

*The right to food is a basic human right.*  
\_World Hunger Notes

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# RE[GROW]TH

a connection of the socio-  
economic divide

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Toni Lisa Mclagan



# RE[GROW]TH

a connection of the socio-economic divide

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*Faculty of Engineering, Built Environment and Information  
Technology.*

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## Project Summary

Programme:  
A Gastronomic Quarter

Site Location:  
Moreleta Park, Pretoria.

GPS co-ordinates:  
25°49'34.4"S  
28°18'46.0"E

Research Field:  
Human Settlements and Urbanism

Key Words:  
Food insecurity, informal trade, socio-  
economic, sustainable, food network,  
gastronomic quarter.

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For my parents Rob & Sandy,  
Thank you for constantly believing  
in me.

With special thanks to:

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for your guidance, motivation and positive influence, always.

Dr. Carin Combrinck,  
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Jana, Mia, Anita and Jason  
for pushing me through and holding me up when I most needed it.

I would not be here without you.



In accordance with Regulation 4(e) of the General Regulations (G.57) for dissertations and theses, I declare that this thesis, which I hereby submit for the degree Master of Architecture (Professional) at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at this or any other tertiary institution.

I further state that no part of my thesis has already been, or is currently being, submitted for any such degree, diploma or other qualification.

I further declare that this thesis is substantially my own work. Where reference is made to the works of others, the extent to which that work has been used is indicated and fully acknowledged in the text and list of references.

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Toni Lisa Mclagan  
2016

## ABSTRAK

### her[groei]

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Die verhandeling is gerig op die toenemende globale kwessie van ons land se voedselonsekerheid en die faktore wat daartoe bydra.

Dit ondersoek die rol wat argitektuur kan speel as 'n sistemiese instrument (in die vorm van 'n gastronomiese kwartaal) vir die her[groei] van 'n hoogs omstrede kwessie. Deur die identifisering van globale en plaaslike omstandighede word voedselsekerheid bemagtiging ontwikkel deur die integrasie van sosio-ekonomiese stelsels wat optree as punte van akupunktuur om kontekstuele omstandighede te verbeter.

Deur 'n nuut gevormde argitektoniese benadering waardeur kos en die toeganklikheid daarvan die basis vorm van sosiale inklusiwiteit, word verskeie mense in die samelewing bemagtig deur van plaaslike ondersteuning gebruik te maak. Plaaslike ondersteuning is van kardinale belang vir die groei en bemagtiging van 'n gemeenskap, wat 'n positiewe impak op die algehele stedelike moraliteit of weefsel het deur die voorsiening van 'n meer inklusiewe omgewing vir die bemagtiging van daardie gemeenskap.

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*How wonderful it is that nobody need  
wait a single moment before starting to  
improve the world.*

\_Anne Frank

## ABSTRACT

re[grow]th

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This dissertation addresses the intensifying global issue of food insecurity within our country and the contributing factors thereof.

It investigates the role architecture can play as a systemic tool (in the form of a gastronomic quarter) to facilitate the re[grow]th of a highly contested site. By identifying and drawing from global and local issues, new solutions, developed through the integration of socio-economic systems, act as points of acupuncture. These points aim to improve contextual conditions through food network empowerment.

Through a newly informed architectural approach various people within society are enabled through local means of support. It is food and the accessibility thereof that forms the basis of the socially inclined space. Local support is essential for community growth and empowerment, which in turn, positively impacts the overall urban fabric through the provision of a more inclusive environment.

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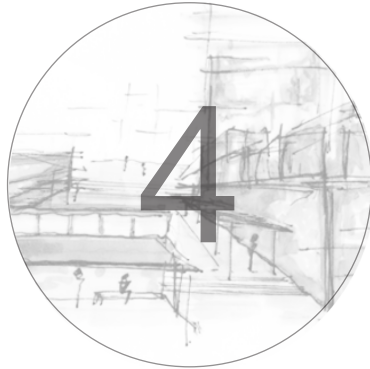
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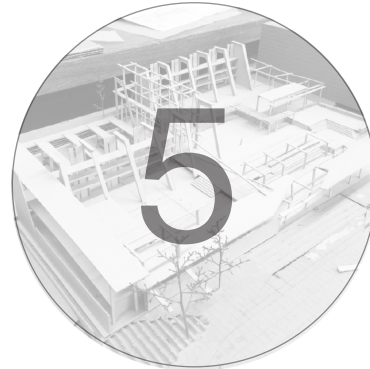


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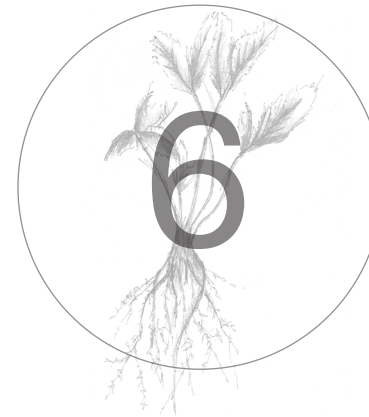


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# RE[GROW]TH

## introduction

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1.

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his narrative

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It's uncomfortably warm, the taxi is full and everyone is quiet. The trip is long and takes a lot from the pocket. The taxi comes to a halt; he climbs out and heads towards the bustling trade. The colours are bright and there is a constant hum of activity. His job didn't pay well; he can only afford the basics this week. He focuses on only that which will survive the trip home and the heat that will settle until next week's trip.

He greets the familiar faces; they grow loud and animated as they relay their stories of the week while he chooses from the selection in front of him. He takes all that his money allows and heads back towards the street filled with enough spirit to last the wait for the next taxi.

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her narrative

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The kids will finish school soon. She rushes to her car and speeds over to the supermarket to buy food for dinner. She walks up and down the aisle contemplating what to make for dinner. The produce isn't fresh and the selection is poor. The prices have all increased and the frustration sets in. Eventually the selection is made.

She waits in line to pay, the woman at the till gives a half-hearted smile as part of her duty. Card. Slip. Signature. There is no further interaction other than the mumbles of thanks and the moan of store music in the background.

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their narrative

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His taxi stops along side her car. They take no notice of each other but both are contemplating their purchase and wishing they could have more. He seeks quantity, she seeks quality, and they both seek options. The light changes colour and they part ways. He climbs off the taxi and walks to his home. She parks in the garage and carries the groceries inside.

They put their food down in the kitchen and unpack, separated only by a small wall and intangible social barrier.

# 1a LOCALITY

a site specific approach

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This dissertation follows a site-specific approach, based on the author's normative position, which states that architecture is a powerful tool that can aid in social transformation. It should be mindful of social conditions, be used to integrate communities and reveal possible points of healing within the current condition of contestation.

3. 

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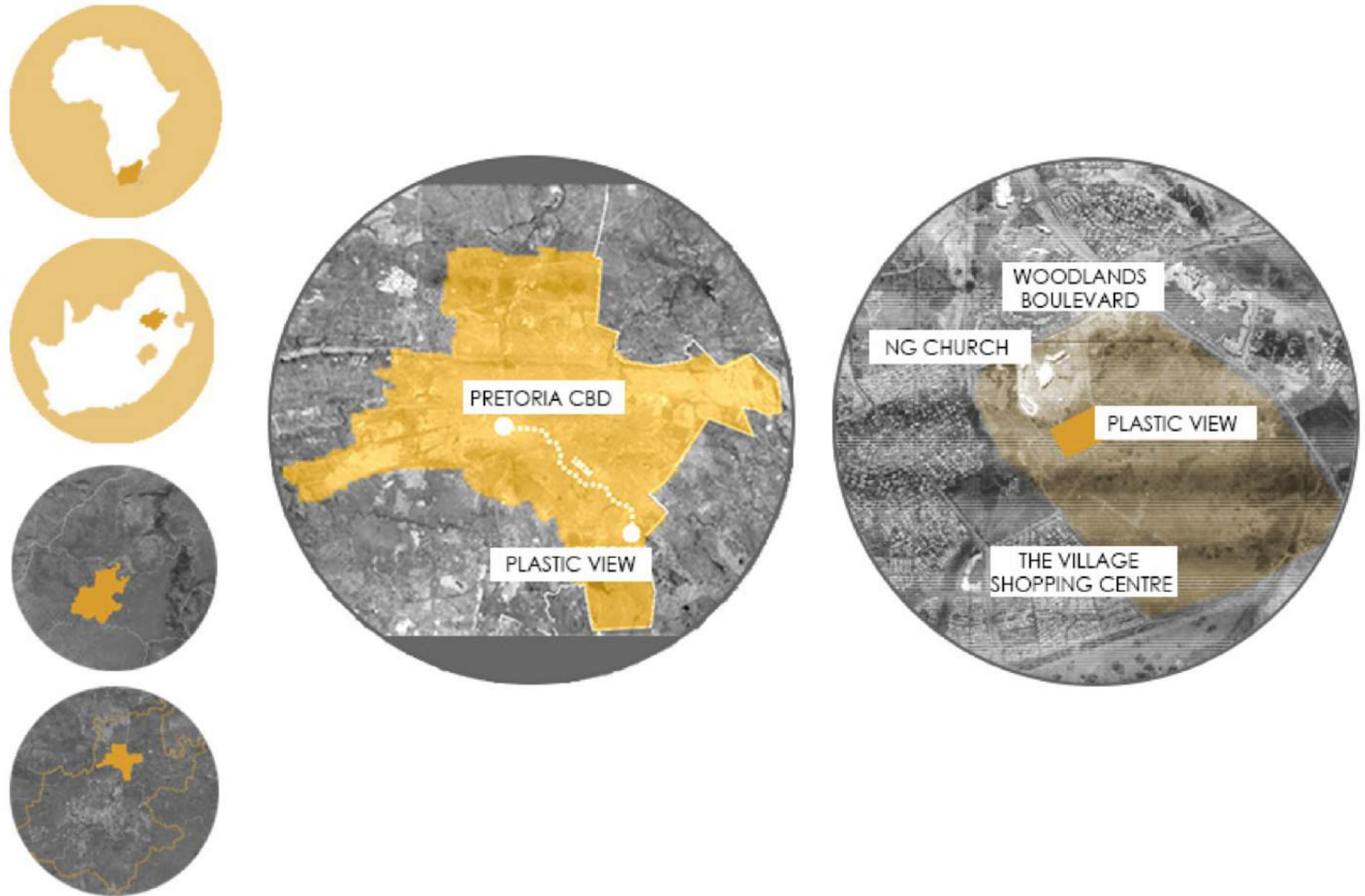
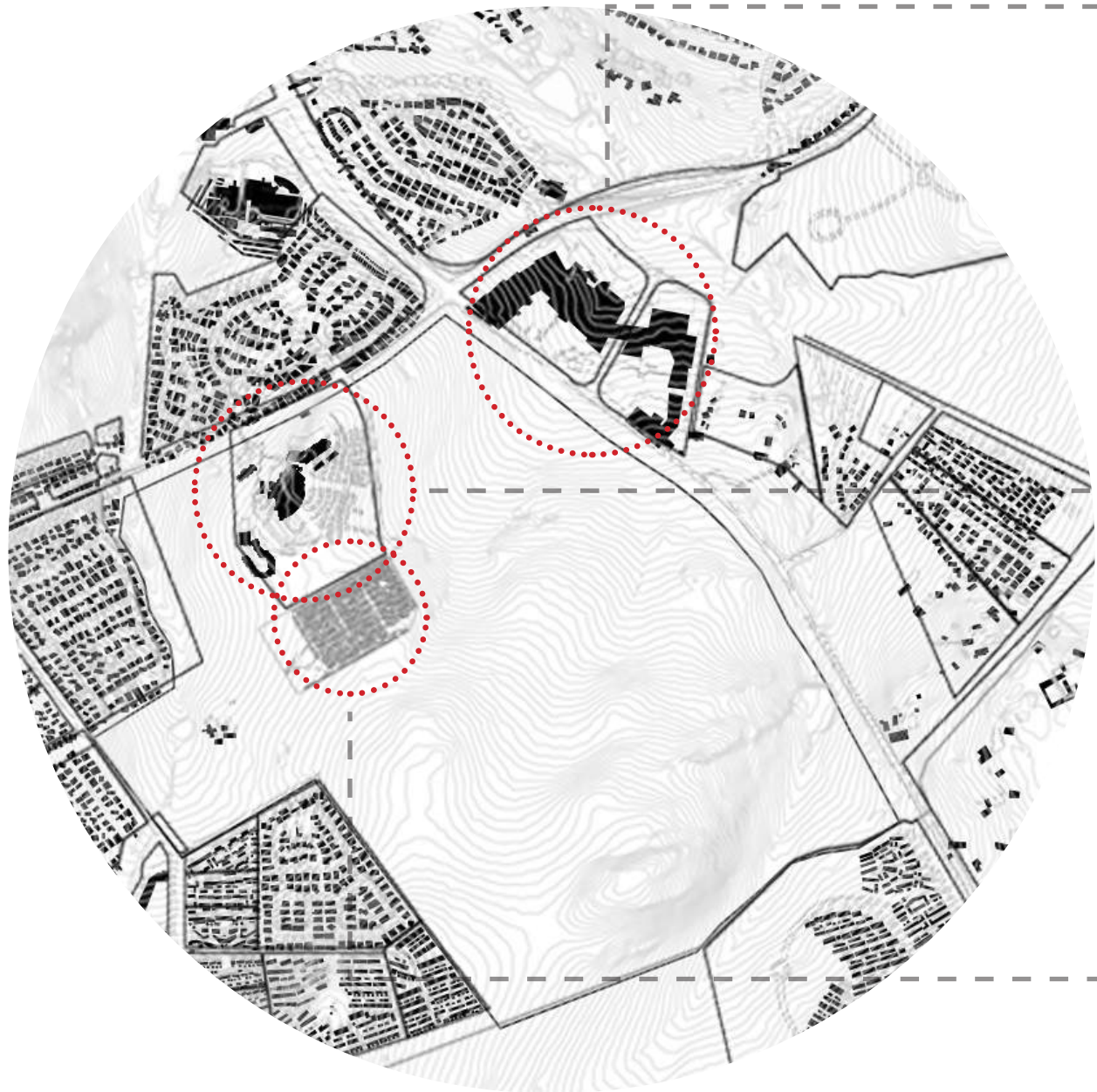


Figure 1 : Locality images. Google Maps. (MArch)Prof and Up Hons 2016)

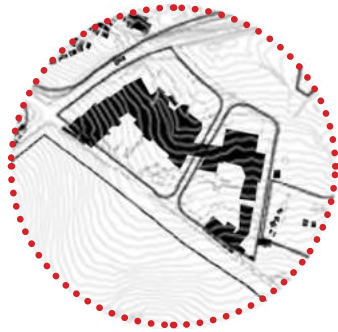


## contextual focus

The focus of this dissertation is an informal settlement called Woodlane Village, informally known as Plastic View, situated to the East of Pretoria in Moreleta Park. The settlement sits on a vacant piece of land just below Moreleta Park Gemeente, a Dutch Reformed church, opposite Woodlands Boulevard shopping mall, and is in close proximity to the Pretoria East hospital and Parkview shopping centre.

