

# "TSA KO KASI"

Refashioning the **Spaza Shop** through social and cultural agency  
in Katlehong

15 February 2023





University of Witwatersrand School of  
Architecture & Planning School

This document investigating Refashioning the spaza shop through social and cultural agency in Katlehong thesis is submitted in fulfilment of the Master of Architecture (Professional) at The University of Witwatersrand, School of Architecture and Planning

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Date: 15 February 2023

## Declaration

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\*I confirm that the work submitted for assessment for the above degree is my own unaided work except where I have explicitly indicated otherwise.

\*I have followed the following conventions in referencing the thoughts and ideas of others.

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Signature: 

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## Glossary

|                   |                                                                   |
|-------------------|-------------------------------------------------------------------|
| Tsa ko kasi.....  | Township experience/from the hood                                 |
| Spaza shop.....   | Informal micro-enterprise                                         |
| Isiphazamiso..... | Hindrance /disturbance                                            |
| Gumboots.....     | Rubber boots                                                      |
| Sbujwa.....       | Freestyle dance incorporated jive and pantsula movements          |
| Diketo.....       | South Africa’s indigenous game like blackjack game.               |
| Ama tini.....     | Indigenous game of can placed in a pyramid system.                |
| Pantsula.....     | A dance of feet shuffling/a fashionable person form the township. |
| Moraraba.....     | Traditional game of stones used in strategic rows of small holes. |
| Skipping.....     | Term used for skipping rope games.                                |
| Mastandi.....     | Homeowner                                                         |



Figure 1. Thato\_director\_p (2020), Township Identity Vogue

“The longevity of our existence is measured by the ability to identify the wealth we inhabit within our roots. In that note we will then begin to undergo a beautiful transition of self empowerment and empowerment of others. The race doesn’t become a sprint but a marathon to a world filled with opportunities of enlightenment for a better tomorrow for us all ” (De Bruyn, 2020).

## Abstract

This dissertation report is an investigation of the economic landscapes on the scope of social and cultural agencies of spaza microenterprises and spatial dynamics of communities in Katlehong township. The report outlines research for a new social infrastructure design proposal, that addresses social and cultural agencies aimed at the disparity of township economic sectors and how they can be improved. The primary objective is the deconstruction of predetermined concepts of spaza shops as a survival mechanism rather than an opportunity that bridges the gap of innovation and acts as an integral component for communities in the township.

Informality has frequently been cast in the shadows of the formal retail landscape in the economic district, owing to its evolving perception as subordinates to organizations not constituted in the grey economy (Ohnsorge & Shu, 2021). The grey economy is unregulated and unsupervised informal businesses that are not taxed by the government (Bosanquet & Proppe, 1991). Spaza shops in the informal catalogue are a prime example of globally shadowed micro-enterprises that have numerous benefits to society. They form an integral component in township areas because of their diverse value to communities, including their supply of food security, community integration, employment, and artistic demonstration (Lesley, 2021).

Research is proposed for the design of a social and civic infrastructure center in Katlehong. An architectural intervention interlinking identified programme that would sustain growth in the township is to be developed. The infrastructure proposes a permanent and temporary platform for informal markets to be established on a basis that relates to the cultural and social identities of the township. Social aspects derived from the spaza shop culture are explored for entertainment and the exchange of community values.



Figure 2. Author (2022),Katlehong locality map.

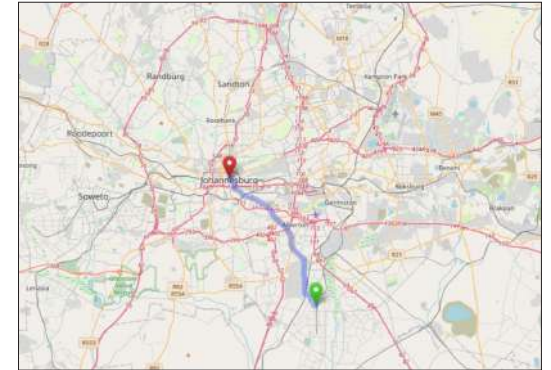
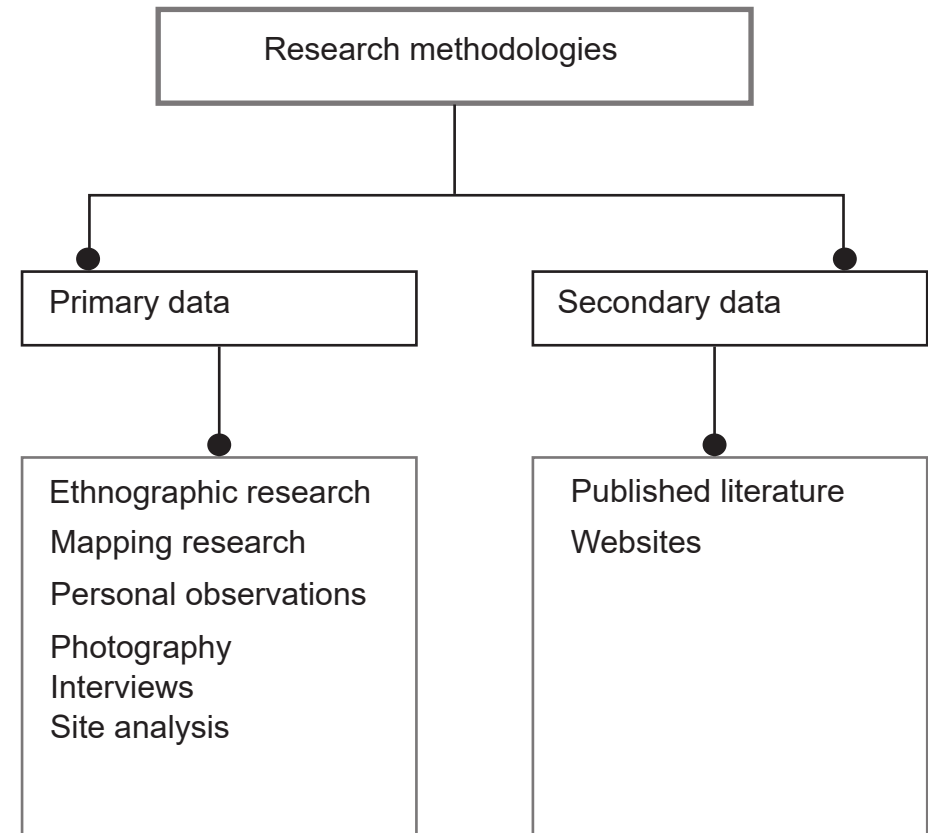


Figure 3. OpenStreetMap (2022),  
Katlehong to Johannesburg.

## Research methodologies

The proposed research methods range from critical analysis to creative and ethnographic research. Methods considered include quantitative and qualitative research, mapping, sketching, photography, and personal observations. The research focussed on a specific group and site, with participants being professionals and community representatives who assisted in data collection regarding analyzed township issues and informal business sectors. Qualitative research was important for primary data collection, with the requirement of human interaction for subjects’ depth and comprehension, which permitted personal observations and findings. Quantitative research was collected through published literature for comparative analysis with secondary data collected personally (researcher) on site. The creative aspect of this research was explored through mapping, sketching, and photography methods that express research and findings differently from theory.



**Figure 4.** Author (2022), Research methodologies diagram.

# Introduction

01

## 1.1 Informal markets in the economic district

Informal enterprises have long been regarded as subordinate in South African retail landscapes marking, a clear demarcation of segregation in economics. This is due to their designation as grey economy businesses, referred to as non-formal registered and taxed organizations by the state (Charman Andrew, 2020). An academic Charman Andrew sees this assessment and classification of informal markets as the most incompetent and regressive in the economy of the country.

Informal markets contribute enormously to the economy, as proven by declining rates of unemployment statics published over the years (Charman & Leif, 2015). They established significant synergies in urban and township areas, integrating diverse people, communities, and professions that changed people’s lives and spatial landscapes. South African historical legacies of apartheid have overshadowed its immense contribution to society to date because they are still dominated by political by-laws.

Informal enterprises have become part of our daily lives because they contribute more than just existing distribution channels for necessities but also holistic environments in communities. They evolved into multidimensional spaces, rooted in social and cultural tectonics, serving as a new foundation for commercial landscapes in townships and trade residues in urban areas.

The division between formal and informal economies effect is the compelling competition amongst them that restricts potential relationships from being formed. In addition, those informal markets are primarily oppressed by trade by-laws which influence their sustainability and associations with formal organizations (Lesley, 2021). The informal economic sector is currently vulnerable and exposed to numerous unfavourable conditions like space, capital, and labour because of formal commercial domination and trade laws.

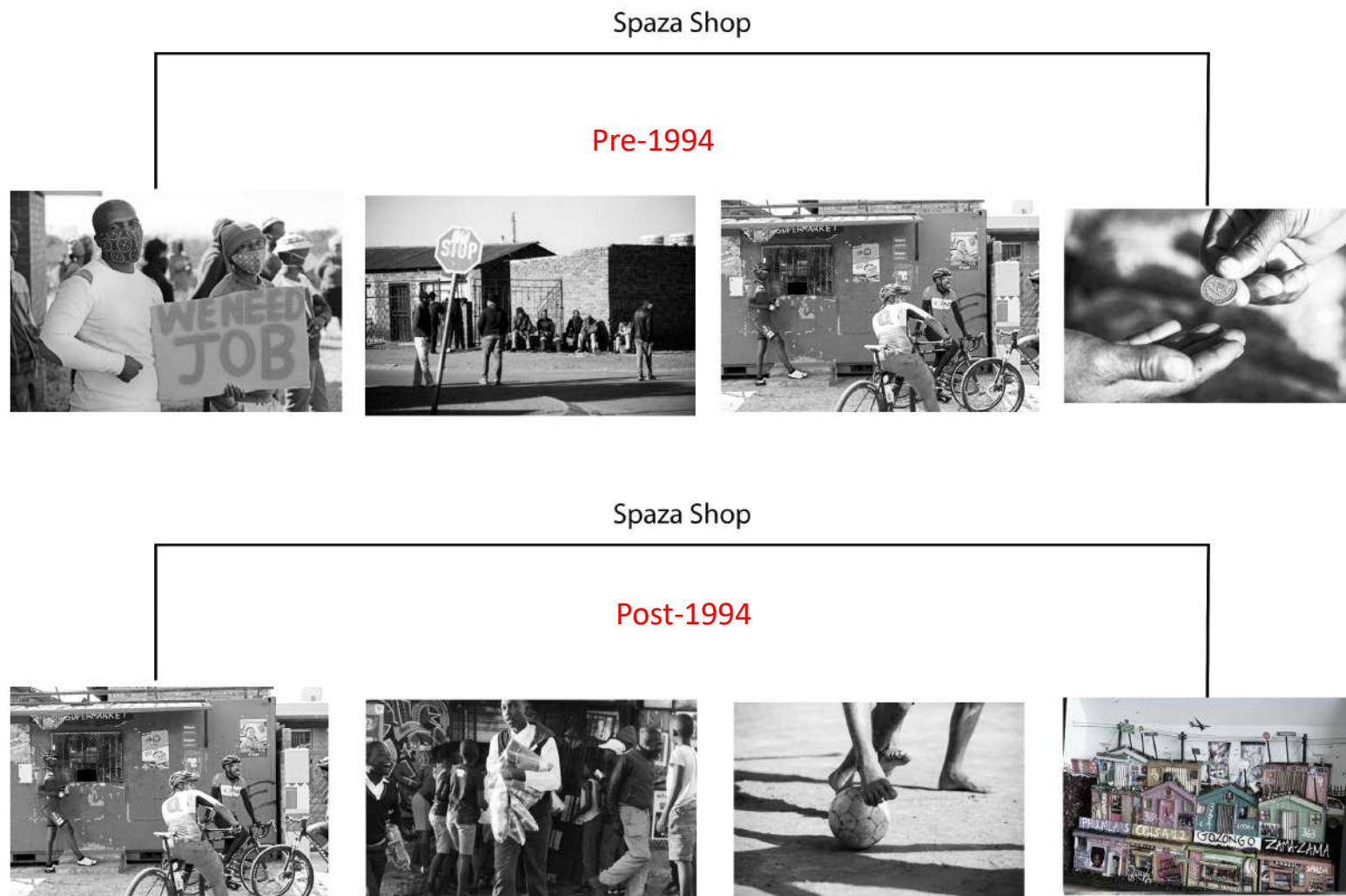


Figure 5. Jessica Hunkin (2015), Spaza shop.

The apartheid governments' provision of housing, jobs, and social infrastructure in South Africa remains implausible. According to the South African, poverty lines research report 2015, states that approximately 20.98% of South Africans experienced severe poverty because of excessive unemployment rates (Charman, 2017). The report's evaluation stated that this information was sourced from marginalized groups of people from township communities. It was a response to unfavourable circumstances where people opted for informal trade and spaza shops to earn an income for survival purposes.

This report aligns itself with social and cultural analyses based on identity and social agencies established from community values and informal retailers known as spaza shops. Spaza shops are proclaimed survivalist mechanisms that function as a system that provides basic needs to the immediate context (Charman, 2017). The academic, Charman argues that spaza retailers in South Africa, are not just convenient stores but a reflective demonstration of apartheid architecture and transpiring political issues in townships (Charman Andrew, 2020). These underlying issues are positioned by the depreciation of trade and business evolution that is aspired by informal entrepreneurs.

Spaza shops in origin are derived from the term isiphazamiso, defined as a hindrance to the apartheid regime and formal enterprises and later recognized as imitation stores. Since then, it has evolved from pre-1994 to post-1994, in terms of function and meaning to the community despite the introduction of formal dominant retailers in townships and cities. The stores aimed to disrupt colonial powers and serve the community with necessities that could only be accessed in urban retail stores (Lesley, 2021).



**Figure 6.** Author (2022), Conceptual lenses of spaza shop interpretation.

## 1.2 History of spaza shops

The spaza shop was established in the 1970s, from a vernacular origin of township slang language, which refers to formal retail imitation (Kaveel, 2017). It is a representation of the lifestyle experienced in townships, established on vibrancy, art, culture, social status, diversity, and symbolism. Its history is based on a legacy of struggle and discrimination from the apartheid era.

Economic market reports indicate that approximately 300 000 to 400 000 jobs are created annually through spaza shops and the informal trading economy. (Kaveel, 2017). Regardless of hostile working conditions and oppressive by-laws, they are declared the backbone of the economy. The economic report in 2018 indicated that approximately 134 000 informal outlets contribute to the South African economic sector's 40 billion annual turnovers. This is a significant contribution to the economic gross domestic product (GDP) of South Africa, considering that we are in the process of achieving the status of the largest economy in Africa like Nigeria (Petersen, 2018). They represent a division of retail sectors in South Africa after 1994 and are reflected in the introduction of mall developments in townships (Kaveel, 2017). This impacted the longevity of spazas as they dealt with detrimental challenges concerning limited accessibility of resources and space, limiting products purchased from warehouses.

Spaza shops face major challenges of bargaining powers with food suppliers and local consumers, contributing to the failure of many informal enterprises in townships. Considering factors such as price inflation from main food distributors and food supply to consumers at a fixed rate is not profitable for businesses (Kaveel, 2017). The perception of informal retailers as cheap and convenient stores in communities leaves them with no room for improvement because they are expected to meet consumers' needs constantly. Additional factors like space constraints and the rapid rate of change they are exposed to, are prime examples of problems that intervene in the sustainability of spaza shops requiring immediate action.

Academics like Lesley and Andrew argues that the introduction of the Saldanha policy had a massive impact on South Africa's local markets and communities, due to the full accessibility of foreign-owned businesses in townships. The Saldanha special economic zone was introduced in 2013 and allowed foreign traders access to local markets, resulting in forceful competition within the local economy (Lesley, 2021). Cheap product prices from foreign-owned shops resonated with community members because numerous products could be bought at an affordable price compared to black-owned spazas (Lesley, 2021).



Figure 7. Patrick, J (2018), A view of a spaza shop outlet

### 1.3 The idea of transformation

Informal sectors are striving to expand into bigger retail chains, but shortcomings such as insufficient business knowledge and skills affect their sustainability and growth development. Socio-economic factors like capital and political issues are identified as the main objectives that contribute significantly to the rate of decline and progression of informal markets worldwide (Charman Andrew, 2020). Micro-entities like spaza shops are shaped by historical legacies and contextual influences that revealed their competence to function in undesirable conditions. (Charman & Leif, 2015).

The idea of transformation is valid, given that these informal sectors were established in a fixed timeframe of impermanence and expanded into a system beyond trade but communal interchange. The proposal's intent to expand informal enterprises is deeply rooted in education and identity, to find ways that both can be integrated into prosperous businesses. The absence of business incubators in South Africa introduces opportunities for growth and longevity in the informal sector. Business incubators are new setups for businesses that provide access to resources and collaborative work. (Charman & Leif, 2015). Few ventures offer services for new business proposals and setups from NGOs like NYDA providing capital support and educational development through entrepreneurship.

The National Youth Development Agency (NYDA) is a South African-based organization, founded to address issues of unemployed individuals(youth) by providing access to funds and educational opportunities for new entrepreneurs (Agency, 2022). They work in a framework of community upliftment through entrepreneurship, social cohesion, and employment through designated programs intended for reducing impoverishment.

The NYDA offers both financial and non-financial support to young individuals whose ideas and proposals meet the criteria for business establishment or improvement. They have a grant programme that is set in different categories for competency tests and business financial support that includes:

- Business management training
- Mentorship
- Business and market networks
- Co-funding (should your business have a principal funder)
- The Co-operative Youth Development initiative

Over the years, the business districts have been exposed to propositions regarding the sustainable development of South African informal sectors. According to research economist Eddie Rakabe, informal enterprises and markets depend on bulk and supply chains, and integrated with technological systems could offer efficient business production to micro-scaled businesses. The bulk and supply chain is a system where an organization purchases products and services in large quantities through an efficient supply channel to intended users(entrepreneurs) (Dawson, 2010). The spaza supply and demand rates in townships are high and distributors saw the value of technology by introducing informal markets into the digital economy for the bulk and supply system. It proposed an efficient system that was beneficial for both suppliers and consumers by simplifying the ordering and delivery processes. Consumers can now generate orders via websites and carting portals which makes their lives easier and personally avoid going to warehouses and factories to get the supply of products.

The integration of spaza markets and technology can change them into more than general dealers in communities. Considering spaza stores consist of a diversified exchange, from social, educational, and business interchange in townships.

Digital solutions offer spaza enterprises opportunities to be educational hubs that teach entrepreneurs about business but also offer communities learning initiatives. This is through the “engage and educate concept, which aims at helping informal business improve their management and operational skills (Dawson, 2010). The engage and educate concept is about ensuring the sustainability of the spaza shops by associating business owners through social and business networks. These network seminars focus on business operations, management, bargaining, and trade qualities aimed to improve informal enterprises. The issue of health awareness for small businesses is raised, considering that some enterprises sell fast foods, and hygienic regulations are compulsory to ensure public safety (Dawson, 2010). The idea is rooted in addressing gaps in township retail sectors and communities by thinking of ways informal markets can function beyond business enterprises. Considering that community members are offered access to learning portals that enhance the reading culture offered by products like newspapers and Chappies bubblegum. Chappies bubblegum founded by Arthur Ginsberg is one product from spaza stores, that instilled a reading culture for individuals through “Did you know” facts (Davie, 2018).

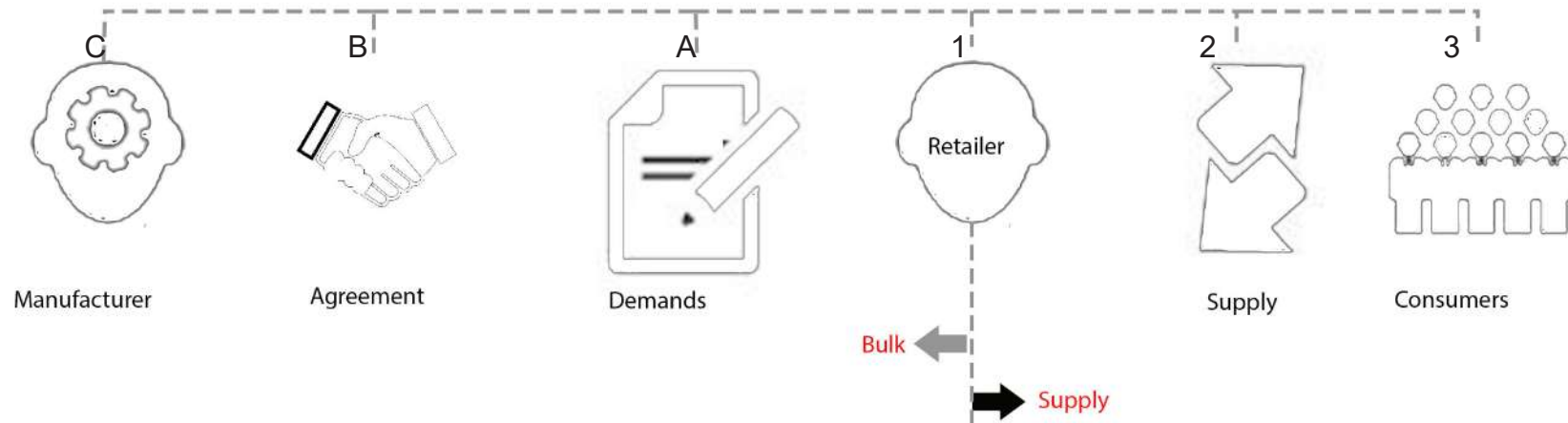
The Chappies brand is popularly known for its colourful wrappers and chipmunk illustration next to general knowledge facts (Davie, 2018). They are significant components of the informal economy's identity, because of their diversified nature to function as currency and product in the economic sector. Majority of township spaza shops in South Africa trade Chappies bubblegum for small change. This system, recorded from personal interviews and theoretical findings highlighted that its advantageous for revenue rates for the business. Furthermore, the system enhanced entrepreneurs' bargaining skills and communication skills, used for both consumers and distributors. Considering that people of all ages enjoy this bubblegum, especially children provide opportunities for spaza store expansion into educational hubs. These hubs will enforce the youth's learning, reading, and skill development in communities which is an inevitable shortcoming in our communities. The intention is to provide delegate spaces for current existing social agencies that diversify spazas beyond trade. Analyzing its strength in comparison to formal retail and potential business relations that enhances its unique identity and consumer attraction in both township and urban areas. The implementation will give informal markets exposure to operate adequately.



Figure 8. Author (2022), Did you know? Chappies wrapper.

## Actors of spaza shops bulk and supply chain

### Traditional method



### Proposed method

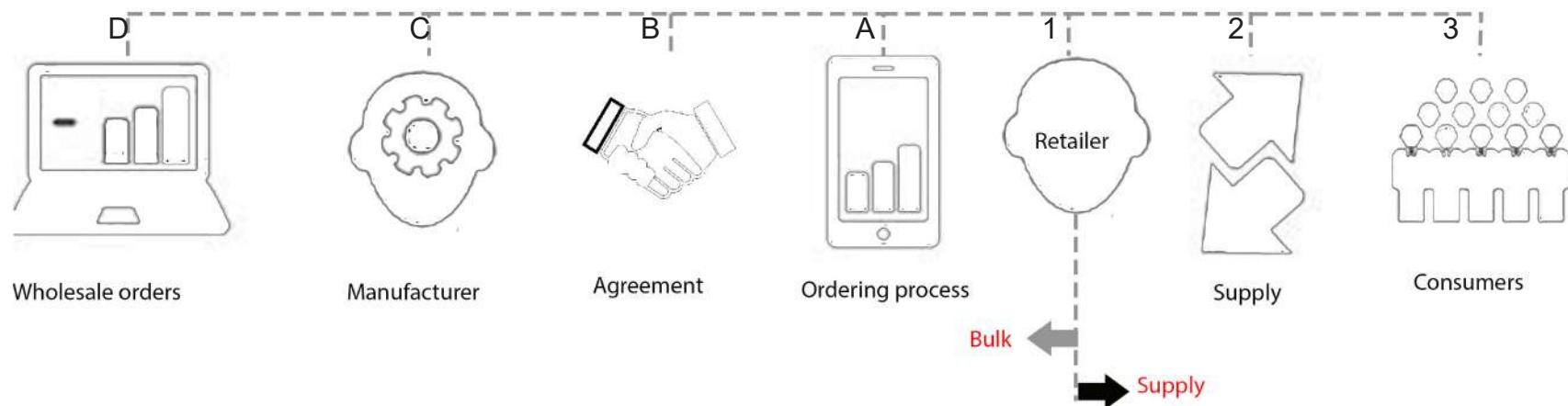


Figure 9. Author (2022), Spaza shop bulk and supply chain diagram

# Comparative Analysis

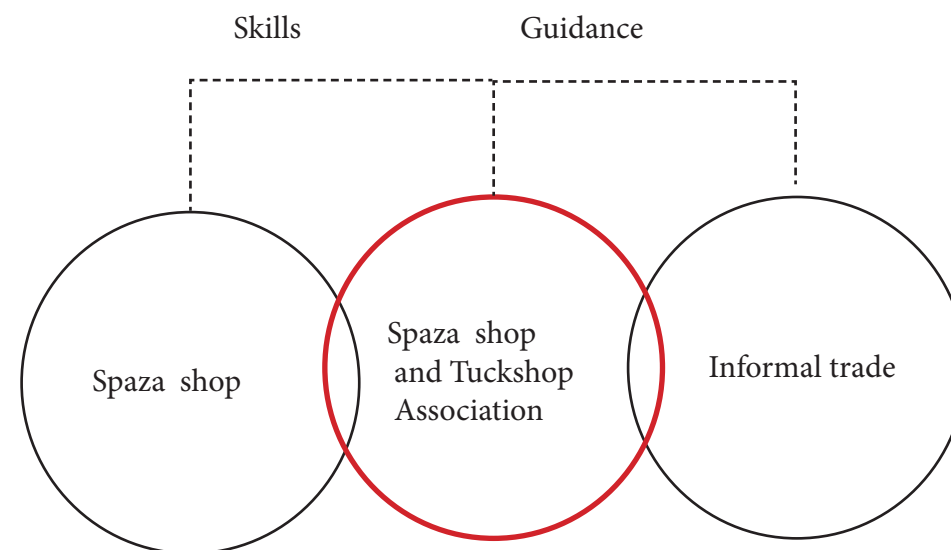
02

## 2.1 Comparative analysis of formal and informal sectors

Formal enterprises are established and operate on basis of contractual and cliental relationships. The production and revenue rates are reported in legal documents to assure the security of business investments and associations (Ligthelm, 2008). The initial proposal of the business is a capitalist venture that is to ensure that the investors are fulfilled and the sustainability of the business. Formal retailers are subjected to fixed associations from clients, lease agreements, context, and legal factors that determine their revenue rate and productivity. They are proven to be dominating retailers due to their financial muscle, reliability, and product variation, advantageous to revenue rates.

Informal markets operate with limited resources compared to formal markets, so their agenda is to work with available resources to sustain their businesses. They do not have any contractual obligations such as cliental, lease agreements, or legal requirements. They operate on non-fixed terms, allowing retailers to move from one place to the other and seek exposure to new opportunities (Ligthelm, 2008). The purpose of informal retail businesses is for livelihood, not profit margins and investment purposes. Although they have specific goals to expand their businesses and capitalize on social and cultural agencies established in their spaces. They have created communities within themselves and the consumers, on basis of the collective

distribution of goods to the public. Spaza enterprises are part of the South African Spaza and Tuckshop Association which offers the benefits of collective bargaining to informal entrepreneurs (members) to help facilitate informal businesses. The purpose is to educate and train them about business sustainability and survival in vulnerable conditions. The organization’s objective is the encouragement of collective association of informal microenterprises and trade markets to enhance working environments and economic upliftment.



**Figure 10.** Author (2022), Spaza shop and Tuckshop Association scheme diagram.

Demarcation is an important aspect of comparative analysis for both informal and formal economic sectors. Most business enterprises in suburban areas are located adjacent to high street zones that set a clear demarcation of business and residential operations. High streets are identified regional areas for business ventures and exposure to most human activities in the city. (Charman Andrew, 2020). Formal retail businesses adhere to municipal zoning rights due to the strict rules that urban areas work, and fines are charged for broken rules.

In township areas, business , and residential spaces operate as a unit because homes are a cheap alternative for business establishments. They are exposed to vulnerable security because of complete access to personnel’s private spaces and resources. The advantage of this establishment is the unique experience and narrative that challenged the dynamics of the private and public definitions of home and business boundaries (Charman Andrew, 2020). Location is very important as a formal high street zone because the efficiency and sustainability of the spaza shop are measured by the store's supply, demand, and productivity.

## 2.2 Social and cultural agencies in informal sectors

South Africa’s spaza economy is widely interplayed by cultural and social dimensions that respond to the context and social needs of communities (Neves David, 2012). They have the power and influence to instill change as an integral component that is highly valued by the public. Granted it is disadvantaged in South Africa’s economy; its profound presence of cultural and social agencies challenged the norm of spaza shops declared survivalist and impoverished self-employment (Neves David, 2012).

The varying social and economic distributors like spaza shops in the township intensified after apartheid because of the identity that resonated with people and created imperative networks in informal markets. These imperative networks promoted collective dependence between entrepreneurs and economic sustainability. The academic Charman Andrew explains: ‘Some of these business activities constitute a sophisticated reading of cultural and social needs, providing goods and services in ways that are unique and appropriate to people’s requirement, much township entrepreneurship is the outcome of the struggle for survival.’ (Charman Andrew, 2020).

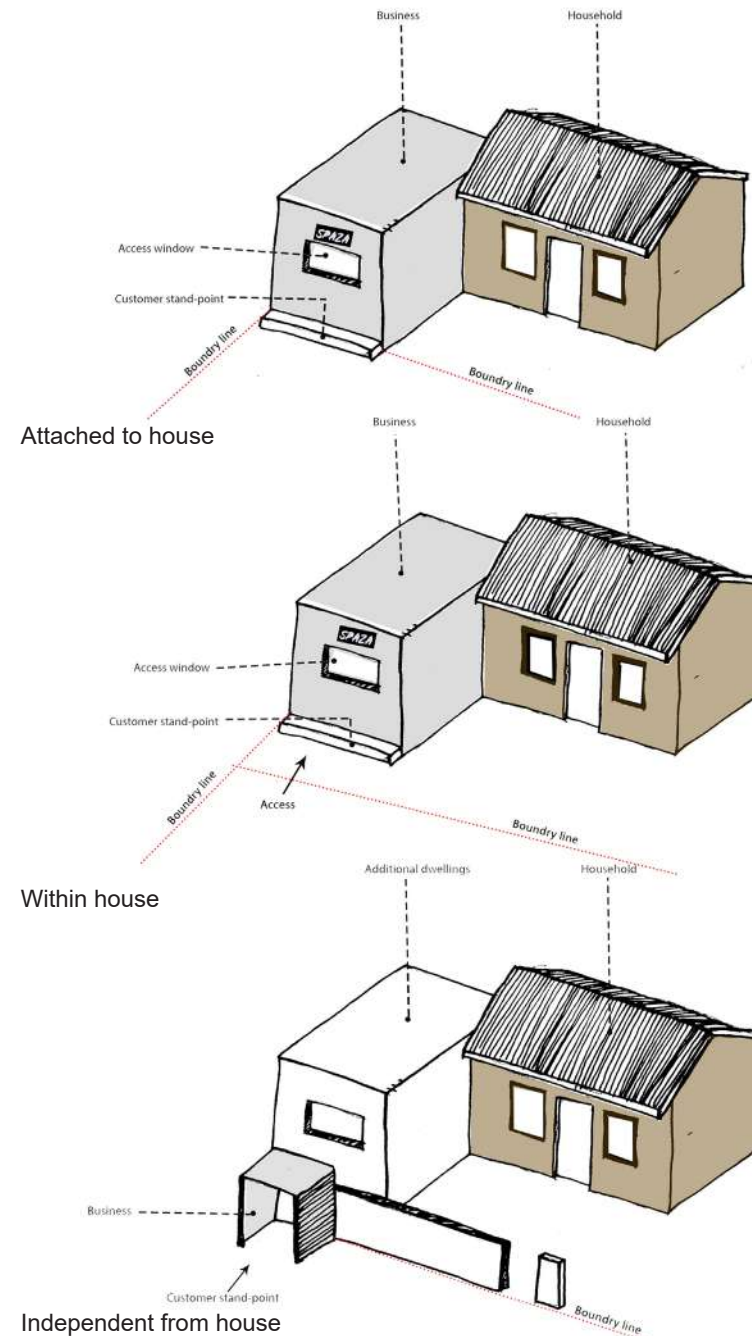
The academic David Neves argues that capitalism in South Africa is the main source of domineering power in economic sectors that have caused division and the devaluation of informal markets. Considering published and misinterpreted narratives about the informal sector based on unsubstantial criteria of entrepreneurs with personal interests. (Neves David, 2012).

Monopolizing power serves the interests of those in the power according to a hierarchical structure that undermines those at lower ranks. Capitalism theory discusses an economic system based on private ownership by the state and entrepreneurs. The core values of capitalism are the accumulation of wealth, competitive systems, and property (Lippit D, 2005). The trade by-laws for informal trading are prime examples of capitalist influence in economic sectors, that devalues the significance of the informal economy in South Africa. As stated in informal trade by-laws, no informal business should disturb the frontier of formal businesses (Charman, 2017).

An architectural definition of a spaza shop is a simple form of an existing unoccupied structure, like garages, stalls, and storage rooms. The spaza shop follows the principle to be directly adjacent to the street which enables the store façade to function as an advertising agency for the enterprise. A direct street access system, to the store, is an important security measure

that prevents the house from being exposed to public access. This approach is advantageous because of the complete accessibility that sustains the flexible operation of the shop, like the non-compliance with standardized working hours and non-demarcated public entry (Charman Andrew, 2020). There are two types of spaza shops, with the same operation but different concepts based on fixation and mobility. Both are concluded by the entrepreneur’s resources and financial muscle for a fixed or impermanent setup. Traditionally a spaza shop is set as an extension of the house, installed with shelves for merchandise and steel bar frames to set boundaries. It forms part of a fixated spaza shop where both products and equipment are set according to the shop’s layout. The mobile spaza store is identified with a timber or corrugated attached stall usually set up over the property boundary line and stock is mobile. These two types of informal microenterprises are defined by the business’s materiality, location, capital, and scale where consumers in communities have unique shopping experiences.

There are three common sets of spaza shops varying from attached to the house, within the house, and independent of the house. They are determined by property attachment and property boundary lines that distinguish the function of these shop schemes. Research investigation and findings outline that the shops within houses function as small grocery stores to provide members of the community with necessities. In case should the business shut down, that space is leased to externals seeking shelter. The attached house shop set, aligned to the boundary wall is commonly used for hair salons, electronic repairs, and eatery shops. The business owners state that this preference is important because of its direct store access but also good advertisement that is efficient for the establishment. Considering permissible space efficiency for event hosting and furniture setup, especially for eatery establishments, and privacy barriers between the household and business. The independent shop scheme is known as a fruit and vegetable stall, that also sells snacks in communities. It is a mobile business scheme where goods are set up daily and cleared out at the end of the day. They can function according to the owner’s timeframe because they are independent and out of the property (Author 2022).



**Figure 11.** Author (2022), Spaza shop sets diagram.

## 2.2.1 Spaza store set - within house

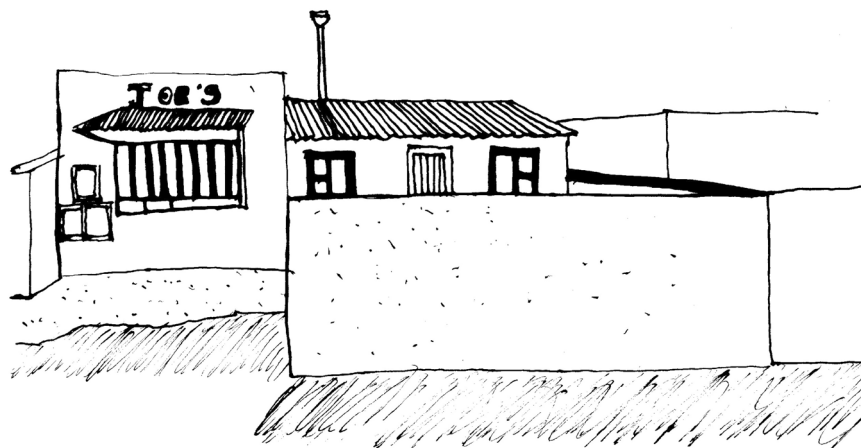


Figure 12. Author (2022), Spaza shop within house sketch.

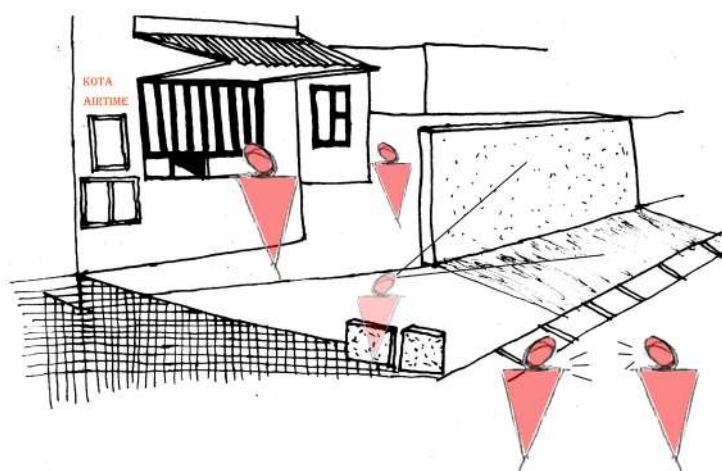
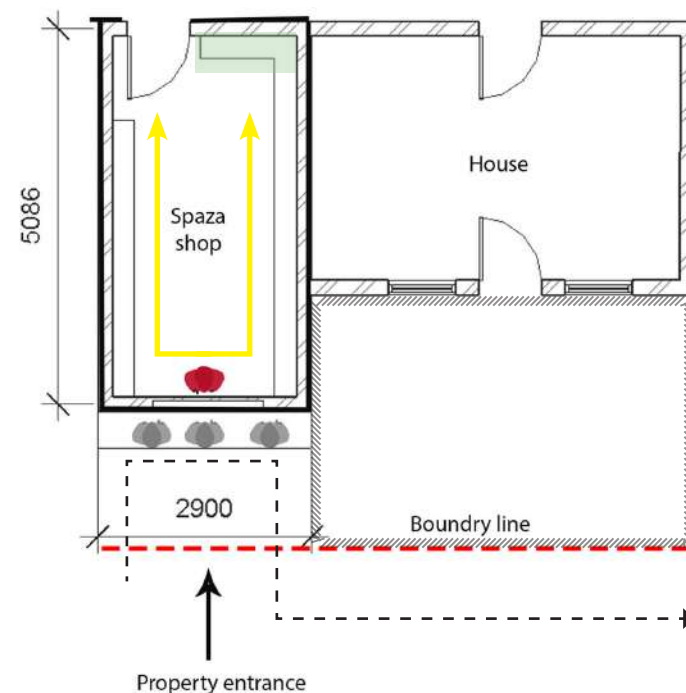


Figure 13. Author (2022), Spaza shop within house perspective.



Floor plan layout

The spaza shop layout is accessible from the yard and it exposes both business and home to consumers. The consumers are trusted with the owner's security and privacy, which customers appreciate because they feel no exclusion. This type of layout is convenient and used for different types of informal businesses like spaza mini-stores, salons, and nail bars.

### Legend

- |                                                                                                                                                  |                                                                                                                                                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <span style="display: inline-block; width: 15px; height: 10px; background-color: green; border: 1px solid black;"></span> Designated fridge area | <span style="display: inline-block; width: 15px; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); border: 1px solid black;"></span> Semi-public area |
| <span style="display: inline-block; width: 15px; border-bottom: 2px dashed red;"></span> Property boundary line                                  | <span style="display: inline-block; width: 15px; height: 10px; background-color: yellow; border: 1px solid black;"></span> Owners / employee's movement                                                             |
| <span style="display: inline-block; width: 15px; border-bottom: 2px dashed black;"></span> Consumers movement                                    | <span style="display: inline-block; width: 15px; height: 10px; border: 1px solid black;"></span> Store shelves                                                                                                      |

## 2.2.2 Spaza store set 2- attached to house

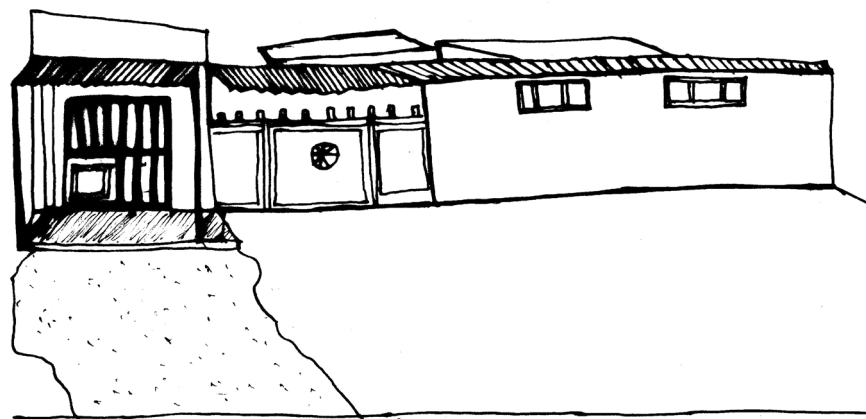


Figure 14. Author (2022), Spaza shop attached to house sketch.

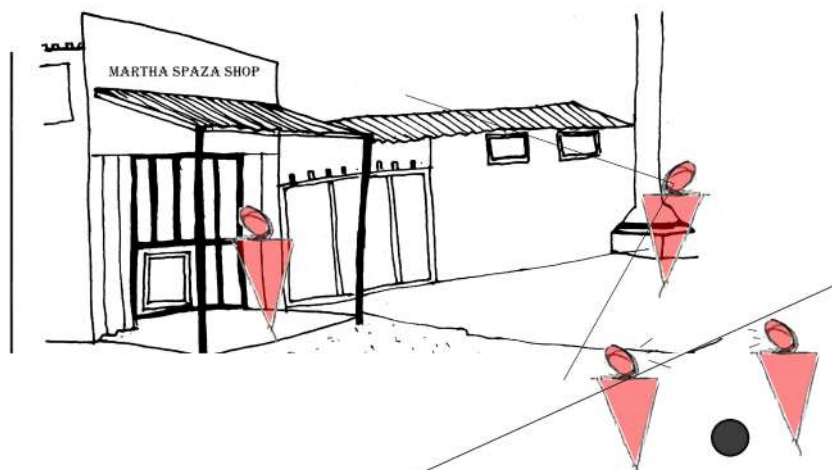
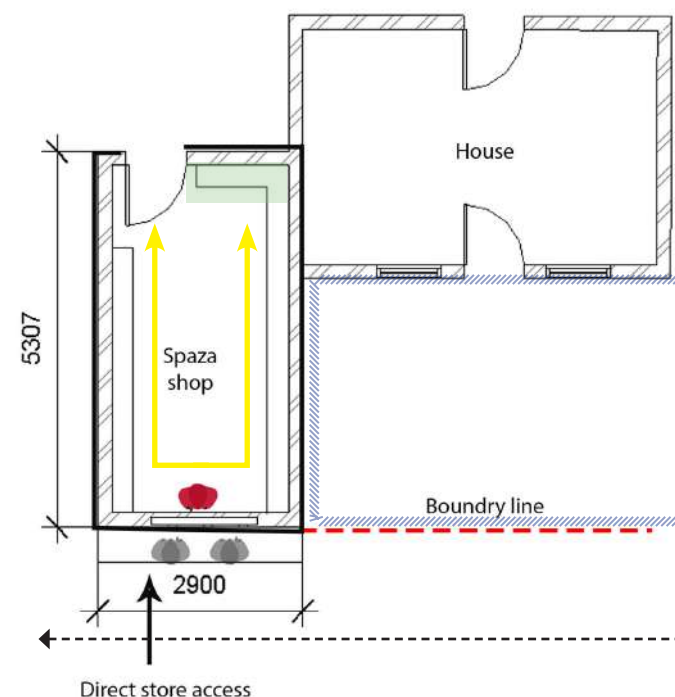


Figure 15. Author (2022), Spaza shop attached to house perspective.



Floor plan layout

The spaza shop layout offers direct access from the street to the shop and the edge of the façade is positioned at the edge of the property boundary line. This gives a clear indication of private and public access to the whole property. It is convenient and mostly used for mini-grocery and fast-food outlets.

### Legend

- |                                                                                                                                                    |                                                                                                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #90EE90; border: 1px solid black;"></span> Designated fridge area | <span style="display: inline-block; width: 15px; height: 15px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, blue 2px, blue 4px); border: 1px solid black;"></span> Private area |
| <span style="display: inline-block; width: 15px; border-bottom: 2px dashed red;"></span> Property boundary line                                    | <span style="display: inline-block; width: 15px; height: 15px; background-color: yellow; border: 1px solid black;"></span> Owners / employee's movement                                                       |
| <span style="display: inline-block; width: 15px; border-bottom: 2px dashed black;"></span> Consumers movement                                      | <span style="display: inline-block; width: 15px; height: 15px; border: 1px solid black;"></span> Store shelves                                                                                                |

### 2.2.3. Spaza store set 3 - independent of house

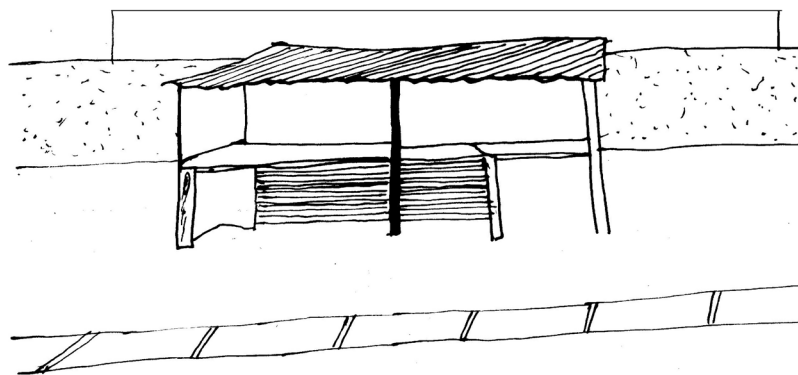


Figure 16. Author (2022), Spaza shop independent of house sketch.

