

01_INTRODUCTION

People are drawn towards cities for the economic, social, cultural and recreational opportunities that they offer. These facilities should be accessible to all users of the city (Dewar & Uitenboogaardt, 1991:16). Lively cities are rich in experiences and have many opportunities and public spaces that allow people to interact with one another (Gehl, 1987:23).

This study will investigate the regeneration of an existing public square in the city of Pretoria, through its connection with the State Theatre, situated next to the square. It will explore the importance of public space in any city and methods design to increase social interaction and experience in public spaces. It further explores the creation of spaces for public performance and events.

PROBLEM STATEMENT

Public spaces are what make cities liveable and memorable. They are an essential part of any community as a place of interaction and exchange. There is international concern about the future

of public space in cities. Free access to public space is a democratic right. This right is infringed by privatization of public space that gives private owners the right to deny access and to exclude groups of people. Many existing public spaces have been privatized as a result of being unsafe and underutilized.

Pretoria is a slow, empty city in desperate need of revival. Its public squares lack the qualities of good public spaces that draw people to them, and that allow people to linger and socialize. Public spaces in the city are underutilized and empty, but they hold the potential to function as a system of great public spaces that can offer the city a unique identity, and make it a world class destination.

Lillian Ngoyi Square, situated next to the State Theatre in the Pretoria CBD, has long been a large, harsh, unused space. This site, which once held the Pretoria Market Hall, is now a hard concrete surface that provides little opportunity for seating, social interaction and viewing its surroundings. The square is one of the city of

Pretoria's most important public spaces. Workshops have been held to find design solutions to the problems, but no solutions have been implemented. The city of Pretoria plans to transform the square into a cultural marketplace. However, this plan does not include the redesign of inactive edges of the square or physical barriers around it, and therefore does not offer a realistic solution to the problems of the square.

This study investigates the making of place in a contemporary South African city. It presents an in-depth investigation of the history and context of the site, as well as its current problems, uses and condition. The theoretical component of the study investigates the importance of public spaces and squares in a city and the factors that contribute to the making of good public space. It then attempts to apply these theories to the redesign of Lillian Ngoyi Square.

South Africa exists in a westernized society which abides by western rules of civilization; it finds itself at the Southern tip of Africa, as a country that is neither truly "Western", nor truly "African". Due to oral culture and the adoption of western design principles by "African" architects, very little has been written about "African" concepts of space and culture. While theories discussed are mainly Western theory, it is the belief of this author, that the principles discussed can be applied internationally.

The study considers a number of similar projects that have been successfully implemented. It will compare conventional uses of public space with more contemporary examples, and offer an alternative view of public space as an urban theatre.

Dewar & Uitenboogaardt (1991:21) state that positive urban areas provide easy access to opportunities and public facilities to both the rich and the poor, even though

these opportunities are often funded by the resources of the wealthy. The introduction of commercial and cultural activities to the square could provide visitors and regular users of the city with opportunities for employment and recreation.

A desired outcome of this investigation is an architectural solution that could enhance social interaction and encourage public performances, meetings and events. The architecture might provide city users with a safe environment in which to interact and socialize. Such an outcome could contribute to improving the image and identity of the Pretoria CBD as a destination city.

PROJECT AIMS:

- Create a platform for social interaction in the city of Pretoria.
- Increase usage of Lillian Ngoyi Square by providing new attractions that are linked to the State Theatre.
- Extend the theatre experience into the square, thereby giving all city users the opportunity to participate in and enjoy public performance art.
- Improve access to Lillian Ngoyi square and new facilities and improve linkages to surrounding areas.
- Design for the needs of both local users and visitors.
- Improve comfort on the Square.
- Provide a facility that could act as an attraction for International tourists to the city of Pretoria.
- Strengthen the new identity of the city as proposed in the Urban Development Framework (see Appendix A).

LIMITATIONS OF THE STUDY

Lillian Ngoyi Square is a large site with many problems. This study will not presume to solve all problems that the site presents, but provide an alternative view of the problems it holds, and a possible solution to some of these problems.

An urban design proposal will be made for the larger site, but due to time constraints, more focus will be given to smaller urban design elements and the architectural solution (an architectural intervention that could attract more users to the site).

RESEARCH METHODOLOGY

This project evolved from a concern about the number of underutilized spaces in the city of Pretoria. The chosen site presented much opportunity for redevelopment and was selected as the focus of the study because of its location and dire condition. Data about the site was collected through observation during site visits, interviews with people involved with the site and surrounding buildings, historical documentation (maps, newspaper articles, historical photographs and literature about Pretoria), archival research and photographic documentation. The data collected provided a basis for analysis of the site and its current problems.

Architectural and Anthropological theories of use and construction of public space were examined and will be presented in the theoretical argument, which deals with the characteristics and production of successful public space. A study of international public squares and buildings with related functions and contexts was undertaken by studying plans, photographs and descriptions of these buildings/spaces and, in some cases physical observation by the author.

The information collected was used to formulate a design solution that will be presented towards the end of this book.



Fig. 2.1.

LILLIAN NGOYI SQUARE

25°44'48"S

28°11'36"E

0 100m 500m 1000m 2000m

PAUL KRUGER STREET

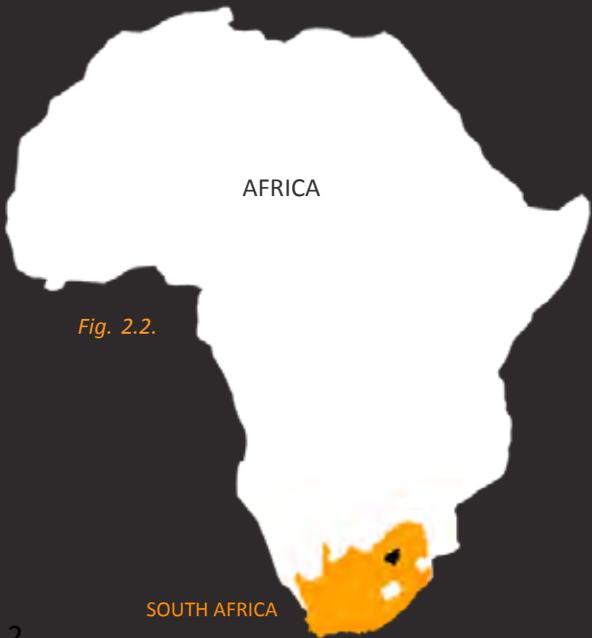


Fig. 2.2.

Fig. 2.3.



GREATER TSHWANE AREA



2.4Fig.

02_CONTEXT

Lillian Ngoyi Square is situated on the city block between Pretorius, Van der Walt, Church and Prinsloo Streets. The site belongs to the State Theatre. The first market place in Pretoria was Church Square, which was then known as Mark Platz (Market Square). Paul Kruger Street was called Market Street when the town was first laid out (STATE THEATRE, 1981).

The first market shared the square with the church. But with the growth of the town, the space in front of the old church became too small for a market to be held here. In 1889 Mr. J.D. Celliers was appointed to erect a market building on a site to the east of Church Square (the site currently known as Lillian Ngoyi Square). Initially, the structure was confined to the north-western corner of the stand.

The Market hall was not only used for market activities, but also for exhibitions, receptions, political gatherings and court hearings. It was the location of Pretoria's first museum, and it hosted many festivals, the opening of the Mozambique railway and the trial of those responsible for the Jameson raid.

In 1963, the National Theatre Organization was replaced by four provincial performing arts councils, whose purpose was to fulfill the cultural needs of the public and to provide drama, ballet, opera and music productions. The Administrator of the Transvaal council, Mr. F. H. Odendaal, was at that time, involved with the planning and erection of a new monument to commemorate the late J.G. Strijdom, prime minister of the Republic of South Africa between 1954 and 1958 (STATE THEATRE: 1981). During the search for a suitable site for the monument, it was decided to buy the stand on which the Old market hall was situated.

Around the same time, thought was given to the erection of an Opera house in Pretoria. It was then decided that a new theatre had to be built, and the site next to the proposed Strijdom Monument would be the ideal site for such a large theatre because of its location in the city.

Demolition of the Market hall began in July 1966 to make way for the construction of the State Theatre and a large public underground parking garage that would accommodate 1500 cars. Around the same time of the commission of the State Theatre, a new head office for the Volkskas bank (now known as the ABSA building) was commissioned on the south-western corner of the same city block. The Strijdom monument was unveiled on 31 May 1972, Republic Day.

Strijdom/Lillian Ngoyi Square has seen a number of peculiar events and coincidences. The Strijdom dome was never structurally sound: after the removal of the supports, the two front "legs" of the dome moved 80mm, causing cracks on the surface. Engineers deemed the dome completely unstable. "The dome cost R30 000 to build and R90 000 to repair" (Meyer, 1979).

On the 15th of November 1988, a 23 year old right winged extremist, Barend Strydom (also known as "Die Wit Wolf"), an unrelated name-sake of the former prime minister J. G. Strijdom, entered the square from the eastern corner and started a racially motivated killing spree. Strydom shot every black person in sight, until he was wrestled to the ground by a brave black civilian, and was arrested by the police. Hook (2005) argues that these attacks were a direct result of the imposing monumental nature of the square, symbolizing white supremacy, power and wealth.

According to an article in the Beeld (8 October 1995) citizens of Pretoria complained that the square seemed "harsh" and "cold". The article describes intentions of the city council to "liven up" the square by introducing circular paving patterns and new planters. The large concrete dome collapsed on the day of the 29th anniversary of its unveiling (31 May 2001), taking with it, a large part of the slab on which it stood. According to Hook (2005:26), it was the 40th anniversary of "Republic Day", which marked the day that South Africa left the Commonwealth to continue its pursuit of racial segregation. The bronze bust crashed into a 10m deep hole and split in two. A local newspaper heading stated that this would leave "a large hole in the tourism industry".

Excavation of the site north of Church Street began in 1991, to make way for a new multi-purpose centre that included shops, a library, municipal and general offices. This development was part of an attempt to bring more life into the inner city of Pretoria.

