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# Chapter

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The chosen study area is situated along the edge of inner Pretoria which forms the historic eastern gateway across the Apies River into the heart of the city. Analysis of the site presents various opportunities and constraints for the production of media within the space of the city, absorbing existing energies and activities. The site has a rich history for generating energy. By means of establishing a node on the site has the opportunity to harvest rich energies from the existing context. By means of S.W.O.T. analysis (strengths, weaknesses, opportunities and threats), a thorough understanding of the context and its primary characteristics was obtained, before the implementation of a site development and integration framework was proposed. This chapter investigates the city-, study- and site context and result of analysis will determine the proposed development framework.

# 3

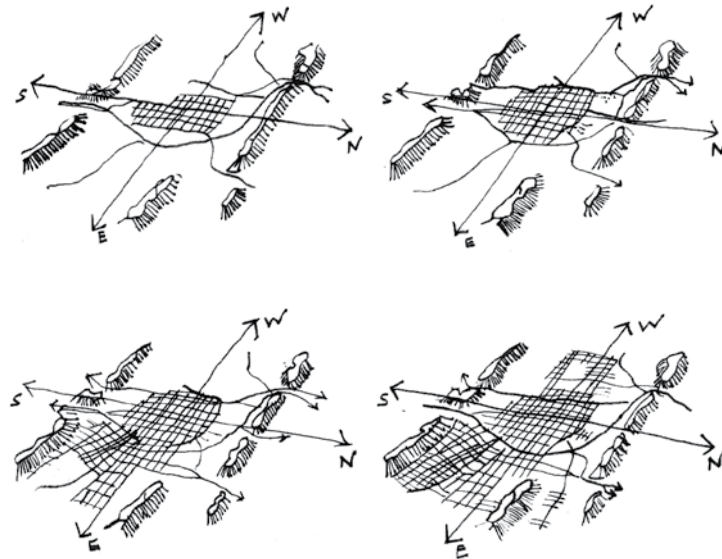


# Introduction

Pretoria was founded in 1857 by President M.W. Pretorius who commissioned a church building, which was named "Kerkplaats", or "Church Place." (Holm 1998:58) This became the birthplace and centre of the town, symbolic of its physical presence as a place and by the social and religious customs of the community. Two main streets were established which fed into Church Place which became the focal point. Church Street on the east west axis conducted market and trade related activities. (Holm 1998:57-59)

