

# Site Investigation



Where it is done



*Fig. 3a. Church Square and environs*



Site Investigation



Fig. 3.1



Fig. 3.3

## Site Investigation

### 1.) Introduction

A building exists in a particular time, place and paradigm. The purpose of this chapter is to investigate these factors as they pertain to the development of the Mind Development Centre.

Several factors are considered:

- The site and the reasons for choosing it.
- The neighbourhood and broader urban context.
- The history of the city and the area.
- The biophysical characteristics of the area.

All of these are investigated with the aim of informing the design and guiding design decisions.

### 2.) Site

#### 2.1.) Location

"Tshwane exhibits the richest collection of high-level institutions in the country, including educational, medical and research institutions." (City of Tshwane 2004 p.28). Pretoria provides a dense concentration of educational and research institutions. The city is the base for three universities, as well as the headquarters of major organisations dealing with research and thinking, i.e. the HSRC, the CSIR, SABS and others. As capital city of the Republic, it is also a centre of high-level thinking and decision-making.

These considerations make the city an ideal choice to locate a mind development centre. The possibility of cooperation and sharing of facilities exists and a base of highly educated researchers and employees exist in the area.

This has led to the decision to base the centre in Pretoria. Sites close to existing research facilities were considered and the decision was made to base the centre at 125 Church Street, between Bosman and Schubart Streets. It is situated on the northern side of the road, to the west of Church Square.

The site is located in the area identified as CBD Central, between the Church Square and Marabastad precincts (Capitol Consortium s.a. p.12). It is also halfway between Church Square and a proposed civic square bordering Kruger House and Kruger Church (Fig.3.6) (ibid p. 13, 14 and 45)

The Integrated Spatial Development Framework (ISDF) makes a proposal for the accommodation of Parliament on Church Square as shown in Fig.3.7 (see Section 3.4.3.2). The site lies on, or very near to, the boundary of the proposed Parliament and Marabastad precincts (ISDF p.46). Although the gateway is indicated to be at the Bosman and Church Street intersection, the site can be used as a significant boundary, especially when integrated with the courtyard of the Poynton Building, shown in Fig.3.8 (See Section 2.2).

The area of the site is identified by the Pretoria Inner City Spatial Development Framework as an area in which diversity is to be developed (p.11) (Fig.3.9).

#### 2.2.) The property

The property is currently used as a parking area. There is quite a proliferation of parking areas in the vicinity (see Fig.3.10), indicating that there is a need for parking facilities'.



Fig. 3.6

Speaking with users of the parking on site, it became apparent that the lower price of open parking is a benefit. The users also feel safer leaving their cars in an area where a supervisor is constantly watching the area, compared to the parking garages in the area where only the entrance is monitored. Parking tariffs in the area reveals that operators focus on short stay customers, while persons who park in the open areas work in the area and park for the day. Tenancy agreements might thus be possible.