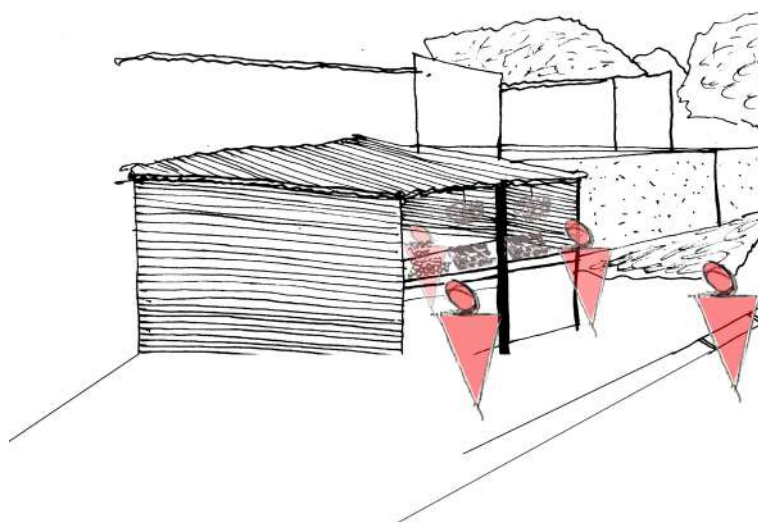
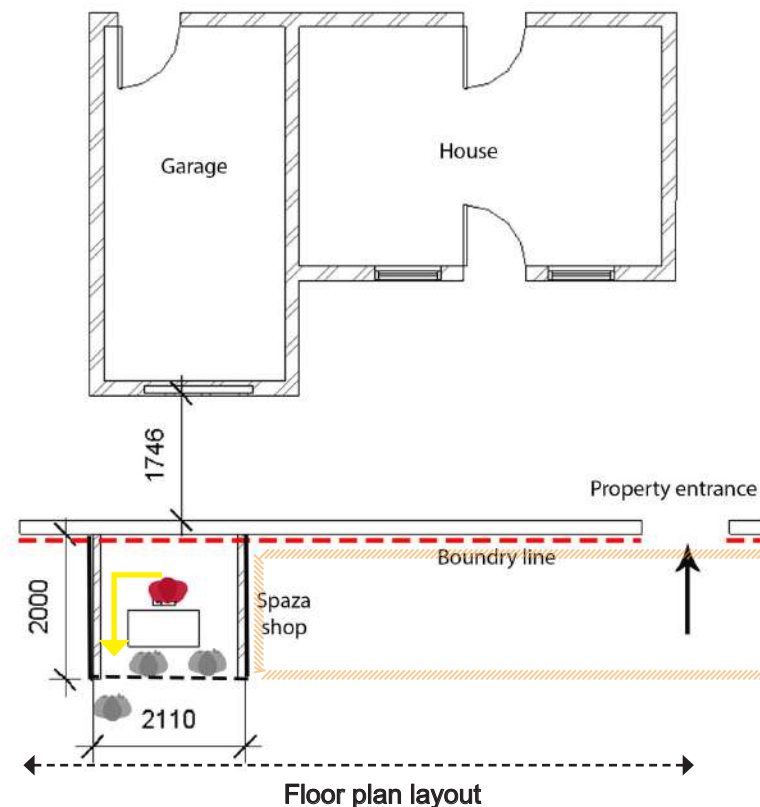


Figure 17. Author (2022), Spaza shop independent of house perspective.



The spaza shop layout is mostly used for informal trading. This is a daily temporary set-up of sold products that are packed and moved at the end of the day. This store is positioned at the edge of the property boundary line, made of corrugated sheet metal, and exposed to public access. The set-up fully protects property access and is used as a vegetable and snacks store.

#### Legend

- |                            |                              |
|----------------------------|------------------------------|
| --- Property boundary line | Public area                  |
| --- Consumers movement     | Owners / employee's movement |

Spaza shops aside from being wholesalers' target market or catering to people's needs derive from housing components that vary in different contexts. The housing component belongs to the homeowner “mastandi”, as a system to sustain the business by cutting costs (Ligthelm, 2008). This system distinguishes the characteristics of informal and formal retailers by emphasizing that the space typology of these two markets and contextual aspects is influenced by capital capacity. The size of these informal markets ranging from stalls, garages, and storage, is limited, to an extent that the house functions as a business extension. The emphasis on spatial constraints regarding informal shops results in the housing component functioning as storage.

Furthermore, informal retailers, commonly spaza owners provide unrestricted consumer access to their business after working hours. The spaza shop is commonly set as an extension of the household with three main categories and has formed an identity that defines a spaza in townships. The houses are four-room houses that were built in the apartheid era. The houses were established as stand-alone houses and therefore people-built garages or additional rooms on the basis to start businesses. The two components function concurrently, with the advantage of being accessed at an appropriate distance. The three categories are attached to the house, semi-attached, and

independent from the house outline spatial typologies and how they function daily. Spaza shop as an extension to the house is commonly independent in South African townships. They operate in different scopes in contexts, where their role is to trade and generate revenue to sustain the businesses. Spaza shops are not fixated on food items only, they vary from repair stores, shoe workshops, hair, and nail studios. The variation of these resources in communities made livelihoods easier by cutting transportation costs to go to urban malls. These variations are established in retailers looking for innovative systems to bridge gaps or absent services in the area.

The housing component of spaza retails in suburban areas is completely different from the township's set-up. There is no direct link or attachment to the house because it functions as an independent structure with security restrictions that limit direct house access. These types of spaza shops are set up in a formalized approach that uses storefronts instead of security bars as a façade. It challenges the reconceptualized identity of what is known as spaza frontage in townships. The graphic identity of both urban and township spazas display similarities that a customer can easily identify it. To an extent that they share components that define their function with the only difference being the location and financial capabilities.

# Research interview questions

1. What is the primary reason for the establishment of spaza shops?  
Unemployment, so I need to open a tuckshop to feed my family
2. What is fundamental change have you observed in this space from a business and social perspective?  
They are all integrating into one space because business and social entertainment are important.
3. How do you deal with challenges to keep this enterprise sustainable?  
I usually save up money on the side in case of emergencies to keep the store open.
4. What do you think is needed for informal microenterprises to expand and be noticed at the economic district?  
Exposure, and relationships with big retail businesses.
5. What challenges do informal business experience with introductions of developments such as malls and centres?  
Loss of customers.
6. What are the main reasons do you think people prefer spazas as a social or exchange platform?  
We are a community, a spaza is a common place where we all meet up.
7. Do you think that there is unity amongst informal traders? If no, what is the reason behind that?  
Yes, because we share advice and places where can get affordable stock for our businesses.
8. How do you think the idea of education and informal trading can be integrated, in educating people about business as a precautionary measure to avoid failure?  
Business people to have workshops that improve business and communication skills.
9. What social factors influence the growth of spaza shops in dormitory areas?  
Entertainment, because people enjoy activities while buying or passing by.
10. Do you think location plays a significant role regarding the growth of this business? If yes, what are reasons behind that?  
Yes, places that are active are good for the spaza shop, lot of customers.

**Figure 18.** Author (2022), Research questions 1.

# Research interview questions

1. What is the primary reason for the establishment of spaza shops?  
I could not find a job and also there was no exiting spaza shop in my street I saw an opportunity.
2. What is fundamental change have you observed in this space from a business and social perspective?  
Consumers and us spaza owners are educating each other because of daily communication and familiarity. The business grows because of loyal customers that support it in difficult times, so input is important.
3. How do you deal with challenges to keep this enterprise sustainable?  
I do research a lot, from an online basis or talking to people regarding what to do to keep the business afloat.
4. What do you think is needed for informal microenterprises to expand and be noticed at the economic district?  
Access because restrictions in the business sector limit the goals we have to expand our shops.
5. What challenges do informal business experience with introductions of developments such as malls and centres?  
We get affected a lot because people are able to find things we do not sell here in malls.
6. What are the main reasons do you think people prefer spazas as a social or exchange platform?  
It is an area where people are expressive and can talk about regarding news, entertainment, and soccer.
7. Do you think that there is unity amongst informal traders? If no, what is the reason behind that?  
Yes, we can trade as a collective, as long as we respect each other and our products.
8. How do you think the idea of education and informal trading can be integrated, in educating people about business as a precautionary measure to avoid failure?  
Workshops, business, and school campaigns that give lessons to everyone about business operations and skill sets.
9. What social factors influence the growth of spaza shops in dormitory areas?  
Population density and the structure of spaza shops are factors that influence growth.
10. Do you think location plays a significant role regarding the growth of this business? If yes, what are reasons behind that?  
Yes, those in busy areas make more money than those in isolated or small areas, although they make enough but could do more.

**Figure 19.** Author (2022), Research questions 2.

## 2.3 Comparative analysis of the spaza shop industry

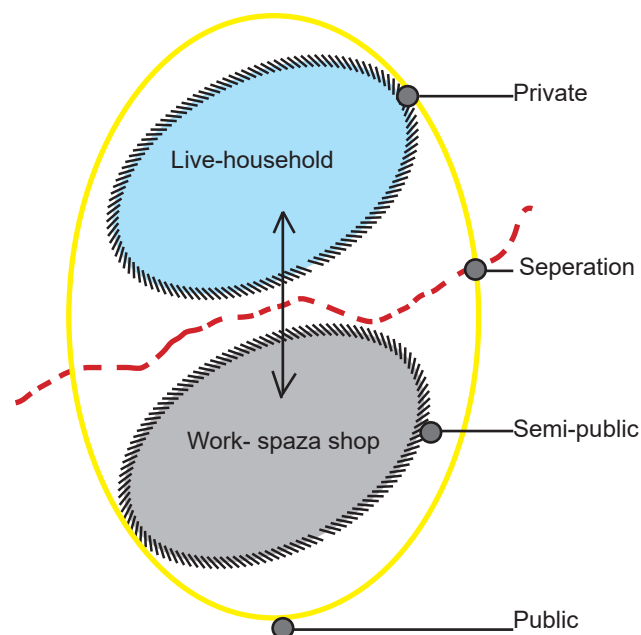
The spaza shop industry is known for its motivation for survival, necessity, and reliability in black communities of South Africa. The declining rate of economic growth in the country has enforced the South African economic policy to develop initiatives that assist entrepreneurs in formal and informal retail sectors. Academic scholars like Fawzy Basardien argue that entrepreneurs are individuals who display characteristics associated with risk-taking, patience, creativeness, and proactivity (Basardien, et al., 2018). They are founders of businesses that not only contribute to the economy but sustain it, considering the slow economic and unemployment rates the country is currently experiencing (Basardien, et al., 2018).

The spaza shops industry is dominant in township areas, mostly found on every corner of the streets in townships. Over time, township residents have experienced competition between local and foreign-owned spaza shops, which research findings proved to be intense and destructive in communities (Basardien, et al., 2018). The argument presented is that foreign-owned spaza microenterprises have proved to be more successful than locally-owned spaza shops. This questioned the entrepreneurial skills, strategies, and operations of foreign entrepreneurs compared to local entrepreneurs, on how they are sustaining their businesses in the presence of formal retailers in the periphery

areas. Thus, they show a high level of competitiveness, aiming to achieve their goals of making money and keeping their businesses afloat (Basardien, et al., 2018).

Practices and systems of immigrant spaza stores are different from locally operated spaza shops such as price plans, bulk purchases, and store functions in South Africa (Charman Andrew, 2020). The store operations have adapted systems that relate to concentrated and hostile surroundings. The cheap and affordable prices of products are a significant factor for revenue rates and bulk supply for consumers. The store functions differently compared to indigenous spaza shops because of the living and work system in the store. The store is divided into two parts (semi-detached), the front being retail and the back for living, due to security and cost-effectiveness. Although this system has exposed immigrants to dangerous situations such as looting and break-ins, which has set them in vulnerable positions because of the living and work system. The store space, which is commonly an unoccupied garage is offered on rental terms by the owner of the house. The rent according to research findings is approx. R1000 to R2000 max depending on the size of the garage or rental space offered to the entrepreneur (Charman & Leif, 2015).

In some instances, extra levies are charged considering that the spaza retailers live there, which increases the consumption of water and the electrical rate of an operational spaza. The rental rate is stated to be affordable and cost-effective considering rental rates of formal retail sectors. It has proved to be a good investment for them, considering the expansion of foreign-owned spaza shops in townships and the increasing consumer rates attained. The indigenous spaza shop follows the same principle of the living and work system, but the difference is that the house and the shop operate separately.



**Figure 20.** Author (2022), Spaza shop layout of non-South African owners.

The practice of a locally owned spaza store is defined by several factors such as ownership, operation, business strategies, and systems. Local spaza stores operate on a system of mini stores and imperative networks that create communities in township areas. The ownership of the spaza store is designated to one individual, there is no collective chain or stakeholders that invest in the business or brand. Hence why in most cases when the business fails, the consequences are experienced by a sole practitioner. In comparison to foreign-owned businesses, they are founded on collective partnerships and are exposed to financial security should the business suffer, there is a capital back-up. According to an academic Charman, he states that non-local established businesses or micro-enterprises start-up capital are sourced from religious groups, like Muslim organizations to empower entrepreneurial ventures and their livelihoods. The estimation of funds invested is R45000 minimum, which permits the bulk acquisition of products and adequate materials that sustain the business and food supply in targeted areas (Basardien, et al., 2018).

The normal rate for start-up capital for a spaza shop is R5000 to R10000, used for products and materials acquisition for a business to start running (Basardien, et al., 2018).

This outlines the above-mentioned statement, that foreign entrepreneurs show a high level of competitiveness compared to local entrepreneurs. Considering that economic strength and business networks are pivotal factors that influence the operations and scale of the microenterprise.

The spaza microenterprises or informal markets practices are set out by policies like the City of Johannesburg Land Use Scheme, 2018 (Johannesburg, 2018) which declares that; The council should grant permission (written consent) for the establishment of a spaza store upon the erf and site of the dwelling has been designated for a house shop provided that:

- The sale and supply of essential wrapped food items and air-time purchases at the kiosk are permitted from a spaza store.
- The house shops are granted a maximum of 36 m<sup>2</sup> according to the council restrictions.
- The consumption and sale of alcohol are not allowed.
- The store owner is permitted to employ two employees and requirement for more staff, consent shall be written by the council.
- The spaza store shall not cause any disturbance with community amenities at the sole attention of the council.
- The storing of items in a dwelling unit/spaza shall adhere to the recommendations set by the council policies.

- The home shop/occupation should avoid any detrimental effect on service infrastructures for domestic usage in communities.
- The built floor area of a dwelling unit should not surpass a 25% ratio and a 50 m<sup>2</sup> area should be used for non-residential plans.

This is arguably an illustration that South Africa's framework, post-1994 of equality and freedom is non-existence. Informal traders are exposed to hostile and political conditions that limit and affect their business progression. The change of spatial restrictions in the democratic era was for people to network creating an inclusive city for everyone. These bylaws reflect South Africa's spatial segregation laws that resulted in the -township establishment in the 1950s when townships and urban areas were dissociated.

# Township History

03

### 3.1 The establishment of South African townships

The Southern Transvaal towns and cities were connected by economic industries such as industrial, commerce, and mining sectors in the 1890s. Transport, power, and water were secondary economic sources mainstreamed in three regions Vaal Triangle. Pretoria, the Witwatersrand's, which later evolved into The Pretoria- Witwatersrand-Vaal Triangle complex (Mubiwa Brian, 2013). The evolution of these economic industries introduced significant urban development changes and patterns because of gold discoveries in the Transvaal in 1886. The rapid rate of urban changes resulted from the migration of potential mines and industrial workers who established and lived in village arrays near mines. The population influx led to the establishment of the miners' village from being a miner's camp located in intermediate Germiston, Boksburg, and Springs that provided shelter and sanitary services. Most indigenous Africans from rural areas experienced forced labour to maintain their living status in mines and villages through the government's imposition of workers' taxes.

In the 1990s the urban development of South African cities and town design adopted British and North American architecture and the urban model of multi-leveled apartment buildings. The northern part of Johannesburg was set as a residential zone adjacent to the mines on the south slope which benefited the government's economic spine. This model arguably influenced

the colonial segregation of designated cities and townships derived from the “The colonial act of 1923” roots, which imposed racial segregation before the Apartheid system. The act was called The Native Urban Act of 1923, where locations in periphery regions were designated for African black personnel from the mines, and rural areas (Mubiwa Brian, 2013).

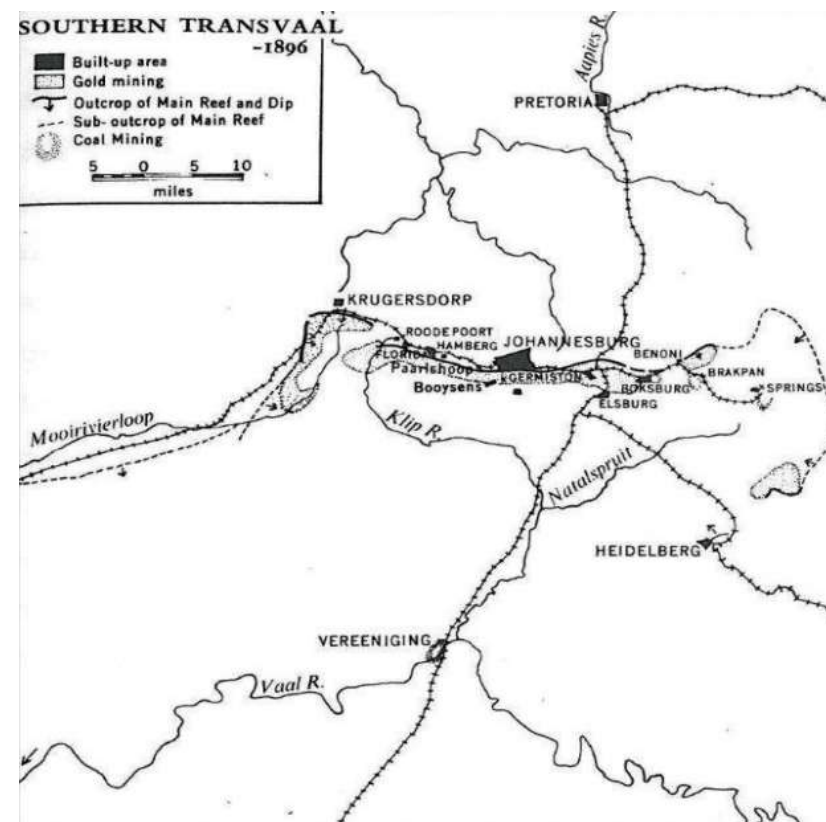
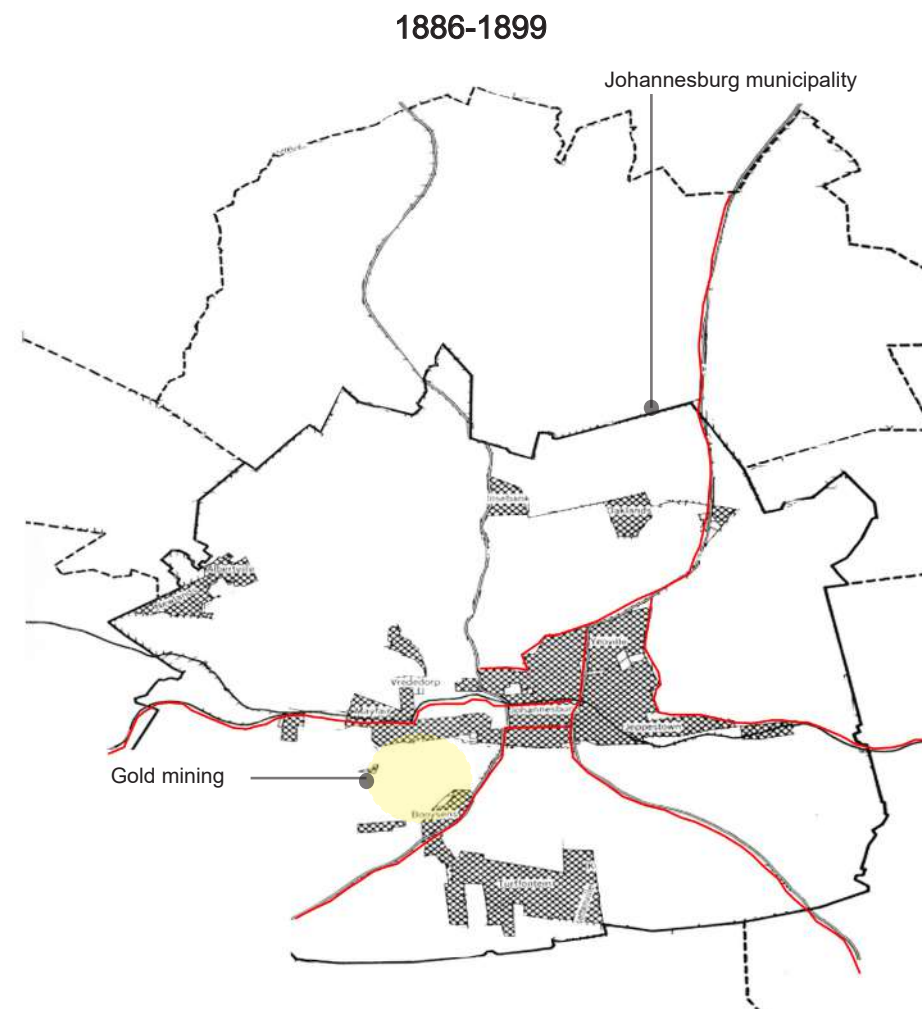


Figure 21. DPE, (1974), Southern Transvaal settlement pattern 1896

The industrial, mining sector and transportation systems on major routes were the only things that interlinked cities and township areas in South Africa. The government’s inability to minimize the population influx of workers into cities imposed them to provide efficient transportation and housing systems for mine workers and township residents (Mubiwa Brian, 2013). The mine villages still existed; therefore, these houses were occupied by the families of mines and industrial workers as a strategy to save transport money. Considering that complete road accessibility was restricted, only a few entry points were designated for black townships due to the initial setup of the Apartheid system. Poor infrastructure was a major concern, regarding inefficient security, inadequate business establishments, and housing schemes that could not accommodate everyone. Hence why most workers resided at work premises (villages) away from their homes and families. The drive for social and economic statuses was the core of the township’s establishment, which aimed to benefit specific personnel and the government.



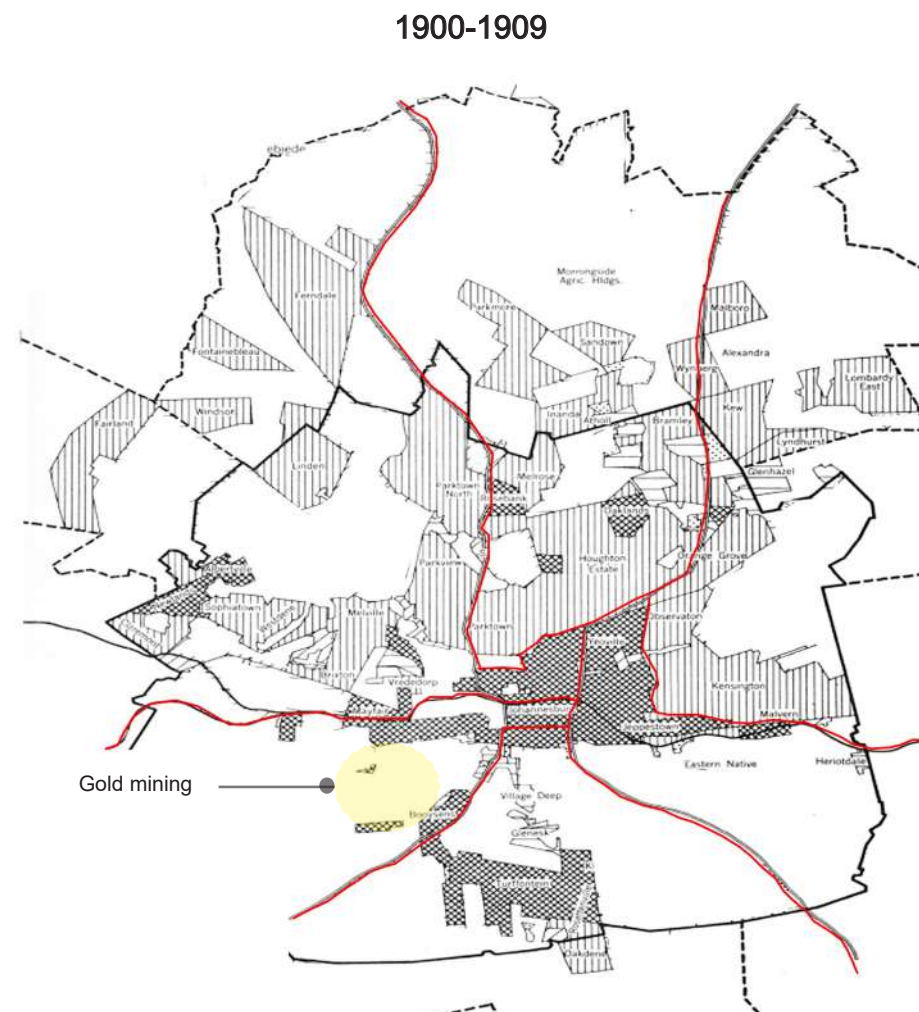
**Figure 22.** Author (2022), Established areas before1900s.

### Legend

- 1886-1899
- Transportation routes
- Township and urban areas health boards



Prior to 1990, towns were developed on the axis known as the Rand Ridge, because industrialization and mining industries were not at their peak in South Africa. The railway lines which were part of the west and east transportation routes connected the goldfields (Witwatersrand), where industrial towns were established in the 1990s. The growth of the mining industries led to the southward land use where earlier Southern Transvaal areas like Kensington and Klipriviersberg were established in industrial and mining regions (Mubiwa Brian, 2013). Considering figure 21,22 and 23 show that the population influx, into the city, is observed from 1900 to 1950 and onwards. This growth ironically challenged the concept of Apartheid impermanence towards black people, because their labour was in demand during the phase when goldmines were declining in 1960 and the steel industry was going to its peak. Hence why black townships moved to periphery areas away from urban regions enforcing racial segregation amongst people of colour.



**Figure 23.** Author (2022), Established areas in the 1900s.

### Legend

- 1886-1899
- ▨ 1900-1909
- Transportation routes
- - - Township and urban areas health boards



1910-1949

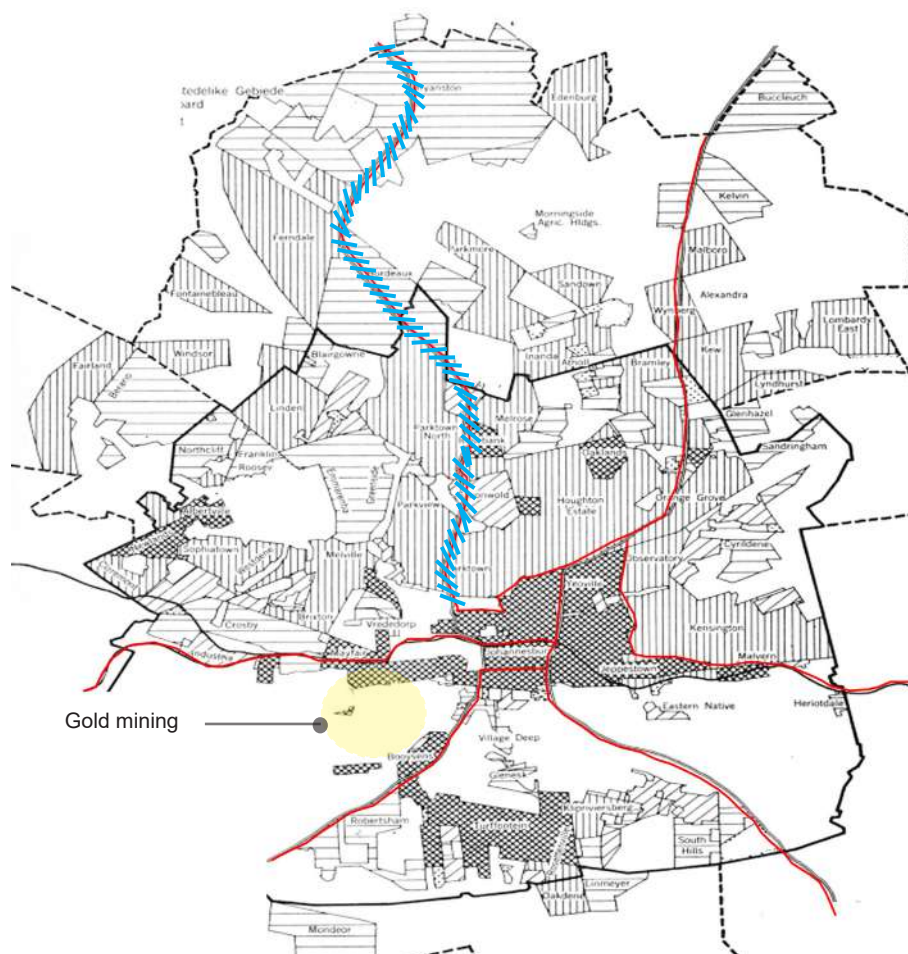


Figure 24. Author (2022), Established areas in the 1910s.

### Legend

- 1886-1899
- 1900-1909
- 1910-1929
- 1930-1949
- Transportation routes
- Township and urban areas health boards
- Main connecting route to the North (From 1930)



1950-

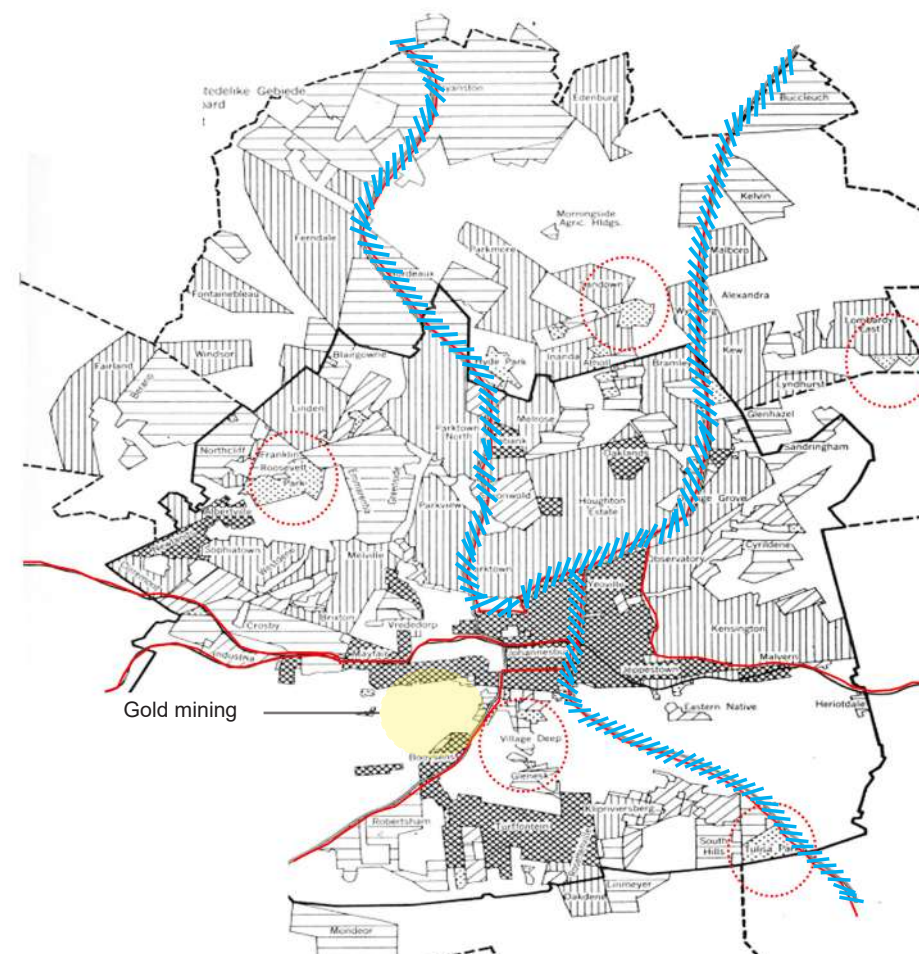


Figure 25. Author (2022), Established areas from 1950 onwards.

### Legend

- 1886-1899
- 1900-1909
- 1910-1929
- 1930-1949
- 1950-
- Transportation routes
- Township and urban areas health boards
- Main connecting route to the North (From 1930)

### 3.2 The township (Tsa Ko Kasi) history

Townships are in origin, set up as spaces of power and control, set as residential areas for immigration of migrant workers who came to work in cities from rural areas. They were built in the era when the industrial and mining sectors were at the peak of the economy. (Sue Jean, 2021). There was no provision of platforms for new local businesses in black communities and this is the reason why retail outlets were only accessed in urban areas. The apartheid system had no intention of providing an economic backbone supporting township residents' livelihood. This system was about retaining power and control over people's lives and navigating how and where they live and work (Radebe, 2005). This historical mark and system shaped an urban fabric that became a home to many and over time formed a new identity that resisted oppression laws. Thus, informal entities gained popularity because of their resonance with the social framework of the newly formed township identity and the necessity for food supply in communities. It influenced the nature of collective trading in informal sectors, observed in the increasing rate of informal trading in townships since 1994. The central and outlying parts of the township became popularly known for informal markets and entertainment, which proved to be profitable for many businesses (Sue Jean, 2021). This was the reason they were identified as the most concentrated areas in townships and targeted by police officials. The Informal microenterprises' response to

neighbourhoods was not based primarily on necessities but on absent services. The variation of existing businesses in our neighbourhoods is proof of what was needed from carwashes, hair salons, eateries, supermarkets, and appliance repairs. The national business surveys influenced how most individuals inaccurately understood and defined the roles of informal markets in township communities.

The township layouts were biased as a spatial planning feature that was fixed to impermanence. The policies of people's livelihoods were programmed under the scope of restrictions in every aspect of their lives including employment and survival. The rapid rate of unemployment in periphery communities forced survivalism through trade as a career out of poverty. “Make work jobs” (Mukhopadhyay 2011) refers to strategies carried out by unemployed individuals to make an income. In the recent past, township economies endured a shift in the 1990s from standard low-income groups to middle-income groups (Sue Jean, 2021). The economic shift was due to consistent spending of residents who then received better wages and would support informal entities.

### 3.3 Mall developments in townships

Formal commercial businesses in townships were introduced post-1994. According to academic scholar Radebe, they function on the scope of large retail suppliers to provide resources limited to informal micro-enterprises (Radebe, 2005). The development of malls and shopping centers in townships was called into question, due to scale complexities that would impact small businesses. These businesses are from disadvantaged communities and the impact was evident in the rate of decline in consumer and production rates from informal entities. An academic scholar, Ligthelm argues that this massive shift in the township economy was not anticipated by local entrepreneurs (Ligthelm, 2008). Township residents lived with the norm that malls and shopping centers are not for non-urban areas. This was the period that saw informal retail businesses closing because of low consumption rates.

In Katlehong township, the first mall development was in 2013 named Sontonga mall and other malls have been introduced over time. This mall came at a time when communities were highly dependent on spaza shops for basic resources. The disadvantages of spaza shops were limited storage and limited consumption of other important resources needed by people. Malls, therefore, provided good access to those products that could not be bought from spaza shops. As mentioned previously

food was outsourced in urban areas meaning that people needed transport money and those with no financial means had no alternatives.

Malls or commercial centers are defined as economic sectors that contain a variety of businesses and services. They are by origin from urban areas and the architecture zoning for residential, retail, educational, and health facilities, designed for balance and comfort for urban residents (Lindarto & Reagan, 2020). This clear zoning demarcation ensured effective security and movement concentration of participants in retail and residential areas. The high street, which was specifically for commercial activities had an impact on creating order for retailers and consumer accessibility. According to economist Eddie Rakabe, mall developments in South African townships is of the capital value and further expansion has proved to be ideal for developers. Although in some instances, several mall proposals in fringe areas failed because of architectural and geographical factors like non-compliance with building zoning. Developers target vacant land as “leftover land” for capitalist ventures, which has proven to be good for investments (Lindarto & Reagan, 2020).

Social and environmental assessments indicated geographical findings about proposed lands to be unsuitable for construction. Considering that unfamiliarity with context exposes the inaccuracy of projects because of unknown social factors that create a sense of place in communities (Charman Andrew, 2020). These factors are fixed in architecture, culture, politics, and history and it is important they are critically examined in the project proposal phase. Site analysis and ethnographic assessments for public buildings are exposed to security and contextual issues that can impact on operations of the cooperation. The scarcity of large retail distributors in the township exposes existing retailers to the vulnerability of high concentration prone to security problems. Considering that this entity supplies about six or more sections of the township because they are providers of needed resources in communities. The social and cultural imperatives are other factors that contribute to the inaccuracy of metropolis malls because they fail to understand that malls are perceived as leisure places that address the shortages of leisure spaces in township areas. (Charman Andrew, 2020).



**Figure 26.** Abland (2022),Katlehong  
Crossing mall development progress 1



**Figure 27.** Abland (2022),Katlehong  
Crossing mall development progress 2



**Figure 28.** Abland (2022),Katlehong  
Crossing project phase 1



Figure 29. Abland (2022),Katlehong Crossing pespective (concept)



Figure 30. Abland (2022),Katlehong Crossing location

Architect : Abland Properties

Project Built :In progress

Year : 2022

Location : Katlehong township

Katlehong Crossing is a new retail development in Katlehong township, intended to provide economic comfort to the community revolving around increasing unemployment statistics and the demise of small businesses in South Africa (Abland, 2022). The retail development does not only offer convenience for necessities and services, but employment opportunities and it is expected to make an economic shift in communities. The developers, Abland Properties intend to introduce an employment portal, The Empowerplay System during the close-out phase of the project that updates people about available vacancies and business opportunities (Abland, 2022). Considering that their business agenda is to create networks with small businesses around the area for empowerment.

A project of this magnitude, considering its context is an advantage and disadvantage to the business landscape. Small business owners like spaza enterprises are likely to experience a decline in consumers and revenue rates, hence why the project’s framework is offering small businesses opportunities to network. The advantage of this project is that informal traders are offered a space to function and make a living through the empowerment concept. This concept is profitable for transportation businesses like meter taxis and public taxis, which are the main transport services in the area. Therefore, security is an important factor to be addressed with new malls because of excessive human and vehicle participation. Considering the spatial planning of the township is compacted and mobility from the mall to households should be considerable and efficient.



Figure 31. Abland (2022), Katlehong Crossing floor plan.



Figure 32. Author (2022), Katlehong Crossing analysis.





Figure 33. Author (2022), Katlehong crossing context map analysis.

### Legend

- Business precincts
- Residential
- Vacant land
- Prospective informal trading zones
- Transportation routes
- New mall development



### 3.4 Urban Spatial Framework

South Africa’s diversity concerning consumer needs and distinctive political and socio-economic factors influenced retail landscapes to stretch over into formal and informal markets in the country’s urban regions. The rapid rate of informal markets in urban areas resulted in enforced trade bylaws that marginalized informal markets and sustained formal retail sectors. Formal retail sectors like Checkers and Pick ‘n Pay were established in the early 1970s as part of urban spatial planning intended to serve upper-income consumers who lived in the surrounding areas (du Plessis 2014). These formalized retailers were ranked as corporate and independent sectors, legislated with a framework to serve major cities and towns in South Africa.

Prior to 1994, South African urban spatial planning and policy frameworks focused on the "urban space economy," a type of capitalism aligned with infrastructure development aimed at benefiting specific groups (du Plessis 2014). Segregation between people of colour led to the development of periphery regions like townships, which were dependent on informal markets to cater to their needs. Hence the existence of informal retailers like spaza shops and informal street traders who contribute significantly to urban capitalism, transportation nodes, and infrastructural systems. High streets are fundamental features of urban spatial planning, centered on major transportation routes and centralized business regions.

They are significant to both informal and formal sectors, due to high concentration levels of consumers and socio-economic exchanges. These are fundamental aspects of capitalism and trade, about the argument that active consumer participation results in more income, providing economic sustainability.

The Democratic era in South Africa led to a fundamental shift regarding urban spatial planning because of the reconstruction of isolated cities into inclusive cities. This shift focused on major facets of the city, such as accessibility, trade, residential, and transportation, which were not accessible to everyone in the Apartheid era. Most South Africans depend on the urban informal economies, evident in populated statics of informal traders in cities and annual financial reports about urban informal economies. Its significant contribution to the economy is equivalent to formal retailers, which are deemed superior to informal retailers.

The concept of an inclusive city is contradictory, due to informality thus far, exposed to exclusionary and unsustainability in urban areas. On average, informal traders experience forceful evictions due to permit issues or trade by-laws that limit accessibility and preservation. There have been reported cases of vandalized stalls, equipment, and other resources that sustain businesses and affect informal economies.

Socio-economic factors and physical aspects of major cities are evident patterns of non-progressive spatial processes that emphasize the integration and diversity of South African individuals and trade. They implemented the Inclusive city concept to promote social, economic, and cultural integration in cities for equality and placemaking (du Plessis 2014).

The critical reflection of the implementation of the inclusive city concept, post-1994 thus far, is restricted urban informal economies, resulting in the influx of informal sectors in periphery areas. Informal markets in a new democratic era were expectant of full exposure to upper markets as a system for growth and sustainability. The tension and division in the retail landscape between urban and township regions conclude the shortage of innovative opportunities for informal markets. Apartheid spatial laws are evident to date regarding reported instances where informality is restricted and unsustainable in suburban areas. The trade laws lifted between 1994 and 2008 enforced led to rising tensions between formal and informal retail sectors due to the development of regional malls in the township area (Van Der Byl 2017).

The removal of spatial constraints in urban regions in South Africa in 1994, surged the demand for jobs by people as per government alignment with the people (Van Der Byl 2017). Urban spatial plans and provisions were for restricted residential areas, government, and private sectors, which are not efficient for inclusive city urban development. The Gauteng region, according to Census statistics, was the highest region in South Africa to experience the highest population influx. The city, pre-1994, was arguably financially capable, because of mines and the industrial sector, which resulted in developed periphery regions.

Urban economies depend on concentration levels, the reason its spatial illustration highlights solid labour and market relationships adjacent to the welfare of households. Households are located near schools, work, and retail sectors providing adequate access to residents. The spatial arrangement had an impact on the concentration, mobility, access, and livelihood opportunities that influenced economic prosperity in urban areas. The township spatial planning is contradictory because these spatial components are dissociated. The welfare of houses, retail, and transportation systems was dissociated to an extent that people travelled long distances to acquire necessities in tow. Health institutions were below par in these regions and access to adequate health facilities was restricted. The spatial segregation between urban and townships had a detrimental effect on the townships that deprived certain individuals of convenient livelihoods and adequate government systems.

Katlehong township is one the biggest South African townships that experienced the impact of the Apartheid system, from political, spatial, and economic paradigms. The township’s vast history is drawn from the bylaws of the state that significantly changed people’s livelihoods immigrating to the city from rural areas to townships. In observation of analyzing and understanding aspects of spatial and political relationships between periphery and urban areas in South Africa.

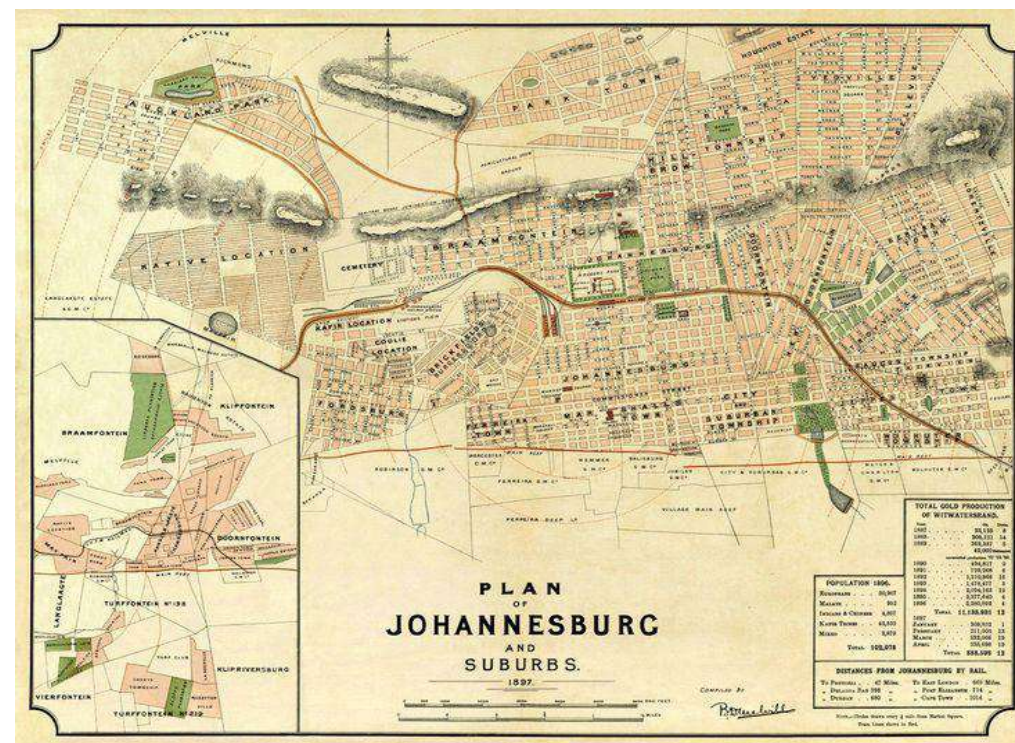


Figure 34. Johannesburg map (1990) ,Johannesburg spatial map.





