

Sustainability “ involves moving beyond technologies and techniques to thinking about how a project proactively weaves itself into the social and ecological fabric of a community”

William D. Browning
(Browning 2005, p. 57)

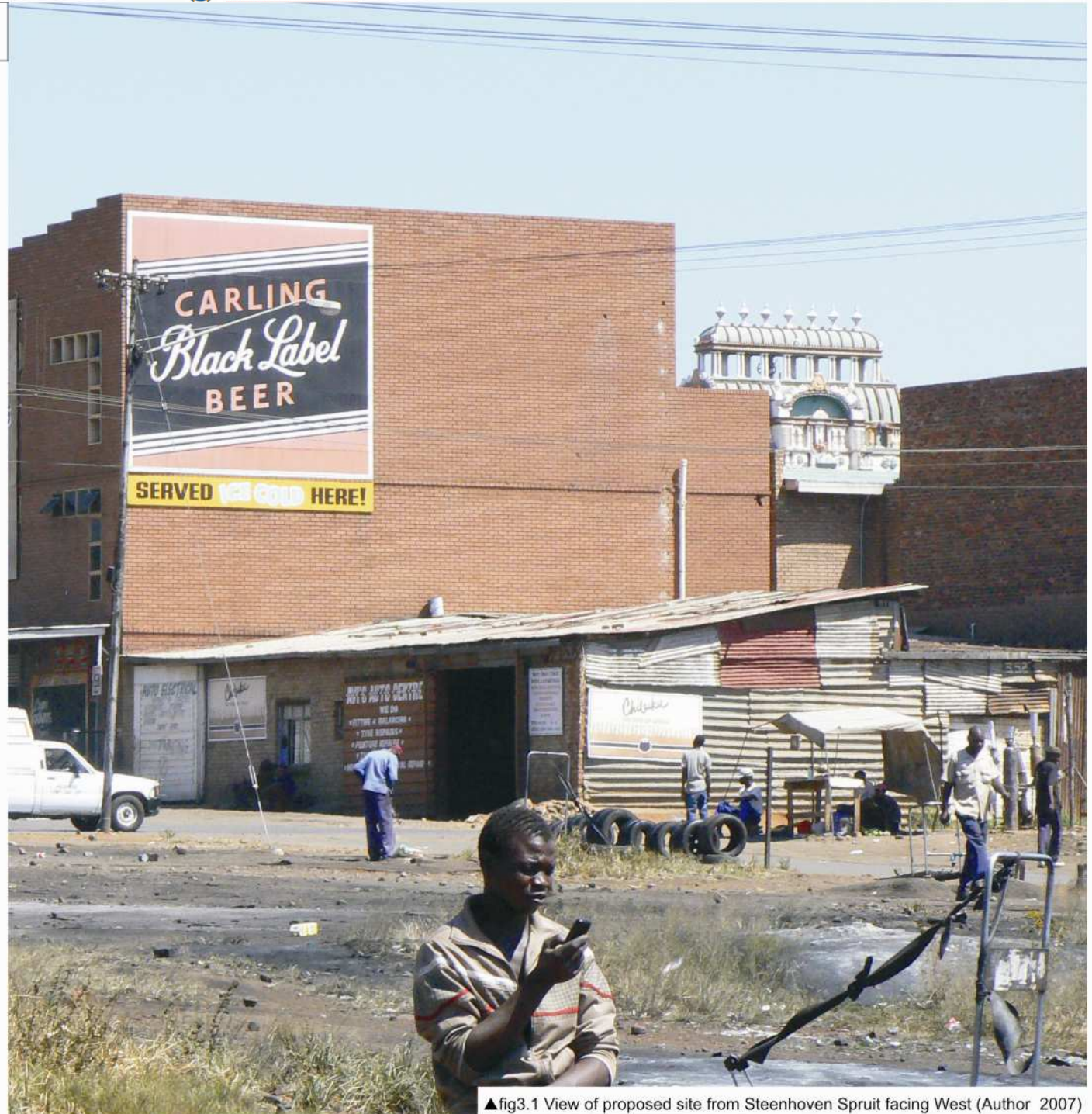


Chapter

Understanding the Context

Context Study

- Study Area in the Context of Pretoria
- Proposed Zoning
- Boundaries
- History
- Social Context
- Micro Context Analysis
- Micro Context Framework
- Climatic Context



▲fig3.1 View of proposed site from Steenhoven Spruit facing West (Author 2007)

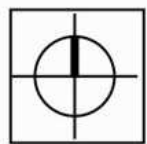


▲ fig3.2 Map Showing Site in Context of Pretoria (Group Framework)