On 29 September 1992, the day of Barend Strijdom's release from prison, the water of the Strijdom Square fountain was dyed red. Pretoria based artist, Jacques Coetzer later claimed responsibility for the event as a commemoration of the massacre of November 1988.

Today, the square is a large empty space with a circular pattern painted on the surface of the slab. Only the large cylindrical column and water fountain remain in the center. A large planter that was part of the Strijdom monument, provides the only spots of shade and seating on the square, and is used by people in the surrounding area as a picnic spot during lunch times, and a place to watch life go by in the surrounding area.

GREEN SPACES AND PUBLIC OPEN SPACES

Public Open Spaces

1. Pretoria Station
2. Burgers Park
3. Pretorius Square
4. Church Square
5. Church Street
6. Lillian Ngoyi Square
7. Sammy Marks Square
8. Unused open space
9. State theatre Square
10. Tram Shed
11. DTI Square

Green Spaces

- a. Salvokop
- b. Apies river bank
- c. New Caladonian Sports Grounds
- d. Pretoria Zoological Gardens
- e. Burgers Park
- f. Reserve bank
- g. Church Square
- h. Lost Space between



Fig- 2.5.

PUBLIC/GREEN SPACES

The city's public spaces occur mainly around the two main axes, namely Paul Kruger Street, in the North to South direction, and Church Street in the East to West direction.

and watch the world go by. Pretoria's public spaces are currently underutilized and uncelebrated.

Green spaces mainly occur on the edges of the city centre, although many public spaces can also be classified as green spaces (e.g. Church Square, Burgers Park. Public open spaces and green spaces are important in a city. They offer places to relax, socialize

MAJOR MOVEMENT ROUTES AND NODES

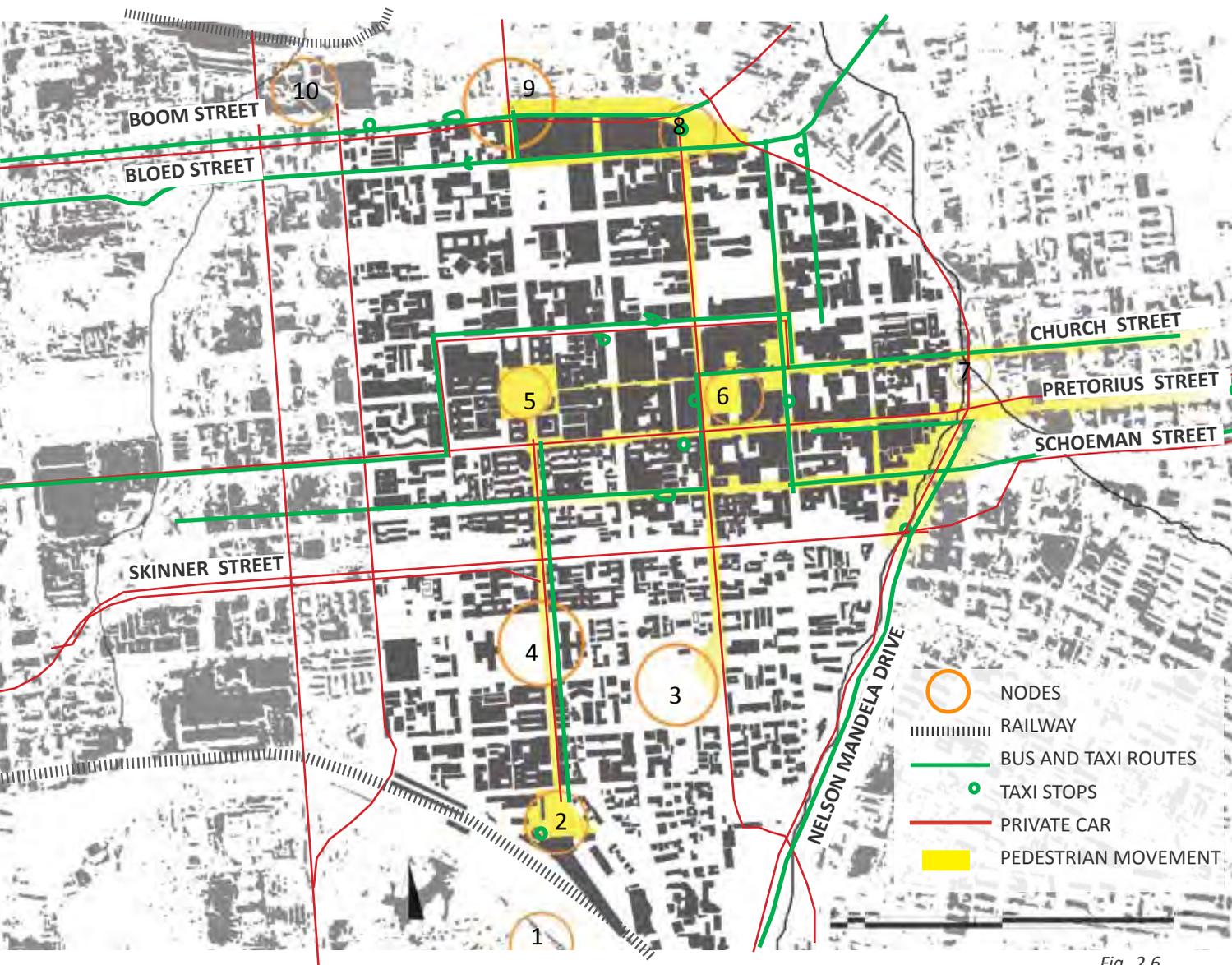


Fig. 2.6.

MOVEMENT

It has been observed that the greatest amount of pedestrian activity occurs between important transport nodes. Commercial activity and informal trading is most successful along these routes. Nodes are points that draw people. They are also places where people gather for meetings and social interaction.

NODES

1. Salvokop
2. Pretoria Station
3. Burgers Park
4. Museum district and City Hall
5. Church Square
6. Sammy Marks Square/Lillian Ngoyi Square
7. Leeu Brug
8. Bloed Street taxi rank
9. Northern Gateway (Possible node)
10. Belle Ombre Station

SURROUNDING CONTEXT

1. Sammy Marks Square Erf 3357

The Sammy Marks shopping centre takes up most of the city block and consists of clothing and furniture shops, restaurants, general and municipal offices, a conference centre and catering facilities, Nu-Metro cinema, a library and parking for 1500 cars. It is 5 storeys high with ground floor retail facilities. Construction on the new shopping centre commenced in 1990. The aim was to improve the area, and make the CBD “a friendlier and more attractive area”.

A hotel, intended to be erected across the street from the Reserve Bank was never constructed. The remains of a structure and reinforcing remain on the square. The site is currently blocked off by fences and is unused. A steel structure with a polycarbonate roof covers the walkway between the shopping centre and the Lewis and Marks building.

Materials: Red face brick, Green corrugated iron roofs, arcade and balconies surrounding Sammy Marks Square.

2. Standard Bank 225 Van der Walt street

An eight storey building with a large internal atrium. On the ground and first floors, and on the basement floors, this building is a shopping centre, which holds a large Standard Bank branch and offices over all the floors. The lower basement level is

connected to the lower basement of the State Theatre basement parking via an underground arcade.

Materials: Shutter Concrete, Polycarbonate skylight roof over atrium slanting towards the street, Flat concrete roof elsewhere.

3. Bazaar Building (Shoprite) Corner of Church Street and Van der Walt Street.

7 Storey building with ground floor retail
Architectural Influence: Art deco. Rounded street corner
Materials: Plastered and painted white

4. 229 Van der Walt Street

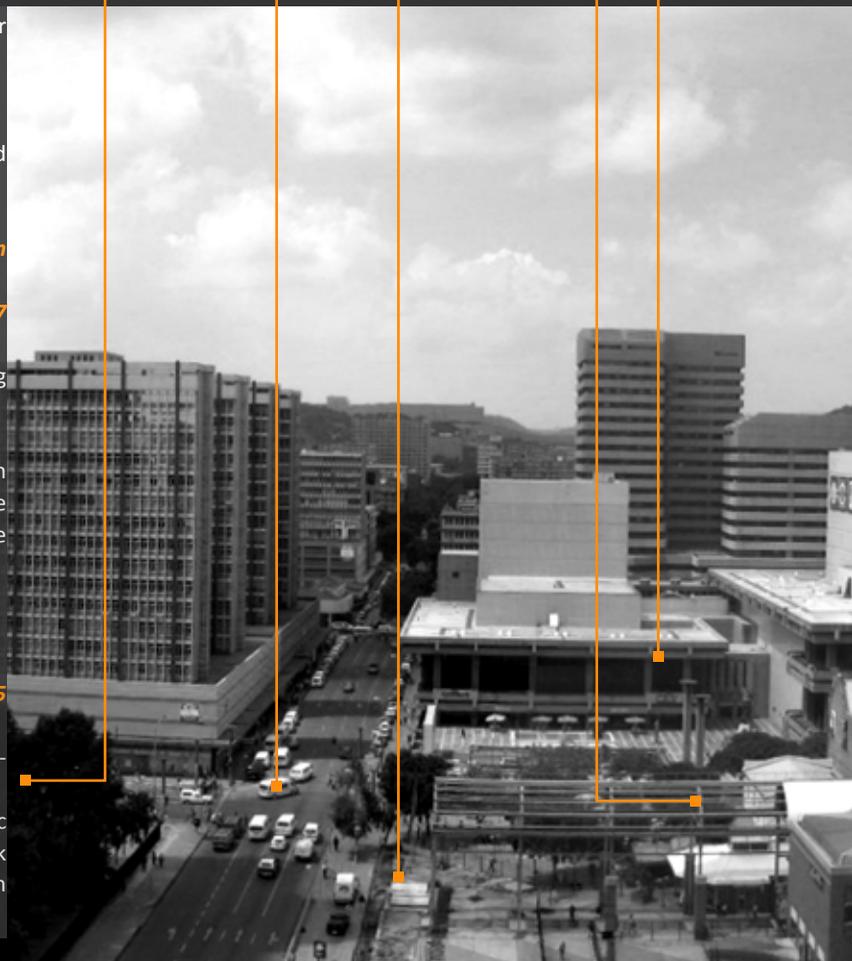
5 Story office block (Was Volkshuis Bank before the tower building was built)
Ground floor: Retail
Neo classical influence
Materials: Light grey and red granite, Corrugated iron roof

5. Premium Towers (Strijdom Square Post Office) Pretorius STREET 296 / 227 Van Der Walt

Eight storey office building with retail on ground floor.
Art Deco Influence
Materials: Red granite plinth with a rounded corner. White granite façade with granite pilasters.

