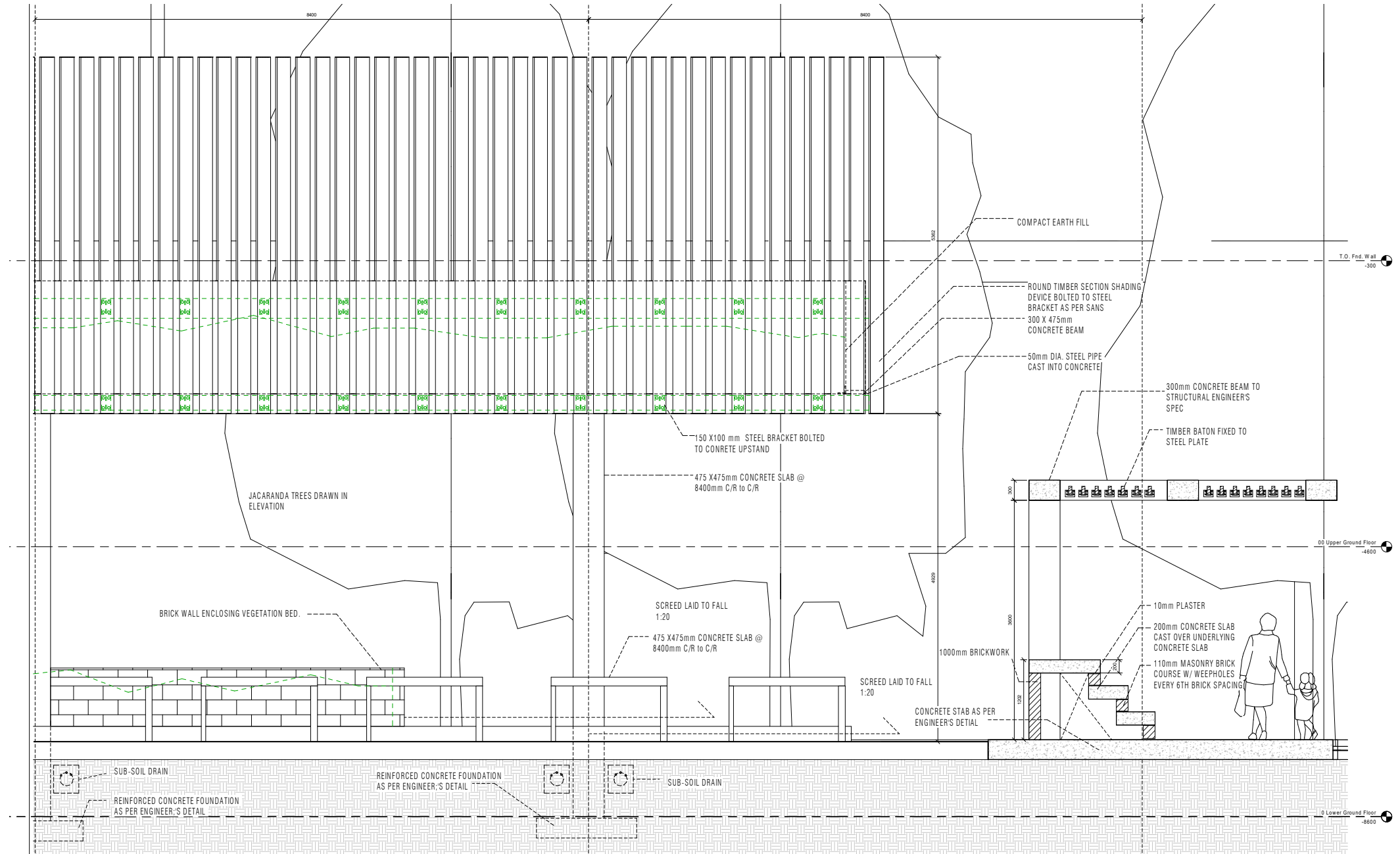


Fig.10.25. Tsebe. T. 2021. Detail B-B Scale 1:20 Technical Drawing. Searching for Sunnyside Research Report. University of Witwatersrand..