Proposed Site

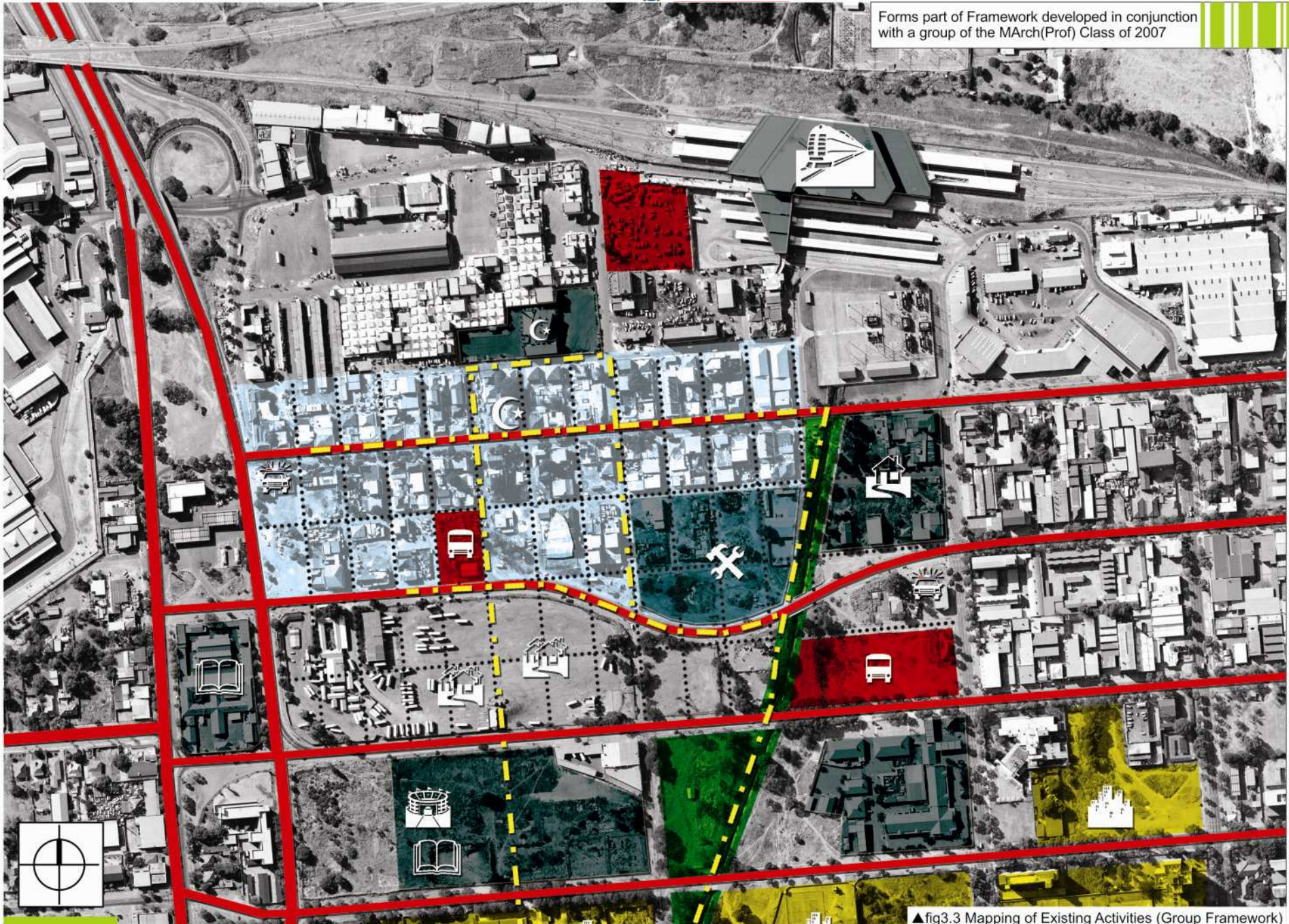
Steenhoven Spruit

Church Square



Study area in the context of Pretoria

Forms part of Framework developed in conjunction with a group of the MArch(Prof) Class of 2007



Belle Ombre Station Proposed Police Station Taxi Rank
 Social Housing Commercial High Density Housing Sport

▲ fig3.3 Mapping of Existing Activities (Group Framework)



▲ fig.3.4 Boundaries of Study Area (Group Framework)

“the apartheid regime gave brutal shape to the urban and social dynamics of South African cities, but now that such proscriptions(sic) no longer apply, what comes next in the quest for a responsive, inclusive and multi-layered urbanism?”

Lindsay Bremmer
(Bremmer 2007)

Boundaries of Study Area

Ndebele leader **Mzilikazi attacks** and drives local tribes from the highveld
Early 1800's

Pretoria is founded and named after Voortrekker Andries Pretorius. The area around the Steenhoven spruit became known as Goedehoop and later Veldskoendorp.
1855

Chief Maraba's kraal on the western bank of the Steenhoven spruit. Black people employed as servants found accommodation there, and over time a large settlement developed now known as Marabastad
1870

Laws passed that **restricted** and property ownership and citizenship of Indians. Bazaars were set up where they had to trade
1885

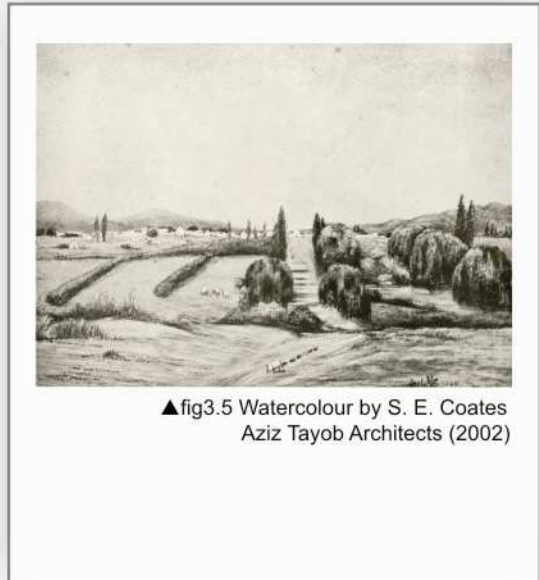


Pretoria (fig 3) **1889**
▲fig3.6 Pretoria in 1889
Aziz Tayob Architects (2002)

White voortrekkers move into area previously occupied by indigenous people
1840

Area along the east bank of the Steenhoven spruit set aside for black people. The area was named **Schoolplates**
1867

The **First Boer War** broke out after the British annexed the Transvaal
1877



▲fig3.5 Watercolour by S. E. Coates
Aziz Tayob Architects (2002)

