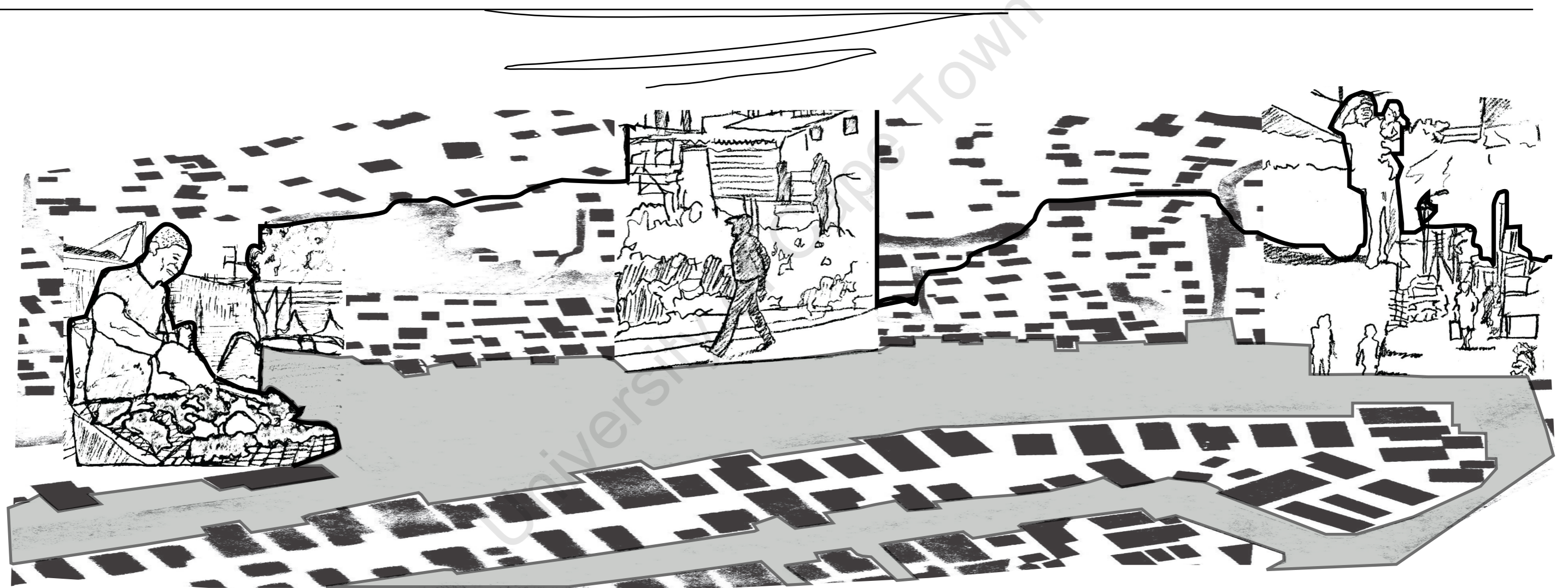


SHAPING STREETSCAPES WITHIN THE COMPLEXITIES OF URBAN INFORMALITIES IN THE CAPE FLATS



The copyright of this thesis vests in the author. No quotation from it or information derived from it is to be published without full acknowledgement of the source. The thesis is to be used for private study or non-commercial research purposes only.

Published by the University of Cape Town (UCT) in terms of the non-exclusive license granted to UCT by the author.

Shaping Streetscapes within the Complexities of Urban Informalities in the Cape Flats

Zizipho Mbambo
MBMZ002

SUBMITTED IN PARTIAL FULFILLMENT OF THE MASTER OF
LANDSCAPE ARCHITECTURE DEGREE

120 CREDITS

SUPERVISOR - Clinton Hindes, Tarna Klitzner & Dr Christine Price

NOVEMBER 2023



'I HEREBY GRANT THE UNIVERSITY FREE LICENSE TO REPRODUCE THE ABOVE DISSERTATION IN WHOLE OR IN PART, FOR THE PURPOSE OF RESEARCH.'

The copyright of this thesis vests in the author. No quotation from it or information derived from it is to be published without full acknowledgement of the source. The thesis is to be used for private study or noncommercial research purposes only.

Published by the University of Cape Town (UCT) in terms of the non-exclusive license granted to UCT by the author.

DECLARATION OF FREE LICENSE

I, Zizipho Mbambo, MBMZIZ002 , hereby;

a) Grant the University free license to reproduce the above thesis in whole or in part, for the purpose of research

b) Declare that;

1. The above thesis is my own unaided work, both in composition and execution, and that apart from the normal guidance of my supervisor, I have received no assistance apart from that below;
2. Except as stated below, neither the substance nor any part of the thesis has been submitted in the past, or is being, or is to be submitted for a degree in the university or any other university.
3. I am now presenting the thesis for examination for the Degree of Master of Landscape Architecture.

Signature ____

PLAGIARISM DECLARATION

1. I know that plagiarism is wrong. Plagiarism is to use another's work and pretend that it is one's own.
2. I have used the ... APA 7th Ed..... convention for citation and referencing. Each contribution to, and quotation in, this essay/report/project/ ...thesis.. from the work(s) of other people has been attributed, and has been cited and referenced. Any section taken from an internet source has been referenced to that source.
3. This essay/report/project/...thesis... is my own work, and is in my own words (except where I have attributed it to others).
4. I have not allowed, and will not allow, anyone to copy my work with the intention of passing it off as his or her own work.
5. I acknowledge that copying someone else's assignment or essay, or part of it, is wrong, and declare that this is my own work.

Signature _

TABLE OF CONTENTS

| | |
|---|--------|
| Declaration of free license | i |
| Plagiarism declaration | i |
| Table of contents | ii-iii |
| List of figures | iv |
| ABSTRACT | v |
| PROLOGUE: Opportunities for change | vi |
| VISION | vii |
| MANIFESTO | viii |
| PROMPT | ix |
| ACTIVE PARTICIPANT | x |
| CHAPTER 1 | |
| 1.1. THEORETICAL FRAMEWORK: key concepts | |
| 1.1.1. Vending, mobility and socializing | 1 |
| 1.1.2. Formal vs informal | 2 |
| 1.2. KEY DESIGN PRINCIPLES | 3 |
| 1.3. PRECEDENCE: | |
| 1.3.1. Global North | 4 |
| 1.3.2. Global South | 4 |
| CHAPTER 2 | |
| 2.1. RESEARCH DESIGN | |
| 2.1.1. Problem Statement | 5 |
| 2.2. RESEARCH AIMS | |
| 2.2.1. Main question | 6 |
| 2.2.2. Subquestions | 6 |
| 2.3. METHODOLOGY | |

| | |
|---|--------|
| 2.3.1. Research methodology | 7 |
| 2.3.2. Design methodology | 7 |
| CHAPTER 3 | |
| 3.1. LOCAL CONTEXT: township vibes | 8 |
| 3.1.1. Character of the street | 9 |
| 3.2. CONTEXTUAL ANALYSIS | 10 |
| 3.3. LOCAL SITE ANALYSIS | 11 |
| 3.4. STREET TYPOLOGY | 12 |
| 3.5. ISSUES AND SIGNIFICANCE | 13 |
| 3.6. FRAMEWORK | 14 |
| CHAPTER 4 | |
| 4.1. DESIGN EXPLORATION | |
| 4.1.1. Design Strategies | 15 |
| 4.1.2. Design Development | 16 -17 |
| 4.1.3. Proposed Design | 18 -19 |
| 4.1.4. Sections | 20 |
| 4.1.4. Perspectives | 21 |
| 4.1.5. Materials | 21 |
| CHAPTER 5 | |
| 5.1. CONSTRUCTION DRAWING | |
| 5.1.1. Site Plan & Plan Drawings | 22 |
| 5.1.2. Detail drawings | 23 -24 |
| CHAPTER 6 | |
| 6.1. CONCLUSION /REFLECTION | 25 |
| REFERENCES | 26 |
| APPENDIX | 27 |

List of figures

Figure 1: Street in Khayelitsha, Image: Esa Alexander

Figure 2: Collage of Khayelitsha community/ lifestyle by Author

Figure 3: Collage suggesting a streetscape within the complexities of urban informality by Author

Figure 4: Story board of Ta Mike (Active participant). by Author

Figure 5: NOTES,& quotes from the readings about informal areas & their systems (UN-Habitat,2019)

Figure 6: Global North Precedence, Source (Interim Design Strategies, 2015)

Figure 7: Global South Precedence, Source (UN-Habitat,2019)

Figure 8: Diagram illustrating the methods that will be used to analyze. Source Author

Figure 9: Location of the Cape Flats in Cape Town. Basemap source: Esri

Figure 10: Location of Khayelitsha. Basemap source: Esri

Figure 11: Informal settlement of Khayelitsha. Basemap source: Esri

In the heart of Cape Flats, where stories unfold,
Streets breathe life, tales waiting to be told.
In the bustling urban maze
Informalities dance in vibrant haze.

A mosaic of resilience, a beacon that believes,
In the power of unity and shared spaces,
Where the heartbeat of a community embraces.

Mothers with laughter, children at play,
Elders sharing wisdom, day by day.
The streets are their canvas, where life takes flight.

To bridge the gap between words and life outside,
For within the verses, a world comes alive,
Where streetscape and humanity strive.

**In Khayelitsha, where wonders unfold,
Let's shape a streetscape, resilient and bold.**



Figure 1: Street in Khayelitsha, Image: Esa Alexander

ABSTRACT

This study focuses on investigating the role of Landscape Architecture in shaping the streetscape within the complexities of urban informality, specifically in the context of Khayelitsha's Mew Way Road. Khayelitsha is located on the outskirts of Cape Town, South Africa. Khayelitsha is characterized by a mix of formal and informal housing, with informal settlements making up a significant portion of the area.

By recognizing the importance of inclusive design, this research explores how Landscape Architecture can contribute to creating functional and vibrant streetscapes that effectively respond to the needs and aspirations of the local community.

Utilizing a qualitative research approach, including in-depth interviews, site observations, and design analysis, this study aims to identify strategies for designing streetscapes that better accommodate and enhance informal social and economic activities in Khayelitsha.

Finally, the streetscape design strategies are tested in a design intervention that aims to accommodate informal social and economic activities and make use of place-making interventions to support livelihoods and well-being. By building on existing energies in the informal settlement / embracing informal activities, improving services, and creating positive dignified space. Enhancing the informal economy by providing spaces and shaded areas for trading.

KEY WORDS: Landscape Architecture, urban informality, streetscape design, place making principles, infrastructural intervention, cultural activities, Cape Flats, inclusivity, informal social and economic activities.

Public space



PROLOGUE: Opportunities for change

The streetscape reflects a unique blend of historical influences, societal dynamics, and spatial limitations in the Cape Flats. This proposal aims to explore the complexities of urban formality and its impact on the diverse streetscapes that define this vibrant community of Khayelitsha in the Cape Flats. The streetscapes of Khayelitsha showcase rich identities and aspirations. Through this project, I aim to design streetscape as an emergency response to the existing context, with the understanding that things will change with time making use of place-making interventions to support the livelihoods and well-being of informal settlement residents.

Khayelitsha Township is situated 19km east of Wynberg and 30 km south-east of Cape Town in the Western Cape. The name is of Xhosa origin and means 'new home'. Khayelitsha is known for its rich culture, resilient community, and diverse informal economies. The sense of togetherness and communal support and sharing of resources.



Figure 2: Collage of Khayelitsha community/ lifestyle by Author

VISION



Figure 3: Collage suggesting a streetscape within the complexities of urban informality by Author

MANIFESTO

shaping streetscapes

MANIFESTO: Embracing Urban Informality for Vibrant Streetscapes in the Cape Flats

In the heart of the Cape Flats lies a unique blend of urban informality, where communities thrive between the complexities of their surroundings. I believe that Landscape Architecture holds the key to shaping streetscapes that effectively accommodate and enhance the social and economic activities, while addressing the challenges and opportunities of urban informality.

Vision

My vision is to create streetscape in Khayelitsha that is vibrant, inclusive, and reflective of the rich cultural heritage of the community. We envision a place where streets are not just channel for movement, but living spaces that foster a sense of belonging and pride.

Principles

- Embracing Diversity and Inclusivity
- Balancing Formal and Informal Elements
- Community Engagement and Participation
- Sustainability and Resilience

Strategies and Actions

- Integrating Informal Trading Spaces: Embrace the vibrant informal economy of the Cape Flats by integrating dedicated spaces for informal trading within the streetscapes.

- Flexible and Adaptable Spaces: Design streetscapes that are flexible and adaptable to accommodate the dynamic activities of urban informality.

- Safe and Accessible Pedestrian Networks: Prioritize the safety and accessibility of pedestrians by designing streetscapes that prioritize foot traffic.

- Communal Water Points: Designating certain water points as communal gathering spaces can create opportunities for social interaction.

- Green Infrastructure: Integrate green infrastructure throughout the streetscapes.

- Cultural References and Local Materials: Design approach that incorporates the cultural heritage of the Cape Flats, utilizing local materials and design elements that resonate with the community. This creates a sense of identity and pride, showcasing the unique cultural vibrancy of the area.

PROMPT

Khayelitsha, located just off the N2 highway, is the largest township in Cape Town. It is situated approximately 30 kilometers southeast of the city centre on the Cape Flats. Khayelitsha is characterized by old formal areas and new informal/formal areas, with informal settlements being a significant portion of the area. These informal settlements often lack basic services and infrastructure, leaving the residents to face significant social and economic challenges.

Despite these challenges, the residents of Khayelitsha have developed resilient communities that centre around the streets and public spaces of their neighborhoods. Informal vending, socializing, and mobility activities are common along these streets and play a critical role in supporting the local economy and social fabric of the area. From a landscape architecture perspective, the informal activities that take place on the streets of Khayelitsha present both challenges and opportunities. The lack of formal infrastructure lead to negative environmental impacts such as soil erosion, water pollution, and waste accumulation. However, the informality of these activities create unique opportunities for creative and sustainable that can improve the quality of life for residents and promote ecological sustainability.

The lack of comprehensive and integrated design strategies that account for the complex social, economic, and ecological factors at play in this informal urban landscape inhibits the development of sustainable and inclusive urban spaces. I intend to recognize and support the value of informal practices as valuable contribution to Khayelitsha and protect the livelihoods of those who engage in them.

By supporting the creativity, resilience, and diversity of the residents, regardless of their social, economic, or cultural backgrounds circumstances, one can help protect their livelihoods and recognize the value of their informal practices. I believe this can be achieved by embracing the informalities that exist in the streets of Khayelitsha. I believe that by embracing the informalities that exist in Khayelitsha and finding innovative and inclusive ways to integrate them into planning processes, we can support the creativity, resilience, and diversity of the community while also protecting the livelihoods of those who engage in these activities.

ACTIVE PARTICIPANT

shaping streetscapes

Ta Mike is an imaginary person who will be part of my design research. I chose Ta Mike's characteristics and experiences specifically because they closely align with those of many people living in Khayelitsha.

Ta Mike grew up in a low-income family and has direct experience with many of the issues that individuals in this region confront, such as limited access to basic infrastructure and work possibilities. I hope to gain significant insight into the needs and wishes of the larger society by visualizing how Ta Mike might handle certain circumstances.

Ta Mike will be an important resource throughout my design research process. I plan on using them as a framework for conducting user interviews, user testing, and other research activities.

By asking participants questions about how they think Ta Mike might react in different situations, I hope to better understand their own perspectives and experiences. For now, I plan on keeping Ta Mike as an internal tool.