6. Absa Building Erf 2909/1 38 Storey office tower with 5 basement floors.

Architectural influence: Brutalism/Modern movement.
Materials: Light Grey mosaic cladding, multistorey black glass “boxes” protrude from the building.



RESERVE BANK GARDENS

PRINSLOO STREET

OPEN SPACE IN FRONT OF PRETORIA COMMUNITY LIBRARY 7

KYNOCK BUILDING (OLDEST REMAINING BUILDING IN PRETORIA)

STATE THEATRE COMPLEX 11

LEWIS & MARKS BUILDING 10

ABSA BUILDING 5

LILLIAN NGOYI SQUARE

PRETORIA COMMUNITY LIBRARY 7

SAMMY MARKS SQUARE

STANDARD BANK BUILDING 2

SHOPRITE BUILDING 3

SAMMY MARKS SHOPPING CENTRE 1

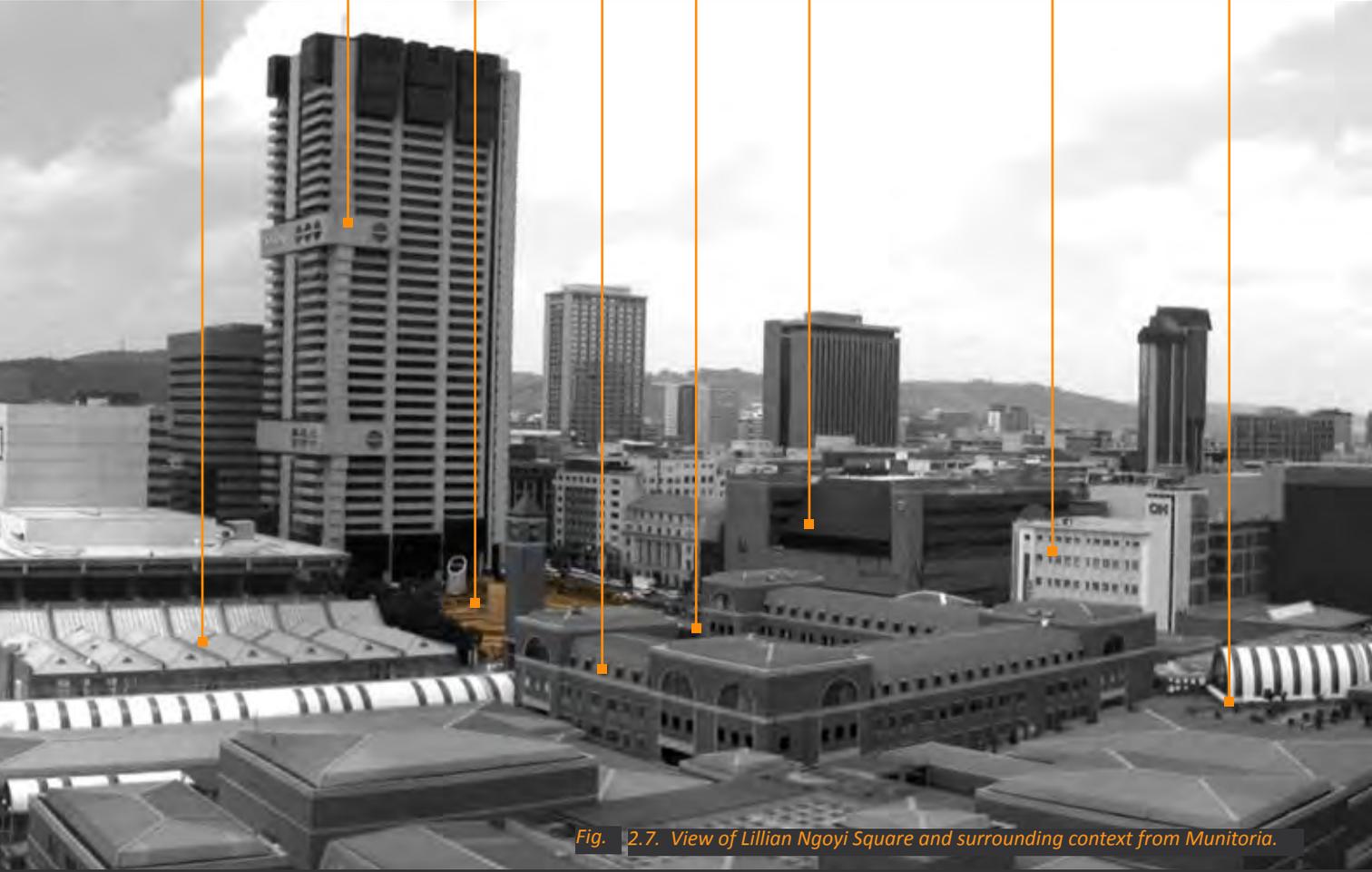


Fig. 2.7. View of Lillian Ngoyi Square and surrounding context from Munitoria.



1

7



2



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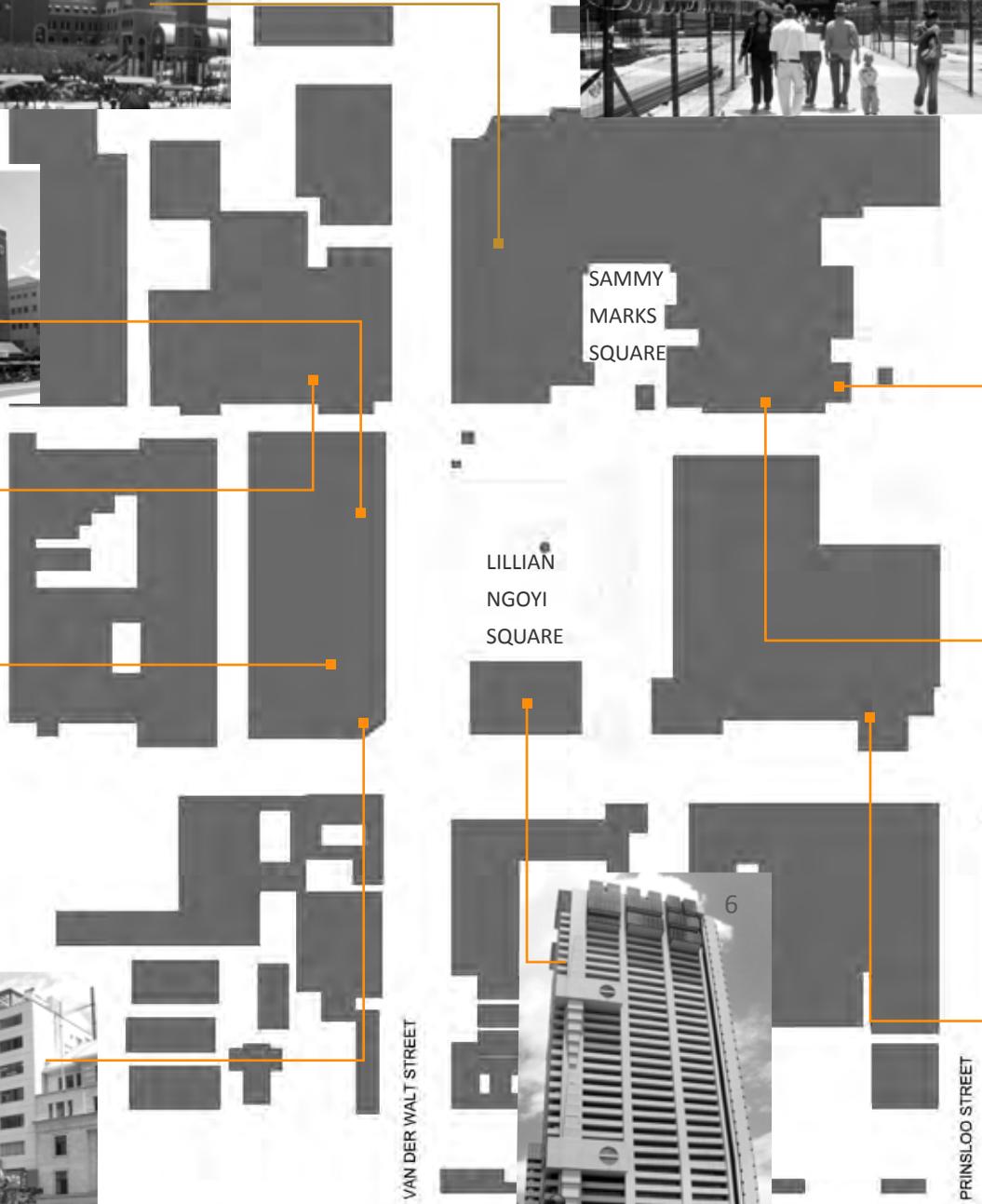
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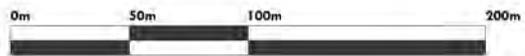


SAMMY MARKS SQUARE

LILLIAN NGOYI SQUARE

VAN DER WALT STREET

PRINSLOO STREET





7. Sammy Marks Library Building
Erf 3357

This building is a part of the Sammy Marks Square Shopping Centre development and includes a library and clinic.

8. Reserve Bank
370 Church Street
Erf 3271

37 Storey office-block on top of a podium and several basement floors. The building has a green space with a large water feature in front of it. This area is surrounded by a palisade fence, restricting access to only those who have business in the building.

Materials: Black granite panels and reflective glass. A recent addition was added. The building covers most of the city block.

9. Kynoch building
336 Church Street
Erf 3357

Double storey shop building with veranda on cast-iron columns. Plastered brick walls, corrugated iron roof, timber sash windows and doors.

This building dates back to the 1880's which makes it the oldest existing building in the CBD.