Pretoria proclaimed capital city of the Transvaal Republic
1860

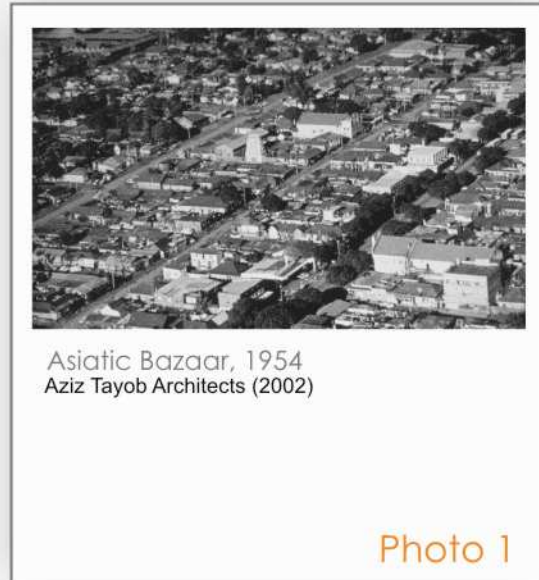
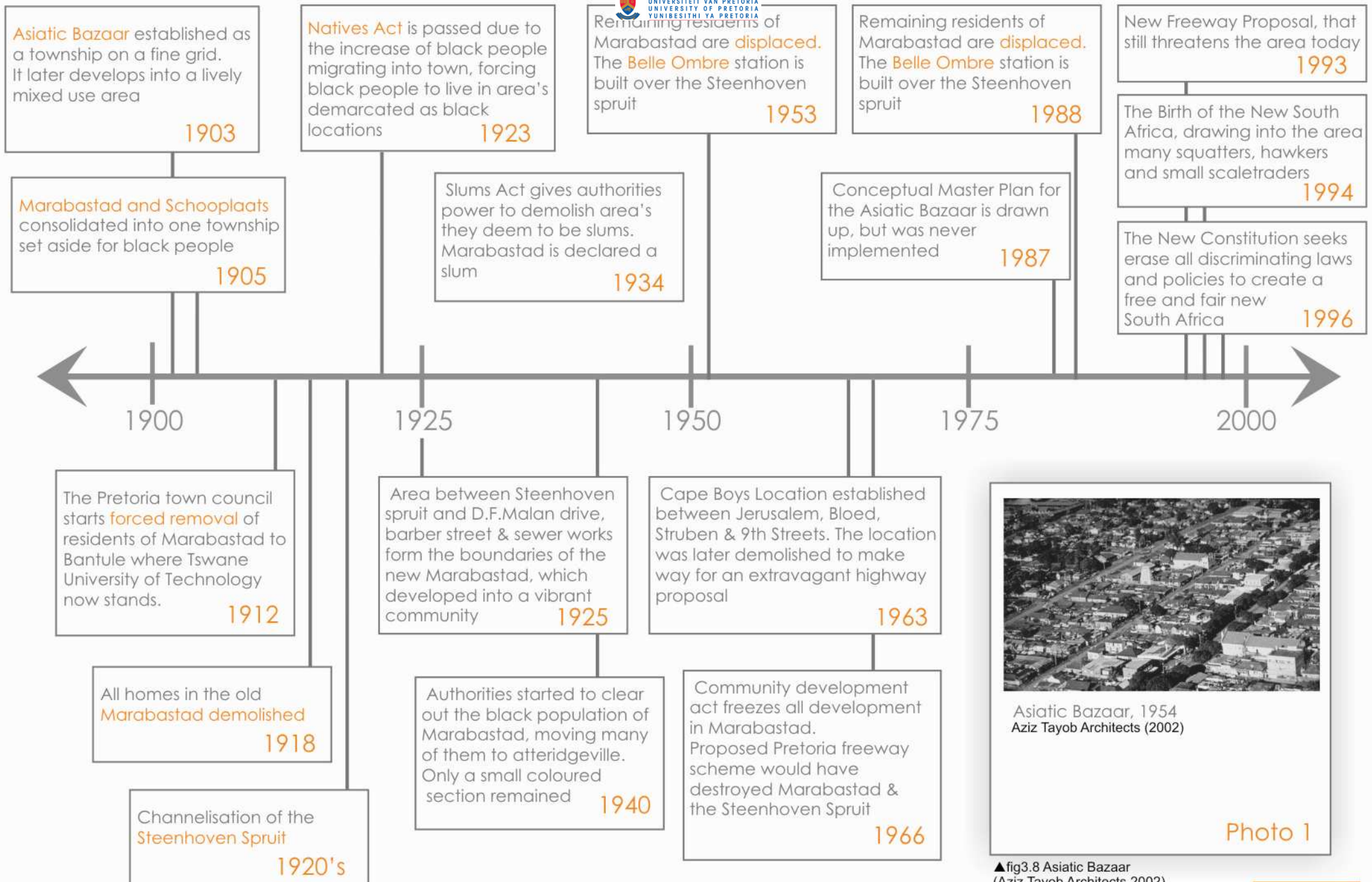
Gold is discovered on the Witwatersrand
1880

Population growth among white and black people poses a potential threat to peace, white settlers proclaim certain areas as black areas and pass laws controlling the movement of black people
1852

First Boer War ends with the Pretoria Convention in 1881. The convention gives Indian and coloured people the right to own land in the Transvaal, leading to many Indian traders migrating from Natal.
1881



Marabastad **1905**
▲fig3.7 Marabastad
Aziz Tayob Architects (2002)



▲ fig3.8 Asiatic Bazaar (Aziz Tayob Architects 2002)



Images of the
vibrant community
Marabastad once was

Aziz Tayob Architects (2002)



▲fig3.9 Images of Marabastad (Aziz Tayob Architects 2002)

Social and Economical Aspects

People's interest in the area

A public survey was done as part of the Urban Framework for Marabastad. 69 people of the area had to fill out a questionnaire to see what their interest in and experience of the area was. Considering the time that people have spent in Marabastad, the distance they travel to get there (more than 43% of people travel longer than 45 minutes) and the interest that there is to stay or own land in the area, the conclusion can be made that there is a degree of loyalty and commitment towards Marabastad by its users. Asked if they would like to live in Marabastad, 57% of the participants replied positively. (Aziz Tayob Architects – Meyer Pienaar Tayob: 2002, pp139 – 146) Before the removal of squatters from Marabastad in August 2002, 306 households were staying in informal dwellings in the area. (Statistics South Africa: 2003)

1.1 Households per dwelling type, Marabastad 2001 (Statistics South Africa: 2003)

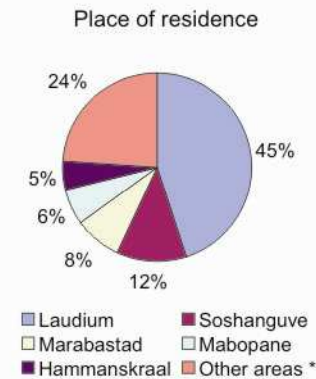
Brick structure or house on separate yard or stand	Traditional dwelling/hut/structure made of traditional materials	Flat inside of block of flats	Informal dwelling/shack in back yard	Informal dwelling/shack NOT in back yard	Total
3	25	15	11	295	349

Safety and Security

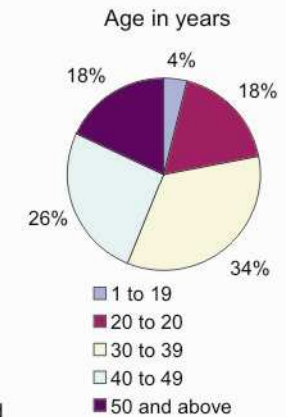
Crime can be linked with other social problems, such as the slum-like environment, insufficient services, poverty, and a lack of enforcement of laws. Upliftment of the area can significantly reduce crime. What can also contribute to the social conditions and safety of the area would be if a close-knit residential community becomes settled in the area. Improving the policing within the area

Public Survey

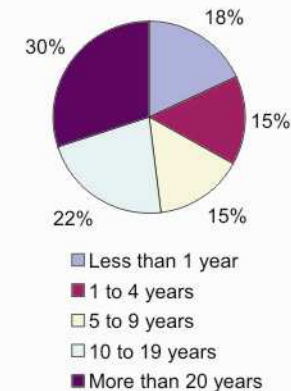
Information from public survey done for Marabastad Urban Framework (Aziz Tayob Architects – Meyer Pienaar Tayob: 2002. pp 139 – 146) 69 people were asked to fill out a questionnaire to see what their interest in and experience of the area was.