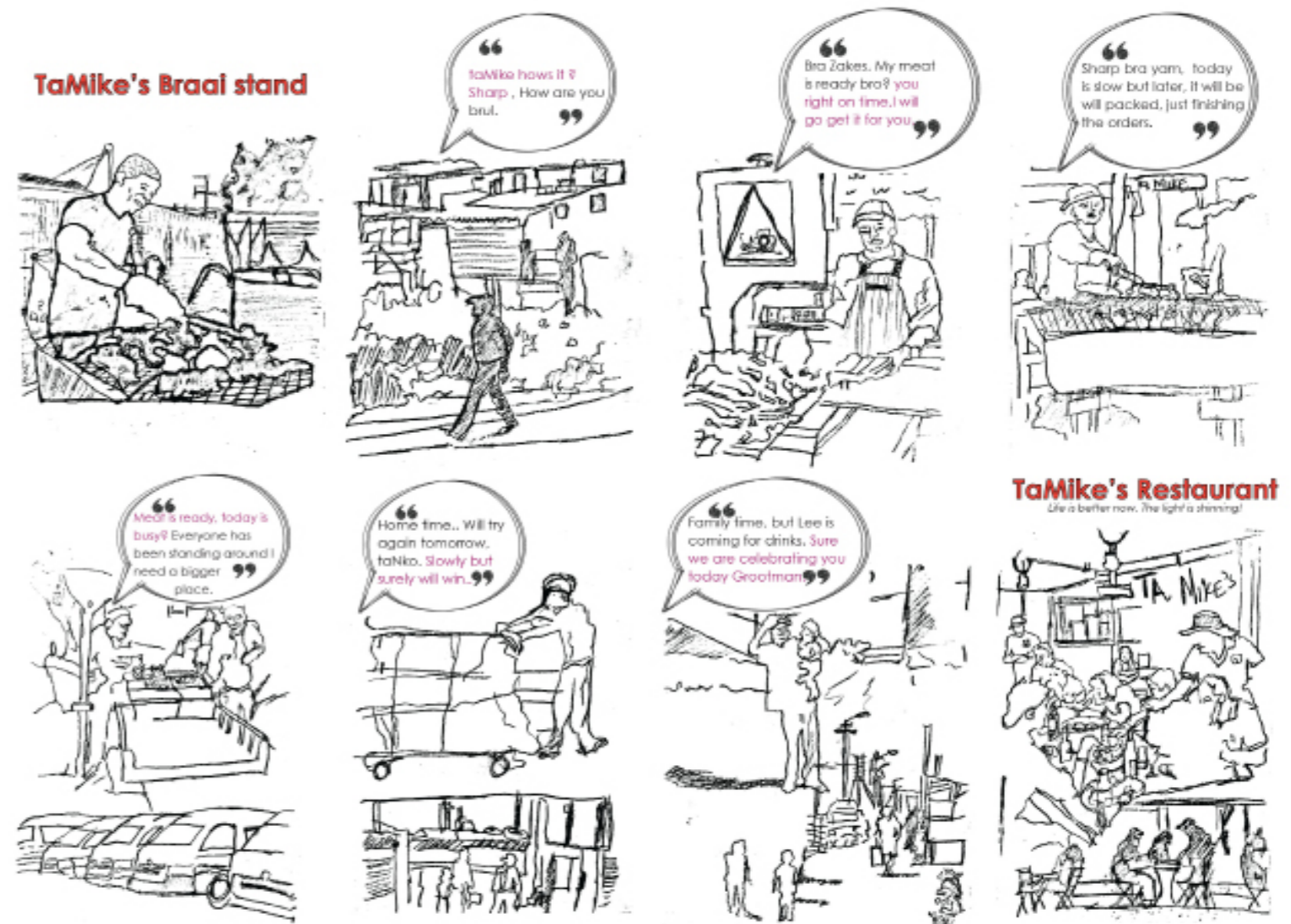


Figure 4: Story board of Ta Mike (Active participant). by Author

CHAPTER 1

shaping streetscapes

1.1. THEORETICAL FRAMEWORK: key concepts

1.1.1. Vending, mobility and socializing

The thesis argues that the informality of street vending in Khayelitsha plays a significant role in shaping mobility patterns and socializing among residents. Vendors create bustling and dynamic activity on the streets, attracting pedestrians and transport users, which can alter the flow of people across the area. In this way, vending can both stimulate and disrupt mobility patterns.

The informal nature of vending can lead to socializing among vendors and residents. Relationships formed can lead to social and economic benefits, including better access to goods, employment opportunities, and social support networks. However, depending on how vendors organize themselves, their activities could displace or exclude less prominent vendors or compete with established businesses.

The concept of informality along the streets of the Khayelitsha is closely related to the study, which delves into aspects of vending, mobility, and socializing in the area. In order to understand the depth of knowledge that already exists in this area, it is important to first understand the significance of each of these concepts.

Vending such as my imaginary active participant, Ta Mike refers to the practice of selling goods and services on the streets, which is common in the Cape Flats region. The mobility aspect is important as it refers to the movements of vendors and customers in the area.

Movement includes foot traffic, transportation, and the physical layout of the streets which can affect the flow of business. In addition, socializing refers to the interactions between the vendors, customers, and other members of the community in Khayelitsha. This can include the development of social networks, the sharing of cultural experiences, and the formation of informal communities.

As far as the level of knowledge that already exists in this area, several studies have been conducted that have shed light on the informal economy in Cape Flats. These studies have focused on issues such as the role of informal traders in the local economy, the challenges they face in terms of regulation, and the relationship between political processes and informal economies (Turok et al., 2015).

One notable study the informal economy and its contribution to local economic development in South Africa, in particular, examined the relationship between the informal economy and the larger economy of Cape Flats. It found that the informal sector played a critical role in meeting the needs of local communities while also contributing to the larger economy through the creation of jobs and the generation of income (Smit et al., 2015).

CHAPTER 1

shaping streetscapes

1.1.2. Formal vs informal

The distinction between formal and informal settlements is not always clear-cut and binary. In many cases, formal and informal settlements are interconnected and intertwined, creating a complex urban landscape. The concept of urban informality refers to various forms of housing, economic activities, and social structures that exist outside the formal legal framework.

Urban informality arises as a response to conditions of poverty but also serve as a way for communities to adapt to poverty. These morphologies can vary greatly, ranging from temporary makeshift structures to more permanent and organized dwellings. They are shaped by factors such as the availability of resources, socio-economic conditions, cultural practices, and historical development.

It requires a holistic approach that takes into account the complex interactions between formal and informal elements, and seeks to provide appropriate infrastructure, services, and legal frameworks while also respecting the social and economic dynamics within informal settlements. Understanding the complexities of these intertwined formal and informal dynamics is crucial for urban planners and policymakers. It highlights the importance of adopting an inclusive and holistic approach to urban

development that recognizes the agency and resilience of informal communities. This approach involves creating policies and interventions that improve living conditions, infrastructure, and access to essential services while also integrating the existing social fabric and community networks.

The UN-Habitat Executive Director speaks about the positive impact of the Public Space Programs work in Dandora, Nairobi. The below notes were taken from the video of residents taking charge of their environment.



Figure 5: NOTES, & quotes from the readings about informal areas & their systems (UN-Habitat, 2019)

CHAPTER 1

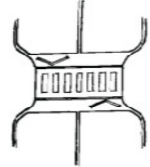
shaping streetscapes

1.2. KEY DESIGN PRINCIPLES: Global North

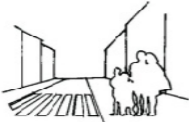
Streets for Everyone
Design streets to be equitable and inclusive, serving the needs and functions of diverse users.



Streets for Safety
Design streets to be safe and comfortable for all users. Prioritize the safety of pedestrians, cyclists, and the most vulnerable users among them.



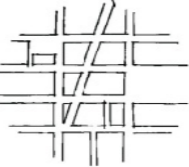
Streets are Multidimensional Spaces
Design the street in space and time. Streets are multidimensional, dynamic spaces that people experience with all their senses.



Streets for Health
Design streets to support healthy environments and lifestyle choices. Street designs that support active transportation and integrate green infrastructure strategies.



Streets are Public Spaces
Design streets as quality public spaces, as well as pathways for movement.



Streets are Multimodal
Design for a range of mobility choices, prioritizing active and sustainable modes of transport. Safe, efficient, and comfortable experiences for pedestrians, cyclists, and transit riders.



Streets as Ecosystems
Integrate contextual green infrastructure measures to improve the livability and quality of the urban ecosystem.



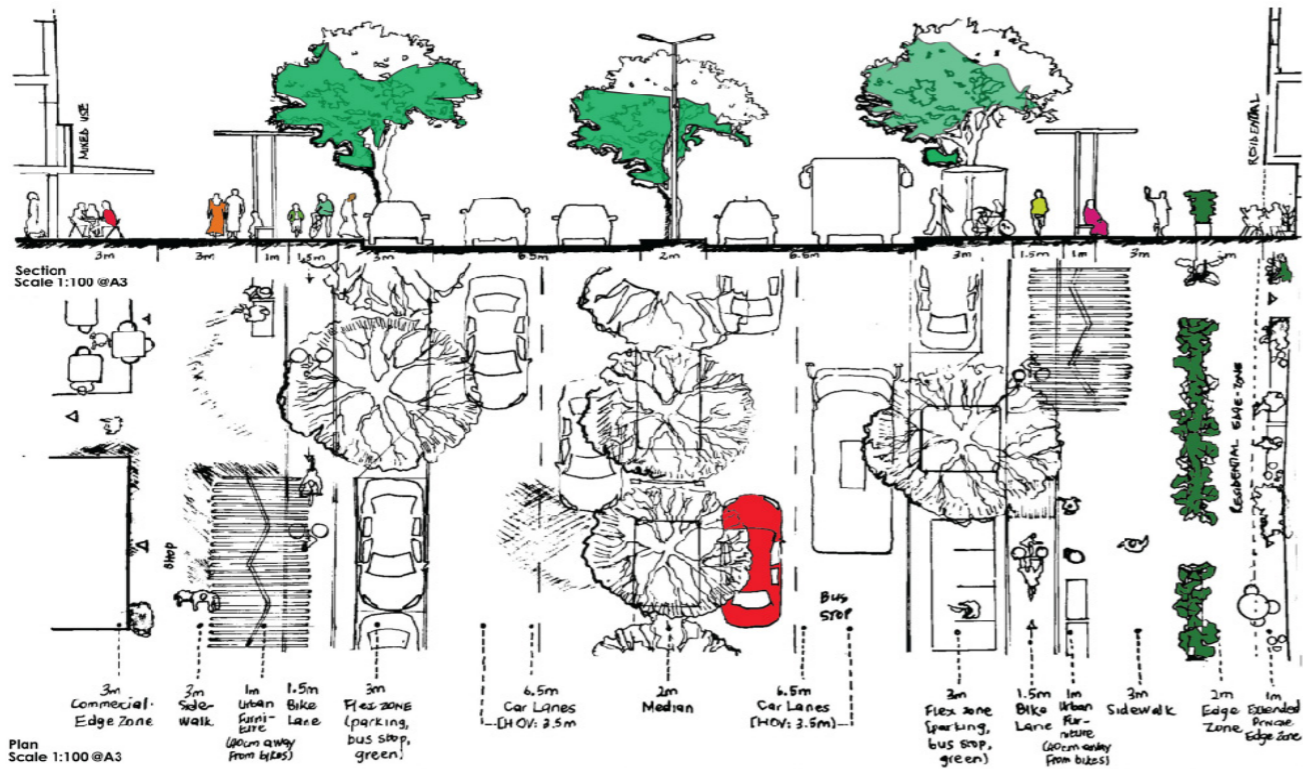
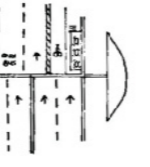
Great Streets Create Value
Design all streets to be an economic asset as well as a functional element.



Streets for Context
Design streets to reinforce and support the current and planned contexts at multiple scales.

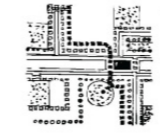


Streets Can Change
Design streets to reflect a new set of priorities that ensures appropriate distribution of space among different users.

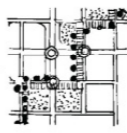


Global South

PRINCIPLES FOR STREET DESIGN



Connected Streets
Streets are part of a movement system. These movement systems comprise all modes of transport and include the ability for people to walk, run, and cycle.



Flexible + Active Streets
Roads for cars and streets include spaces that accommodate more dedicated activities for people.



Appropriate Scale + Placement
The scale of the road accommodates buildings adjacent to it.



Streets for Everyone
Streets must be designed to accommodate everyone.



Integrated Ecology
Make room for the ecology of the street. First, retain the ecological system.



Embed Memory
Respect sites of particular deep cultural practices in public space.



Safe Streets
Promote safe streets that prioritize the functional safety of pedestrians interacting with vehicles.



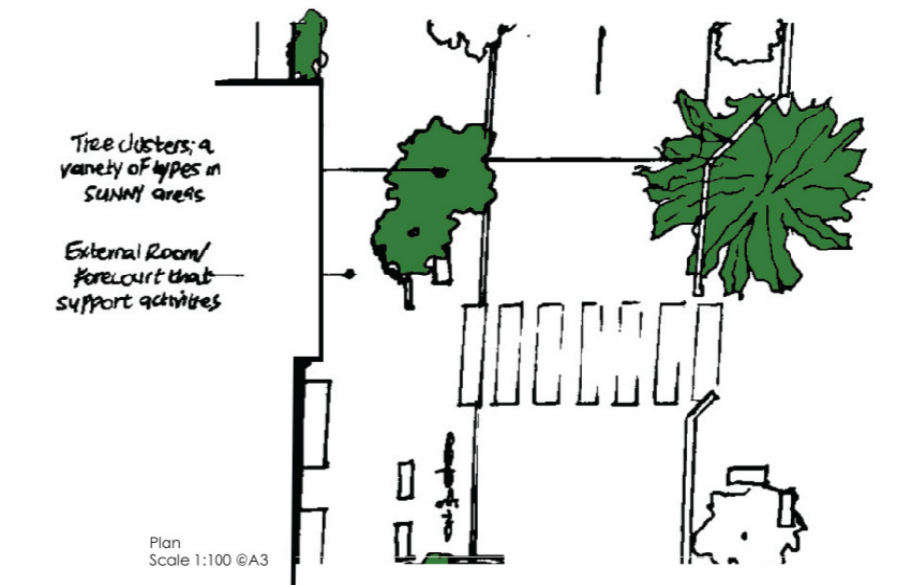
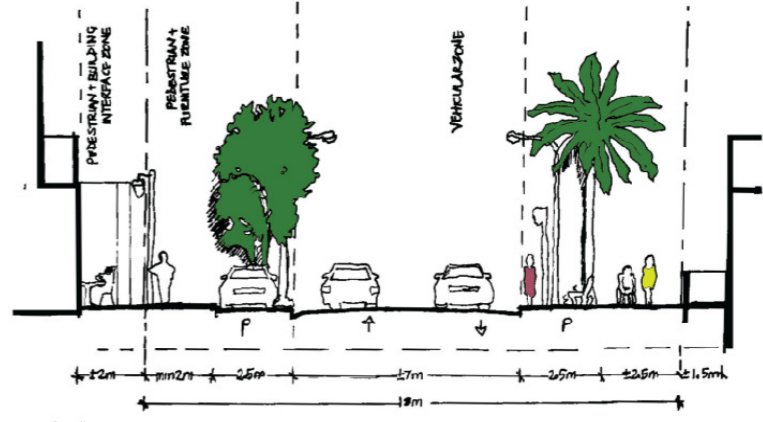
Active Interfaces
The design of buildings and places adjacent to streets should create positive interfaces where issues that relate to the street are made visible and are allowed to spill-out into the street.



Priority of Pedestrian Systems
When other competing systems for streets' capacity exist, pedestrian systems are preferred in the form of functioning at the level of the street to make a safe space.



Legibility and Hierarchy
Streets should clearly represent their function in their making, as well as provide clear and continuous cues through neighborhood in a manner that promotes the behavior of pedestrian permeability.



CHAPTER 1

shaping streetscapes

1.3. PRECEDENCE:

1.3.1. Global North

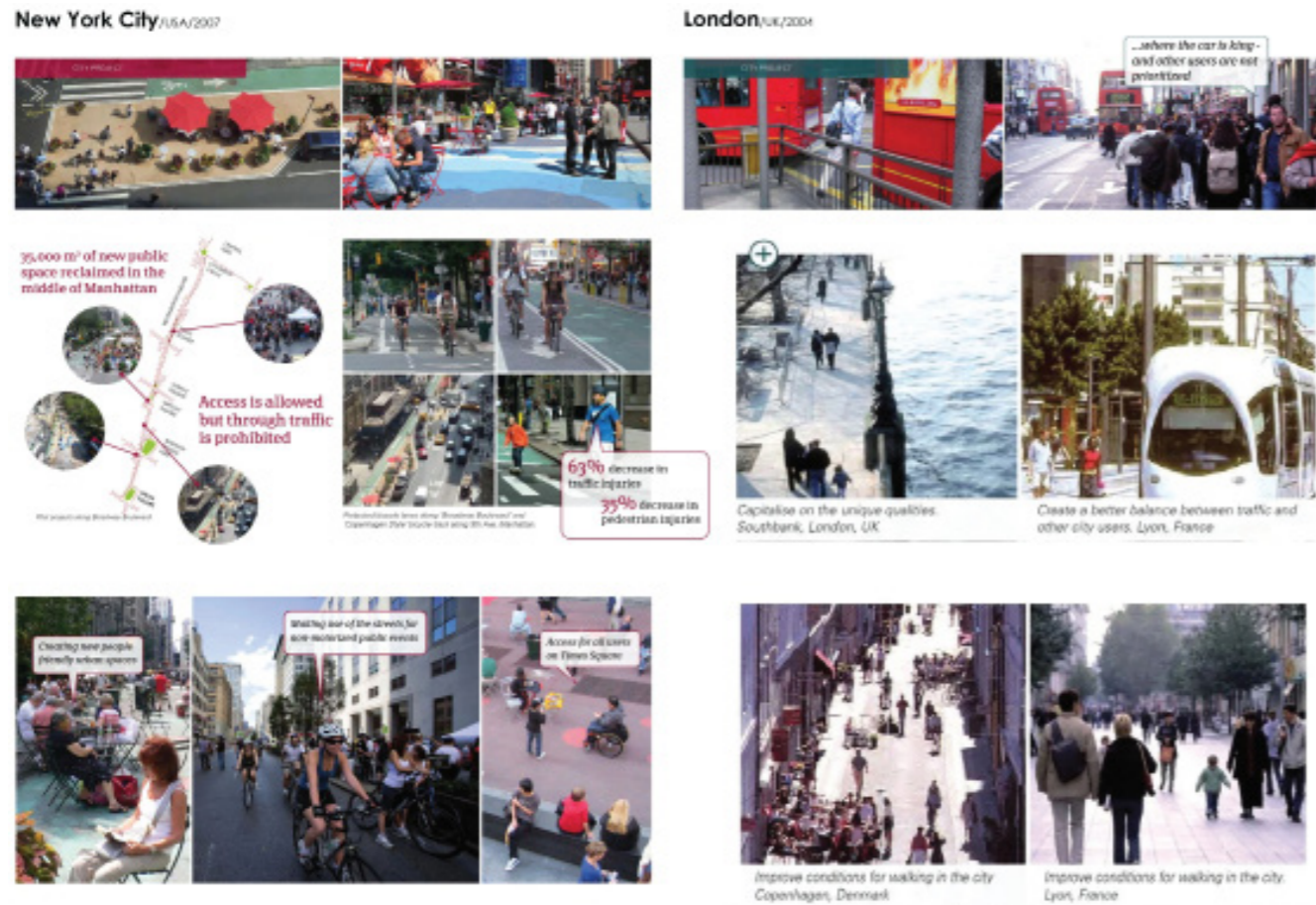


Figure 6: Global North Precedence, Source (Interim Design Strategies, 2015)

Global North precedence

Infrastructure & planning global north is often developed infrastructure with clearly defined road networks, sidewalk & public spaces prioritizing efficiency, safety & aesthetics.