Figure 2 : A contextual introduction to Plastic View's locality. MArch(Prof) 2016.

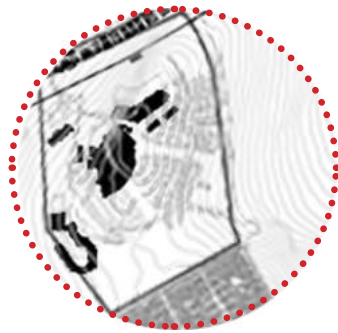




WOODLANDS  
BOULEVARD



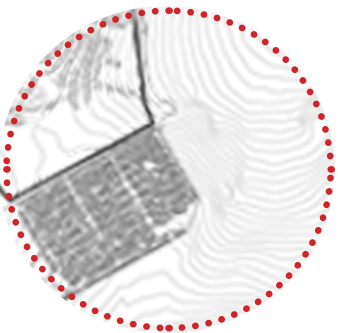
Figure 3 : Elevational context images. Woodlands Boulevard (UP Arch Hons 2016)



MORELETA  
GEMEENTE



Figure 4 : Elevational context images. NG Moreleta Gemeente. (UP Arch Hons 2016)



PLASTIC VIEW



Figure 5 : Plastic View (Author 2016)

## b CONTEXTUAL CONFLICT the history of Plastic View

The community of Plastic View has experienced an unstable history. There is evidence of the origins of Plastic View that date back to 2001, which grew organically up until 2009. As is common with most informal settlements, this community was constantly at risk of eviction from local the police force and the municipality; a pressure that was heightened by the surrounding land property value market and gated estates. In an attempt to not draw any attention and reduce their risk of eviction, the small community sought shelter in amongst the vegetation rather than erecting informal housing.

A local NPO, Tswelopele Step by Step, founded by Denise and Colin Dredge in 2003, recognised this community and the threats they were being exposed to and began to offer support and resources to the community of Plastic

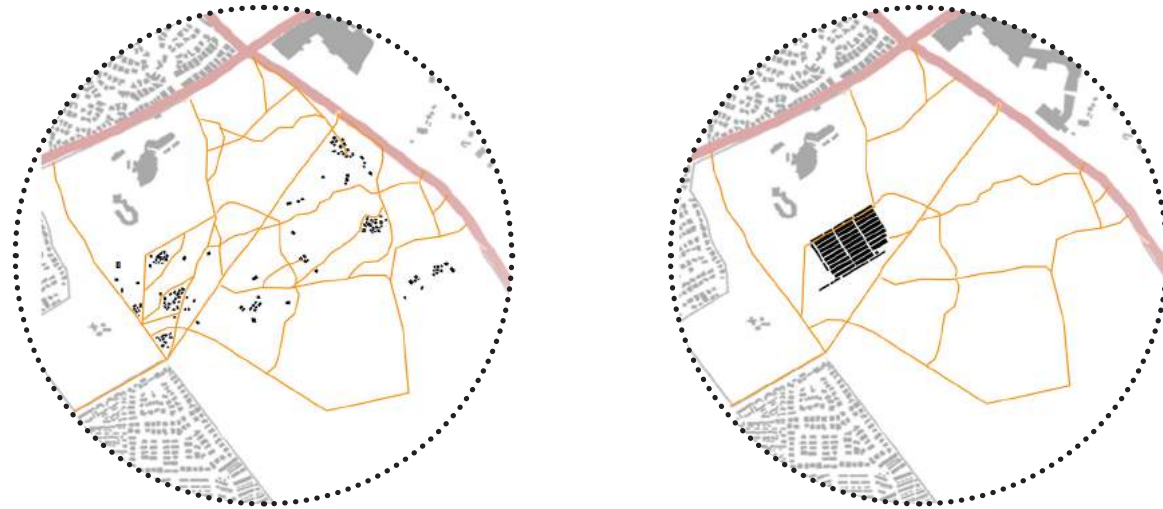


Figure 6 : Development of settlement from its establishment in 2008, to its present day confinement. Author 2016. (Base image courtesy of Google maps)

View (Dredge 2013:2).

Due to this support and the persistence of the settlement, evidence of the establishment of temporary informal shelters then began to manifest from 2005. In 2009, after numerous violent and unlawful attacks on the community, Tswelopele made it possible to better support and protect the community by re-organising them into a consolidated and contained settlement, referred to as Woodlane Village, adjacent to the Moreleta Park Gemeente's boundary fence (Dredge 2013:18). (Note: Despite this formally given name, this dissertation will still refer to the settlement as its more commonly known name, Plastic View).

In March 2015, when the municipality threatened to sell this land, including the site on which Plastic View is found for development at a public auction, Tswelopele contacted Lawyers for Human Rights and initiated a court case against the government with regard to this auction (National 2015). Together with Lawyers for Human Rights, the residents of Plastic View won this court case and halted the sale of the land that they are currently occupying (Mudzuli 2015).

However, despite this progression, the government has yet to recognise this settlement in terms of service provision and access to amenities, which is a direct contradiction of the principles laid out in the Bill of Rights (Chapter Two of the Constitution of South Africa 1997).



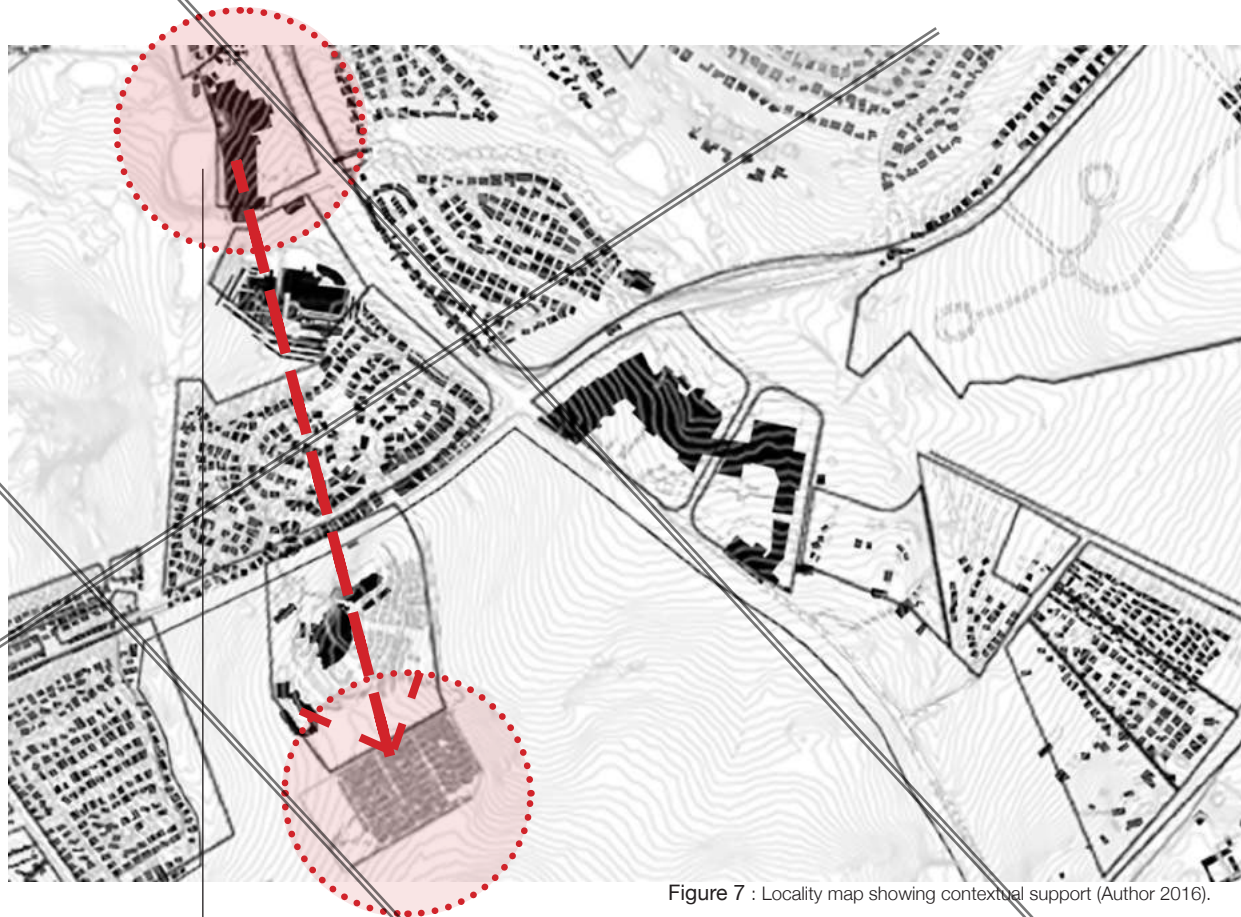


Figure 7 : Locality map showing contextual support (Author 2016).

PLASTIC VIEW

PARKVIEW CENTRE

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## community support

Whilst many residents in the surrounding gated communities are very opposed to this settlement, the community of Plastic View continues to receive support and resources from Tswelopele and a number of programmes, managed by the Moreleta Park Gemeente. These programmes include a primary school funded by the Pure Hope foundation which provides education and feeding schemes to Grade Four on the Church grounds as well as a skills and development training program that assists community members in gaining domestic help experience (UP MProf 2016).

As a part of Woolworths support programme initiative to address food security, edible surplus food, that is past its *Sell By* date but before the *Best Before* and *Use By* dates, is distributed and donated from the stores to communities in need via structured charity organisations (Woolworths 2016).

Woolworths Food, Parkview Shopping Centre, plays a large role in supporting Pure Hope's feeding scheme. The donated food is delivered to and stored at the Moreleta Gemeente and rationed over the week as meals for the children attending the school. This is one of few links that Plastic View has with the surrounding area.

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As a result of the above context, one can see that the community of Plastic View exists in a very controversial situation as an island within the larger urban fabric, supported by a portion of our society, whilst also ignored by the other portion (M(Prof) Research 2016). The social barrier thus becomes prominent, as the residents of Plastic View remain excluded socially and economically.

## research & mapping

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In order to gain a better contextual understanding of the community and the contested site on which it is found, the initial research question for UP Arch M(Prof) research group focusing on this site began with the acknowledgement of the history of urban settlement patterns in South Africa and how this informed the current patterns.

This research and analysis proved to be important in terms of understanding the development of principles and spatial patterns of sustainable cities, highlighted by Alexander (1964), and how Plastic View sits within this criteria.