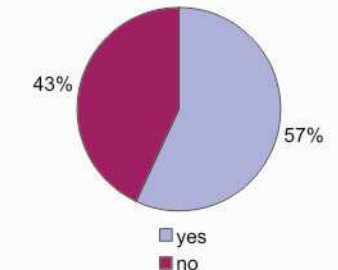
*'Other areas' – people evenly spread between: Mamelodi, City centre, Winterveld, Brits, Erasmus, Menlopark, Warmbaths, Ga Rankuwa, Kwa Ndebele, Atteridgeville, Lyttleton)



Time present in Marabastad



People who would like to live in Marabastad if there were suitable accommodation



(including services of SAPS, Metropolitan police, security guards) should be priority. (Aziz Tayob Architects – Meyer Pienaar Tayob: 2002, p185)

Illegal immigrants

Illegal immigrants who want to legalize their stay in the country have to apply for permits at Home Affairs. The fact that they are present in Marabastad is evidence of the uncontrolled and unsafe state that the area is in. (ibid, p178) Most of them are Zimbabwean. (See functions diagram for location of illegal immigrants in Marabastad The area on DF Malan drive next to Home Affairs has the highest crime rate in the area.) (Lourens, personal interview)

Informal trade

In Marabastad hawking is the way of survival for many as it provides an income for some and affordable products for others; however most of the traders are illegal. These (illegal) traders are removed and their equipment taken away every month. After each removal, traders return and go on with their business. Informal traders should be registered. For this they need a table, gazebo and licence. They may only trade between 6 in the morning and 6 at night. (ibid)

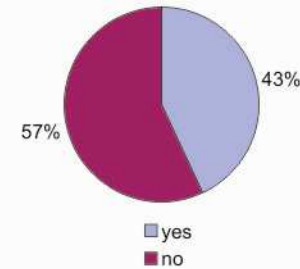
Another problem with informal traders is water. Water is taken, illegally, from the municipality's water pipes and sold to those who cook. Water bills of the area are extremely high. (ibid)

18% of informal trading in Tshwane takes place in Marabastad. In 2004 there were 658 informal businesses in Marabastad. (Ligthelm & Van Wyk: 2004, p20)

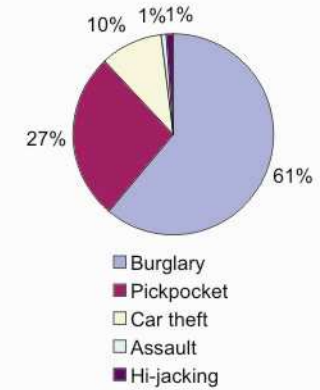
Health and welfare

At the Pholang clinic (west of DF Malan drive) free medical services are offered to the homeless once a week. On DF Malan drive, south of the department of Home

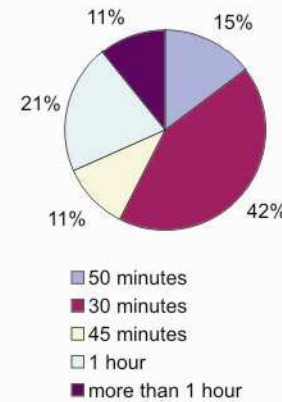
People that have been victims of crime in the area



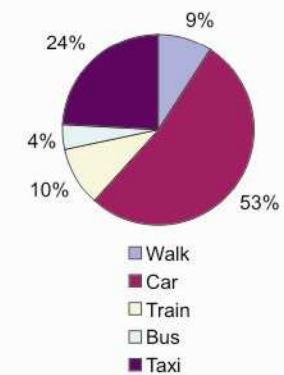
Nature of crime



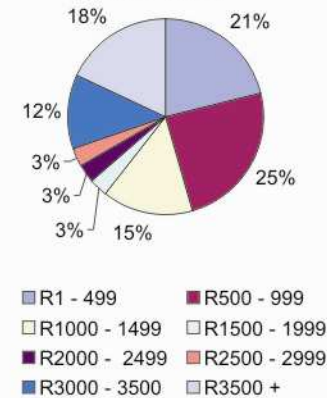
Time spent traveling to Marabastad



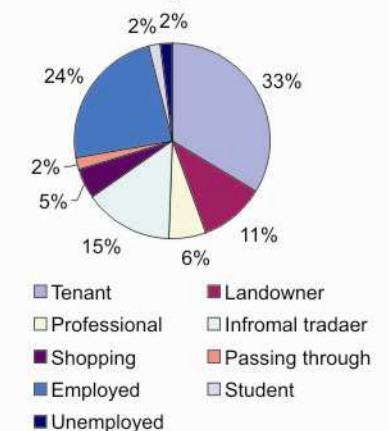
Manner of transport



Approximate household income (after taxes)



Reason for being in Marabastad



Affairs, is a family planning clinic. It is currently underutilised (Aziz Tayob Architects – Meyer Pienaar Tayob: 2002, p186)

Unemployment

Only 5% of people were unemployed according to the survey (see graphs), though 18% were earning less than R500/month. Unemployment and poverty needs to be addressed. (ibid, p 143)

The Tirisano ya Tswelopele program (located on the south eastern corner of the Maraba shopping complex) supports the community through various activities, such as counselling, referral- and information services, weekly visits and talks by experts, weekly services by visiting medical staff from Pholang clinic, skills training sessions and childcare programmes. (ibid, p188)



1.2 Informal restaurant in Marabastad
(Author 2007)

GIS spatial data, 2003, Census 2001, Statistics South Africa

Ligthelm & Van Wyk, 2004, Informal Trading in Tshwane: Regulatory, spatial and economic framework, Bureau of Market Research, University of South Africa, Pretoria