The global North may offer valuable insights into creating vibrant and inclusive urban environments, they often do not address the unique challenges and requirements of informalities in the global South.

1.3.2. Global South

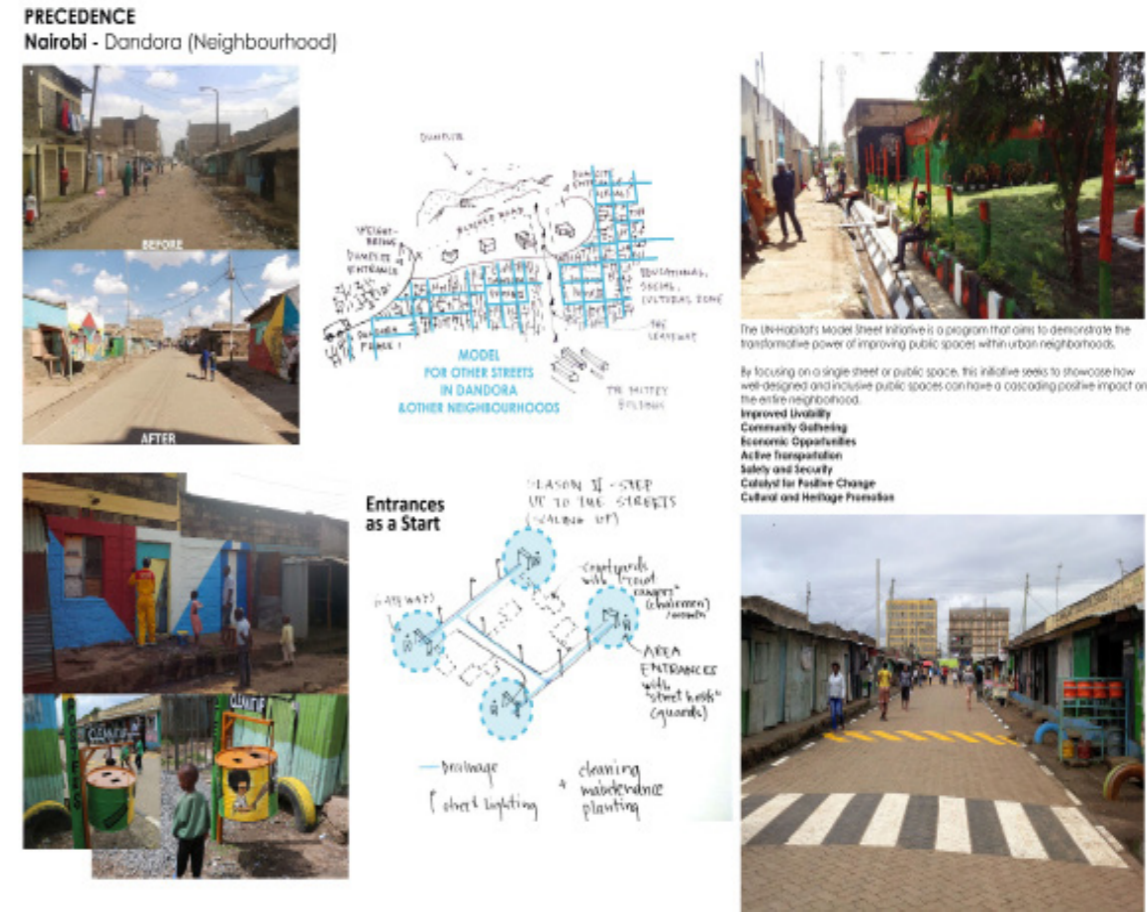


Figure 7: Global South Precedence, Source (UN-Habitat, 2019)

Global South precedence

In contrast to the global south, with inadequate infrastructure, limited resources, and informal settlements, the streetscape may lack proper sidewalks, and pedestrian-friendly design leading to a higher degree of informality.

CHAPTER 2

shaping streetscapes

2.1. RESEARCH DESIGN

2.1.1. Problem Statement: Role of Landscape Architect in shaping the streetscape within the complexities of Urban informalities in the Cape Flats particularly in Khayelitsha.

The streetscape within urban informality in Khayelitsha is an interesting aspect to explore because it influences social interactions, mobility, and access to basic services. By studying and shaping the streetscape, I can analyze how it impacts the quality of life and the sense of community.

Mew Way Street is one of the main roads in Khayelitsha, located in the Cape Flats area of Cape Town. It is an important thoroughfare that runs through the heart of the township, connecting various neighborhoods and providing access to different amenities and facilities. The multifaceted challenges along Mew Way Street, emphasize the significance of addressing diverse factors such as safety, sanitation, waste management, and traffic flow, there is no quality of the public realm in the street and drainage systems.

These complex issues contribute to the overall quality of the streetscape and greatly impact the well-being of the community. The aim is to explore various aspects related to the design of streets, the role of community participation in shaping the streetscape, the impact of infrastructure and amenities, and strategies for improving the overall living conditions of residents.

CHAPTER 2

shaping streetscapes

2.2. RESEARCH AIMS

The aim is to enhance the quality of the streetscape, improve livability, promote social interaction, and foster resilience within the community. These goals are aligned with creating a more sustainable, equitable, and inclusive urban environment. By acknowledging and understanding the multidimensional nature of the challenges faced by the streets in Khayelitsha, this research aims to propose design strategies that holistically enhance the streetscape of Mew Way.

2.2.1. Main question

- How can Landscape Architecture contribute to the design of streetscapes in the Cape Flats that effectively accommodate and enhance informal social and economic activities, while addressing the unique challenges and opportunities presented by urban informality and fostering a sense of place and cultural vibrancy within the community?

2.2.2 Subquestions

- How does the physical layout and design of streetscapes impact informal social and economic activities in the Cape Flats?

- What are the specific needs and requirements of informal vendors, markets, and service providers in terms of space, infrastructure, and accessibility within the streetscape?

- How can the design of streetscapes in the Cape Flats incorporate flexible and adaptable spaces that can accommodate the dynamic nature of informal activities?

- What strategies can be employed to integrate formal infrastructure and services into the informal streetscape in a way that benefits the community without displacing or marginalizing informal businesses?

- How do socializing activities along streets shape the perception and use of public spaces? How can landscape architects develop a comprehensive, integrated design strategy that fosters sustainable and inclusive urban development in Cape Flats streetscapes?

CHAPTER 2

shaping streetscapes

2.3. METHODOLOGY

2.3.1. Research Methodology

Streetscapes are essential for the social and cultural life of a city, and their design and accessibility play an important role in shaping people's behavior. To understand the site, this research will use a design approach with the creative use of drawing photo stories, photo montages, and observation to gain insight into the site.

2.3.2. Design Methodology

- Research and Analysis: Contextual and local analysis of the existing streetscape and urban informalities in the Cape Flats (Mew Way).
- Design Principles: design principles that address the specific needs and challenges of the Cape Flats context. Principles that consider safety, accessibility, inclusivity, and functionality. Incorporating sustainable design strategies, such as green infrastructure and water management.
- Flexibility and Adaptability: Recognize the ever-changing nature of urban informalities and design the streetscape to be flexible and adaptable. Designing spaces that can accommodate multiple uses and functions. Elements such as market stalls, informal trading spaces, and gathering areas support and enhance the existing informal dynamics.

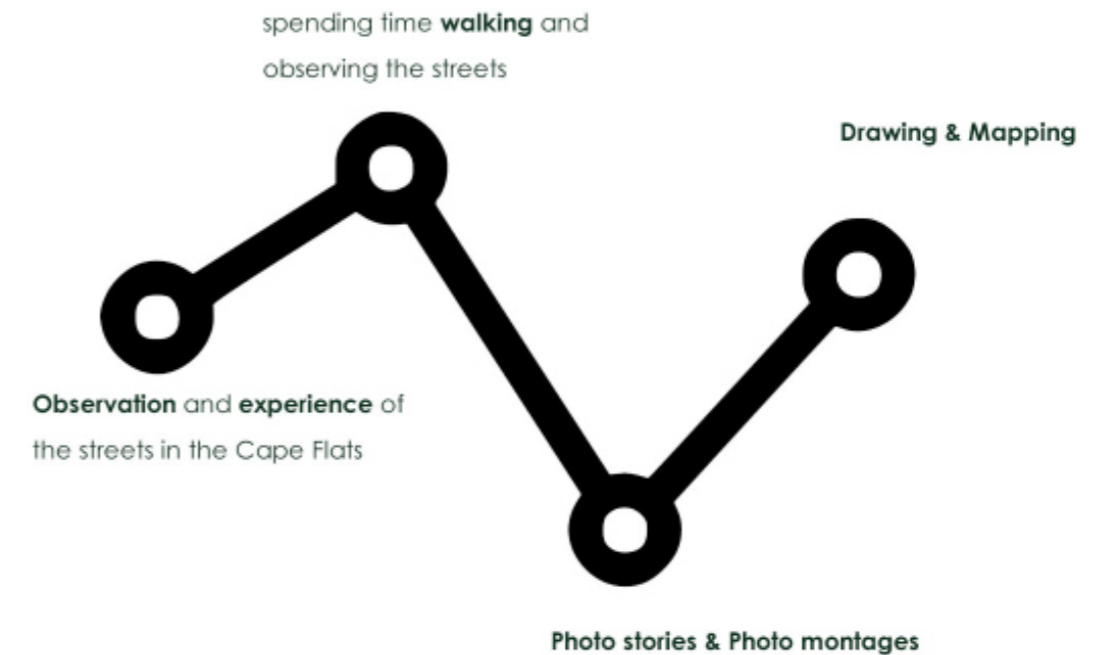


Figure 8: Diagram illustrating the methods that will be used to analyze. Source Author

- Integration of Informalities: Integrate the informal economies and activities into the formal urban fabric.
- Safety: Prioritizing safety and security in the streetscape design.
- Placemaking: Streets should be more than just transportation corridors; they should also be vibrant public spaces. Incorporate elements that enhance the quality of the public realm.

CHAPTER 3

shaping streetscapes

3.1. LOCAL CONTEXT township vibes

Khayelitsha is one of the largest townships located outside of Cape Town. It was established in the 1980s during the apartheid era as a result of forced removals and segregation policies. Today, it is a vibrant and bustling community with a population of over 400,000 people. Mew Way Street located in Khayelitsha serves as a key transportation hub, with minibusses, taxis, and other forms of public transportation operating along the road. It provides important connectivity for residents, allowing them to easily access other parts of Khayelitsha and beyond.

Mew Way Street is an integral part of Khayelitsha's vibrant and dynamic community, reflecting its residents' resilience, creativity, and entrepreneurial spirit. Currently, the street is characterized by informal settlements on the west side and a mix of formal and informal settlements on the east. Both consist of informal traders along and within the context.

Khayelitsha, like many informal settlements and townships, faces a range of challenges. Such as inadequate infrastructure, limited access to basic services, and high levels of poverty and unemployment. However, it is also a place of resilience, community strength, and cultural richness.

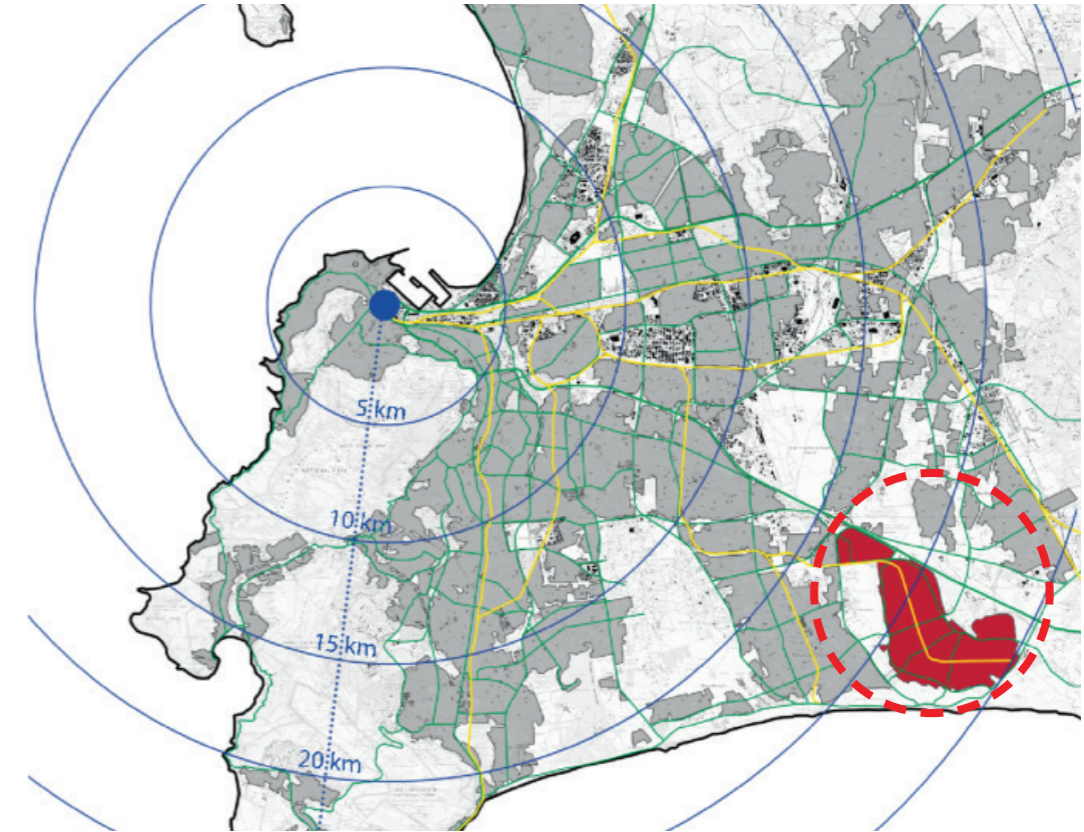


Figure 9: Location of the Cape Flats in Cape Town. Basemap source: Esri

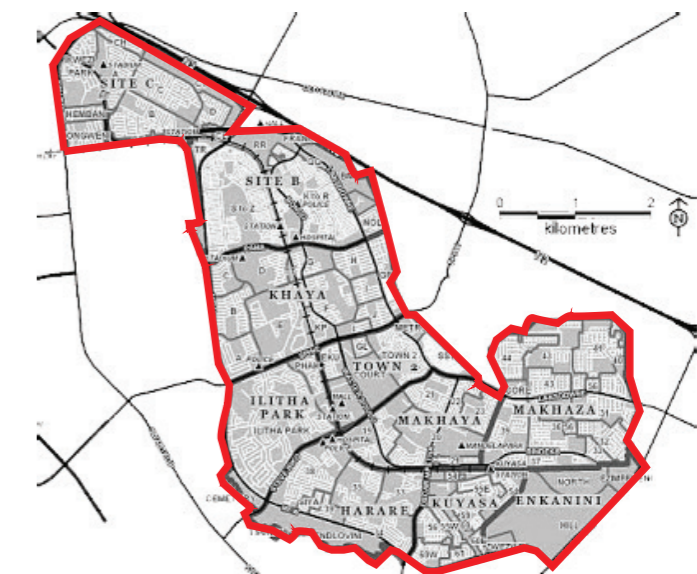


Figure 10: Location of Khayelitsha. Basemap source: Esri

CHAPTER 3

shaping streetscapes

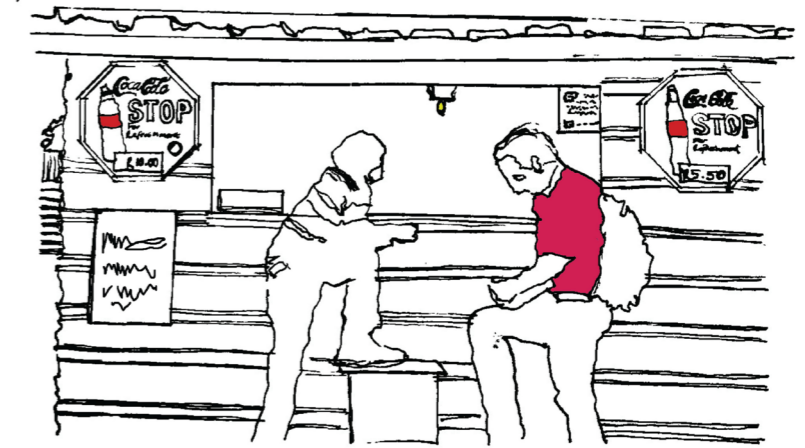
3.1.1. Character of the street



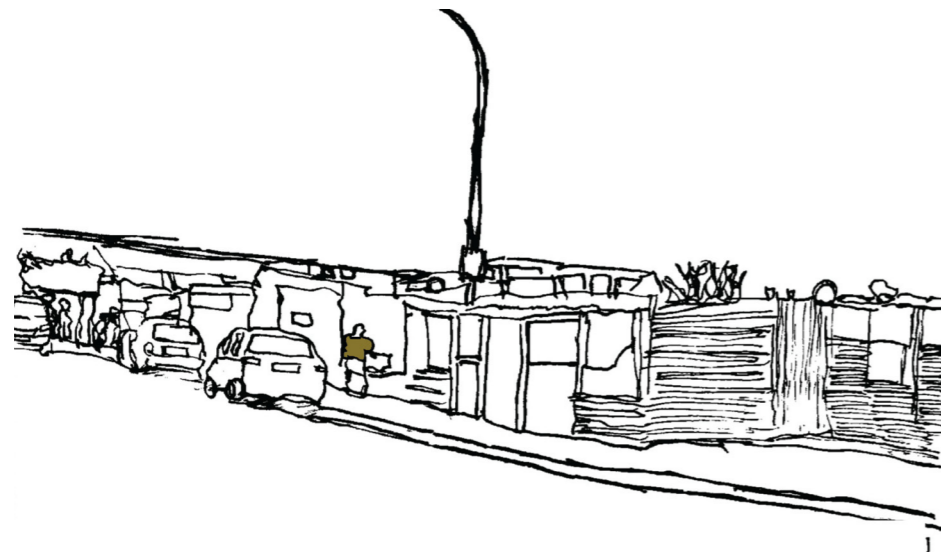
Tap stands are commonly found along the informality and act as access points for community members to collect water.