10. Lewis + Marks
322-330 Church Street
Erf 3357

Three Storey office building in 7 sections. Sections are divided with parapet walls. Each section has its own roof of corrugated iron.

Ground floor: Shop front
Upper Floors: Office Space
Designed in 1903 by W.J. de Zwaan in the style of Amsterdam "gragtehuise".
Materials: Red face brick in English bond, corrugated iron roofs

11. State Theatre
301 Church Street/110 Pretorius Street
Erf 2909/R

Large theatre building and Opera house, the State Theatre has 3 theatres.

Architectural Expression/Influence: Japanese Metabolism influence – flat roofs and balconies with large overhangs on northern façade. The building turns its back to the rest of the city and to Lillian Ngoyi Square. Three towers pierce through the flat roofs, two stage towers, and the "Truk" administrative block. 42m above ground level at its highest point. The building also holds several basement parking floors and a set building workshop.

Materials: Off Shutter concrete, Glass

IMPORTANT BUILDINGS

Fig. 2.8.

ABSA BUILDING

Architects: Pauw & Botha Architects

Quantity Surveyors: Grothaus & Du Plessis

Civil Engineers: Bruinette, Kruger, Stoffberg & Hugo

Mechanical and Electrical Engineers: G.H. Marais & Associates

The building was commissioned as a head office for Volkskas bank in 1969, and was designed by Pauw and Botha Architects. This tower building has 38 floors above ground (aimed to create a landmark for Pretoria), and 5 basement floors of which two were intended for commercial activity, and two for parking. The lowest basement floor is a mechanical floor that houses transformers, and the main air-conditioning system. Ground, first and second floors were intended as banking halls. The basement parking area can hold 150 cars.

The Absa building is situated on the south-western corner of the city block between Van der Walt, Vermeulen, Prinsloo and Pretorius Streets and was intended to act as a backdrop to the Strijdom monument. It is a tall white structure with multi-story black boxes protruding from it. On the northern façade is a glass lift, affording the user views of the square and surrounding area, as well as a bird's eye view of Pretoria. Building finishes: ceramic mosaic work on the ground floor exterior. A shading structure and seating provided on the south/western exterior were a later addition to the building. The seating is used as a taxi stop and



is the only shaded seating area provided along this part of Van der Walt Street.

The northern part of the site is approximately 1500mm higher than Lillian Ngoyi Square. This is part of the basement structure and currently houses an in-house gym and clinic for Absa employees. The building was never designed to interact with the square on ground floor level. Today, this platform to the north of the Absa tower

building is used as an above ground parking space, and is surrounded by a palisade fence. Entrances to basement levels have been blocked off and are currently used as service entrances by cleaners.

The building was designed to accommodate 72% rentable office area, ground and basement floor retail space and a cinema theatre on lower basement level, as well as 10 floors for the bank itself. The 36th floor was intended for a public restaurant and a cafeteria and lounge area for those working in the office tower, while the 37th floor would be an open viewing floor. A glass lift on the north façade of the building affords the users a view of the Strijdom monument and the north of Pretoria.

Today this building is owned by ABSA bank, and is solely used by the bank. The basement floors are no longer used for commercial activity, but have been transformed into conference rooms, parking space, storage space, an in-house clinic and gym. Only the ground floor is accessible to the public, and then only by appointment. The 36th floor is no longer a restaurant and the 37th floor is used by management personnel.

Page 20:

Fig. 2.9. North Facade of Absa building

Fig. 2.10. Service entrance to Absa building on Lillian Ngoyi Square

Fig. 2.11. Level difference on Lillian Ngoyi Square

Page 21:

Fig. 2.12. Level difference on Lillian Ngoyi Square

Fig. 2.13. Seating under Absa building (Southwest corner)

Fig. 2.14. South facade of Absa building



The State Theatre complex is situated between Church and Pretorius Streets directly east of Lillian Ngoyi Square. Construction on the complex started in 1970 with the demolition of the old Market Hall structure. The Theatre complex and its basement parking area spans the entire city block.

The complex consists of six theatres: An Opera theatre (1300 seats); Drama theatre (640 seats); an intimate theatre; the Rendezvous theatre (120 seats) with a bar area and theatre (260 seats); Arena (288 seats)

which can also be used as a rehearsal hall and is the complex's third largest theatre; and the Momentum theatre. It also has a number of foyers that can be rented for functions, as well as a number of private function rooms that can accommodate between 12-60 persons. The complex also includes a number of rehearsal studios and a restaurant, Capello's on the Eastern wing. The complex hosts Opera, Ballet, Musical, Drama, Cabaret shows and Children's theatre.

According to Technical Director of the

State Theatre, Mr. Gert Viljoen, the Theatre was once a large production house that included timber, steel and fibre-glass workshops on the basement levels. Due to a lack of funding, the production house was downscaled to a theatre in 1996, and the fibre-glass and steel workshops were closed down. The timber workshop is still rentable to production companies for the making of props. The theatre not only rents theatre and recording space to production and advertising companies, but also rents its props and costumes for functions and productions.

STATE THEATRE

Architects:

Botha, Lotter & Associates
Daneel, Smit & Associates

Fig. 2.15.



The State Theatre building was designed to reflect the wealth and prosperity of the state at the time of its design and construction (1970's). It was intended as the first part of the development of what was then called "Strijdom Square" which included a monument to the late apartheid prime minister, J.G. Strijdom, and a new head office for Volkskas Bank (today this is the Absa building). The building was the last to be completed.

PARKING

The basement parking garage of the complex can accommodate approximately 1500 cars. According to the head of parking security at the State Theatre, Callie van der Merwe, 77 of the parking spaces are used by State Theatre employees, and another 50 are used by tenants in the State Theatre office complex. A servitude exists in the basement parking area that allows Absa employees to access a specially demarcated area that uses another 104 parking spaces belonging to the State Theatre's basement parking. Other users of this garage include some monthly permit holders working in the Standard Bank building and a number of citizens living in apartments in Central Street. Additional parking space is provided in the basement of the Absa building, that can accommodate a further 100 cars. In total it is estimated that 60%-70% of the available parking is used on a regular working day.

On the second basement level is an entrance to an underground arcade that runs underneath Van der Walt Street from the parking lot to the Standard Bank building on the western side of Van der Walt Street. The arcade is lined with small shops that lead to an atrium at the centre of the Standard Bank building.

The highest points of the State Theatre complex are the two stage towers and the administrative tower on the south-western point of the complex. The administrative tower is 12 storeys high, accommodating the administrative section of the State Theatre, rentable office space and a penthouse on the top floor. The State Theatre currently employs only 140 people.

According to Stark (1979), the theatre complex uses roughly the same amount of electricity as the town of Potchefstroom. Viljoen, explains that this amounts to an electricity bill of roughly R270000 per month. The building turns its back to the city and the public square to its west with its three impenetrable facades. It contributes to the lack of activity on the square. Patrons of the theatre primarily arrive with their own private vehicles. They park in the basement parking lot and move directly from their cars to the nearest underground entrance where they take a lift or stairs to the ground floor or higher foyers and then into the theatre or function room. These patrons rarely exit the State Theatre on ground floor level and do not come into contact with the outdoor spaces surrounding the square. After their business is completed, they return to their private vehicles and drive away.



Fig. 2.16.



Fig. 2.17.

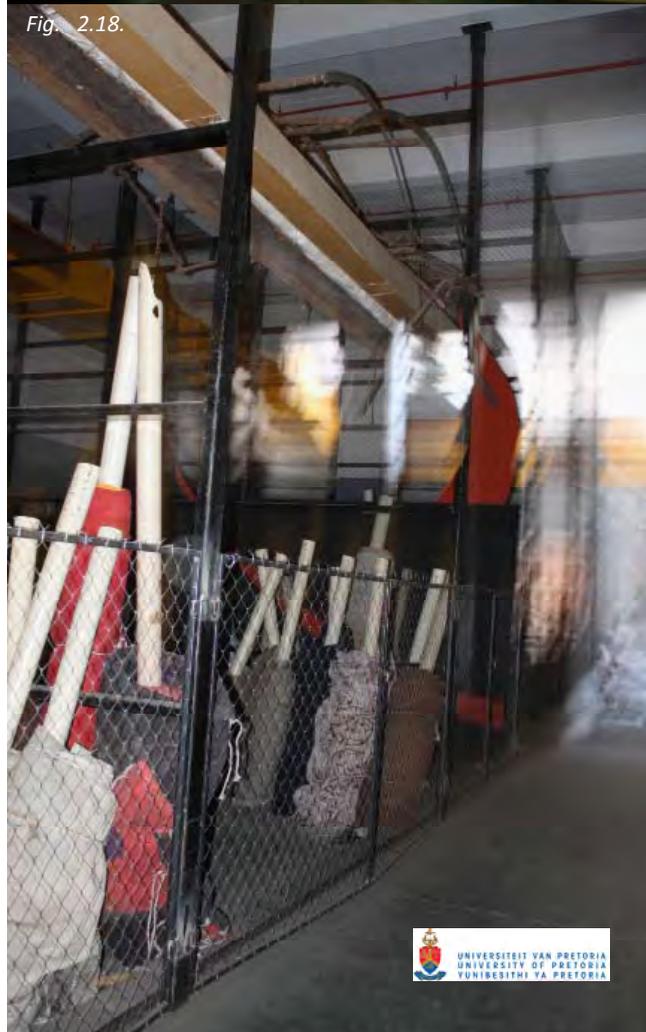


Fig. 2.18.