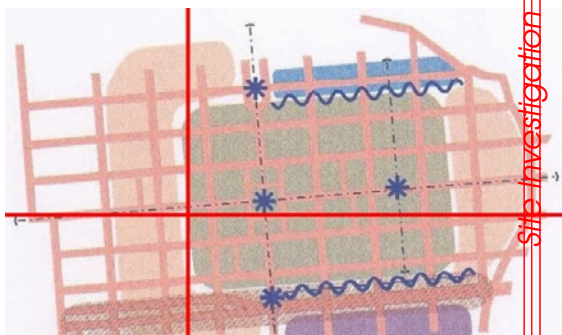


Fig. 3.7

Fig. 3.11



Fig. 3.8



Fig. 3.5



Fig. 3.4

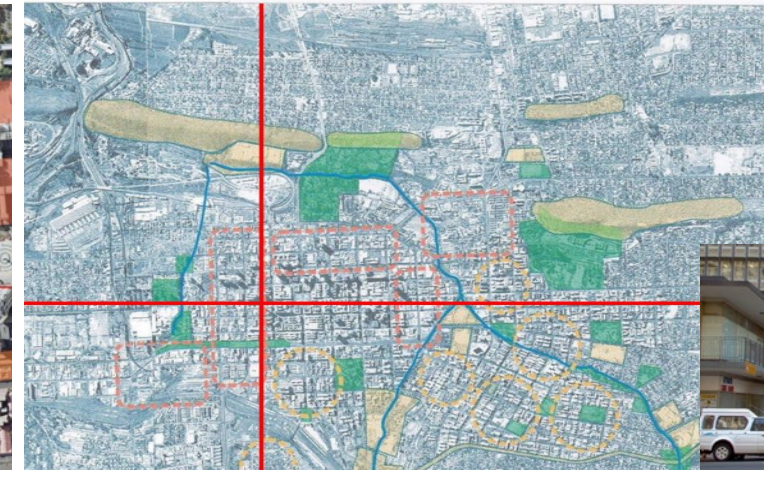


Fig. 3.10

Fig. 3.9



Fig. 3.10



Fig. 3.8

Site Investigation



A lane of trees used to exist on the site. Most of the trees have been removed or were damaged during storms. Fig.3.11 shows the trees that remain. Observation on site reveals that the podium building (Fig.3.8) of the Poynton Centre (See Section 2.1) was lined up with one line of these trees

Several buildings have existed on the site over the years and have been demolished. No documentary evidence of what these buildings were could be found. Investigation of the foundations reveal at least three periods of development, including a courtyard with veranda to the rear.

The original burgher erf was subdivided very early on as the deed of August 1875 already indicates no 123 Church Street separated from the main erf.

The site belongs to the Tshwane Municipality (Fig.3.12). As the proposal is in line with the City's vision (see Section 2.1), it should be possible to obtain the site for such a development without too much difficulty.

### 3.) The neighbourhood

#### 3.1.) Neighbouring buildings

##### 3.1.1.) Poynton Building – Oscar Hurwitz Murray and Pokroy – 1969

This building (seen in Fig.3.13 in the background) forms the northern neighbour of the site, across the street. It consists of a main block of 33 storeys, a western block of nine storeys and a central courtyard with double storey podiums (Fig.3.8) on Church Street. It was the first high-rise building in Pretoria (Le Roux and Botes 1992 p.78-9).

Brittan identifies the Phönix-Rheinrohr Building in Düsseldorf, Germany, by Hentrich as the model used in the design for the Poynton Building (1989:23-4).

##### 3.1.2.) Human Sciences Research Council – Pretorius Street 134 – 1987 – Samuel Pauw

The building (shown in the background on Fig.3.14) is the southern

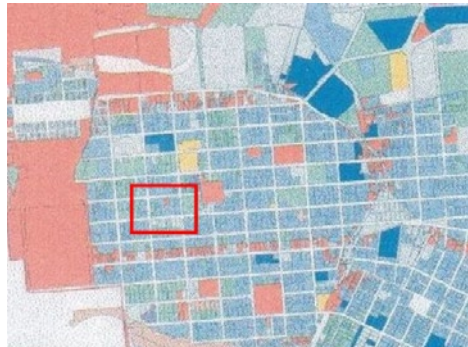


Fig. 3.12 The HSRC was the first commercially designed building in South Africa to be designed on a computer system. This system cost approximately R500 000 and occupied an entire room (Schutte 2004).



Fig. 3.13



Fig. 3.14

neighbour of the site. It consists of two wings, the southern nine storeys tall and the northern (bordering the site) fourteen. It is one of the prime examples of Post-Modernism in Pretoria (Le Roux and Botes 1993 p.11).

The curved façade of the block was influenced by the curved wall of 268 Bosman Street, around the corner of the site. It was also motivated by the desire to provide an interesting experience for pedestrians and as a reaction against the grid system displayed by early computer draughting systems (Pauw 2004). The architects intended creating an arcade to link up with the arcade in the Nedbank building on the northwestern corner of the block. The client decided against this due to security concerns (ibid).

#### 3.2.) The street

Church Street predates Pretoria, as it was part of a trade route between Potchefstroom and Delagoa Bay (s.a. 1995 p.17).

West of Bosman Street, the street character dissipates into an *ad hoc* mixture of sizes, styles, periods, quality and state of repair. Several of the old, small commercial buildings remain, but the relations between buildings have been destroyed by the sporadic occurrence of larger buildings and open spaces (Le Roux 1993 p.5).