Hair salons along the streets in informal settlements often serve as community gathering spots



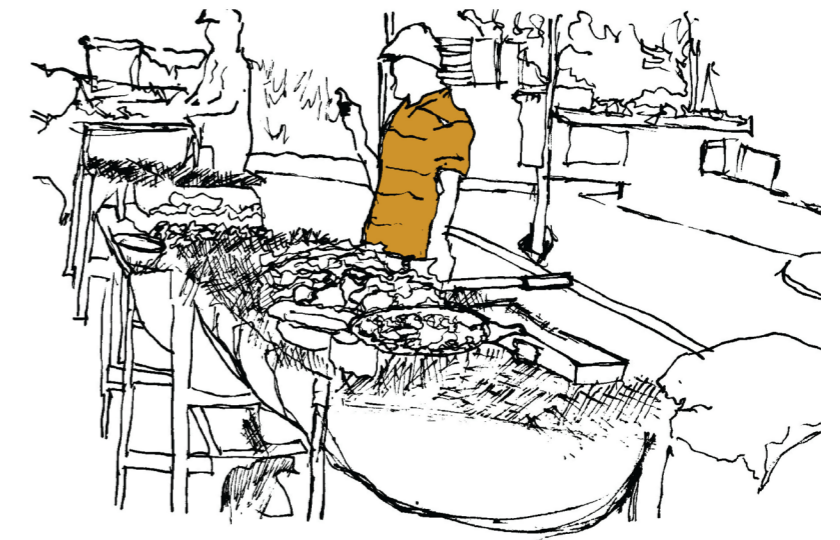
Spaza shops are often set up makeshift stalls or sell their products from portable carts and display their merchandise along the streets.



Settlements often vary in terms of construction materials, size, and overall quality. They reflect the resourcefulness and resilience.



Mobile sellers using trolleys offer a wide range of goods and services to cater to the needs of the community.

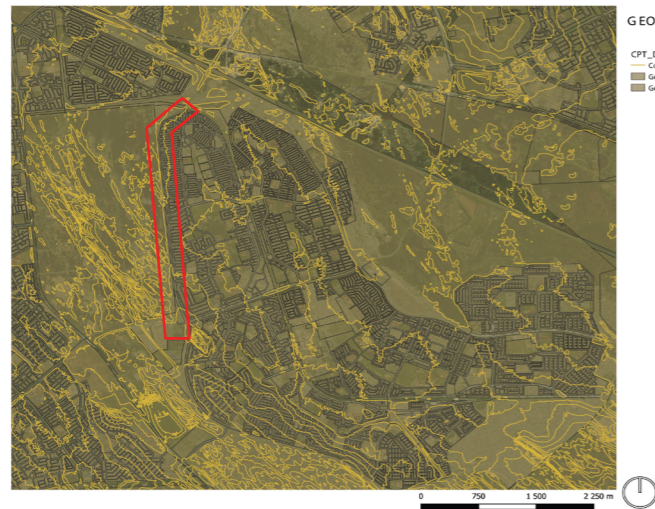


Braai stands are usually set up in open spaces along the streets, creating an inviting atmosphere for grilling and socializing.

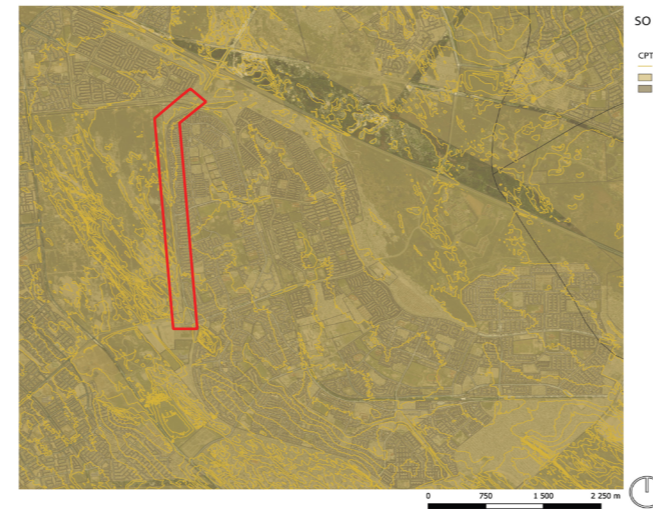
CHAPTER 3

shaping streetscapes

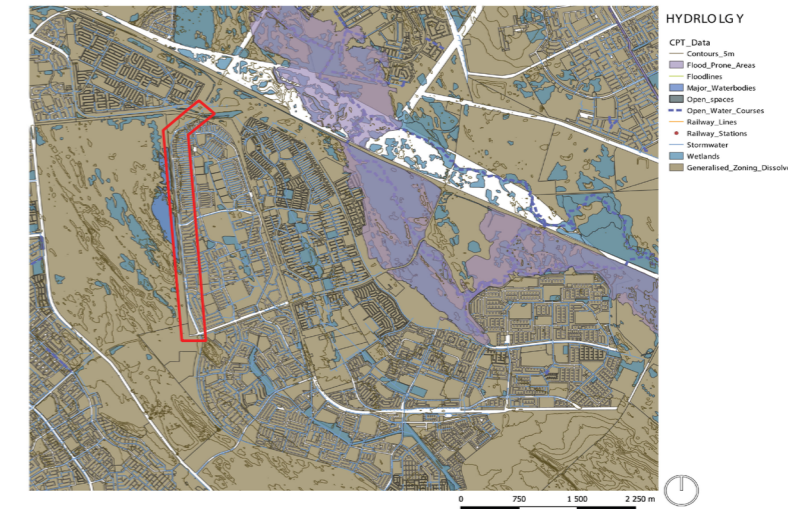
3.2. CONTEXTUAL ANALYSIS



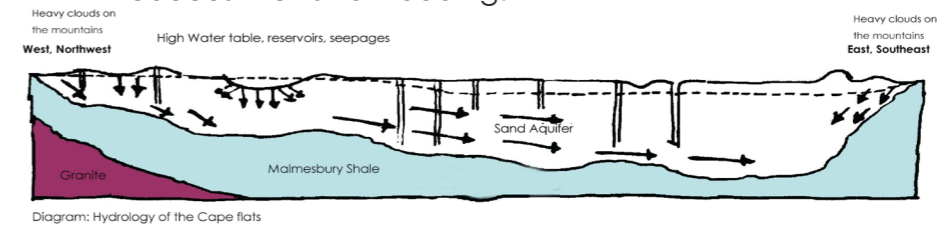
The geology of Cape Flats reveal unique geological features, such as dune systems that contribute to the area's ecological value. Areas with sandy or poorly consolidated soils may present challenges for construction.



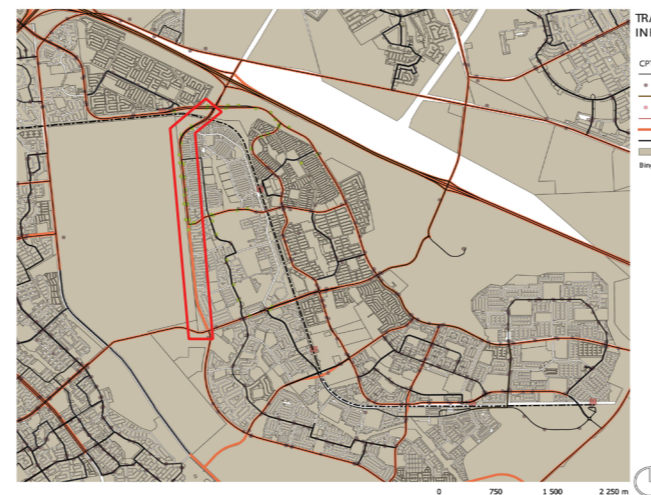
The sandy soil found in the Cape Flats is a result of the geological processes that have risk of flooding. The soil type is primarily sandy soil, poses both challenges and opportunities in shaping informality in the area.



This ensures proper water management and reduces the risk of flooding.



Open spaces and parks are invaluable assets that promote community engagement. The location of these spaces vary and may lead to some areas not have a public space.



Existing infrastructure of the current state of mobility and transportation within Cape Flats. This includes road networks, public transportation systems, and pedestrian infrastructure.

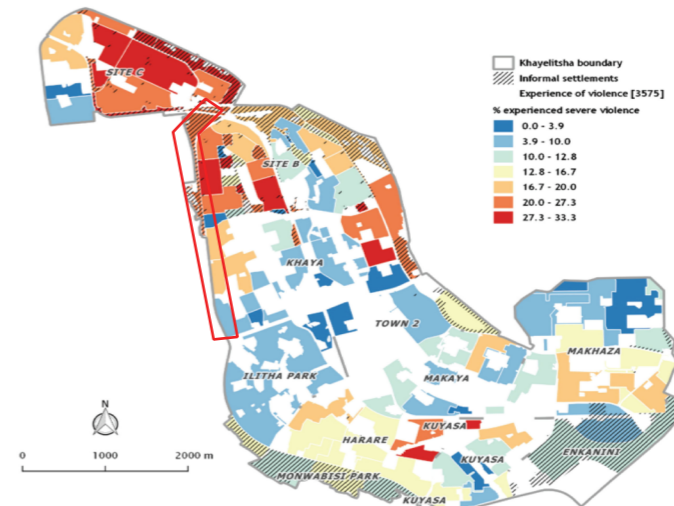
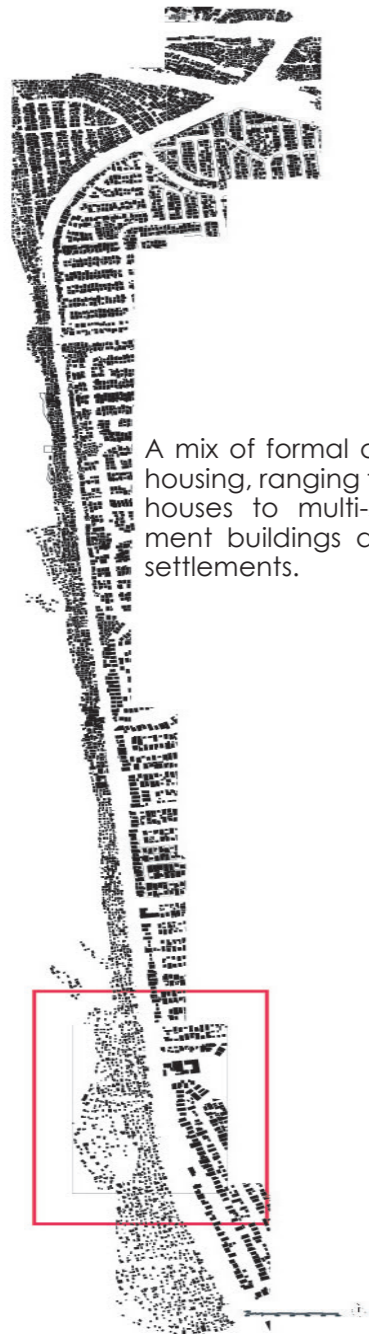


Figure 11: Informal settlement of Khayelitsha . Basemap source: Esri

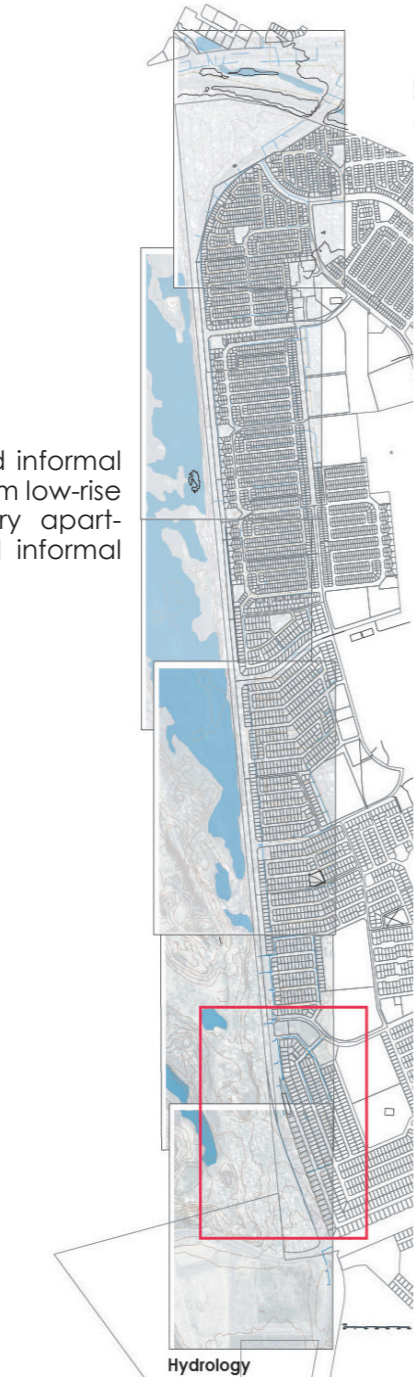
CHAPTER 3
shaping streetscapes

3.3. LOCAL SITE ANALYSIS



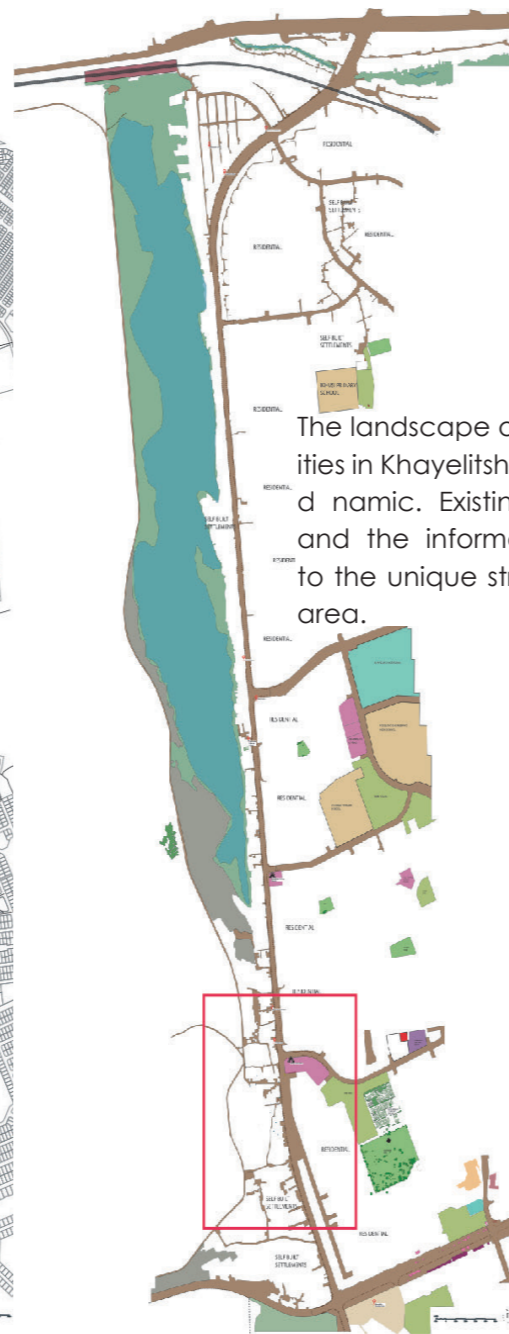
A mix of formal and informal housing, ranging from low-rise houses to multi-story apartment buildings and informal settlements.

Figure ground



Hydrology

Khayelitsha (Mew way) being a low-lying region, often faces issues of poor drainage and flooding during heavy rainfall events.



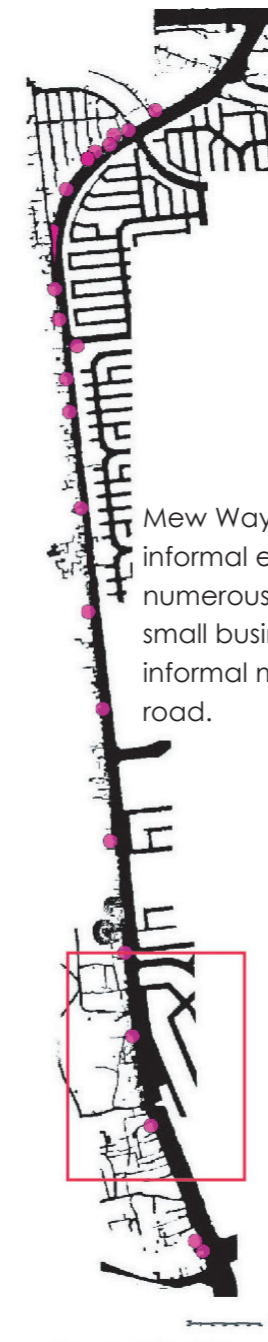
Existing facilities

The landscape of urban informalities in Khayelitsha is complex and dynamic. Existing facilities, vary and the informalities contribute to the unique streetscape of the area.