SECTION C-C DETAIL OF BACK GARDEN SCALE 1:10

10.15. DETAILS

(DETAIL SHOWING WINDOWS ALONGSIDE BACK GARDEN)

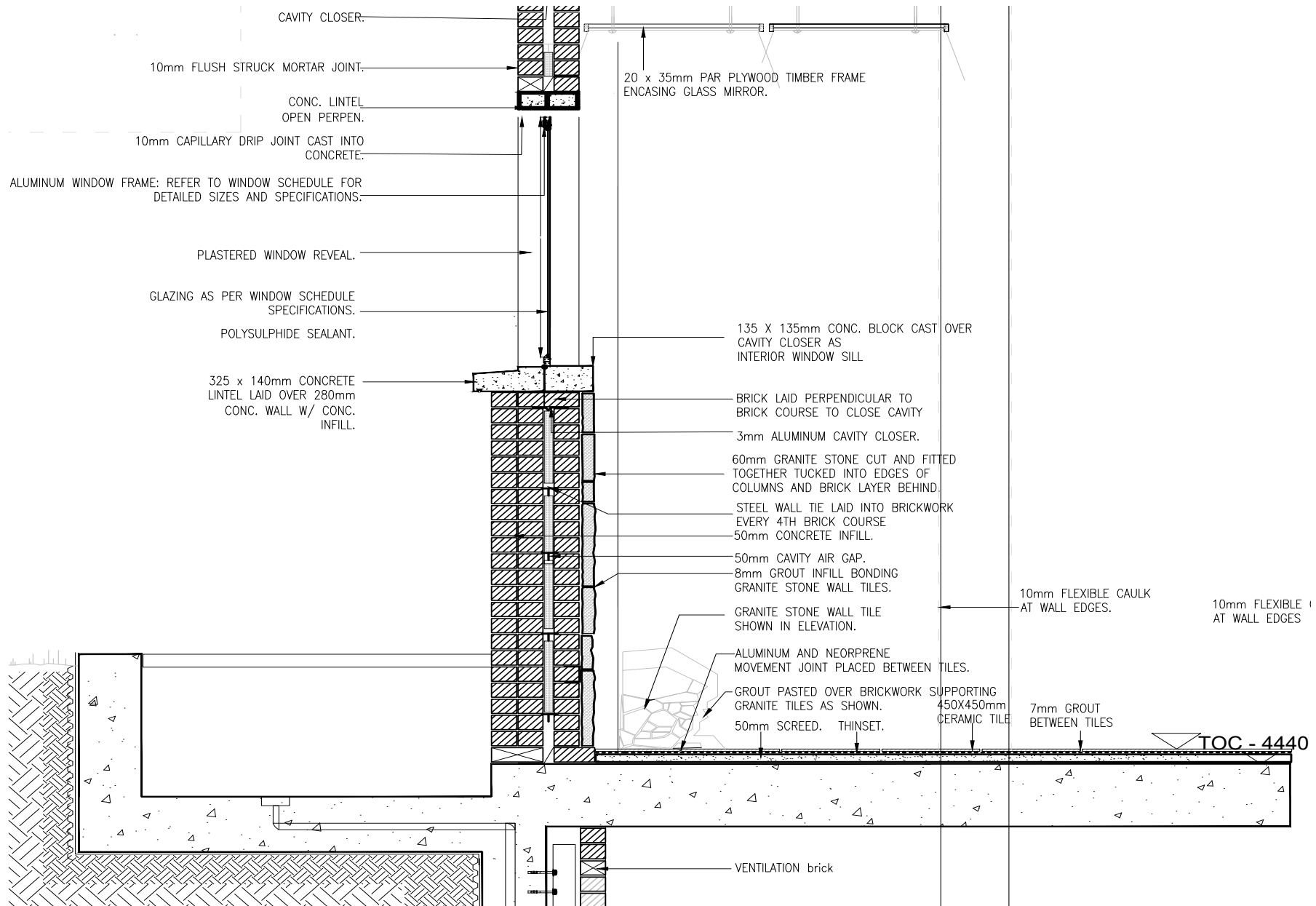


Fig.10.26. Tsebe. T. 2021. Detail showing windows along back garden. Searching for Sunnyside Research Report. University of Witwatersrand. .