Figure 35. Author (2022),Johannesburg informal economies map.

### Legend

- Informal markets high streets
- Formalized city buildings
- Main transportation routes
- Government buildings,spaces

⊞ Carlton centre



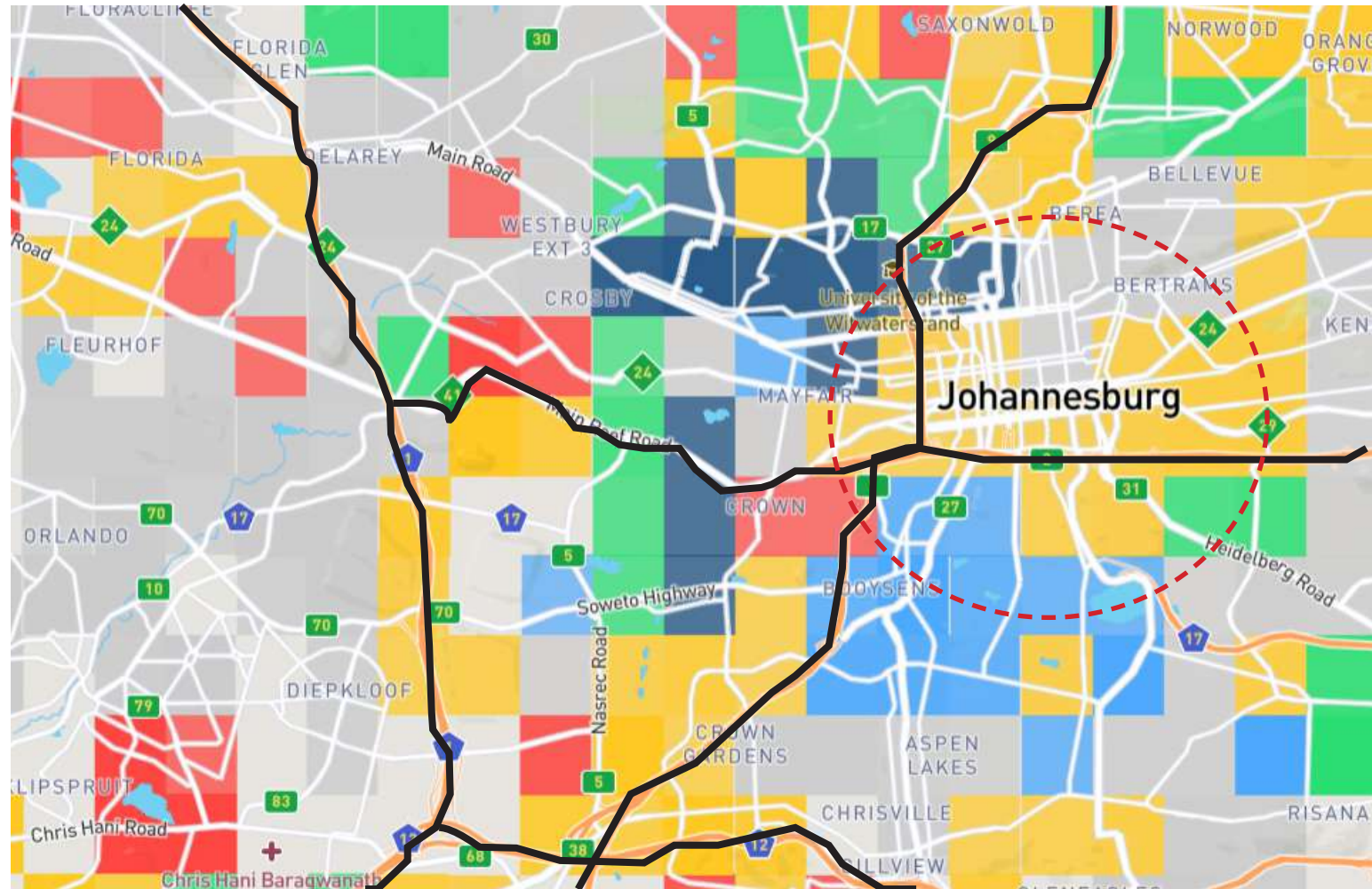


Figure 36. Author (2022), Urban spatial zoning planning.

### Legend

- |                                                  |                                                                 |
|--------------------------------------------------|-----------------------------------------------------------------|
| <span style="color: red;">■</span> Tourism       | <span style="color: darkblue;">■</span> Educational             |
| <span style="color: grey;">■</span> Residential  | <span style="color: yellow;">■</span> High Concentrated areas   |
| <span style="color: green;">■</span> Vacant land | <span style="color: black;">—</span> Main transportation routes |
| <span style="color: blue;">■</span> Business     | <span style="color: red;">- - -</span> Urban economic region    |



Katlehong Township(site)

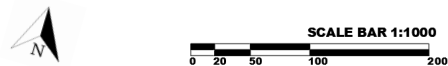
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Figure 37. . Author (2022), Site locality map.



Figure 38. Author (2022), Figure-ground map, Katlehong.



## 4.1 Katlehong history timeline

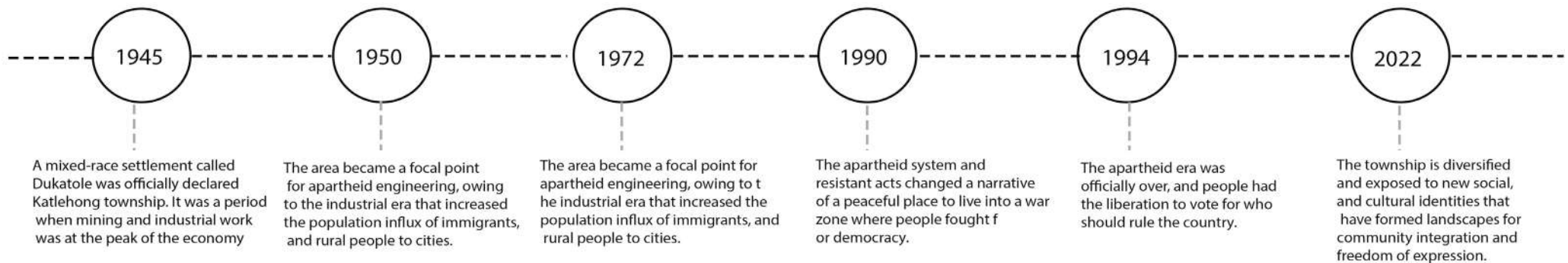
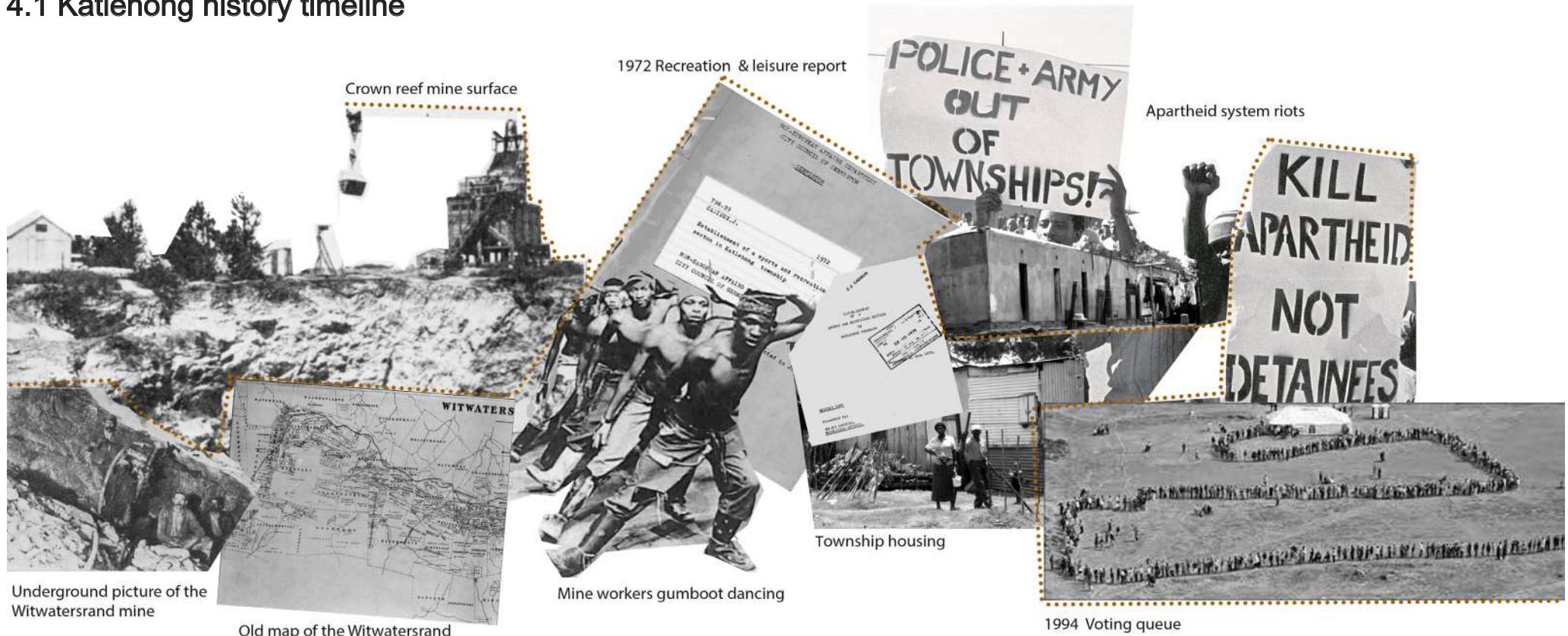


Figure 39. Author (2022), Katlehong historical events.

### 4.1.1 Katlehong history

Katlehong township is situated southeast of Johannesburg, Ekurhuleni municipality, and is one of South Africa's biggest townships established in the mid-1940s. It is a township that originated from apartheid spatial planning that was initially a mixed-race settlement, which consisted of coloured, Indians, and black people, designated to work at the mines (Sue Jean, 2021). The change of this township to be a designated black area was due to a population influx of migrant workers moving from rural areas to urban cities. It was formally declared Katlehong in 1945, meaning place of success, a black person's township. The gold and mine industries in the 1940s dominated the South African economy, and created millions of jobs for migrant workers from rural areas (Sue Jean, 2021). The population influx intensified the need for housing, sanitation, and transportation in the township.

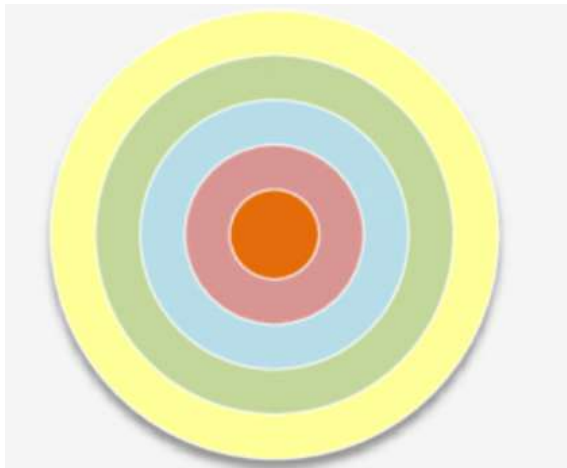
The apartheid regime was introduced in 1948 and it implemented forced removals of people of colour from urban areas of the city to township areas. This was the initial stage of racial segregation where the oppressed moved away to benefit those of different skin colour. (Sue Jean, 2021). The Native Land Act of 1945 of Bantu stated that certain people of colour are to reside in designated areas besides urban areas. The aim was to decrease several black people to disfranchise residents of

the township and laborers working long hours for survival. The system-imposed control and marginalization, broad in township architecture of long narrow streets and confined four-room houses, are classified as “matchboxes” (Sue Jean, 2021). This was an act of political powers that opposed personnel freedom rights and preferences of the ruling government. Historical traces that shaped the identities of places and social agencies are still visible to date with no exception to the growing number of informal settlements in township areas.

Ekurhuleni is a metropolitan region in Gauteng under the local governance of the Ekurhuleni municipality known as a big suburban region in Johannesburg. The term Ekurhuleni is derived from the Xitsonga term “peace”, a place where peace is found (Betha, 2014). Katlehong township forms part of Ekurhuleni municipality, which has seen significant urban changes throughout the years from its original state to its current state. A major part of Ekurhuleni was built before 1985 and throughout the years, significant urban development was observed in the immediate context of Katlehong, Alberton, and Tembisa in the 2000s (Betha, 2014). One of the key changes was the change of building height restriction from 3m to 5m compared to urban regions and old mine sites adjacent to township areas.

Katlehong and proximate township developments like Thokoza and Vosloorus were established opposite mines and industrial firms because of the impermanence spatial framework.

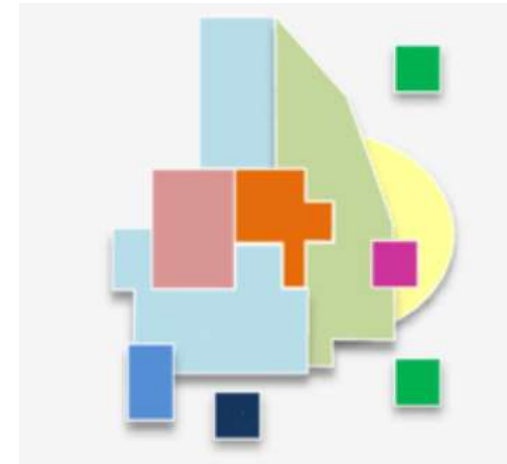
The urban morphology and geometry of South African cities and townships is a representation of three principal models, concentric zone, sector, and multiple nuclei model. These models are a description of buildings, people, activities, and land patterns that shaped urban and township areas on a global scale (Betha, 2014). Urban planners have argued that cities have adopted various elements of these models through unique blends of urban developments and urban fabric (Betha, 2014).



**Figure 40.** Johannes Schlesinger (2014), Concentric zone model (Burgess, 1925).



**Figure 41.** Johannes Schlesinger (2014), Sector model (Hoyt, 1939).



**Figure 42.** Johannes Schlesinger (2014), Multiple nuclei model (Harris and Ullman, 1945).

### Legend

|                   |                           |                    |                        |                    |                                  |
|-------------------|---------------------------|--------------------|------------------------|--------------------|----------------------------------|
| Orange square     | Central business district | Light blue square  | Heavy manufacturing    | Pink square        | Wholesale /manufacturing (light) |
| Dark blue square  | Industrial suburb         | Yellow square      | High-class residential | Magenta square     | Outlying business district       |
| Dark green square | Residential (suburb)      | Light green square | Low-class residential  | Light green square | Medium-class residential         |

Ekurhuleni townships like Katlehong exhibit aspects of the multiple nuclei model with a centralized economic district and periphery low-class residential set into two disciplines. The model pattern emphasizes arguments posed in this report about township spatial planning and inadequately developed greenery areas that are missed opportunities for biodiversity, and sustainable leisure landscapes in townships. These model theories have influenced the construction and architecture of housing, business models, and socio-agencies observed in periphery regions. The important aspect of this model theory is analyzing architectural and contextual factors that should be addressed in design development and further argument about the subject.

In 1981 Katlehong residents established a Self-help house scheme, as a response to inadequate housing in the area, which led to many households and an increase in informal settlements (Nell, 2012).

Approximately 50 percent of homes doubled by extended backyard rooms and shacks in existing households. The change of household lease regulation in 1986 led to a population influx and shared households amongst families and outsiders who would lease shacks and rooms for shelter (Nell, 2012). This scheme proved to be important because it allowed people to move from rural to cities to work in the mines and industrial firms.

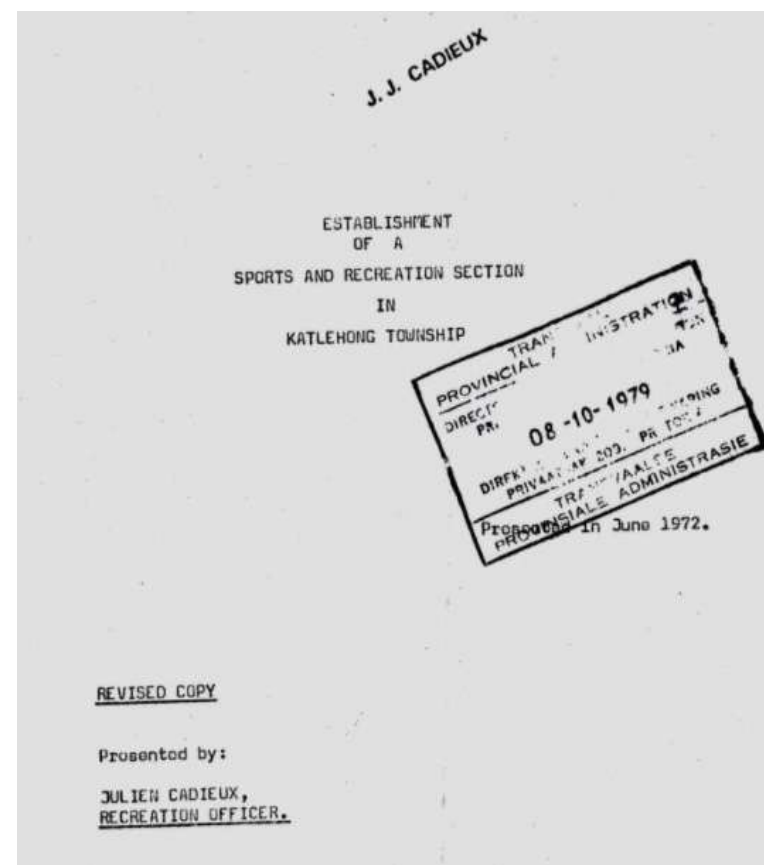
Considering that mining sites and firms were at a proximate distance from where people resided in townships.

The initial stage of the scheme was coordinated by representatives of the East Rand Development board, Urban Foundation, and the Shack Residents Co-ordinating Committee before the involvement of the Town Council in 1986. (Nell, 2012). The scheme's purpose was to introduce low-cost housing that serves unsubsidized and underpaid individuals who worked at industrial firms. The initiative grew beyond expectations and resulted in the proposal of a Self-help House scheme to be introduced in urban areas in response to the population influx. This concept shifted from self-help to self-governance, permitting respective households to develop dwellings within boundary lines to further develop informal houses according to scheme regulations. This system added financial and domestic value to house owners and the additional security of having many people living in the same yards. Considering that spaza entrepreneurs who were homeowners referred to as “Mastandi” saw revenue from leasing dwellings and the sales of spaza merchandise (Nell, 2012). Katlehong residents were presented with approximately 300 stands for house development, due to financial constraints people opted for shacks development which was the initial foundation of informal settlements.

The informal settlements were disadvantaged because of poor sanitary conditions, unregulated infrastructural concerns, and safety. The biggest concern was access to water and electricity, hence the establishment of the Shack Residents Co-ordinating Committee. The committee highlighted their sanitary and electricity grievances in their report to the town council which in a later stage was addressed and made life better. The domestic and educational advantages of this initiative were skill development in communities, due to high unemployment rates, by educating residents about the construction of informal dwellings. These dwellings were made of various materials such as brick and corrugated iron and to date, they are considered primary materials for township architecture. They have formed part of the identity and existing socio-existing agencies that represent arising issues in black communities. To an extent that it paved way for job creation for unemployed individuals and community integration through architecture.

In 1972, a Copy of an original Report on the Establishment of the sports and recreation section was discovered in Transvaal provincial library in Pretoria. This document reported racial acts experienced by people of colour and the survey recorded the need for leisure development in Katlehong township (Sue Jean, 2021). The proposal for recreational infrastructures was indicated to be a scientific approach that controls and monitors the movements of residents and addresses the issue of inadequate development of public spaces. Approximately 3400 surveys were recorded in community forums such as the Katlehong African forum that studied what women and men did as activities for leisure time, avoiding mere speculations (Sue Jean, 2021). The survey document, proposed designs of sports facilities in public spaces that can be accessed by educational institutions. Considering that taverns and shebeens were popular leisure activities in the 1990s (Sue Jean, 2021). They operated as social, political, and entertainment spaces that played jazz and political music most of the time. Social gatherings in entertainment spaces posed a threat to the apartheid system due to resistant acts that were planned against them. Thus, the public development of leisure spaces would reduce potential threats of planned mass meetings.

In conclusion, the report intended to address identified issues and objectives that never materialized because the author was given instructions to use this document for research purposes only. This was in exchange that recorded findings related to political acts of oppression in black communities be erased. The document's important study was the design of impermanence in disadvantaged communities, arguably still visible to date. People adapted to the unfavourable conditions of the townships living such as communal life, hard labour, survival, and monitored leisure time. Although its tainted history, it is what shaped this unique place that people changed into creative and innovative areas for living and working. The report outlined an urgency of public infrastructure in townships, based on his site observations and recordings that identified the need for recreational areas based on the increasing number of social agencies arising in townships and would influence mass meetings. Mass meetings were forbidden in avoidance of plotting cases, and social activities that occurred would result in on-going communication that exposed the regime to vulnerability.



**Figure 43.** JJ Cadieux (1972), Front cover and inside title page of the report Establishment of Sports and Recreation section in Katlehong township.

#### 4.1.2 The urgency of public infrastructures

Public infrastructure emerges as a main objective in social and cultural theories. The radical change of architecture from vernacular to contemporary architecture disintegrated infrastructural landscapes for certain groups of people. Infrastructures are perceived as an important component of the urban fabric through its supports of networks and systems that stitch urban life. In context to social and cultural theories, they permitted the political, technological, and economic system to be facilitated to better people's lives. The academic Latham argues that social infrastructures are defined as public institutions set out as educational institutions, health, and sports facilities (Latham & Layton, 2019). They operate more than social facilities by providing integrated platforms that orientate people in thinking broadly.

Research has proven that public infrastructures tend to be successful in areas with established social, and cultural identities and relationships. The term public applies to collective life that is accommodative to different kinds of people and beliefs. The concept of social buildings challenges thinking of urban life, accessibility, and integration of people in finding ways to build communities. The space is a figure-ground where communities and networks are established and define the diversity of urban lives (Latham & Layton, 2019). In marginalized areas, the provision of adequate social and public infrastructure remains

implausible. These areas have been exposed to figure grounds that restrict human activities due to exposure to dangerous health and safety conditions. The concept of public and civic architecture emphasizes the comfortability of human participants under the scope of biodiversity, local identity, and transformation. Considering that outer-lying (townships) areas are clustered, designed with restrictive geometries and inadequate public spaces make residents prone to harmful environmental effects. We live in a timeframe where buildings and public spaces are exposed to CO2 emissions that introduced numerous changes in architecture. Architects over time have been forced to apply sustainable systems for building technologies that prevent the threat of harmful gasses in the environment. Digital platforms like Revit and AutoCAD in architectural practices have arguably been productive to test building performances and site compatibility (Latham & Layton, 2019). They introduced efficient methods of building that are sustainable and permitted flexible architecture that promotes comfort and aesthetics simultaneously.

## 4.2 Katlehong socio-cultural agencies

The era of the industrial and mining sectors in the townships of the Witwatersrand and the East Rand in the 1900s was eased by the dance culture. The dance is originally founded in the early 1960s when people of colour experienced forced removals to townships due to population influxes and unemployment (Carabet, 2013). Most people were employed in the industrial and mining age which exposed them to slavery, they wore their signature overalls uniform and rubber boots and were chained against their will. They worked in detention because verbal communication and meetings were not allowed during working hours. The dance originates from the clapping and tapping of chains and rubber boots used to pass messages among the miners at work. Gumboots dance is a dance choreography of footwork and rubber boots tapping to create sounds that rhyme with footwork movements. The growth of this dance culture spread to other South African mining sectors used for resistance actions against colonialism.

### 4.2.1 Dance culture is life

The growth of gumboots dances paved the way for new dance types such as Pantsula and Sbujwa. The Pantsula dance is a street choreography created by footwork and complex body movement while the dancer whistle (Carabet, 2013). This

Pantsula dance originated in the streets and was used to set streets as a theatrical stage that addressed social, and political issues through entertainment. It became a norm in society that highlighted diverse people from social statuses, and synergies between townships. Spaza shops, were a reference point for the dance culture due to their integral nature to the communities as previously mentioned, dance decorated the streets. The most used and popular streets were those adjacent to spaza shops, taverns, car washes, and graffiti-exhibited areas (Carabet, 2013). It showed that a township is not a place of despair and that there is so much potential in disadvantaged areas. This shifted the perception of spaza retailers as capitalist enterprises to informal sectors that celebrate community social agencies of the township.



Figure 44. Motumi (2020), Pantsula dance act.

In the 80's and 90s, the Pantsula dance revolution got townships political. The dance culture was popularly known for its traces of jive, tap, and gumboots dance and was classified by status, quick foot stepping, and fashion. The dance groups were named after popular clothing brands Valentinos, Dickies, and Pierre Cardin according to the ranks and statuses of each group (Winship, 2018). The dance revolution cultivated townships through its sense of expression of politically derived masses and expressive entertainment in communities. The Pantsula dance spread across all of South African biggest townships, from Soweto, Alexandra, and Katlehong townships, and internationally in the 1980s (Davie, 2018). It reflected the township changing landscape and diversified communities based on social and cultural values. The house's backyard was used as a practice space where dance routines were put together and moved to the streets where everything was showcased.

The evolution of the Pantsula dance was through street entertainment, where people were intrigued by these intense body and foot movements. Considering props such as beer crates, broomsticks, and newspapers were incorporated with the Pantsula dance which kept audiences fascinated. Performances were theatrical with plot stories portrayed through dance and props making them unique and enjoyable to the audience.

The popular plots were based on substance abuse and violence hallmarks of Apartheid townships' history.

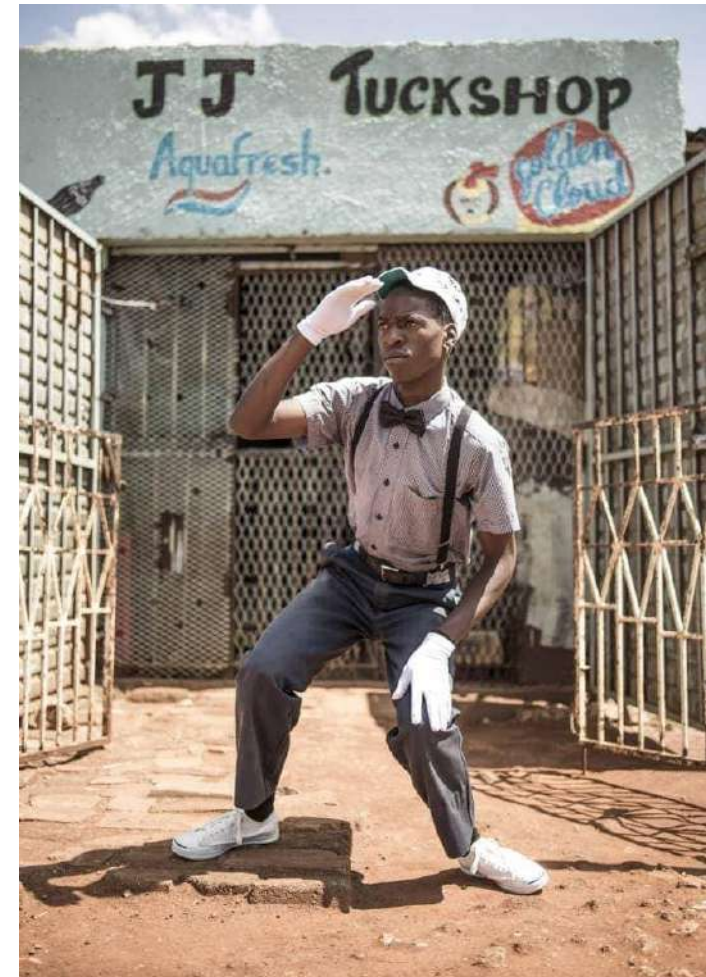


Figure 45. Samuel Makhubu (2016), Simunye Pantsula.



**Figure 46.** Kasi Nativist (2013) , And we just trying to make ends meet,by all means.

## Kasi For Life

*To all Kasi, people make that dark kasi  
Brighter, don't leave it to the suburbs.  
Support the ekasi business hustlers  
And gurus. Turn that kasi dumping  
Place into farmland.*

*Change that tavern into a bookshop.  
Twist that kasi stripping house  
Into a community theatre. Fill that  
Kasi open space with a home of sport.  
I've seen DJ S'bu  
Selling his book copies in taverns.  
Selling from the back boot of cars.  
Selling books like vegetables and  
Fruits.*

*Instilling a dynamic culture, executing  
A strategy of a rocking marketing goal.  
It all started with one step, my kasi kids.*

*Themba Emanuel Mashobane (Mashobane,  
2020)*

*Fundza Literacy Trust Book*

### 4.2.2 Trademark identity

The visual representation of a spaza shop is very important because it is used as a storyteller for the type of business established. According to an academic scholar Popova, it is commended for its evocative nature of celebrating community traditions and social agencies transpiring in informal market spaces (Popova, 2011). The popularity of spaza stores changing into social landscapes for comfortable and enjoyable co-working environments has had a significant impact on informal enterprises and markets. The façade brand of South African informal enterprises is a presentation of absent resources needed by communities in township areas. The brand is made of art that conveys a message of social and community values that makes it so unique and profound (Popova, 2011). Considering the objective is not fixed to trade but is about reclaiming cultural identities such as language, religion, and ethnicity. The art brand varies from signage, graffiti, and drawing emphasizing a message of hope and transformation of township life. Township areas are considered hopeless, simply because there are inadequate innovations, such as proper social and education infrastructures.

Both informal and formal retail sectors use visual identity for marketing and branding that uniquely resonates with target users. Visual identity is a graphic illustration or logo designed

to advertise products or services that provide clarity to a targeted audience. (Popova, 2011). The main objective is to ensure the viability and articulation of the business brand are executed through signage representation.

Branding varies in both informal and formal retailers, because of different approaches to concepts and business operations. A formal enterprise’s visual identity is established from formal concepts that sell products and services to customers and stakeholders. The financial capacity of the formal economic sectors exposes them to technology and resources that are effective for business brands. An informal enterprise’s visual identity is established from informal concepts that address social and cultural agencies and their relation to the context. Graphic illustration is created using different types of art mediums and materials like paint, charcoal, and chalk. (Popova, 2011) They are a prime example of available resources used by informal entrepreneurs for their business brands. Paint is a commonly used medium to bring stores to life and drawings as added features to enhance the store’s façade. The name of the store is an important aspect because it operates as a reference point in the community. The names of the stores are personalized using family names or the owner’s name, (Popova, 2011).

Considering the foundation of the business setup is to be passed on to the younger generation and the reason they are shown the reigns at an early age. This was a systematic approach to ensure they have additional labour in the shop due to financial constraints. Technology is an important application needed for the advancement of the informal economic industry in South Africa. The marketing gap in informal enterprises is a print and digital media that should be used for progressive advertising and business proposals. Verbal communication is a standardized system of advertising for products in township retail sectors. In comparison to formal retailers, their brand marketing is advanced, and it has significantly impacted the business and its brand strategy. Thus, access to print advertising and websites for products in informal markets could make the owners' and consumers' lives easier. This provides the opportunity for hybrid online and physical shopping systems to be used by members of the community.

A primary retail model like “shoppertainment”, is a retail application consisting of experimental and engaging methods with consumers (Ligthelm, 2008). The aim of this model provides a leisure and interactive shopping experience for users. This model is indicated to be in the development phases for South African enterprises. Ironically, spaza shops have changed into places

for “shoppertainment”, used as integral entertainment spaces in township areas. The design proposal addresses issues of informal enterprises and their inefficient infrastructure development, which opposes their environmental capacity. The need for financial sustainability in spaza micro-entities is necessary for them to provide residents a platform for communal activities. This proves that the apartheid government's concept of impermanence neglected social investments in the township (Ligthelm, 2008). Considering that formal retail and social infrastructures in disadvantaged communities do not resonate with people and context.

### 4.2.3 Township era prior technology

Before the technological advancement of smartphones and games, popular leisure activities for children were indigenous games. They are cultural games that united children in communities by enforcing important values of teamwork, problem-solving, and effective communication skills for character growth (Gontsana, 2014). Many children from the township grew up knowing the streets as their playing field and it was a reference point for indigenous games which range from ama tini, moraraba, diketo, and skipping. Ama tini also referred to as Toti, is a game that includes the placement of food cans in a pyramid system and a tennis ball used to eliminate opponents. Diketoto is a game, in which two individuals draw a circle containing stones, throw one stone in the air and remove as many stones as possible from the circle. The children actively participated in these indigenous games and the Department of Sport and recreation legally declared them as part of recreational activities in South Africa (Gontsana, 2014)

Indigenous games are not just games but activities that connect us with our traditional values and culture. It is also classified as a sport that allows us to celebrate South African identity and diversity, promoting social cohesion in communities. They are practices highly influenced by theoretical and traditional systems derived from the early centuries of the African continent through

cave engraving, rock painting which was traced by anthropologists, and old tales from our grandparents (Hollander & Burnett, 2004). These games formed friendships and rivals in the context of competitive challenges between opposition players, which allowed individuals to be strategic, and skillful in their journey of self-discovery as young children. A minority of school systems in South Africa incorporated indigenous games with school subjects like Mathematics and Life Orientation to explore and understand the world they live in. They proved efficient for both subjects because they made education enjoyable, particularly for children. The educators used these methods to study children's behavior through analysis that identifies their strengths and weaknesses (Hollander & Burnett, 2004). The concept became absolute to westernized systems which are dominant in educational practices and globally to date. Academic scholars like Wim Hollander state that indigenous games are still practiced in rural areas and arguably due to slow technological advancement in those regions (Hollander & Burnett, 2004).



**Figure 47.** Masixole Feni (2014), Three toti (ama tini)



**Figure 48.** Masixole Feni (2014), Diketo

Once upon a time, Coca-Cola branded fridges and game machines were a signature mark for spaza stores. The store catered to township residents, with social spaces and leisure activities such as tv and children’s games. Television was an important feature, where each tv program represented a specific timeframe. In the morning on your way to school, you would watch the Morning live news broadcast on SABC 2 tv channel, and then in the afternoon YO tv from SABC 1. On weekend evenings, soccer was broadcasted, and adults’ music for entertainment played in the background (Author,2022). Research findings outline a shift in informal retail, and spaza stores, due to their opposition to traditional and cultural identity values that influenced informal economies and social function in communities. Furthermore, it arguably resulted from a lack of social and recreational area limiting these retailers and place them under financial constraints.

# Katlehong Site Analysis

05

## 5.1 Site photography



This is a view of the proposed site which is used as an informal soccer field on weekends.



This is a view of informal shops highlighting how the façade is used as advertising platforms in different art mediums.



This is a street view that shows the relationship between human and vehicle movement on site adjacent to informal spaza enterprises.



This view shows a designated underdeveloped and vacant public space.



This view shows the relationship between informal enterprises and informal traders both serving on edge of busy streets



This view shows rocks that function as seating when people are watching soccer.



This view shows the most used space for informal trading that is highly active on weekends because of sports activities.



This view shows a pedestrian walkway and taxi waiting area.



This view shows unused space that offers opportunities for retail and leisure activities.

**Figure 49.** Author (2022) Site images.

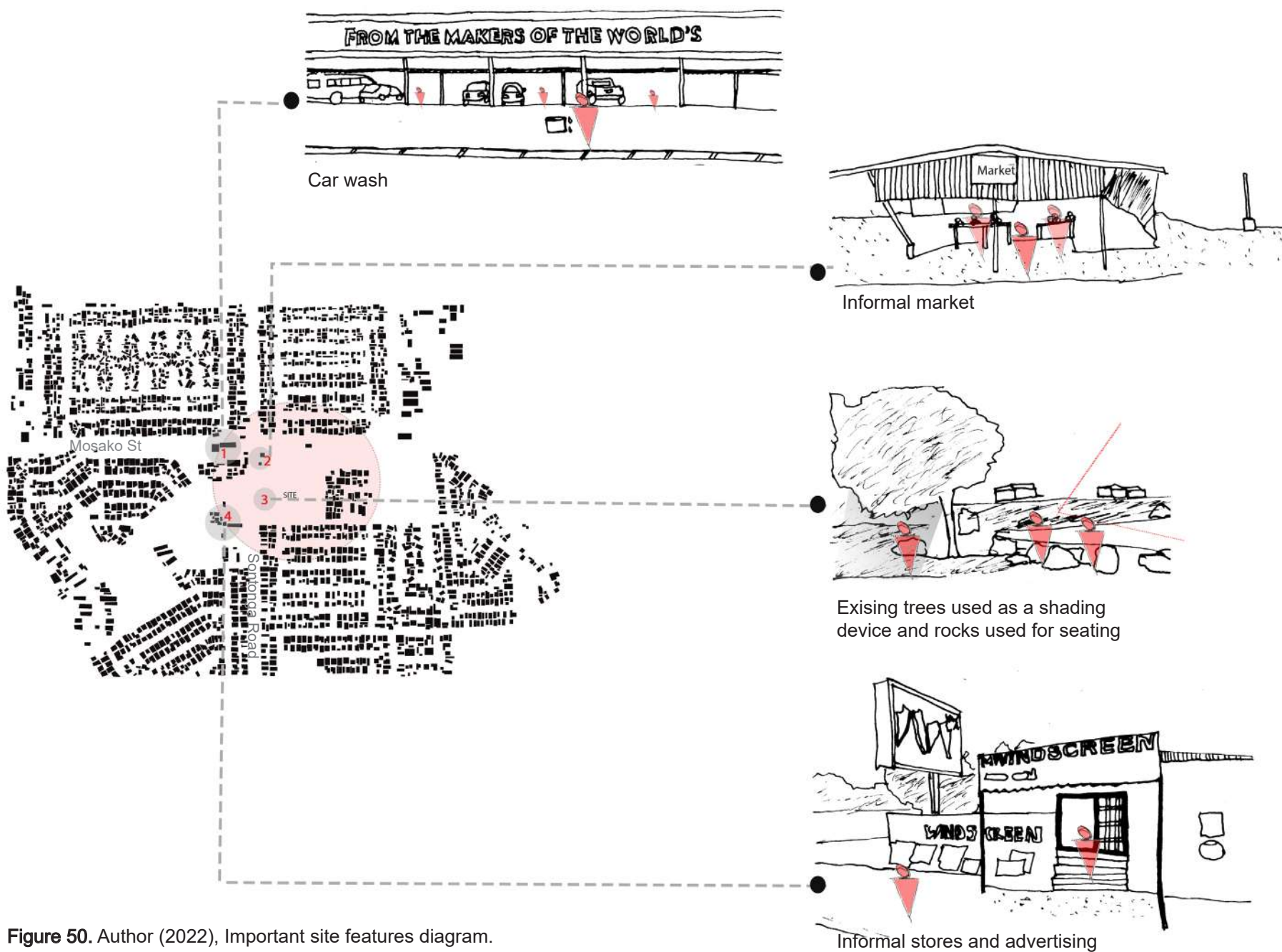


Figure 50. Author (2022), Important site features diagram.

## 5.1 Site mapping



Figure 51. Author (2022) Identified spaza shops.

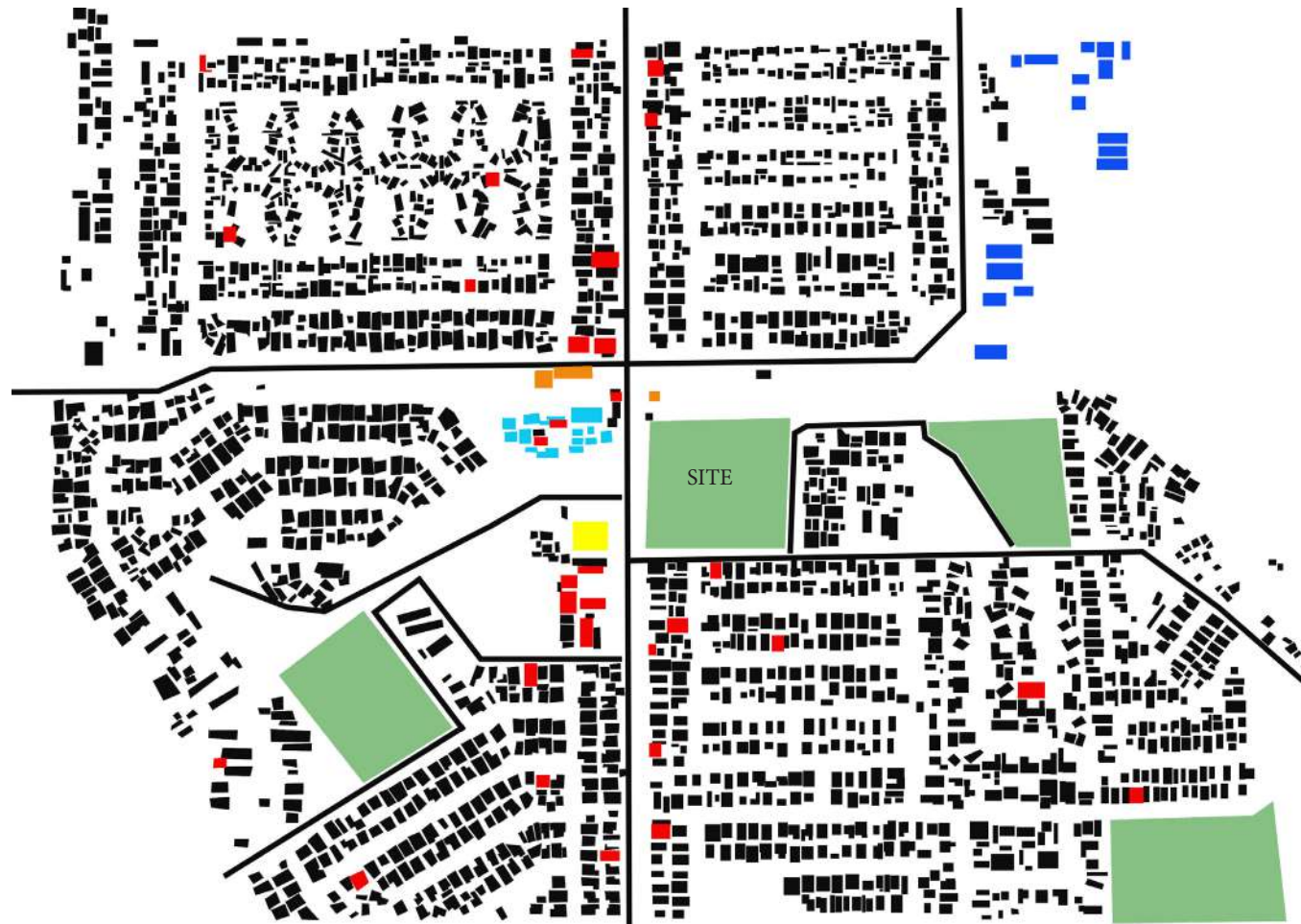
This map shows all identified informal microenterprises identified on site. The figure ground shows the gap of retail landscape on site and the potential of bigger retail chains.

### Legend

- Informal micro-entreprises (spaza shops)
- Residential
- Proposed site



SCALE BAR 1:1000  
0 20 50 100 200



This map shows the usage of this site, exhibiting that residential zoning is dominant and this region was a system of apartheid on the scope of impermanence.

### Legend

- Informal micro-enterprises (spaza shops)
- Residential
- Vacant land
- Municipal
- Health
- Educational
- Transportation

Figure 52. Author (2022), Land usage map (zoning)



SCALE BAR 1:1000  
0 20 50 100 200

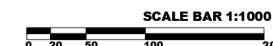


This map shows two major routes in Katlehong that connect to other major surrounding townships like Vosloorus and Thokoza. They are designated main transportation routes linking to Germiston and Johannesburg route.

### Legend

- Informal micro-enterprises (spaza shops)
- Residential
- Main routes
- ... Secondary routes
- Pedestrian routes

**Figure 53.** Author (2022), Transportation and pedestrian routes map.





This map shows green spaces, which are vacant land and with site investigation they are potential spaces for designing of community infrastructures and public parks.

#### Legend

- Vacant land
- Residential
- Proposed site

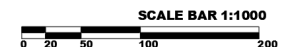


Figure 54. Author (2022), Greenery map.