Movement

Khayelitsha's hierarchy of movement may have unique characteristics compared to other areas due to the specific challenges and requirements of the township.



Commercial activities

Mew Way is known for its informal economy, with numerous street vendors, small businesses, and informal markets lining the road.



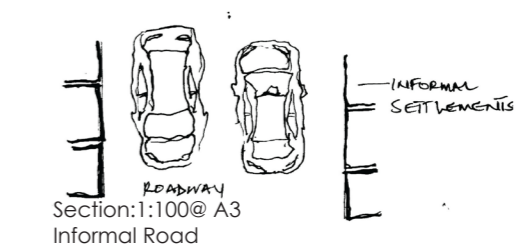
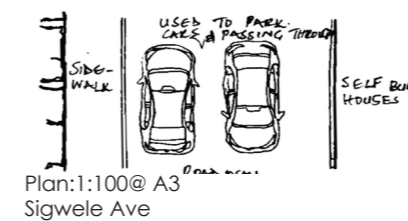
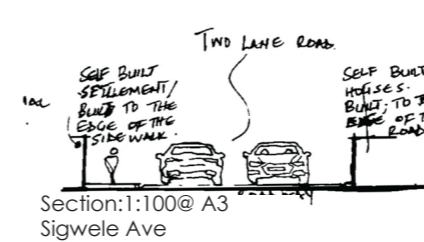
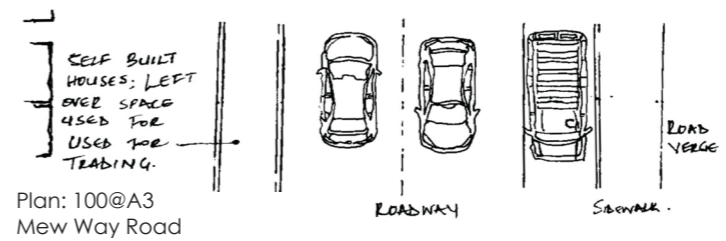
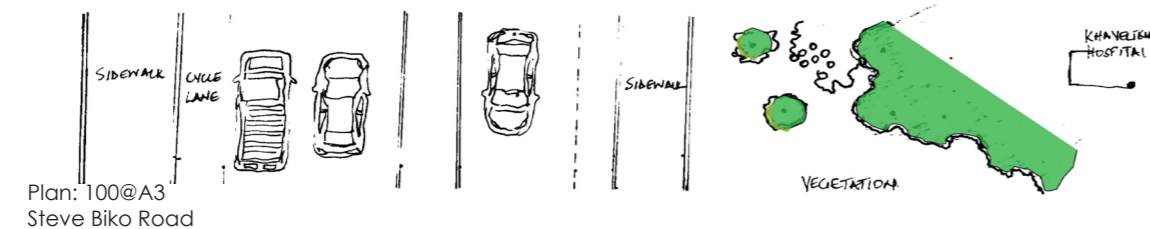
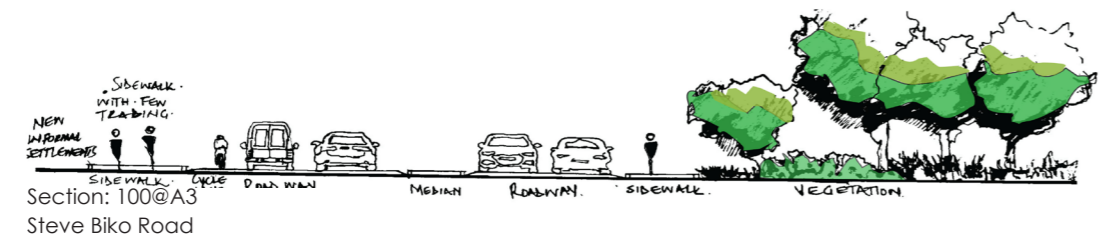
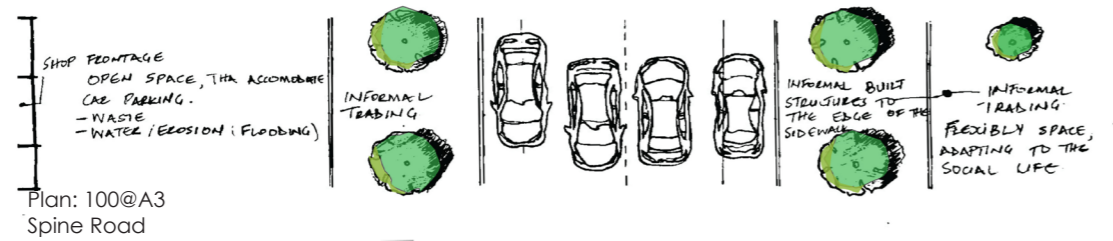
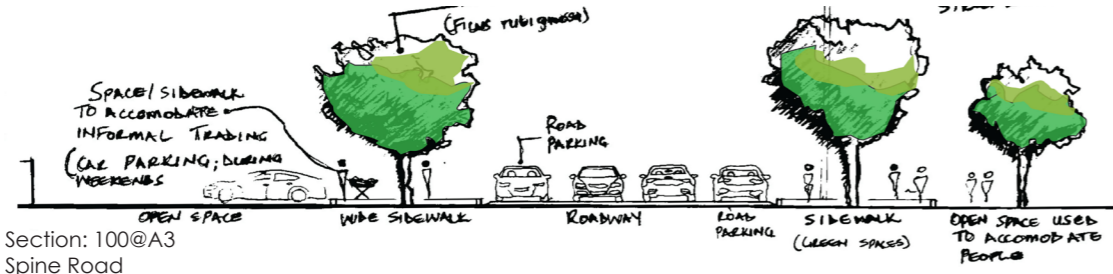
Nolly Map, highlights the opportunities along the Mew Way street, connections within the informal settlements. And areas where the sidewalks can be widened.

CHAPTER 3

shaping streetscapes

3.4. STREET TYPOLOGY IN KHAYELITSHA

These street typologies in Khayelitsha represent the diverse and different urban fabric of the township. They reflect the different scales of mobility, economic activity, and community interaction within the area.



3.5. ISSUES AND SIGNIFICANCE



1. Waste management

2. Goods and services place along the sidewalks or road verge.

3. Mew Way is a busy thoroughfare that serves as a major transportation artery for taxis and buses.

4. Overbuilt houses that encroach onto the sidewalk.

5. The problem of speeding cars in Mew Way poses a significant risk to the safety and well-being of residents and pedestrians in the community.

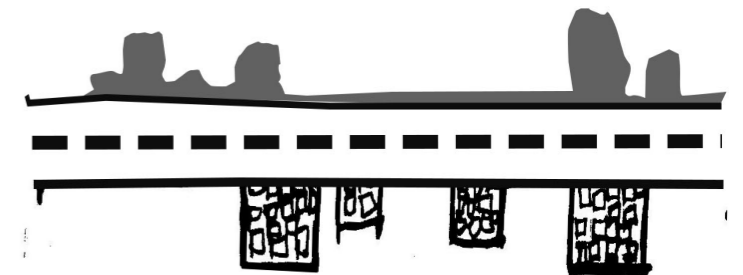
6. Informal traders in Mew Way often cater to the specific needs and preferences of the community.

7. Sanitation and water points are place placed along the road. Water points are standing taps along the upper part of the road.

Edge conditions

Public edge

- Tend to be temporal
- Close to be flexible
- Changeable
- Dynamic



Private edge

- Tend to be Permanent
- Functional purposes
- Optional activities
- Changeless
- Restrictive

CHAPTER 3
shaping streetscapes

3.6. FRAMEWORK



Traffic Calming:

Implement traffic calming measures at intersections to prioritize pedestrian safety, such as raised crosswalks, speed bumps, or traffic islands. Enhance visibility and signage to alert drivers to pedestrian presence and encourage responsible driving behavior.

Utilizing Road Verges for Trading:

Identified road verges that can accommodate informal trading activities. Designate specific areas along the road where traders can set up their stalls or stands, ensuring safe and organized trading spaces.

Enhancing Social Spaces:

Create additional social spaces along existing water points provided by the city. Designate areas with seating, shading, and amenities where residents can gather and engage in social activities, fostering community interaction and cohesion.

Improved Access to Water:

Ensure easy access to water for residents in the lower part of the settlement.

Flexible Spaces for Informal Activities:

Identify areas to design adaptable and flexible spaces that can be utilized for various activities, ensuring that they meet the needs and preferences of the community.

Storm Management and Flooding:

Proposed spaces with seating and greenery to help with storm management and mitigate flooding.

CHAPTER 4

shaping streetscapes

4. DESIGN EXPLORATION

4.1.1. Design Strategies

This project will follow the design strategies that prioritize providing services to the community, creating safe and flexible spaces, promoting change through green spaces, water management, and supporting the informal economy to greatly enhance the streetscapes of Khayelitsha (Mew way).

RECLAIMING STREETS: STRATEGIES



Services

- Mew Way is key transportation hub
- The road doesn't prioritize pedestrian.
- Mini buses off load and load anywhere along the route.



Accessibility

- Insufficient/ No trees
- Trees on the medians of the road are used for washing.
- Waste disposal to open spaces along the edges.



Ecology



Public spaces

- No public spaces along the route.
- No seating areas.
- Enhance - existing context



Safe streets

- Lack of childfriendly areas.
- Car/ Mini taxis speeding along this route.



FLEXIBILITY

Flexible & adaptable spaces

- The street is vibrant and busy, with different users.
- The space is being used by residents and the consumers who come for goods and services.

Prioritizing Services to the Community: This strategy includes incorporating amenities such as seating areas, public restrooms, and community gathering spaces to enhance the overall experience and functionality of the streetscape.

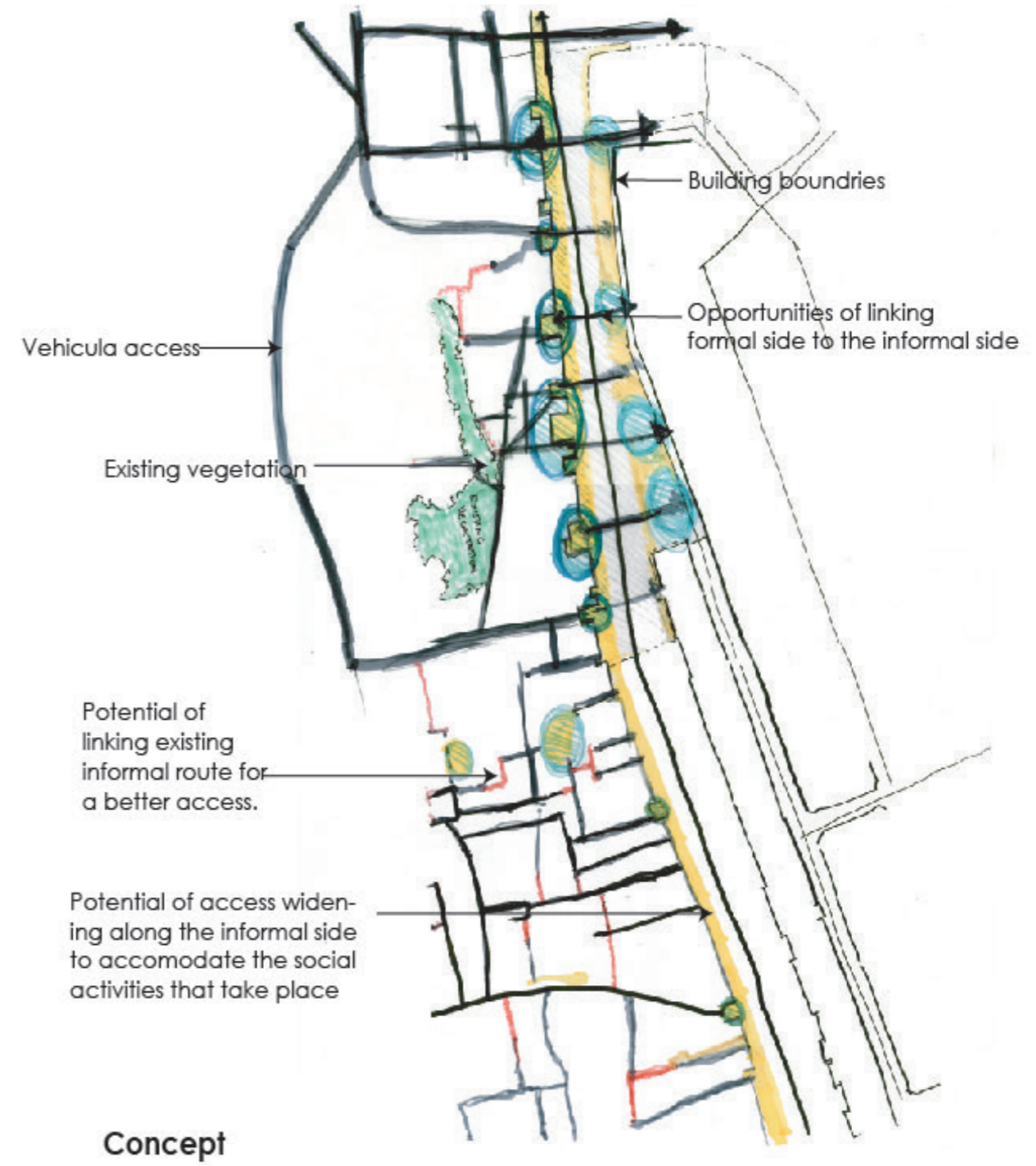
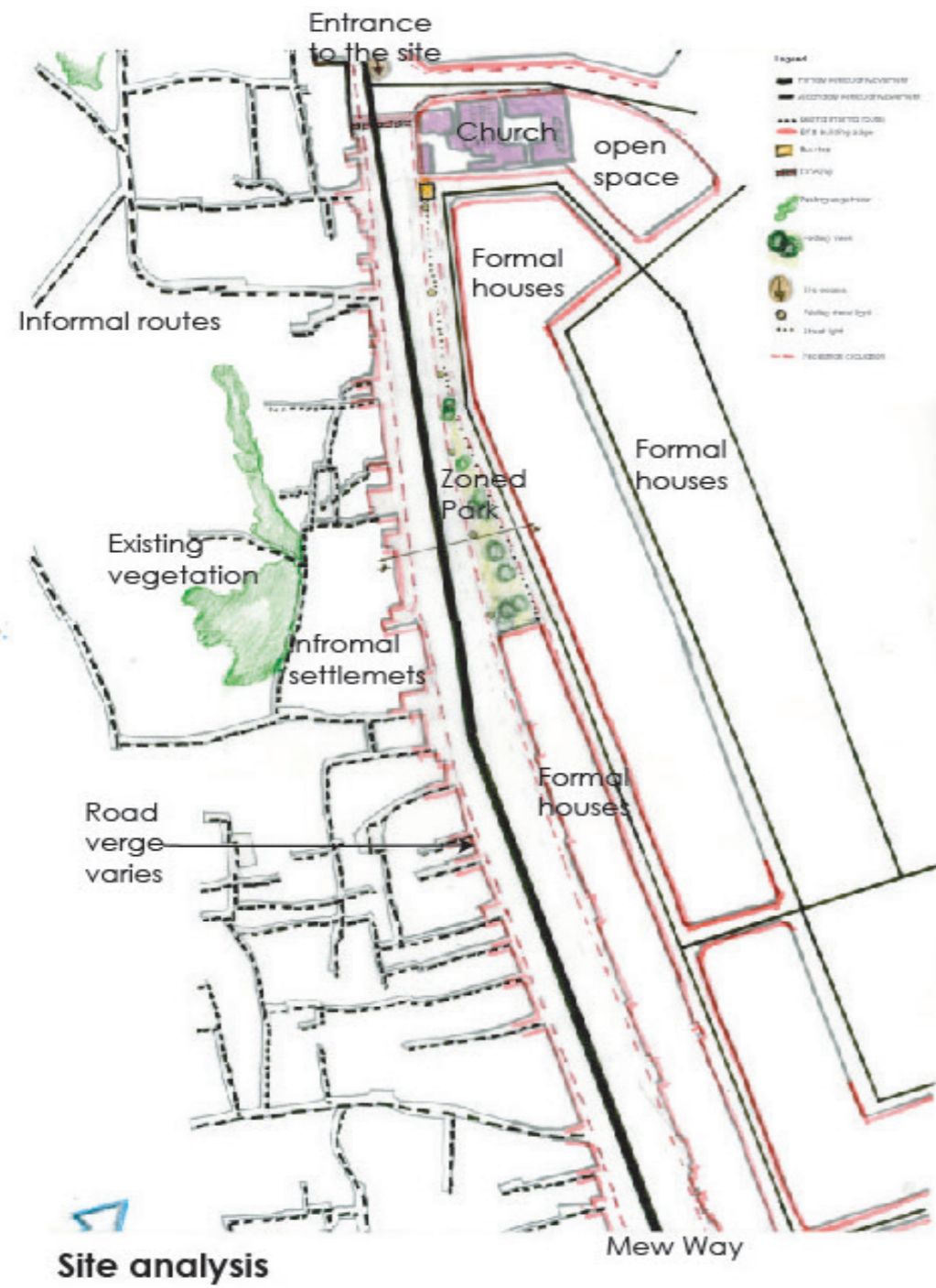
Creating Safe and Flexible Spaces: Safety is a crucial aspect of the design. Implement of clear pedestrian pathways, well-placed lighting, and visible signage will enhance safety within the streetscape.

Promoting Change through Green Spaces: Incorporate spaces that serve as areas for relaxation, exercise, and community events, fostering a sense of pride and well-being within the community.