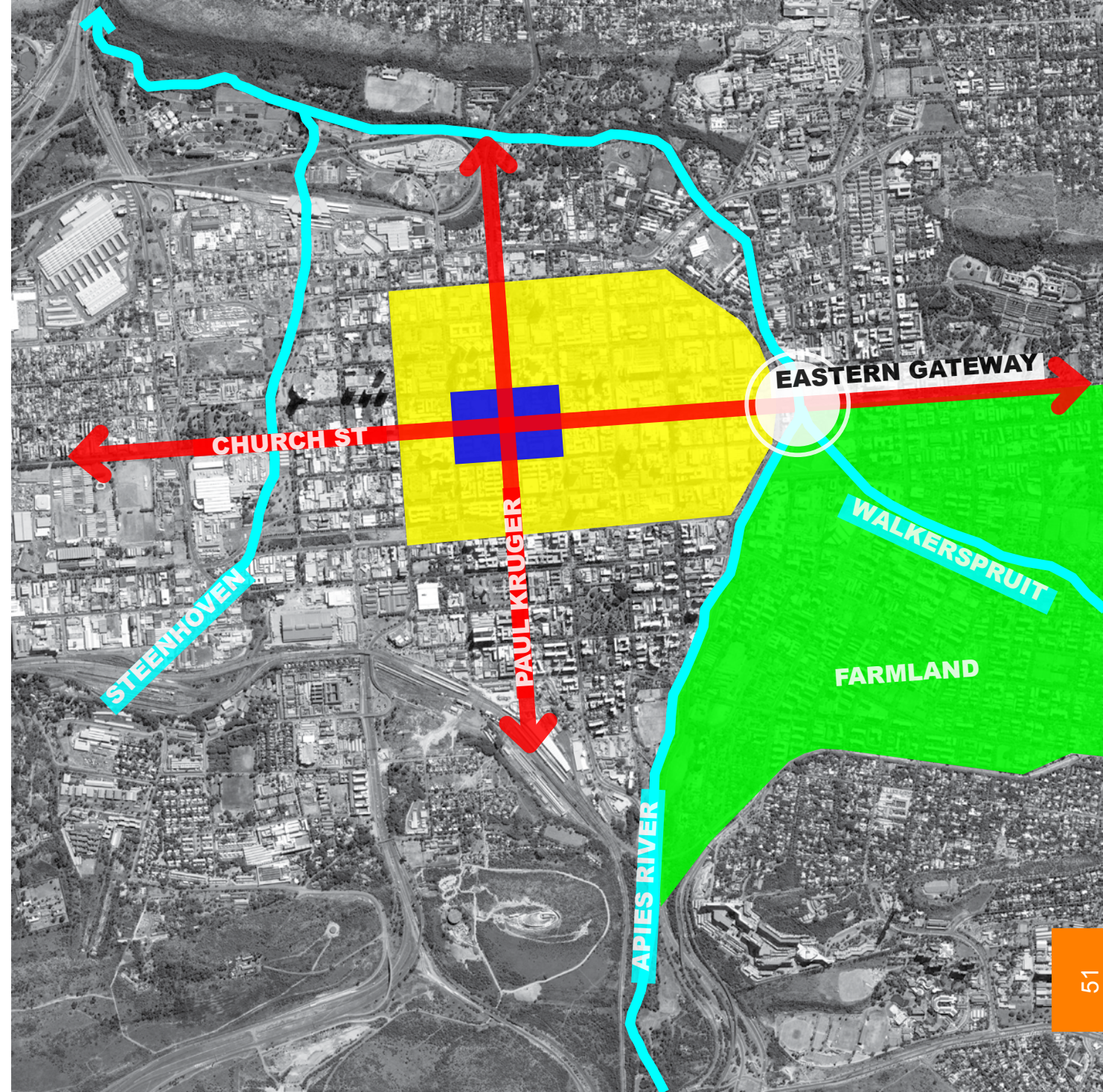
The historic in- and outside of the town was defined by two natural watercourses namely the Apies river and Steenhoven Spruit. (Holm 1998:28) Today these watercourses have been canalized. Openings in the Schurweberge mountain ranges formed the access or "poorte" into the town. (Holm 1998:26)

The formal urban grid is one of the main characteristics of Pretoria. The Romans *Urbs Quadranta* with two intersecting axis divided the city into four quadrants or urban districts. This is formally known as the *Cardo* and *Decamanus* which also follows the path of the sun on an east west and north south direction. The point of intersection is where the historic church square is celebrated. (Holm 1998:62)



- Church Square
- Cardo and Decumanus Quadrant
- Historical city
- Historical eastern gateway
- Rivers

FIG 3.1\_Historical origin of Pretoria - Map  
FIG 3.2\_Diagrams of Pretoria Settlement Pattern





# S.W.O.T. City Context

## STRENGTHS

- The Inner City of Tshwane is approximately 50km drive north from Johannesburg and OR Thambo international airport.
- Nelson Mandela Drive is the **main carriageway** into the city and extends into the R21 which connects with Johannesburg, O.R. Thambo Airport, N1, and nearby districts.
- The **east-west axis of Church-, Pretorius-, Schoeman-, Vermeulen Street, N4**, links the highly accessible inner city through the whole of Pretoria.
- **Efficient public transport** systems make the city accessible to a variety of users. This consists of the local train network, development of the Gautrain express to Johannesburg and Airports in particular, busses and taxi.
- Residential areas of Sunnyside and Arcadia, as well as the Pretoria- and Bella Ombre train stations, being the **major feeders of pedestrian activity** into the inner city.

## WEAKNESSES

- Peak hour traffic has been the major form givers along Nelson Mandela Boulevard; resulting in a fragmented buffer zone in the urban fabric and **vehicular dominance** has overlooked pedestrian activity.
- The majority of city blocks and **mono-functional** buildings are closed off from the public, with most of the cities activities which **dies after 17h00** resulting in limited nightlife. There is a lack of socio-economic characteristics; aspects such as identity, entertainment, tourism, heritage, pedestrian movement, public space and safety, in urgent need for the city to become a people's place.
- High profile investors are **not attracted** to the city. The city doesn't **communicate and market** itself on a global scale; to become the leading South African and African capital.