2.CORNER OF VERMEULEN AND VAN DER WALT



3..SAMMY MARKS SQUARE



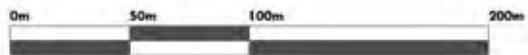
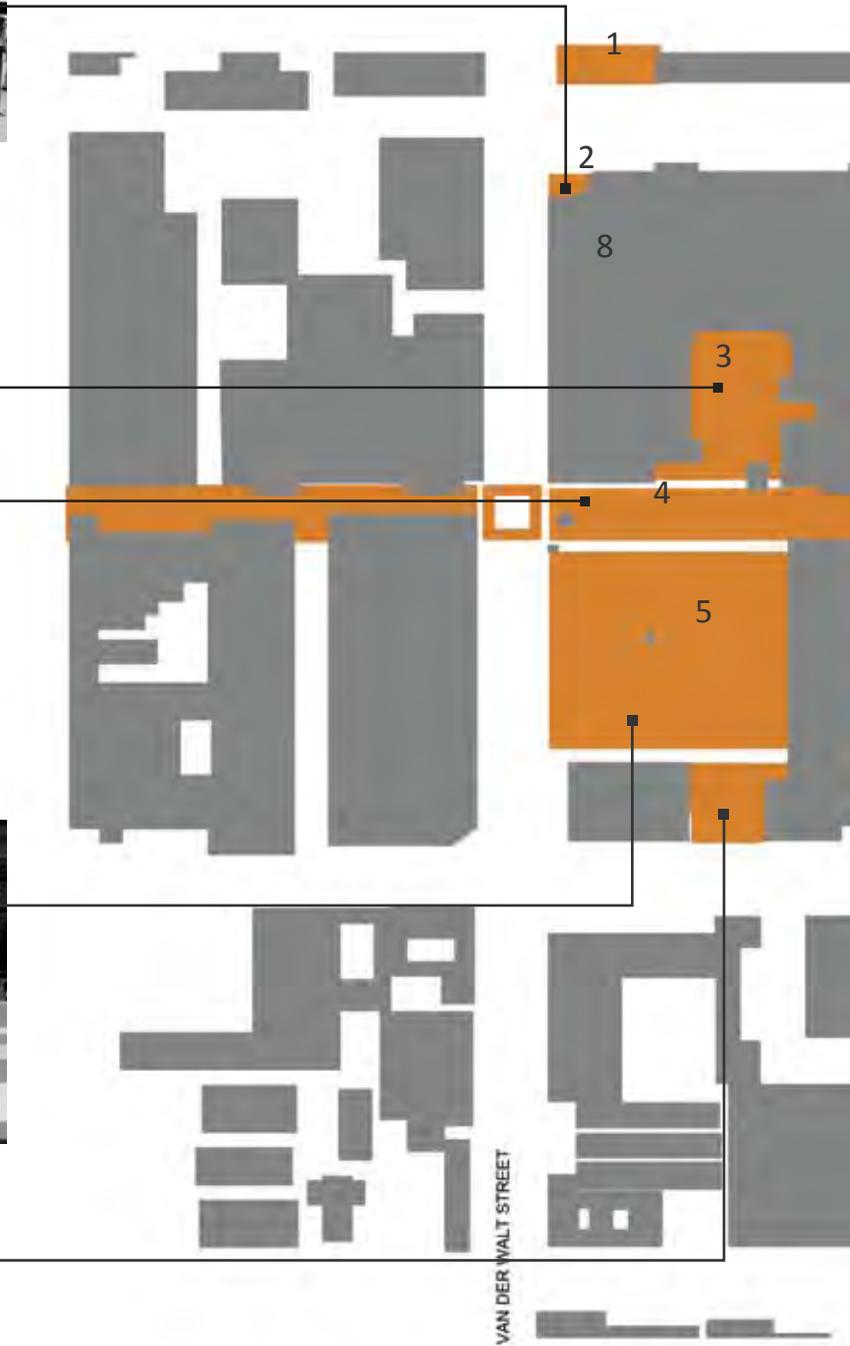
4. CHURCH STREET (PEDESTRIAN BOULEVARD)

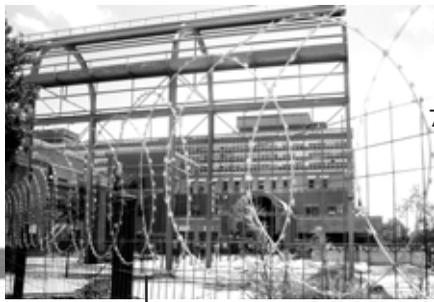


5.LILLIAN NGOYI SQUARE



6.STAGE DOOR PLATFORM



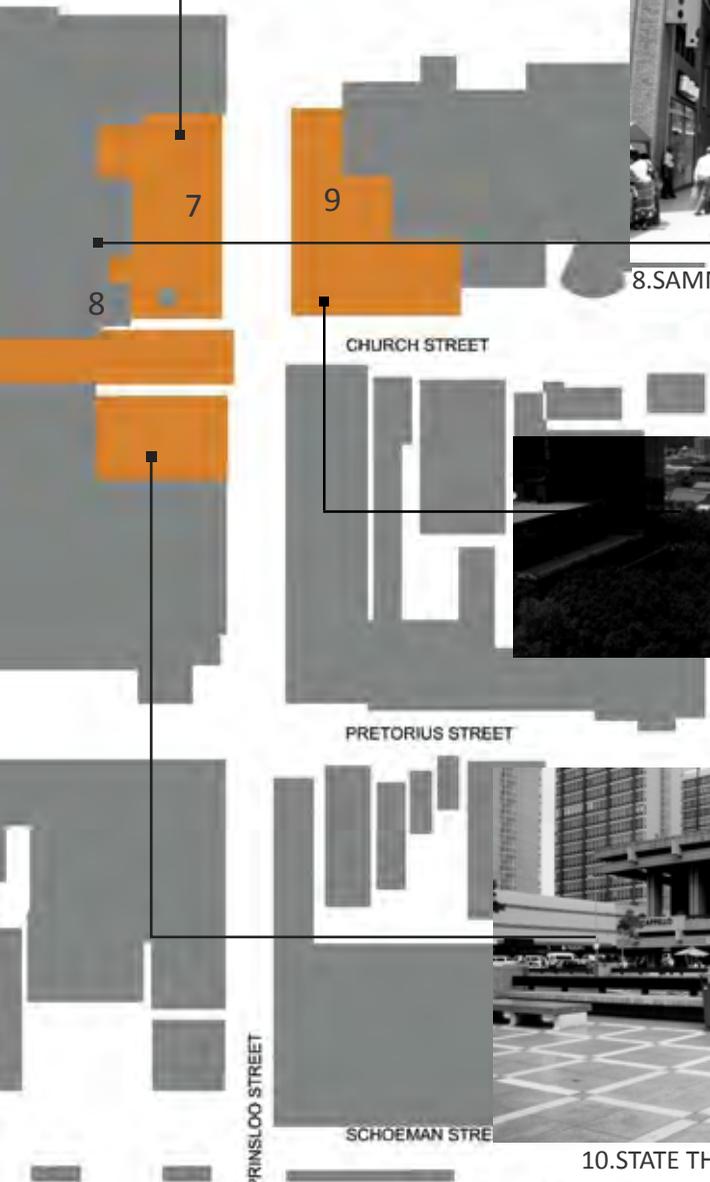


7 COMMUNITY LIBRARY OPEN SPACE

VERMEULEN STREET



8.SAMMY MARKS ARCADE



CHURCH STREET



9.RESERVE BANK GARDENS

PRETORIUS STREET



10.STATE THEATRE SQUARE

PRINSLOO STREET

SCHOEMAN STREET



Lillian Ngoyi Square is part of a network of important public spaces in the city namely Pretoria Station, Pretorius Square, Burgers park, Church Square, Pretoria Zoo, Sammy Marks Square/ Lillian Ngoyi Square precinct and Lion Bridge. The Square is situated on one of the city's main axes, Church Street, which carries a great deal of the city's pedestrian activity.

Surrounding Lillian Ngoyi Square is a system of 10 important public open spaces, all of which are hard landscapes. These public spaces and buildings surrounding Lillian Ngoyi Square give the area a unique character.

Sammy Marks Square, Sammy Marks Arcade and Church Street are always bustling with pedestrian activity. These spaces between buildings are where social interaction and exchange can take place.

All these spaces are currently uncelebrated and movement between them is hindered by physical barriers and level differences. Through the insertion of new activities, and the removal of fences and boundaries, these spaces can function together as a larger precinct.

IMPORTANT PUBLIC SPACES

Fig. 2.19.

CLIMATIC AND GEOLOGICAL CONDITIONS

Pretoria is situated in the Gauteng province of South Africa. The city lies in a valley between the hills of the Magaliesberg mountain range. It is situated approximately 1,370 metres above sea level.

RAINFALL: Pretoria falls under the summer rainfall region. It receives thunderstorms in summer afternoons, while winters are moderately cold and sunny. The city receives an estimated 700mm rainfall per annum.

TEMPERATURES:

Average summer temperatures 15°C - 28°C.

Average winter temperatures 6°C - 23°C

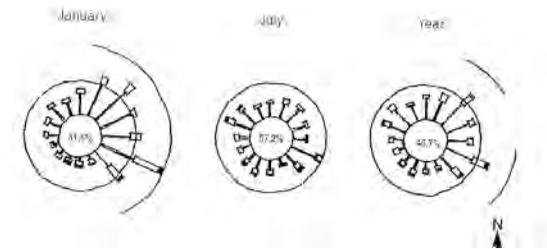


Fig. 2.20.
WIND: Predominant wind directions (see wind rose)
Summer: East-North-Easterly to East-South-Easterly
Winter: South-Westerly

GEOLOGY

MONTH	TEMPERATURES		RAINFALL	
	Average daily maximum	Average daily minimum	Average monthly (mm)	Average number of days >= 1mm
January	29	18	136	14
February	28	17	75	11
March	27	16	82	10
April	24	12	51	7
May	22	8	13	3
June	19	5	7	1
July	20	5	3	1
August	22	8	6	2
September	26	12	22	3
October	27	14	71	9
November	27	16	98	12
December	28	17	110	15
Year	25	12	647	87

Table 2.1. Table indicating monthly temperatures and rainfall as provided by the South African Weather Service.

Due to existing structures covering the entire city block, a new structure on Lillian Ngoyi Square would not come into contact with the existing soil on site. It is however, important to understand the nature of the soil conditions and geology in order to determine how to design a new structure and its water disposal system.

According to a report and site analysis done by Pauw and Botha Architects for the construction of the Volkskas building (now the Absa building), the site consists blue shale covered with a diorite sill. A deep course of diorite runs past the east of the site in a North-South direction.