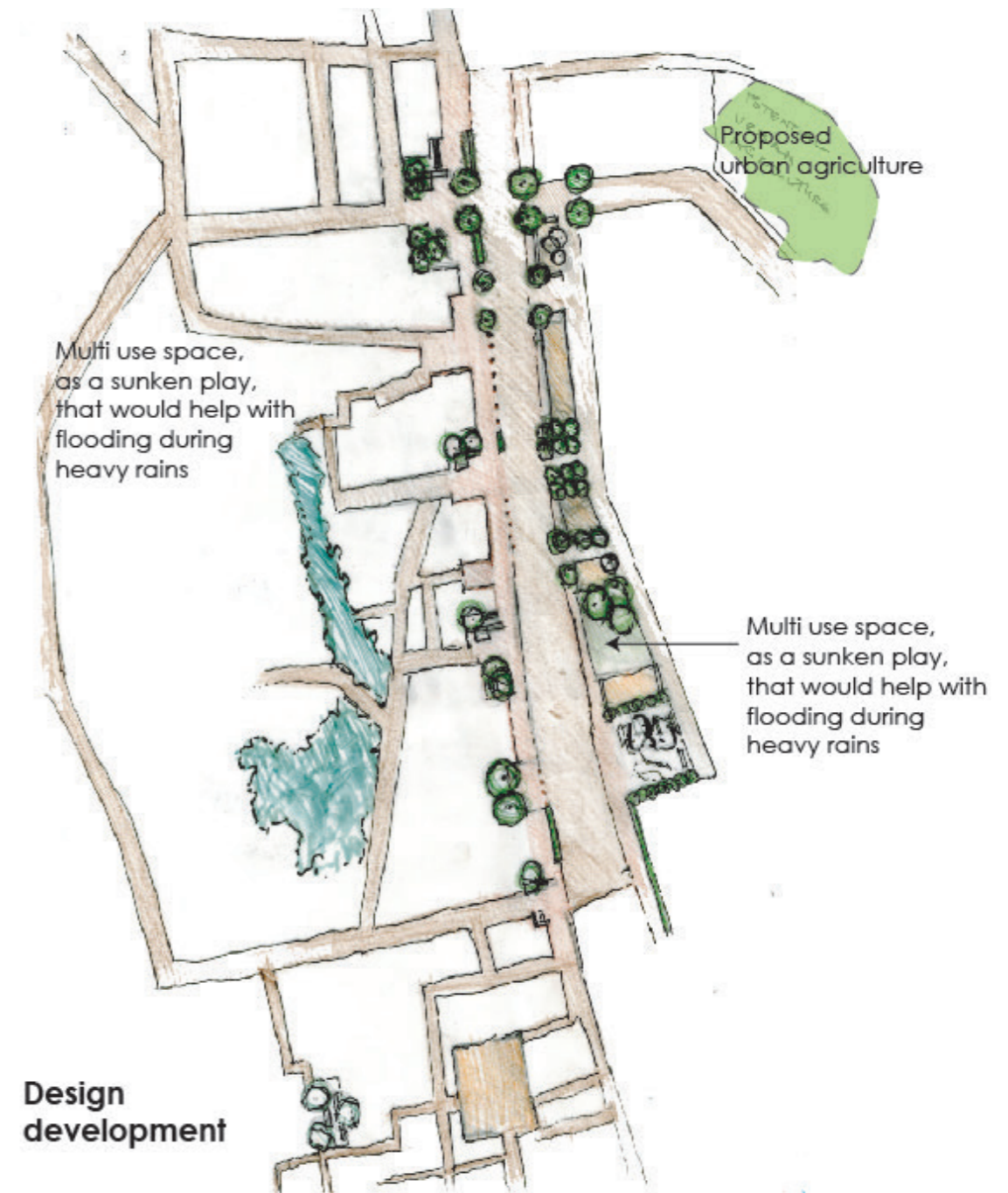
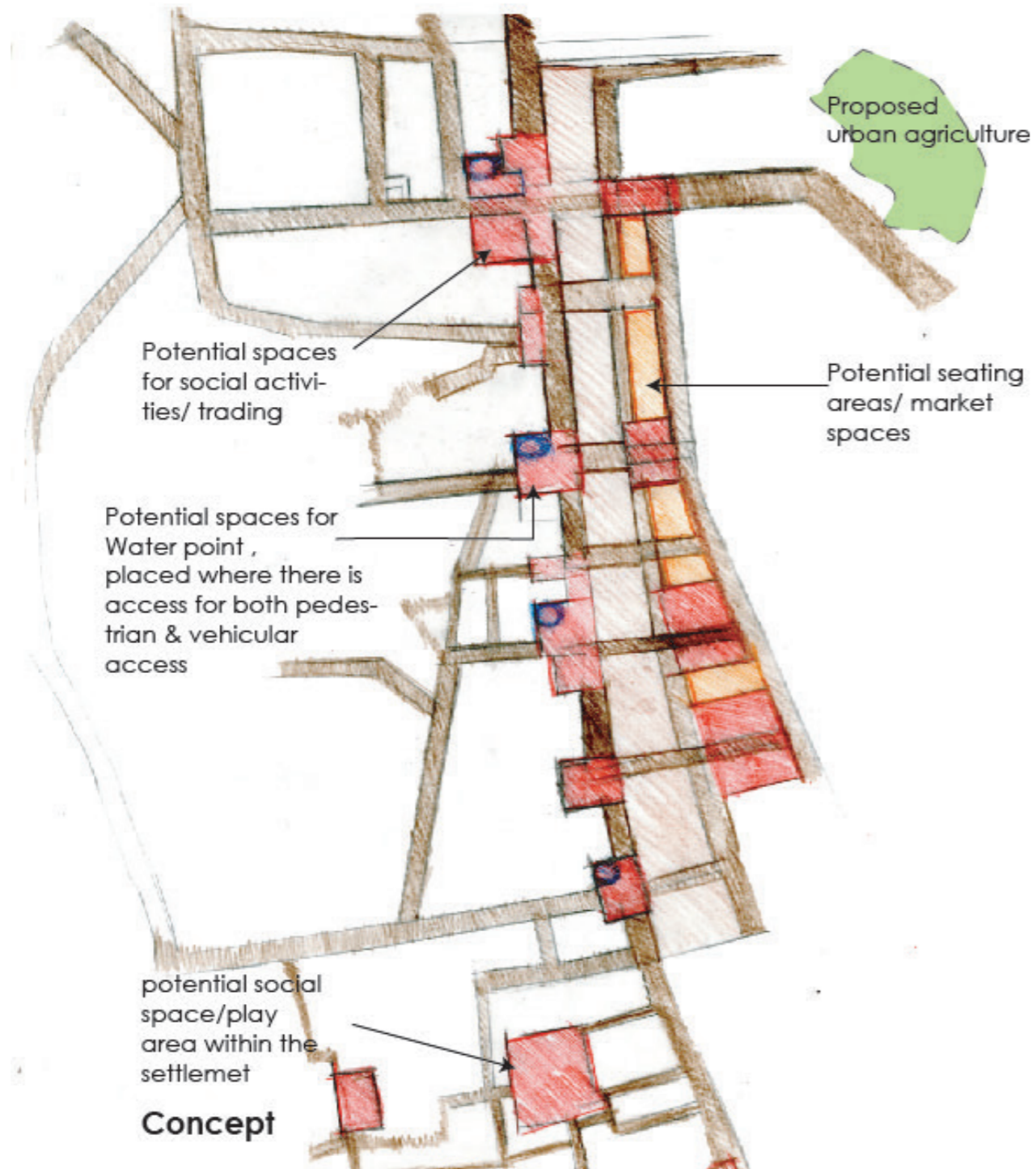
Supporting the Informal Economy: Recognizing and supporting the informal economy that exists within Khayelitsha is important. Designing streetscapes that can accommodate informal vending or small businesses provides economic opportunities for local residents, contributing to the growth and vitality of the community.

CHAPTER 4
shaping streetscapes

4.1.2 Design Development



CHAPTER 4
shaping streetscapes



CHAPTER 4

shaping streetscapes

4.1.3. Proposed Design



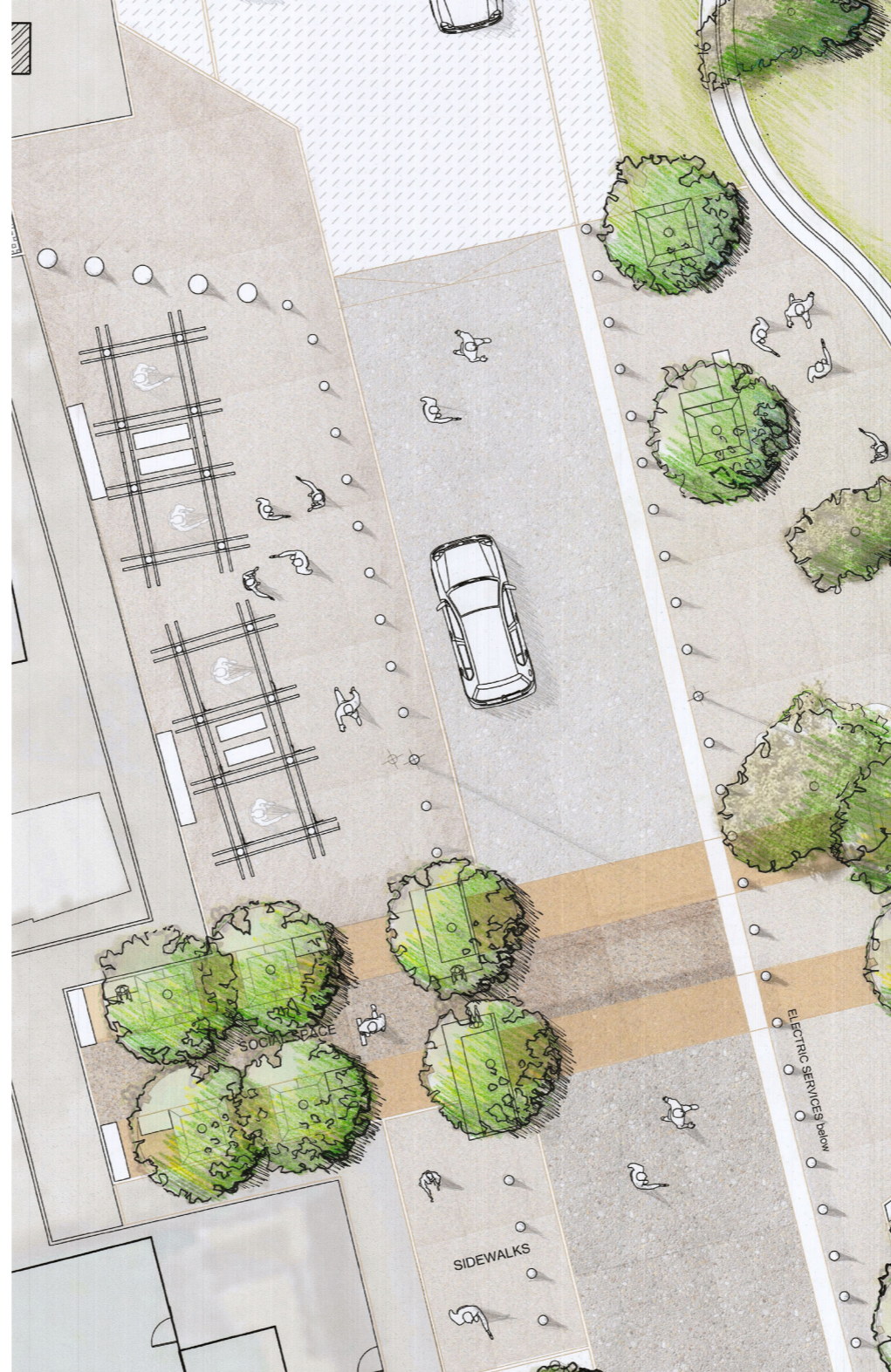
The design highlights the presence of important nodes, such as water points, which serve as key features for the community. Water points not only provide access to water but also serve as social gatherings. Paving bands are used to highlight the presence of water points, which not only provide access to clean water but also create a social gathering space. The idea is to promote community interaction and build stronger bonds among residents.

These bands help facilitate movement across roads, making it easier for people to navigate their surroundings. This design element enhances convenience and accessibility for residents, ensuring that they can move around more easily. Including creating spaces for informal traders along the street, by providing them with opportunities for economic activity. Additionally, the provision of shade offers protection from the sun and creates a more comfortable environment for both traders and pedestrians.

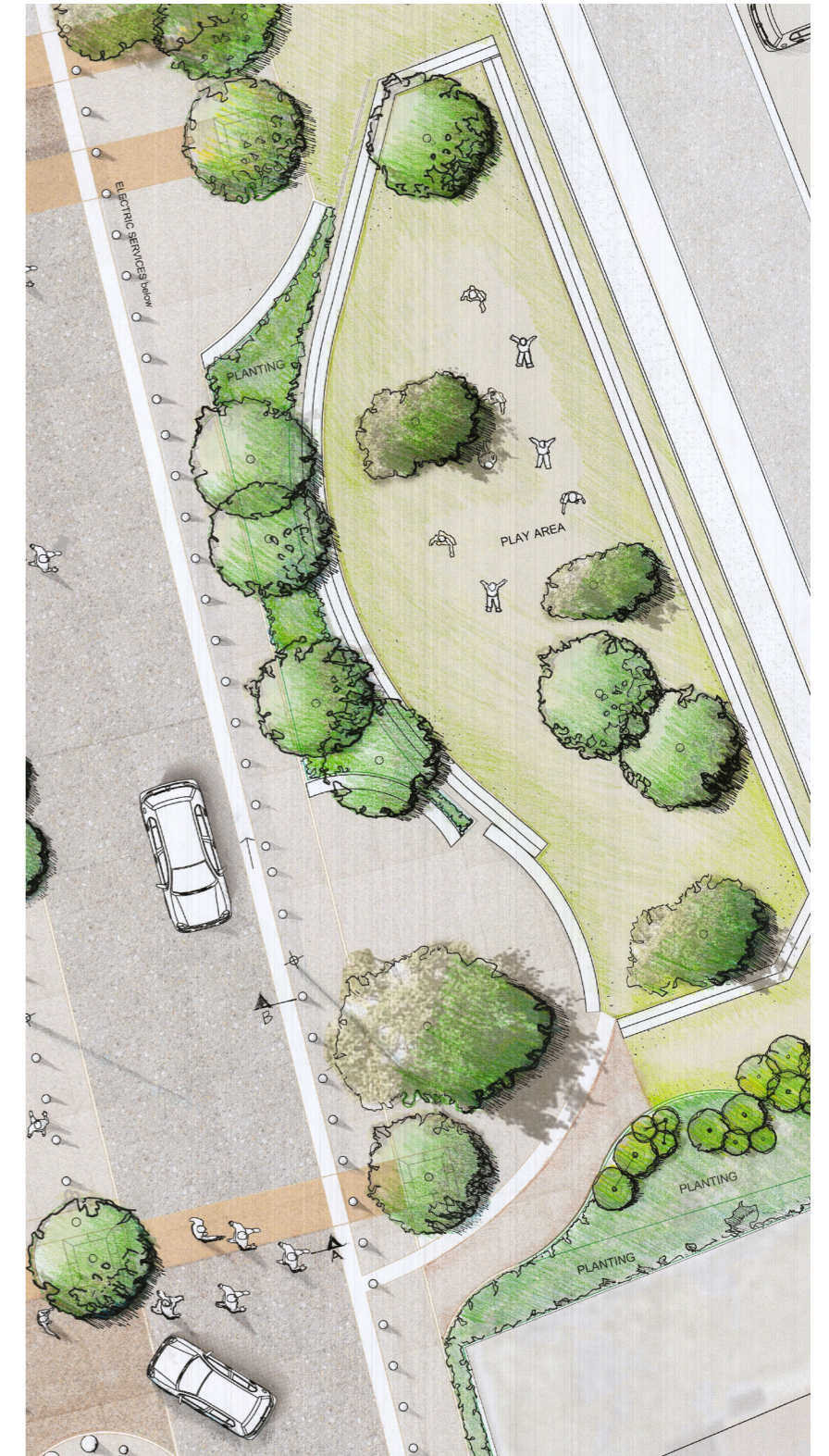
The sunken play areas serve multiple purposes. It provides recreational space for children to play, while also helping with flooding during heavy rains. This design element demonstrates a consideration for both the well-being and safety of the community.