-  Primary Carriageway
-  Primary east-west route
-  Secondary east-west connections
-  Rail Networks

FIG 3.3\_Transportation Map





# S.W.O.T. City Context

## OPPORTUNITIES

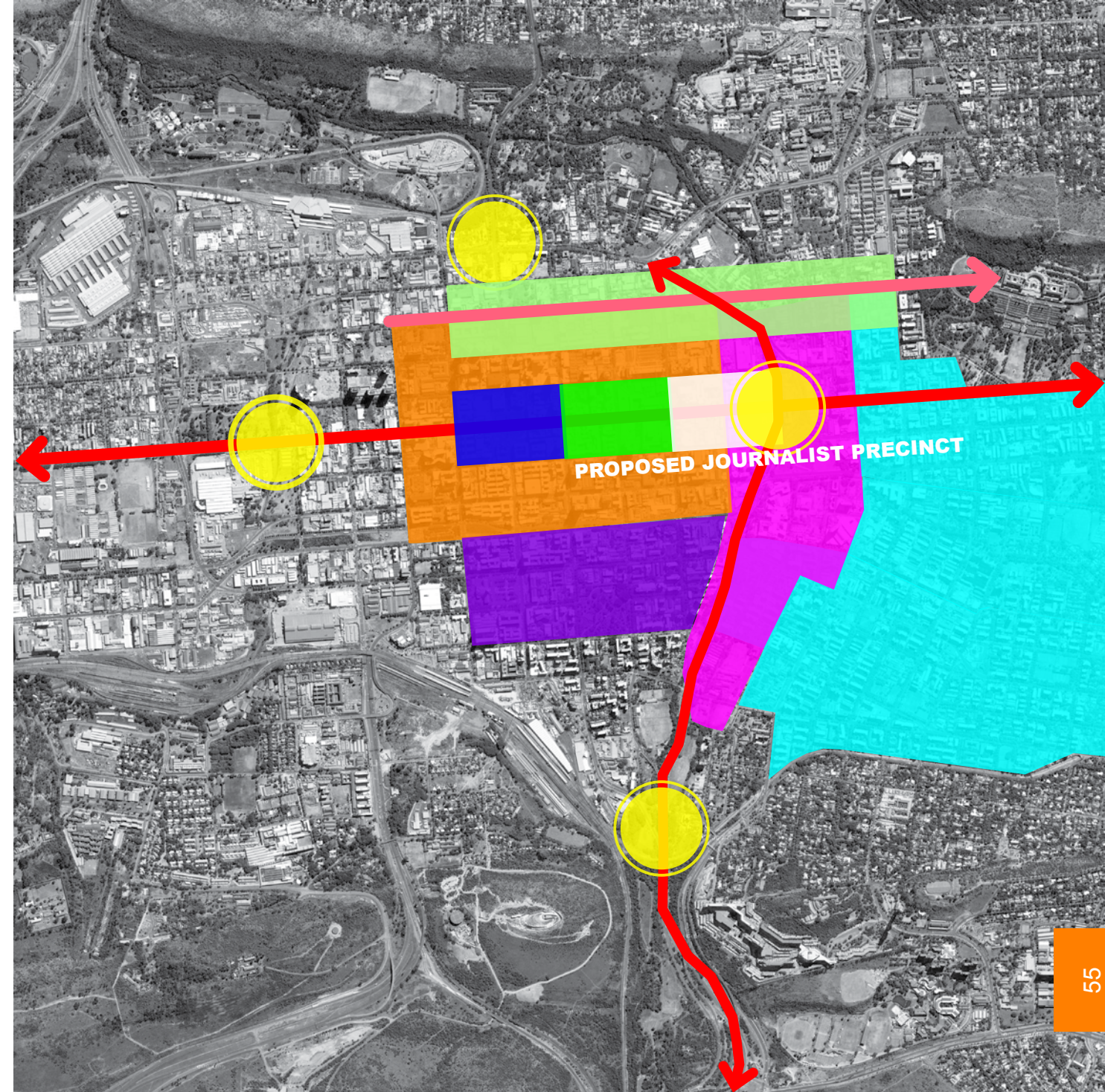
- Mandela Development Corridor is a **prime location** for high profile, high intensity private investment scheme which integrates locally, nationally and internationally.
- Clustering of related activities, energies and student projects in the **cultural circle** as a connected whole.
- **Integration** of city blocks into the public realm, landmarks structures with defined edges enhance visual axes and express legibility, orientation, and create a **sense of arrival** into the city which integrate and connect to local and regional networks.
- Broadening mono-functionality to create an environment within city blocks which are legible and easily accessible for a variety of end users, **foster maximum social exchange**, variety of choice, balance between car and pedestrian, public event parking, and infrastructure across a longer daily period: a 24 hour urban realm.
- **Rich architectural language** promotes active street edges together with vibrant and attractive public spaces, emphasise heritage resources; contributes towards a longevity and sustainability of the environment.