(DETAIL SHOWING HEALTH CAFE, GYM AND YOGA STUDIOS IN RELATION TO SHARED GARDEN BETWEEN NETCARE AND SITE)

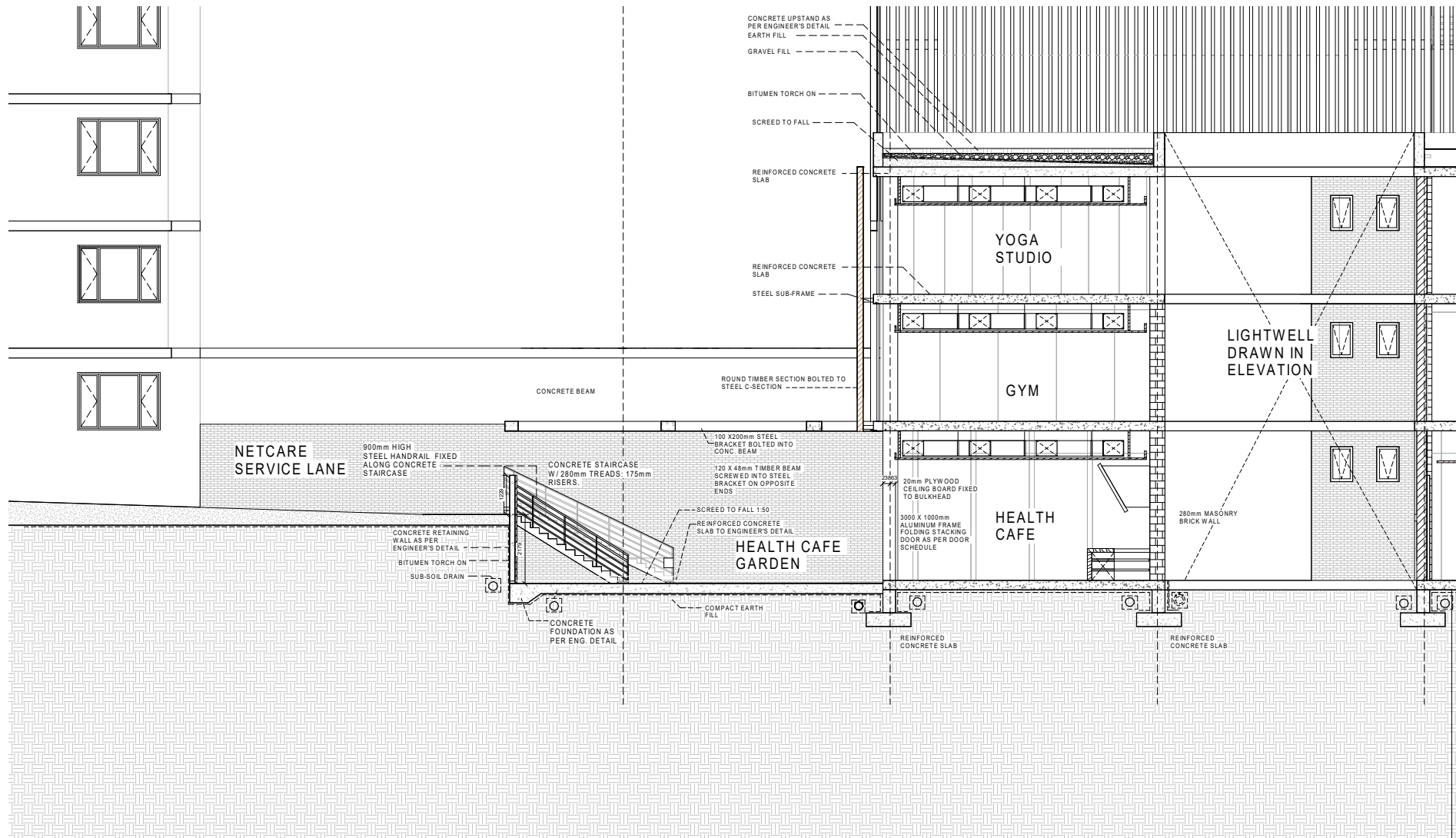


Fig.10.27. T.sebe. T. 2021. Detail A-A Scale 1:50. Searching for Sunnyside Research Report. University of Witwatersrand. .