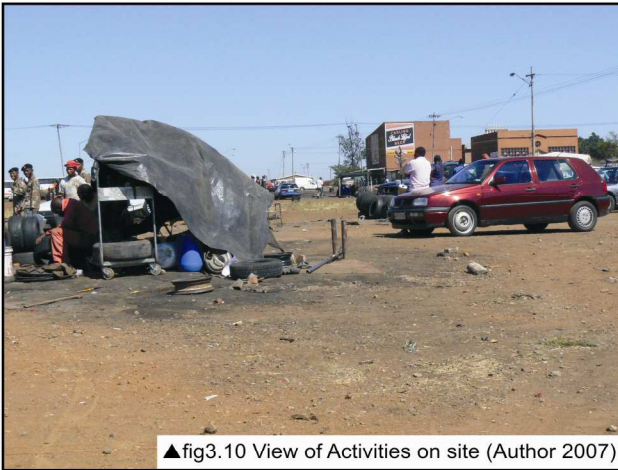
Lourens L, 2007, personal interview by author, City of Tshwane Metropolitan Municipality

Aziz Tayob Architects – Meyer Pienaar Tayob, 2002, Integrated Urban Framework for Marabastad, Chapters 3 & 7 ,

MICRO CONTEXT STUDY

A careful context study is necessary to be able to arrive at a sustainable design solution. In order to create successful intervention that the community will take ownership of we need to understand the existing activities in and around the site as well as the opportunities and weaknesses inherent to the site. The initial contextual analysis was more broad based, focusing on a macro scale and historical and social level.

The following maps and photographs are an attempt to understand the dynamics on the existing site with the intention of highlighting opportunities and including existing programs into the design process.



▲ fig3.10 View of Activities on site (Author 2007)



▲ fig3.11 View of Activities on site (Author 2007)

The objective of the contextual analysis is to understand the proposed site in light of the framework developed a group of masters students, in order to appropriate it and inform a micro developmental framework for the specific project.



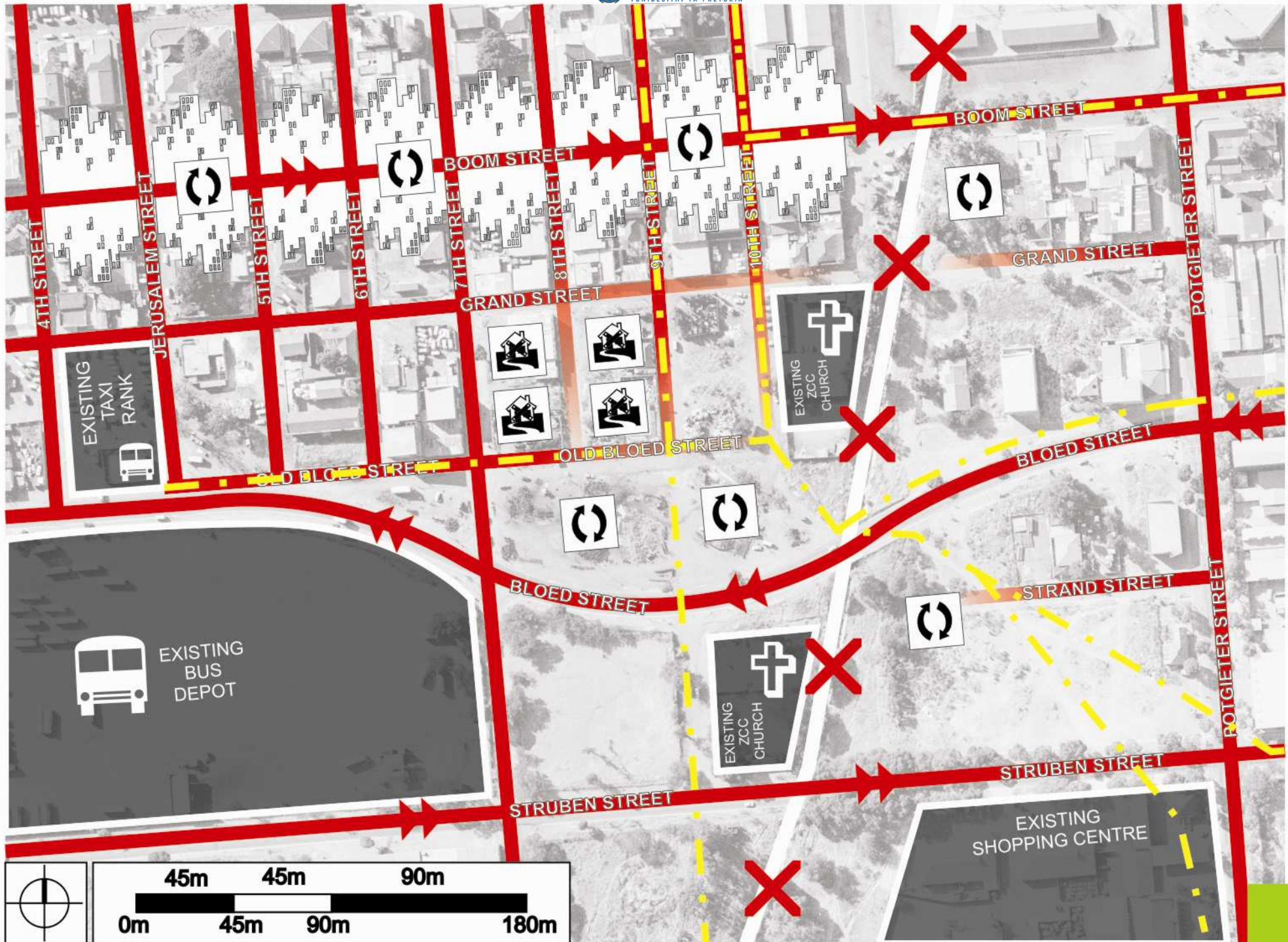
INFORMAL TRADE



PEDESTRIAN



ROADS



▲fig4.12 Context Analysis





▲fig3.15 Boundaries (Author 2007)

MICRO DEVELOPMENTAL FRAMEWORK

The micro contextual urban framework has developed from a combination of the greater framework developed by a group of masters student (see Chapter 5) and the contextual influences on the specific site.

The intention of the micro framework is to appropriate the issues highlighted in the group framework and incorporate the opportunities and threats of the specific site.

The framework developed by Aziz Tayob Architects proposes serious infrastructure changes on and around the site, in the form of realigning of Bloed street according to a historical grid. As the condition of this portion of Bloed street is relatively good and the cost and waste of destroying good infrastructure is unnecessary, the framework developed from this research proposes leaving the existing infrastructure as it is.