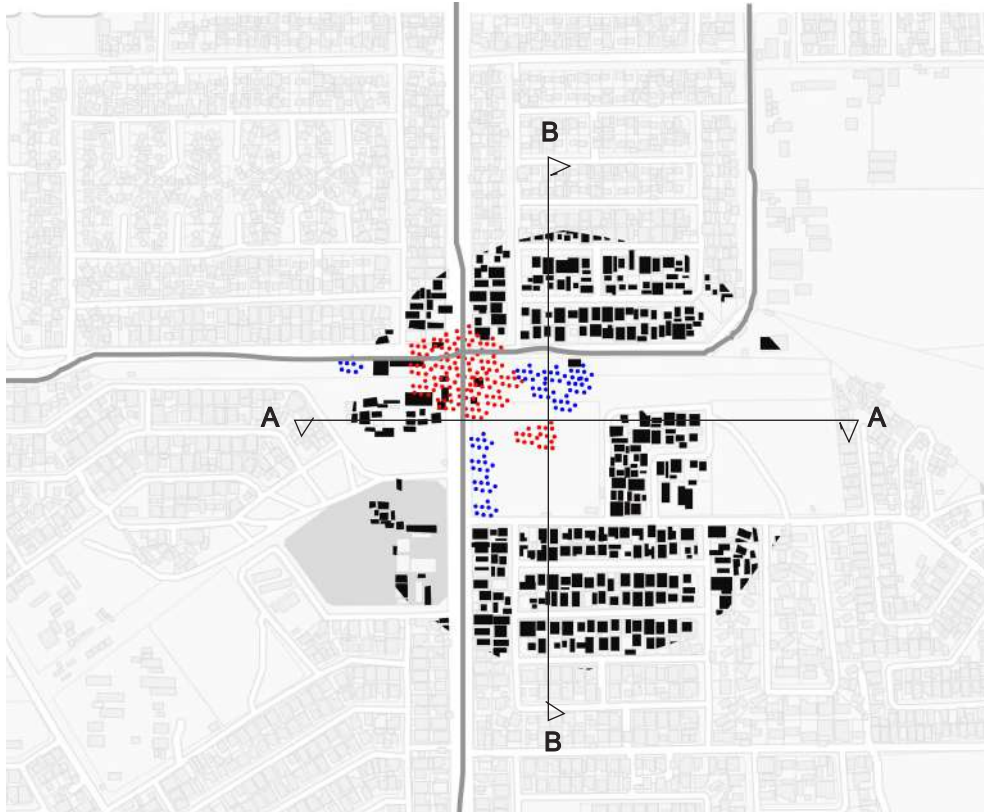
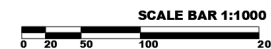


Figure 55. Author (2022), Weekday concentration map.



Figure 56. Author (2022), Weekend concentration map.

This map illustration is derived from site recorded data based on observations and findings. It shows concentration from human activity and relation to site and major transportation routes.



### Legend

- Most concentrated
- Least concentrated
- Residential
- Main transport routes

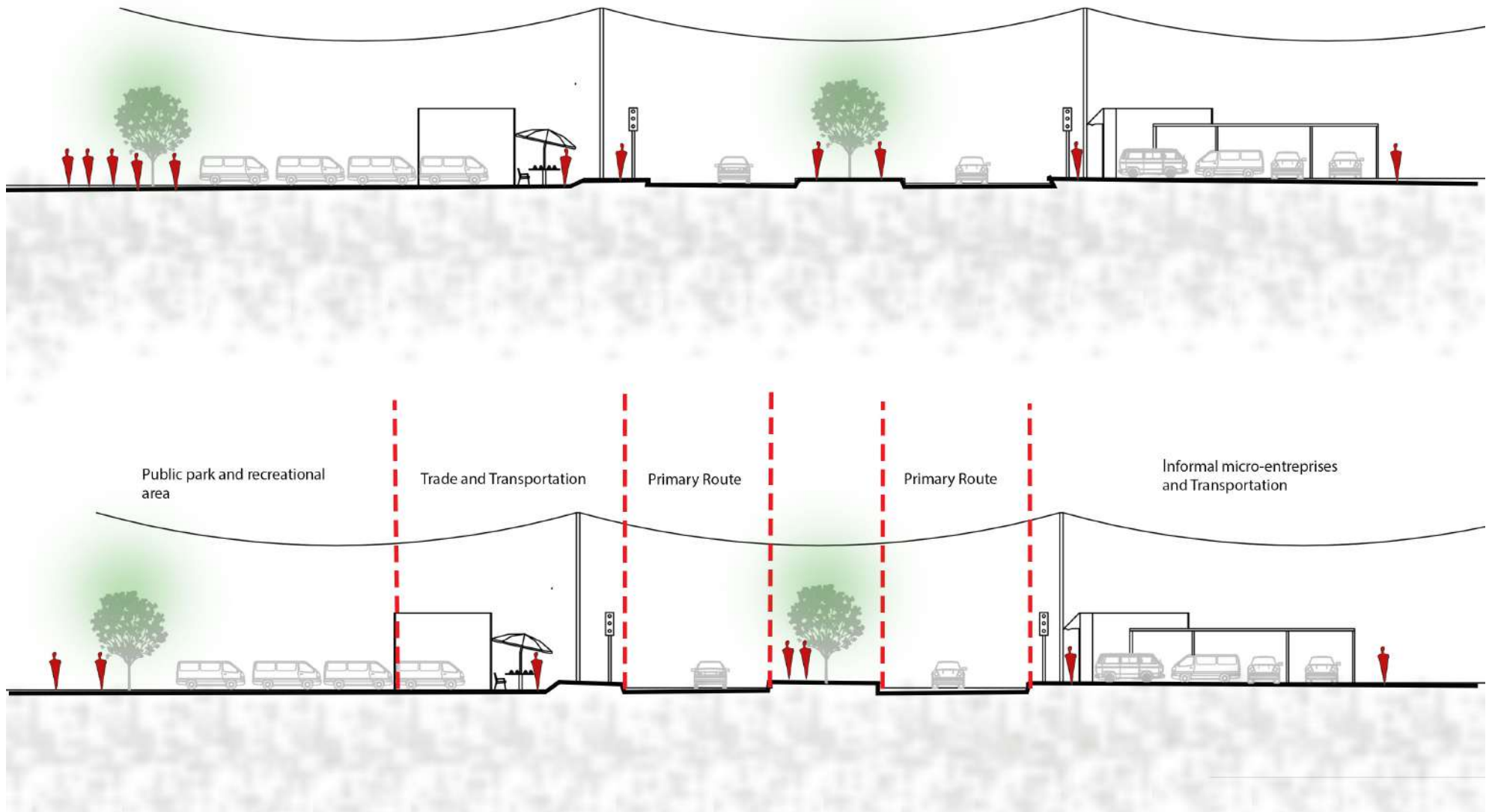


Figure 57. Street section A-A.

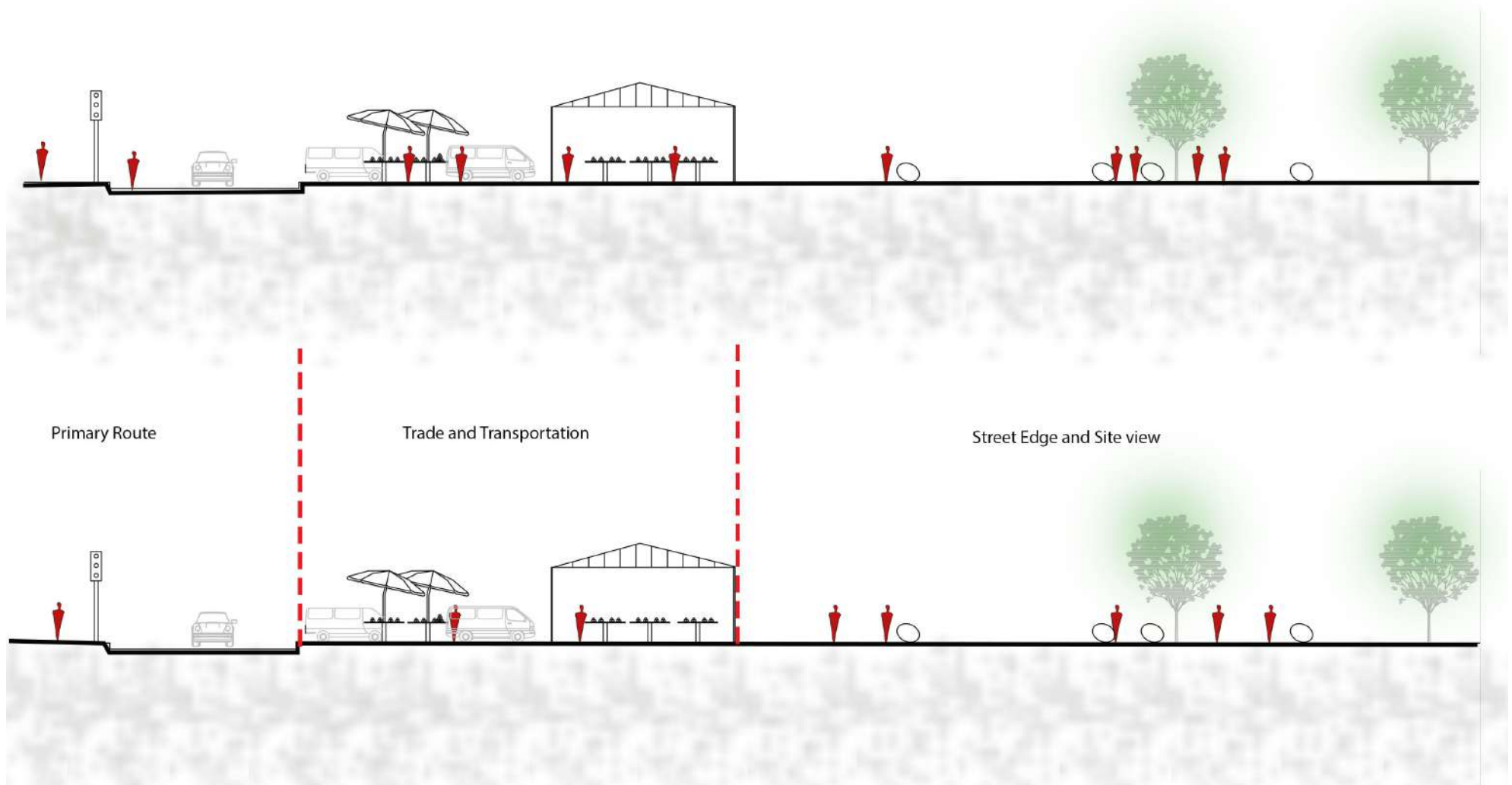


Figure 58. Street section B-B.

## 5.2 The spaza brand

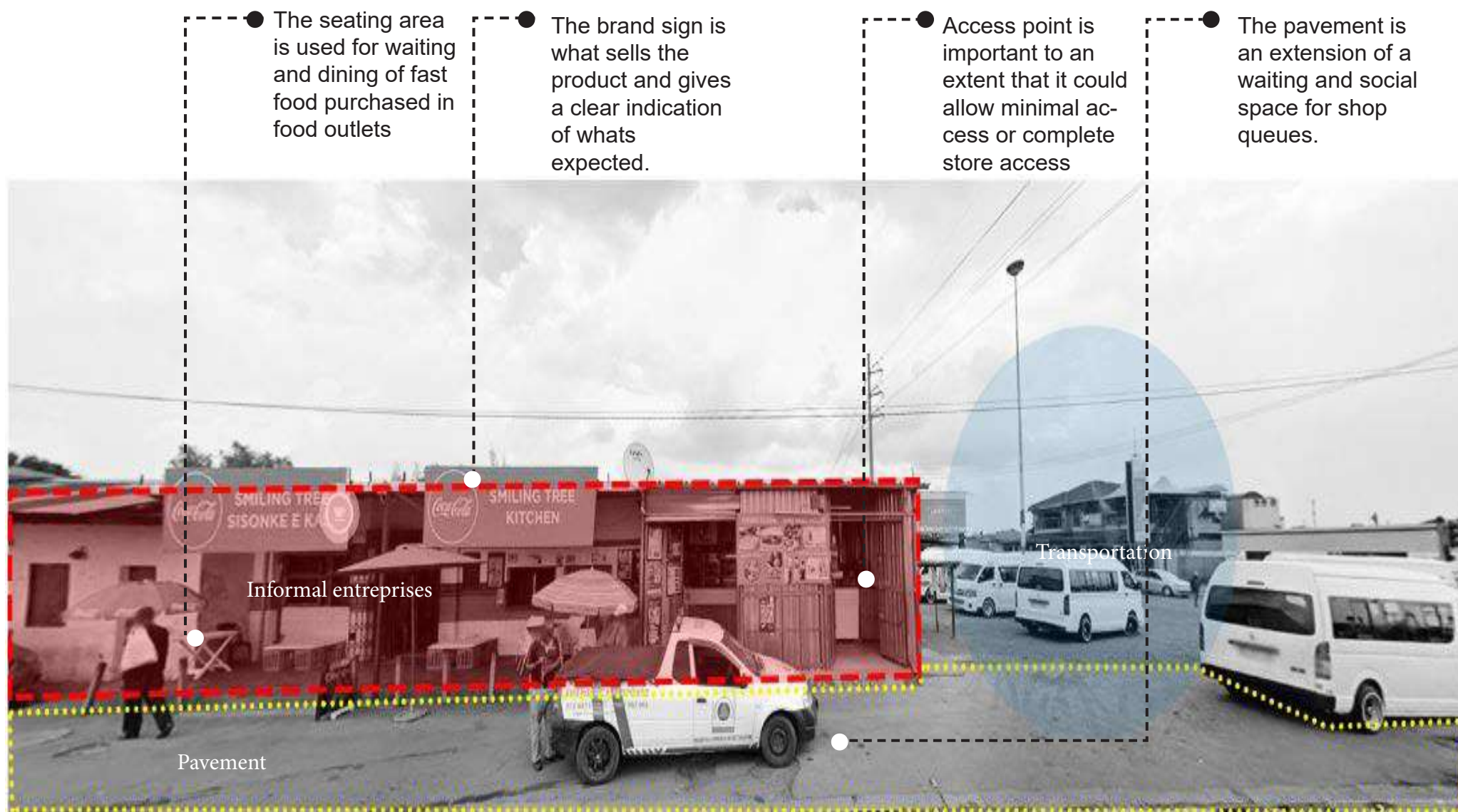


Figure 59. Author (2022) Spaza hub on site.

● The stairs are referred to as stoep known by origin as raised platforms in front of houses and are used to access the store opening and used as public seating area after working hours.

● The wall is used as an advertising instrument that is more specific and bolder in size for people at a distance and in moving cars.

● The canopy of the shop functions as a portion for closing the shop and a shading device when the shop is fully functioning.

● The pavement is actively used as it serves as a taxi waiting area, access to stores, and a pedestrian pathway

● Graffiti is part of the visual identity exhibited by spaza shops and it is an exhibition for graffiti artists.

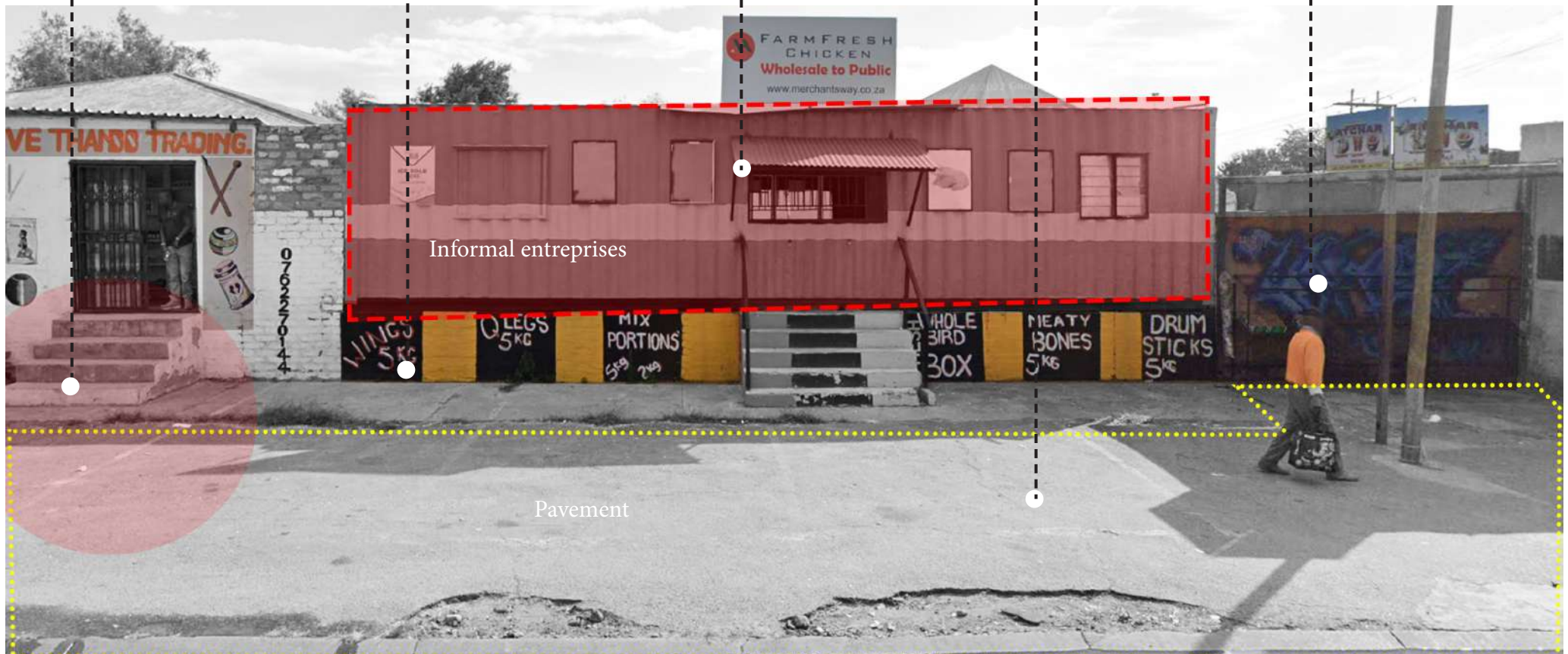


Figure 60. Author (2022) Spaza hub 2 on site



Figure 61. Author (2022) Spaza shops found on site

The spaza shop brand in Katlehong is massive and spans economic, cultural, and social typologies, which has changed the identity of spaza shops in the area. The proposed site, Somhlolo Ground, as mentioned, is adjacent to two main transportation routes that connect to other major townships like Thokoza and Vosloorus. The site is an illustration of a socio-economic area that is highly concentrated due to informal retail, transportation, entertainment, and recreational activities. According to the municipality's zoning framework, it is designated as vacant land that currently functions as an informal taxi rank and soccer field. The site is trademarked by soccer as a main activity, leading to big sports tournaments and entertainment activities hosted there.

The site is centralized in residues, serving as a core space that provides an opportunity to develop an infrastructure that caters to the people and existing contextual functions. As a result, the proposed concept of de-conceptualizing spaza shops as convenient stores but socially influenced typologies that are important to livelihoods and context is appropriate. They exemplified the lack of recreational and social infrastructure in township areas because of Apartheid spatial laws. The informal shops' primary characteristics are adaptation and transformation, which are principles adhered to, for the new community infrastructure.

The project concept analyzed site features, functions, and circulation to determine a suitable program that relates to context and informal markets. Furthermore, existing detailed site functions like educational, sports, and entertainment activities need for an architectural intervention. The location and orientation of the site are ideal for building an infrastructure that has multiple functions and relates to adjacent residues. The soccer field is centralized to maintain its identity on-site and showcase the retail façade of the building, which captivates the other functions of the building. The principle applied is derived from theoretical findings that emphasize the Spaza brand as a façade and common denominator for all other functions.



**Figure 62.** Author (2022) , Soccer tournament on site.

The Somhlolo ground, the proposed site is popularly known in the township for its trademark, soccer. The activity has attracted several reputable and established soccer representatives from South African football associations. Furthermore, it exhibits raw talent from individuals and provides entertainment for residents, outlining the lack of recreational domains in periphery areas.

# Precedent Studies

06

## 6.1 Precedent study 1

### Taxi rank number 2

Architect-26'10 Architects

Project year-2013

Location- Diepsloot, South Africa



Figure 63. Iwan Baan (2012), Taxi rank number 2 entrance.

Taxi rank number 2 is found in Diepsloot, a township with colonial traces of Apartheid and dense informal settlement with poor sanitary conditions to date. The project's purpose was to improve existing public space that consists of important services like transportation and the daily livelihoods of traders situated at the taxi rank. The building is more of an installation in the existing taxi rank, that aimed to provide a better infrastructure for the community of Diepsloot. This is a township with political and spatial issues that are detrimental. The project as an intervention, worked on the most significant element of the township and the taxi rank, where informal trading is inevitable.

The design uplifted commercial trade by providing traders with secure storage and trade spaces. Although the rebranding of the taxi rank had an underlying message that is portrayed in its relation to the surrounding, use of materiality, and function

Taxi rank plan

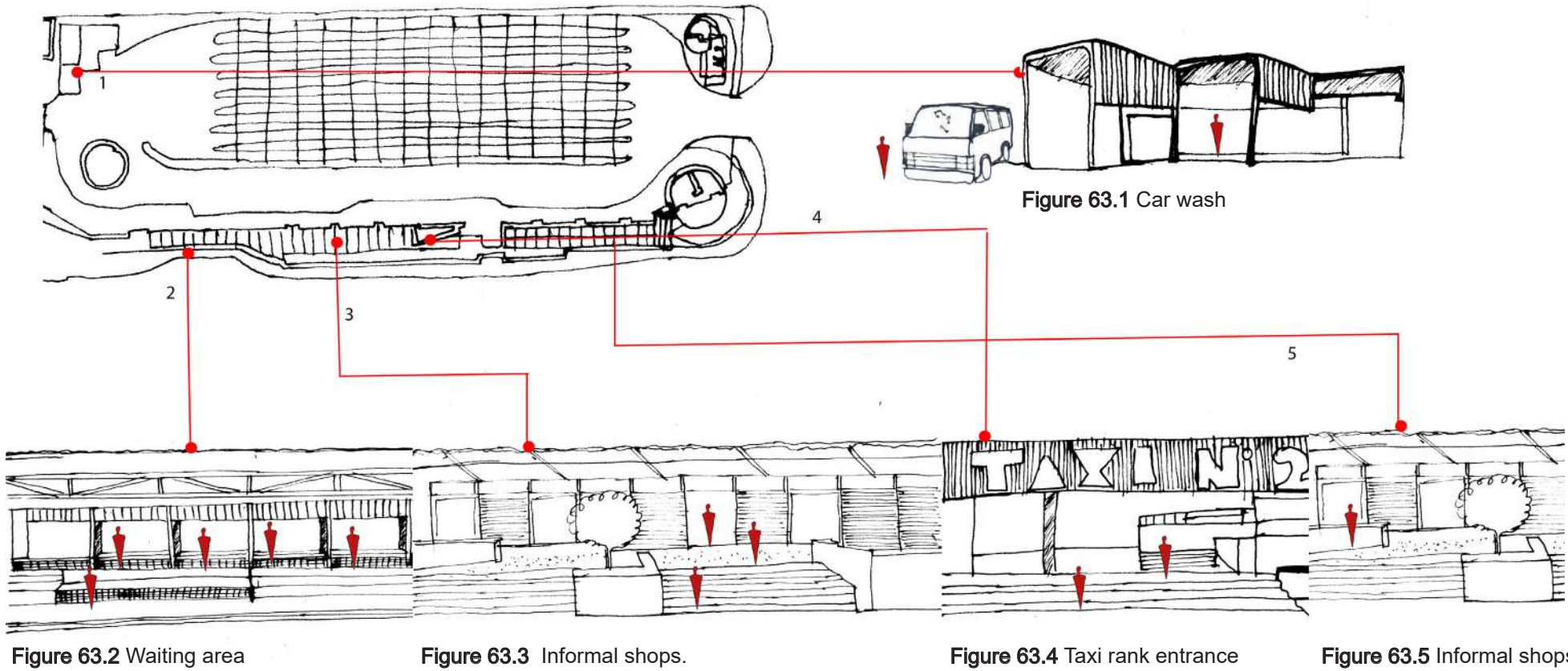


Figure 63.2 Waiting area

Figure 63.3 Informal shops.

Figure 63.4 Taxi rank entrance

Figure 63.5 Informal shops

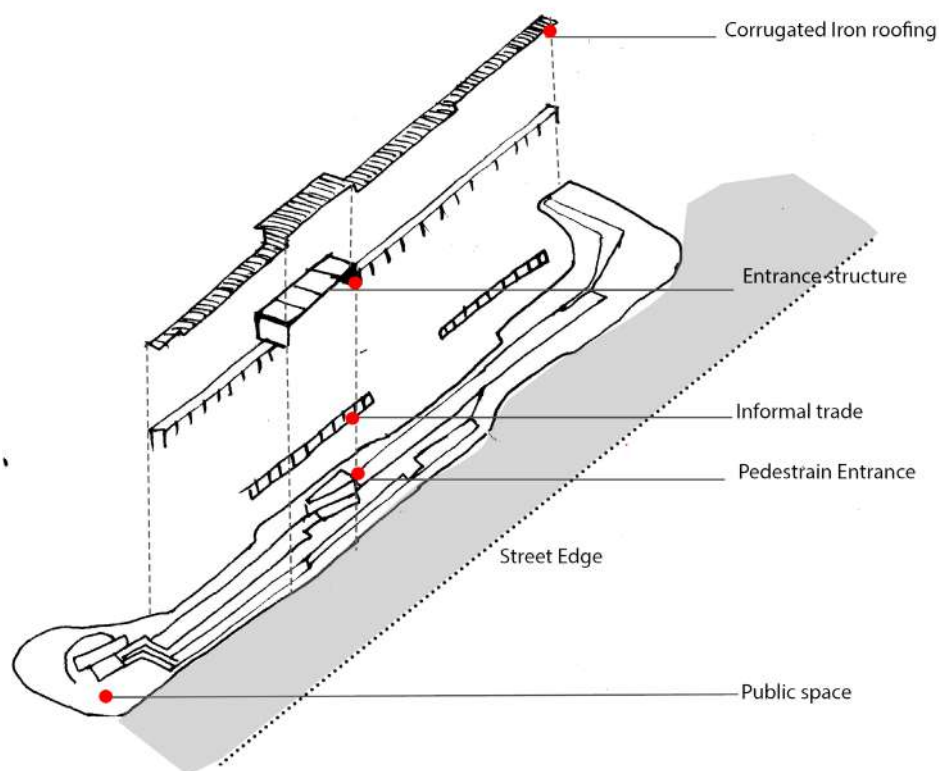


Figure 63.6 Taxi rank axonometric

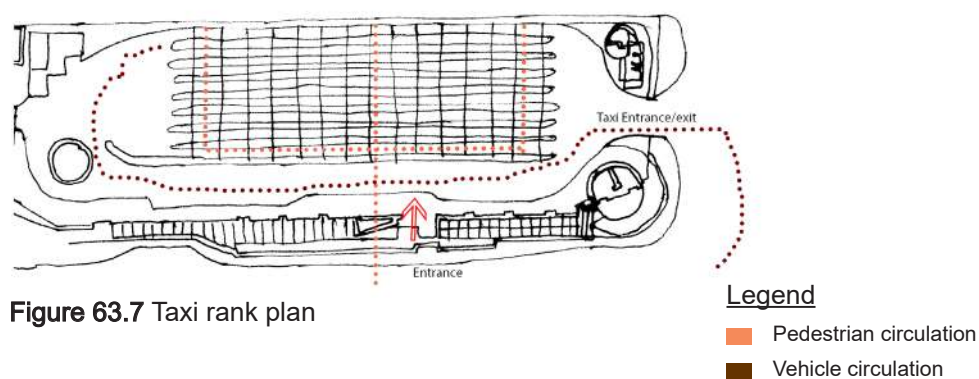


Figure 63.7 Taxi rank plan

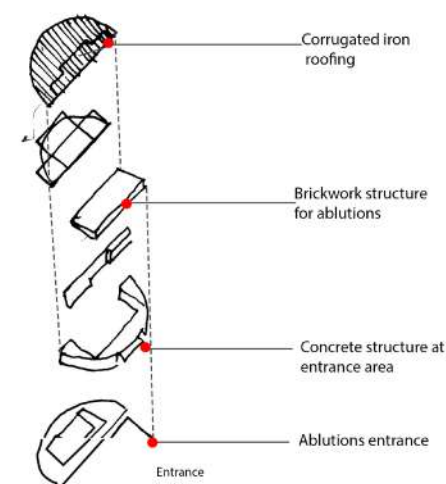


Figure 63.8 Ablutions axonometric

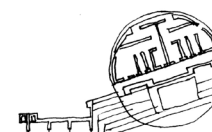


Figure 63.9 Ablutions floor plan

Materiality used to rebrand the taxi rank and ablutions represents anticipated architecture by Diepsloot communities. The area's spatial planning and architecture are exhibited by informal settlements and inadequate service delivery, which has resulted in the poor state of Diepsloot. The anticipated architecture is RDP houses that people have been promised for decades under the framework of democracy and better living. Considering the use of materials like brick, concrete, and corrugated iron, which are designated materials for township architecture.

Townships in South Africa, along with their colonial identity, fixated on deplorable terms, have overshadowed its significant history, role, and economic viability in the country. The informal retail landscape in townships such as markets, and spaza shops are primary examples of isolated markets that have incredibly changed people's lives. They are economic spines in townships, providing millions of jobs and reducing the rapid rate of unemployment in South Africa. Their significant contribution to communities is the enhancement of social, cultural, and economic reliability to the underprivileged. This landscape has consistently depended on resources that are limited in financial value and accessibility in market chains.

Taxi rank number 2 is an illustration of informal economies that function collectively to serve different needs in the community. The design intervention addresses inadequate infrastructure that serves communities on a larger scale. As mentioned above, the concept of impermanence in periphery areas exposes the necessity of recreational areas where people are accessible to active human participation and resources. The rank is next to primary transportation routes and high streets with active economic and concentration levels. High streets, both in informal and formal sectors, are significant because they are the core that individuals of necessities from retail, transportation, and residual. It affirms the significance of access and locality

for spaza shops, to function sustainably and generate revenue. Therefore, traders or informal retailers target active infrastructures like taxi ranks, malls, and recreational areas to trade and seek new opportunities. Besides this point, people have experienced tremendous fallouts in residential areas as locations because of regional malls developed in township areas.

Informal traders post-Apartheid had enormous expectations that the informal retail landscape and residuals in periphery areas would improve, making lives better and creating more employment in communities. The government's shortcomings keep their promises, saw an increase in informal economies because of the rapid rate of unemployment that led people to make means to survive. Taxi rank number 2 is a statement building that highlights socio-economic issues experienced by unprivileged people and traders regarding financial and infrastructural support for people in need.

## 6.2 Precedent study 2

### Terraced market hall for sultangazi

Architect-Suyabatmaz Demirel Architects

Project year-2016

Location- Istanbul, Turkey



**Figure 64.** Demirel (2014), Terraced market perspective.

Entrepreneurship in Turkey is primarily found on every corner of the streets. Markets have become urban furniture that influences spatial activities but promotes economic progression. The projects situate themselves in a site that is under development and a highly dense area that is programmed in process of urban generation. There's a market routine that markets adhere to, due to the mobility of markets that function temporarily in space according to routine strategies. This building is initially a car parking lot design that is blended with markets as a source of community cohesion, landmark, and economic hub in the area.

The absence of market setups on certain days and time frames allows the use of the structure as a car park and a min of 2000 sqm as a social and educational sector. It is referred to as a sustainable method to have a multi-functional structure that encloses and discloses. The highly dense residential blocks owned by the municipality were a crucial factor in the conceptualization process of the structure. This is about the density being the focal point of this corner in the city. The design intended to maximize access and create street intercorrelation with the streets and a contrast security control for the parking lot. Access to the building is direct and clustered by dense atmospheric surroundings.

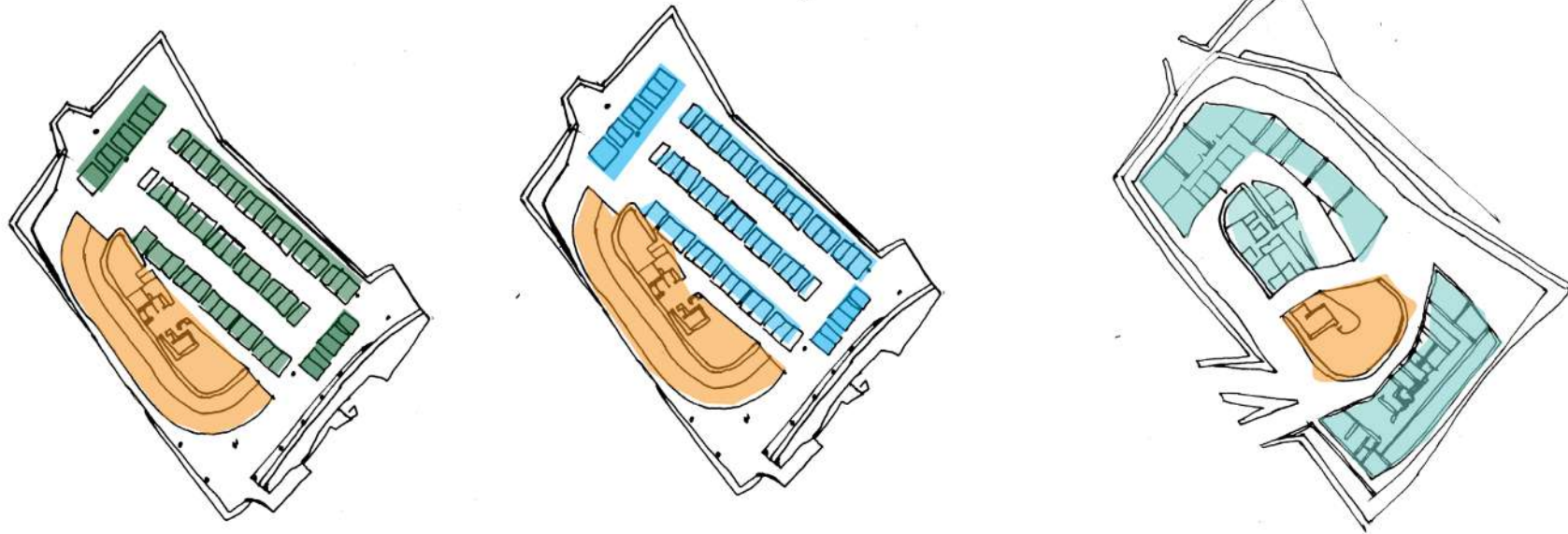


Figure 64.1 Ground floor programme

■ Circulation and services
 ■ Market 1
 ■ Market 2

■ Social spaces and gallery
 ■ Circulation

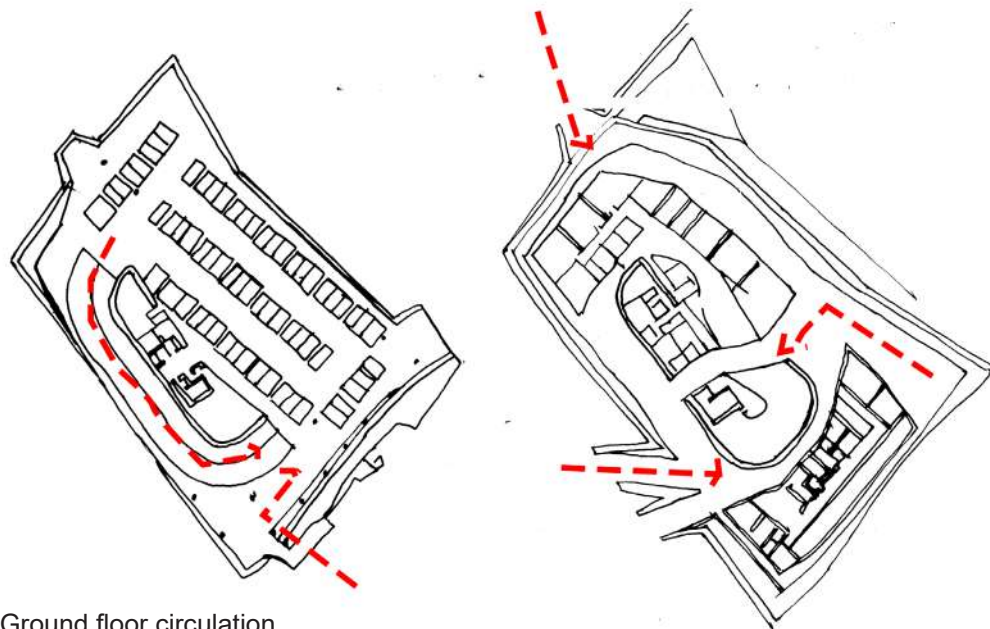


Figure 64.2 Ground floor circulation

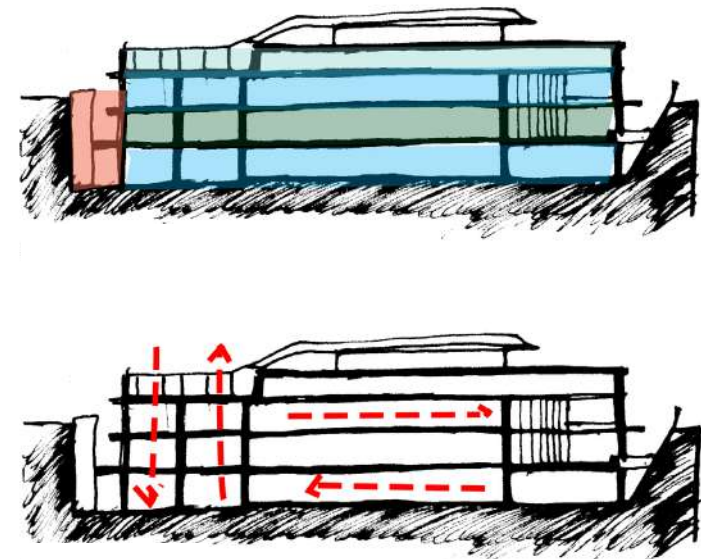


Figure 64.3 Sections

The terrace space gives the building life through the plantation and allows fresh air emission considering that the space is mostly occupied than a typical parking lot.

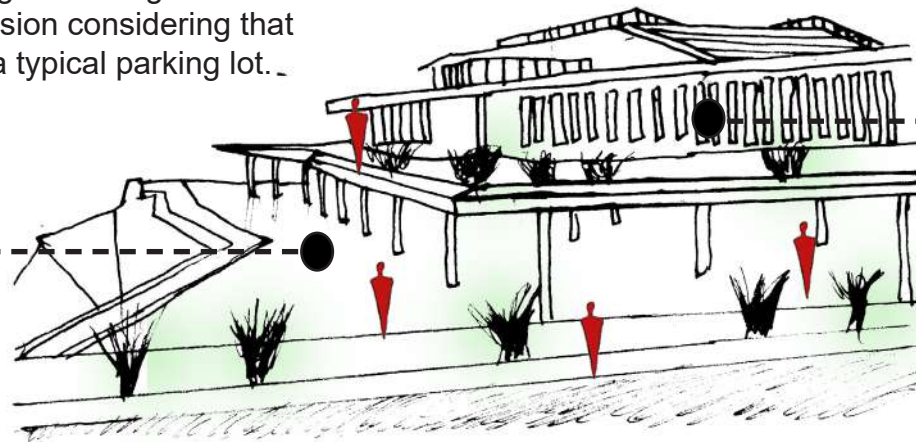


Figure 64.1 3D sketch

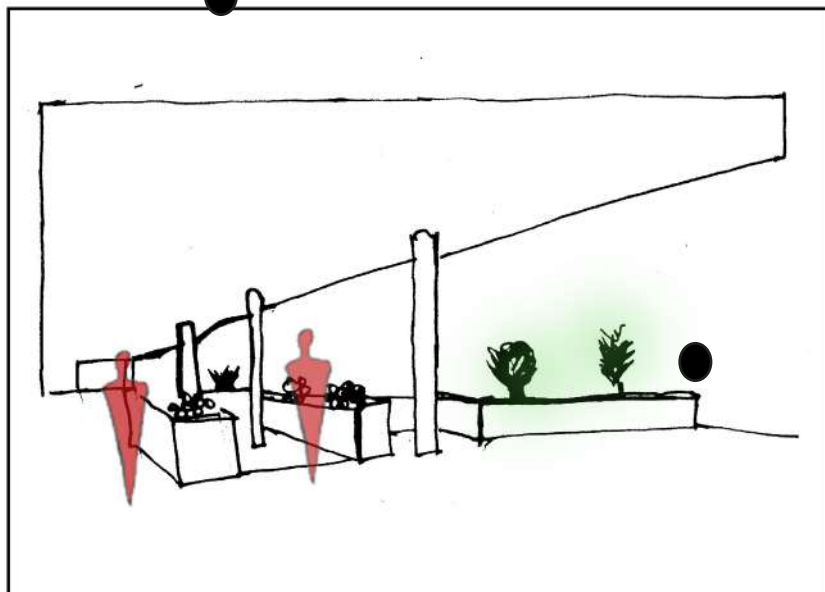


Figure 64.2 Markets

The core space of the parking lot functions as a leisure space classified as an entertainment area such as galleries designed adjacent to the market and parking lot.

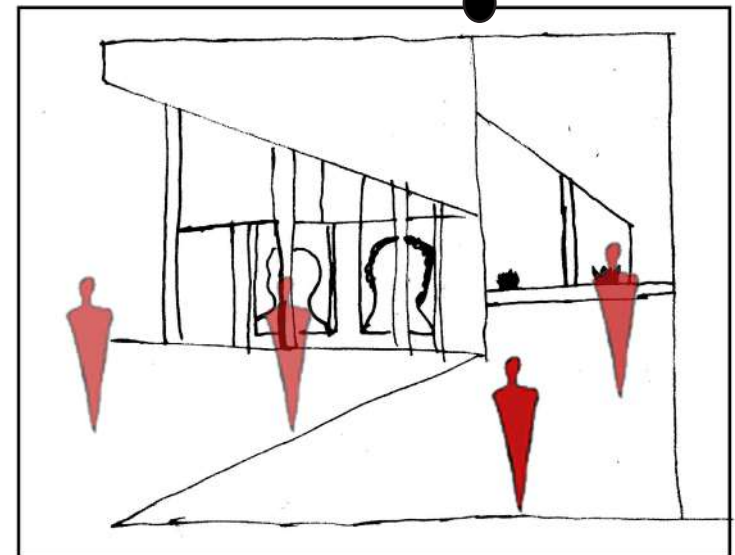


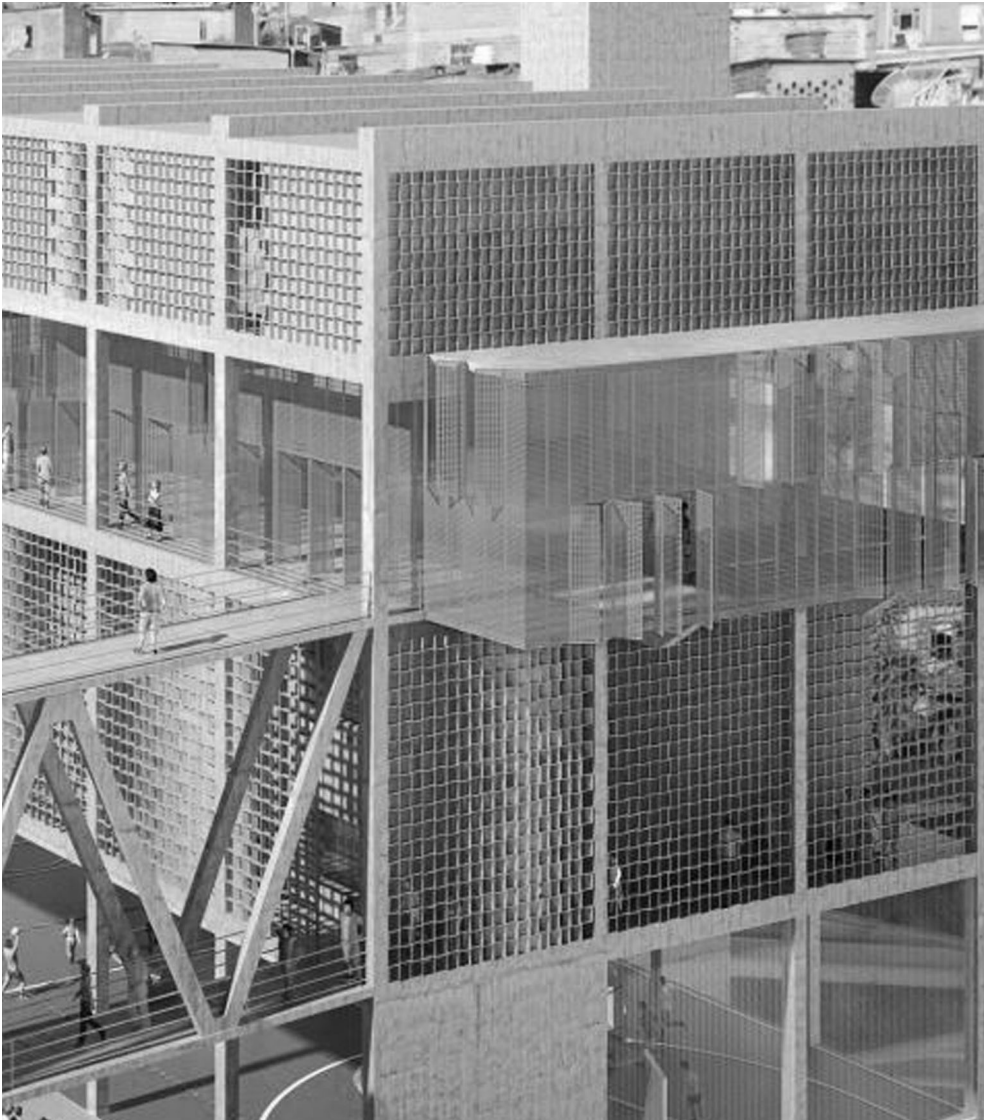
Figure 64.3 Gallery.