SECTION D-D DETAIL B SCALE 1:20

10.15. DETAILS

(DETAIL SHOWING HEALTH CAFE GARDEN BETWEEN NETCARE AND INCREMENTAL)

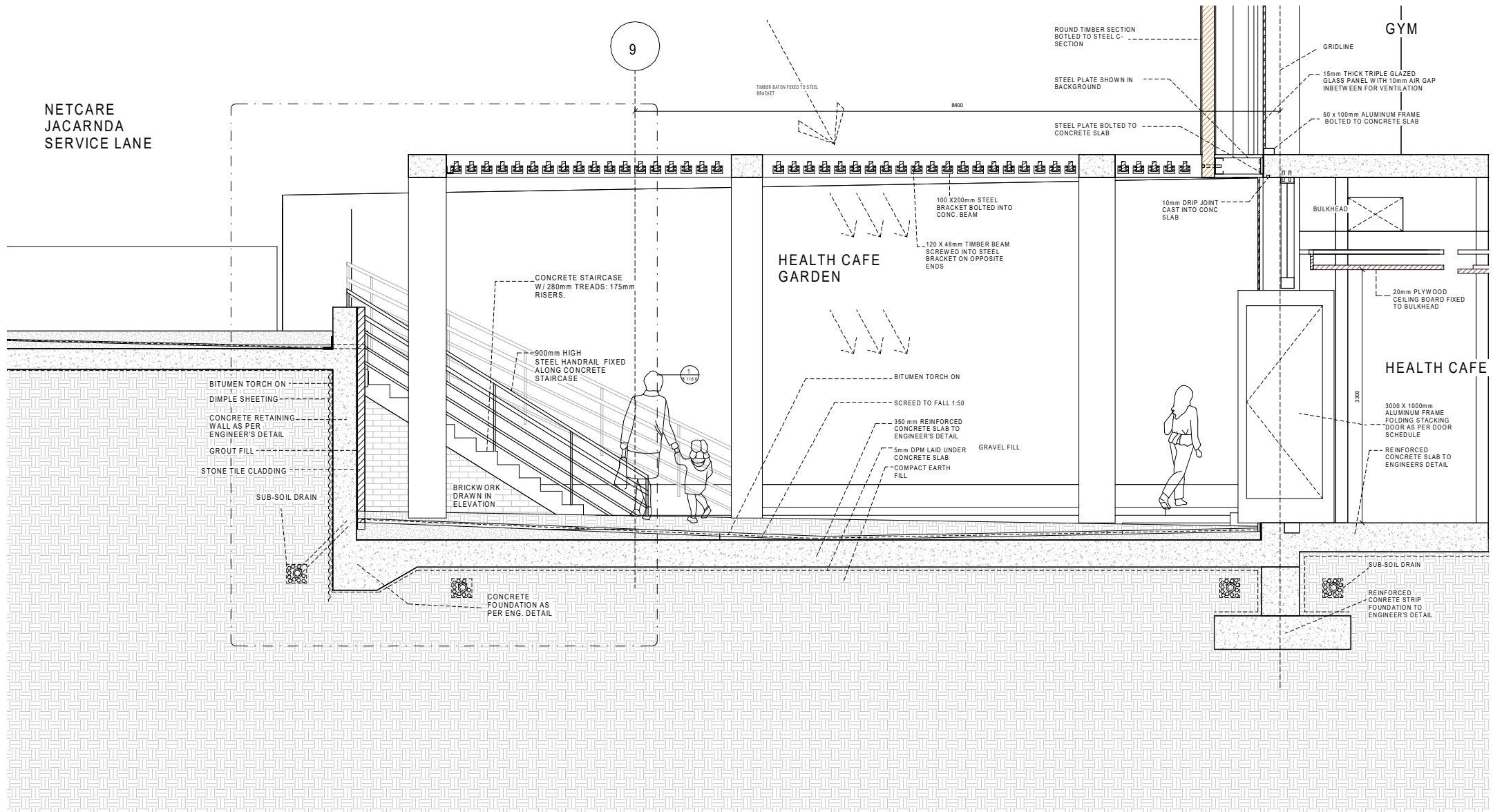


Fig.10.28. T.sebe. T. 2021. Detail D-D Scale 1:20. Searching for Sunnyside Research Report. University of Witwatersrand. .