## THREATS

- **Crime and safety** in the area need to be addressed, especially after sunset.
- **Property release strategy** to be implemented.
- **Storm water tables** of the Apies River culvert and microclimates; a potential danger.
- Visibility, edges, pedestrian space and routes need to be upgraded.

-  Regional connection routes
-  Gateways into city
-  Inner city core
-  Nelson Mandela Development Corridor
-  Church Square and Judicial district
-  Cultural district
-  Residential district
-  Industrial district
-  Museum district
-  Government boulevard to Union Buildings

FIG 3.4\_Structuring Elements Map





# S.W.O.T. Local Context

## STRENGTHS

- The local area is **highly accessible** and bordered by mobility roads; Proes- [N4], Pretorius- to the south, Beatrix- to the east and Prinsloo Street to the west.
- The eastern edge is formed by the Apies River and Nelson Mandela Boulevard, which serves as the main **eastern gateway into the city** and upmarket development is zoned along this.
- The Southern edge, **Church Street, the most important street in Pretoria** and major distribution road with direct access into the heart of the city.
- Church Street connects to rich heritage landmarks where the **majority of pedestrian energy** lies. These include: Church Square, the historic statue of President Paul Kruger, the State Theatre, Strijdom Square, Sammy Marks Square, National Reserve Bank, and the historic Leeubrug. (Le Roux 1991:5) Strijdom- and Sammy Marks Square 5 min walk, Church Square 10min walk and the Union Buildings 20 min walk from the site.

- Du Toit Street is the western boundary, connects to the Nur Al Median Mosque and Hervormde Kerk. The Northern boundary, Vermeulen Street, an important mobility road into the city. The area consists of commercial, office, educational and residential uses.

FIG 3.5\_Transport networks Map

## WEAKNESSES

- Current bus stops along Church Street cause **pedestrian congestion** along the sidewalk which can be relocated.
- The campus is currently an **enclosed island** which shuts itself off from the rest of the city activities and pedestrian energies.
- There is no acknowledgement of a clear **visual axis** as the edges are not well defined along Nelson Mandela Boulevard and Church Street.
- **Vehicular access** to the site is **limited** by Nelson Mandela Boulevard and Du Toit street only, with approximately 250 on-site parking.
- **Poor pedestrian access**, with four controlled entrances along Church- and Du Toit Street which causes congestion on sidewalks.

- Regional connection routes
- Student bus route - bus stop inticated
- Secondary connectors
- Parking
- Current Vehicular entrances into campus





# S.W.O.T. Local Context

## OPPORTUNITIES

- Public open space will allow for pedestrian energies from nearby areas to **filter through the city block** and not be restricted to sidewalks only.
- By means of **celebrating**: articulates the **urban edges** will establish a new node towards the inner city cultural district and city centre, a **sense of arrival**.
- The proposed area will create a **vibrant interactive destination place** that will harvest pedestrian energies and invite life back to the site, inner city, and serve as a 24 hour information node.
- The richness of **heritage** in and around the proposed site should be celebrated to encourage public awareness and appreciation of its value.
- In future, the possible extension of **pedestrianisation of Church Street from Strijdom- and Sammy Marks Square** would result in richer pedestrian movement and energy along the Southern edge of the site.