The shale is approximately 7.6m deep on the South-west corner of the site, while at the centre of the site it is approximately 12.8m deep. On the north-west corner it is estimated to be as deep as 21m.

Diorite is grey to dark grey igneous rock that is composed of plagioclase feldspar and hornblende. It is an extremely hard rock which is similar to granite, but contains very little or no quartz. Shale is a fine-grained sedimentary rock that is composed mainly of clay minerals.

A measurement of ground water level done before construction of the Volkskas building estimated it at approximately 3m below natural ground level.

SHADOW STUDY

Solar Times	6:00	8:00	10:00	12:00	14:00	16:00	18:00
Azimuth 21 Dec.	112 E	101 E	91 E	0	91 W	101 W	112 W
Altitude 21 Dec.	10	35	63	88	63	35	10
Azimuth 21 Mar/Sept.	90 E	76 E	53 E	0	53 W	76 W	90 W
Altitude 21 Mar/Sept.	0	26	51	65	51	26	0
Azimuth 21 June	n/a	55 E	34 E	0	34 W	55 W	n/a
Altitude 21 June	n/a	14	32	40	32	14	n/a

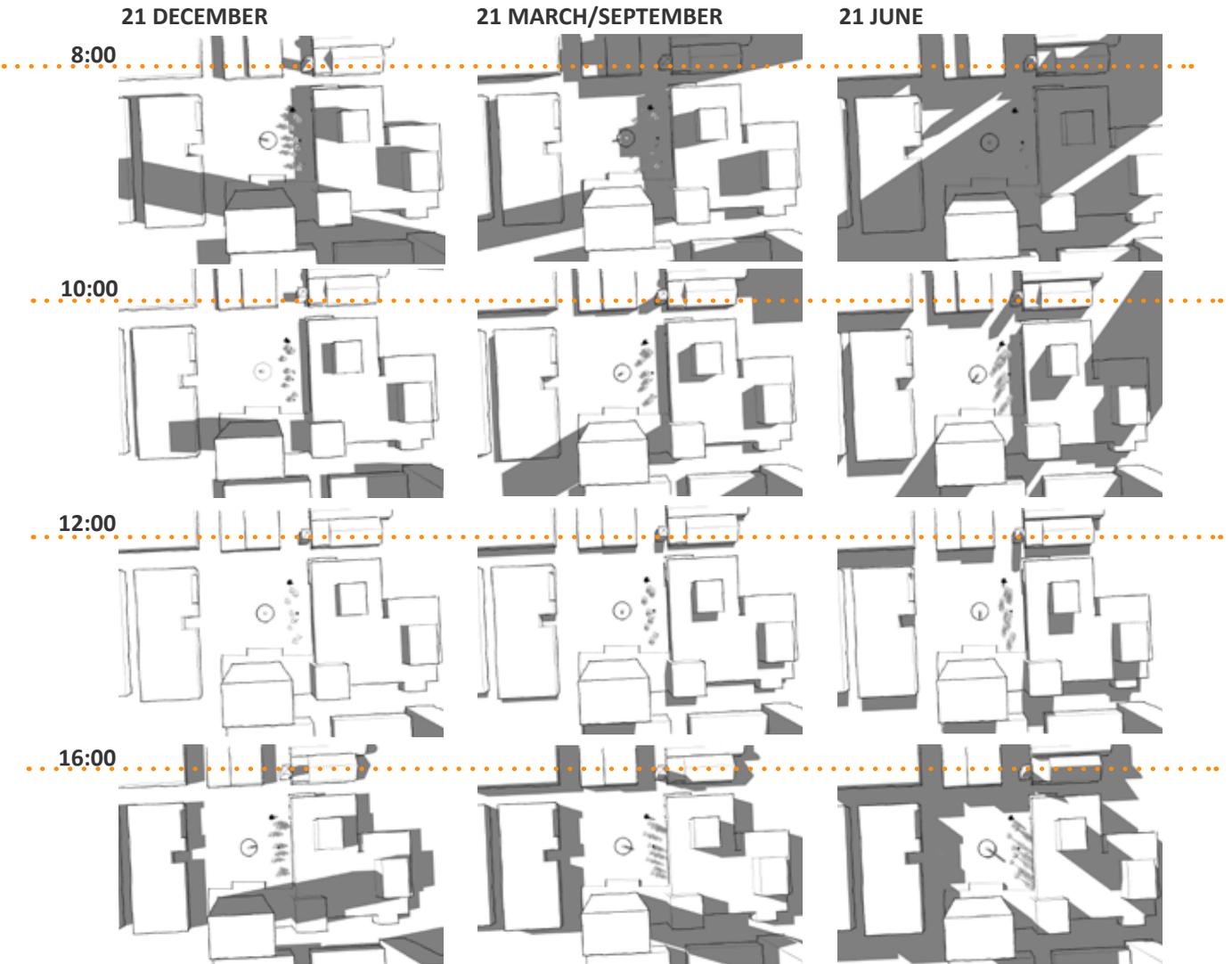


Fig. 2.21.

COMFORT

Lillian Ngoyi Square has a harsh micro climate. The square's surface is a hard paved surface (concrete and paving) in a light grey colour. This causes glare. The square receives almost no shade during the day, except for a planter on the western edge of the

State Theatre. The planter contains trees and plants from all over South Africa and is used as a picnic spot and resting area for people working in the area, and those who need to escape the harsh sun.

PHYSICAL + LEGAL CONTEXT

REMAINDER OF ERF 2909

ZONING: SPECIAL

(Shops, offices, residential buildings and places of amusement or for such other purposes as may be decided and subject to such conditions as may be imposed by the Administrator after reference to the Townships board and City Council)

MAXIMUM HEIGHT: 122.0m (including machine rooms)

BUILDING LINES AND SETBACKS:

Ground and mezzanine floors (double storey height):

14.0m from Van der Walt Street.

4.5m from Pretorius Street.

First and second floors:

On the street boundaries of Van der Walt and Pretorius Streets

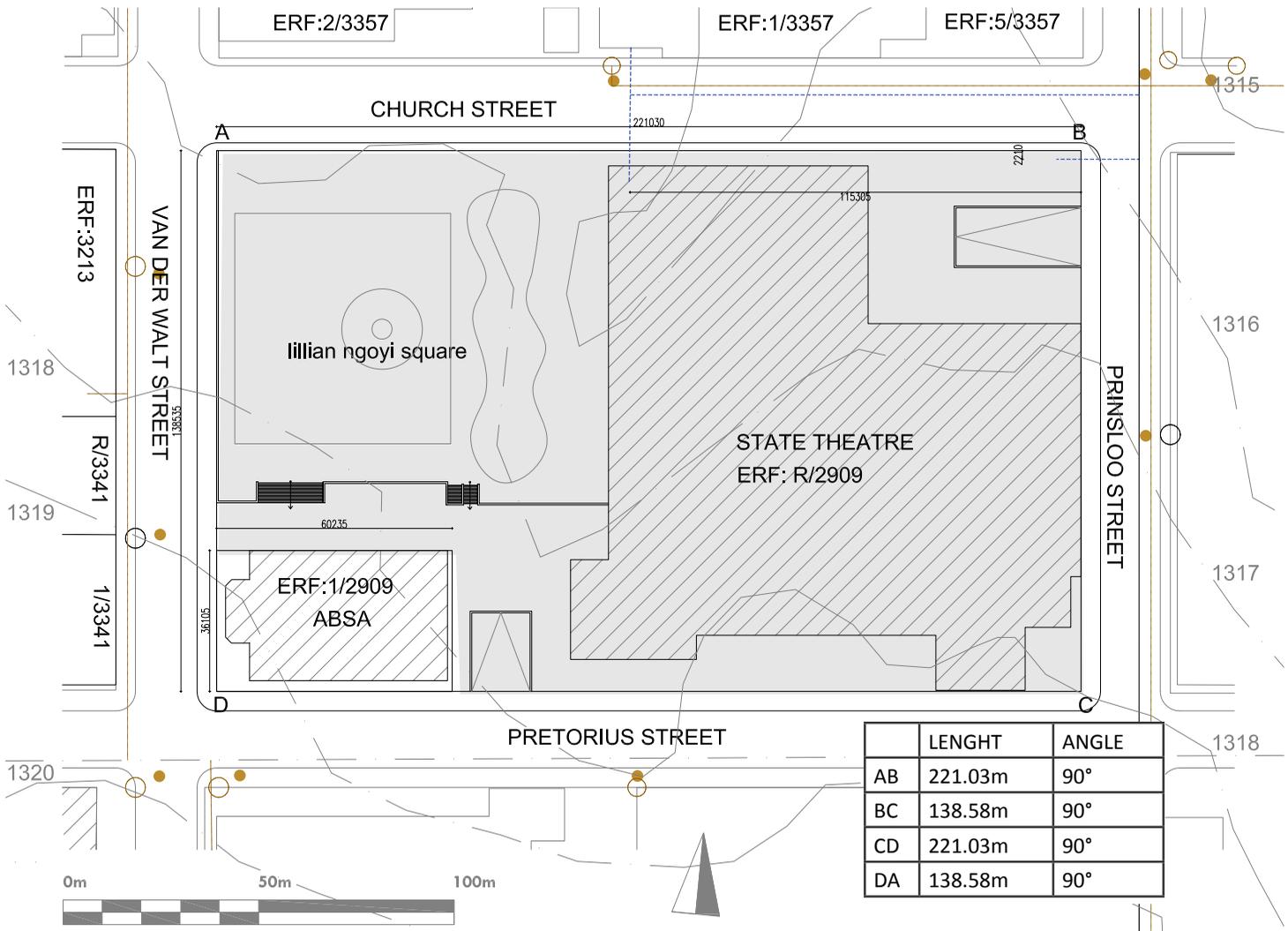
All further floors: 6.5m from Van der Walt Street

3.0m from Pretorius Street.

PARKING REQUIREMENTS:

On-site parking must be provided to the satisfaction of the Administrator

Fig. 2.22.



ACTIVITIES

Church Street is a pedestrian boulevard between Church Square and Prinsloo Street. This section of Church Street has a cobbled surface and is lined with *Celtis Africana* (White stinkwood trees).