(DETAIL SHOWING RETAINING WALL BETWEEN NETCARE AND INCREMENTAL)

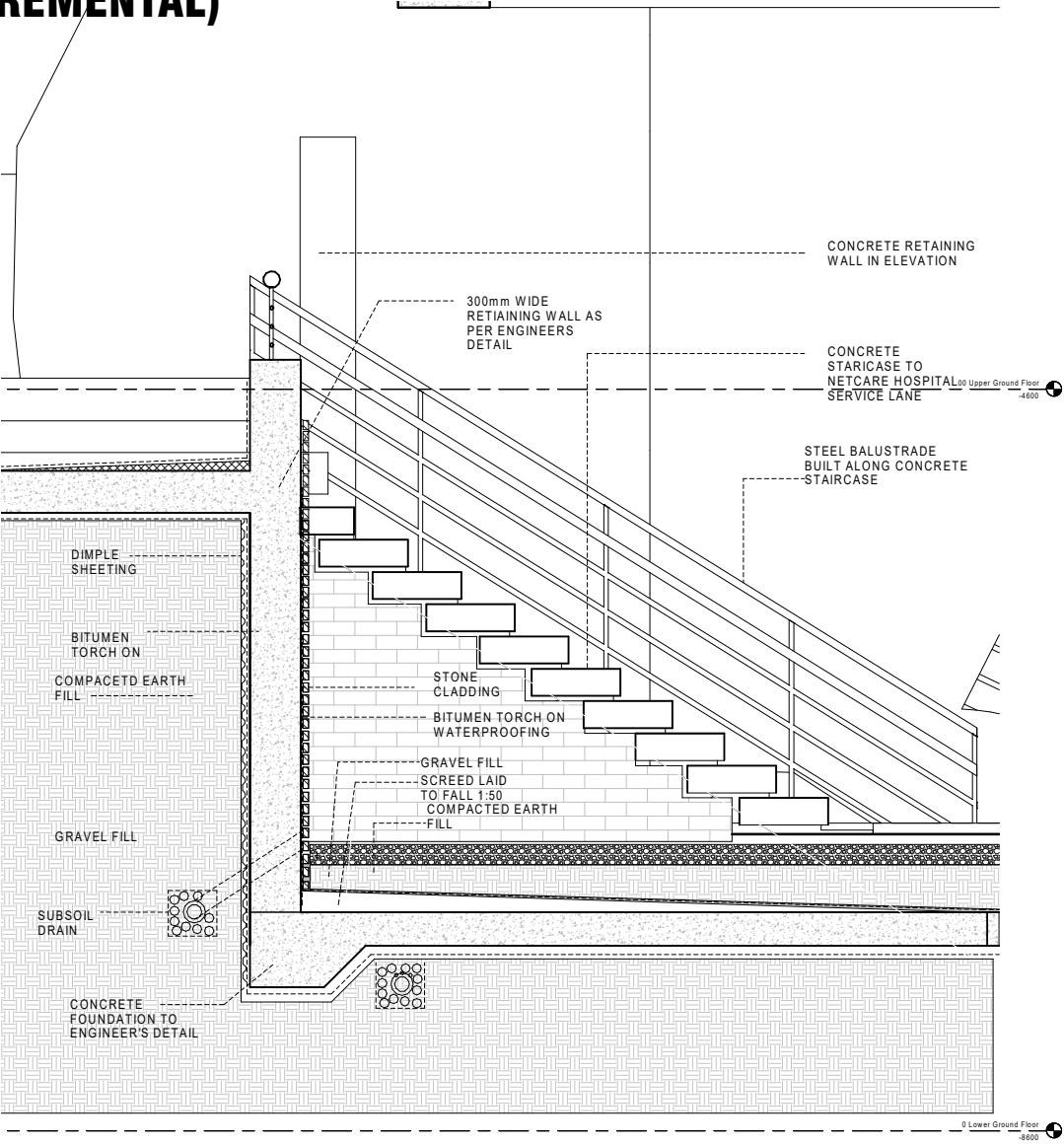


Fig.10.29. T.sebe. T. 2021. Detail D-D Scale 1:10. Searching for Sunnyside Research Report. University of Witwatersrand. .