Informal markets in both urban and township spheres are becoming flexible, and retailers have adapted systems that respond to context and consumer needs. The concept of spaza shops and informal market systems of trading and identity has changed. They do not conform to normalized preconceptions of them being house extensions or stalls, but hybrid systems that cater more than trade. In township areas, there are several hybrid informal markets like carwashes that trade resources that are normally got in spaza shops. This refers to the argument that businesses have become flexible in resources accessible to people and where they occur. This promotes the idea of inclusive and collective trading, where multiple services and resources can cater to people and has been proven to be very convenient to customers.

The Terraced Hall is conceptually a parking lot that is a place for cars, this architectural intervention reintroduces this infrastructure as an area with multiple functions. The parking lot transitions into an exhibition, market space exclusionary of parking, and emphasizes how architecture is changing with time and it introduced new concepts to convenience people. The exhibition concept highlights how graphic identity is a significant component is market spaces because it's a representation of people's social, cultural, economic, and political aspirations. The flexible use of the infrastructure reveals new possibilities for zoning this

into a multi-functional and sustainable area for the community. This precedent relates to the multi-faceted nature of spaza shops, on how they can change into recreational, economic, and social spaces that relate to different people. Hence, the use of existing infrastructures, which are inhabited into adaptable spaces or sections, is ideal for trade and consumer accessibility. As above mentioned, the disadvantage of informal economies in South African townships is capital influx, space constraints, and bylaws that limit the potential of markets to expand into bigger retails.

## 6.3 Precedent study 3



### **Centro de Accao social por Musica**

Architect-Urban Think Tank architects

Project year-Under construction

Location- Sao Paulo, Brazil

Centro de Accao social por Musica is situated in a marginalized area isolated from a formalized city of Brazil. The area is congested and no existence of adequate public space, or social infrastructure, and mainly an abandoned space. The site is a void that is highly volatile to natural disasters. The design intention was to break convention and use that void to fill the gap in social spaces in the area. Taking into consideration that it is a residential area built with no order and structure. The design transforms unproductive into a functional space that establishes connections of a properly developed recreational, social, and sustainable space. It connects to all boundaries of the area, which also celebrates the agriculture, spatial freedom, and fluidity of social cohesiveness. The project is divided into 3 segments, services, public leisure space, and educational facilities which are the primary concepts of this building.

**Figure 65** .Urban Think Tank architects (2012) Centro de Accao social por Musica.

Original site



Figure 66 .Urban Think Tank architects (2022) Vacant site

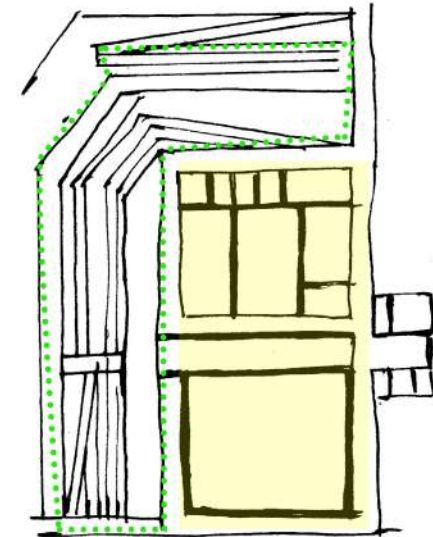
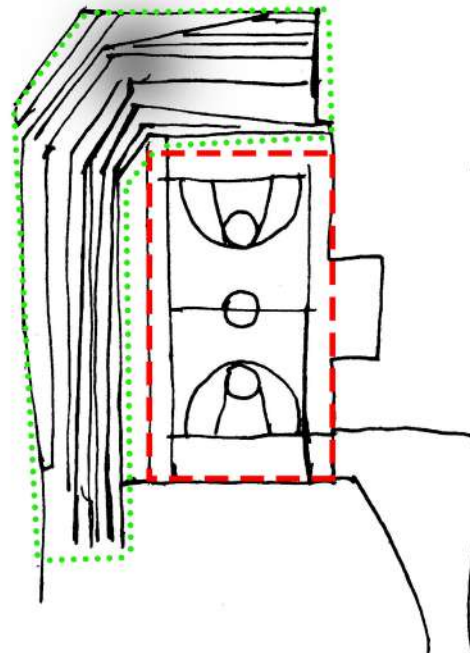
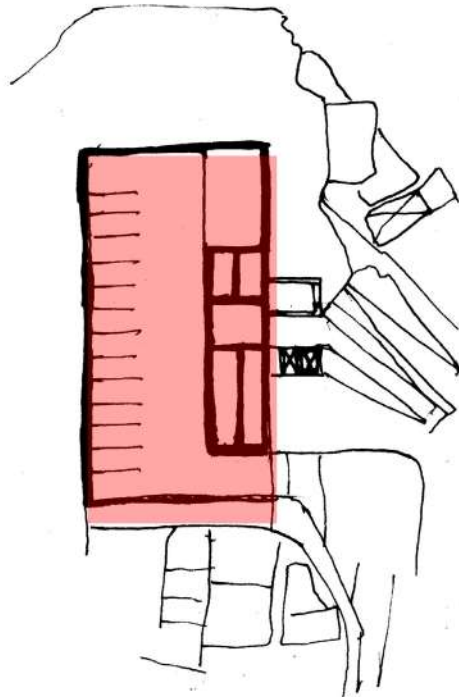
Transition



Current site



Figure 67. Urban Think Tank architects (2022)  
Centro de Accao building



■ Services

□ Terrace and amphitheatre

■ Social and educational

The lack of recreational areas and multi-used infrastructures in disadvantaged communities is arguably a major issue in township areas. Its shortcoming is clear in township areas where houses designed as clustered and rowed houses intended to function as short-term households. Impermanence architecture focused on residuals that are nonaligned with inclusive and developed cities where malls, transportation routes, health facilities, and recreational areas are not exposed by people. The designated isolation of peripheral areas both locally, in South Africa, and globally has formed new identities. People have adopted and celebrated existing contextual issues experienced in innovative ways of sustainability and definitions.

Centro de Accao social por Musica is a project that adapts to its current socio-economic, political, and contextual affairs. The project addresses these issues through design interventions that focus on recreational spaces that aim to improve personal skills, sustainability, and current affairs. This creates an inclusive city that caters to people's needs, which is initially catered to urban areas. It transforms an abandoned land into a space that benefits communities through sport, trade, and entertainment. The concept is a representation of hope in regions that are fixated on limitations.

The precedent addresses the factors in the above rationale that abandoned spaces are ideal for community development and its relation to communities provides extensive opportunities for upcoming markets, sports activities, and skills development. Account that it is a semi-capitalist project that generates revenue but sustains the lives of individuals whose agenda is growth and comfortable living.

# Design Development

07

## 7.1 Intervention

The design development responds to identified issues on site and the historical significance of social and cultural agencies in informal enterprises and markets in township areas. Considering the above-mentioned argument about inadequate leisure developments, civic infrastructures, and inefficient informal retail landscapes that can sustain the economy and infrastructure in Katlehong. The building concept intends to celebrate historical architecture through redefined systems that introduce change, and sustainability that addresses contextual issues.

Architecture is not only about physical structures but building communities intended to benefit us in the future. The civil and social type of architecture in the urban environment addresses delicate issues of its surrounding context (Bosanquet & Proppe, 1991). The concept is establishing networks and a social system that negotiates the past and present community values that will influence the transformation of spaces. This scenario challenges the definition of a spaza micro-enterprises by identifying the local needs of entrepreneurs and residents of township areas. Considering that people in periphery communities need architectural typology that resonates with their cultural and social values. Thus, the importance of analyses and research of this demographic nature proposes public buildings be comfortable and relatable for users. This is to be explored in architectural building systems, spatial and light qualities that are comfortable

and efficient for users. The significance of comfortability and the design of pleasant spaces is due to their welcoming nature to public users, in avoidance of unoccupied and inefficient public buildings.

## 7.2 Viability Report

This viability report is prepared on the scope of the project's framework by the provision of information that responds to objectives and requirements that evaluate the viability of the project. The nature and viability of this project as a public building need reliable administration and structured systems. The project will be implemented under the governance of a Public-private partnership (PPP) and Corporate Social Responsibility (CSR) system. The public-private partnership of this project includes government and private organizations that form part of the client's framework. The CSR system refers to investments of entities or companies in social projects that help them improve. The entities invest a designated portion per year that addresses social needs in communities. Its relation is closely linked with NPOS and NGOs as they are the key drivers of social welfare. The CSR model in South Africa is set to protect stakeholders, employees, suppliers, and the environment. The common aspect of the PPP and the CSR is their priority of social infrastructure and public services like transportation, health, and education.

### 7.2.1 Cliental and Partnership

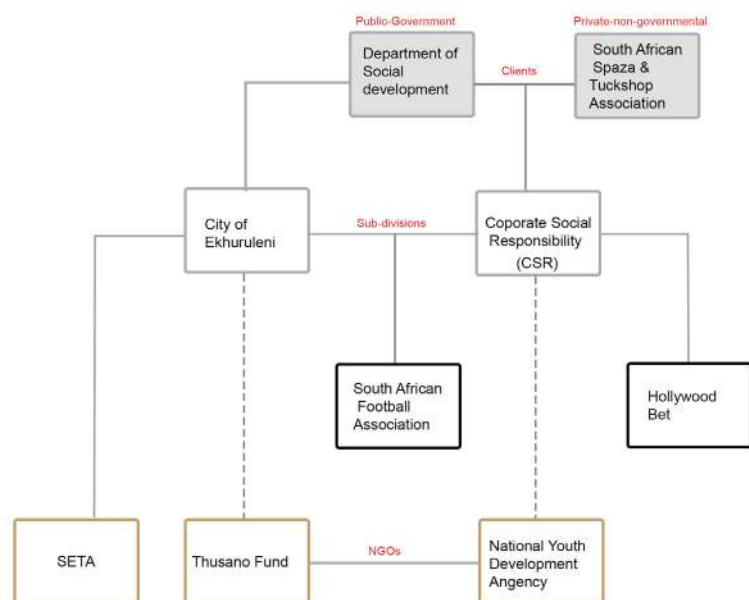
South African Spaza and Tuckshop Association (SASTA) and the Department of Social Development are the key members of the client body. The Department of Social Development will be represented by the sub-division that focuses on

Ekurhuleni district. South African Spaza association is a body that was formed in 1997 that offers spaza shops, general deals, and informal traders the benefit of collective bargaining. The organization aims to facilitate the operations of small business owners to improve basic entrepreneurial skills and legal matters. They strive to give support to traders to ensure the sustainability of businesses. In addition, it is also giving unemployed youth opportunities to establish themselves through business education.

The Department of Social Development's policy goal is to reduce poverty in communities by empowering young and old people. This is done in collaboration with appropriate stakeholders and civil society to preserve a holistic environment through sustainable development. Social security protection is important by providing social welfare that addresses people's needs. The policy is established on rendering development and population services. The clients' objectives relate to the concept of the building as an infrastructure that aims at the development of communities and business enterprises.

The National Youth Development Agency (NYDA) and the Thusano Fund, both established NGOs, and Sector and Education Training Association (SETA) meet the CSR criteria and have formed a partnership based on the CSR policy. The partnership with the Hollywood Bet programme and the South African

Football Association (SAFA) are entities that are to invest according to CSR sponsorship policy.



**Figure 68.** Author (2022), Diagram of cliental and partnership structure.

## 7.2.2 Client brief

The proposed project is a civic infrastructure, established on the concept of rebranding spaza shops through the lens of cultural and social agencies. Spaza shops are defined as informal micro-setups convenient for food provision in the immediate context (Charman and Leif 2015). The predetermined concept of spazas has changed post-1994 on basis that they became social, entertainment, and cultural landscapes for educational exchange.

The aim of this project is sustainable development for the public exploring themes of trade, education, art, sports, and recreation. It intends to bridge the gap of social innovation in townships and promote the advancement of existing informal retail outlets. This introduces the concept of “shoppertainment” and recreational advancement through underdeveloped public spaces. “Shoppertainment” is a retail system that includes the engagement of consumers through entertainment and offers a timeless experience of leisure experiences, which will be rooted in township identities and experiences (Charman and Leif 2015).

Communities in Katlehong township are targeted users of this scheme but it is not restricted to this region. The infrastructure is intended to meet the requirements of sustainability through technical proficiency, energy-saving technology systems, benchmark expenditure, and long-term operation.

The infrastructure is intended to meet the requirements of sustainability through technical proficiency, energy-saving technology systems, benchmark expenditure, and long-term operation.

| Programme                       | sqm                 | no | Population         | Estimated Costs |
|---------------------------------|---------------------|----|--------------------|-----------------|
| Retail incubators               | 25                  | 15 | 100                | R2 560 875      |
| Public courtyard                | 100                 | 1  | 200                | R869 700        |
| Transportation area             | 100                 | 1  | 120                | R800 000        |
| Recreational space              | 180                 | 1  | 100                | R890 100        |
| Soccer Arena                    | 300                 | 1  | 500                | R3 894 600      |
| Seminar room                    | 30                  | 4  | 40                 | R936,000        |
| Ablutions -Private              | 25                  | 1  | Accord.to SANS     | R375,000        |
| Reception                       | 25                  | 2  | 40                 | R160,675        |
| Exhibition space                | 150                 | 1  | 100                | R1 268 850      |
| Multipurpose event space        | 80                  | 1  | 300                | R656,000        |
| Entry lobby and Artwork Gallery | 35                  | 1  | 80                 | R289,765        |
| Social Offices                  | 30                  | 3  | 10                 | R702,000        |
| Enterprise offices              | 30                  | 2  | 10                 | R468,000        |
| Conference room                 | 50                  | 1  | 100                | R475,000        |
| Ablutions- Public               | 25                  | 1  | Accord.to SANS     | R375,000        |
| Eatery / Dinning area           | 60                  | 1  | 50                 | R398,456        |
| Training and skills workshops   | 50                  | 1  | 50                 | R346,150        |
| Dance Hall                      | 100                 | 1  | 100                | R1 120 100      |
| Library                         | 40                  | 1  | 100                | R333,800        |
| Staff room                      | 30                  | 2  | 25                 | R468,000        |
| Charity drive storage room      | 40                  | 1  | 1                  | R288,000        |
| Recycle room                    | 30                  | 1  | 1                  | R192,000        |
| Delivery area and storage       | 30                  | 3  | 20                 | R192,000        |
| Parking                         | 25                  | 1  | According. to SANS | R1 200 000      |
| Waste removal area              | 40                  | 1  | 40                 | R240,000        |
| Totals                          | 1745 m <sup>2</sup> | 56 |                    | R18 741 371     |

\* Cost estimation as per building cost guideline March 2022.

**Figure 69.** Author (2022), Programme, and cost estimation.

Project fee= Primary + Secondary fee

R1 359 237,34 +9,09% (R18 741 371-  
R13 000 001,000)

R 1 359 237,34+9,09 (5 741 370)

R 1 881 127.873

\*Note-In accordance with medium complex project calculations.

### 7.2.2.1 Design considerations

The issue of public safety should be addressed in preparation for the building process and when it commences function. Additional measures should be applied in protecting the users and the environment due to estimated high occupancy and concentration.

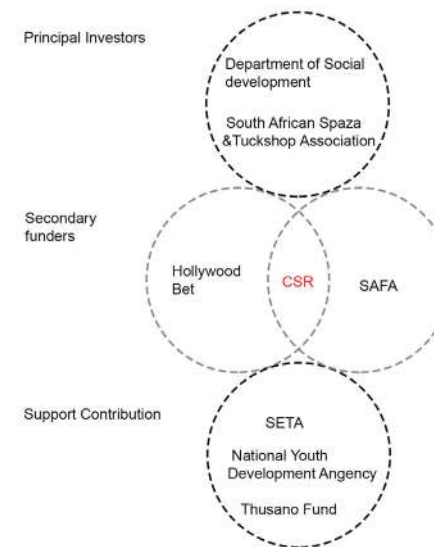
### 7.2.2.2 Financial considerations

By the building cost estimation and project fees evaluation above mentioned, measures for cost productivity should be considered. It can be evaluated through building systems, sites, and capital models. The systems and technologies invested in this infrastructure are self-generative and eliminate operational costs.

The constant use of them brings revenue, taking into consideration that this is state-owned infrastructure and the site, and land costs are withdrawn.

### 7.2.3 Proposed financial model

The financial model of this project is divided into a principal investment, CSR, and subsidized funding. The principal investors are the main stakeholders of the project, whose focus is on the maintenance and daily operations of the buildings. The subsidized funders are funding designated operations as means of financial support according to their policies.



**Figure 70.** Author (2022), This diagram shows the hierarchy and financial model of the project.

### 7.2.3.1 Principal investors

- Department of Social Development

The Department of Social development is one of the principal investors, its capital is responsible for all sets of services and the sustainability of the building. By the PPP legislation, as majority shareholders, they are responsible to manage financial risks and securing returns for investors.

- South African Spaza and Tuckshop Association (SASTA)

The SASTA is an equal partnership with the department of social development, and they have the same responsibilities. Although operations of commercial and business sectors will be the primary responsibility of the SASTA in ensuring that it meets the primary goal of business developments.

### 7.2.3.2 CSR sponsorship

- Hollywood Bet programme

The Hollywood programme will sponsor all community initiatives that the project proposes from drives, events, and marketing. These initiatives are all around from recreational, education, trade, sport, art, local food bank, and health.

- South African Football Association (SAFA)

The South African Football Association proposes sponsorship to accommodate all sport-related operations and events. Its role is to make sure that sports facilities are well-maintained and accessible to everyone in the community.

### 7.2.3.3 Subsidized funders

- Sector Education and Training Authority (SETA)

This funding will offer financial support for all facilities that promote education and skill development to upskill people.

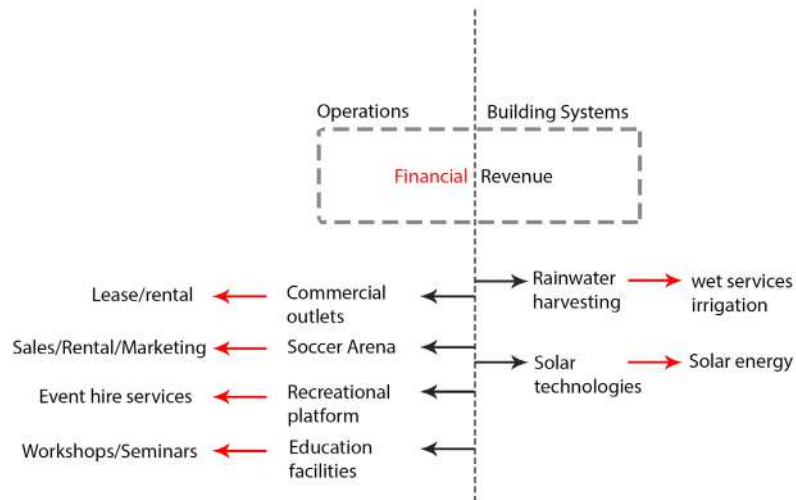
- National Youth Development Agency (NYDA)

This funding will offer financial support to individuals who want a start-up for businesses that will be operated in the facility's business incubators.

- Thusano Fund

This funding will offer financial support/grants for educational and business proposals, that set people's business ideas. Together with the NYDA, provides financial start-ups for unemployed individuals.

## 7.2.4 Infrastructure revenue

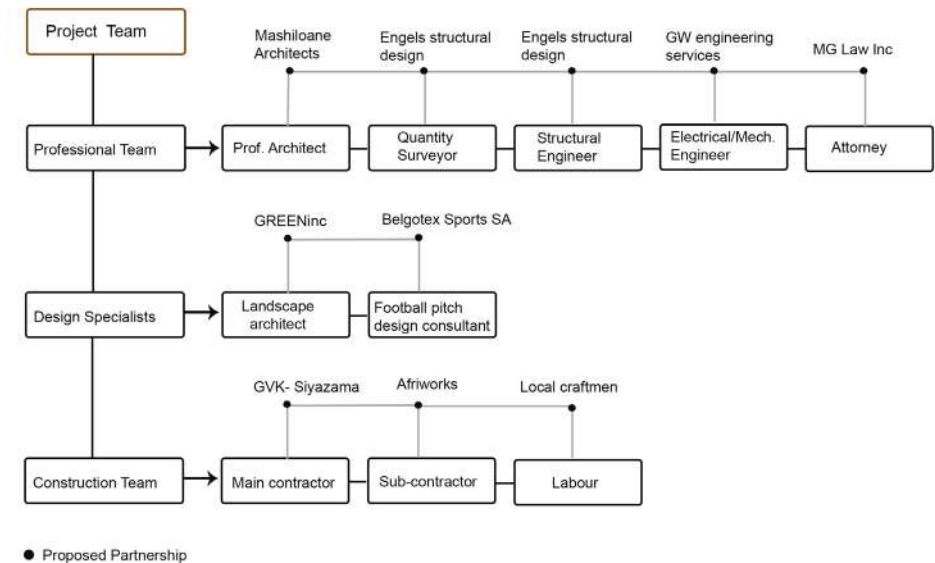


**Figure 71.** Projects financial revenue from operations and systems diagram.

The project’s revenue is generated through three functions, commercial, education, and recreation. A high concentration of public function capacitates active use of recreational spaces and functions. Therefore, revenue for this project will be through the constant use of programmes like the soccer arena, dance hall, and multipurpose space that accommodate a significant number of users. This also promotes income from branding entities, mainly support and its spatial capacity, lease, and ticket transactions. Regarding the commercial sector, rentable spaces are to be leased while providing informal traders a secure area for trade to provide a balance of giving and take.

In addition, that relationship with local suppliers through our educational function, allows them to enroll their unskilled workers to acquire skills.

## 7.2.5 Professional Team



**Figure 72.** Author (2022), Professional team diagram.

- Architect-The role of the architect as a principal consultant is to oversee the overall building process and documentation about other consultants that will be part of the project.
- Engineers-Engineers specialists in their respective fields will analyze and conform with documentation from the architect to ensure that design drawings are in proper coordination.
- Quantity surveyor-The quantity surveyor will prepare cost estimations and provide advice regarding budget constraints and project costs.
- Contractor- A contractor is employed to implement and oversee the construction phase of the project. This is in planning, supervising, and assuring we have an adequate labour force.
- Sub-contractor-They is employed to be part of a project to execute a job they are appointed for.

### 7.2.5.1 Specialists'

- Landscape architects are needed for services for the redesigning of the undeveloped public park and landscapes in the building.
- The Football pitch design consultants will oversee and plan the installation, irrigation, and drainage system of the soccer pitch.
- Afriworks is a skilled training and development provider, that in this proposal is employed to train and supervise local craftsmen to acquire the necessary skills. This is an account that both skilled and unskilled laborers will be part of the construction team and phase.

### 7.2.5.2 Procurement

This project will be implemented and managed with a traditional led contract that follows a process of three stages design, tender, and build. The client has the privilege to oversee the building process of the project in consultation with the architect. The tender procedure applied is a selective tender process based on the social and environmental complexity of this project. High-quality work is essential and minimal risk selection is recommended considering that we are introducing a transformative scheme; in communities where resonance and culture are important, therefore execution and planning conform to exceptional standards.

### 7.2.6 Site

The site is in Katlehong Township, Southeast of Johannesburg, classified as one of the biggest townships in South Africa. Site selection is influenced by location and existing synergies. It is situated at the intersection of two major transportation routes that connect to other major townships and it's parallel to a commercial high-street. It is an appropriate site for the proposed design because of existing synergies like informal taxi ranks, informal trade, and health services.

| Site information                   | Site Rights /Restriction          |
|------------------------------------|-----------------------------------|
| - Site- Somhlolo ground, Katlehong | - Height- Two Storey              |
| - ERF-291/259                      | - Zoning-Accord. to zoning rights |
| - Zoning-Social Services/Public    | - Require approved authorization  |
| - Area-31.412 sqm                  | - Site boundaries adherence       |
| - FAR-n/a                          | - Public and Private projection   |

**Figure 73.** Author (2022), Site Information.

#### 7.2.6.1 Procedures

The utilization of public spaces as part of the development scheme of a design proposal requires procedural applications because of state ownership. The application must be directed to the department of public works and infrastructure: regional development spatial framework to assist with environmental and social assessments to check the compliance of the design. The application must contain all data that has been collected in the preliminary stage of the project to motivate why this concept should be approved.

## 7.2.7 Design Approach- Sustainability & Materiality

This project aims to ensure that building systems are durable and cost-effective and respond to harmful effects by applying sustainable strategies to the environment by promoting health and safety. Considering that this is public, so high concentration is expected, therefore the building performance is effective for the thermal comfort of the occupants.

### 7.2.7.1.1 Sustainability

Implementation of public infrastructure is expensive and in current times we use sustainable systems as a response to financial, design viability, and energy efficiency. The design systems proposed are water collections system and solar energy consumption. The rainwater harvesting system is to service sanitary and irrigation systems in the building. It will harvest water through wet systems that operate with downpipes, gutters, and underground collection piping with an installed tank. The rainwater collected will be stored in tanks through underground pipes and will flow vertically to building and irrigation systems. The water inflow will be limited to sewage and disposal systems and shall not be accessible for public drinking that comprises health. An assessment will be done to evaluate rainwater falls and site conditions to test competency. This will be beneficial for irrigation, especially in terms of proposed programmes that need constant water maintenance like the designed landscape and foot-

ball pitch. It gives money set for services like that to be invested in other functions of the buildings while promoting sustainability. The other primary factor when dealing with commercial buildings is energy and electrical consumption. Solar energy is an ideal response to minimize costs for electrical consumption and to function as a support source for electrical supply. Solar panels are cost-effective, pollution free, and renewable for clean power supply and they return investment through energy generation. It is a proper response for maintaining balance for users' comfort through form and function elements. We are in a time when architecture needs technology to reduce the impact of CO2 emission gases. Solar panels are part of the components the building will utilize for zero emissions. Therefore, mono-percium solar panels are recommended for their specification of highly intensive power and are efficient for big infrastructures.

### 7.2.7.1.2 Materiality & construction methodologies

The availability of locally sourced materials and access permits financial sustainability. The quality has proven to be durable and has a long-term effect. Hence it is preferable because it is cost and time efficient. In consideration of low transportation costs and immediate delivery. It will be integrated with other materials from specialized suppliers due to the performance standards required. It is important from the initial design stage that materials will be sourced locally in terms of the procurement process to avoidance of resource limitations. Considering the project’s main material, masonry is accessible from local suppliers. It reinforces the building concepts of forming a local partnership to help them grow. it is a give-and-take partnership where they supply the infrastructure in return it will serve and benefit them.

Clay bricks are a preferable choice, and it is attainable from local suppliers. They are durable, energy-efficient, fire-resistant, eco-friendly, and durable bricks. They also have acoustic qualities, which are important for this project, considering the division of public and private programmes. The noise level needs to be maintained through architectural components to allow users to be free in recreational areas. It is a cost-effective material that doesn’t require maintenance and has a long lifespan.

The flat slab construction methodology is recommended for this project. Reasoning, the scheme of this design needs flexibility regarding volumetric heights and aesthetics. The building is two stories high, which makes it cost-effective, and it’s quickly constructed. The floor system enables the installation of rainwater harvesting or any service pipes, which can be exposed or concealed depending on the floor depth. In consideration that this is public infrastructure, fire protection is important, and it’s the best system for fire resistance and installation of sprinklers.

## 7.2.8 Implementation

This project will divide into two primary phases, phases 1 and 2.

- Phase 1- Design consideration and assessments

Social and environmental impact assessment, analysis of social and environmental aspects influencing design considerations.

This enables consideration for proper landscape development and suitable irrigation systems installed to service the park and the pitch.

- Phase 2- The Building phase

The tender procedure is completed, and the main contractor is appointed. This phase is where the contractor will work according to the schemes and designated timeframe unless unforeseen circumstances occur. This is to ensure administration of the building process is on record and accordingly.

### 7.2.8.1 Work stages

Stage1- Preliminary concept evaluation

- Preparation of viability and feasibility report to explore the project’s potential through cost budgets, clients, technologies, and systems. Drafting potential partnerships and consultants that will be beneficial for the project.
- Contextual Analysis to record data about the site, exploring

- environmental aspects and ethnographic data about people in the area. Social impact assessment is important, especially for a public building that works with people.

Stage 2-Concept & Viability

- Preparation of a revised viability study, projects costs and concluding it to move to the next stage.
- Preparation of design concept and consideration of materials and technologies to be used.

Stage 3-Design Development

- Preparation of detailed design drawings and consultations with proposed partners(consultants) of the project team to fast-track the design process.

Stage 4-Documentation & Procurement

- The application for site rights to the department of public works and infrastructure and regional spatial development framework to obtain authorization for the public space project scheme.
- Preparation and revision of working drawings and council that will be evaluated by the structural engineer to check for proper coordination for council submission awaiting approval.

Then we can make a provisional arrangement with the contractor awaiting approval to start working once the drawing is approved.

- Joint Building Contracts committee agreement between the client and the contractor.

#### Stage 5- Construction

- At this stage we will be doing site visits to check building processes match contract documentation and address any challenges that may arise during this phase. This includes tracking finances, should there be any operational extra charges, they need to comply with the contract regulations.

#### Stage 6- Close-out

- -This is the final stage when we going to hand over the project to the client.

### 7.3.Sketch charrette



Figure 74 . Author (2022), Sketch charrette display board.

The sketch charrette exploration consists of two primary materials, bubblegum, and green bar soap that were used for experimentation of soft and hard morphology through processes of stacking, deconstruction, burning, molding and freezing phases. The purpose of this exploration is to understand the thesis subject of spaza shops and informality through experiments that define the architectural qualities of design development. Both materials were chosen because they resonate with the township's daily life through their usage for multiple functions and trademarks. Considering that Chappies bubblegum is a representation of micro-scaled business and its hidden value in society. The green bar soap in townships is used for everything from cleaning, bathing, and washing clothes and cars.

The initial phase of the experiment was through a stacking and burning process, between two proposed materials to explore the elasticity of the bubblegum on the hard material surface of the soap.



**Figure 75.** Author (2022), Stacking phase.

The burning phase of the experiment was explored with multiple bubblegums placed on one bar of green soap. The heated process melted the bubblegums and permitted the flexibility of me playing with them resulting in the mesh aesthetic. It explored the architectural concept of screening and security derived from the spaza store façade and security bars architecture and related to the façade development of the proposed building. These materials were important for this phase because they have the same qualities but are different aesthetically which created an interesting contrast between soft and hardscapes.



**Figure 76.** Author (2022), Burning phase.



**Figure 77.** Author (2022), Burning phase process.

This phase is the molding and deconstruction phase, which was explored with the outcome experiment from the heating process of the soap and the bubblegum. This phase was exploring the flexibility of combined materials and the observation of increased mass which still allowed elasticity. The experiment was conceptualized by analyzing building systems that can be proposed for design development. Hence the test of soft and hard morphology concepts enabled my thinking about the primary structure, screening, texture, and materials that would be ideal for the context. The deconstruction phase also challenged the potential of the material in observation what is its potential outcome than the result moving into the next phase.



Figure 78. Author (2022), Molding and deconstruction phase.



Figure 79. Author (2022), Molding and deconstruction phase process.

The freezing phase was experimented with mold being set in a freezer to observe how it reacts at a different temperature. The outcome detected was a frozen mold, but the mold being dismantled showed that bubblegum still contained its elasticity, and the soap went to its original state. This outcome showed that soft and hard materials can co-exist. Considering that the design development is about flexibility and enclosure based on how a building can be completely public and have an efficient security system through architecture and function.



Figure 81. Author (2022), Freezing phase.



Figure 80. Author(2022), Freezing phase process.

## 7.4 Design development



The design development section focuses on the concept and the proposed civic infrastructure through conceptual sketches, iterations, and preliminary drawings. The aim is to show the process of designing from conceptual ideas to an actual building and further explorations proposed for the final building submission.

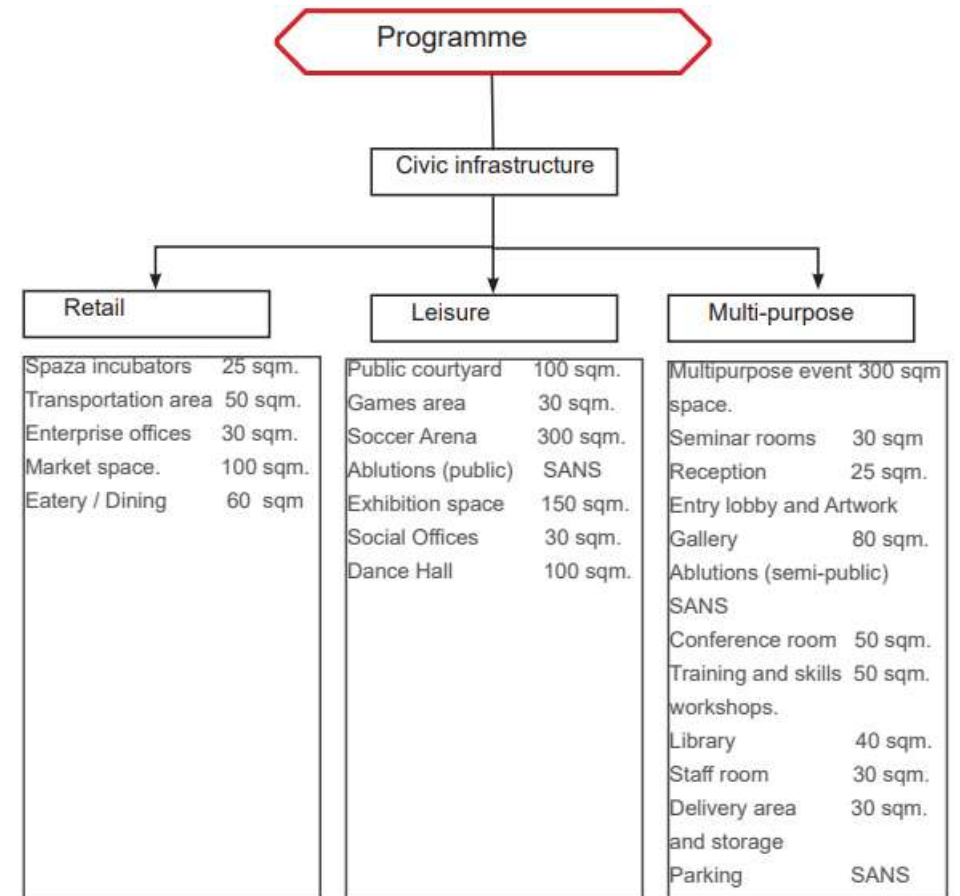
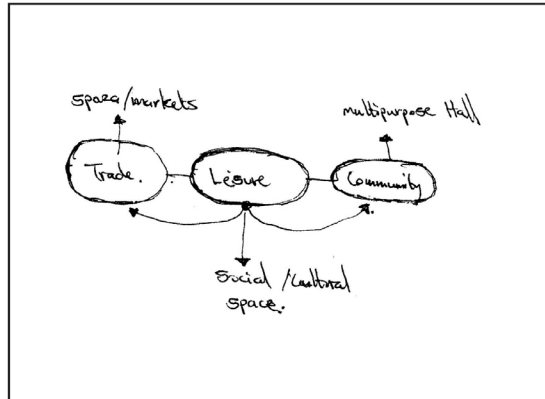
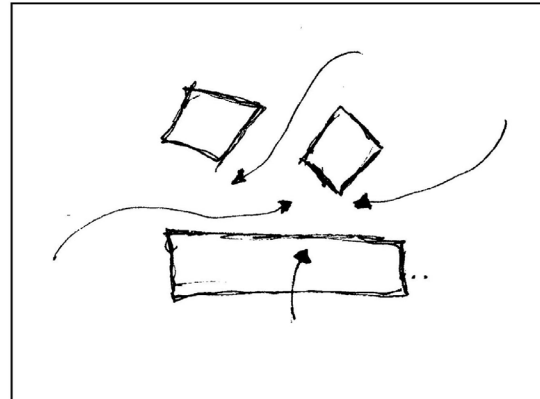


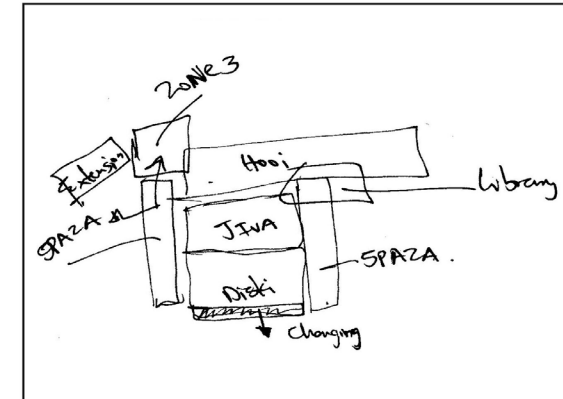
Figure 83. Author (2022), Building programme diagram.



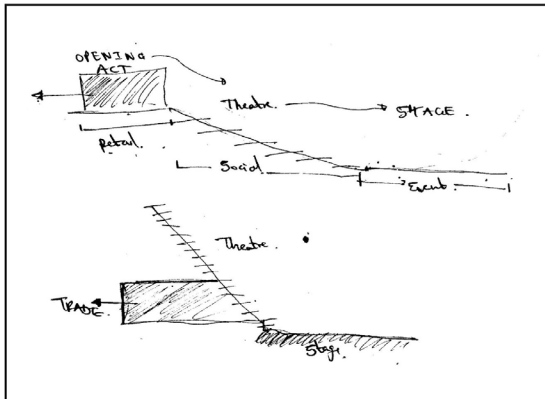
Concept.



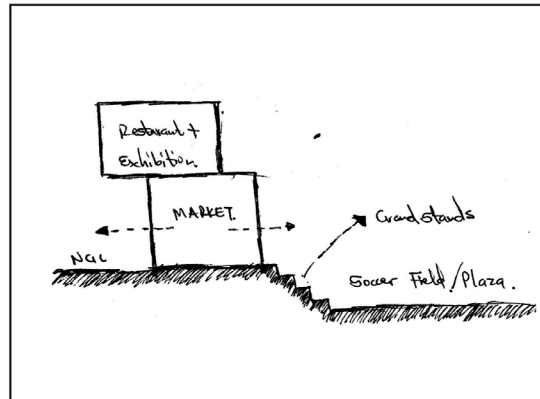
Formation.



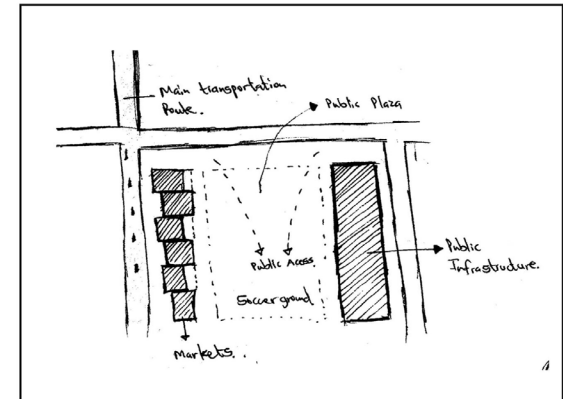
Function.



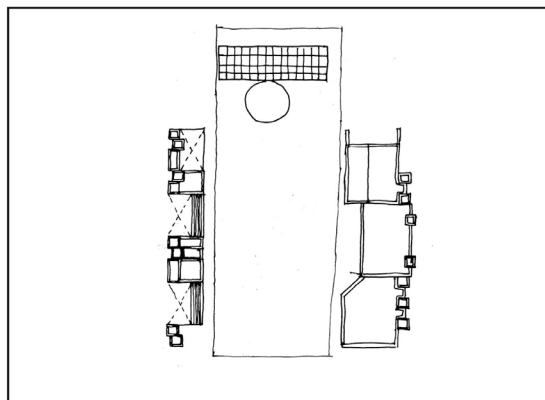
Spaza shop and grandstands exploration.



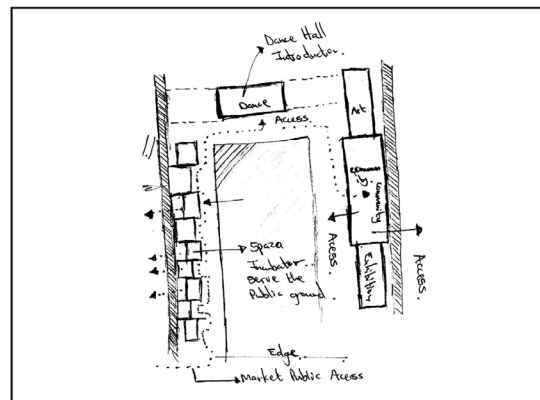
Volume and spatial qualities.



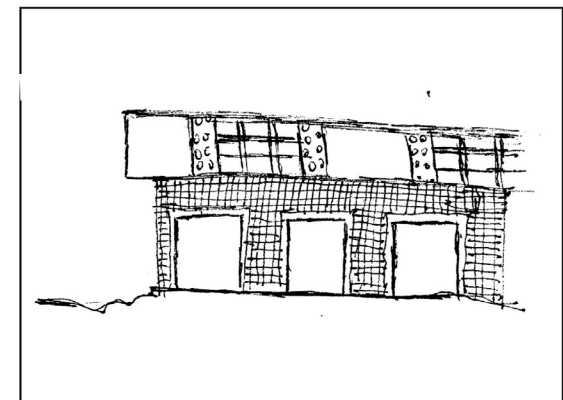
Public vs semi-private.



Conceptual plan.



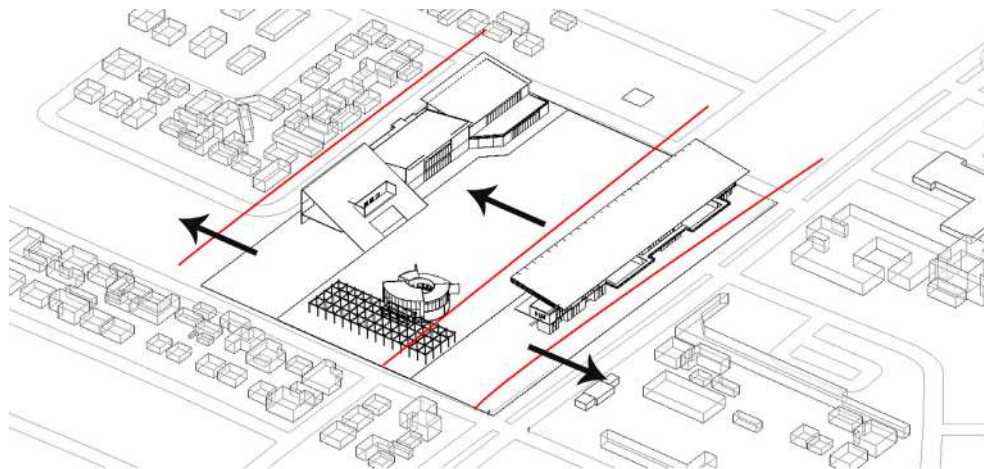
Street edge connection.



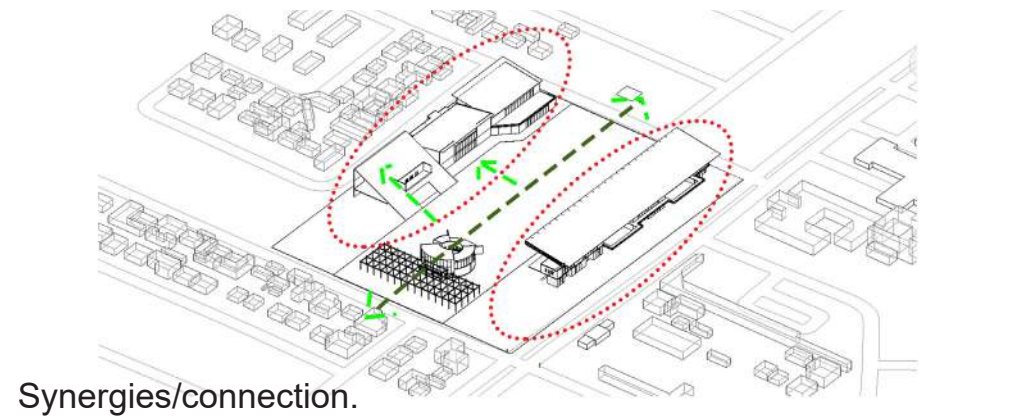
Materiality and texture.

Figure 84. Author (2022), Concept sketches.

