natural environment

In the ISDN (1998) for Marabastad report, natural environment:

slope: Marabastad has a gentle slope from the south-west to the north-east at about 1 in 36, this poses good and bad constrains to the proposed development and should respond to the constraints:

i. The trading area platform will have to be levelled.
ii. The slope as gentle as it plays a vital role in distinguishing between different thresholds.

i. Storm water drainage will gravitate easily to a point of catchment.

climate: Marabastad is characterised by generally high temperatures, relatively high local humidity frequently combines with high afternoon temperatures in summer. Rainfall is seasonal (summer rains) with and average of 741mm per year. Mostly precipitation occurs in thunderstorms with rates around 90 to 100mm per hour. Hailstorms are fairly common and can be severe.

i. The buildings are use passive ventilation generally, on generally high temperatures where passive ventilation is not efficient, air-conditioning will be used.
ii. Rainfall is addressed with the sloping corrugated roof to disperse the water, and the utilization of rain water downpipes at efficient points to dispose of the water evenly throughout the site.

wind: Prevailing winds are calm and blow from the north-east in the morning backing to north-west in the afternoon. During winter occasional cold snaps bring winds from the south, while in the summer thunderstorms are accompanied by turbulent wind patterns.

i. In order to resolve the wind problems, the consulting rooms act as windshields against the north easterly winds onto the site, refer to diagram.

ii. On the East side of the site, the trees/vegetation acts as windshields onto the site. refer to figure 12.

fig.10

fig.11

fig.12
Pedestrian Traffic:

Given the existing concentration of public transport facilities in Marabastad, and the volumes of commuter traffic, much pedestrian traffic is generated between the termini for the various transport nodes, and between Marabastad and the workplaces in the CBD and the industries and service industries of Pretoria West.

Belle Ombre Station

In the morning peak most people entered Marabastad via the western pedestrian ramp. These head to Boom Street or via Manela complex to the bus rank west of the complex. About half as many pedestrians used the 11th street stair, and only a small portion headed east to the Schubart Street taxis and exit.

In the afternoon peak most people arrived from the western direction via the western pedestrian ramp, followed by arrivals from the east via Schubart Street, and the remainder from the south via the 11th street stair.

Bus rank west of Maraba complex

In the morning peak the majority of commuters headed from the bus rank to Boom Street. In the afternoon peak the majority of commuters arrived at the bus rank via Boom Street.

On the positive side the pedestrian presence in Marabastad provides a customer-base for traders in the area, and adds to the vibrant character associated with Marabastad.

Currently pavements are in a bad state of disrepair, and absent in areas that have been fully demolished. Extensive littering and filth indicate that there is a desperate shortage of public facilities and municipal services to serve the pedestrians (refuse bins, public ablutions).

The bus station forming part of the Belle Ombre concourse is functionally well integrated, with dedicated staircases leading onto the various bus platforms.

The taxi ranks at the shopping centre immediately northeast of the station is not well utilized, since it pulls people away from Marabastad.

Modal integration of the various public transport systems suffers from the lack of properly serviced infrastructure, and formalized ranks for taxis. This aspect of Marabastad however provides a strong opportunity to re-activate the suburb, by careful placement of new facilities, to optimize pedestrian movement through the area, and stimulate commercial activity.

With the bulk of pedestrian movement heading to or from Boom Street, a preference of Boom and possibly in future Bloed Streets is indicated for taxi connections.

The taxi ranks at the shopping centre immediately northeast of the station is not well utilized, since it pulls people away from Marabastad.

The bus station to the west of the Mandela Complex is well-used, and its location helps to pull commuters from the station through the Maraba Centre, to support trade in the centre.

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