(DETAIL SHOWING BASEMENT WATER REPULSION)

10.15. DETAILS

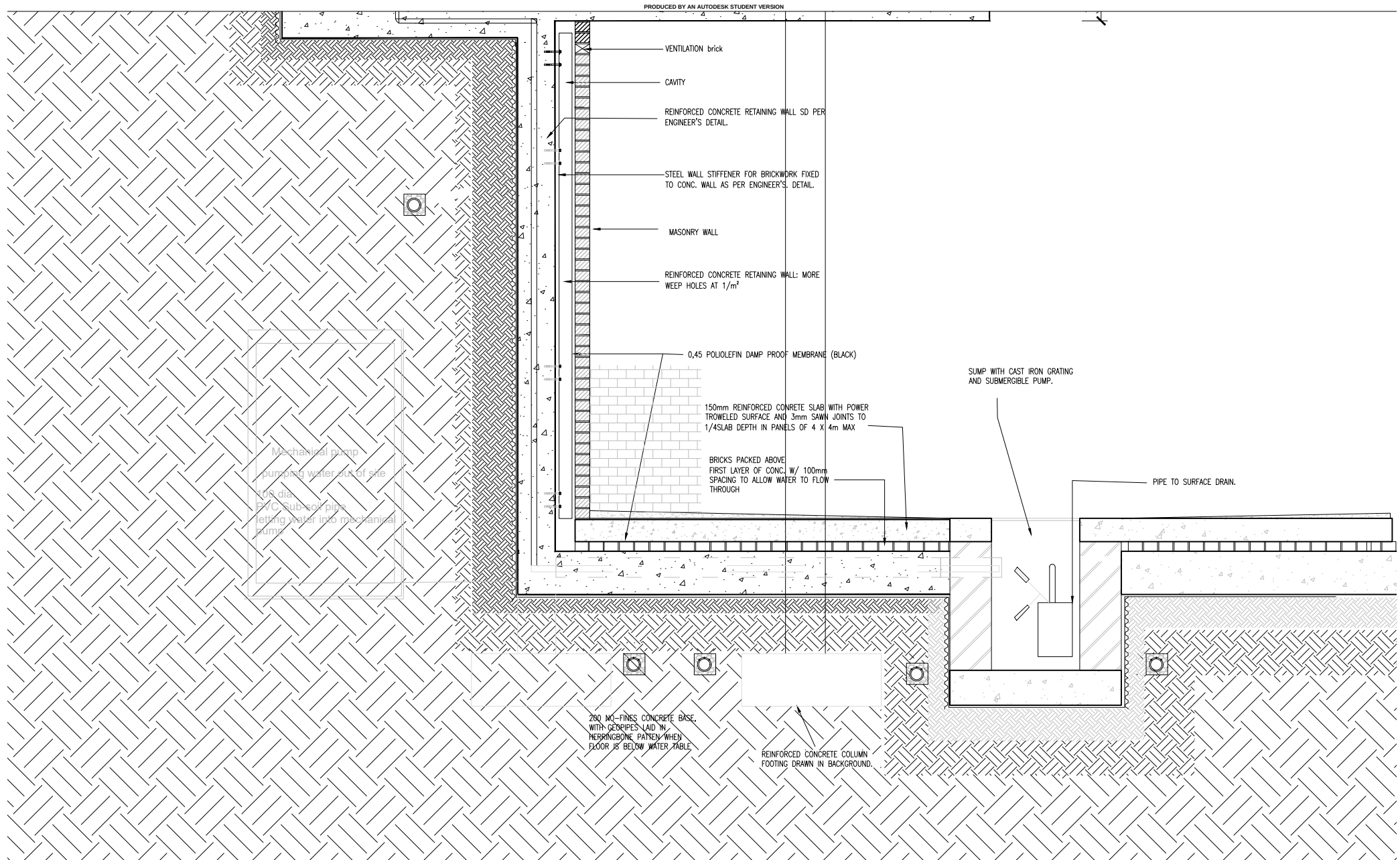


Fig.10.30. Tsebe. T. 2021. Detail showing windows along back garden. Searching for Sunnyside Research Report. University of Witwatersrand.