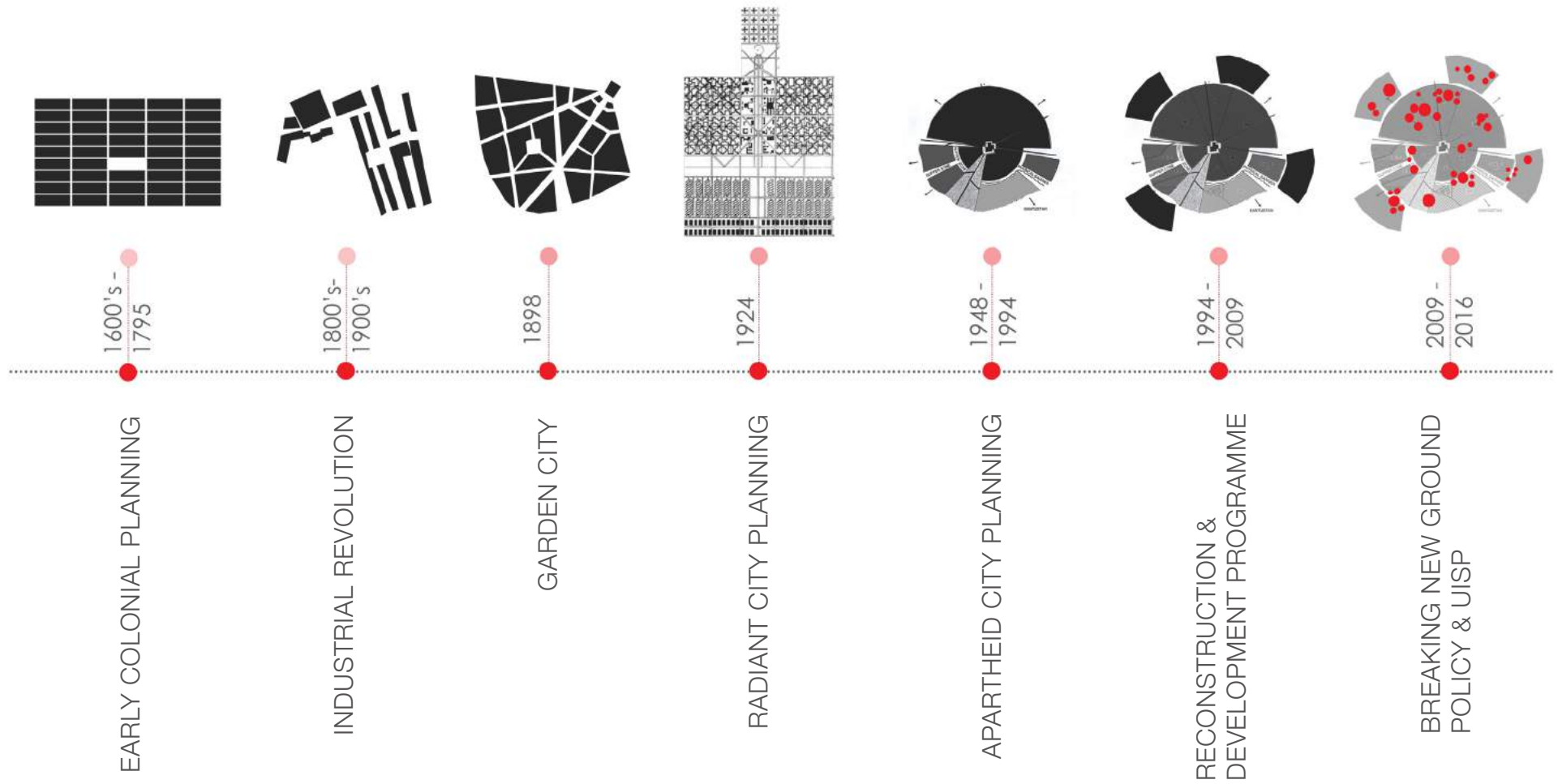


Figure 8 : Timeline of urban planning approaches in South Africa (UP MArch (Prof) 2016).

## BREAKING NEW GROUND POLICY PRINCIPLES:

- \_Multicultural communities
- \_Upgrading all informal settlements by 2015
- \_Sustainable housing solutions
- \_Access to basic needs and amenities
- \_Promoting densification and integration
- \_Creating economic opportunities

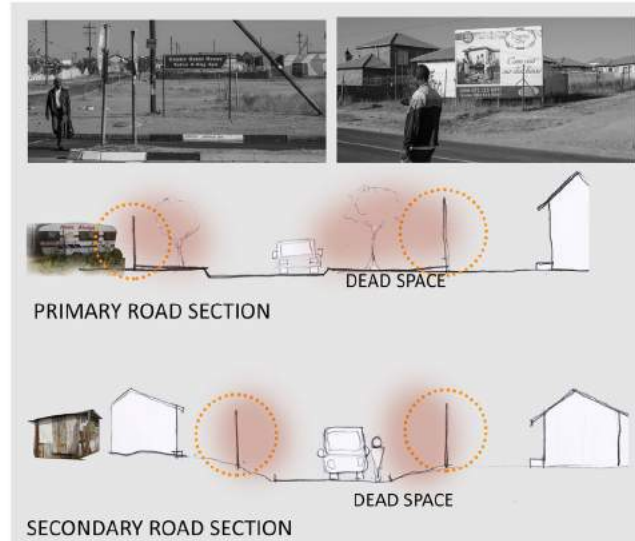


Figure 9 :Cosmo City precedent study. Challenges of Implementing BNG Policy, 2013.

## RESULTS IN COSMO CITY:

- \_Segregated communities
- \_Informal activity happening-backyard shacks
- \_Standard RDP model-not sustainable
- \_Access to basic needs and amenities is limited
- \_Stil has a very high unemployment rate

## THE CONSTITUTION south africa

The most recent and influential informant on the research originates in the Democratic Constitutional Law of South Africa (1996), specifically the Bill of Rights in Chapter Two of this constitution (SA 1996: 5-20), and the Breaking New Ground policy (2004) put forward by the South African government as a reaction to the Apartheid era of urban planning. There are other secondary informants such as the Upgrading Informal Settlements Programme (UIISP) (Fieuw 2014) and the 2030 vision for the National Development Plan (NDP) (RSA 2012) that also fall under South African Governmental policies.

Within the constitution and policy stated above, the common theme is the recognition of South Africa's

fragmented and complex urban environment, and the response towards creating more cohesive, multi cultural, sustainable communities where all residents of South Africa have the right of equal access to basic amenities such as food, health and education (SA 1996: 5-20).

Despite the promising principles put forward by the South African government, the implementation of this into South African society remains tentative. For example, in the case of Cosmo City where all the principles stated in the Breaking New Ground Policy, 2004 were intended to be satisfied. However, the outcome was a segregated community. As a result of the unsustainable RDP model being implemented, informal backyard housing

solutions emerged as a method of income generation the unemployed within the community. Access to the aforementioned basic amenities is limited as a consequence (Myambo 2014).

Further evidence of the lack of implementation of these policies is intensified by the number of informal settlements emerging around areas of opportunity within the urban fabric (UP Arch (MProf) 2016). For example, more specific to site location, the development of the Menlyn area has led to the opportunity for jobs for many who do not live within close proximity and has thus led to increased informal growth in the surrounding areas.



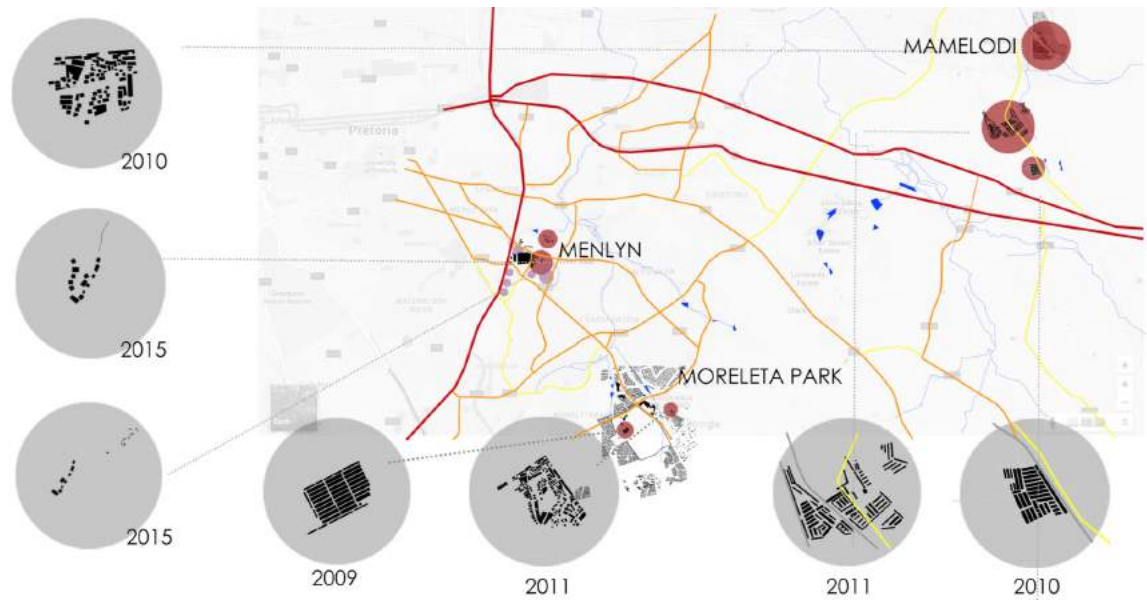


Figure 10 : These illustrations depicts the density, size and location of the informal settlements in Pretoria East mapped by the UP Arch M(Prof) research group 2016 to support the arguments made on the previous page (UP MArch(Prof) 2016). Map courtesy of Google Maps.

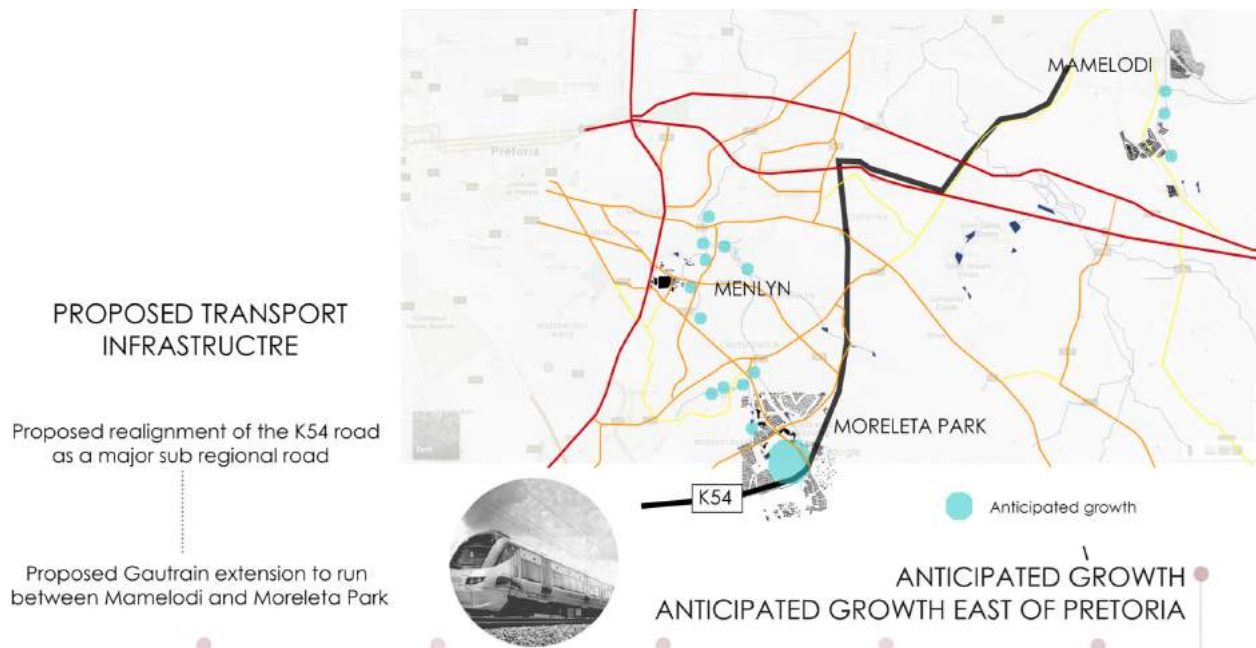
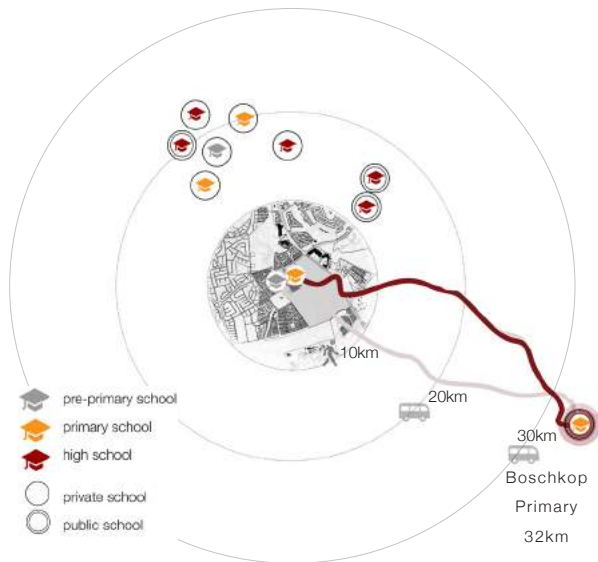


Figure 11 : Location

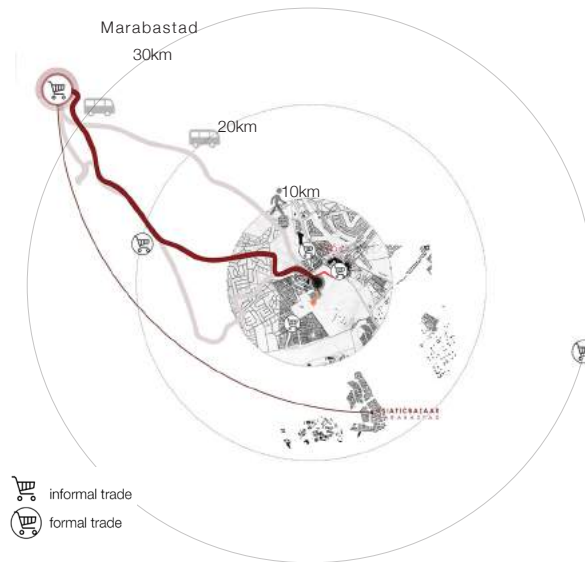
Due to future proposals the corridor within which Plastic View is situated, is seen as a significant region of urbanisation for the future development of Pretoria. The newly proposed main road, K54, adjacent to Plastic View, and the extension to the Gautrain route through Pretoria East to Mamelodi will allow for many more opportunities and thus accelerate growth of the area.