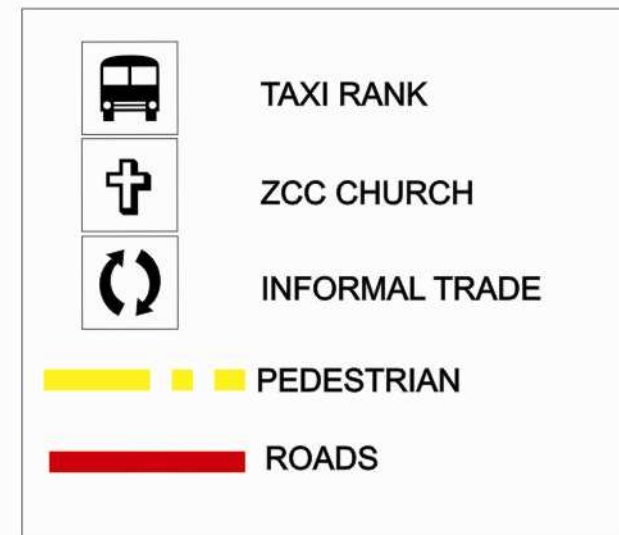
The aspects that are addressed in this proposed micro framework are:

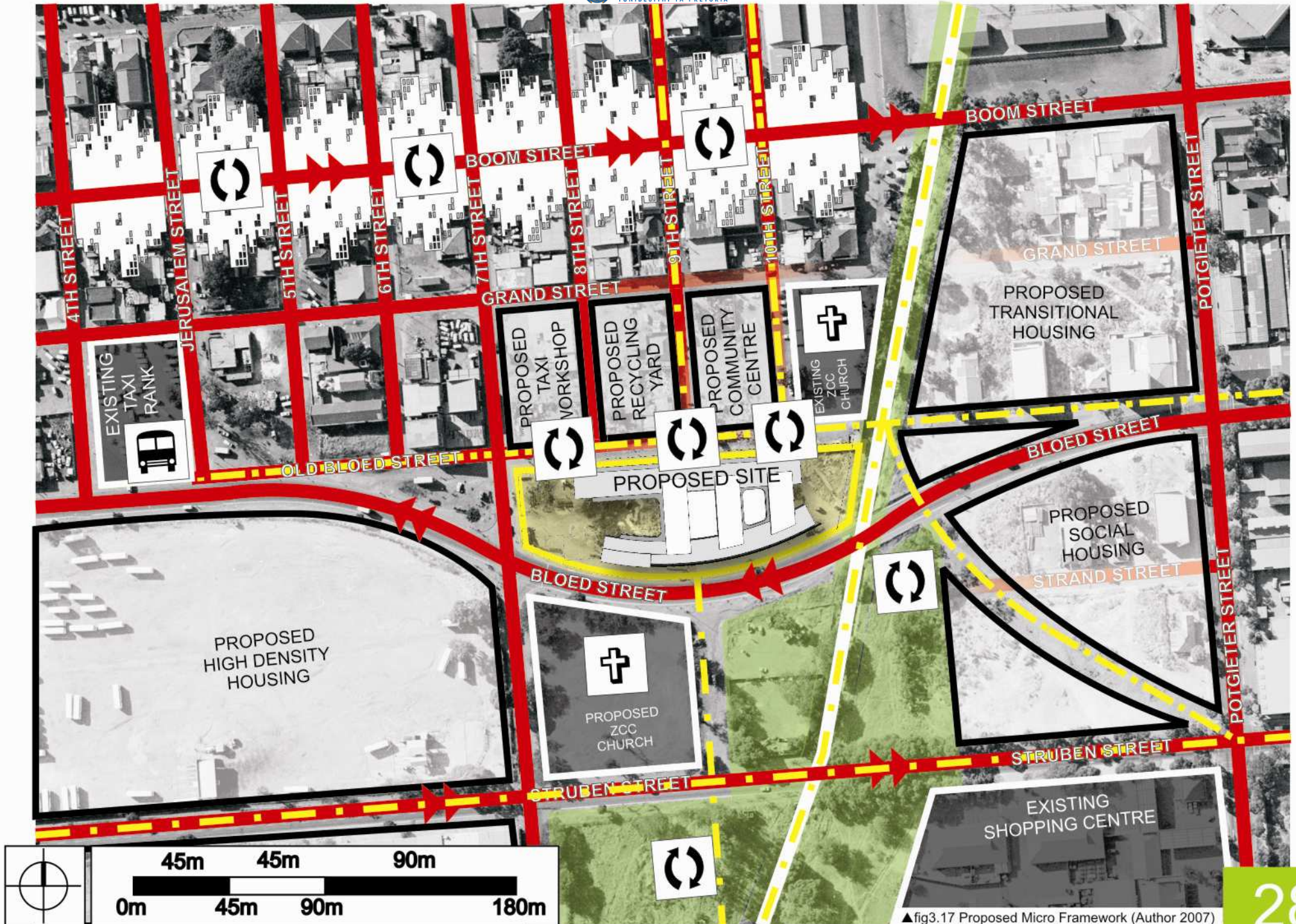
1. Reinstating the Marabastad area back into the Pretoria CBD.
2. Establishment of the pedestrian scale and intimacy characteristic of the old Marabastad

3. Creating of Green spaces and establishment of the Steenhoven Spruit as a pedestrianised green corridor.
4. Allowing accessibility to public spaces and facilities.
5. Establishment of community facilities including educational and recreational facilities.
6. Enhancing the remains of the character of the old Marabastad by introducing pedestrian streets with covered walkways, and street markets.
7. Fill a void created by the degradation caused by the forced removals of people under the apartheid government.
8. Create spaces that allow that can be appropriated by the local community to create opportunities for a better, richer lifestyle while enhancing and protecting the natural environment.