It is important that a design in this area attempt to draw together the different elements and relate to a variety of clues in the environment. This consideration is strengthened by the need to use Church Street as a ceremonial way that links ceremonial spaces (ISDF p.17) and a high level (Fig.3.15), inter-precinct urban link (ibid p16,17). For this spatial continuity is very important (ibid p.16)



Fig. 3.15

#### 3.3.) Land use

The land use of the area, as of the street, is inconsistent and sporadic. Several open sites occur in the area (See Fig.3.16). Some offices have been converted into apartments (Fig.3.17), but other spaces remain vacant (Fig.3.18).

As seen in Fig.3.10, open sites are often used for parking, but even this is not always the case.

The functions operating in the area include the following:

• Bakeries	• Pool halls
• Bottle stores	• Clothing shops
• Hairdressers	• Multi shops
• Doctors	• A jeweller
• Furniture shops	

#### 3.4.) Infrastructure and public services

##### 3.4.1.) Transport

###### 3.4.1.1.) Public transport

The site is located within 350m from Church Square, which serves as central bus terminus for the city. The Pretoria Central Station is 1 600m from there, with bus connections. The Belle Ombre Station is also within walking distance of the site at 1450m.

The area is served by taxis and major taxi ranks occur at the corner of Van der Walt and Proes Streets (1 200m) and on the Skinner Street island at Schubart Street (600m) (Fig.3.20).

The proposed Gautrain station at Pretoria Central Station will link the area with distant areas of the city and with the rest of the province.

###### 3.4.1.2.) Pedestrians

Pedestrians are accommodated by wide pavements, usually with canopies sheltering from rain and sun. Well-functioning traffic lights provide opportunity for pedestrians to cross streets safely at intersections. The long street blocks often make it easier to cross in the middle of the block. Although traffic lights in Pretorius Street accommodate this, the same is not done for Church Street.



Fig. 3.17

Fig. 3.16

Fig. 3.18

Fig. 3.19

Site Investigation

Site Investigation

32

33



The Pretoria Inner City Spatial Development Framework describes the need for mid block pedestrian crossing, showing ways in which this might be achieved (Fig.3.21).

The streets of Pretoria are often tree lined. Although it can be seen (Fig 2.22) that this used to be the case for Church Street, this is not true in this part of the street anymore.

3.4.1.3.) Bicycles  
No bicycle lanes exist in the area, neither are there any bicycle racks to witness in the vicinity or any cyclists in evidence. It can only be speculated whether the cyclists are absent due to a lack of facilities or vice versa.

3.4.1.4.) Cars  
The area is very accessible by road. It is located on Church Street, the main east-west connector in the city. It is respectively one and two blocks away from the Pretorius and Schoeman Street one-way system and links with the ring road system at Potgieter Street, one and a half blocks to the west.

3.4.2.) Social and environmental infrastructure  
See Figure 2.24.

3.4.2.1.) Safety  
The Pretoria Central Police Station is located on the corner of Pretorius and Bosman Streets, one block away from the site. The security arrangements as seen in Fig.3.23 make it clear that the area still suffers from security problems.

The Fire Station is located on the corner of Jacob Mare and Bosman Streets.



Fig. 3.23



Fig. 3.22

3.4.2.2.) Health  
Doctors' and dental surgeries exist in the Nedbank and Poynton buildings. The Pretoria Academic Hospital is located in Soutpansberg Road.

The Sunnyside Clinic is located in Leyds Street.  
From Prinsloo Street and eastward many private hospitals and clinics exist.

It is clear that healthcare is available in the area and that any emergency can be dealt with.

3.4.2.3.) Education  
The area is adequately provided with educational



Fig. 3.24

facilities.

A Nursery School exists in Pretorius Street between Schubart and Potgieter Streets.

Schools exist on the corner of Bosman and Proes Streets, at Loreto Convent in Skinner Street, in Paul Kruger Street between Skinner and Visagie Streets and on the corner of Schoeman and Schubart Streets.

The Tshwane College for Further Education is located on Church Street between Du Toit Street and Nelson Mandela Boulevard.

The area contains the Magistrates Court and the Transvaal Branch of the High Court, both within walking distance of the site.