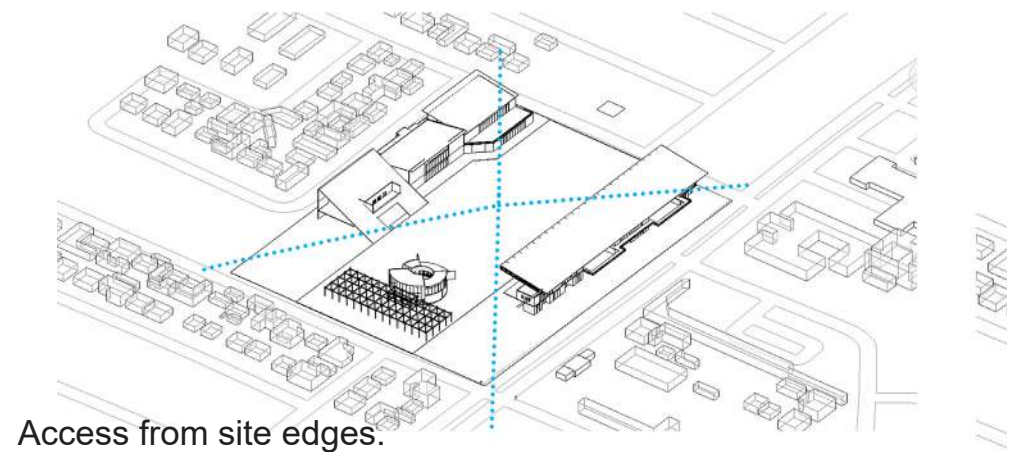
The proposed building is a social infrastructure divided into three building parts, a retail strip, a dance hall, and a multi-purpose center. The dance hall is established as a trademark on site that represents anticipated architecture in townships, rooted in the argument of inadequate social infrastructures in township areas. The retail strip consists of spaza incubators intended to uplift prospective business owners in the community as networking support to existing spaza shops. The retail component is integrated with grandstands for recreational and sports events. The sports field combined with the public plaza functions as a public space that serves the community and has multiple functions besides event hosting. The multi-purpose hall addresses identified issues by providing services needed by the community like workshops and libraries.



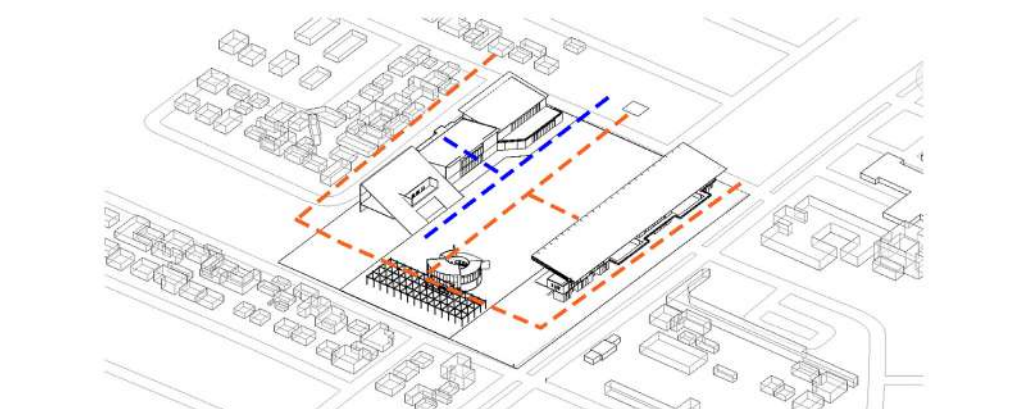
Building function.



Synergies/connection.



Access from site edges.



Circulation.

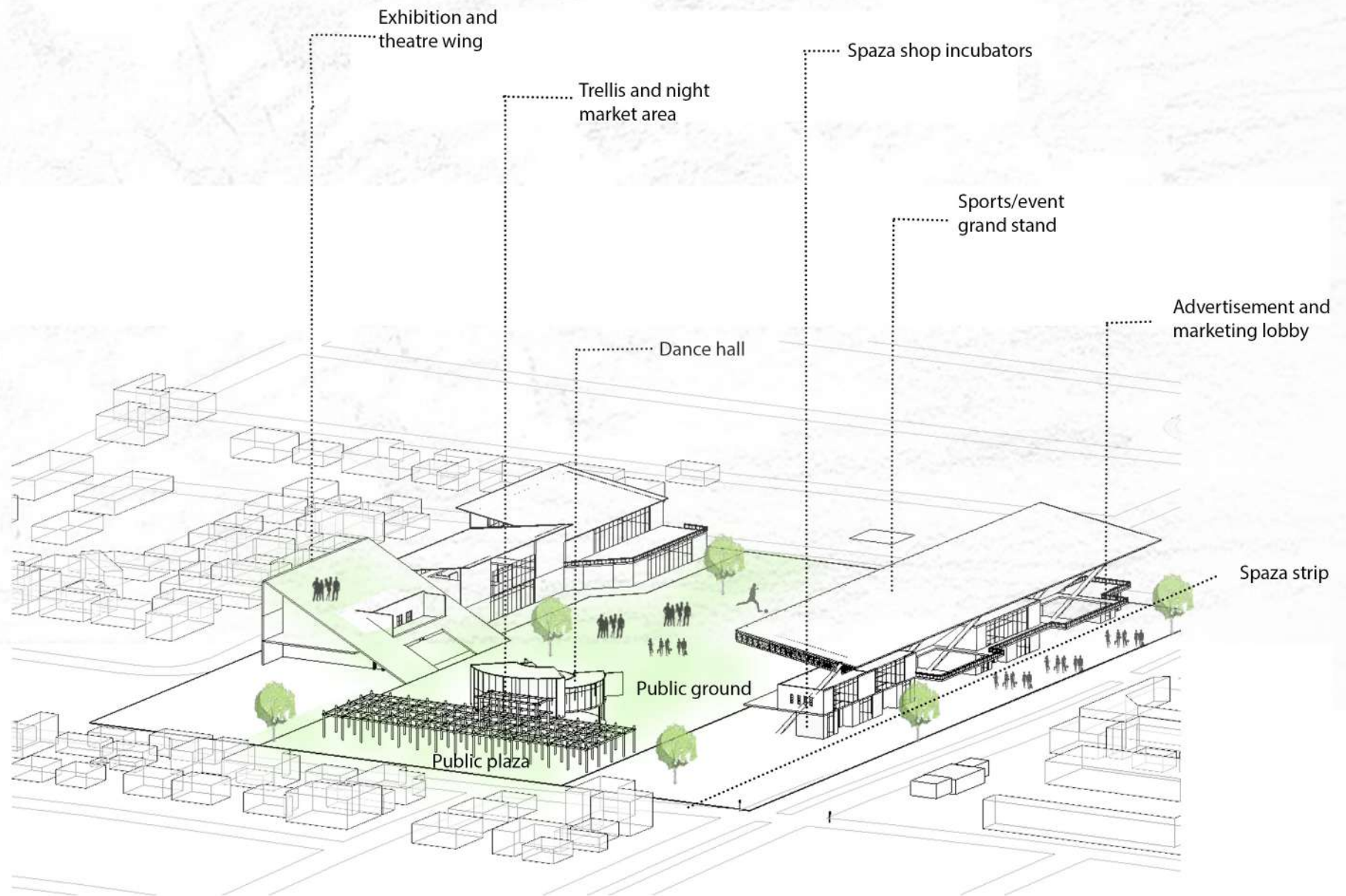


Figure 86. Author (2022), Building Perspective.

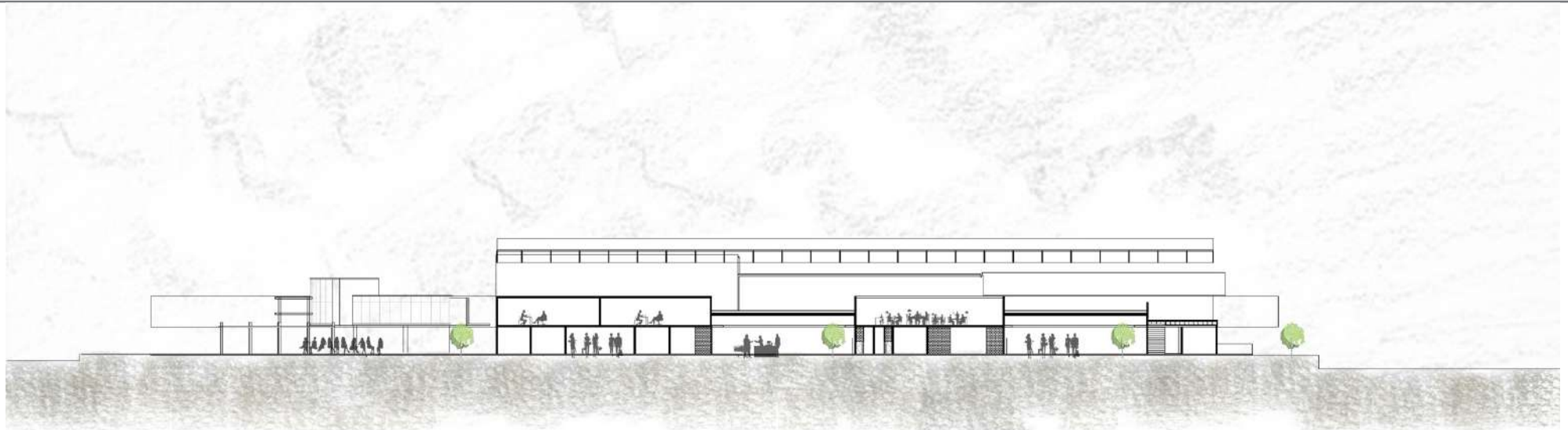


1. Spaza shop incubator.
2. Open market.
3. Grandstand.
4. Sports/event/public ground.
5. Multi-purpose hall.
6. Entrance lobby.
7. Exhibition wing.
8. Theatre
9. Dance hall
10. Public plaza

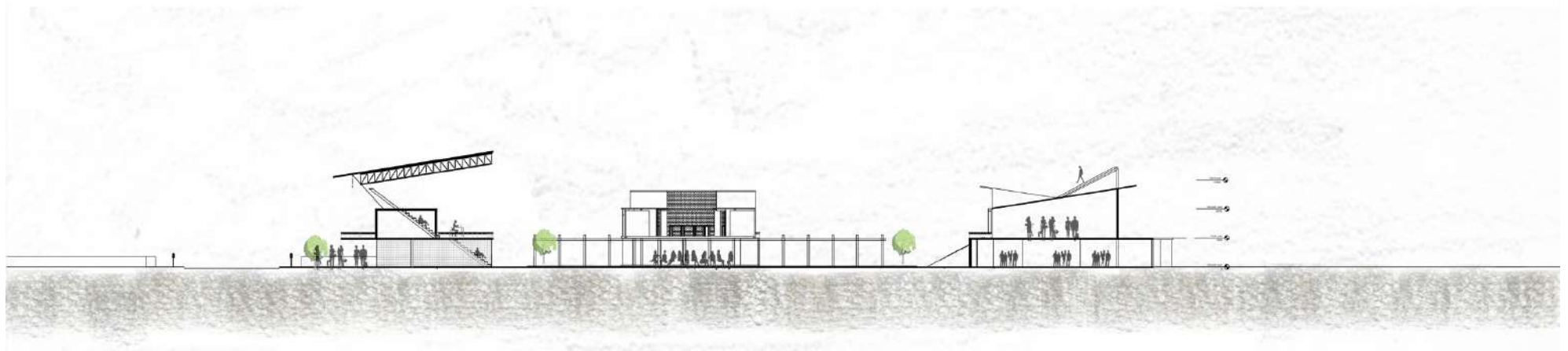


Ground Plan  
1:200

Figure 87. Author (2022), Building floor plan.

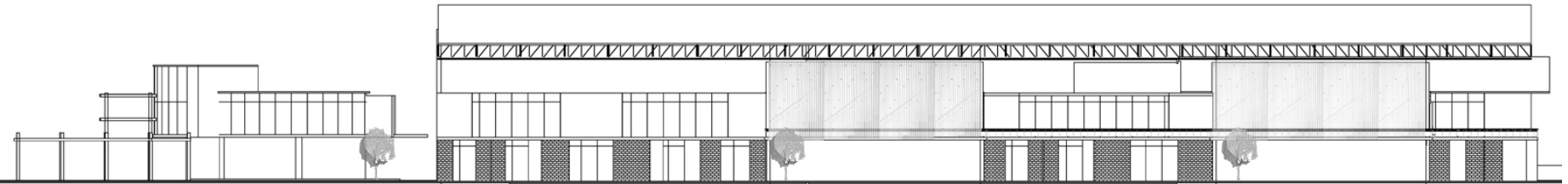


Section B-B  
1:100

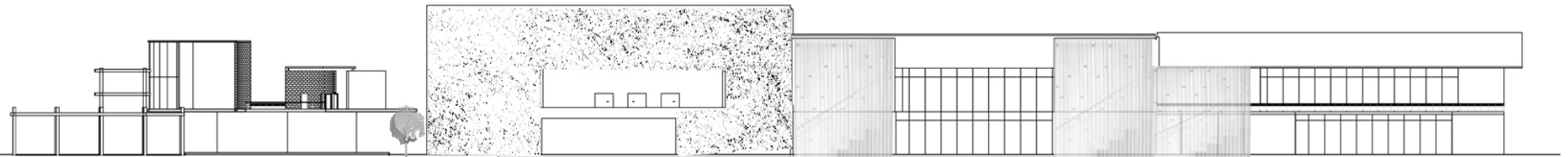


Section A-A  
1:100

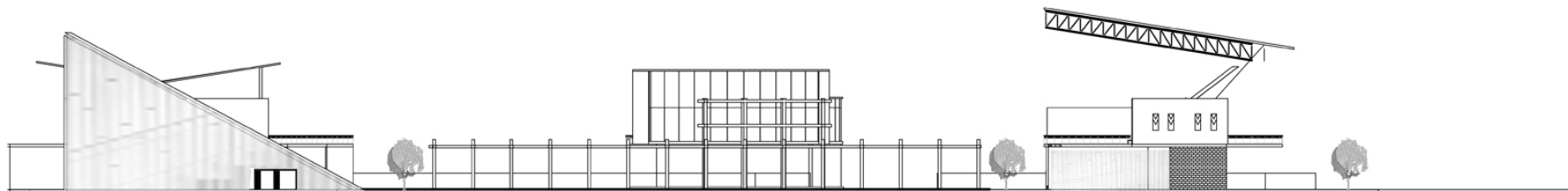
**Figure 88.** Author (2022), Building sections



Elevation 1  
1:100

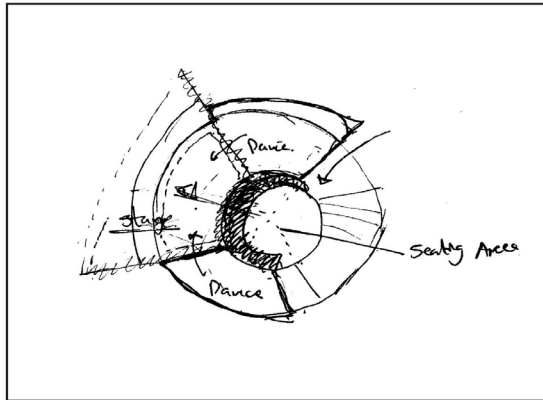


Elevation 2  
1:100

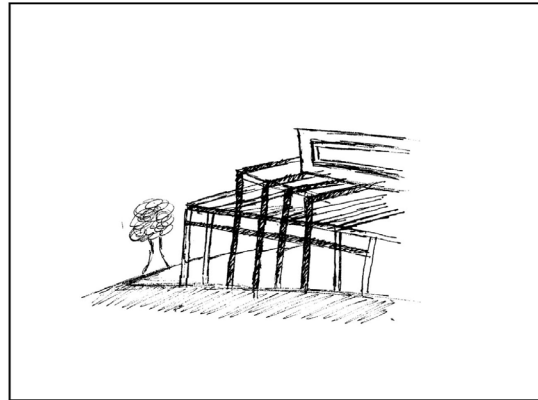


Elevation 3  
1:100

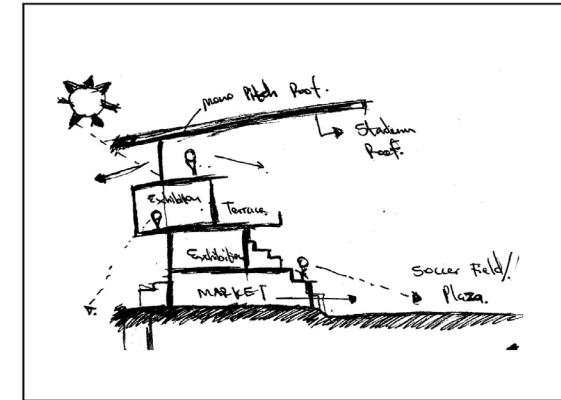
Figure 89. Author (2022), Building elevations



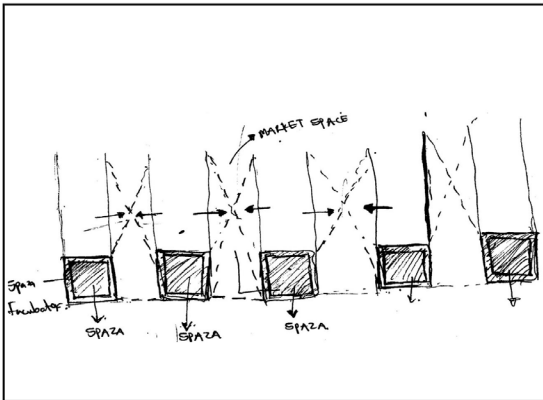
Dance hall as a trademark.



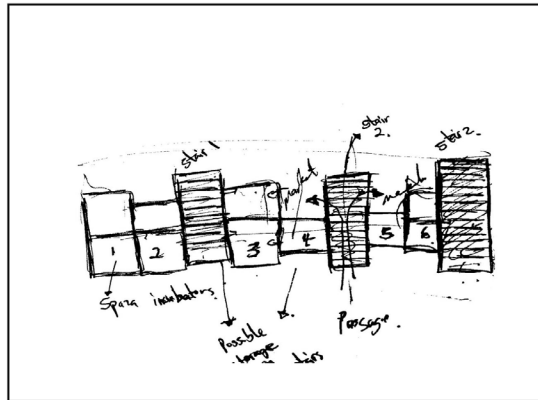
Trellis design for multi-function.



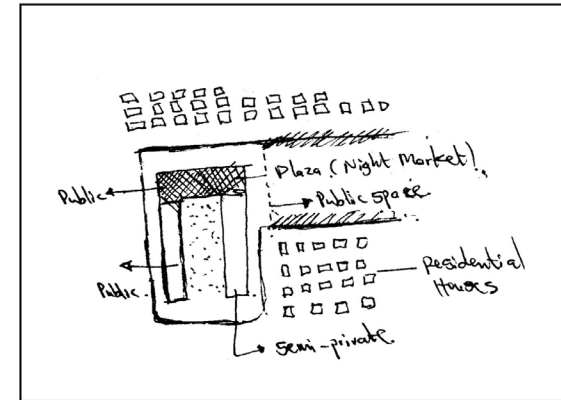
Spaza section iteration.



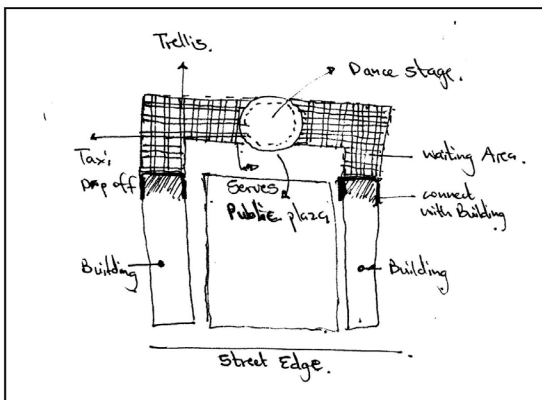
Proposed market thresholds.



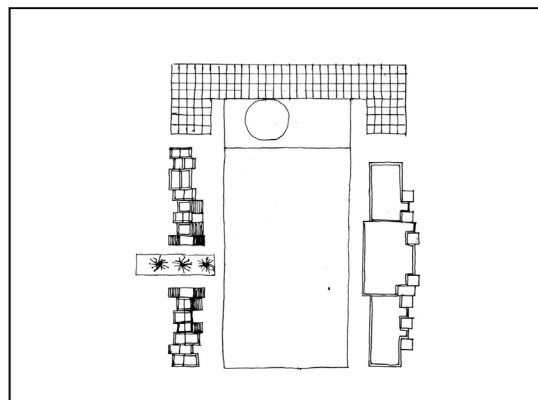
Introduction of stairwells for grandstand access.



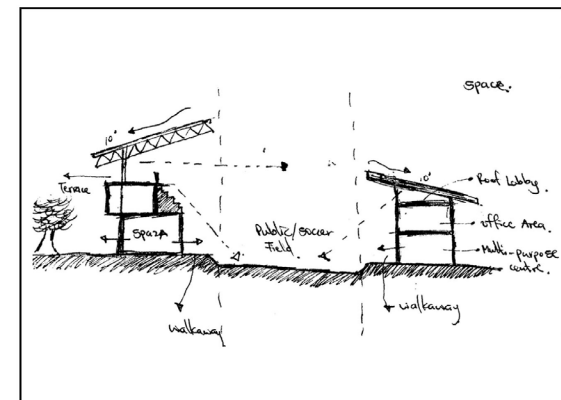
Context and building connection.



Trellis extended to building edges.



Revised ground floor plan.



Introduction of the mono-pitch roof to the adjacent building.

Figure 90. Author (2022), Alterations concept sketches.

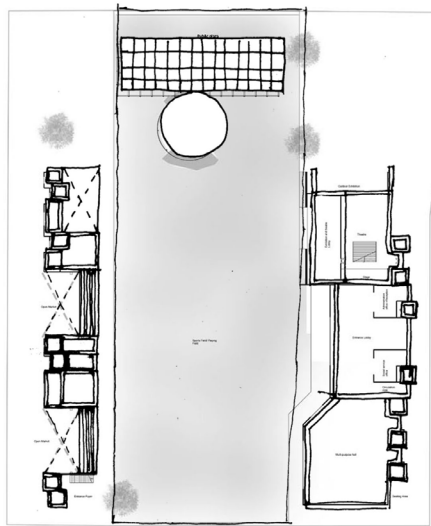


Figure 91. Author (2022), Initial building floor plan.

The building has changed from its initial design, whereby the retail strip is now divided into two parts, interlinked by a market threshold and two stairwells that provide access to grandstands. The green strip in between the market area serves as an extension of the sports and event field that draws people into the public space. Adjacent to the retail strip and grandstand is the multipurpose hall, in which a mono-pitch roof was introduced to complement the stadium roof that is used for the grandstand and functions as a terrace area for people from the multi-purpose hall. The design will be further explored to conclude the proposed scheme through design and technical iterations for the final building.

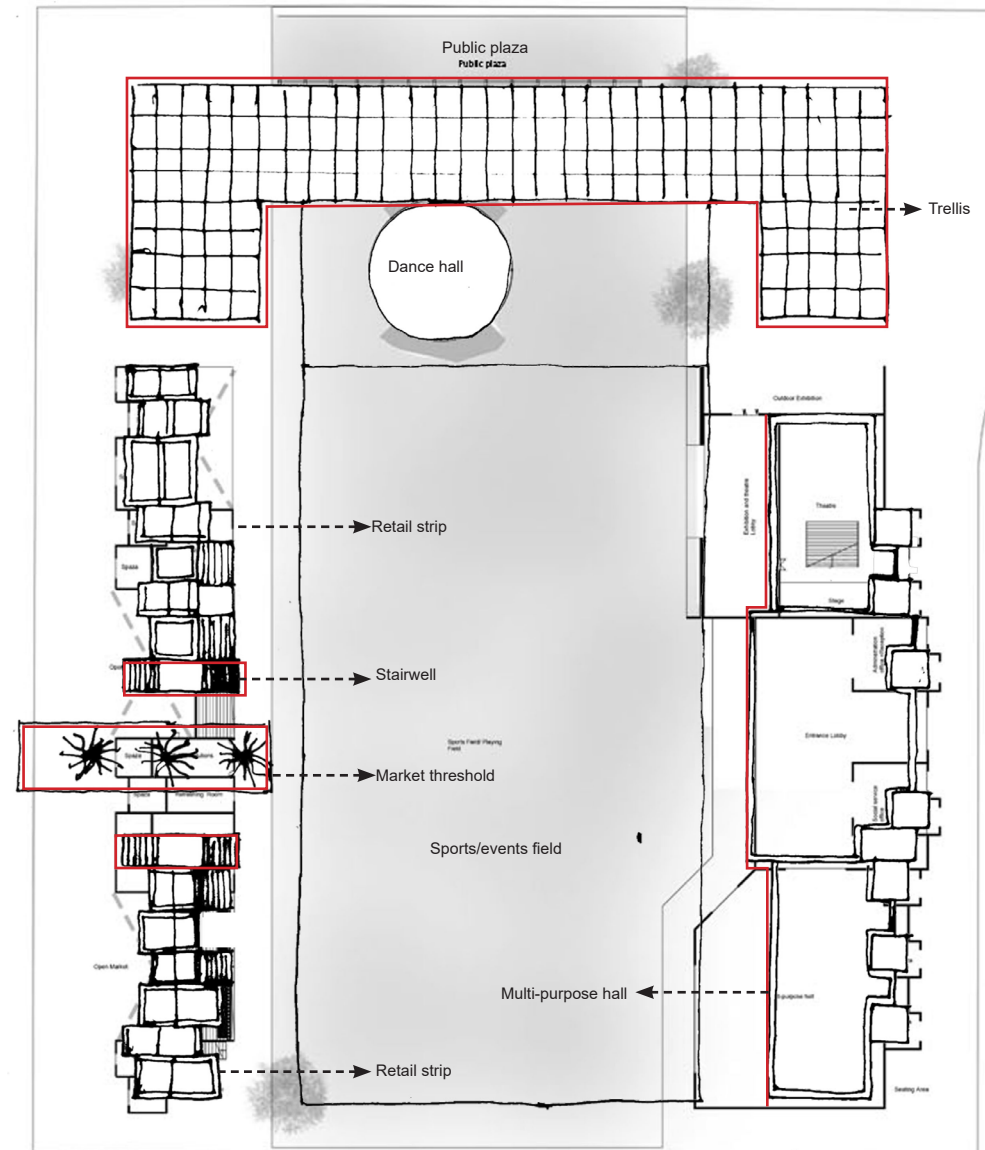


Figure 92. Author (2022), Revised building floorplan.

Iterations

# Technical Systems

08

## 8.1 Technical systems development

The proposed building is designed with a range of building systems, from concrete construction, brickwork (cavity wall), steel construction, and metal screening system. These systems are selected based on performance, building typology, and the design concept. The design development intends to resonate with context through materiality and function by introducing contemporary systems that represent change and sustainability in township architecture. Considering that this is public infrastructure, architectural considerations are important as its technical proficiency for building performance and context.

Concrete is a primary material used for the overall building structure and it is explored through beam and slab construction and blade walls that support the custom roof design structure. The structure is good for a high active-use building, being to withstand the dead and live loads. The structure is cost-efficient considering the scale of the project and allows flexibility of other materials to be integrated within the overall structure. Concrete structures can deal with solar radiation and water absorption, which are factors that can affect material properties and structural competence (Darwin D, 2016). The blade wall system is good in withstanding dead and live loads of the building, considering that it supports the weight of the structure and roofing while its surface can be used for functions like exhibition

and advertising spaces. The building is constructed with cavity walls, a secondary building system determined by architectural factors, such as efficient sound insulation, reduction in heat transmission, and economic viability. They are standardized for good fire resistance and thermal properties, which promote a sustainable building system in the built environment (DP, et al., 2001). The bricks will be locally sourced in response to uplifting businesses in the area, with test quality for efficient building production. The concept of using brickwork as a building material is because it relates to township houses, as a majority are constructed with brick. The bricks being clay bricks have proven to be efficient because of their durability, fire resistance, and energy efficiency which is important for the building performance in terms of structure and aesthetics.

The roofs are lightweight steel construction, from a stadium conceptualized roof and a mono-pitch roof that pays homage to the site's primary activity soccer/sport. The roof design allows the contrast of challenging a typical spaza or social infrastructure roof by introducing new structural and schematic elements. The steel roof system is flexible and cooperative with different types of roofing system that permits creative designs, and it is a lightweight construction (DP, et al., 2001).

It permits a sustainable process of material reproduction because steel can be recycled which is cost-effective for construction.

The perforated metal screening material is a diverse material that is lightweight, small in thickness, and rigid. It that is no longer used for aesthetics only but for building performance through ventilation and lighting exploration in the built environment. The material is effective for distinct site temperaments and proved efficient for spatial thermal comfort and ventilation of the building. Its flexible nature is argued in the scope of sustainability because of its material properties excellent for façade development. This screening system permits a variety of materials to be integrated from concrete, brick, and glass, which are common in architecture (V, et al., 2017)The use of a perforated panel system as screening is to allow the play of light from the façade to internal spaces like exhibition areas and restaurants. The concept is derived from materiality that resembles context architecture with a more sophisticated system that represents transformation. The advantage of this system is its function structurally and aesthetically and it is cost-efficient and suitable for South African weather conditions that enable thermal comfort in open and enclosed spaces.



Figure 93. Author (2022), Design floor plan.

The design development is established on a 5000 x 7500 mm structural grid system. The transition from design development to technical exploration is to understand how building systems function concerning concept, structure, and materiality. The floorplan as observed from design to technical development changes because of structural and design iterations that influence the outcome.

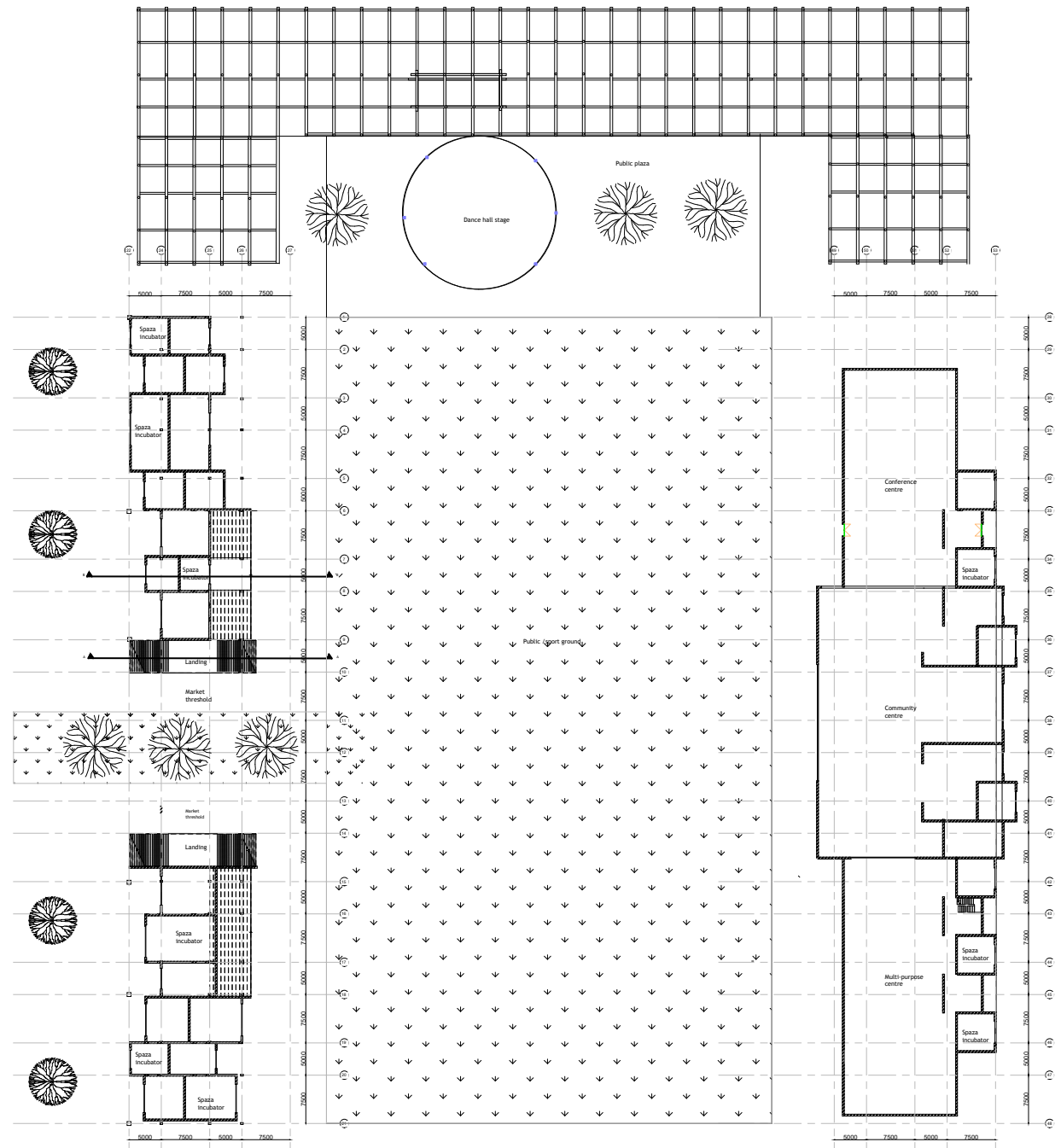


Figure 94. Author (2022), Ground floor plan



Corrugated roof  
sheeting.



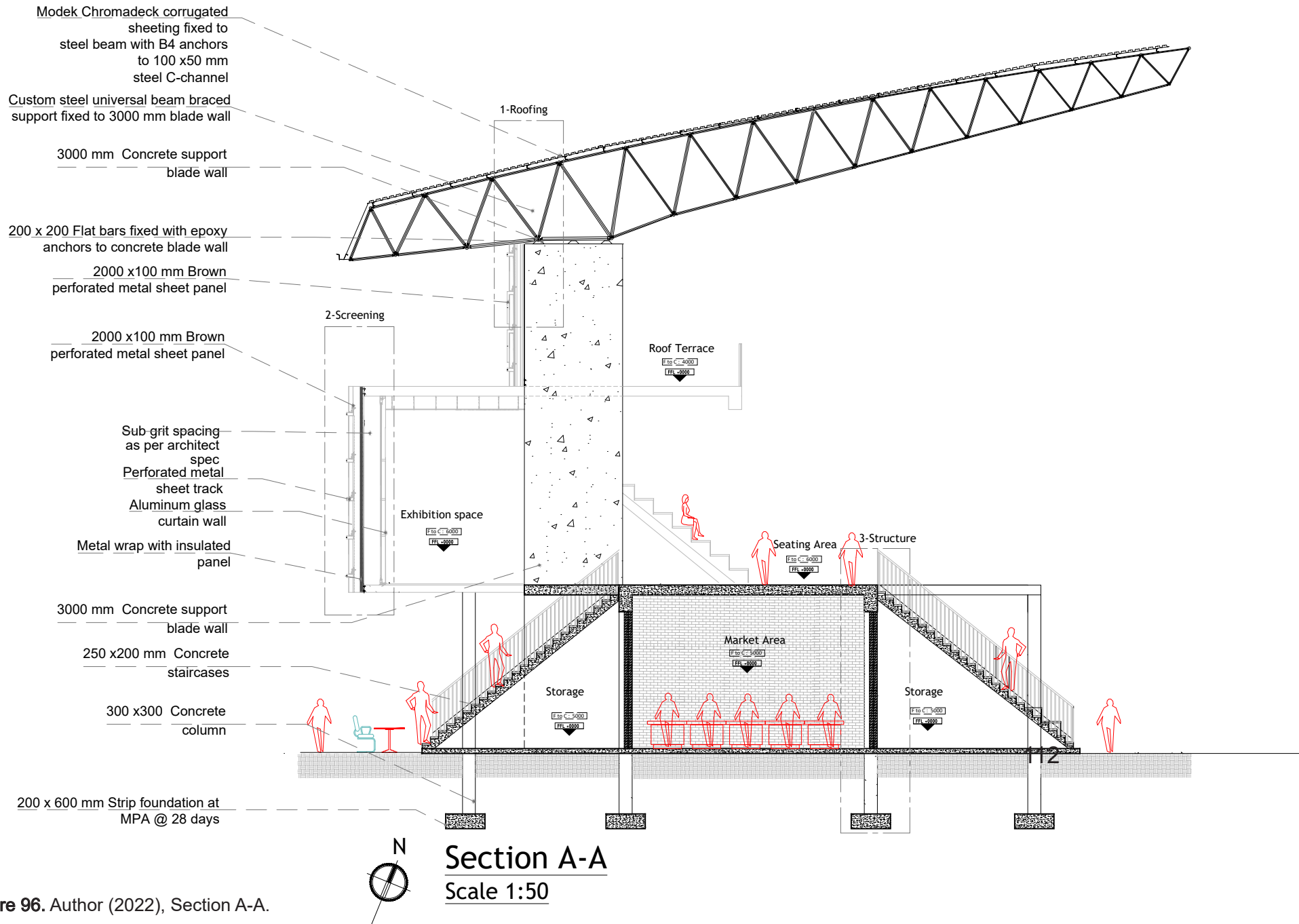


Figure 96. Author (2022), Section A-A.

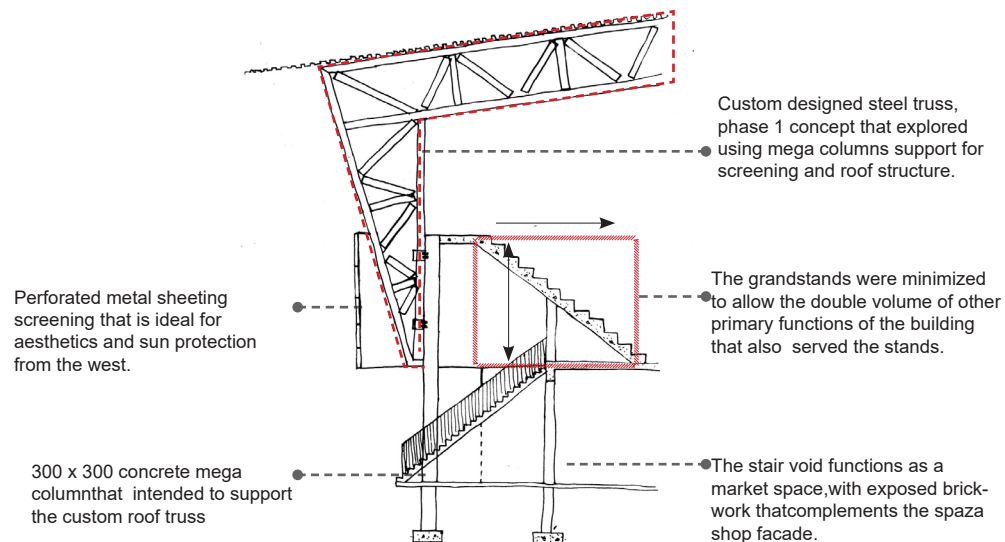


Figure 97. Author (2022), Initial technical system concept sketch.

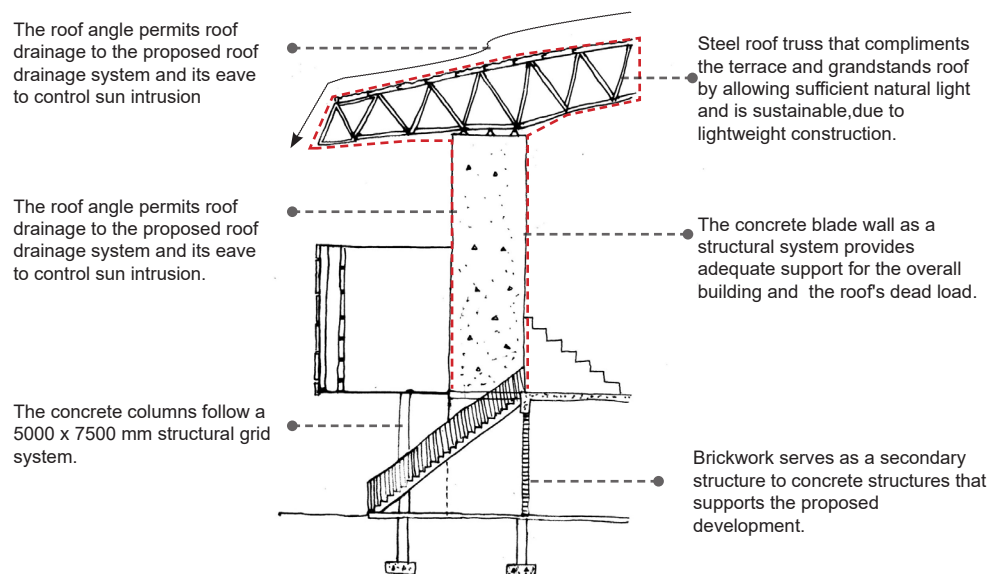


Figure 98. Author (2022), Proposed technical system concept sketch.

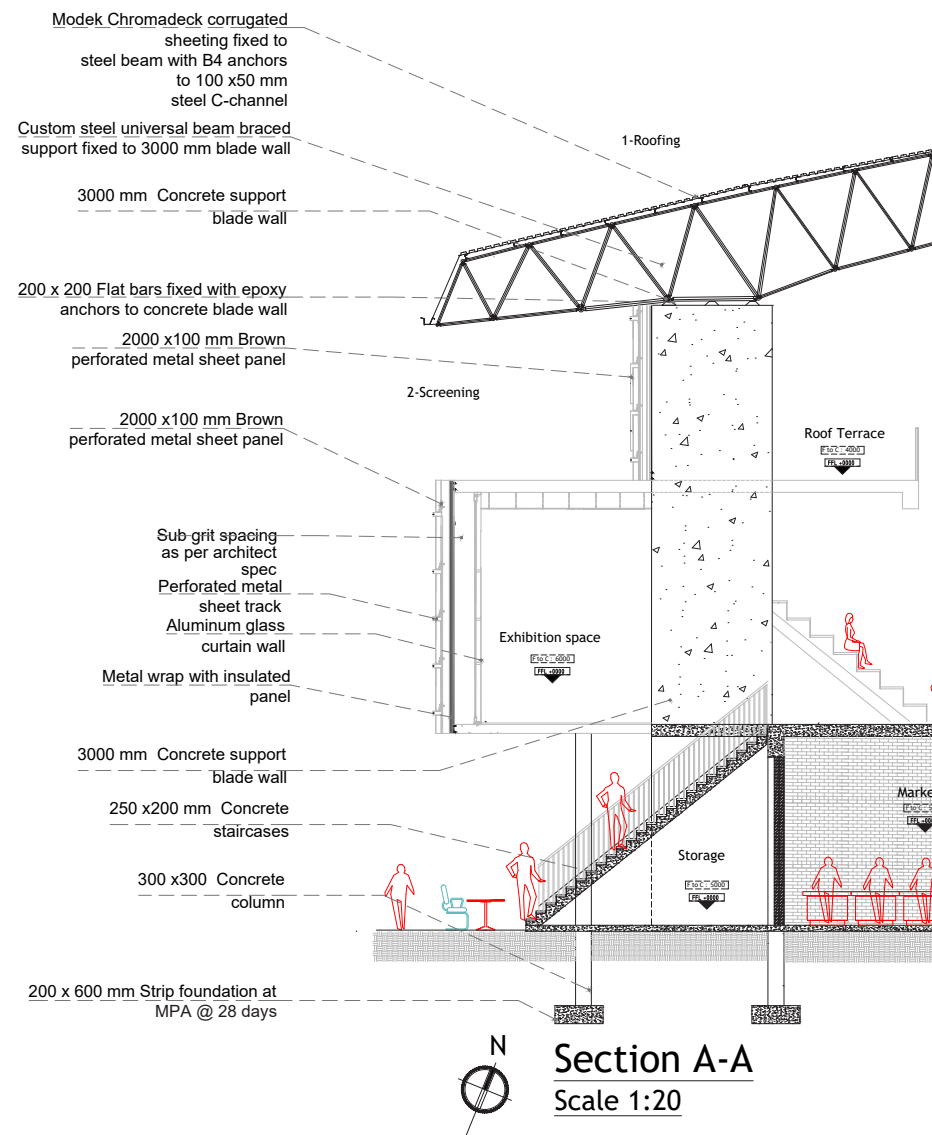
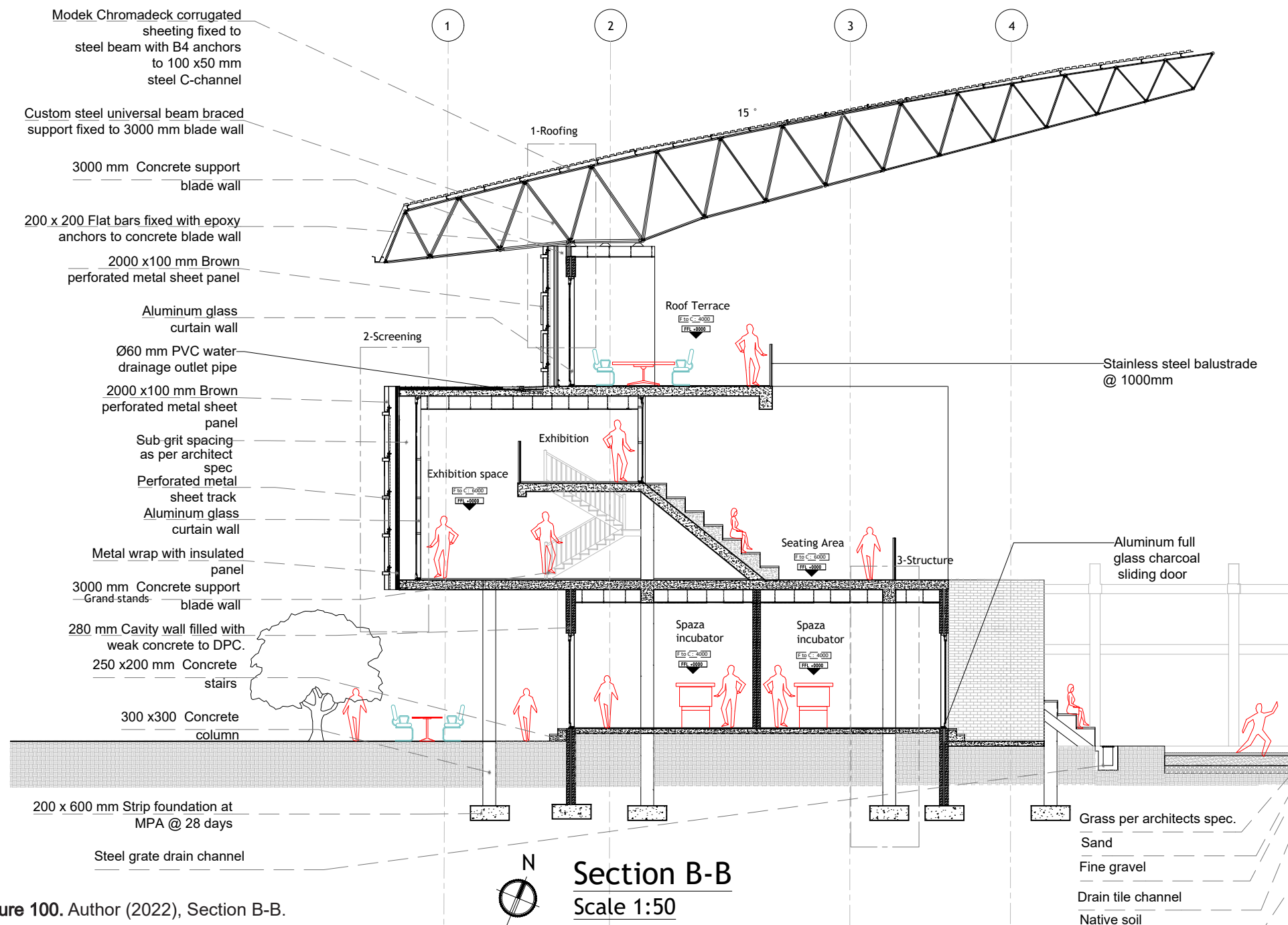


Figure 99. Author (2022), Section A-A perimeter section.