Water point socially activated space



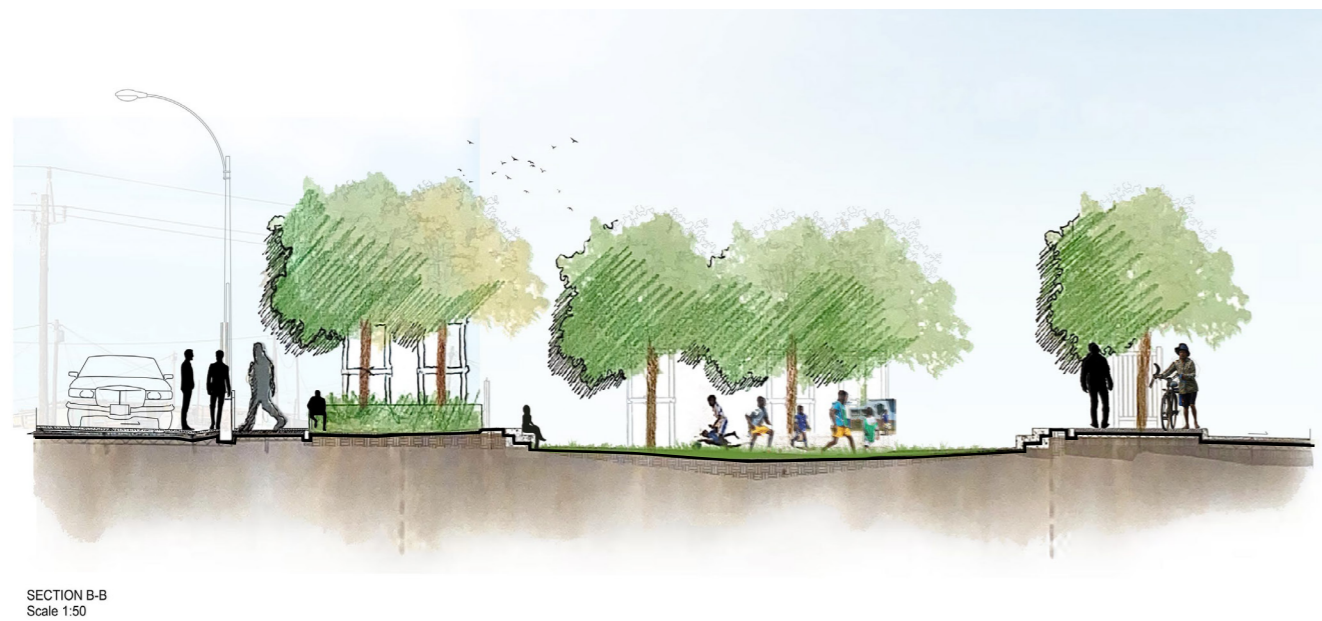
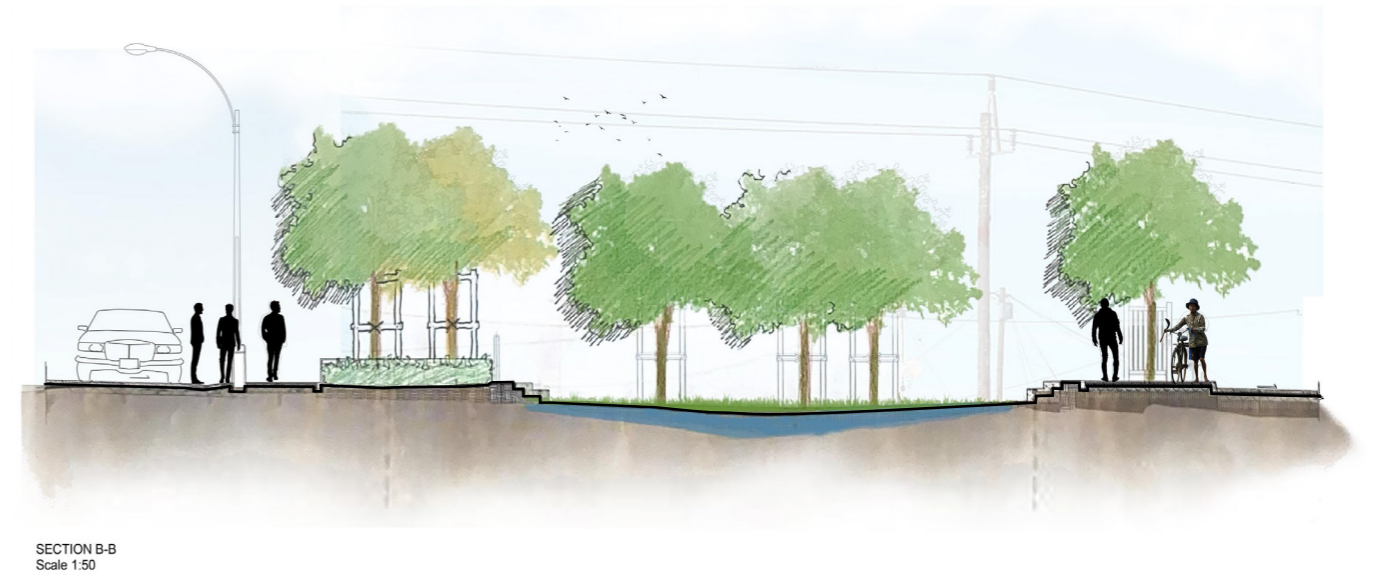
Trading space, paving band movement across roads



Sunken play area

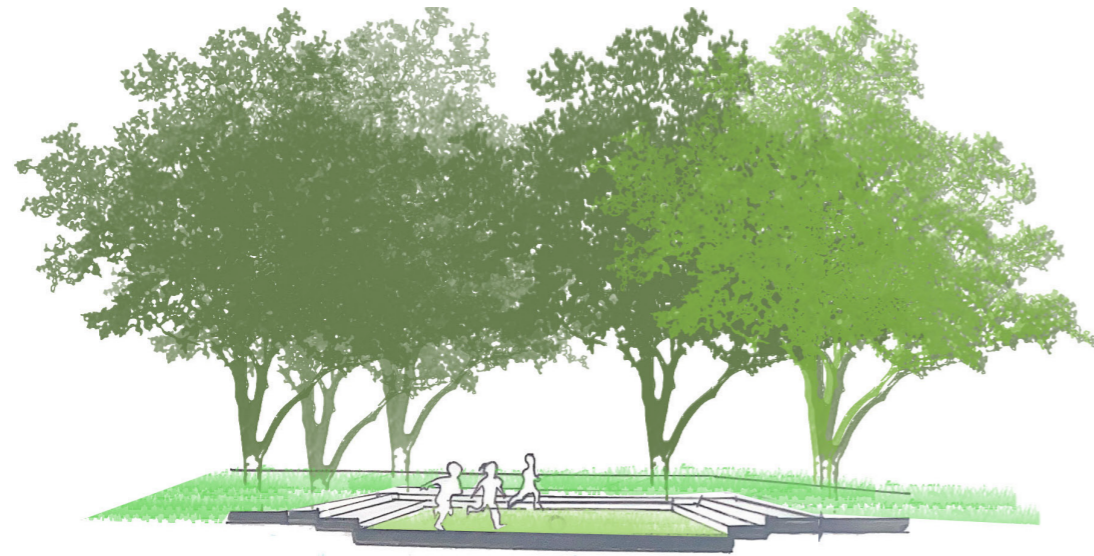
CHAPTER 4
shaping streetscapes

4.1.4. Sections



CHAPTER 5
shaping streetscapes

4.1.5. Perspectives



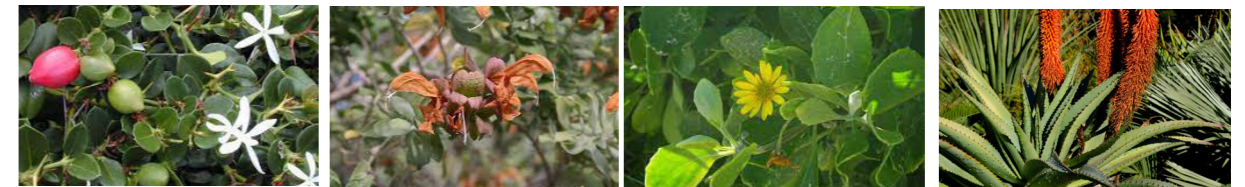
4.1.6. Material Intentions



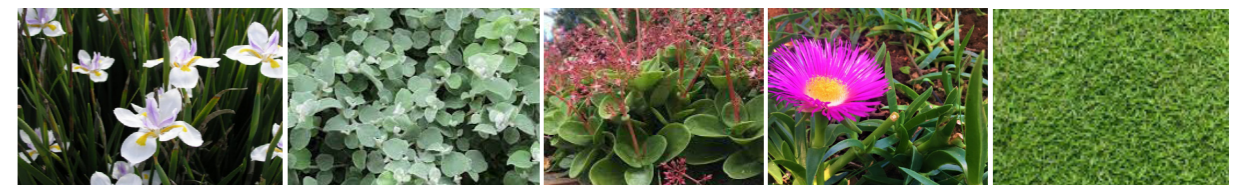
Exposed Aggregate Concrete Old Cape Blend Smooth Brick Treated pine poles Corrugated iron sheets



Ficus rubiginosa *Ficus natalensis* *Citrus sp*



Carissa microcarpa *Salvia africana - lutea* *Osteospermum moniliferum* *Aloe ferox*



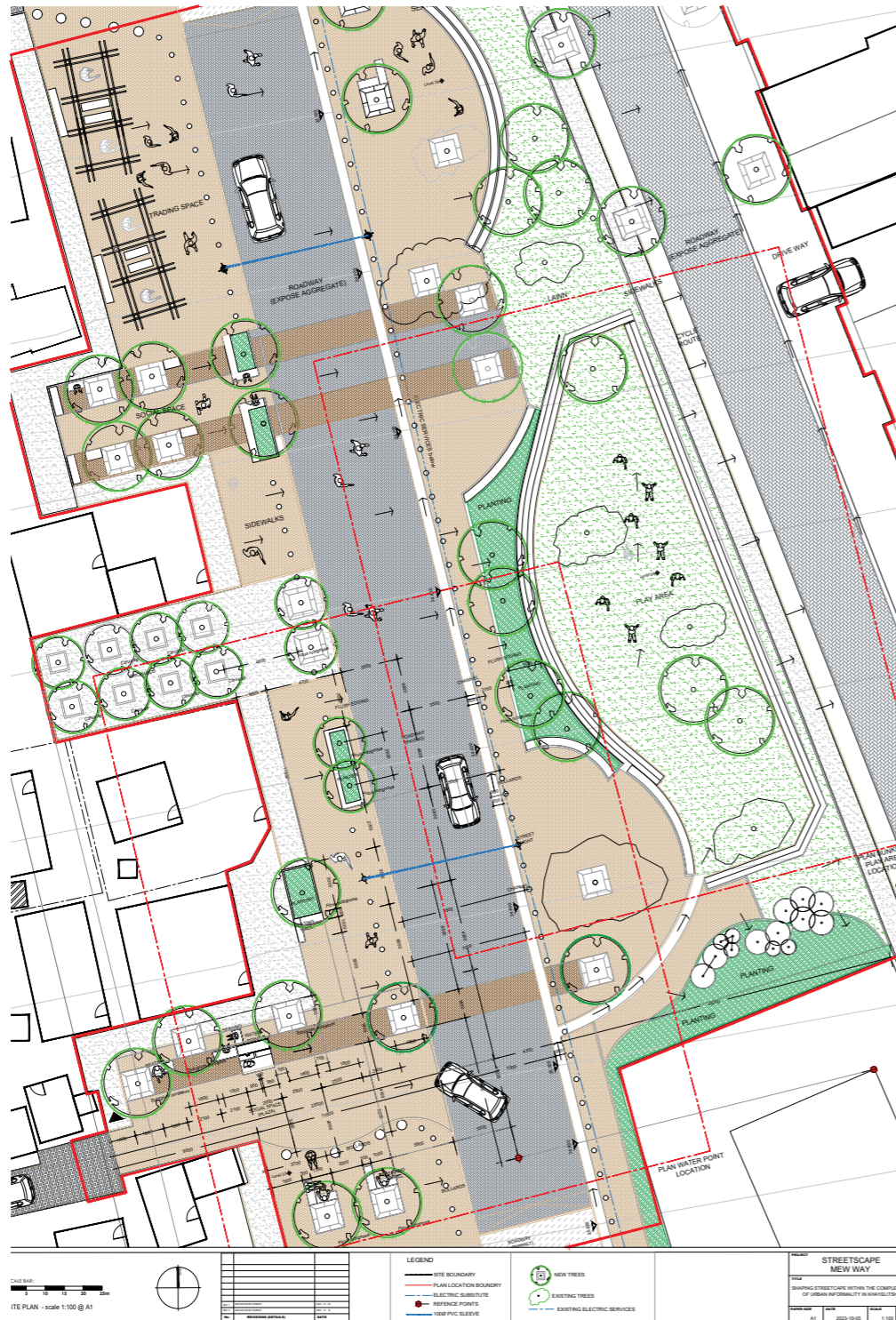
Dietes grandiflora *Helichrysum petiolare* *Crassula multica* *Carpobrotus edulis* *Cynodon dactylon*