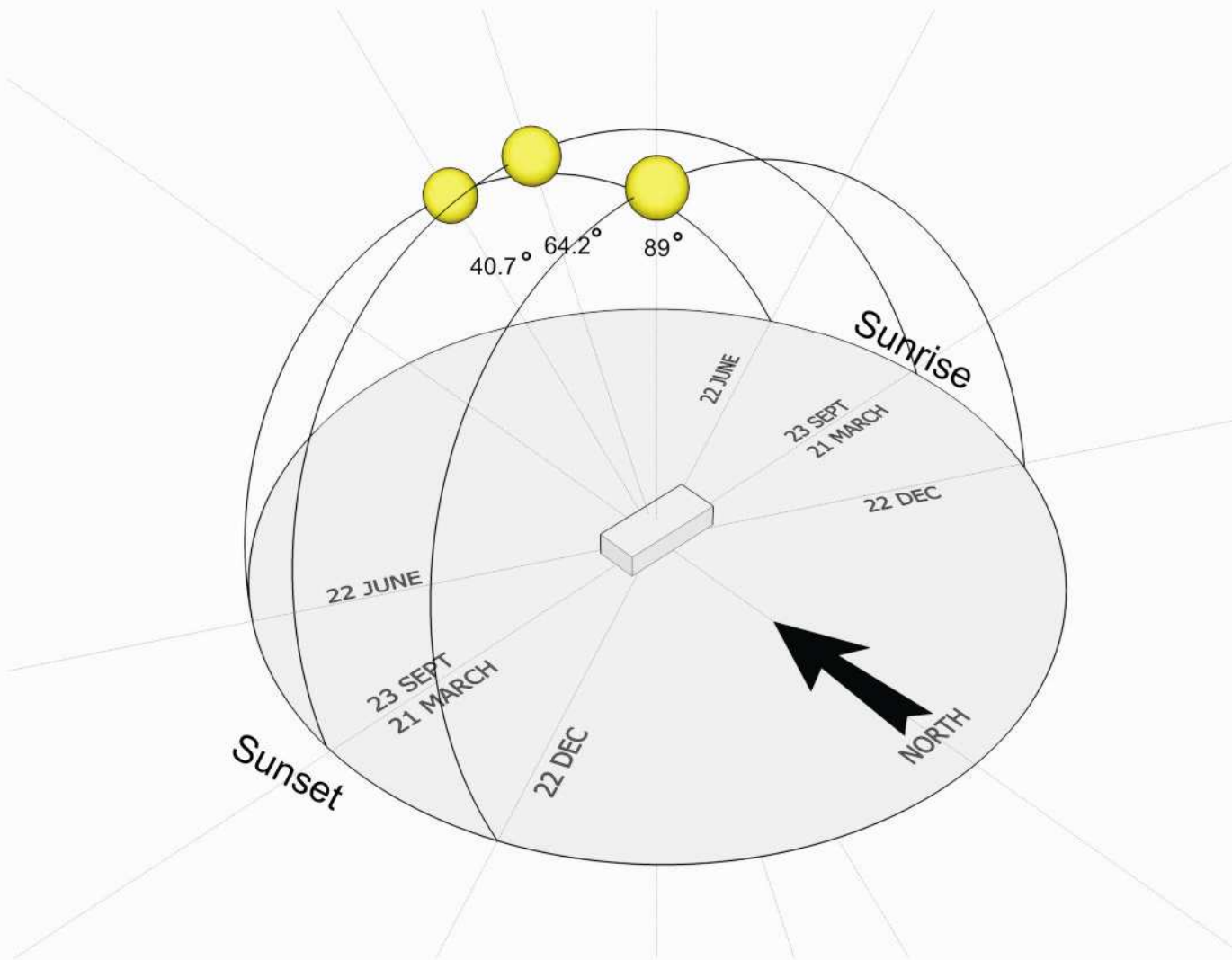


▲fig3.16 Proposed Pavement colonnades as a feature in the core area of Marabastad (Aziz Tayob Architects 2002)



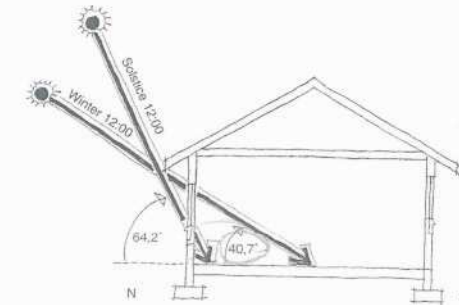


▲fig.3.17 Proposed Micro Framework (Author 2007)

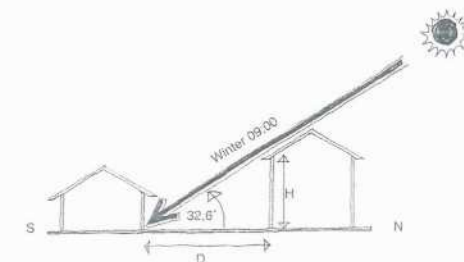


Solar Path Diagram for Pretoria

▲fig3.18 Solar Path Diagram (Author 2007)



▲fig3.19 Roof Overhang, window height and positioning for Pretoria (Holm 2001, p.72)



▲fig3.20 Solar Access for building spacing in Pretoria (Holm 2001, p.71)



