The northern and north-western parts of the Inner City are highly neglected areas that are in desperate need of urban regeneration. Marabastad, the National Zoological Gardens, and the area in between form the study area of our urban framework.
Pretoria is a culturally rich city with exceptional physical qualities and economic opportunities yet urban decline in the north of the CBD is evident. However, through a clear vision and implementation strategy this can be corrected. The aim is to create a memorable and people friendly city – a people's place. It is the realization that nodes must be integrated through activity spines and through the integration of activities, sprawl will be demoted.

connections...
- Re-connect Marabastad to the CBD
- Enhance tourism around the National Zoological Gardens
- Zone between Paul Kruger and Potgieter Street to act as catalyst for regeneration of inner city activity

strategic goals...
- A city with a unique identity
- Inner city Precincts
- Diversity of land use
- A thriving tourism industry
- Inner city natural environments
- Mobility and access
- Sustainability

figure 5.3 aerial photograph showing connectivity proposals
**Framework Goals...**

- **A city with a unique identity**
  - Embrace South Africa’s multi-culturalism
  - Connect civic and public functions
  - Focus on established landmarks and historical context
  - **Promote landmarks as visual focal points in the city**

- **Inner city Precincts**
  - Create precincts by enhancing existing character of areas through theme developments
  - Strengthen the interface between precincts
  - Promote densification within the zones

- **Diversity of land use**
  - Promote mixed use development
  - Encourage specialisation in specific functions, but avoid mono-functional zones
  - Address residential needs and the lack thereof

- **A thriving tourism industry**
  - Focus on attracting international tourists
  - Develop new activities to bring local residents back to the city
  - Create a “people’s place” to “humanize” the city
  - Link tourist activities with urban green space, accommodation and recreation

- **Inner city natural environments**
  - Re-establish and regenerate inner city green space
  - Protect and develop the natural boundaries
  - **Branch and infuse the natural environments into the CBD**

- **Mobility and access**
  - Develop the urban environment to promote the “walkability” of the city
  - Enhance the visual and interactive quality of the pedestrian interface
  - Promote legible and accessible public transport
  - Minimise conflict of different transport nodes
  - Exclamate entrances into the city with visual viewpoints

- **Sustainability**
  - Initiate a “compact city” ideology
  - New management systems must be introduced to monitor and address sustainability issues
  - Promote recycling and rainwater harvesting inside the CBD
  - Propose urban permaculture developments
objectives...

- **A city with a unique identity**
  - Develop legible linkages between existing natural environments in and around the city
  - Preserve elements of cultural importance and facilitate diverse cultural activities
  - Establish and develop visual contextual linkages by using visual sight lines
  - Create urban open areas for people to interact in, in order to demote disassociation

- **Inner city Precincts**
  - Create function orientated zones, that still address multi-functional activity zones
  - Link precincts with natural and legible walkways
  - Introduce public, semi-private and private areas within precincts
  - The design language should reinforce the differences that sets one precinct apart from another

- **Diversity of land use**
  - Develop robust places that can be used for a variety of users and purposes
  - Densify the urban environment through mixed use developments

- **A thriving tourism industry**
  - Structure dedicated tourism activity routes
  - Create locally driven markets
  - Develop National Zoological Gardens precinct for maximum tourist attraction
  - Introduce internal tourism transport

- **Inner city natural environments**
  - Preserve and develop natural environments [Steenhoven Spruit, Apies River, NZG] to branch into inner city
  - Create an awareness for the natural environment through inner city parks
  - Develop the pedestrian walkways to contain natural greenery

- **Mobility and access**
  - Promote a finer grain built environment to encourage users to move on foot
  - Convert informal taxi ranks into urban public space
  - Set up dedicated transport systems for pedestrians, private vehicles and public transport
  - Create dedicated drop-off and pick-up zones for transport system
  - Create a hierarchy between streets, building and the natural environment
  - Open up building and city blocks on ground level for user practicality

- **Sustainability**
  - Ensure flexibility in design to accommodate future change
  - Design for minimum impact on the environment
  - Provide wide range of income generating activities
  - Re-develop brown-field sites in order to consolidate urban form
  - Promote the development of sustainable transport
  - Increase density of inner city
figure 5.4  aerial photograph showing precincts, zoning and interventions
activity spine:

Pedestrian walkway between Boom and Bloed Street

figure 5.5  aerial photograph showing pedestrian walkway

figure 5.6  3D view looking east

figure 5.7  perspective of walkway
**Activity Node:**

Entrance into Bloed Street Mall at the termination of the pedestrian walkway

*Figure 5.8* aerial photograph showing activity node

*Figure 5.9* perspective of bloed street mall node
precincts:

Marabastad development

figure 5.10 aerial photograph Marabastad

figure 5.11 sketches of Marabastad development
**entrance node:**

Northern city entrance celebration at Paul Kruger Street, Ring Road and the creation of a visual landmark

*figure 5.12* aerial photograph showing ring road

*figure 5.13* 3D view looking south down Paul Kruger street

*figure 5.14* sketch of Paul Kruger street

*figure 5.15* sketch of public square
activity nodes:

New public square at Belle Ombre station and heritage square

**Figure 5.16**  Aerial photograph showing public squares

**Figure 5.17**  3D view of public square at Belle Ombre station

**Figure 5.18**  Sketch of public square at Belle Ombre station
Pretoria:
25° 44’ south longitude
28° 12’ east latitude
The proposed site to be investigated is located in the South African Province of Gauteng in the northern half of Pretoria's central business district [CBD] which falls under the Tshwane Municipality.
Pretoria was established in 1855 initiated by the ZAR government, and to this day continues to be the administrative capital of South Africa. The city is grounded on a rigid orthogonal street grid related to the cosmic order of the sun’s path and the position of topographical access points. The focal point of this grid system can be identified in Church Square as a historical and religious meeting place. [Jordaan 1989: 26]
figure 5.26

context mapping existing structures
context mapping_usage

figure 5.27
context mapping_historical value

figure 5.29
social context...