### EDUCATIONAL FACILITIES

Figure 12 : various levels of education\_macro scale  
MArch(Prof) 2016)

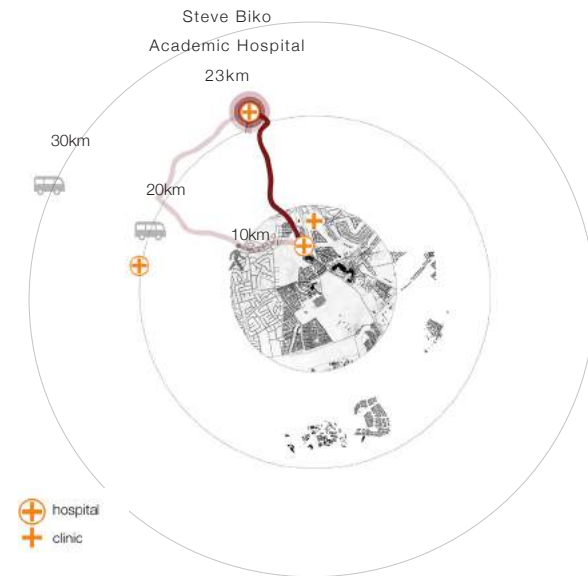
In keeping with the principles put forward in the Bill of Rights 1997, the Breaking New Ground Policy 2004, and on a more global scale, the UN Charter (1945), one of the mapping exercises conducted in alliance with the University of Pretoria's Honours research group also working on this site, was the mapping of the basic amenities situated around the site.



### FOOD AVAILABILITY

Figure 13 : greater food network\_macro scale  
MArch(Prof) 2016)

This mapping was conducted through a desktop research approach in addition to a number of site visits and interviews with the Plastic View community members in order to better understand this community's access to the basic amenities of food, health and education within the area.

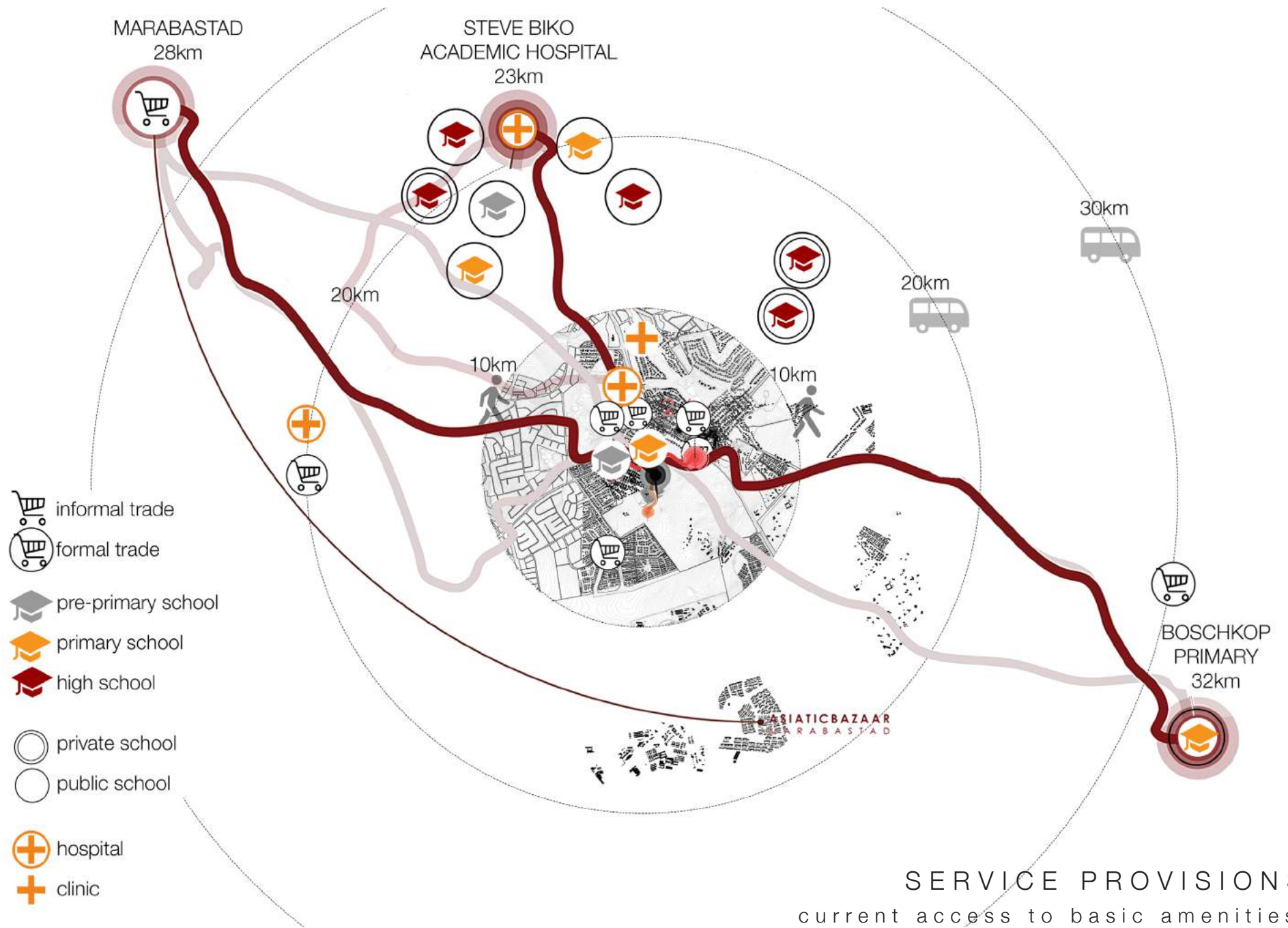


### HEALTH SECURITY

Figure 14 : public and private health care\_macro  
scale (MArch(Prof) 2016)

Access to these basic amenities was considered through both the public and private sectors of service provision.

The results of this mapping show that although access to food, health and education from the Plastic View site is easily accessible within the private sector, accessibility to these amenities in the public sector is limited, as illustrated in the images above.



**SERVICE PROVISIONS**  
current access to basic amenities 14.  
Figure 15 : current access to basic ammenities (MArch(prof)2016)

## the urban intention

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As a result of the research conducted up to date it is proven that the implementation of the principles forward by governmental policies and programmes, such as the Breaking New Ground (BNG) policy, are not evident in the case of the community of Plastic View. Due to the number of broken service provision networks across both the private and public sectors of our society, Plastic View has become a site that sits as an island of contestation in amongst the fragmented urban fabric in which it is found.

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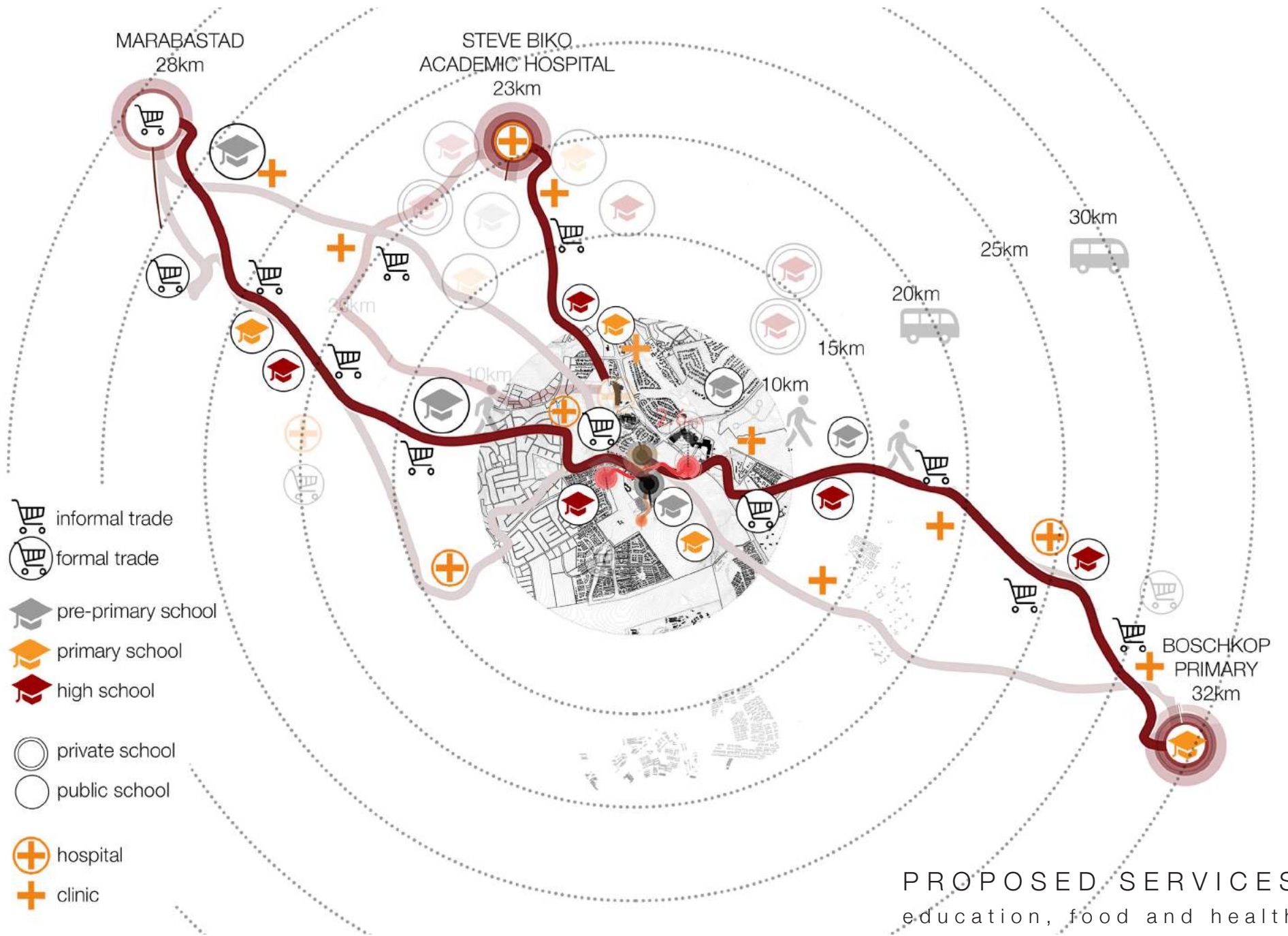
Therefore, the urban intention of the Masters research group working on the Plastic View site, is to propose an urban vision that explores the spatial consequence of policy intentions such as BNG, in order to stitch this fragmented urban network and minimise the gap between public and private sector service provision within our urban society: transforming Plastic View from a site of contestation, into a site of conciliation through the establishment of ancillary facilities as well as multiple housing density and types that cater, socially and economically, for the large variety of people in the area.

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### BNG PRINCIPLES

- Integrating subsidised, rental and bonded housing
- Providing municipal engineering services at a higher level and being applied consistently throughout the township
- Providing ancillary facilities such as schools, clinics and commercial opportunities
- Combining different housing densities and types, ranging from single-stand units to double storey units and row houses.





PROPOSED SERVICES  
education, food and health<sub>16</sub>.  
Figure 16 : Location

# C

## CONCEPTUAL VISION

theoretical informants

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In order to translate the urban intention into an urban vision which improves the spatial implementation of principles put forward by the current governmental policies, the MArch(Prof) research group unanimously adopted an approach which has recognised the need for a paradigm shift in terms of the planning procedures conducted in the South African urban context from a neoliberal view, to an ecological world view.

17. The neoliberal approach, currently in place, to urban planning is seen as a reaction to the apartheid era (Wright 2013). This approach tried to introduce policies

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that included principles of equality but the lack of spatial implementation of these principles, such as Cosmo City, has done little to correct spatial inequalities within society.

The neoliberal approach suggests equality and social justice and yet it is governed by a market orientated mentality, which means that the individuals right to the city is often dependent on their claim of ownership to property determined by their socio-economic status. The suggestion is therefore to shift from a neoliberal approach to urban implementation, to that of an ecological worldview.

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Theorists such as Salat (2011) and Steyn (2005) have adopted the ecological worldview approach and have published a number of principles, which became highly influential on the urban conceptual vision and approach to this dissertation.

Salat advocates that there is a large advantage of viewing the city and its urban fabric through a metaphorical lens of a leaf. The structure of a leaf illustrates a resilient living system that is adaptable through its multi-connectivity and interconnected network of systems (Salat 2011:18).

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# SUSTAINABLE URBAN TRANSFORMATIONS

1-Heterogenous communities, mixed densities



2-Pedestrian & bicycle oriented streets. Green space & public spaces.