CHAPTER 5

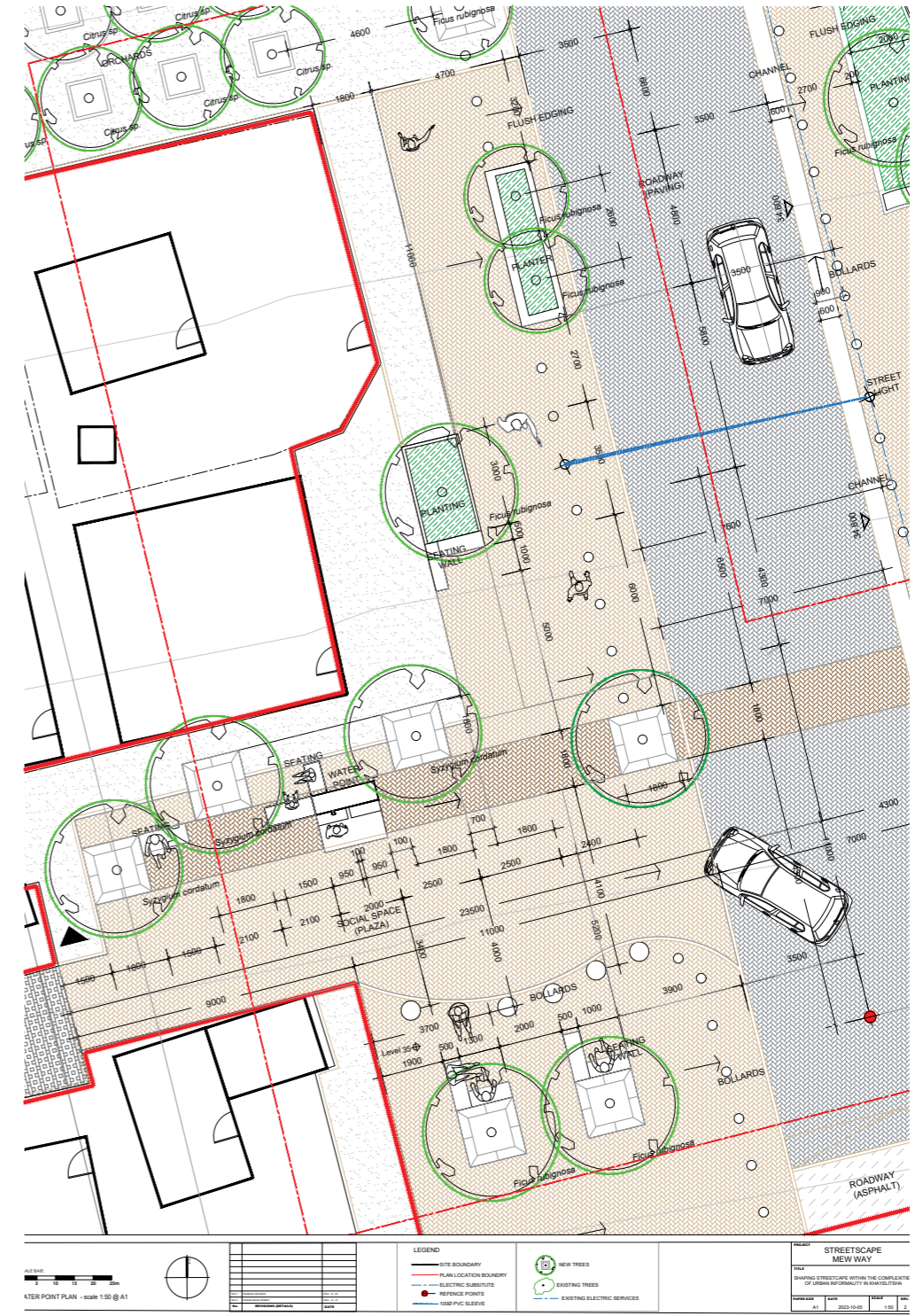
shaping streetscapes

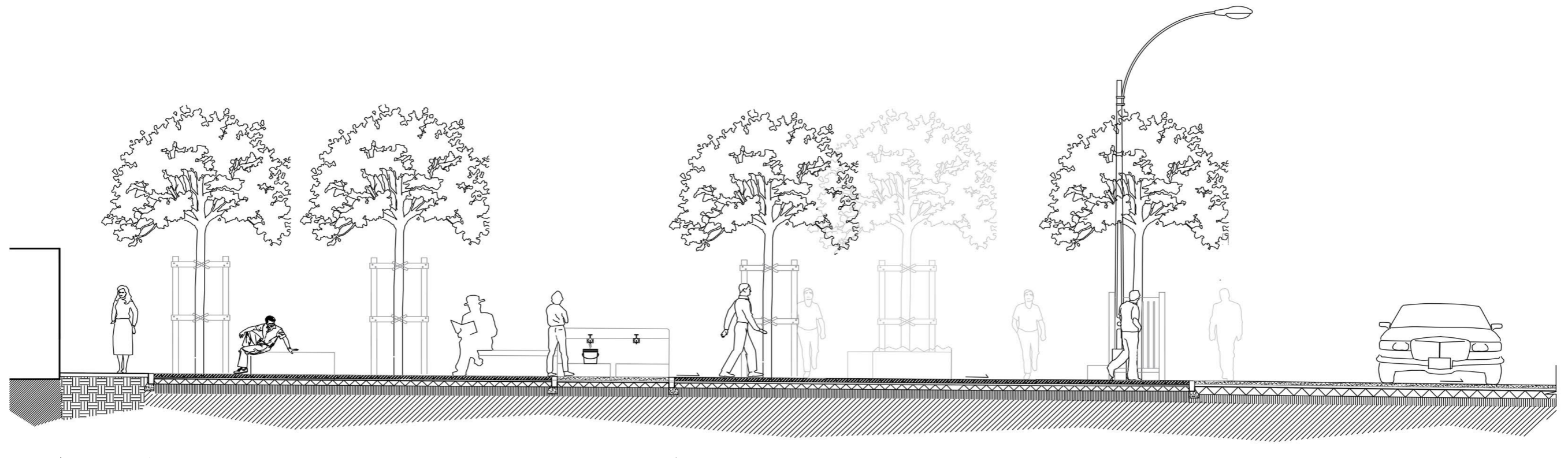
5.1. CONSTRUCTION DRAWING

5.1.1. Site plan



Water point location plan





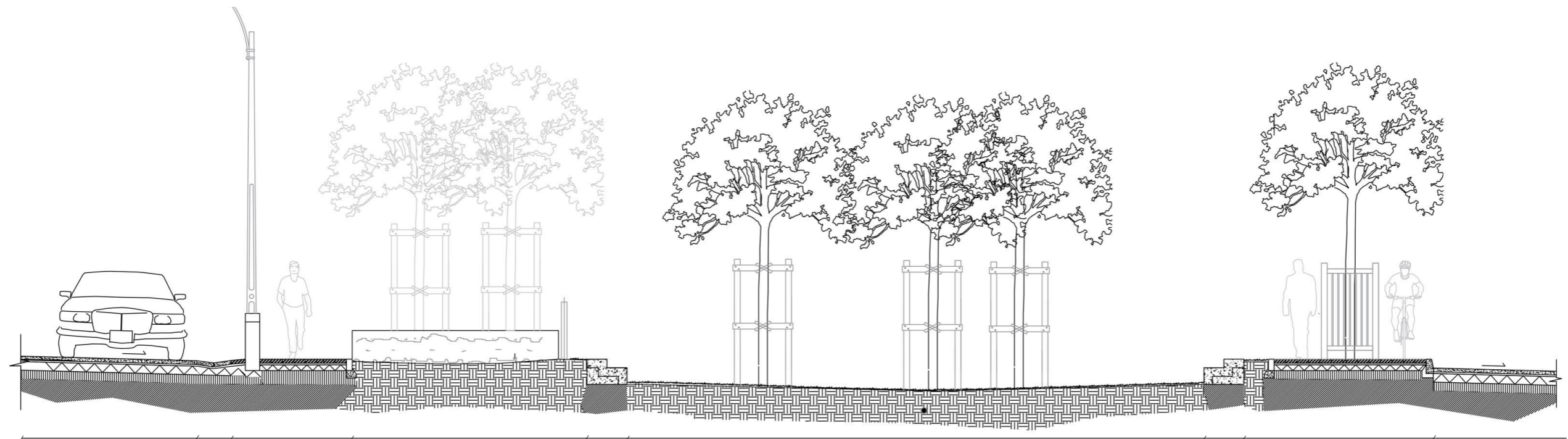
House frontage/
sidewalk

Water Point Social/ Gathering space

Sidewalk

Roadway

SECTION A-A
Scale 1:50



Roadway

Channel
Sidewalk
Urban furniture

Planting with
seating wall

Concrete
steps

Sunken play area with lawn

Concrete
steps

Sidewalk

Bike lane

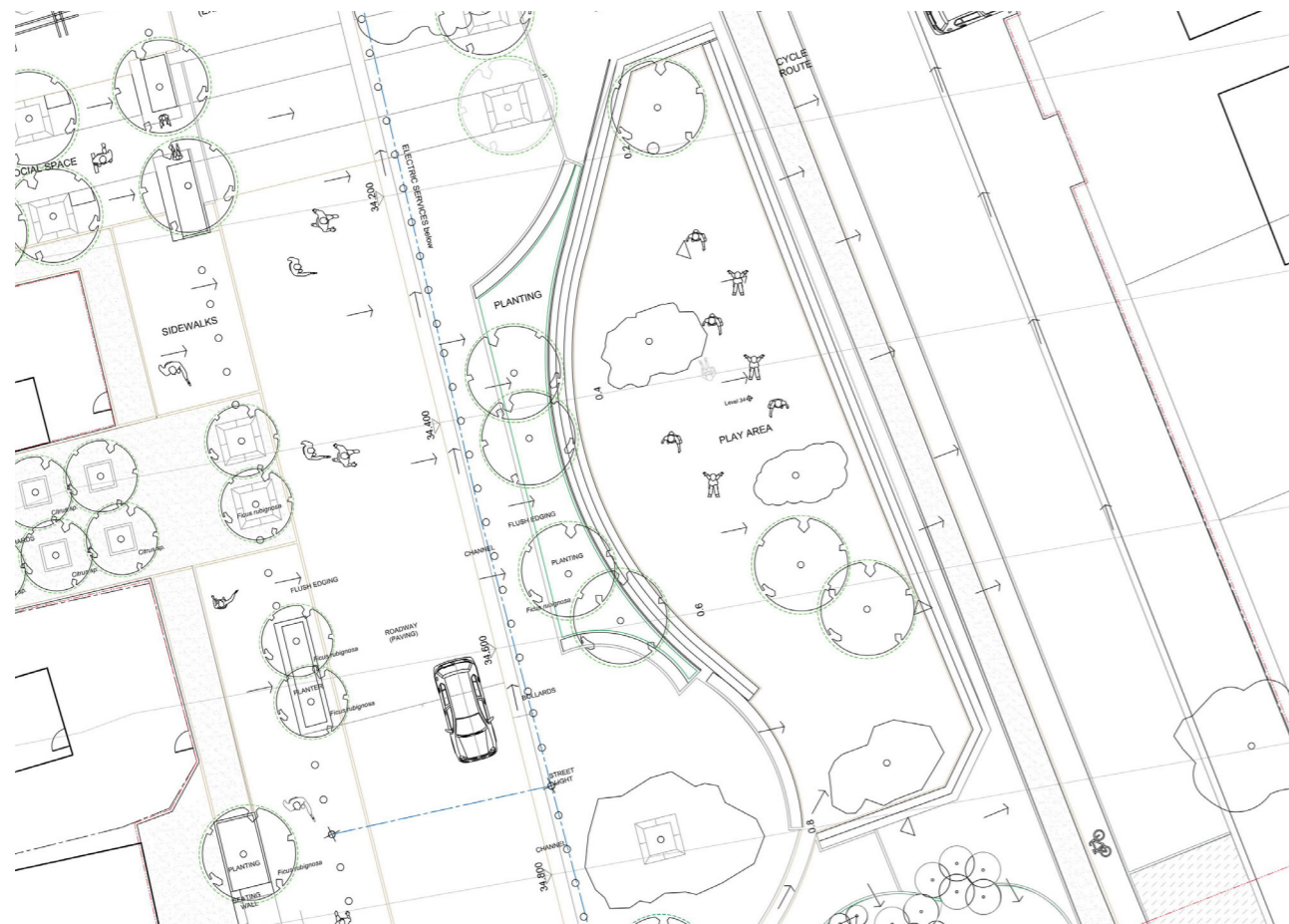
Roadway

SECTION B-B
Scale 1:50

CHAPTER 5

shaping streetscapes

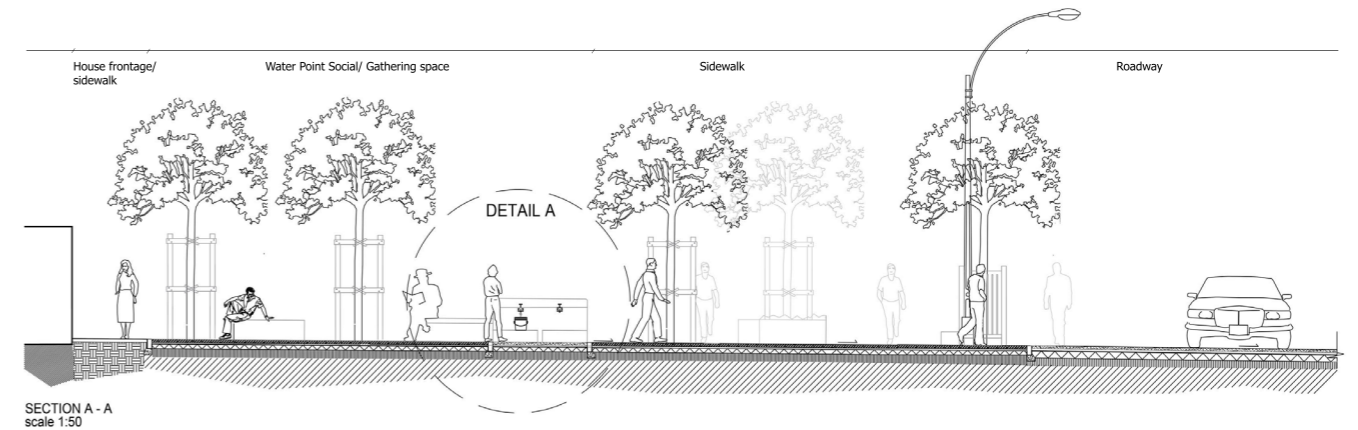
5.1.2. Sunken Play Area Plan



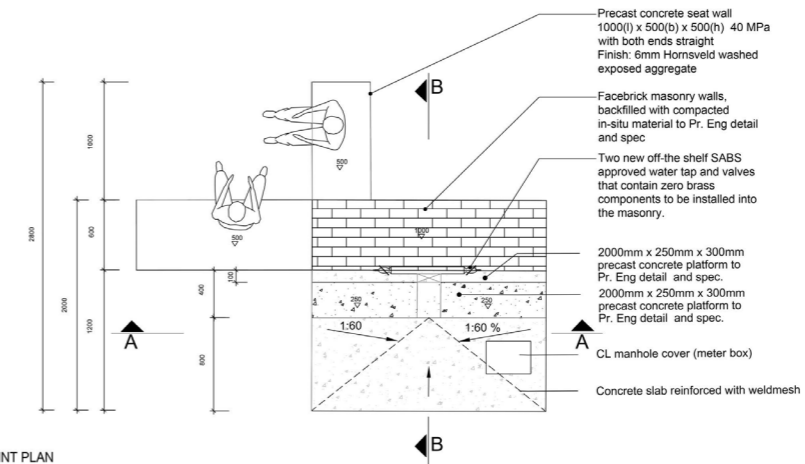
UNKEN PLAY AREA PLAN
scale 1:100

The purpose of the sunken plaza play area is to provide a recreational space while addressing flooding issues in the Khayelitsha (Mew Way street). The sunken plaza play area is placed on the existing open space/park area on site to activate the park while providing a play area. The space will include two concrete steps that are 350mm wide. These steps create a transition from one level to another within the sunken plaza play area and a space that can be used for seating while playing.

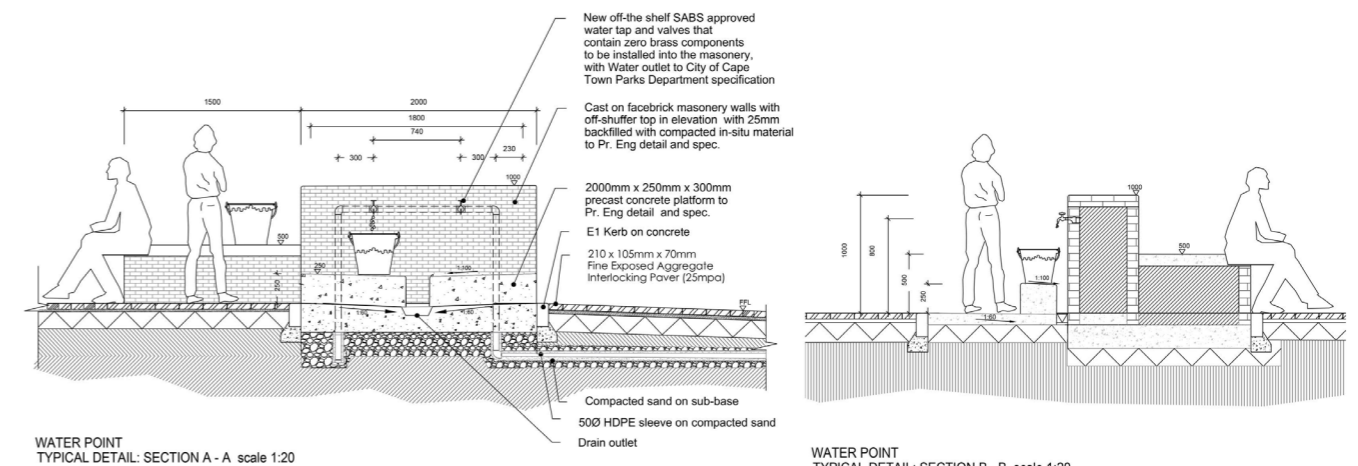
5.1.3. Water Point Detail Drawings



SECTION A - A
scale 1:50



DETAIL A WATER POINT PLAN
scale 1:20



WATER POINT
TYPICAL DETAIL: SECTION A - A scale 1:20

WATER POINT
TYPICAL DETAIL: SECTION B - B scale 1:20

CHAPTER 6

shaping streetscapes

6.1. CONCLUSION/ REFLECTION

In conclusion, this thesis highlights the urgent need to address socio-economic inequalities in the Cape Flats by prioritizing the development of safe and accessible streetscapes. By focusing on the promotion of economic development, social integration, and an improved quality of life, which can create an environment that fosters opportunities for growth and inclusivity.

To achieve this, it is essential to consider environmental considerations such as incorporating green spaces and promoting walkability. Moreover, actively involving residents and community organizations in the design process to ensure that their needs and preferences are heard and considered. This participatory approach not only promotes inclusivity but also fosters a sense of ownership and pride within the community.

It is important to acknowledge the complexity and diversity within the Cape Flats, recognizing the various socio-economic, cultural, and historical factors at play. By avoiding generalizations and embracing the unique challenges faced by informal settlements, we can work towards overcoming limited access to resources like infrastructure and basic services.

With the implementation of the adaptive streetscape design, Ta Mike now can transform his business into a thriving restaurant. The dynamic and flexible spaces created by the streetscape design will not only support his evolving business needs but also provide an inviting atmosphere for social interaction and community engagement. With this new space, Ta Mike's business has the potential to flourish, offering a unique dining experience and becoming a culinary destination within the neighborhood.

REFERENCES

- Carrizosa, M. (2018). *Urban Informality and the Making of African Cities*. Routledge.
- Douglass, M., & Friedmann, J. (Eds.). (2013). *The Informal City: Inclusion, Innovation, and Urbanization*. Routledge.
- Gehl, J. (2013). *Cities for people*. Island Press.
- Gehl, J., & Svarre, B. (2017). *How to study public life*. Island Press.
- Hamdi, N. (2004). *Small Change: About the Art of Practice and the Limits of Planning in Cities*. Earthscan
- Jacobs, J. (1961). *The death and life of great American cities*. Vintage Books.
- Krause, M., & Moyo, M. (2016). Streets as Public Spaces and Drivers of Urban Prosperity in Cape Town's Informal Settlements. *Environment and Urbanization*, 28(2).
- Lutzoni, L. (2014). In-formalised urban space design. Rethinking the relationship between formal and informal. *Journal of Urban Design*, 19(1), 131-133.
- Lydon, M., Garcia, A., & Barajas, H. (2016). *Tactical Urbanism: Short-Term Action for Long-Term Change*. Island Press.
- Pevzner, N. (2009). Landscape Urbanism and the Ecology of Informal Settlements. *Landscape Journal*, 28(1).
- Project for Public Spaces. (2013). *The case for streets as places*. <https://www.pps.org/article/thecaseforstreetsasplaces>.
- Publications Ltd.Innovation Quarter. (2020). *Placemaking projects that inspire us*. <https://www.innovationquarter.com/placemaking-projects-that-inspire-us/>
- Rogerson, C. M. (2004). Cape Town's informal economy: A summary and evaluation of recent research. *Development Southern Africa*, 21(2), 275-299.
- Skinner, C., & Valodia, I. (2014). Street trading, informal livelihoods and the 2010 FIFA World Cup: An evaluation of informal trader interventions. *Urban Forum*, 25(2), 207-220.
- Smit, W., Rogerson, C. M., & van der Westhuizen, S. (2015). The informal economy and its contribution to local economic development in South Africa: An analysis of the City of Cape Town. *Urban Forum*, 26(4), 461-475.
- Turok, I., Watson, V., & Winkler, N. (2015). The political economy of informal markets in Cape Town: A preliminary analysis. *Urban Forum*, 26(1), 19-37.
- UN-Habitat. (2012). *Korogocho Streetscapes*. <https://unhabitat.org/korogocho-streetscapes-2>.
- Zeunert, J., & Waterman, T. (Eds.). (2016). *Designing Positive Change Through Design*. Routledge.

APPENDIX

Approved ethics letter



2023/05/31

EBE/00175/2023

RE: Research Ethics Committee Project Approval Letter

Dear Zizipho Mbambo,

Your application for ethics review of your project titled

Shaping Streetscapes within the Complexities of Urban Informalities in the Cape Flats

has been reviewed and evaluated by the

APG:School of Architec,Planning&Geomatic Research Ethics Committee (REC).

Based on the information supplied your application has been successful and is approved.

You may proceed with your research project titled:

Shaping Streetscapes within the Complexities of Urban Informalities in the Cape Flats

Please note that should:

- (i) any serious or adverse effects to participants occur and/or,
- (ii) aspect(s) of your current project change and/or
- (iii) any unforeseen events that might affect continued ethical acceptability of the project occur then you should immediately report this to the approving REC. You may be required to submit an amendment to this application, in order to determine whether the changed aspects increase the ethical risks of your project.

Please note the following additional conditions associated with this approval:

- (i)

Regards,

APG:School of Architec,Planning&Geomatic

Research Ethics Committee