Celtis Africana is a deciduous tree with an expected height of about 12m. It is an indigenous species with smooth, pale grey bark and green leaves in a triangular shape. The leaves have three distinct veins from the base. (Brum 2008). These trees are planted throughout the streets of Pretoria. They are fast growing and provide a great deal of shade.

Church Street is a wide boulevard that is lined with informal trading stalls. There are up to 3 rows of trading stalls in the section of the street in front of Lillian Ngoyi Square.

Sammy Marks Square Shopping centre is the source of most of the pedestrian activity in the area. The centre contains shops, offices, a library and municipal offices. Sammy Marks Square is a courtyard that allows access to the shopping centre and arcades. This space is always bustling with activity and public events are often held here as the square is visible from four sides and many viewing opportunities are available to users.

Activity on Lillian Ngoyi Square is limited to its periphery and movement diagonally across, from Church Street to a gate and stairway on the south-western corner. This lack of activity is caused by physical barriers on the square's edges, and the inactive facades of the buildings surrounding the square. A planted area on the eastern side of the square is used as a picnic area and is home to a number of stray cats and vagrants. Trees and other vegetation in this area were planted as part of the Strijdom Monument. They represent plant life from what were then South Africa's four provinces. These include *Aloe Barbarea*, *Strelitzia Nicolai*, *Celtis Africana* and several *Acacia* species, to name a few. There are several concrete benches and fibre cement "rocks".

Informal trading occurs on the sidewalk of Van der Walt Street, and in Church Street. The occasional shading structure is erected in the centre of the square, but these stalls never remain in this position for long.

A "Stage door" entrance to the State Theatre on the level of Pretorius Street is the cause of the occasional gathering on the higher platform. However, the level difference hinders connection between the square and this space.



Fig. 2.23. SAMMY MARKS ARCADE



Fig. 2.24. INFORMAL TRADING ON CHURCH STREET

INFORMAL TRADING STALLS ON CHURCH STREET

SAMIMY MARKS SQUARE

LILLIAN NGOYI SQUARE
Hard surface, no shade

LEWIS & MARKS BUILDING

RESERVE BANK

WATER FEATURE (REMAINDER OF STRIJ-
DOM MONUMENT)



Fig. 2.25. VIEW OF LILLIAN SQUARE LOOKING EAST

PLANTED AREA ON EASTERN EDGE OF LIL-
LIAN NGOYI SQUARE

WESTERN FACADE OF STATE THEATRE
No interaction with square

TRUK TOWER (ADMINISTRATIVE SECTION
OF STATE THEATRE)

PLATFORM NORTH OF ABSA BUILDING
Hindered access and movement

ABSA BUILDING
No interaction with square



VEHICULAR MOVEMENT

Lillian Ngoyi Square is situated in the city block that is bounded by Van der Walt, Church, Prinsloo and Pretorius Streets. These streets form a one-way system that allows vehicles to move clockwise around the site. Van der Walt, Vermeulen and Prinsloo Streets are all busy taxi routes, Van der Walt currently being the busiest. Here, taxis line the streets on the Eastern edge of the street. The speed of traffic in the area is very fast, making the area unsafe for pedestrians.

INFORMAL TRADING STALLS
ALONG VAN DER WALT STREET

VAN DER WALT STREET

INFORMAL TRADING STALLS
ALONG VAN DER WALT STREET

STEPS UP TO ABSA PLATFORM





ABSA

SHADED SEATING PROVIDED IN FRONT OF THE ABSA BUILDING used during lunch hour and while waiting for taxis

INTERSECTION OF PRETORIUS AND VAN DER WALT STREET

Pretorius street runs west
This intersection is very important for both pedestrian and vehicular activity as it is situated on a main taxi route

VAN DER WALT STREET

Runs north along Lillian Ngoyi Square
There is a great deal of commercial activity along this street

TAXI ROUTE

Fig. 2.26.

MOVEMENT AND SITE ACCESS

VEHICULAR SITE ACCESS

Vehicular access can be gained through the basement parking area of the State Theatre. Service vehicles can access the site through Church Street from the corner of Church Street and Prinsloo Street. (This section of Church Street is limited to pedestrian access and service access only)

Church Street is a pedestrian boulevard between Church Square and Prinsloo Street. The street edges are lined with shops and informal trading which draw a great deal of pedestrian activity.

Sammy Marks Square Shopping Centre is a multi-use centre that acts as an anchor point for pedestrian activity. The centre is entered from the north through a pedestrian arcade from Vermeulen Street to Sammy Marks Square, and from the east through a pedestrian arcade from Prinsloo Street to Sammy Marks Square.

Pedestrian access to Lillian Ngoyi Square is currently limited because of a physical barrier and height difference between the site and surrounding streets. The southern and western edges of Lillian Ngoyi Square are cut off from the surroundings. Pedestrian activity and informal trading stalls occur mainly on the sidewalk of Van der Walt Street and Church Street. The sidewalk on Van der Walt Street is on a higher level to the square, and a balustrade forms a barrier between the sidewalk activity and the square. Pedestrians walk diagonally across Lillian Ngoyi Square from Church Street to the steps in front of the Absa building. This is the only activity that occurs on the square.

Access can be gained from Church Street, and through a staircase and gate on the south western corner of the site, under the Absa building. This gate is often closed, hindering pedestrian movement across the square. Lillian Ngoyi Square is only used as a short-cut between Church Street and the corner of Pretorius and Van der Walt Streets.

A platform to the north of the Absa building is completely blocked off from pedestrian access. This platform is currently used as additional parking space for Absa employees.

Another point of access is a staircase on the southern boundary of the site connecting the higher level of Pretorius Street to the Square level.

MOVEMENT AND SITE ACCESS



Fig. 2.27. Pedestrian and Vehicular Access and Movement on and around Lillian Ngoyi Square.

- PEDESTRIAN ACCESS POINT
- TAXI STOP
- IMPORTANT VEHICULAR ROUTES
- ||||| PEDESTRIAN ROUTES
- VEHICULAR ACCESS POINT
- ⊙ RESTRICTED VEHICULAR ACCESS POINT



Fig. 2.30.



Fig. 2.31.



STEPS BETWEEN LILLIAN NGOYI
SQUARE AND CHURCH STREET

FLAG POLES

BOLLARDS BETWEEN CHURCH STREET AND LIL-
LIAN NGOYI SQUARE

BARRIER ALONG VAN DER
WALT STREET

INFORMAL TRADING



Fig. 2.28.

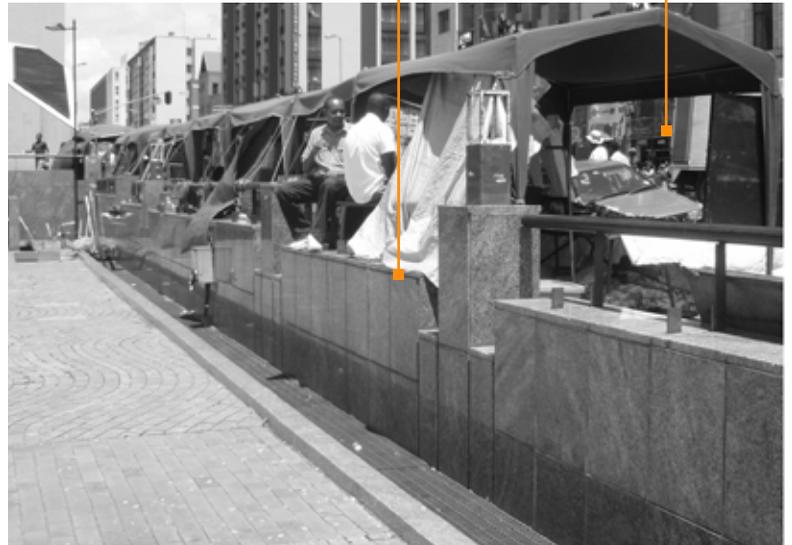


Fig. 2.29.



Fig. 2.33.

BARRIER ALONG VAN DER
WALT STREET

SERVICE ENTRANCE
DEAD CORNER

CHURCH STREET
INFORMAL TRADING

LILLIAN NGOYI SQUARE

SAMMY MARKS SQUARE

STATE THEATRE

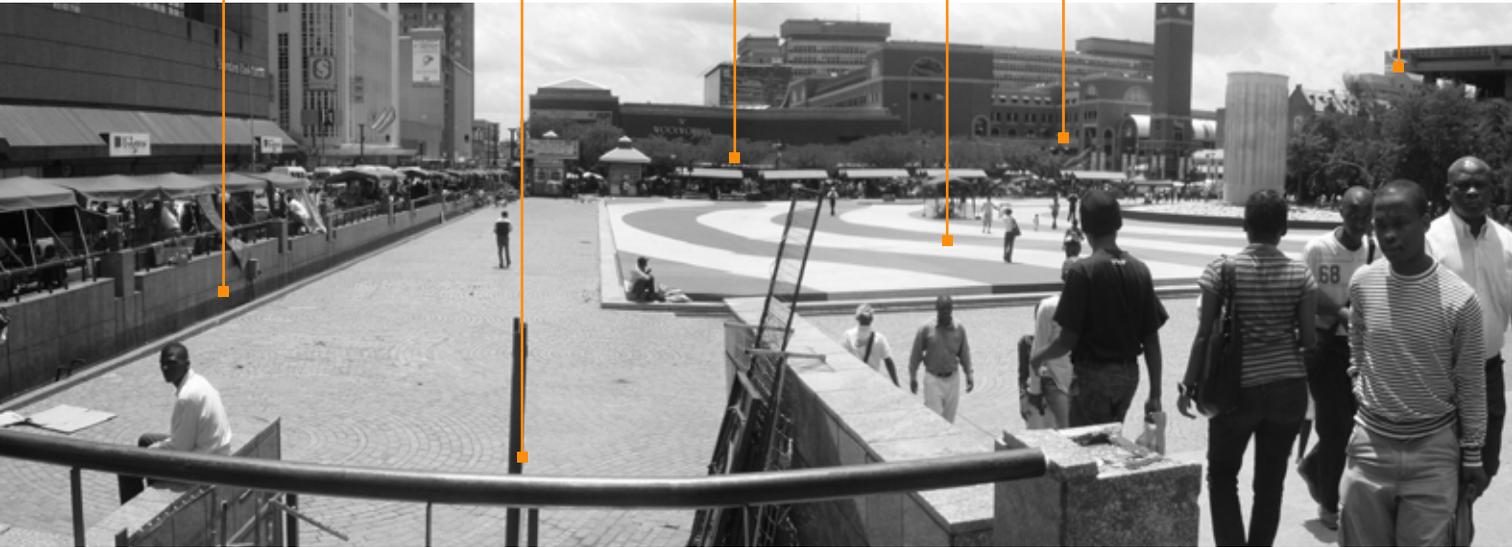


Fig. 2.32.