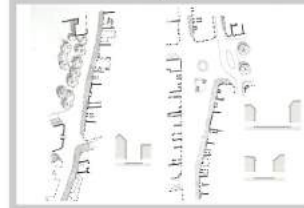
3-Streetscapes become activity corridors throughout the site. Boulevard typology



## SERGE SALAT

Architect, Designer and Urban Planner

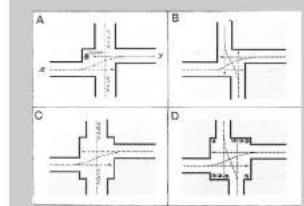
1-Street layouts a



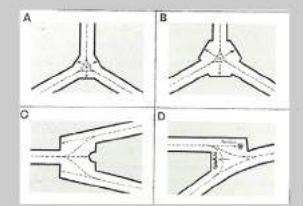
2- Street layouts b



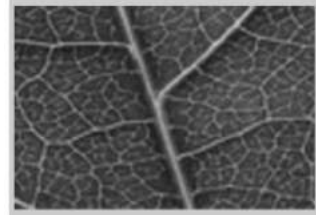
3-Proposed street intersections a



4-Proposed street intersections b



5-Resilient urban fabric taking the structure of a leaf



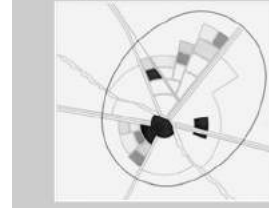
6-Urban layout aims to connect all networks



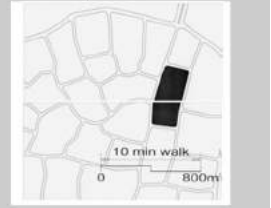
## GERALD STEYN

Architectural Professor at TUT

1-Medium-sized compact cities



2-Urban villages in superblocks



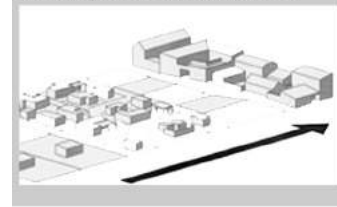
3-Appropriate boundaries & streets



4-Mixed-use main streets



5-Medium density, robust with courtyards, walkable



6-Small-scale and local/self-help and semi-skilled

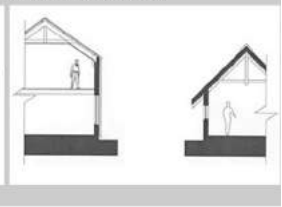


Figure 17 : Urban theoretical informants (UP Arch (MProf) 2016). Individual image resources from left to right: (GWASstudio 2007), (Salat 2011) & (Steyn 2005)

## steyn & salat theory

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In order to achieve a multi-connected and interconnected network of systems, Salat (2011:400-401) suggests, through various precedent studies, the following characteristics; streetscapes becoming a stage for activity which create fluctuating energy nodes within the urban context, high density, mixed use communities, pedestrian and bicycle oriented environments, the provision of public space, self sufficient districts made up of heterogeneous communities and a strong recognition of the existing conditions on site.

An example of these principles being adapted to the local context is Thorntree View, in Soshanguve, by Holm Jordaan Architects (figure...). The success of this project lies in the intention to strengthen existing nodes of activity. From these nodes, community specific spaces were focused on and further developed. Buildings consist of

heterogenous, mixed density communities face onto and activate the street edge. Thus Thorntree View becomes an inclusive environment that connects and empowers the local context.

Gerald Steyn, the author of Patterns for People Friendly Neighbourhoods (2005), gives a more contextual slant to this view. Having conducted research in Mamelodi, Steyn states that due to urban sprawl and spatial and social fragmentation, our urban fabric has become unsustainable.

Steyn's (2005) response to this observation concludes that although a sustainable African neighbourhood would certainly differ from a European one in terms of character and appearance, such as the ones Salat (2011) considers, the basic ordering principles and characteristics would

essentially be the same (Steyn 2005). Namely compact, walkable, mixed use environments with a high level of economic self-sufficiency.

Using these principles as basic informants for the conceptual urban vision, the framework proposal for this dissertation was then initiated by considering an existing, formal framework proposal for the development of the Plastic View site by StudioMAS Architects.

By viewing this formal proposal through the lens of the theoretical approaches listed above, specifically focusing on accessibility, heterogeneity and consideration for the existing conditions on site, the MArch(Prof) research group critically assessed this proposal and slightly altered areas within it accordingly in order to reach the ecological worldview approach of the urban vision used in this dissertation.



## Thorntree View, Soshanguve

### application of Salat's principles

#### principles

- Designing community specific spaces
- Enriching the existing
- Making connections between existing nodes and the surrounding context
- Heterogenous communities

#### response to social issues

- A community lead process
- An appreciation of the context and its characteristics
- Understanding the way place was used
- High concentration of energy and density along activity corridors

#### importance of public space

- Multifunctional
- Breaks between buildings
- Results in ownership over courtyard spaces and positive surveillance

#### lessons for the South African context

- Understand the characteristics and spatial conditions of the site in order to strengthen existing networks.
- Using building footprints to define activities and public squares
- Public and private green spaces



Figure 18 : Thorntree View Precedent images. (GWA Studio 2007)

## t h e o r e t i c a l   o v e r v i e w

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Through the aforementioned theoretical research, the importance to create social interconnected environments is highlighted multiple times. Community living is important and thus should be reflected in community layouts and planning in order to highlight and reflect this.

Heterogeneous communities create opportunities for a variety of people and thus can aid in the break down of socio-economic barriers. As demonstrated in Thorntree View, a community led process and appreciation of the context allows for a effective spatial implementation, which in turn leads to a positive interactive environment.

The most successful communities are those that are multi-functional and pedestrian orientated as it allows for equal opportunity amongst all individuals. The urban vision thus aims to take on these principles in order to create a resilient and integrative environment that serves the diverse range of individuals present within the context.

Based on research and important principles, a conceptual collage (figure...) was created to highlight important aspects being aimed for within the urban space. The collage illustrates a multi-functional mixed-density public space that incorporates economic and social aspects in order to maintain a successful urban environment.





Figure 19 : Conceptual collage\_mixed density and multifunctional space (Author 2016)





Figure 20 : Urban site vision plan (MArch(Prof) 2016)

## URBAN VISION framework analysis

Due to the vast scale the site was delimited to the development of the proposed high activity access boulevards that connect the main suggested nodes of activity. Access roads are envisioned as high density, mixed use activity corridors throughout the immediate urban fabric, which aim to encourage existing energy present around the site to manifest centrally.

It is from the main access roads that the individual dissertation proposals branch off, contributing to the mixed density, heterogeneity and energy of these boulevards.

23.

The individual proposals will have a strong focus on the accessibility of basic service amenities to the community found within this framework, which is influenced by the study of South African policies such as Breaking New Ground. These policies speak of the importance of ancillary facilities within range of various housing types and densities that cater for the various socio-economic conditions and community members. Each proposal thus focuses on service provision, its accommodation of and influence on the immediate community.



Figure 21 : Zoom in of boulevard\_Urban site vision plan (MArch(Prof) 2016)

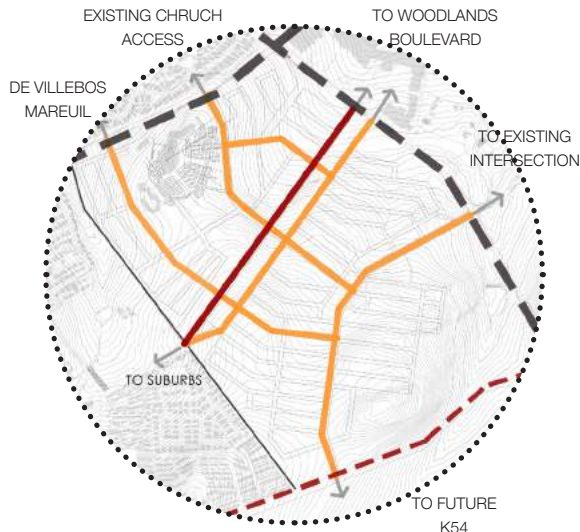


Figure 22 : Urban framework accessibility (MArch(Prof) 2016)

### HIERARCHY OF ACCESS

The framework consists of one main vehicular access route and a few secondary routes that are vehicular and/or pedestrian.

- MAIN ROUTES
- CONNECTING ROUTES
- EXISTING ROUTES

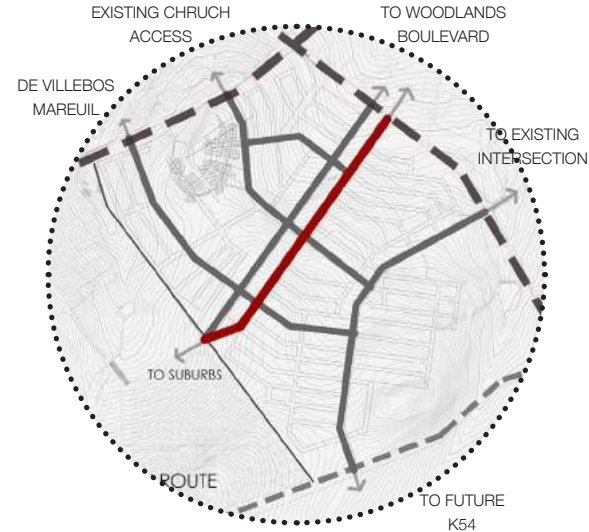


Figure 23 :Urban framework pedestrian route (MArch(Prof) 2016)

### PEDESTRIAN ROUTE

The conceptual framework includes a main route designated only to pedestrians, parallel to the vehicular road, in order to encourage an accessible and walkable community such as Steyn (2005) and Salat (2011) propose.

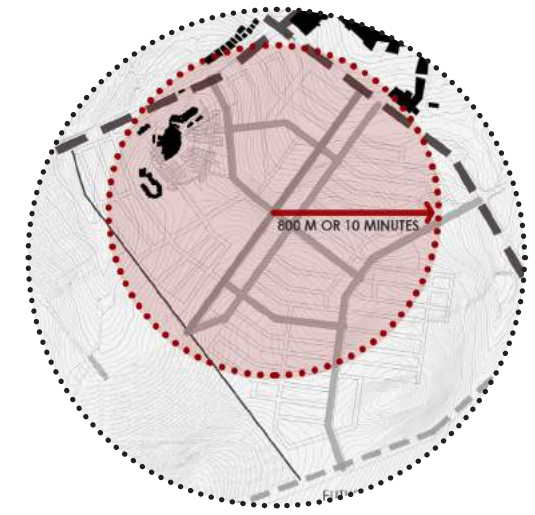


Figure 24 : Urban framework pedestrian radius (MArch(Prof) 2016)

### PEDESTRIAN RADIUS

It is important to incorporate facilities within the 800m radius. This ensures a maximum walking time of 10 minutes and thus encourages community members to walk as there is no need for transport.



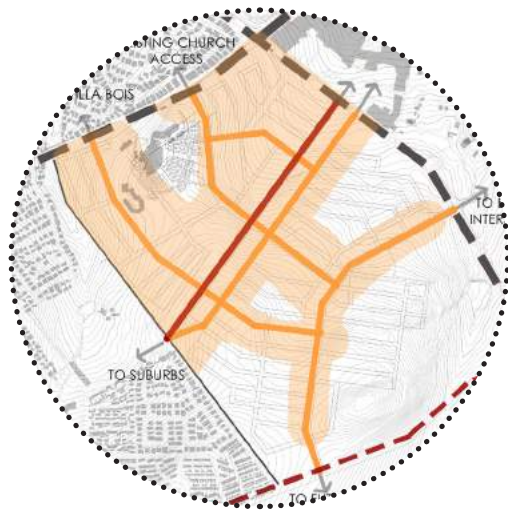


Figure 25 : Urban framework density increase (MArch(Prof) 2016)

## INCREASED DENSITY

Due to the pedestrian nature of the site the streets become activated and thus become important social nodes.

- MAIN ROUTES
- CONNECTING ROUTES
- EXISTING ROUTES
- INCREASE IN DENSITY

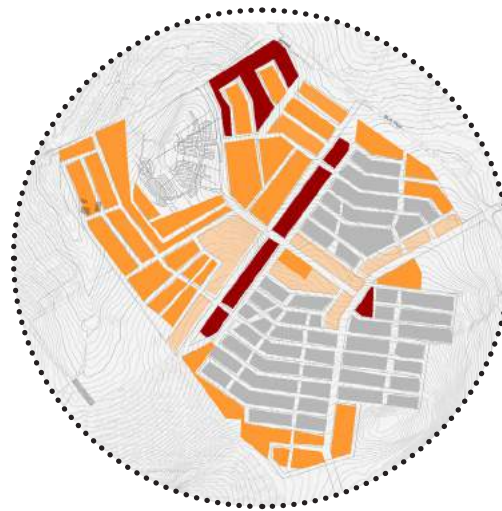


Figure 26 : Urban framework density (MArch(Prof) 2016)

## DENSITY HETEROGENIETY

Mixed-use high-density buildings on the street edge cater for a variety of residents and thus increase and maintain the energy present on the streets.