## THREATS

- **Heritage conservation** has a great impact on the sustainability of a new development and the general public is not aware of these rich resources which would support the development.
- The permeability of the site has to be considered as there will still be a need for **security and access**.
- Maximum floor space ratio on the city block has been reached and the new development will require **demolishing of existing structures**. (Engelbrecht, 2009)
- **SAHRA** needs to be consulted in terms of heritage if a structure is to be changed, added or demolished and buildings older than 60 years falls under the National Heritage Act.
- No **additional parking** has to be provided for the Universities as the site falls under the limited parking zone in the inner city, but parking will have to be provided for the users of the new intervention.









	Car retail		Medical
	Commercial offices		Retail
	Educational		Religious
	Institutional		Residential

FIG 3.6\_Land use Map





# Landmarks photo analysis

State Library    Strijdom Plein    National Reserve Bank    Lion Bridge

Sammy Marks    Nur Al Medina Mosque



Church Square    ABSA    State Theatre    NG Church    DTI    Caledonian Sports Grounds



FIG 3.8-3.9\_Sammy Marks and Strijdom Square\_ Taken early morning before the start of temporary events in the city



FIG 3.10\_NG Church and Reserve Bank



FIG 3.11\_State Theatre and ABSA building



FIG 3.12\_Nur Al Medina Mosque






# S.W.O.T. Site Context

## STRENGTHS




- The eastern edge, **Nelson Mandela Boulevard**, serves as **regional and national connector** which is linked to O.R. Tambo International Airport and Johannesburg.
- The site is in a **prime location** for commercial development, eastern gateway into the heart of the city and in the proximity of rich historic landmarks.
- The site is **easily accessible** from all areas and has the potential to make a valuable contribution towards the regeneration of the inner city.
- The crossing between Church Street and Nelson Mandela Boulevard is the **threshold between mobility orientated and pedestrian dominance along Church Street**.
- **Du Toit Street** is one of the city's **main sources of pedestrian movement** from the south and in particular nearby residential areas namely Sunnyside and Arcadia. Vermeulen street is an important mobility road into the city.

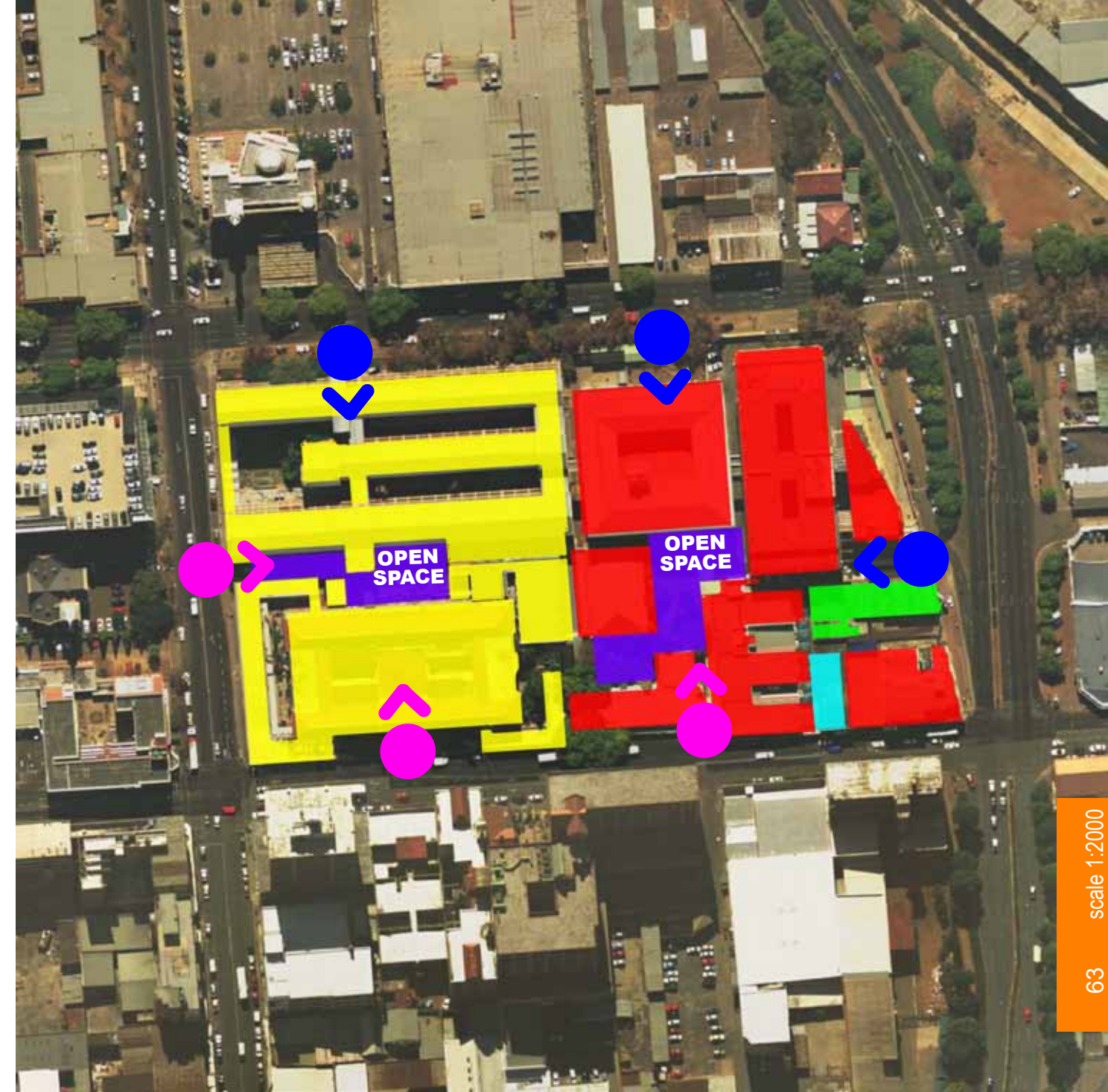
FIG 3.13\_Campus Block Access and Zoning Map