The area caters for a variety of religious needs. The Dutch Reformed *Grootte Kerk* is located on the corner of Bosman and Vermeulen Streets; the Paul Kruger Reformed Church is down the street in Church street; The *Nederduitsch Hervormde Kerk* is on Vermeulen street between Prinsloo and Du Toit Streets; The Catholic Cathedral is on the corner of Bosman and Skinner Streets and the Anglican Cathedral on the corner of Schoeman and Andries Streets.

There is a mosque on Queen Street. Several small, independent churches and congregations are situated in the area.

The area is served by several parks. These include Burgers' Park, Prince's Park<sup>3</sup> and the National Zoological Gardens. Civic spaces in the vicinity includes Church Square, Strijdom square and Sammy Marks Square.

The Pretoria West Cemetery is also close by and provides some relief from the bustle of the city.

3.4.2.5.) Culture  
Theatre is provided by the Little Theatre on the corner of Andries and Skinner Streets, the Breytenbach Theatre on the corner of Rissik Street and Nelson Mandela Boulevard and the State Theatre on Strijdom Square.

Cinema complexes are available at Sunnypark in Beatrix Street and Sunnypark in Jeppe Street.

3.4.2.6.) Shops and financial  
The area is well provided with shops and the majority of needs can be filled within walking distance. Groceries are mostly provided by small cafés. The large chain supermarkets are not present in the area though.

<sup>3</sup> The ISDF proposes that Prince's Park be developed as a public open space (p.45).



Fig. 3.27

There is a thriving informal trade sector active in the area. These small business people deal in anything from fruit, sweets, cigarettes, and lunches to private cellular phone 'booths'.

All the major banks have branches within walking distance and an A.T.M. is available across the street.

Several food outlets, mainly of a take-away or cafeteria nature exist in the area. There is, however a lack of more formal dining establishments.

### 3.4.3.) Proposals

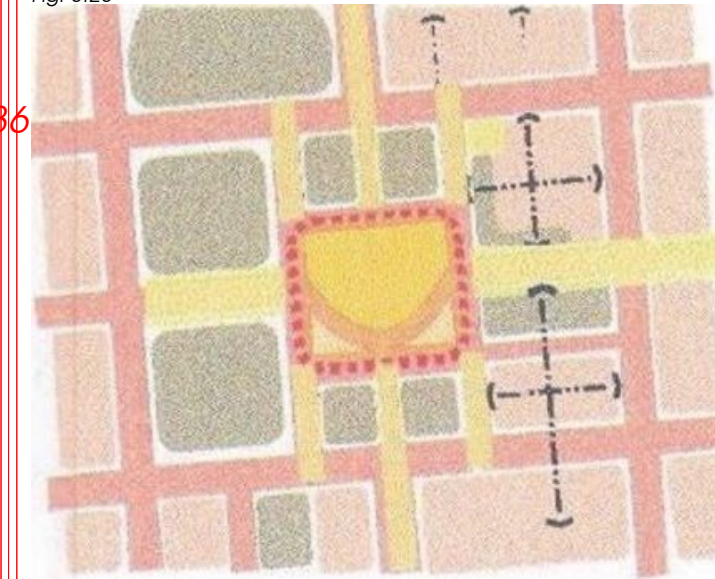
The revitalisation of the Church Square precinct is identified as a priority. The ISDF makes several proposals for the achievement of this end.

Two of these proposals are likely to have a significant impact on the site identified for the Mind Development centre.

#### 3.4.3.1.) Extension of the Church Street Mall (Fig. 3.25)

The proposal calls for the Church Street Mall to be extended

Fig. 3.25



into the part of Church Street West between Church Square and Bosman Street (ISDF p.18).

This area is currently a dead space used to park buses. The private vehicular traffic making use of this stretch of road is insignificant. The street is underutilised and impairs the functioning of shops and cafés on this part of the street.

The implementation of the proposal shall not only benefit the square and the functions bordering it, but will also have a beneficial effect on the design by bringing the pedestrian domain closer to the site and creating a more direct spatial link with the arcades to the east. This same topological structure will be utilised in the design.

#### 3.4.3.2.) Parliament on the Square

This proposal (see also section 2.1.) suggests that Parliament be constructed around Church Square, through re-use of buildings and new construction. The proposal includes large parking facilities under the square.