Fig.10.31. Tsebe. T. 2021. North Elevation. Digital Drawing. Searching for Sunnyside Research Report. University of Witwatersrand. .

EAST ELEVATION

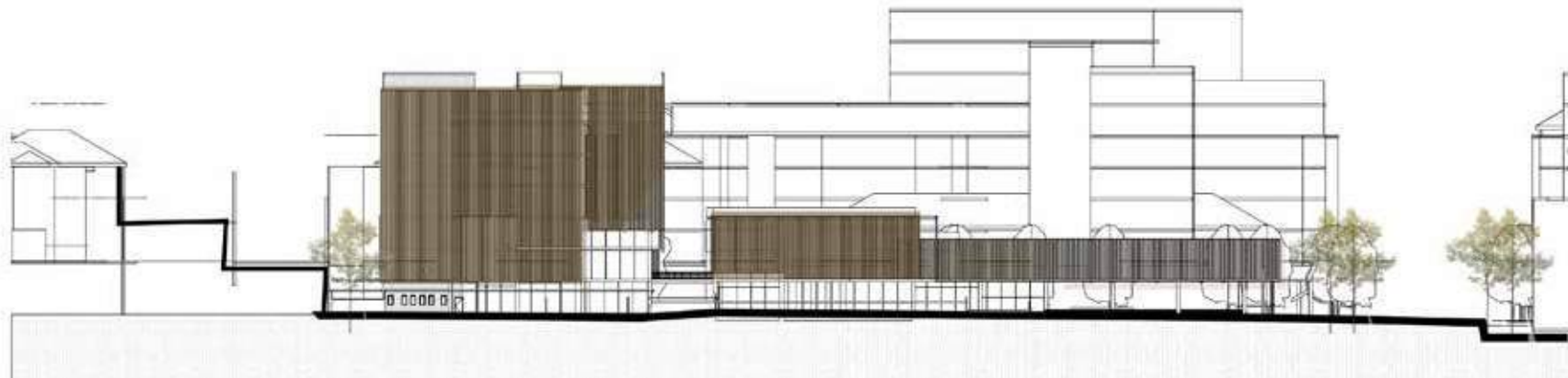


Fig.10.32. Tsebe. T. 2021. East Elevation. Digital Drawing . Searching for Sunnyside Research Report. University of Witwatersrand. .

WEST ELEVATION

10.16. ELEVATIONS



Fig.10.33. Tsebe. T. 2021. West Elevation. Digital Drawing . Searching for Sunnyside Research Report. University of Witwatersrand.



Fig.10.34. Tsebe. T. 2021. South Elevation. Digital Drawing . Searching for Sunnyside Research Report. University of Witwatersrand.

10.17.CONCLUSIONS ON SUNNYSIDE

Sunnyside has been a place that has played a multitude of roles not only for me but for all of its residents. In looking more closely at its civic roles and how they layer on top of its social roles, I came to understand why the greenery had been sacrificed but still believe there is opportunity for more integration between urban users of different profiles. The way in which to do this is to find a mediating framework of building scale, programme and materiality. It is yet to be confirmed whether or not the scheme I proposed successfully achieves all of that but I do think it has the correct priorities and design intent necessary to do so. The scheme, Incremental allows users in Sunnyside not to get overwhelmed by the states of change that make the area difficult to inhabit, but instead prompts users to focus on their individual lives and individual wellbeing. In doing so successfully, the nett effect would be that Sunnyside might become a better place and more importantly, an easier place to live.

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21 September 2021

Faculty of Engineering and the Built Environment;

Ethics clearance letter:

Dear Kgale Tsebe (863439), this letter confirms that your ethics application has been cleared. Your clearance/protocol number is SQAP033/2021.

Yours sincerely

Lorato Nkosi