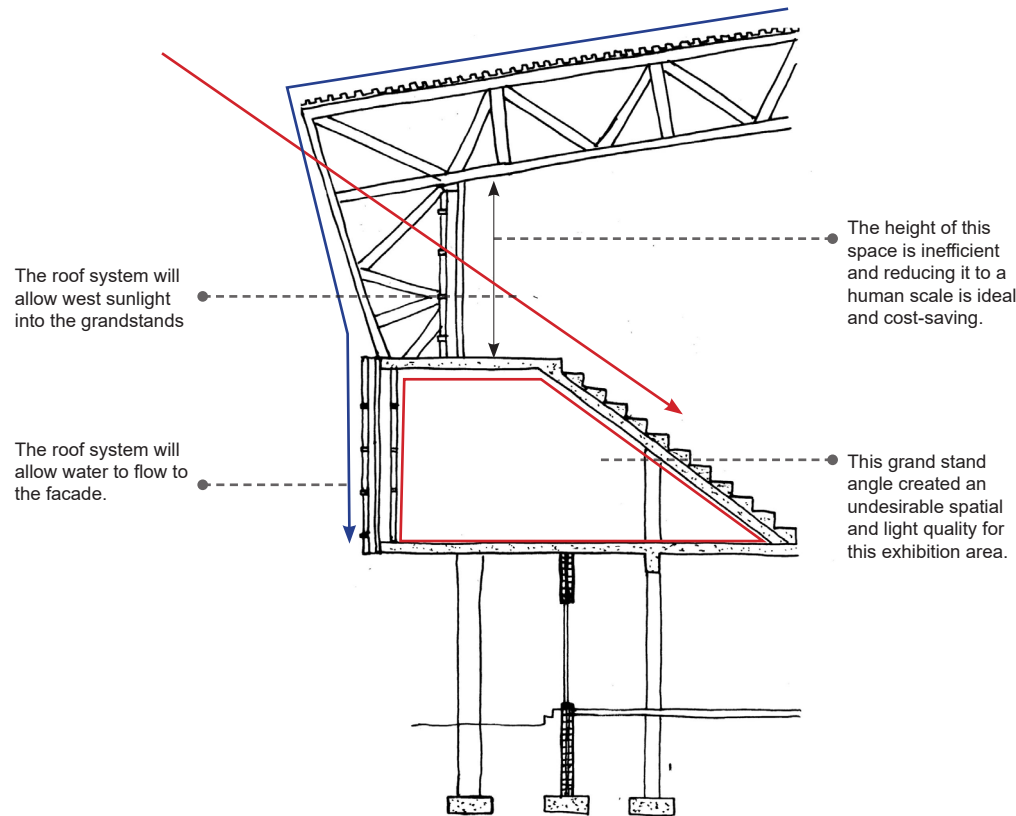


Figure 102. Author (2022), Identified issues in the technical systems concept.

The proposed technical development aligns with the design concept and research and is intended for further exploration for the final design project. The drawings articulate systems that are efficient for the design development through analysis of different structural systems and materiality that exhibit the intention of the building. Considering that it is a public infrastructure with high participation and active usage, structural competency is an important factor to be addressed. The structural issues identified require comprehensive analysis in concluding the final structural outcome of the design development.

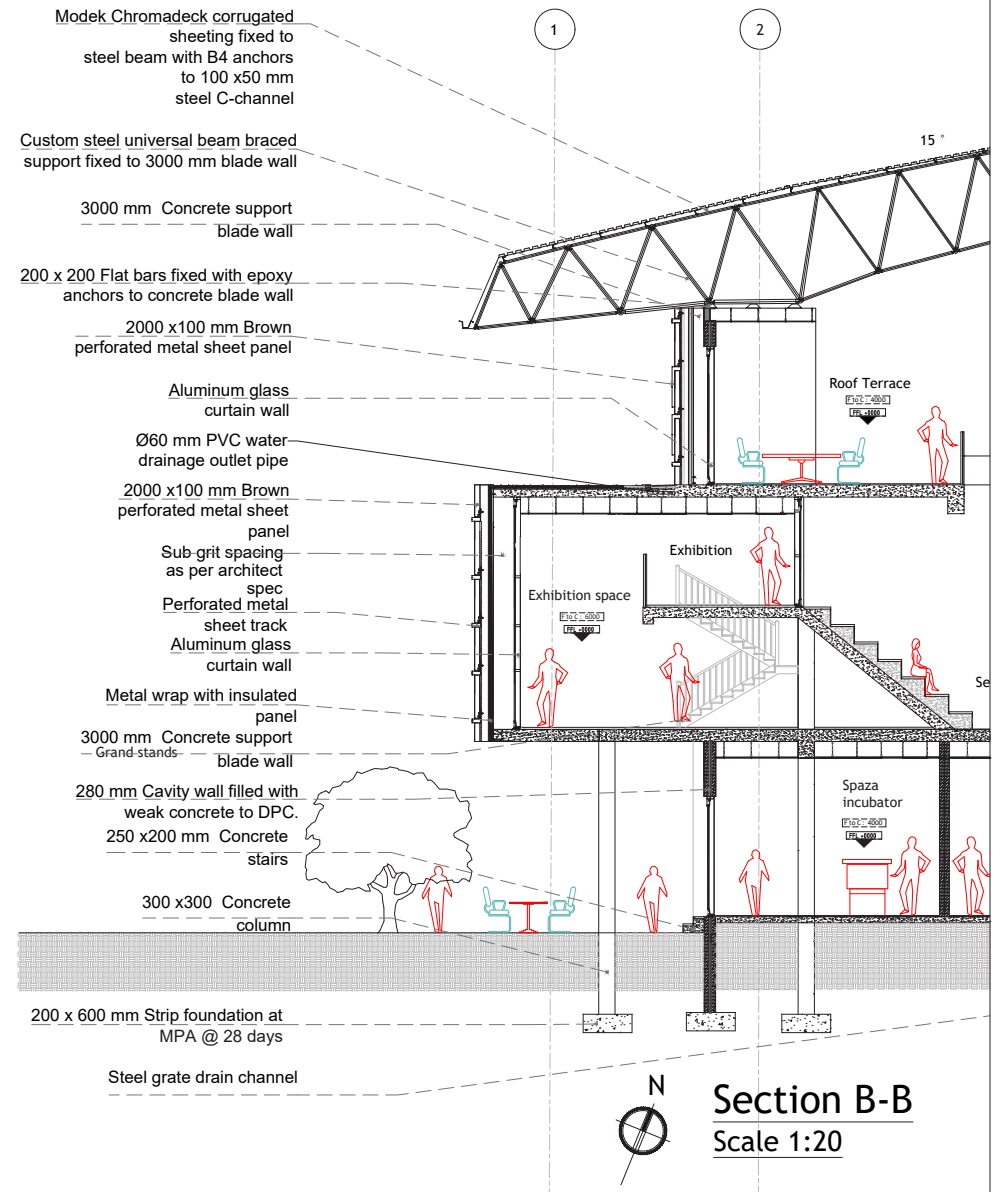


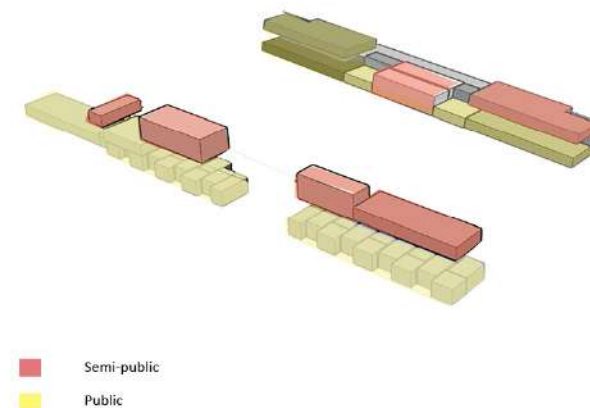
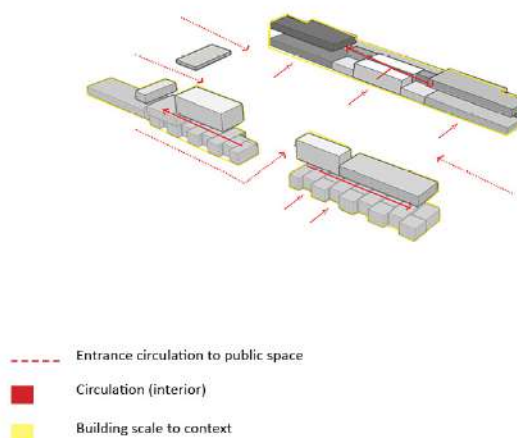
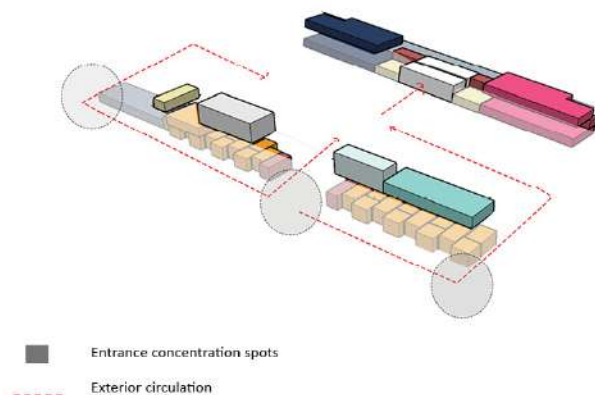
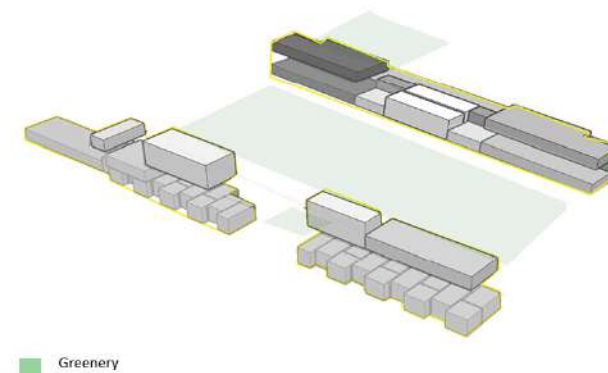
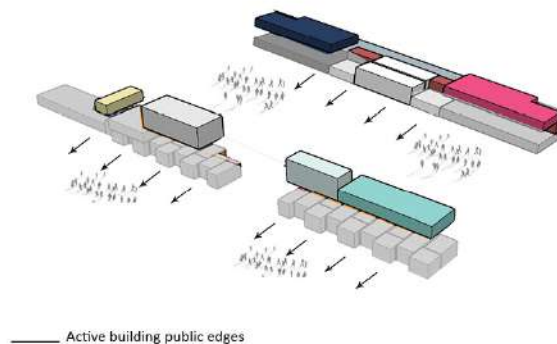
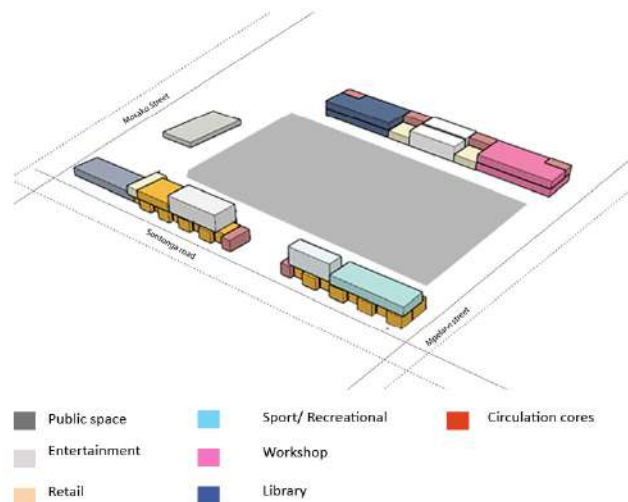
Figure 102. Author (2022), Section B-B perimeter section.

Final Design

09



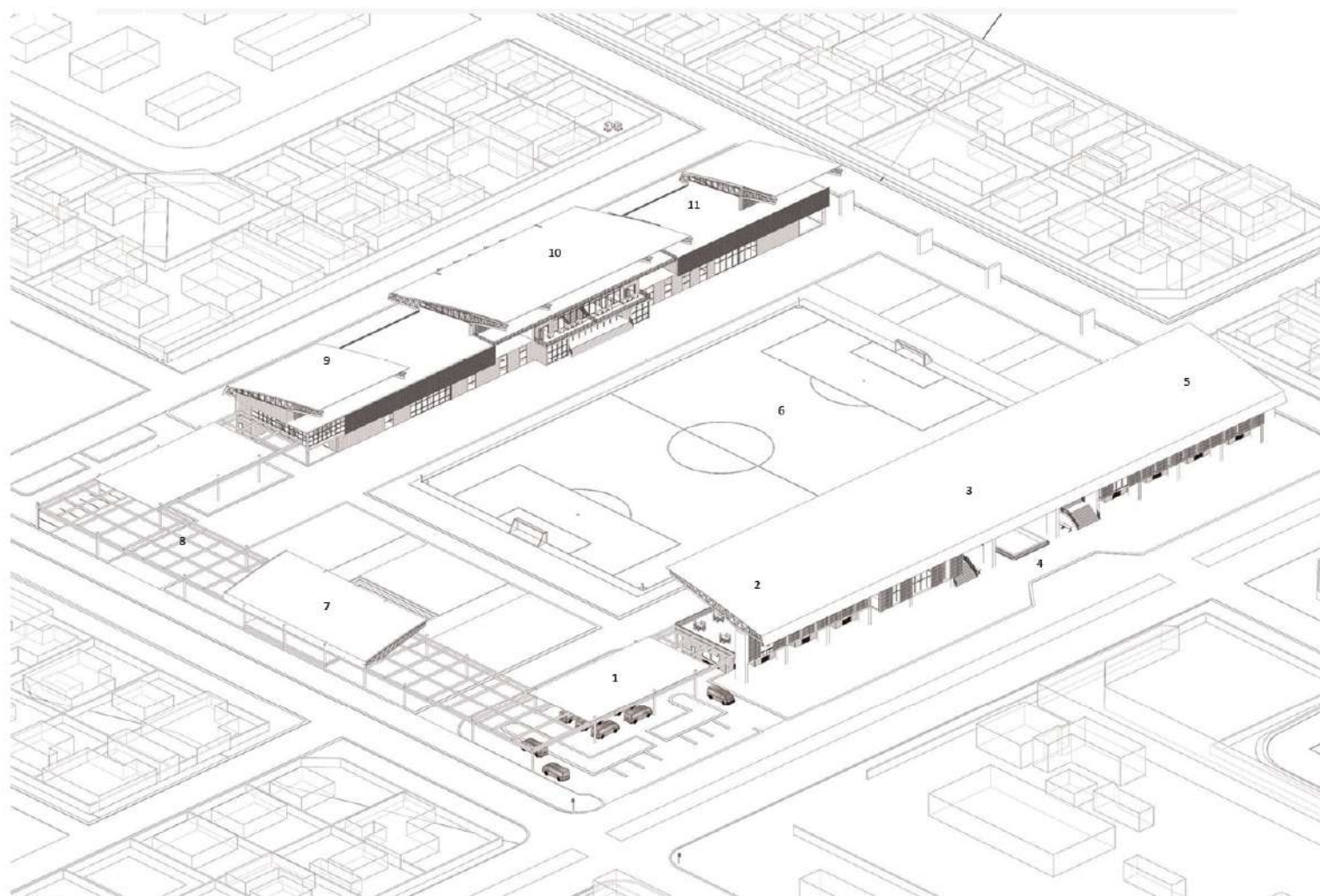
TSA Ko Kasi Infrastructure



The project is a social infrastructure, conceptualized by the unction of the surrounding context on vacant land that initially serves as a public space a visible trace of impermanence that was set in township architecture. The project creates social and economic networks that create community integration and address identified absent services derived from the spaza shop concept of social, entertainment, and knowledge exchange.

Conceptual diagrams



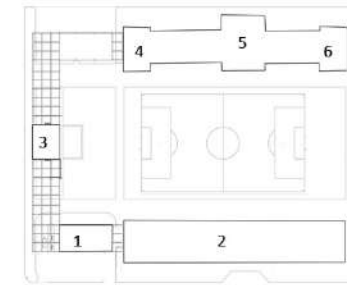
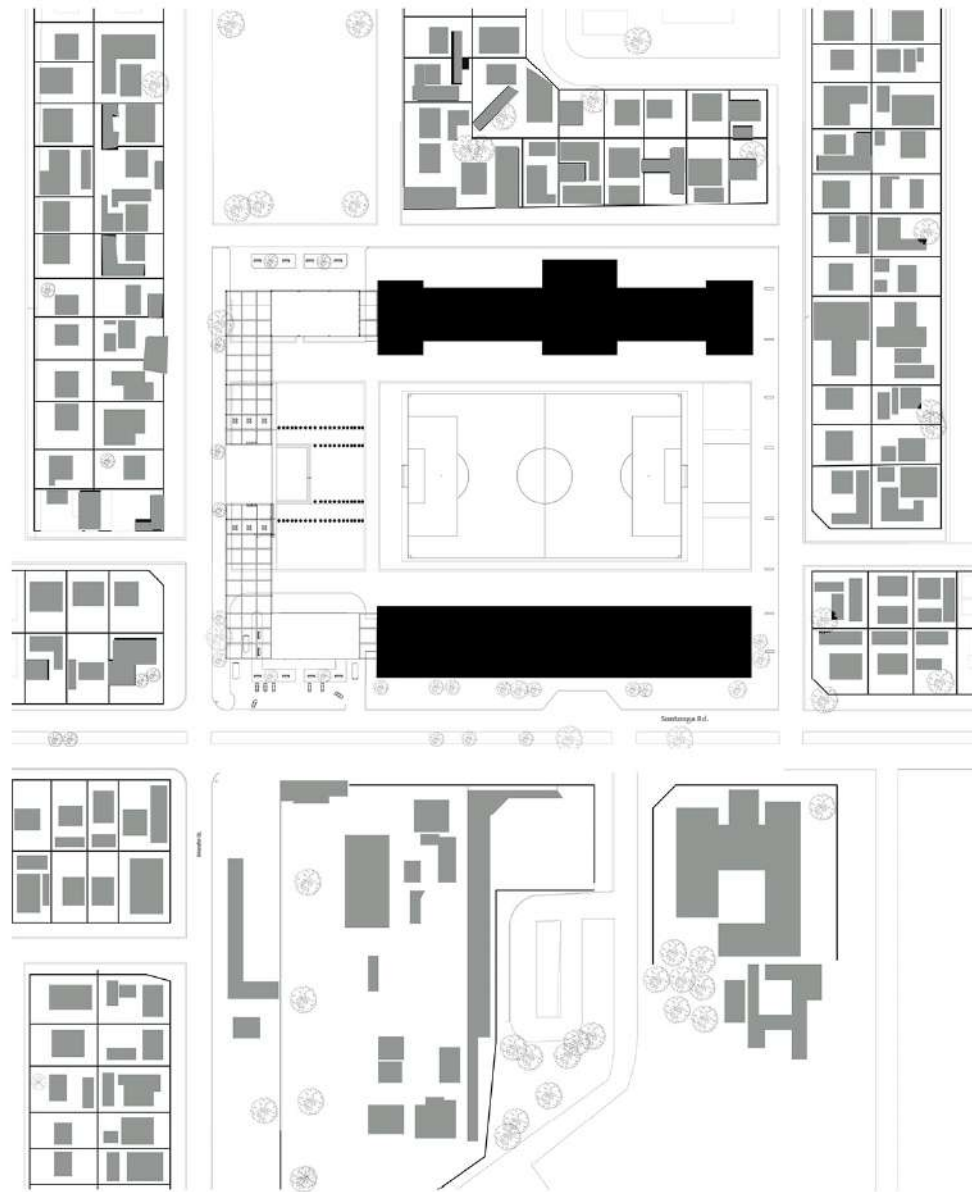


- 1.Taxi rank
- 2.Resturant
- 3.Grandstand
- 4.Market Threshold
- 5.Sport conference hall
- 6.Soccer ground/ Public space
- 7.Entertainment area
- 8.Market trellis
- 9.Library
- 10.Community centre
- 11.Workshop



3D Top view





#### Legend

1. Taxi Rank
2. Soccer grandstand building
3. Danica/entertainment area
4. Library
5. Community hall auditorium
6. Makerspace workshop

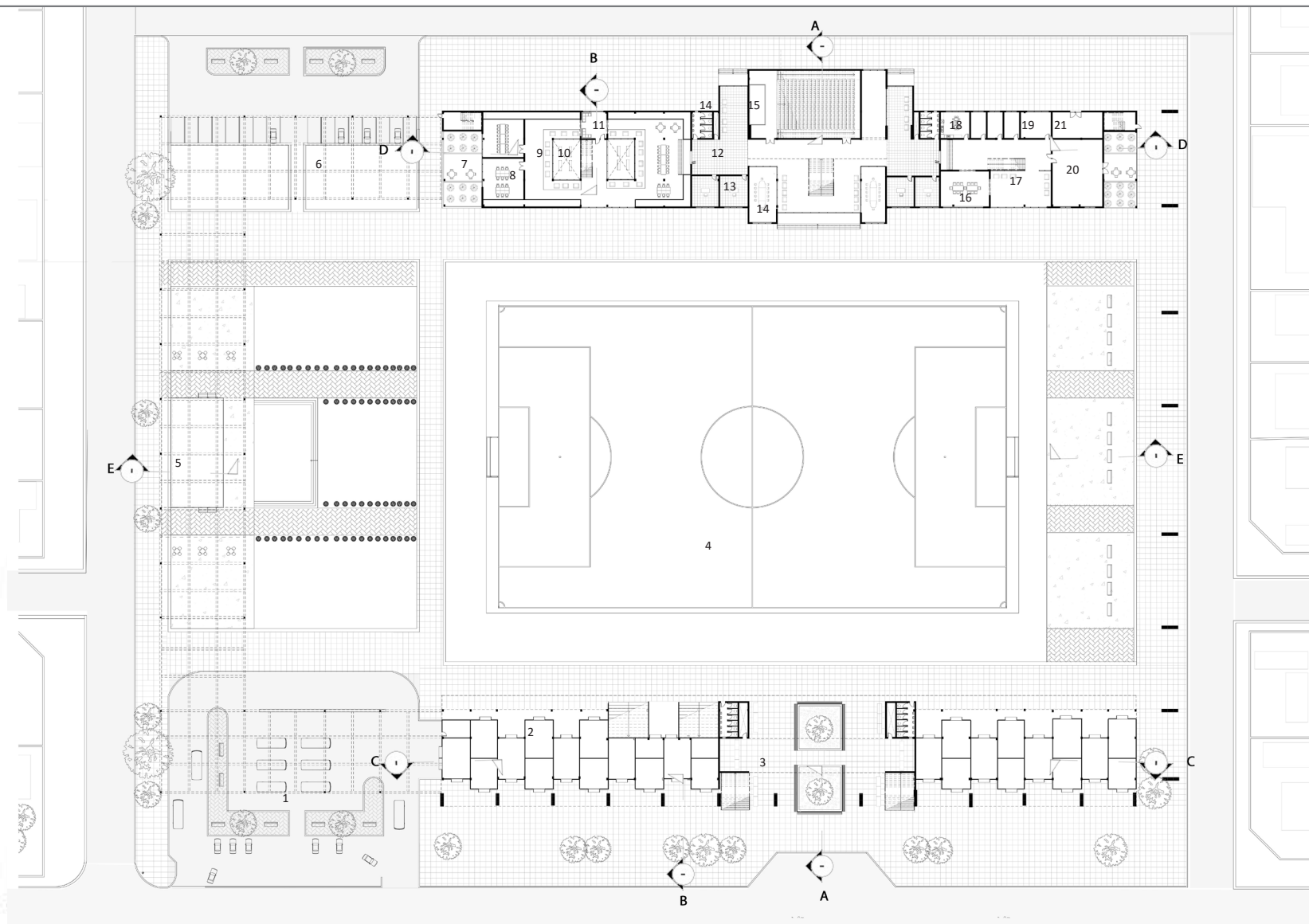
Source: Katlehong Municipality, 2014

Katlehong township, established in 1943 is one of the biggest townships in South Africa. It is a graphic representation of the apartheid era and architecture of the marginalized and control. It is situated in South east of Johannesburg between other significant townships Thokoza and Vosloorus.

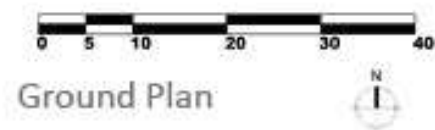


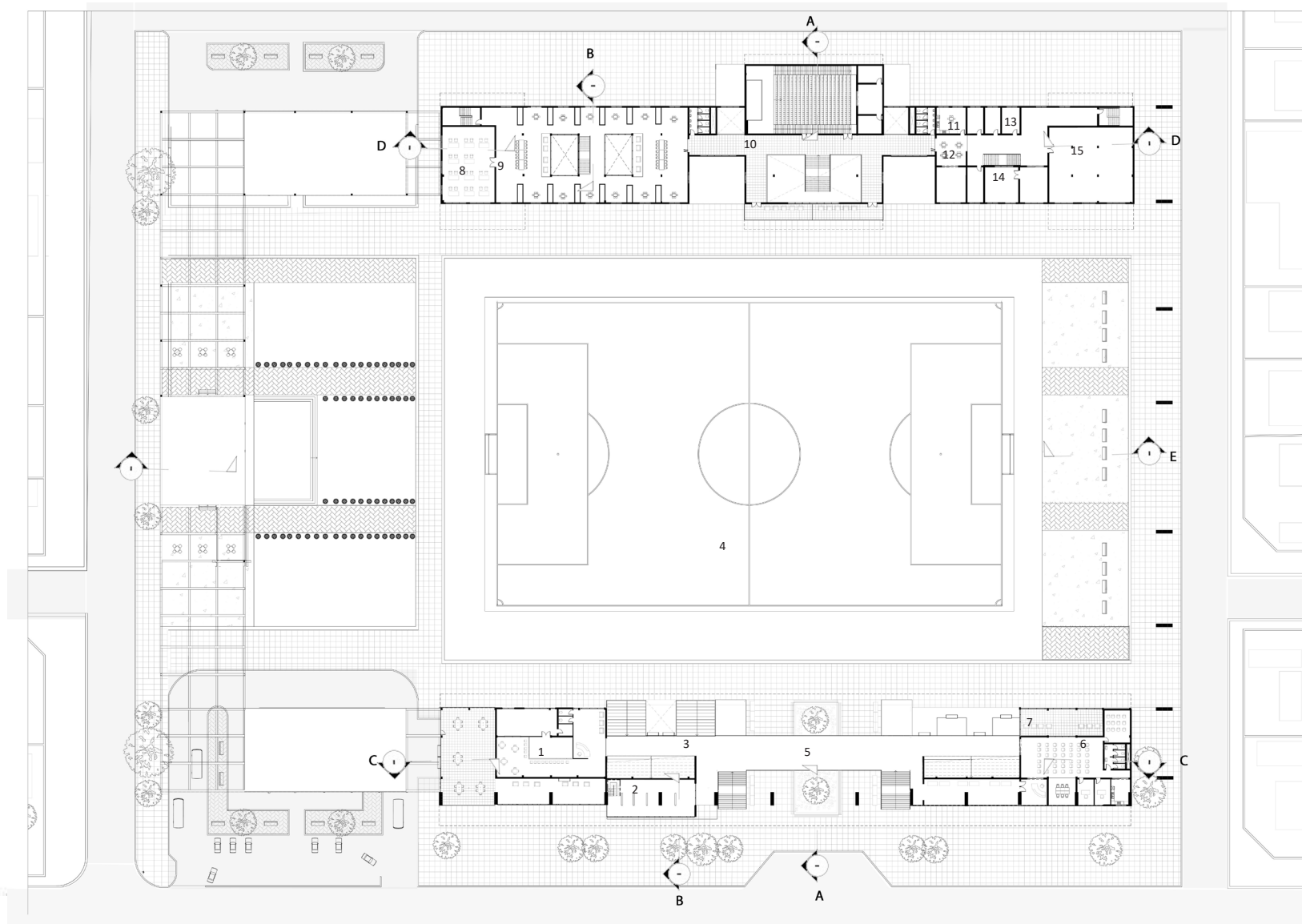
Context Plan





- |                                |                            |
|--------------------------------|----------------------------|
| 1. Taxi rank                   | 12. Administration lobby   |
| 2. Spaza incubators            | 13. Administration offices |
| 3. Market                      | 14. Ablutions              |
| 4. Soccer ground/ Public space | 15. Auditorium             |
| 5. Dance/Entertainment area    | 16. Seminar room           |
| 6. Parking lot                 | 17. Entrance foyer         |
| 7. Vegetable garden            | 18. Kitchen                |
| 8. Library study rooms         | 19. Workshop classes       |
| 9. Library                     | 20. Workshop               |
| 10. Library display room       | 21. Refuse                 |
| 11. Cafeteria                  |                            |





- |                                |                     |
|--------------------------------|---------------------|
| 1. Restaurant                  | 11. Kitchen         |
| 2. Exhibition hall             | 12. Cafeteria       |
| 3. Grandstand                  | 13. Classrooms      |
| 4. Soccer ground/ Public space | 14. Conference room |
| 5. Bridge                      | 15. Workshop        |
| 6. Sport conference hall       |                     |
| 7. Outdoor terrace             |                     |
| 8. Library cadlab              |                     |
| 9. Library                     |                     |
| 10. Lobby                      |                     |
| 11. Terrace                    |                     |



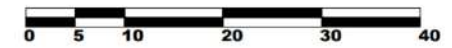
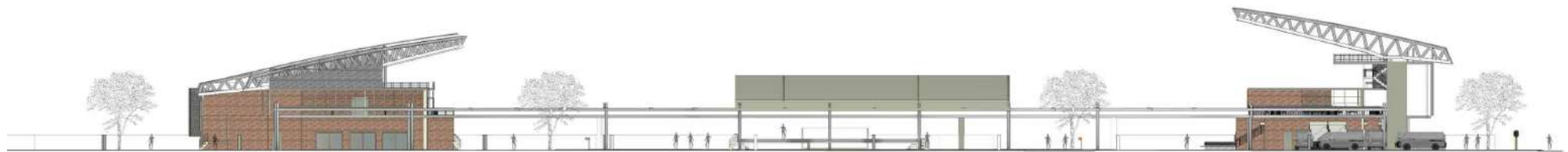


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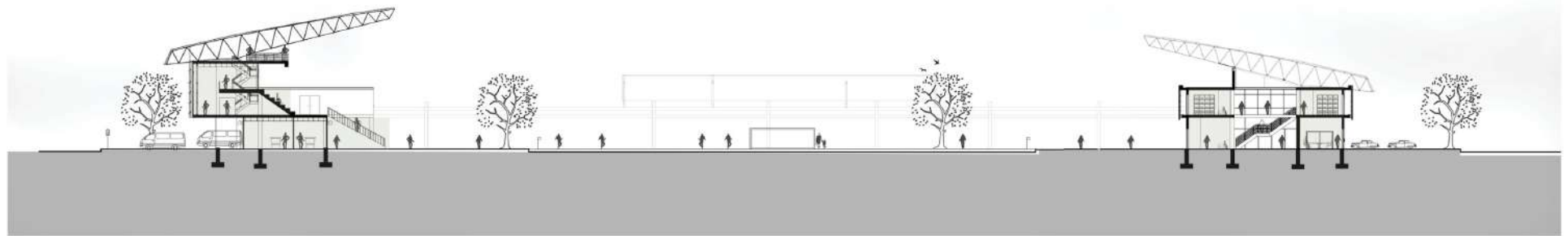


Section C-C



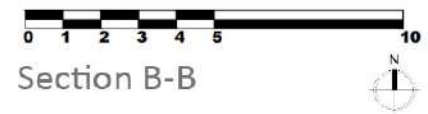
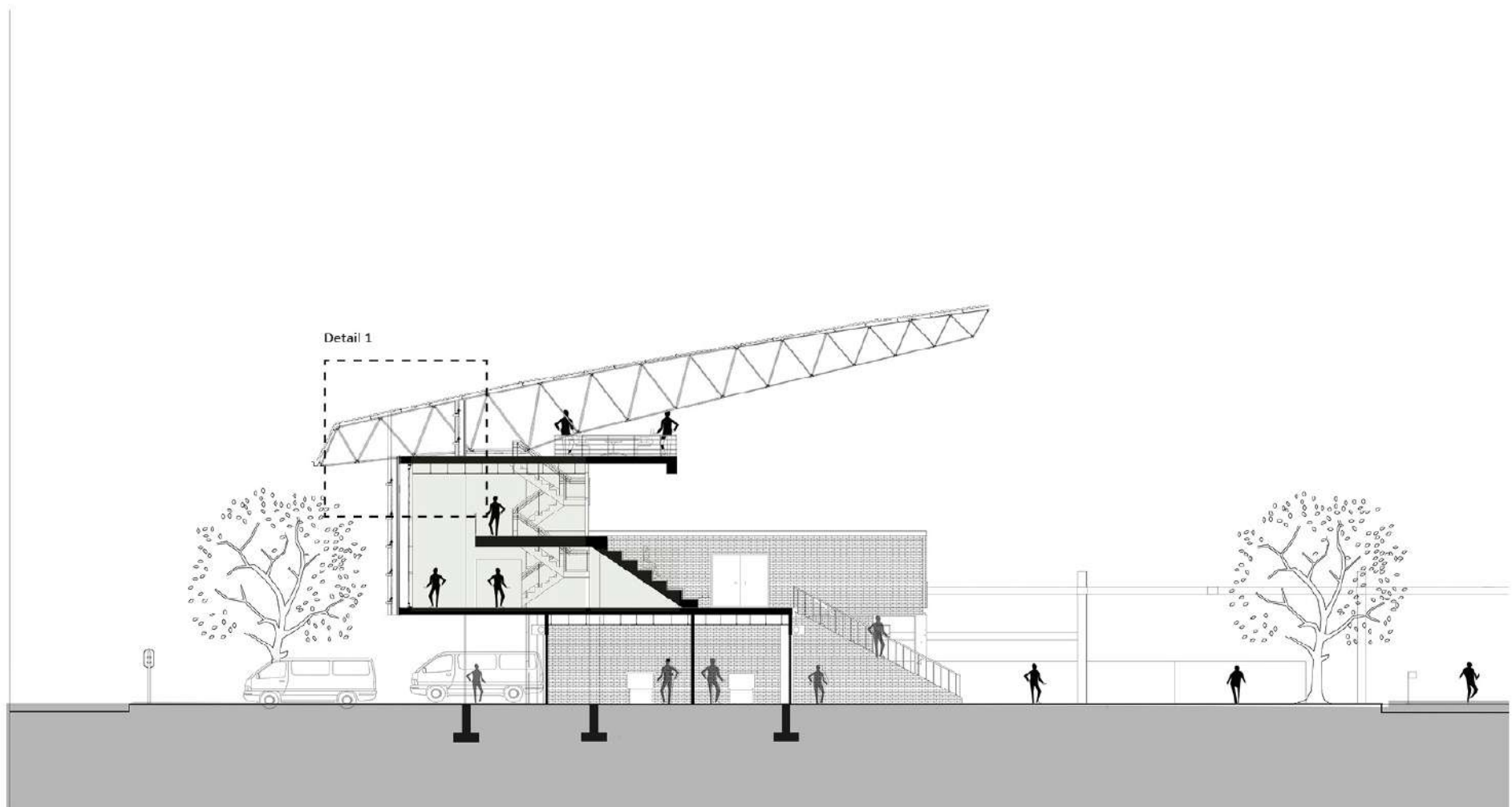


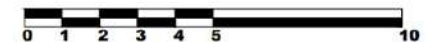
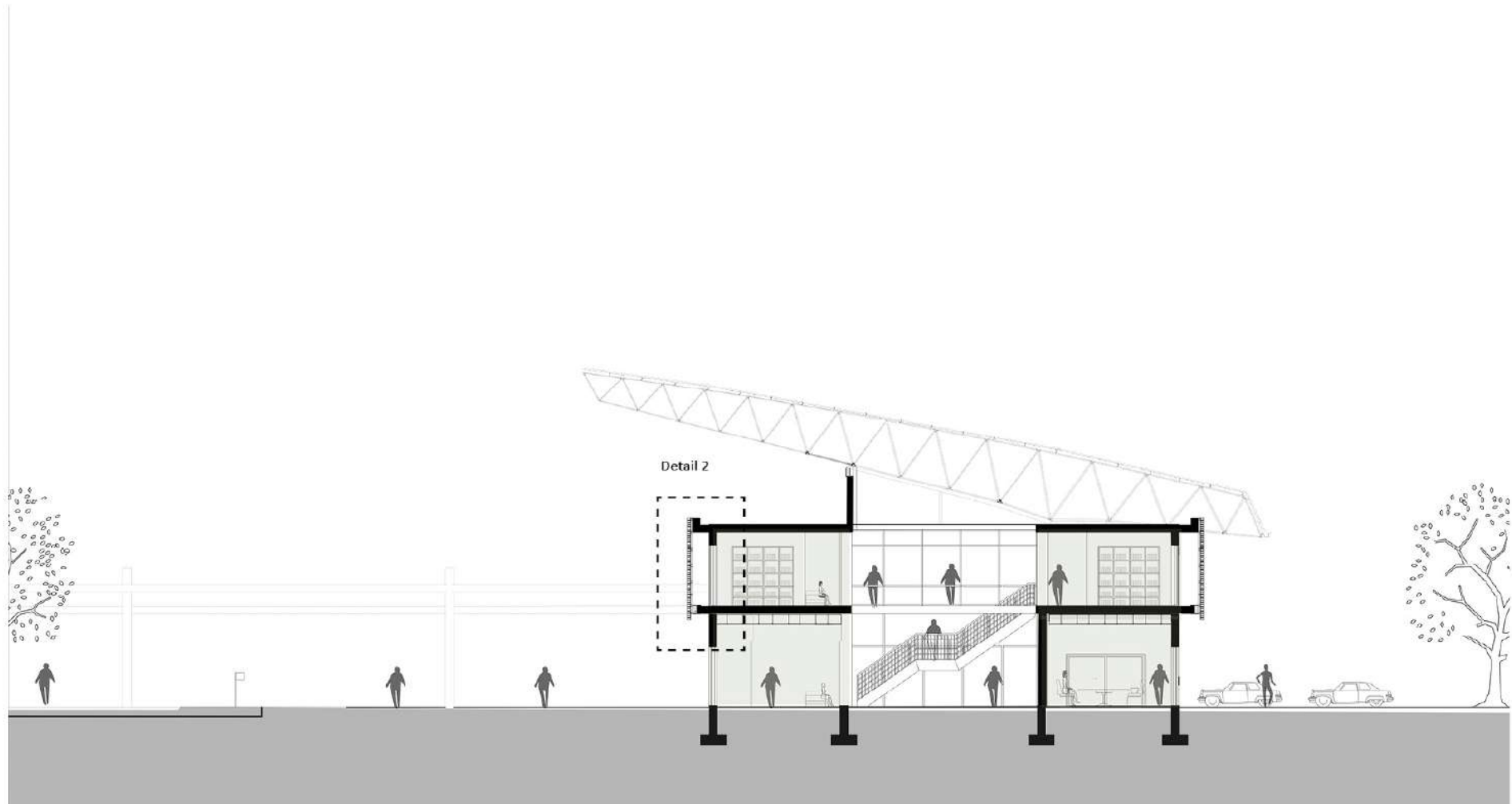
West Elevation



Section B-B

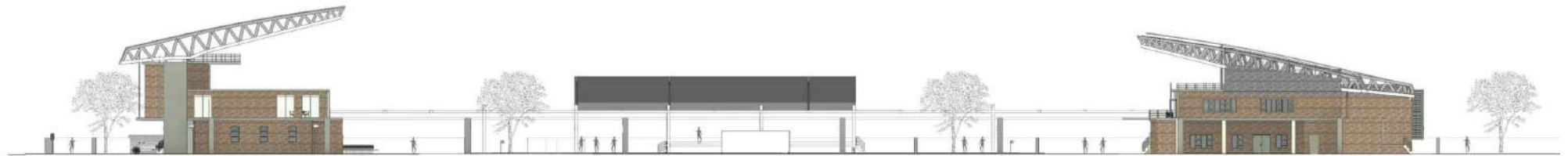




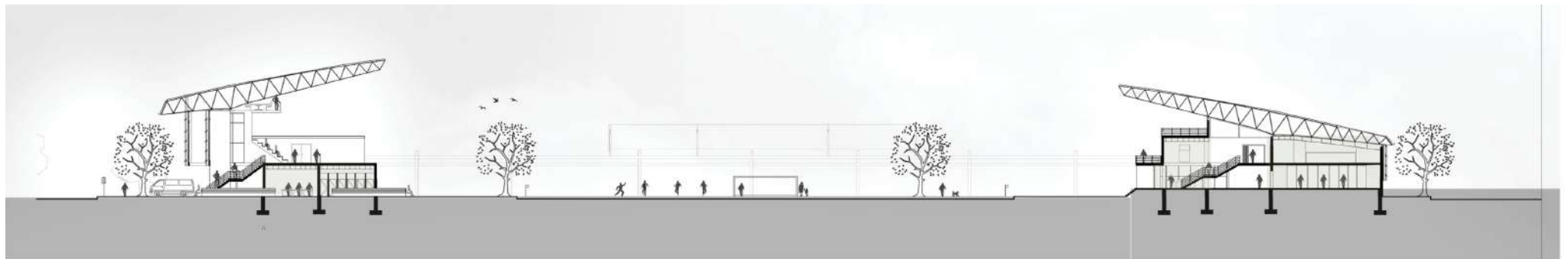


Section B-B



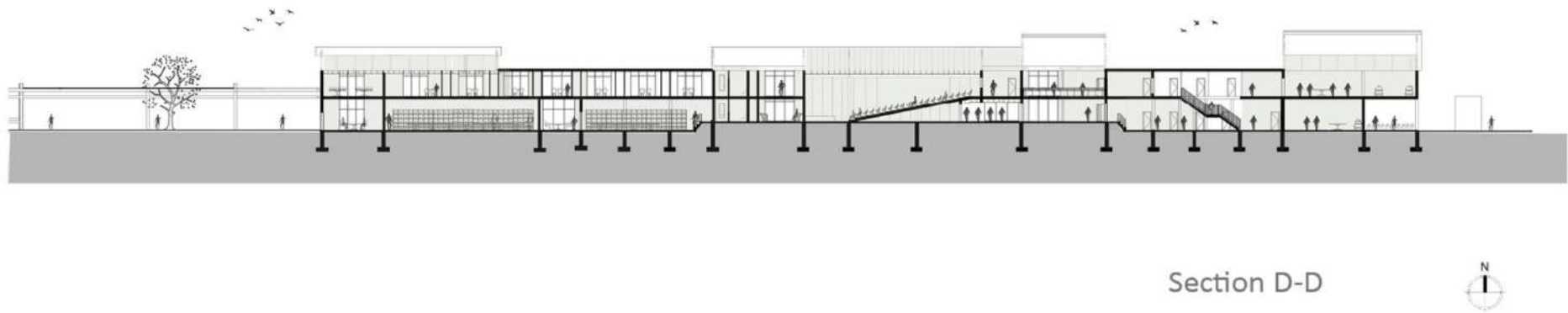


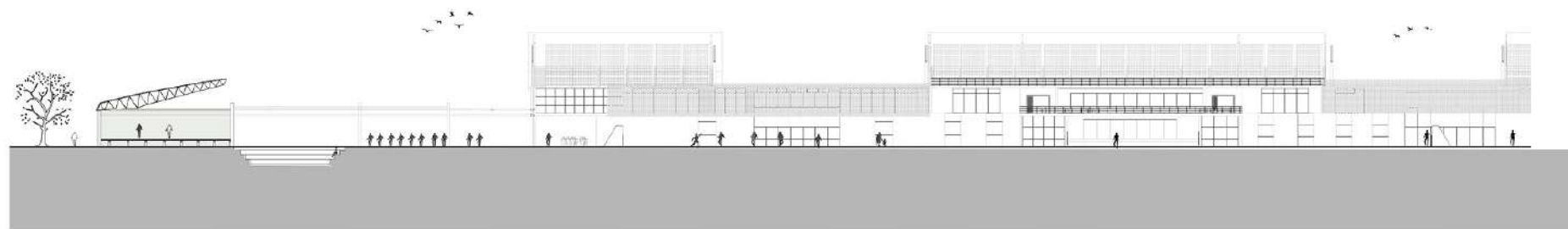
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East Elevation