This proposal will bring many people into the area and will be of significant benefit through job creation, crime control and the increase of land value and desirability.

If the decision was to be made to base Parliament on the Square, the Mind Development Centre will significantly increase its exposure and prestige. The ceremonial nature of Church Street will become much more important.

This proposal implies that the urban nature of the design becomes much more important.

## 4.) City vision

The idea of a mind development centre fits in with the city of Tshwane's commitment to strengthen

the economic cluster comprising research, development, teaching and knowledge based institutions. (City of Tshwane 2004 p.43)

Church Street west is considered an important potential urban linkage between the Inner City and Atteridgeville, as well as to the developments to the east (City of Tshwane 2004 p.70). Paul Kruger Street is envisioned as a urban linkage to the Northern towns and suburbs (*ibid* p.71)

## 5.) Historical context

### 5.1.) A Brief history of Pretoria

Considering the location of the site, in the oldest part of Pretoria, and so close to the centre of events, as well as the number of important historical buildings in the vicinity, a brief history of the city is appropriate.

#### 5.1.1.) Founding

Marthinus Wessel Pretorius bought the farms Elandspoor and Daspoort, on the banks of the Apies River. In 1853, he petitioned parliament to allow the layout of a town on these farms. The request was refused. In 1854, Ds. Dirk van der Hoff founded a congregation in the Pretoria valley. When Pretorius again petitioned Parliament in 1855, he had the support of the church. This time, the decision was approved, on 16 November 1855. The town was named for General Andries Pretorius (Marthinus' father) (Allen 1971:8 and South African Municipal Handbook 1974:225). Several versions of the name were considered, and Pretoria was finally settled on. (*ibid*)

The town became the capital of the Z.A.R. on the 1<sup>st</sup> of May 1860 (South African Municipal Handbook 1974 p.225).

The first church (Fig.3.26) on Church Square was inaugurated in 1857. The church was a thatched building, which burned down and was replaced by a spired church in 1885. This church, in turn, was demolished in 1905 (Greyling 2000:19-20).

The first plan of the city was surveyed and drawn by Andries du Toit in 1857-9 (Allen 1971:7-9). This map had to be redrawn in 1870 because the system used to number the erven provided problems and there were many disputes over boundaries (Unknown). It is generally accepted that Pretoria's layout is based on that of Graaff-Reinet (Jordaan 1989:28).

Sir Theophilus Shepstone annexed the city for Britain in January 1877. This led to the first Anglo-Boer War in 1880-1. Paul Kruger was inaugurated as the president of the new republic in 1882.

#### 5.1.2.) The Kruger years

During the inter-war period, the Republic strove to increase its stature. The discovery of gold on the Witwatersrand and in the Eastern Transvaal also necessitated a much increased administration (Allen 1971:39). The thatched parliament building was replaced in 1889 with the *Goewermentsgebouw*, currently known as the *Ou Raadsaal*.

The Palace of Justice followed between 1896 and 1900. The British occupying forces used it as a military hospital during the war.

The first Anglican church (Fig.3.27) was constructed in 1872, at Church street 119 (Greyling 2000:54). It would thus have been a close neighbour to the site. In 1879, the congregation moved to Schoeman Street.

#### 5.1.3.) The Second Anglo-Boer War

On the 11<sup>th</sup> October 1899, parliament heard that the British Empire refused to comply with the conditions

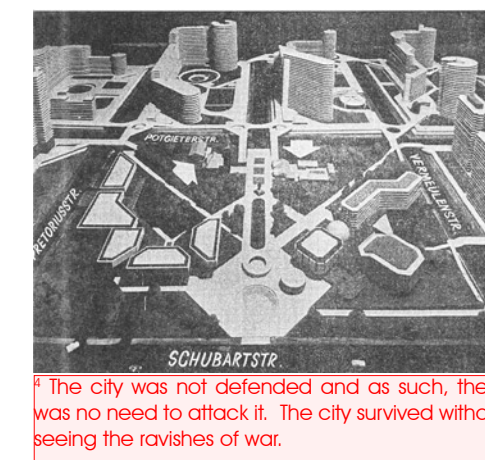


Fig. 3.26



Fig. 3.27

Fig. 3.28



*4 The city was not defended and as such, there was no need to attack it. The city survived without seeing the ravishes of war.*

of the Republics' ultimatum, issued two days earlier. War was declared (Greyling 2000:26)

The British forces entered Pretoria on the morning of the 5<sup>th</sup> of June 1900 (Greyling 2000:16). The Transvaal government left them an open city<sup>4</sup> (South African Municipal Handbook 1974: 227). Roberts annexed the ZAR on 1 September 1900 as British territory, believing the war was over (Greyling 2000:17). It was to be almost two years before the peace treaty was signed though. During this period, the city was under military occupation and governance.