ABSA BUILDING

This building uses a section of the state theatre's basement parking for its employees

VAN DER WALT STREET SIDEWALK

The sidewalk is separated from the square by a physical barrier: a balustrade. Informal trading and pedestrian movement happens mainly along the sidewalk and rarely moves into the square



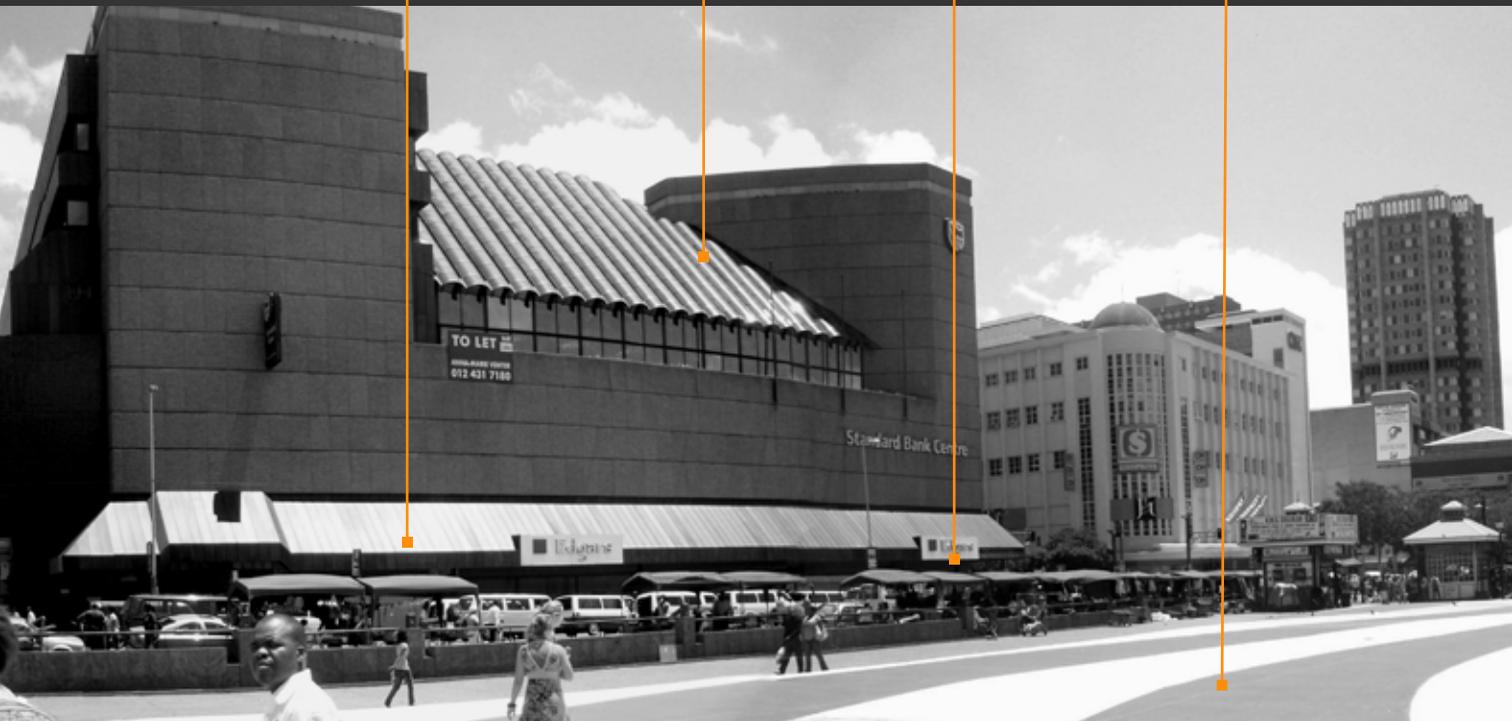
Fig. 2.34. VIEW OF WESTERN SITE BOUNDARY AND VAN DER WALT STREET

ENTRANCE TO PEDESTRIAN ARCADE
Linking the standard bank building with the state theatre basement parking

STANDARD BANK BUILDING
Office block and shopping centre

INTERSECTION OF CHURCH AND VAN DER WALT STREET
Church street is pedestrianized from church square in the west to prinsloo street in the east

LILLIAN NGOYI SQUARE



SWOT ANALYSIS

STRENGTHS

- Situated along major axis
- In pedestrian area - busy commercial area
- Along major transport routes
- Situated next to the State Theatre (landmark and iconic building)
- Existing basement parking for up to 1500 cars

WEAKNESSES

- Hindered access and movement.
- Lack of activity due to inactive facades.
- Level differences.
- Traffic volume and speed on Van der Walt Street hinders movement and visual connections.

OPPORTUNITIES

- Association with State Theatre
- Prime position within the city
- Level differences
- Existing basement

THREATS

- Height of ABSA tower compared to the surrounding area
- Harsh micro climate
- Traffic volume and speed on Van der Walt Street

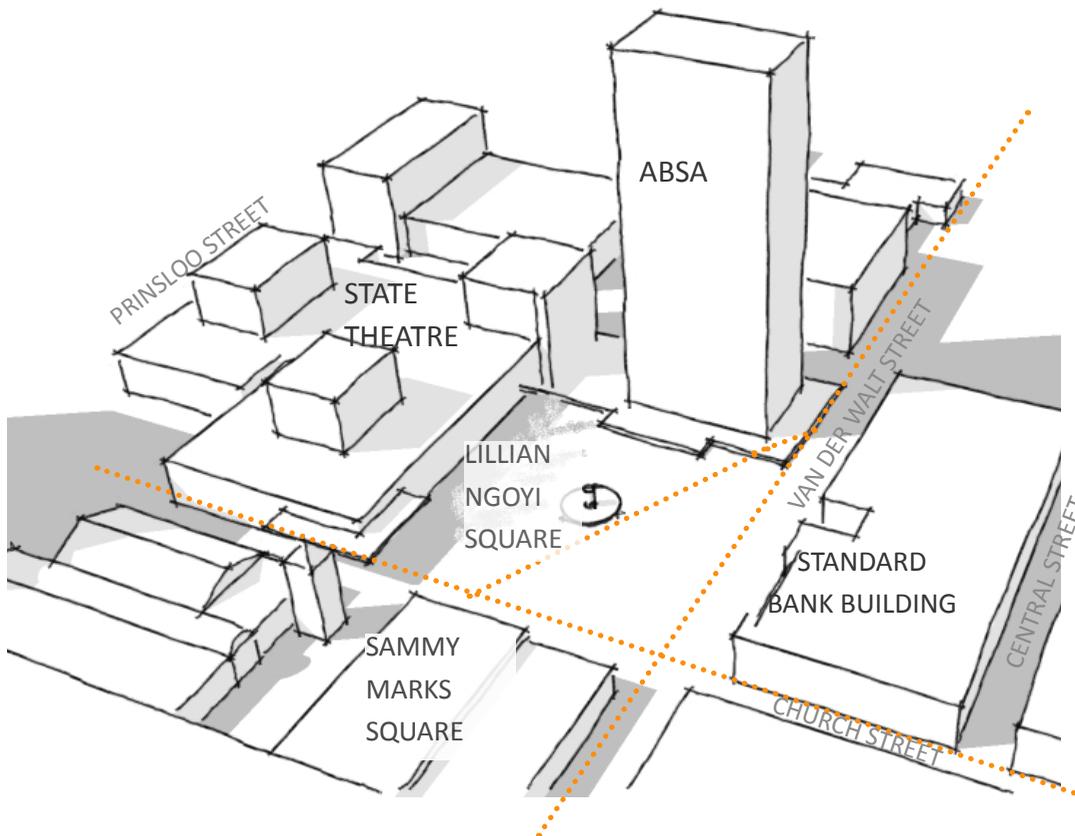


Fig. 2.35.

PROBLEM DEFINITION

Lillian Ngoyi square is currently an empty, unused space situated on a prime piece of land in the Pretoria inner city. It is situated along a major axis, and in the busiest pedestrian area.

Through analysis of the square, three major problems can be identified:

1. Lack of comfort due to little shade, inadequate seating opportunities and glare caused by the light coloured surface of the square.
2. Hindered access due to level differences between the square and surrounding streets. These level differences have been treated with barriers (balustrades and fences) instead of providing easy transition through the use of stairs.
3. Thirdly, the most important problem of Lillian Ngoyi Square is a lack of activity caused by inactive, closed facades of the buildings facing the square. There is no reason to enter the square, except as a shortcut between Church Street and Van der Walt Street.

OBJECTIVE/GOAL

The objective of this project is:

- To convert Lillian Ngoyi Square from an unused dead city space into a vibrant and active public square.
- To open the seemingly closed box that is the State Theatre by educating the public about the opportunities and facilities offered by the State Theatre.
- To educate the public about the performing arts.
- Create active edges to the public square.

CONSTRAINTS/POSSIBILITIES

1. The existing basement under Lillian Ngoyi Square has a column grid of 9150m x 8475m. Adding/removing columns to accommodate a new design has implications on the structural integrity of the existing building and may cause a loss of parking space on basement levels.
2. The conclusion of the analysis determined that the ideal position of a new building on the square would be directly to the west of the existing State Theatre. The new building would have a predominantly west facing façade which is undesirable due to the amount of direct afternoon sunlight that the building would be exposed to.
3. Relating to the existing fabric aesthetically. The square is surrounded by buildings with many different architectural styles.