-  Primary Pedestrian entrances
-  Secondary Pedestrian entrances
-  North College

## WEAKNESSES

- Currently the unattractive campus doesn't promote a user-friendly pedestrian network and controlled identification access systems **do not allow public interaction**.
- **Hidden passages** a potential safety concern.
- Legibility of existing build fabric and open space is ill defined, heritage resources on the site not well promoted as they are surrounded by **walls and fences**.
- Currently there is no clear definition of space and its functions, intended building functions is ineffective as well as public and private spaces on the campus is **underutilized**.
- There is no dialogue between interior and exterior space in the existing build structures of the campuses and **cold spaces located between buildings**.
- Both campuses are at maximum student and floor capacity, there are **limited government funds** and no room for expansion.

-  TUT Campus
-  Jeka Foams and plastics
-  Carburattor city motor repairs





# S.W.O.T. Site Context

## OPPORTUNITIES

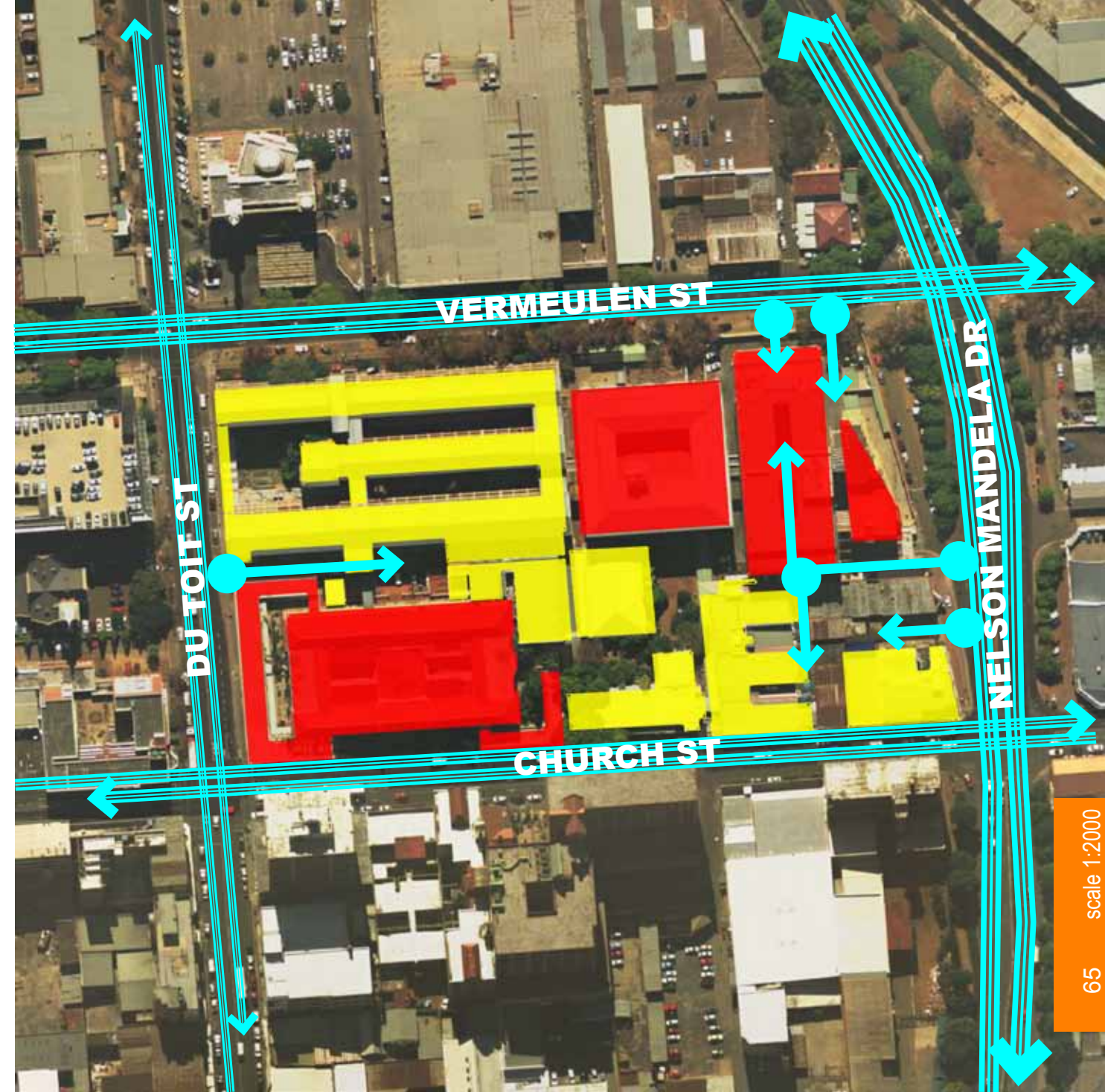
- Create a legible pedestrian **square** and network which with a hierarchy of spaces and allow for freedom and access to encourage spontaneous interaction. Pedestrianization Church Street from site in future.
- **Define urban edges** of the site along Nelson Mandela Boulevard and Church Street to enhance a sense of arrival in the urban fabric.
- Use the existing fabric and vegetation to create **legible character** between public spaces and built structure.
- Existing **heritage resources** on the city block should be emphasized and facilitated for in order to enhance attractions to the site.
- The proposed program has the potential to become a **rich activity node** and play an integral part towards the regeneration of the inner city development.