#### 5.1.4.) The twentieth century

The Pretoria Municipality was founded in 1903 (after several false starts) and in 1910, Pretoria became the administrative capital of the Union of South Africa. The sewerage system was started in 1904. On 14 October 1931, the Municipality of Innesdale was incorporated into Pretoria, which was declared a city on the same day. The Hercules Municipality was incorporated in 1949. 1964 saw the incorporation of Silverton, Pretoria-North and more than 50 peri-urban areas (South African Municipal Handbook 1974:227-230).

The city's industrial development was given a major boost in 1928, when Parliament approved the construction of ISCOR in Pretoria (*Ibid*). Industry has since played an important part in the city.

The city centre saw great development after the Nationalist government came to power, particularly in the '60's and '70's. High-rise towers were constructed, the State Theatre was built and the great political squares were given form (Strijdom Square and Verwoerd Square, now Sammy Marks Square). Most of these developments had a degrading effect on the urban nature of the city. The arterial roads running through it, particularly Skinner Street, Potgieter Street and Nelson Mandela Drive, dissect the city. Some proposals were fortunately averted. Among these were the plans for the Kruger Square (Fig.3.28), bordered by Potgieter. Pretorius, Vermeulen and Schubart streets and environs (s.a. 1973). Of the scheme, only the Schubart Park



housing scheme was completed and this is riddled with social problems, as in many modernist housing schemes.

The ridges surrounding the city have had an important influence on the formation of the city, directing an East-West direction of growth. The eastward expansion of the city has continued unabated and many residents and businesses moved out of the city. This led to a decline of the inner city.

### 5.1.5.) Recent history

In 1994, the Republic was re-divided into nine provinces and the Transvaal ceased to exist. Pretoria now fell in the Gauteng province. After the 1994 elections, the decision was made to move the provincial capital to Johannesburg. Pretoria retained its status as administrative capital of the Republic.

Moving the provincial administration out of the city has led to a loss of tenants in the already pressured inner city. A large amount of office space was left vacant. Many of these are currently being converted into flats and apartments.

For a while, it was argued that the country should have a single capital. There was much debate whether it should be Cape Town, Pretoria or somewhere else altogether. The decision has been placed on hold though. When the country was divided into metro-councils, Pretoria became part of the City of Tshwane.

Currently a heated debate is raging on the topic of Pretoria's name. The executive Mayor of the City of Tshwane, Father Smangalis Mkhathshwa, is a proponent of the idea that the name Pretoria should be changed to Tshwane. The idea is being fiercely contested, and a commission has been appointed to investigate the issue.

## 5.2.) History of the area

### 5.3.) Buildings of note and worthy of conservation

#### 5.3.1.) Kruger House – 60 Church Street – Tom Claridge

This private residence (Fig.3.29) of President Kruger was built in 1883-'84 (Greyling 2000:31). It was one of the first houses in the



Fig. 3.29



Fig. 3.30

city to have electricity and telephone. The lions in front of the house were a birthday gift from mine-magnate Barney Barnato in 1896(Greyling 2000: 31-32; Allen 1971:16). It seems certain that the house itself was a gift from Alois Hugo Nellmapius (Allen 1971:14 and Le Roux 1992 p.80). The trees on the street front have since been removed.

#### 5.3.2.) Reformed Church – corner of Church and Potgieter Streets – K van Rijsse

The church was constructed 1896-1897. President Kruger attended this church and even gave sermons here (Greyling 2000:33).