SUMMER 9AM



SUMMER 12PM



SUMMER 5PM



WINTER 9AM

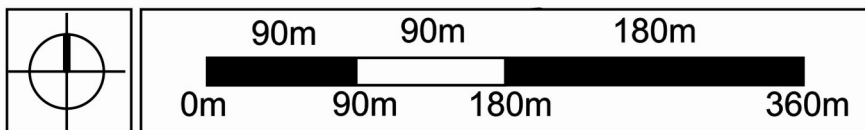


WINTER 12PM

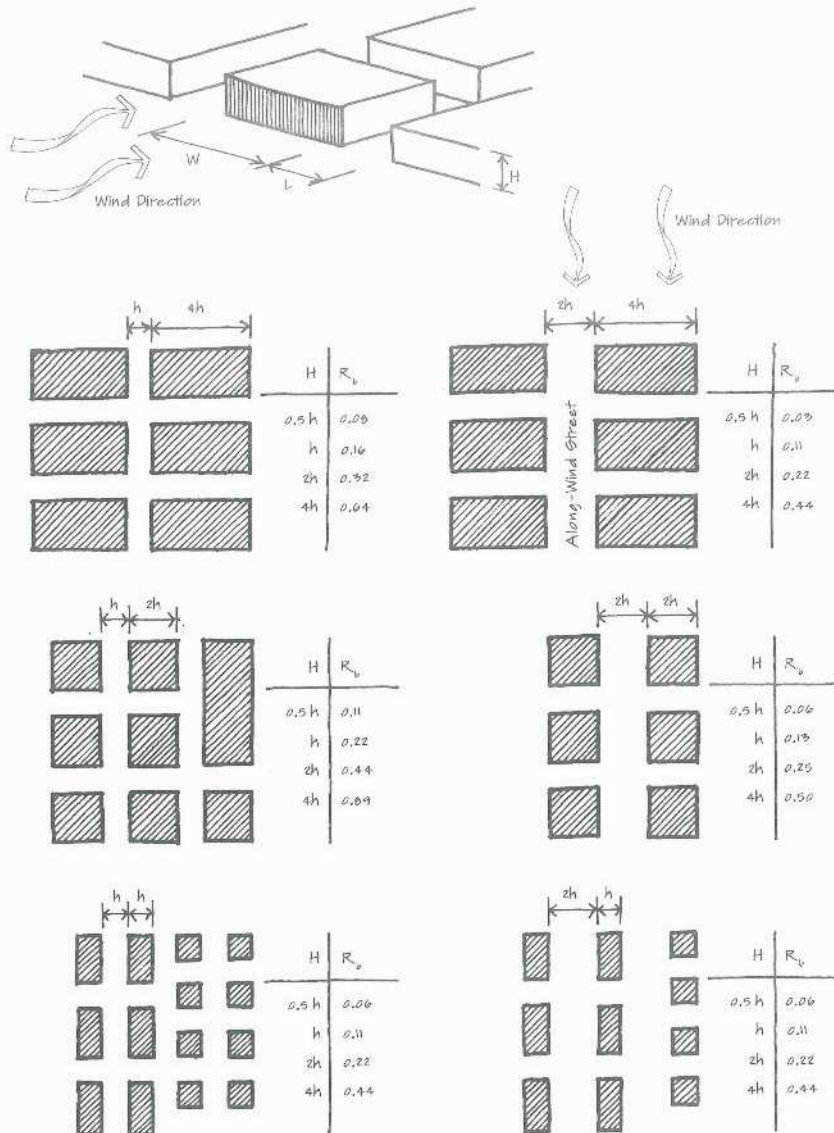


WINTER 5PM

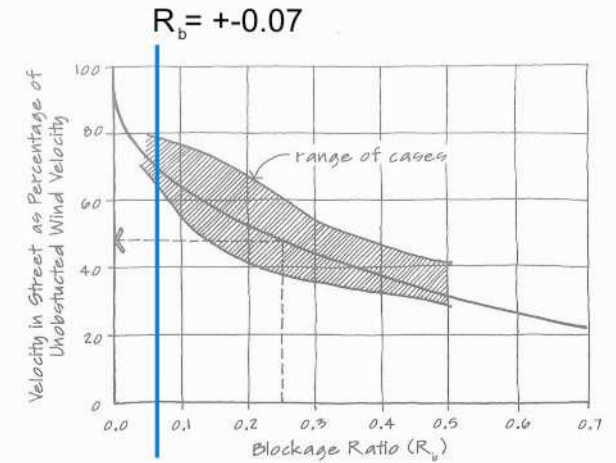
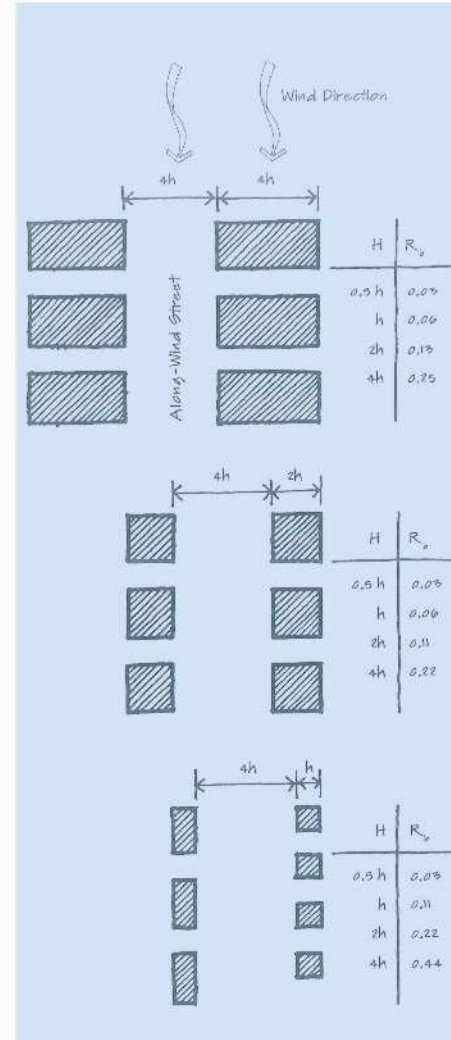
▲ fig3.21 Solar Study (Author 2007)



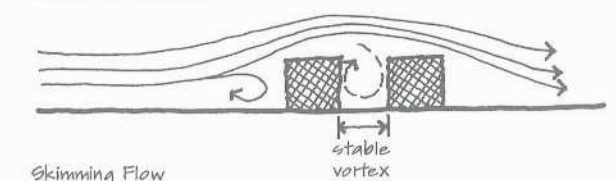
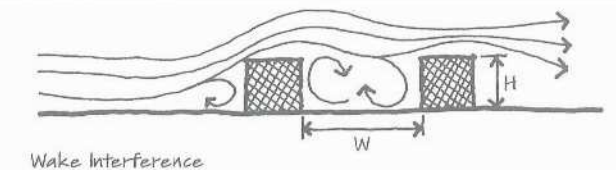
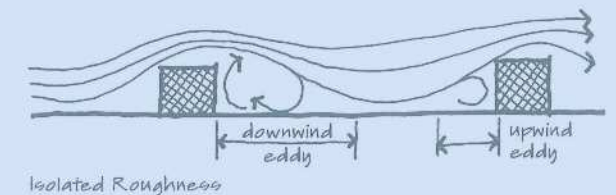
SOLAR PATH STUDY
on co-ordinates 25.75.00S 28.16.70E
Produced on Google SketchUp Pro



▲fig3.22 Blockage Ratios for Different Organizations of buildings and streets (Brown 2001) Edited by author



▲fig3.23 Predicting Wind Velocity (Brown 2001)



▲fig3.24 Flow Regimes Between Buildings (Brown 2001) Edited by author

SUMMER WIND STUDY

←fig3.26 Summer Wind Study (Author, 2007)



▲fig3.25 Wind Roses for Pretoria (Holm, 2001) Redrawn by author

WINTER WIND STUDY

◀ fig3.27 Winter Wind Study (Author, 2007)



▲ fig3.28 Wind Roses for Pretoria (Holm, 2001) Redrawn by author

“God has leant us this earth for our life; it is a great entail. It belongs as much to those who come after us, who’s names already written in the book of creation, as to us; and we have no right by anything we do or neglect, to involve them in unnecessary penalties, or deprive them of benefits that it was in our power to bequeath.”

John Ruskin
(Buchanan 2005)