- HIGHEST DENSITY
- HIGH-MEDIUM DENSITY
- MEDIUM DENSITY
- LOW DENSITY



Figure 27 : Urban framework density and accessibility (MArch(Prof) 2016)

## DENSITY & ACCESSIBILITY

The variation of density aids in catering for various income and social groups. Due to the unaccessible nature of the gated communities, the site focused on being highly accessible, mainly to pedestrians in order to develop the community.

- NO ACCESS
- DOUBLE SECURITY CLEARANCE
- SECURITY CLEARANCE
- OPEN DURING DAY
- OPEN NIGHT AND DAY
- HIGHEST DENSITY
- HIGH-MEDIUM DENSITY
- MEDIUM DENSITY
- LOW DENSITY



Figure 28 : Urban framework recreational space (MArch(Prof) 2016)

## RECREATIONAL SPACE

Sizeable open space has been provisioned as a response to the many gated estates in the surrounding area.

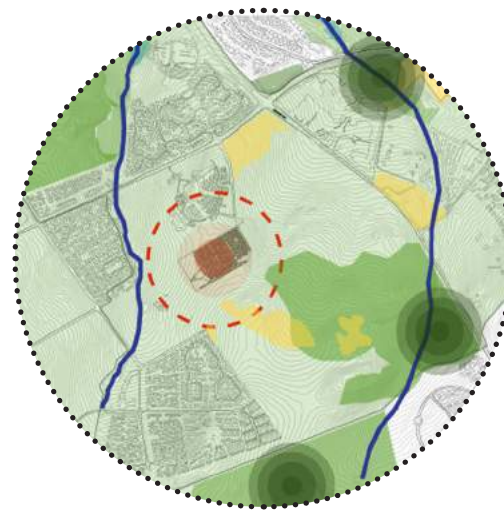


Figure 29 : Urban framework ecological mapping (MArch(Prof) 2016)

## ECOLOGICAL SENSITIVITY

There is a high sensitivity area at the bottom right where the K54 meets Garsfontein road. The Philadelphia spruit runs through a rich biodiversity area, bottom right, where the proposed K54 would meet Garsfontein road. The watershed has a large ecosystemic effect and thus is important to respect the spruit that runs through site.

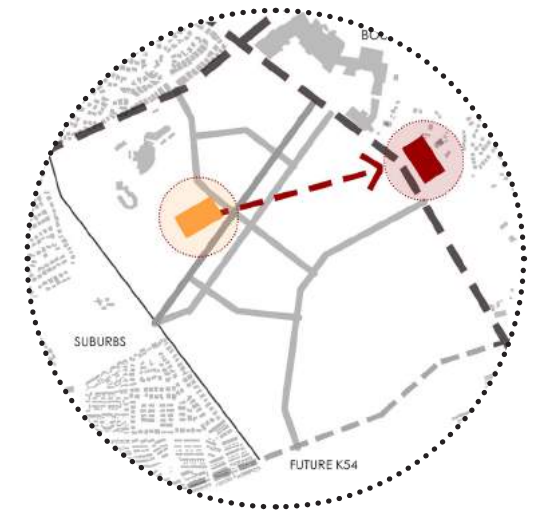
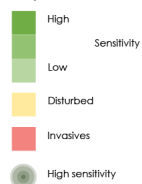


Figure 30 : Urban framework relocation (MArch(Prof) 2016)

## SETTLEMENT RELOCATION

The municipality's current proposal includes relocating the residents of Plastic View across the street to the North East of the site (Tlhabye 2015).

The conceptual framework caters for the transfer as well as providing low-income housing as an option for current residents.

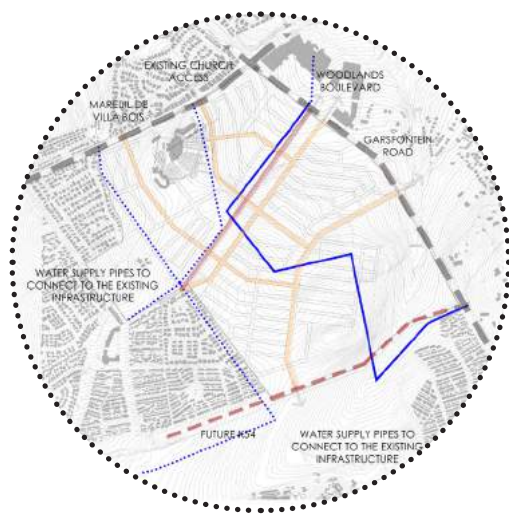
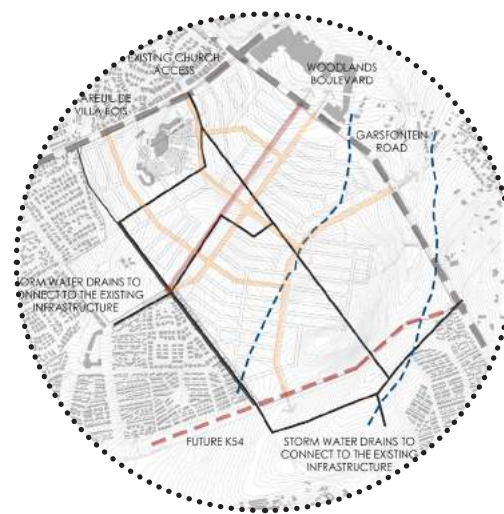


Figure 31 : Urban framework municipality connections (MArch(Prof) 2016)

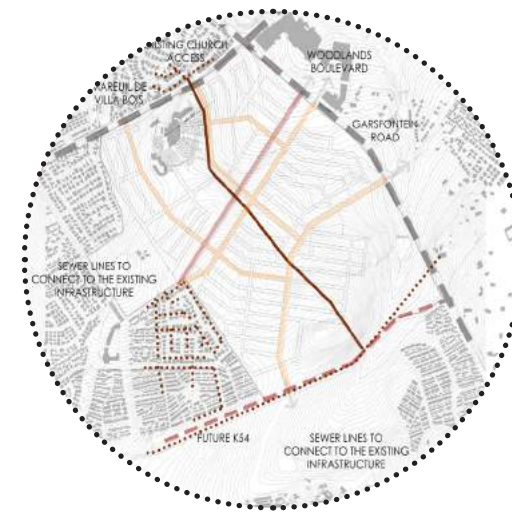
## MUNICIPAL WATER SUPPLY

- NEW WATER SUPPLY PIPES
- ⋯ EXISTING WATER SUPPLY PIPES



## STORM WATER DRAINAGE

- STORM WATER DRAINS
- - - NATURAL WATER COURSE



## SEWER RETICULATION

- NEW SEWER LINES
- ⋯ EXISTING SEWER LINES





Figure 32 : Urban Vision Perspective (MArch(Prof) 2016)

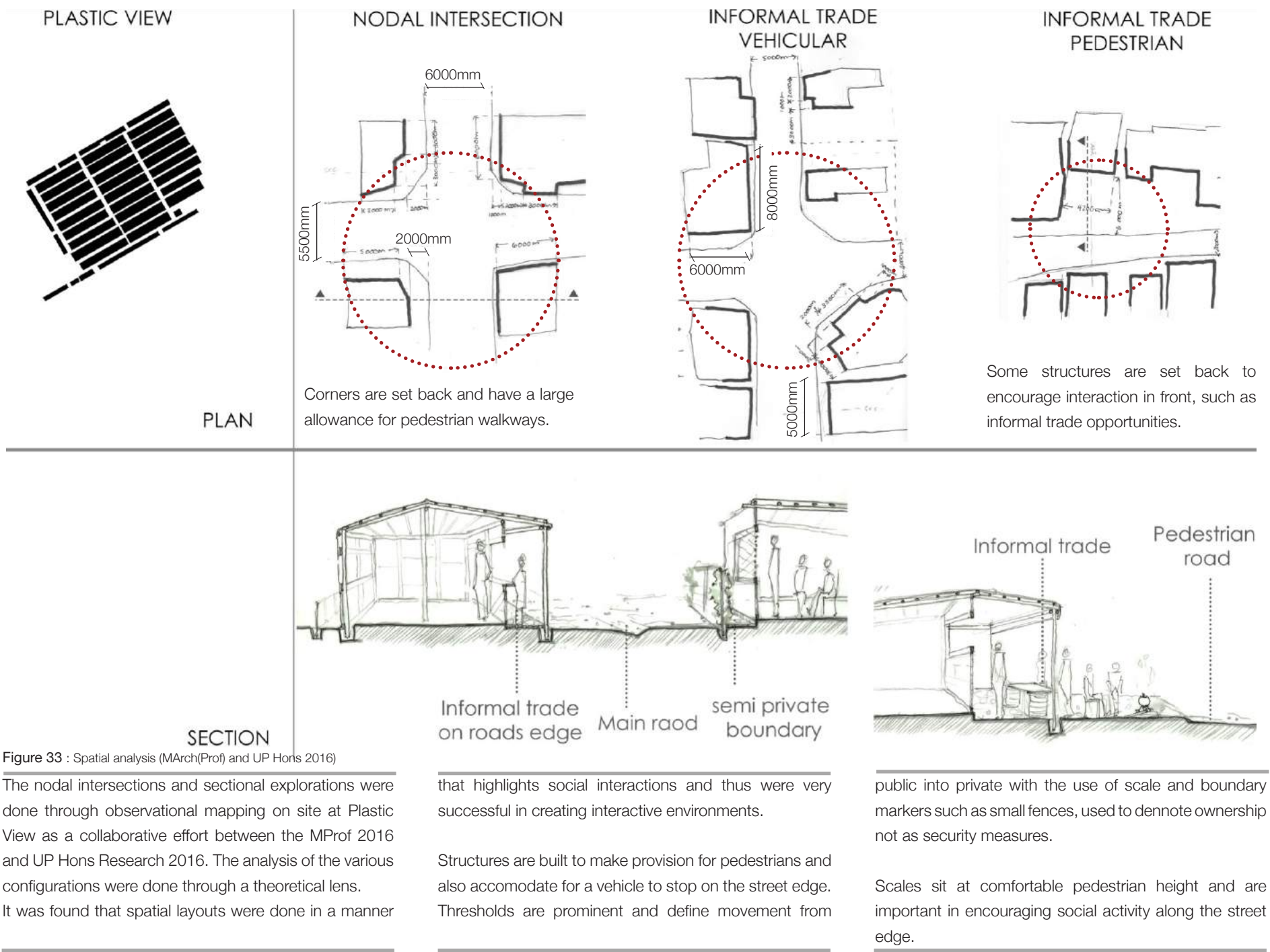


Figure 33 : Spatial analysis (MArch(Prof) and UP Hons 2016)

The nodal intersections and sectional explorations were done through observational mapping on site at Plastic View as a collaborative effort between the MProf 2016 and UP Hons Research 2016. The analysis of the various configurations were done through a theoretical lens. It was found that spatial layouts were done in a manner

that highlights social interactions and thus were very successful in creating interactive environments.

Structures are built to make provision for pedestrians and also accommodate for a vehicle to stop on the street edge. Thresholds are prominent and define movement from

public into private with the use of scale and boundary markers such as small fences, used to denote ownership not as security measures.

Scales sit at comfortable pedestrian height and are important in encouraging social activity along the street edge.