The block has undergone several changes over the past few years. The site currently functions as a taxi rank which was intended to be temporary to supplement demand during the construction of the Bloed Street Taxi Rank. The only buildings remaining on the block are those whose tenants’ lease has not yet expired [Timber City, Zoo Café etc.]. Several buildings on the block were demolished without the tenants’ consent [Automotive Workshop on Paul Kruger Street after a 28 year lease agreement]. It is the City Council’s intention to negotiate the clearing of the entire block for later development of a shopping mall. Several heritage buildings have been demolished during the block clearing process though documentation is limited. [Smalberger 2007: 54]

figure 5.25 orthophotograph showing block divisions
Currently, the block under investigation is divided into 26 separate erven. In order to construct the proposed shopping mall, the city council purchased most of the properties not already under their ownership. Erf 2863, on which the seven story residential apartment block is located, has proved more problematic. The apartments are under sectional title ownership and the council must negotiate separately with each owner. The process is inconclusive at this stage.

The proposed project proceeds with the assumption that all erven within the city block are purchased by the client. All properties will be consolidated, excepting those on which identified heritage buildings are to be preserved [erwen R842, 1/845 and 1/847] and the property on which the residential block stands [erf 2863]. The newly consolidated property will then be subdivided into new land parcels and managed on sectional title basis. Such land division applications will also include amendments to the current zoning and town planning regulations for the properties involved. It is also assumed that, considering City Council's proposed development of the area, most of the legal procedures are currently under way.

All proposed development will be subject to the South African National Building Regulations as stipulated in the South African Bureau of Standards 0400-1990. All town planning amendment applications will be conducted in accordance with application procedures stipulated by the City of Tshwane, City Planning, Development and Regional Services Department. The full public participation and advertisement procedures will be followed. All site development and building plans are subject to approval by the Department of Housing, City Planning and Environmental Management, City of Tshwane. The proposed renovation and alterations to identified heritage structures will be subject to approval by the South African Heritage Resources Association [SAHRA] in compliance with the National Resources Act [act No. 25 of 1999]" [Smalberger 2007:57-58].
mixed-use
proposed pedestrian walkway

figure 5.27 context analysis
**Figure 5.28** existing vehicular traffic

**Figure 5.29** existing pedestrian traffic
site
bloed street
Figure 5.32  Collage of context pictures
"Pretoria is located in the 'highveld' or Northern Steppe climatic zone which is characterised by warm summers with occasional afternoon showers and winters that are dry and cool.

**Micro-climate**
Pretoria, being a densely built urban environment is subject to the heat island effect created in most city centres. Buildings store and emit large amounts of heat due to long-wave-re-radiation. This coupled with heat generated by people, traffic, industry and by the heating of interiors of buildings contributes to increased temperatures within the city necessitating shaded areas for pedestrians and increasing the need for cooling within buildings. Through filtering the air and providing shade, the tree lined streets of Pretoria help overcome this problem.

**Daylight / sunshine**
Pretoria receives high amounts of solar incidence with approximately 80% during the summer months and 67% during the winter months.

Summer sun angle: 88° altitude
Winter sun angle: 44° altitude

**Cloud Cover**
Average 33%
Varying from 13% in July to 54% in December

**Sun angles [@12h00]**
Summer [Dec 22]: 88°
Winter [June]: 40.73°
Equinox: 64.23°

**Rainfall**
Varies between 125-375mm in summer and 62-250mm during winter with an average of 674mm rainfall per year. Summer rainy seasons are between November and March with a peak in January. 50-80 rainy days per year with some hail expected.

**Temperatures**
Pretoria is characterised by generally high temperatures due to thermal mass of the built environment. Relatively high local humidity can combine with high afternoon temperatures to cause uncomfortable heat.

Summer: 20-38°C
Winter 10-27°C

**Humidity**
Minimum: 57% @ 08h00 – 29% @ 14h00 [September]
Maximum: 75% @ 08h00 – 48% @ 14h00 [March]
Average relative humidity is 59%

**Wind**
Winds are light to moderate. Summer winds originate between north-easterly to south-easterly direction whilst winter winds are generally from a north-westerly direction. It can be expected that Daspoort Ridge will lessen the effect of morning winds, which will have a negative effect on the dispersion of air pollution. Due to the density of the built fabric, wind tunnels will develop during windy conditions.
Vegetation
A large variety is present in the city, however, Pretoria is famed for the Jacaranda trees that line most of the city’s streets and flower into bluish purple blankets during spring. A large part of the city’s identity has been created around these trees and therefore any attempt by the city council to remove the exotic species [originally brought into the country from Brazil] is highly contested.

Soil conditions
To determine the exact geological profile of the soil type on the proposed site will require a technical survey. However, the Tshwane Inner City Proposed Spatial Development Framework [TICP SDF 2005] describes the composition of the general soil profiles for the city region as “Hekpoort Andesite which generally consists of an upper residual clay horizon followed at depth by jointed moderately weathered rock which is often water bearing. Below this there is hard competent rock”. The water table for this soil type is between 6 to 8 metres.

[Wepener 2007: 58; Vincente 2007: 03-14]