#### 5.3.3.) Church Square

The heart of Pretoria and the former Z.A.R., it is surrounded by significant historic buildings. The first churches stood on the square, where burghers got together for the quarterly *Nagmaal*. It was also the market square and the centre of government. It was also the only piece of flat open ground, and as such was used for cricket (Allen 1971:35-6). It therefore also constitutes Pretoria's first sports ground. The multi-use character of the square led to some light conflict: regular hostilities arose between boys wanting to play cricket and burghers attending *nagmaal* (*ibid*). The 1910 redesign turned the square into the tram terminus (Allen 1971: 36). It still serves as the bus terminus for the city. The statue of Paul Kruger was moved to the Square in 1954 (Allen 1971:153).

#### 5.3.4.) Bantu Affairs Building – Church Street 70 – 1939

The building (Fig.3.30) was constructed for the erstwhile Commissioner of natives. Later the South African Police Murder and Robbery and vehicle branch used the building (Le Roux and Botes 1992 p.79).

#### 5.3.5.) Church Street 143-149

The buildings have typological value as a group and relate to similar groups further west in Church Street (Le Roux 1993 p.5). Early in June 2004, the colonnade and pavement canopy was demolished and replaced with a brick colonnade rather resembling the 'value mall' style.

## 6.) Biophysical Considerations

### 6.1.) Climate

Pretoria is located in the Northern Transvaal climatic region. Both the diurnal cycle and the passage of seasons result in large

climatic variation. Humidity in the area is moderate while solar radiation is strong (Holm 1996 p.69)

#### 6.1.1.) Temperature:

The average maximum temperature for Pretoria is 24.81 °C and the average minimum 12.13°C. The average diurnal variation is 12.68K.

The highest temperature is in January, with an average 28.6°C. The lowest temperature occurs in July, at 4.5°C.

February has the lowest diurnal swing at 10.8K and July the highest at 15.1K. Humidity averages 53.83%, with a March high (60%) and a September low (45%) (Holm 1996 p.69).

#### 6.1.2.) Rainfall:

The total annual rainfall is 674mm. The maximum monthly rainfall is in January (136mm) and the minimum in July (3mm) (Holm 1996 p.69)

## 6.2.) Geology

Assumed acceptable due to nature of surrounding structures

Spatial form: Pretoria was an east west city. The city of Tshwane is more north south, with limited access across the ridges. The site is located close to a north south corridor and on the main east west.

## 7.) Design influences

### 7.1.) Arcades

The lane of trees (Fig.3.31), the intent of Samuel Pauw and Associates to create an arcade through the block as well as the tradition of arcades in Pretoria influenced



Fig. 3.31

the decision to create an arcade through the block with a mid block urban space.

This decision was further verified by the Pretoria Inner City Spatial Development Framework that asks for the promotion of walkability through shorter block lengths (p.11) and calls for the creation of pocket parks (p.16).

These criteria were enforced by the needs for open space and greenery as set out in the baseline document and the fact that the site is fronted by a proposed green route to the front (Church Street) and the rear of the block in Pretorius Street (*ibid* p.16)( See Fig.3. ).

The Arcades also serve to accommodate the need of horizontal diversity as set out in the ISDF (p.12) through creating the opportunity to place restaurants and a variety of other functions at ground level.

The ISDF calls for the strengthening of the arcade tradition. It does include, however, some warnings

about the design of such spaces.

One risk that might result from improper design is that the arcade might turn into an entrapment spot, where a person cannot escape from trouble. The design has to address this and increase safety by eliminating hidden or dark corners and increasing legibility and view.

### 7.2.) Nature

The green spaces as defined above and the functional need for contact with nature will influence many decisions in the design.

The Baseline Document describes the presence of urban pigeons and their associated problems. The ISDF proposes that African Fauna and Flora be used to create the image of an African Capital City (p.16). The use of endemic birds of prey as a pest control mechanism is thus in accordance with this principle.

### 7.3.) Neighbouring buildings

The neighbouring buildings are currently low structures, built up to the edges of the site. If the area is revitalised, they will most certainly be redeveloped as bigger structures. As the nature of these future developments cannot be foreseen, the neighbours are treated as if they were already tall structures built up to the edge of the side with blank sidewalls.

### 7.4.) Street canopies

The city and the neighbouring buildings have a tradition of providing pavement canopies. The ISDF encourages the continuation of this tradition through the call for a buffer area between pedestrian and vehicular zones (p.11).