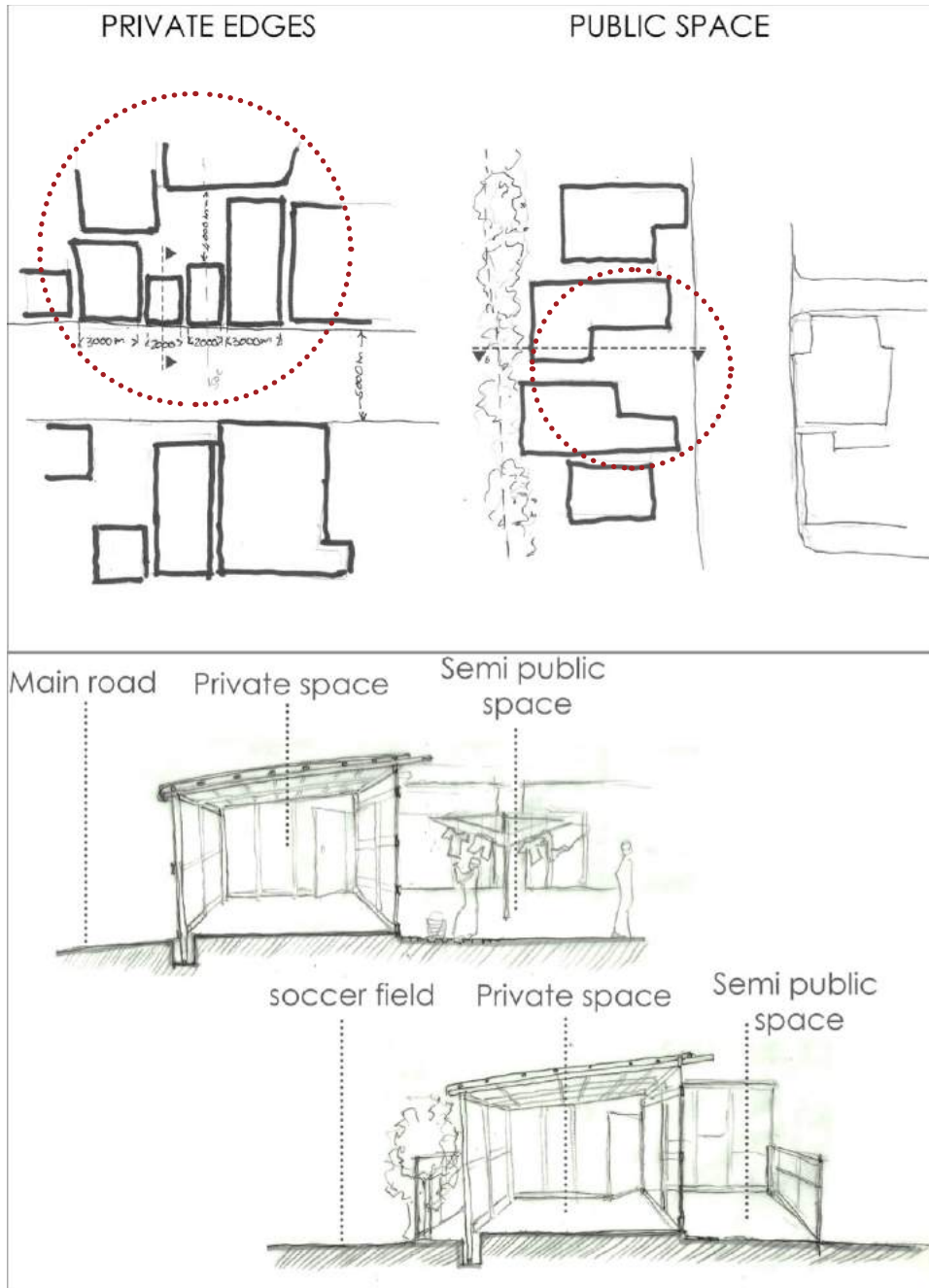


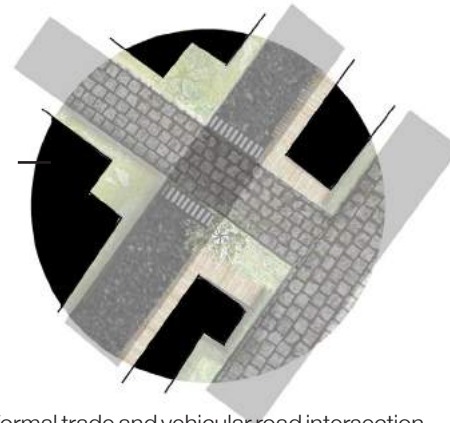
Figure 34 : Spatial analysis (MArch(Prof) and UP Hons 2016)



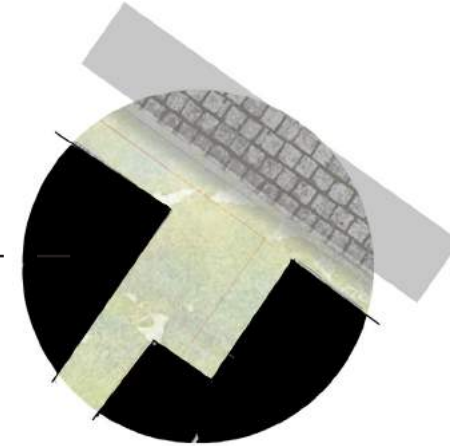
Figure 35 : Spatial analysis photographs from Plastic View (MArch(Prof) and UP Hons 2016)

spatial layout informants Plastic View

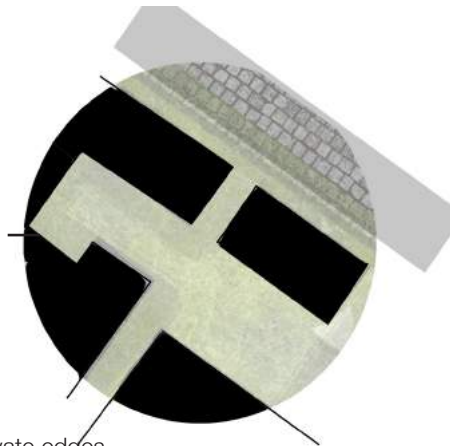




Informal trade and vehicular road intersection.



Public space.



Private edges.

## translation of spatial layout analysis into urban framework

Influence was taken from the spatial layout of Plastic View whereby informal trade is situated on the corner of vehicular roads but is set back from the street edge. This allows for a safe distance from vehicular traffic as well as giving the opportunity for vehicles to stop.

Spatial patterns allow for public spaces to be accommodated in between buildings. This breaks up facades that sit along the street and allow for a more interactive relationship with the street edge.

Some residential edges are more private but accommodate public space through courtyards between the buildings.





Figure 37 : Urban framework: spatial analysis conceptual collage exploration (MArch (Prof) 2016)

VIBRANT MAIN ROAD



Figure 38 : Urban framework: spatial analysis conceptual sketch exploration (MArch (Prof) 2016)

PUBLIC EDGE CONDITIONS





Figure 39 : Urban framework: materiality analysis (MArch (Prof) and UP Hons 2016)

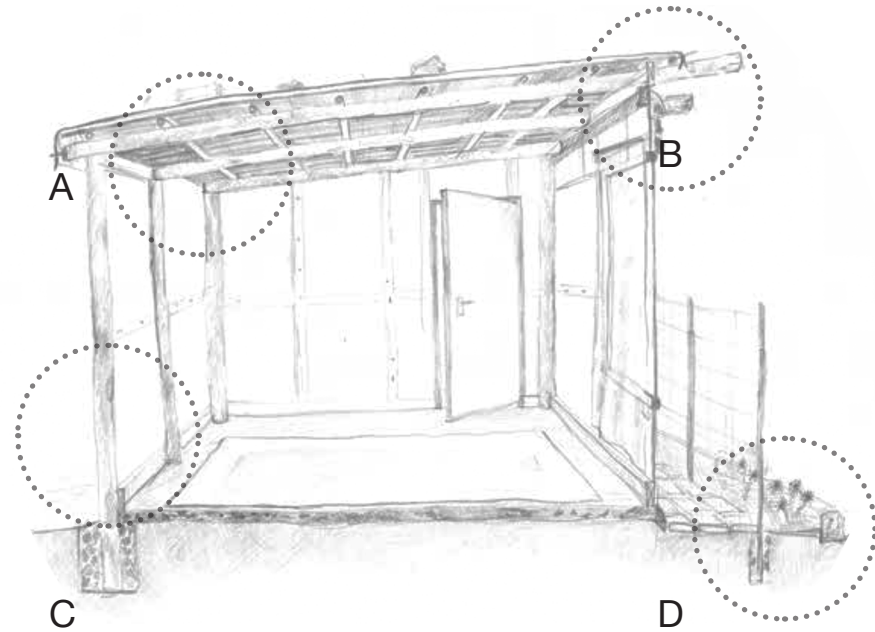


Figure 40 : Urban framework: materiality and structure analysis (UP Hons 2016)



A

TIMBER SUPPORTS



B

PLASTIC SHEETING



C

CORRUGATED  
STEEL SHEETS



D

BRICK & STONES

33. Figure 41 : Urban framework: materiality analysis photographs (MArch (Prof) and UP Hons 2016)

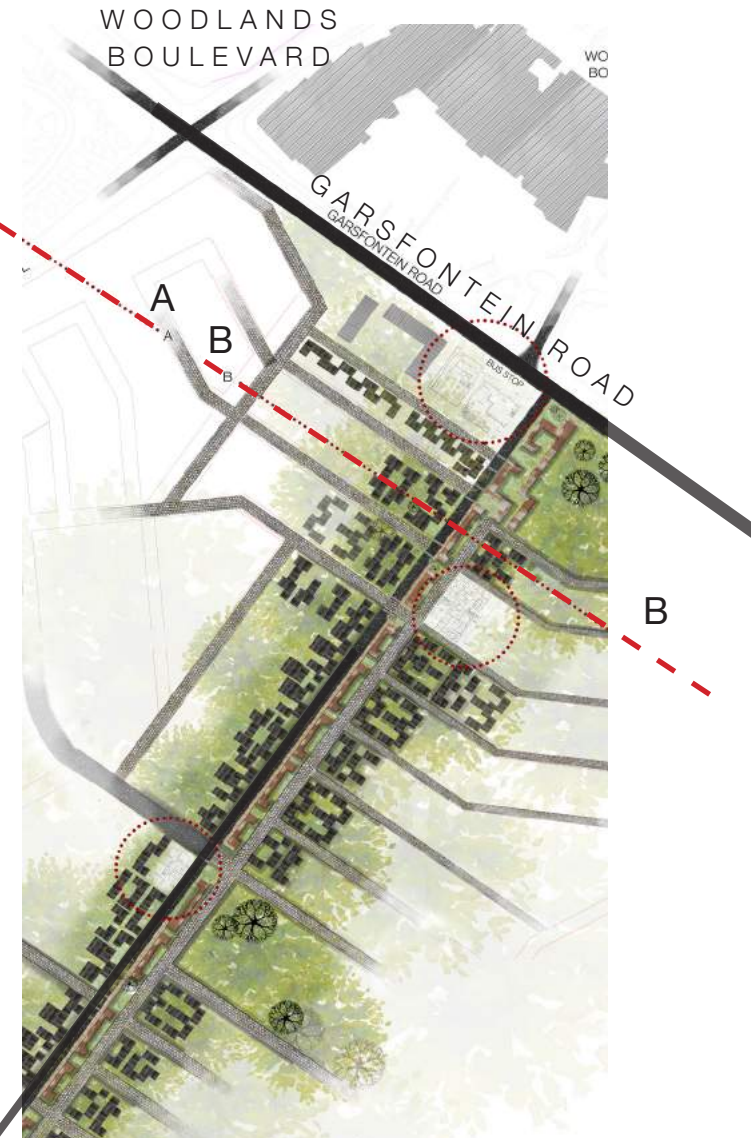
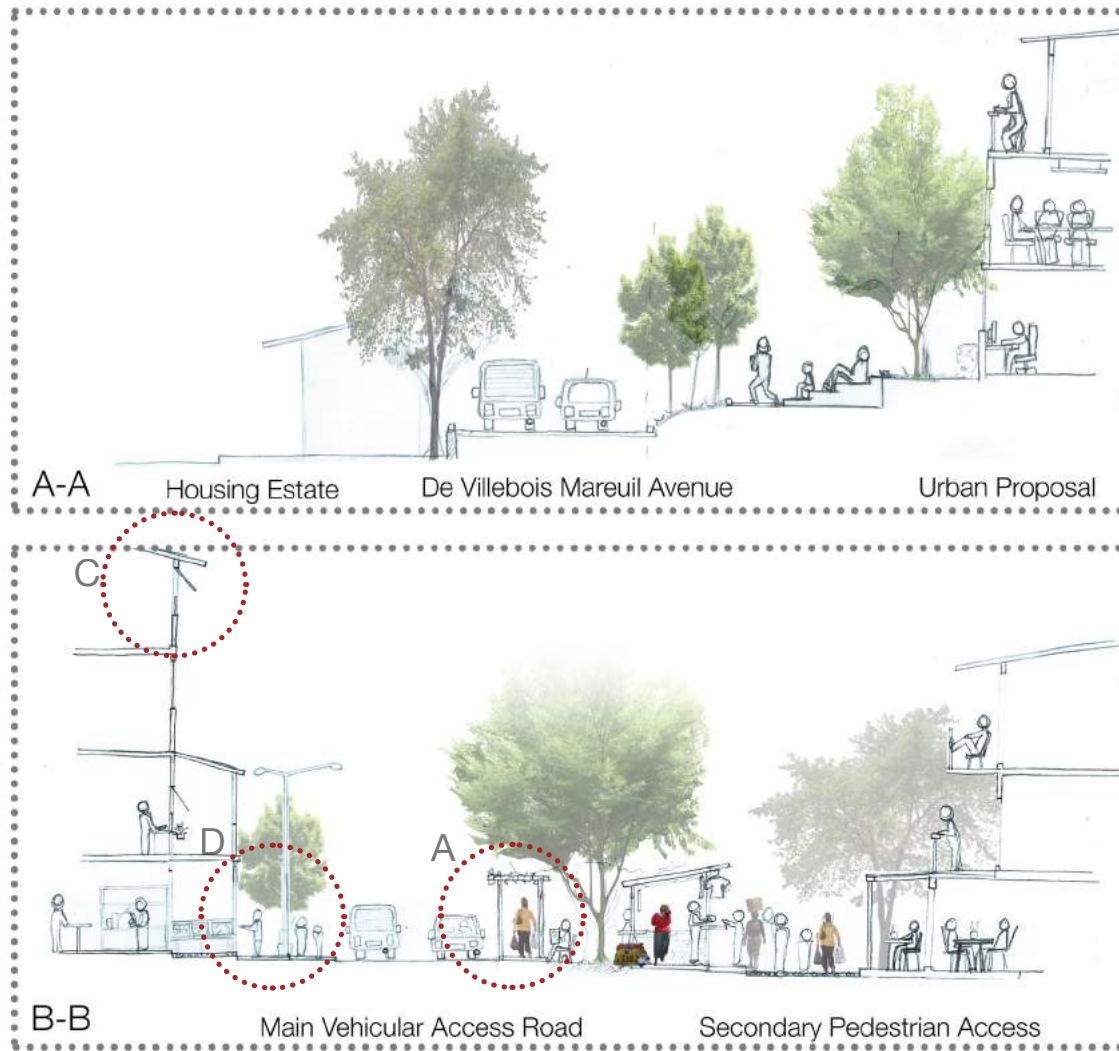


Figure 42 : Urban framework: materiality and structure implementation (MArch (Prof) 2016)

### materiality informants

Due to the impermanent nature of the dwellings within Plastic View the predominant materials include recycled brick, old plastic and corrugated sheeting and timber offcuts.