Section A-A







Section E-E

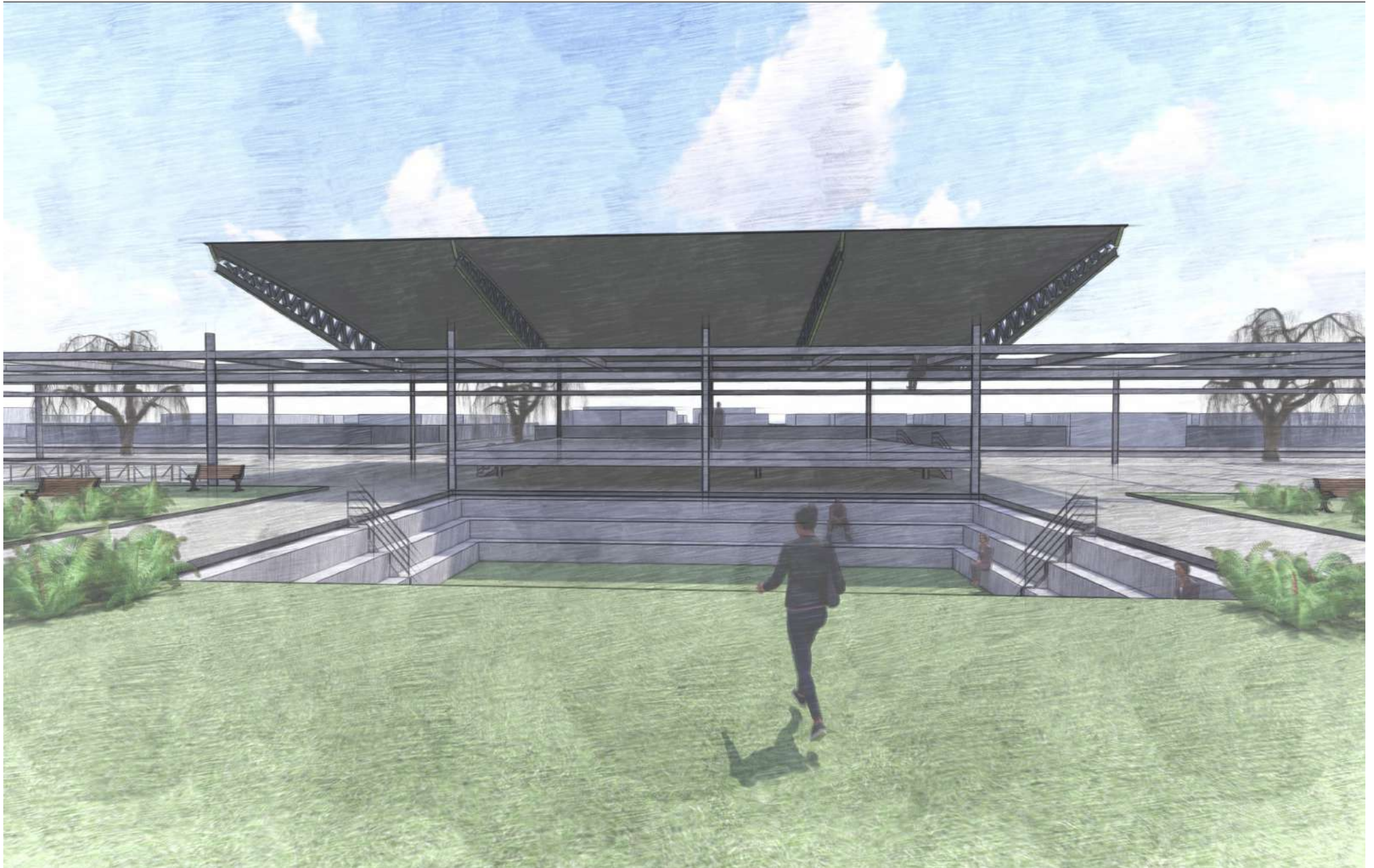




Market threshold



Taxi rank



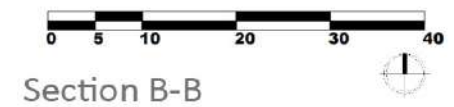
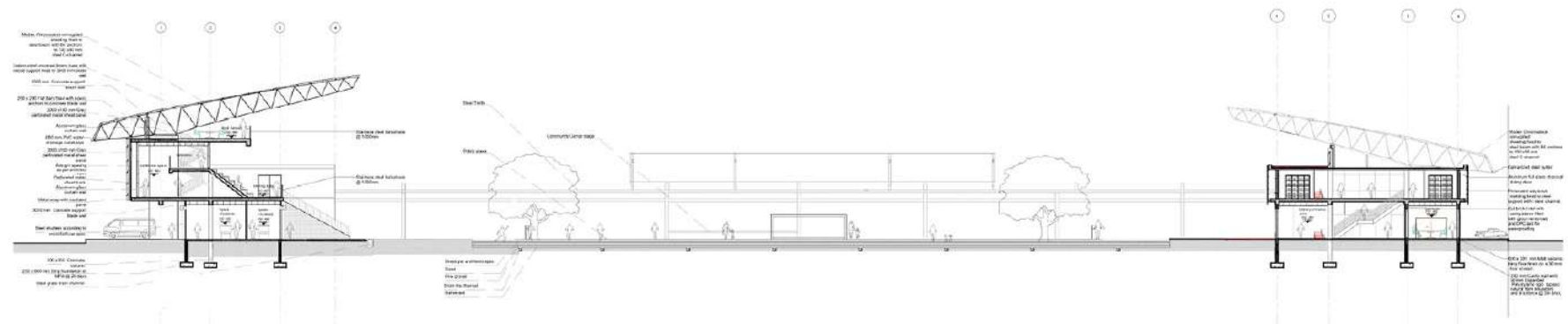
Entertainment area



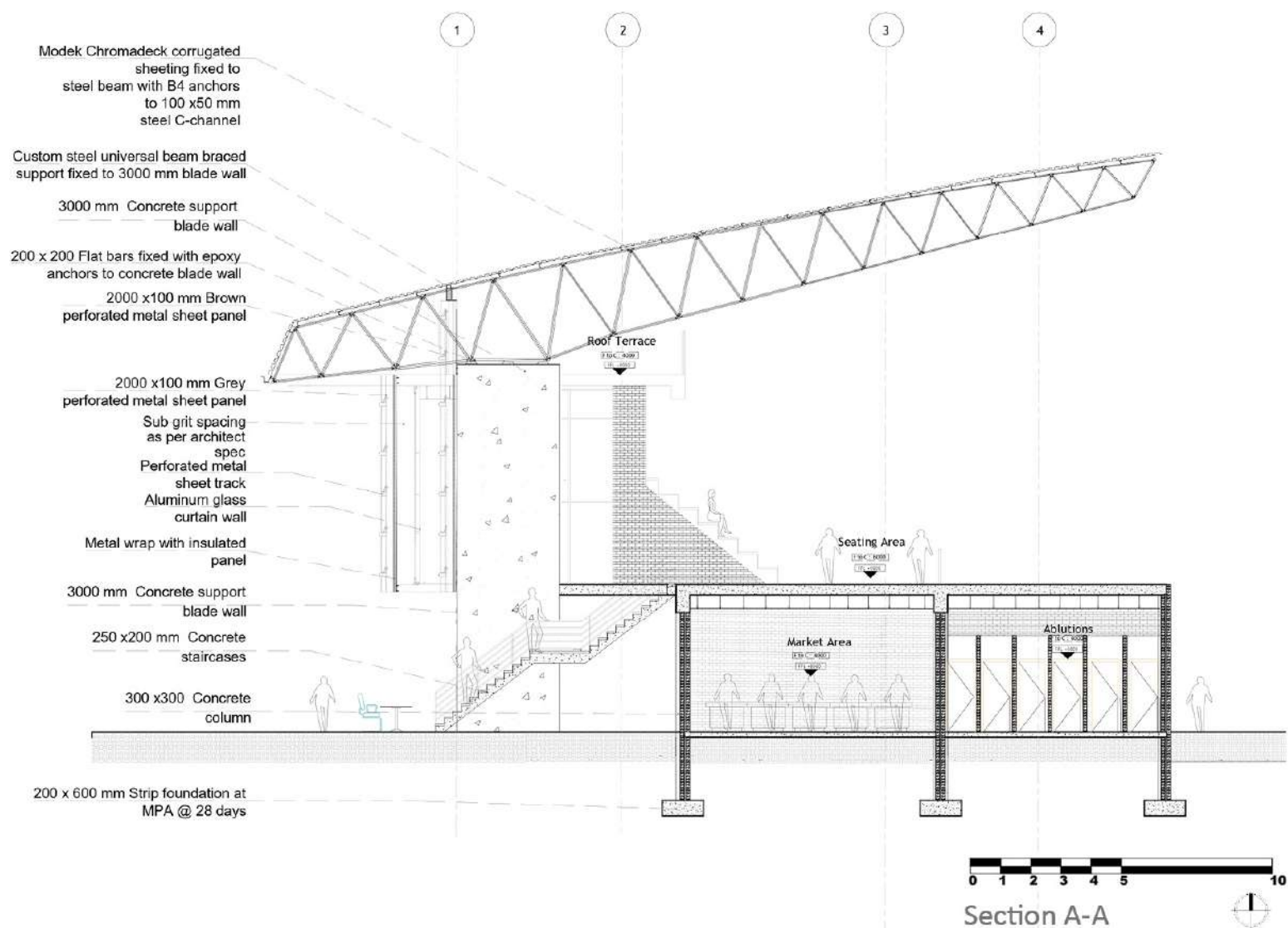
Grandstands

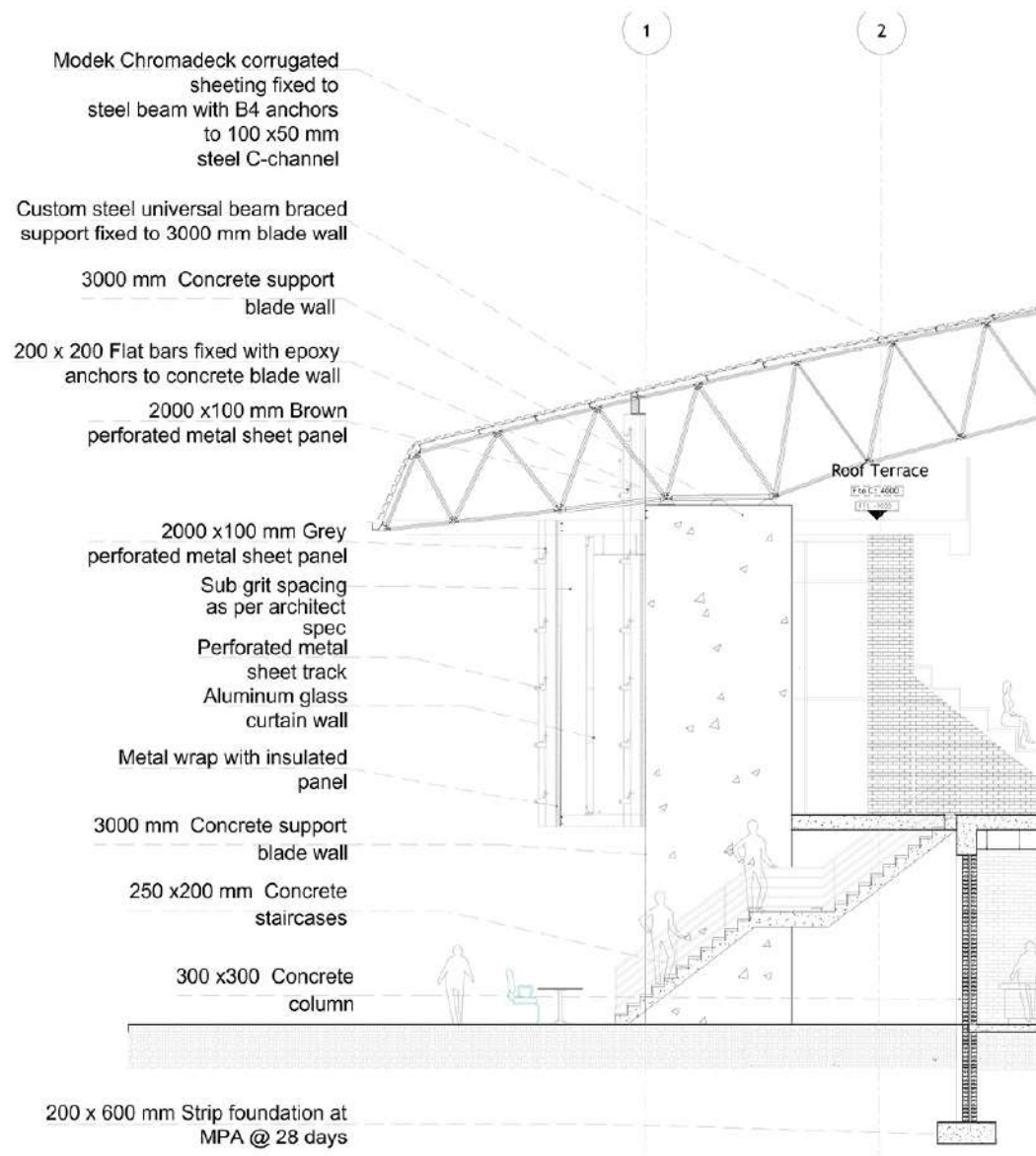


Community centre entrance



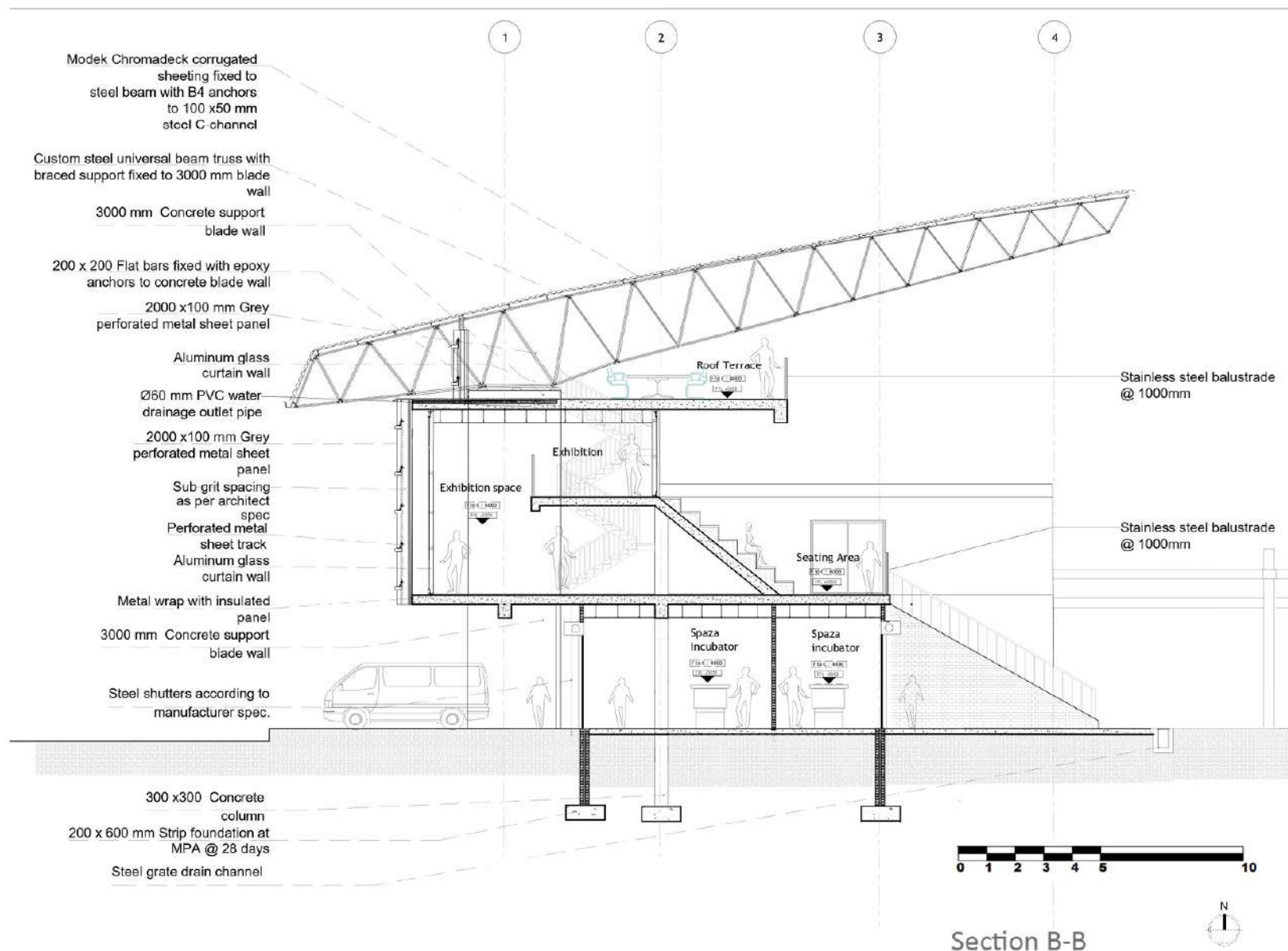
Section B-B

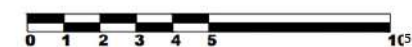
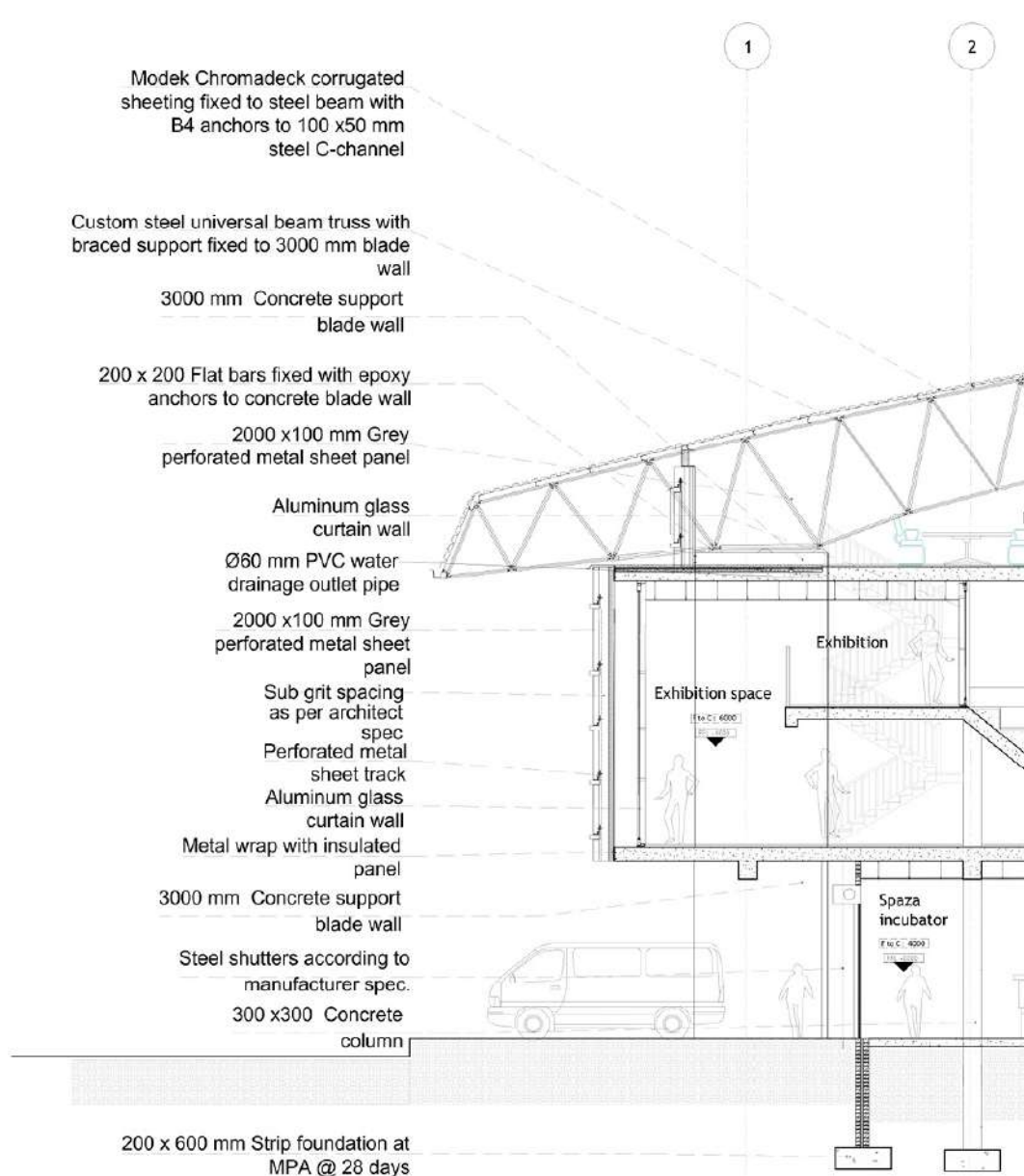




Perimeter section A-A

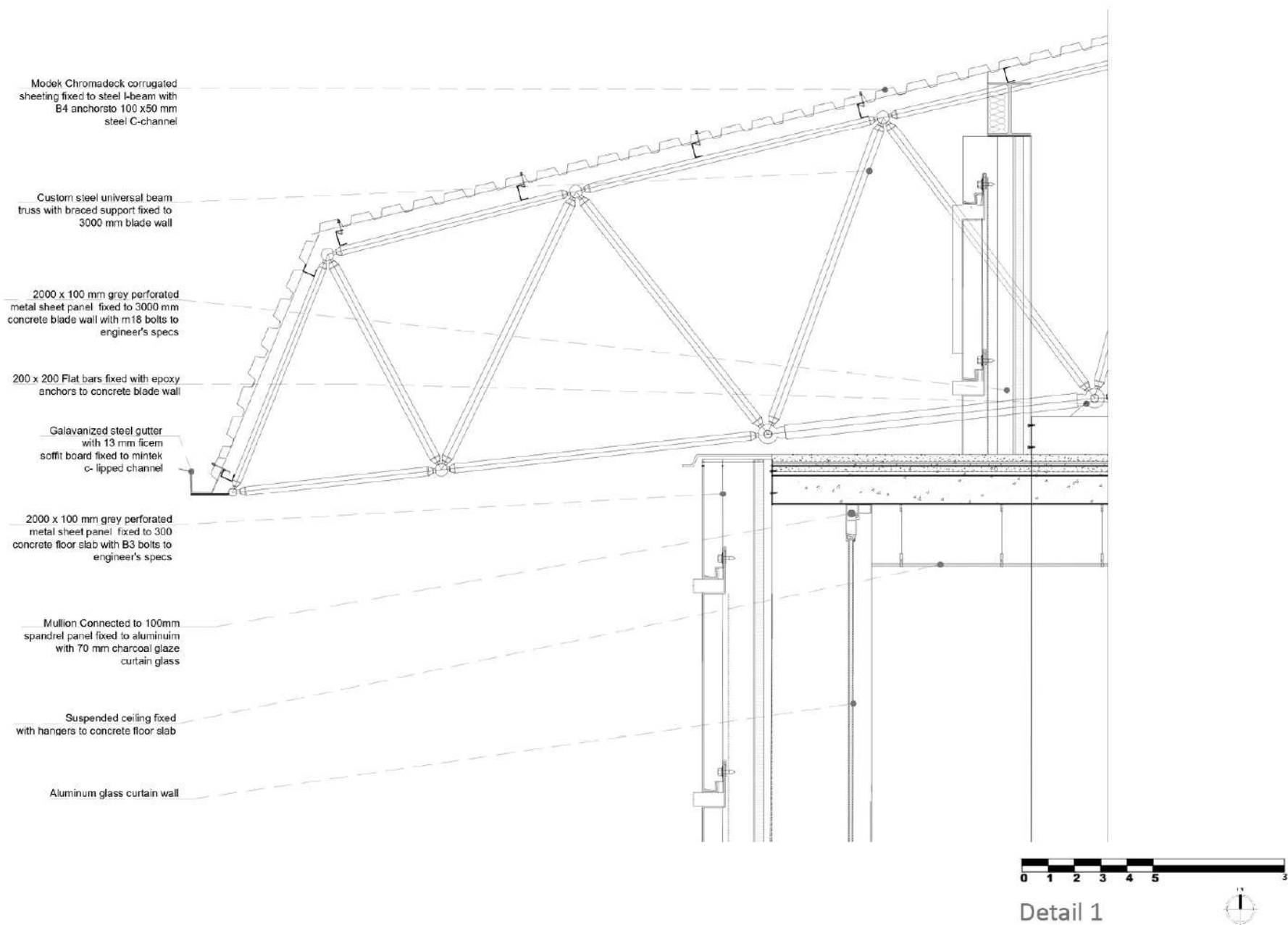


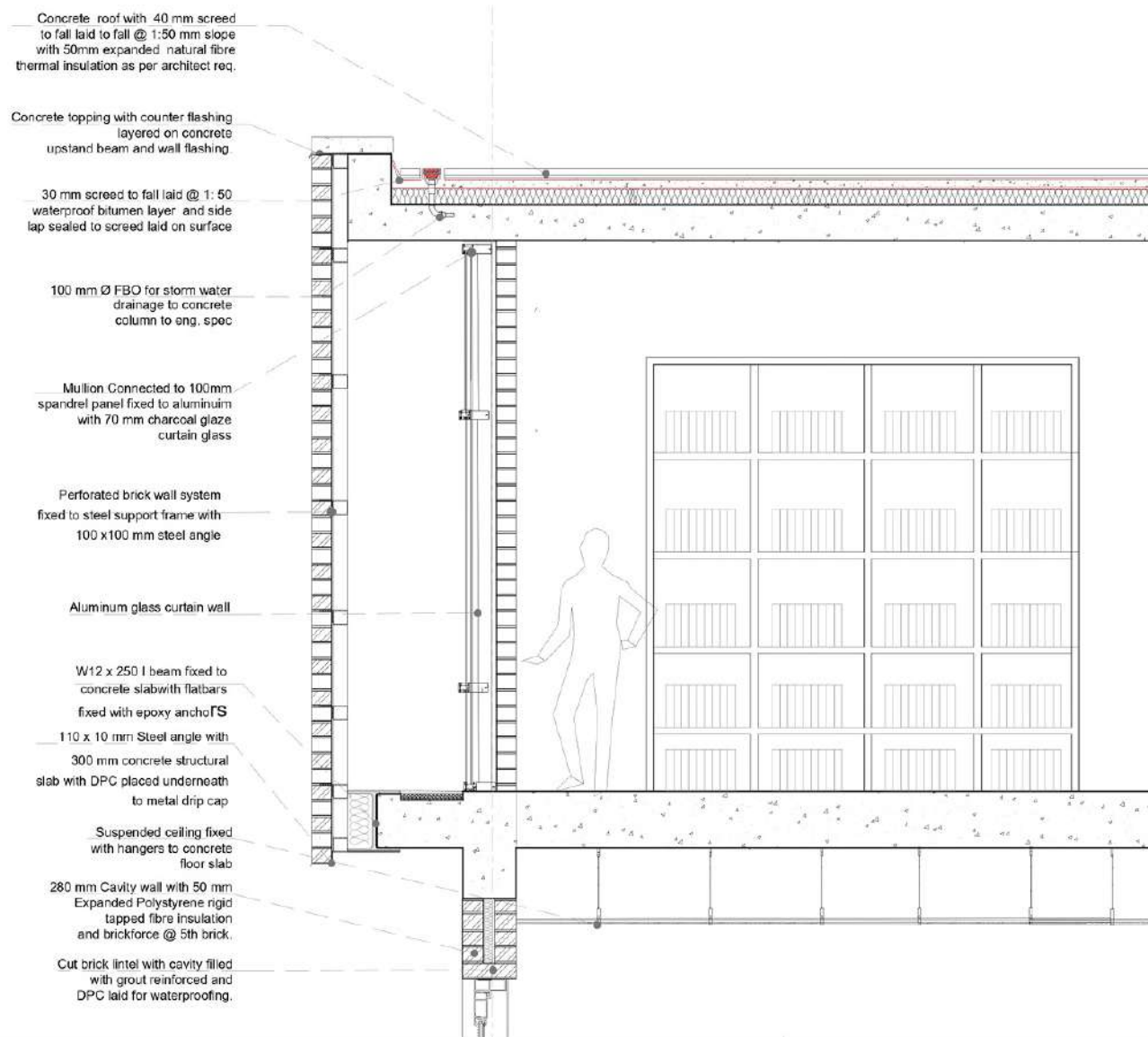




Perimeter  
section B-B







Detail 2



## 9.1 Conclusion

The thesis examined social and cultural dimensions embedded in informal microenterprises and considered contextual history and theories that support the proposed arguments. The theories allowed for a broader understanding of the townships' identity aside from its colonial history. It is an exploration of social dynamics from dance culture, music, indigenous games, history, and informal markets. The analysis was focused on the transition of spaza shops and their significant role in communities. In comparative lenses of pre-1994 and post-1994 and how it influenced spatial dynamics and feasibility studies of current informal enterprises. It exposed different regulations and operations of both formal and informal businesses to analyse the similarities and differences that set them apart. The aim was also to understand the logic of enterprises and the context for the conceptualization of the design development. Thus, understanding the architectural and social principles of designing public civic infrastructures and identifying needs that should be addressed for the final design development.

# References

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## 10.1 References

Abland, 2022. . Abland (2022), Katlehong Crossing floor plan., Johannesburg: Abland Properties.

Abland, 2022. Abland. [Online]

Available at: <https://abland.co.za/retail/katlehong-crossing/>  
[Accessed 2 August 2022].

Abland, 2022. Katlehong Crossing mall development. [Online]  
Available at: <https://abland.co.za/retail/katlehong-crossing/>  
[Accessed 5 August 2022].

Abland, 2022. Katlehong Crossing mall development phase 1, Johannesburg: Abland Properties.

Abland, 2022. Katlehong Crossing mall development progress 1, Johannesburg: Abland Properties.

Abland, 2022. Katlehong Crossing mall development progress 2, Johannesburg: Abland Properties.

acaddrafting, 2016. Roof truss, s.l.: THE ENGINEERING DESIGN.

Africa, B. i. S., 2022. CSR in South Africa. [Online]  
Available at: <https://www.businessinsa.com/mvo/>  
[Accessed 8 June 2022].

Agency, N. Y. D., 2022. [Online]

Available at: <http://www.nyda.gov.za/>

Anon., n.d. [Online]

Available at: <https://johannesburgmap360.com/johannesburg-%28joburg-jozi%29-old-map>  
[Accessed 10 February 2023].

Architects, 2., 2012. Taxi rank number 2. [Online]  
Available at: <https://www.2610south.co.za/gallery7.php>  
[Accessed 7 July 2022].

Author, 2022. Katlehong locality map, Johannesburg: s.n.

Author, 2022. Research methodologies diagram, Johannesburg: s.n.

Author, 2023. [Online]  
Available at: <https://www.google.com/maps/@-26.2059886,28.0390227,1980m/data=!3m1!1e3>  
[Accessed 01 February 2023].

Baan, I., 2012. Taxi rank number 2 entrance, Johannesburg: 26'10 Architects .

Betha, 2014. Storymaps.arcgis.. [Online]  
Available at: <https://storymaps.arcgis.com/stories/8b471221a8b-345128f46161c1a3055e0>

[Accessed 27 August 2022].

Bosanquet, N. & Proppe, C., 1991. Charting the Grey Economy in the 1990s. In: Policy & Politics, Advancing knowledge in public and social policy. s.l.: Policy Press, pp. 1-2.

Bruyn, D. & Chrisna, 2020. Africaisnowmag. [Online]  
Available at: <https://africaisnowmag.com/kasi-vogue-2/>  
[Accessed 15 08 2022].

Cadieux, J., 1972. Front cover and inside title page of the report Establishment of Sports and Recreation section in Katlehong township., Pretoria: TheHeritagPortal.

Carabet, K., 2013. Office of Arts + Cultural Programming and PEAK Performances, s.l.: Montclair.edu.

Charman Andrew, P. L. a. G. T., 2020. Township Economy : People, Spaces and Practices. s.l.: HSRC Press.

Charman, A. C. D. R., 2017. POST-APARTHEID SPATIAL INEQUALITY: OBSTACLES OF LAND USE MANAGEMENT ON TOWNSHIP MICRO-ENTERPRISE FORMALISATION, Johannesburg: s.n.

Charman, A. & Leif, & C., 2015. The layout of the township economy: the surprising spatial distribution of informal township enterprises. Econ3x3, pp. 1-7.

Corobrik, 2022. Red Travertine brick, Johannesburg: Corobrik.

Damane, A., 2019. Primary and High schools participate in Hyper Schools Cup, Johannesburg: Kathorusmail.

Darwin D, D. C. N. A., 2016. Design of concrete structures. 15th ed. New York: McGraw-Hill Education.

Daskalakos, C., 2022. Professional Fees, Johannesburg: s.n.

Daskalakos, C., 2022. The Viability Report, s.l.: s.n.

Davie, L., 2018. Chappies, a Joburg creation. TheHeritagePortal, p. 1.

Dawson, A., 2010. Technology can help spaza shops become a hub of learning and skills development in communities. IOL TECH, p. 1.

De Bruyn, C., 2022. Quote , Johannesburg: Africaisnowmag.

Demirel, S., 2014. Terraced market perspective., s.l.: ArchDaily.  
development, D. o. s., 2021. [Online]

Available at: <https://www.dsd.gov.za/index.php/programme/integrated-development>

[Accessed 4 June 2022].

DP, A., AN, F. & J.J, R., 2001. Thermal properties of a variable cavity wall. In: Building and Environment. Hong Kong: Science-Direct, pp. 1057-10758.

DPE, 1974. Southern Transvaal settlement pattern 1896, Johannesburg: Department of Planning and the Environment, Government Printer.

du Plessis, D., 2014. A Critical Reflection on Urban Spatial Planning Practices and Outcomes in Post-Apartheid South Africa. In: Johannesburg: s.n., pp. 1-3.

EDynam, 2021. Littlehampton bricks and pavers. [Online]

Available at: <https://littlehamptonbrick.com.au/the-benefits-of-building-with-handcrafted-clay-bricks/>

[Accessed 7 June 2022].

Estimation QS, A., 2022. Estimation QS. [Online]

Available at: <https://estimationqs.com/building-costs-per-square-metre-in-south-africa/>

[Accessed 12 June 2022].

Fair, T. J., 1956. A planning survey of the Southern Transvaal, Pretoria: Natural Resources Development Council.

Feni, M., 2014. Diketo, Johannesburg: Ground Up.

Feni, M., 2014. Three toti, Johannesburg: Ground Up.

foundation, H., 2022. Hollywood foundation. [Online]

Available at: <https://hollywoodfoundation.co.za/programmes/csi-programme/>

[Accessed 2 June 2022].

Franca, E., 2012. Urban Remediation And Civic Infrastructure Hub , Centro de Acção Social por Música, Sao Paulo: Urban Think Tank architects.

Gomide, P., 2022. Perforated metal red skin, s.l.: Designboom.

Gontsana, M.-A., 2014. Games that township kids play. Ground-UP, pp. 1-2.

GoogleMaps, 2022. Google. [Online]

Available at: <https://www.google.com/maps/@-26.3513764,28.1587659,3a,60y,184.63h,88.94t/data=!3m6!1e1!3m4!1siU4UGOX06guguZAFb5SaD-Q!2e0!7i16384!8i8192>

[Accessed 17 October 2022].

GoogleMaps, 2022. Google. [Online]

Available at: [https://www.google.com/maps/@-26.3509681,28.1587836,3a,60y,76.82h,91.11t/data=!3m6!1e1!3m4!1syHjux-nwVXyD3by\\_vt-j7aQ!2e0!7i16384!8i8192](https://www.google.com/maps/@-26.3509681,28.1587836,3a,60y,76.82h,91.11t/data=!3m6!1e1!3m4!1syHjux-nwVXyD3by_vt-j7aQ!2e0!7i16384!8i8192)

[Accessed 9 November 2022].

GoogleMaps, 2022. Google. [Online]

Available at: <https://www.google.com/maps/@->

26.3530177,28.1564538,3a,75y,321.84h,93.22t/  
data=!3m6!1e1!3m4!1sySa1hRbiJ4nXVVn8ZrGAX-  
Q!2e0!7i16384!8i8192

[Accessed 17 October 2022].

GoogleMaps, 2022. Makis Shop, Johannesburg: Google.

GoogleMaps, 2022. Tshepo's corner, Johannesburg: Google.

Hollander, W. & Burnett, C. B., 2004. The South African Indig-  
enous Games Research Project of 2001/2002 , Johannesburg:  
Researchgate.

Hunkin, J., 2015. Spaza shop, Johannesburg: City Press.

Irrigation, A., 2022. Access Irrigation. [Online]

Available at: [https://www.access-irrigation.co.uk/design-ser-  
vices/football-pitch-watering/](https://www.access-irrigation.co.uk/design-services/football-pitch-watering/)

[Accessed 29 May 2022].

Johannesburgmap360, 1996. [Online]

Available at: [https://johannesburgmap360.com/johannes-  
burg-%28joburg-jozi%29-tourist-map](https://johannesburgmap360.com/johannes-<br/>burg-%28joburg-jozi%29-tourist-map)

[Accessed 05 February 2023].

Johannesburgmap360, n.d. [Online]

Available at: <https://johannesburgmap360.com/johannesburg->

[%28joburg-jozi%29-old-map](#)

[Accessed 10 February 2023].

Jr, P., 1907. Witwatersrand District map, s.l.: JSTOR.

Jr, P., 1907. Photograph of surface workings in the Crown Reef  
Mine, Witwatersrand, s.l.: JSTOR.

Jr, P., 1907. Underground photograph at the Nourse-Deep Mine,  
Witwatersrand District Transvaal, s.l.: JSTOR.

Kaveel, S., 2017. The backbone of the economy. News24, pp.  
1-2.

Lesley, W., 2021. The Spatial Evolution of Spaza Shops since  
the Inception of the Special Economic Zone (SEZ) in Saldanha.  
Journal of Finance and Economics, pp. 184-190.

Ligthelm, A., 2008. The impact of shopping mall development on  
small township retailers. South African Journal of Economic and  
Management Sciences, pp. 37-52.

Lindarto, D. & Reagan, S., 2020. Mall & Market Design; a  
Neo-Vernacular Approach. International Journal of Architecture  
and Urbanism , pp. 87-98.

Lippit D, V., 2005. Capitalism. In: London: Routledge, p. 2.

Lloyd, D., 2019. Spaza shop social status, Johannesburg: Getty-  
images.

Lloyd, D., 2020. Riders buy goods from a streetside shop (spaza) during a Heritage ride from Vilakazi Street, s.l.: The Citizen.

Lloyd, D., 2021. Grievances also included concerns with unemployment, loss of business and access to a social labour plan., Johannesburg: OkayAfrica.

Makhubu, S., 2016. Simunye Pantsula., Johannesburg: Crowd-books.

Mashobane, T., 2020. Kasi for Life. In: Kasi For Life. Johannesburg: FunDza Literacy Trust.

Motumi, M., 2020. Pantsula dance act, Johannesburg: Press-reader.

Mubiwa Brian, A. H., 2013. Historical spatial change in the Gauteng City-Region, Johannesburg: Department of Geography, Environmental Management and Energy Studies, University of Johannesburg.

Nativist, K., 2013. And we just trying to make ends meet,by all means., Johannesburg: Loxionlifestyle.

Ndlovu, L., 2022. Youth soccer tournament held in Ekurhuleni, Johannesburg: Bedfordview and Edenvale News.

Nell, M., 2012. Katlehong Self-Help to Self- Management, Johannesburg: s.n.

Neves David, N. a. d. T. A., 2012. Money and sociality in South Africa's informal economy. Africa , pp. 131-145.

Nkomo, M., 2022. Spaza Township Art, Johannesburg: Digital Niche.

Ohnsorge, F. & Shu, Y., 2021. The Long Shadow of Informality: Challenges and Policies. In: Washington: The World Bank, pp. 33-69.

Omar, B., 2004. 1994 election queue, Johannesburg: South African History Online.

onlinemaps\_emmgisonline, 2022. Ekurhuleni Gis. [Online] Available at: <https://www.arcgis.com/home/item.html?id=9e-62138c6a6e4955ad8f215695c2b2ae>

[Accessed 7 June 2022].

OpenStreetMap, 2022. OpenStreetMap. [Online]

Available at: <https://www.openstreetmap.org/search?query=katlehong#map=14/-26.3385/28.1511>

[Accessed 2 September 2022].

PalmSheild, 2022. PalmSheild. [Online]

Available at: [almshieldlouvers.com/2020/03/06/the-evolution-of-architectural-screening/](https://almshieldlouvers.com/2020/03/06/the-evolution-of-architectural-screening/)

[Accessed 6 June 2022].

Patrick, J., 2018. A view of the spaza shop outlet., Johannesburg: DSI-NRF.

Petersen, L., 2018. SPAZA SHOPS. ChefPowerAlpaca, pp. 1-3.

Phonsri, P., 2022. Green grass for soccer field, s.l.: Dreamstime.

Popova, M., 2011. The marginalian. [Online]

Available at: <https://www.themarginalian.org/2011/05/17/south-african-township-barbershops-salons/>

[Accessed 29 May 2022].

Radebe, S., 2005. It's not Sandton, doll. Eproperty News.

SAFA, 2022. SAFA. [Online]

Available at: <https://www.safa.net/>

[Accessed 12 June 2022].

Schlesinger, J., 2014. Multiple nuclei model (Harris and Ullman, 1945)., Johannesburg: Storymaps.

Schlesinger, J., 2014. Concentric zone model (Burgess, 1925)., Johannesburg: Storymaps.

Schlesinger, J., 2014. Sector model (Hoyt, 1939)., Johannesburg: Storymaps.

Sue Jean, T., 2021. Living in poverty at the Witwatersrand, Jo-

hannesburg: The Heritage portal.

Sue Jean, T., 2021. No time for leisure and sport, even if we had the right clothes, Johannesburg: The Heritage portal.

Sue Jean, T., 2021. The Katlehong Bantu are grumbling - let them have more playgrounds. The Heritage Portal, pp. 1-2.

Swiegers, W., 2015. A customer hands over a five rand coin at a 'spaza' store, Johannesburg: Gettyimages.

Tank, U. T., 2012. Centro de Accao social por Musica, Sao Paulo: Urban Think Tank architects.

thato\_director\_p, 2020. Africaisnowmag. [Online]

Available at: <https://africaisnowmag.com/kasi-vogue-2/>

[Accessed 13 08 2022].

Treasury.gov.za, 2018. Public-private partnerships , Johannesburg: treasury.gov.za.

Van Der Byl, C., 2017. South Africa's Spatial Development: The Journey from 1994. In: Johannesburg: s.n., pp. 1-5.

Verasamy, D., 2021. Kathelhong community members patrol the neighbourhood to prevent looting., Johannesburg: Mail & Guardian.

V, M., A, T. & S, G., 2017. Expanding Application of Perforated Metal Materials in Construction and Architecture.. s.l.:IOP Publishing Ltd.

Wilde, T., 2018. Close up shot of 2 pairs bare feet playing football, s.l.: Gettyimages.

Winship, L., 2018. Pantsula revolution! How South Africa's townships dance got political. Thegurdian, p. 1.

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Figure 62. Soccer tournament on site((Recreated by Author,2022) [https://www.google.com/search?q=som-hlolo+ground&sxsrf=AJOqlzV4PjU1WilleuMkN-fGvykw3X-IUdQ:1676155655796&source=lnms&tbm=isch&sa=X-&ved=2ahUKEwjwxM6zxo79AhXTasAKHQayCW8Q\\_AUoAX-oECAEQAw&biw=1536&bih=746&dpr=1.25](https://www.google.com/search?q=som-hlolo+ground&sxsrf=AJOqlzV4PjU1WilleuMkN-fGvykw3X-IUdQ:1676155655796&source=lnms&tbm=isch&sa=X-&ved=2ahUKEwjwxM6zxo79AhXTasAKHQayCW8Q_AUoAX-oECAEQAw&biw=1536&bih=746&dpr=1.25)

Figure 63. Taxi rank number 2 entrance (Iwan Baan 2012).

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31 August 2022  
Person No: 1358439  
PAG

Ms MP Mashiloane  
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Dear Ms Modiehi Mashiloane

**Master of Architecture (Professional): Approval of Title**

We have pleasure in advising that your proposal entitled "*Tsa Ko Kasi*", *Refashioning the spaza shop through social and cultural agency in Katlehong* has been approved. Please note that any amendments to this title have to be endorsed by the Faculty's higher degrees committee and formally approved.

Yours sincerely

A handwritten signature in black ink, appearing to read "Yaseen Stoffberg".

Mr Yaseen Stoffberg  
Faculty Registrar  
Faculty of Engineering and the Built Environment