In order to translate this contextual language, similar materials were used within the urban framework, with the addition of other, more permanent, materials such as steel and concrete.

### urban proposal sections

Sections taken through the urban framework proposal that illustrate spatial considerations and pedestrian/street relationships. Thresholds, such as level change and vegetation, are important to define space.





35.

Figure 43 : Urban framework: conceptual collage (MArch (Prof) 2016)



## urban framework

The analysis of the edge conditions on site within Plastic View informed the development of the urban conceptual vision.

In order for this framework to be successful it is vital that the design of public spaces implements principles that sustain social interactions as well as promote a cohesive community.



# d

## INDIVIDUAL RESEARCH

### urban proposal

Due to the current food system network being made up of processes sitting in isolation, food accessibility is limited and has consequently supplemented to the decline of food secure environments.

#### Urban Issue

The urban issue for Plastic View is that the site is an island of contestation in amongst the fragmented urban fabric in which it is found. The reason for the fragmentation being due to the number of broken service provision networks across both the private and public sectors of our society.

Branching off from this larger urban issue, the individual proposal discussed in this dissertation focuses on the inequality of access to food for the community members of Plastic View. Falling in the low-income bracket, many residents of Plastic View cannot afford the commercial food prices within the vicinity and thus choose to travel further in order for more affordable prices (M(Prof) and BArch (Hons) research 2016).

Having conducted a desktop research study, as well as interviews with the community during numerous site visits, a collaborative mapping effort between the University of Pretoria's M(Prof) and BArch (Hons) research 2016 groups produced documented evidence of the food services within the vicinity of Plastic View.

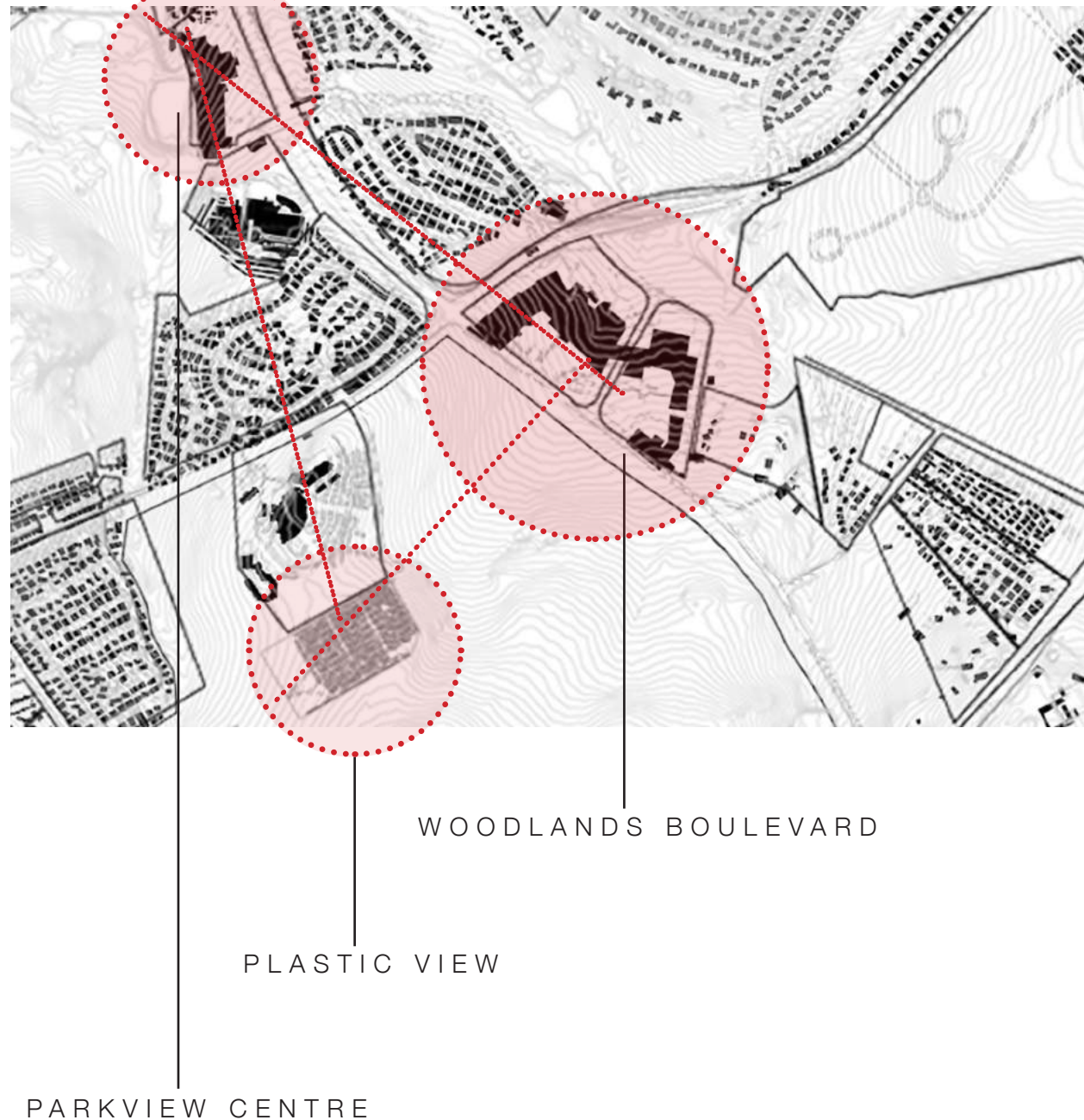


Figure 44 : Identification of trading opportunities (Author 2016)

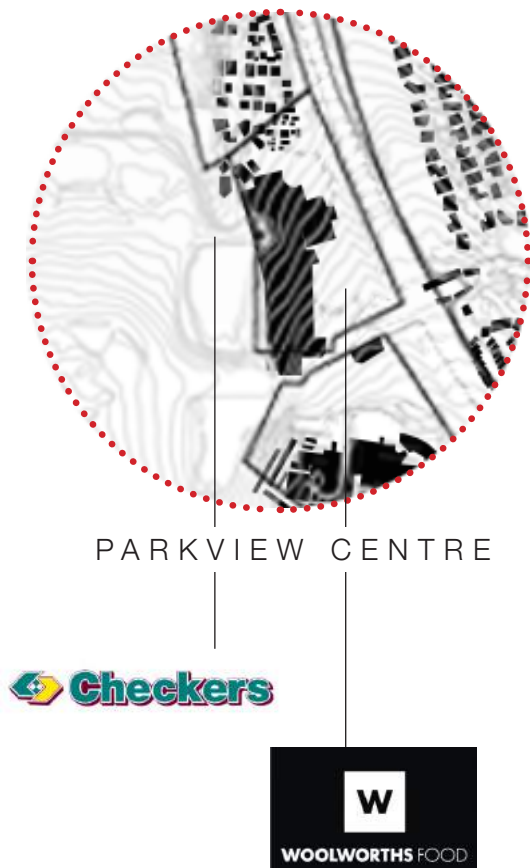


Figure 45 : Identification of food retail within Parkview Centre (Author 2016)



Figure 46 : Identification of food retail within Woodlands Boulevard (Author 2016)



With the food network in mind while mapping, a large socio-economic barrier presents itself on site, one that continually increases due to food insecurity and accessibility. Food services within the vicinity are predominantly accessible to medium-high income residents. The shops in the area are supermarkets and franchises that get their produce from large scale distributors and thus become costly compared to local production.

This mapping evidence was an important informant for the urban issue proposed by the individual component of this dissertation, namely how one may minimise the socio-economic gap between food accessibility. Breaking New Ground (2004), the government's sustainable human settlement plan, promotes densification and integration as key objectives to *integrate previously excluded groups into the city and the benefits it offers, and to ensure the development of integrated, functional and environmentally sustainable human settlements, towns and cities* (Tonkin 2008: 19). It is important to consider the BNG plan in order to combat issues related to food accessibility on site.

## Local informants

There are many spaza shops (informal tuck shops) within Plastic View itself. The owners open up shop daily but will correlate a day to take off, usually a Tuesday, in order to share a taxi to Marabastad. Marabastad is a business area near the city centre of Pretoria., South Africa, and is the nearest distribution point for shop owners to buy stock. Due to this being a weekly occurrence, as much produce as the budget allows, and space that the taxi permits, is bought in order to last until the following week. The twenty-eight-kilometre trip works out cheaper than walking across the road to Woodlands Boulevard (BArch(Hons) Research 2016). Without proper storage facilities and refrigeration stock usually won't include much fresh produce. Due to the spaza shops being the easiest to access, residents of Plastic View utilise these regularly and thus do not get the proper nutritious meal they need due to lack of selection (BArch(Hons) Research 2016).

Some residents of Plastic View have started growing their own food. Through observation it was apparent that a few residents within the settlement had started to grow their own crops yet it was unclear whether they were for their own consumption or for income purposes (BArch(Hons) Research 2016). Whether food is being grown, cooked or sold within the settlement it is clear that accessibility to healthy affordable food is limited.

The importance of food and the initiative taken by many residents brings about opportunity to introduce larger scale agriculture, allowing for the localisation of the food



Figure 47 : Identification of food retail within Plastic View (Author 2016)

### SMALL TUCKSHOP

This small spaza shop was one of the more private ones and only sold a few treats, such as crisps, sweets and cooldrink.



Figure 48 : Identification of food retail within Plastic View (Author 2016)

### OUTDOOR COOKING

Informal cooking areas set up. Residents can buy pap and various pieces of chicken.





Figure 49 : Identification of food retail within Plastic View (Author 2016)

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### OUTDOOR COOKING

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A small portable braai set up, for personal use as well as for daily income.



Figure 50 : Identification of food retail within Plastic View (Author 2016)

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### FRUIT AND VEG

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A small selection of fruit and vegetables is available. These need to be sold quickly as they do not last long in such environments without storage or refrigeration.



Figure 51 : Identification of crop growth within Plastic View (Author 2016)

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### CROP GROWTH

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A few residents within Plastic View have started growing their own crops alongside their dwelling.



## importance of informal trade

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Although challenging to quantify, it is estimated that the informal sector in developed countries make up 10-20% of the collective outputs and 30-50% of developing countries. The informal sector is not only important for the local economy but is a method through which to achieving a more sustainable city. This is due to informal trade increasing economic activity density, improving the efficiency of urban services and systems such as public transport (Gibberd 2016:1).

Informal trade, while improving local resilience due to it's increased diversity, provides convenient and local access to goods and services needed for everyday life.

Even though informal trade makes a significant contribution to the local economy and employment creation, it is not usually supported by government or acknowledged in policy other than through restrictive means, such as fines for illegal trading (Gibberd 2016:1). Urban planning and design, in many developing countries, are still based on western standards that disregard the informal economy (Perera & Amin 1996:3).

Informal trade can be a flexible resource, a means of attaining income for migrants whilst looking for other, more formal, job opportunities (Banerjee 1983:402). This

is demonstrated in informal settlements where many of the Spaza shops, an informal business run from a room in a shack or small house where customers stand outside and purchase basic groceries and everyday small household items over a counter (Von Broembsen (2008:1), are run by those unable to find formal employment (UP M(prof) Research 2016). In terms of creating livelihood opportunities and strategies, informal trade has played a significant role (Gibberd 2016:3). The growth of the informal economy through trade can be attributed to its ability to cater products that are more affordable and appropriate to the poorer households.

An illustration of this is the daily access of small quantities of fresh fruit, vegetables and meat at affordable prices to households that do not have refrigeration (Gibberd 2016:10). Instead of disrupting informal trade, a development path should be put into place that allows for informal traders to progress into larger formal traders (Chong & Gradstein 2007). This growth should be supported by councils, which provide incentives such as improved facilities, marketing, tax exemptions and access to basic services such as drainage, electricity and water (Daniels 2004:508).

Usually sold at spaza shops and by other informal traders

are sweets, crisps, carbonated drinks and boiled eggs. With the exception of the latter, these low cost items contain a large amount of sugar and salt and thus do not promote any sort of healthy lifestyle and packaging of the items result in litter (Gibberd 2016:10). Councils should support the trade by supporting access to healthier options as well as local manufacture of the drinks and snacks. Recyclable packaging and reusable containers should form part of this manufacturing process also aiding in job creation.

Not all produce sold is unhealthy. Some traders are a valuable source of nutritional low cost food. Food sold includes spinach, cabbages, tomatoes, bananas, oranges and low cost meat such as chicken feet and heads, fresh fish and dried beans. Traders as such require easily cleanable surfaces, where produce can be prepared and displayed as well as trolleys and storage opportunities for after hours (Gibberd 2016:11).

Overall, the conducted study shows that informal trade provides access that is both convenient and valuable in terms of good and services to local communities. It particularly plays a large role for the low-income receivers as it caters for them directly through a more affordable means than formal trading outlets (Ligthelm 2006).



Figure 52 : Informal takeaway (Author 2016)