- **Demolition** of buildings with no historical or architectural significance allows for open space and enriches existing and proposed buildings with importance. **Removal** of existing building clutters, additions, and isolated passages could enhance the legibility, surveillance and functions of spaces.

## THREATS

- **Two plots must be bought** from the current owners for the new development: Carburetor City and Jeka Foams. The proposed scheme should comply with the SABS 0400 building regulations and all relevant aspects.
- The plots need to be consolidated for **re-zoning** certificates and other legal constraints of properties has to be granted by the Tshwane Municipality Council.
- There will be a **time lapse** of several months for the approval of property consolidation and demolition of existing buildings.
- The existing built fabric of the campuses need to be renovated in order to respond to the proposed intervention and action plan has to be considered for the **relocation of faculties**.

- Campus Heritage
- Non Heritage campus buildings
- Campus Vehicular routes

FIG 3.14\_Campus Vehicular Network





# Campus history

The first establishments of TUT in Pretoria, started between 1897 and 1906. The first building, on the south western corner of the site, was designed by Gordon Leith + Partners in 1928. It followed the neo-classical tradition. (2002: 36; 1991: 12) The completion of three four storey buildings (south and middle blocks) in 1956 on the north western part of the site were also extended in 1963. (2002: 41-51, 83)

The TUT Science Building on the North Eastern block was designed by Eaton and Louw architects and completed in 1967 (2002: 90) On ground floor the building is constructed out of face brick with the external columns expressed. The building consists of a functional floating skin which emerges from the first floor up and wraps around the facades. This sun screening device consists of light grey hollow blocks. The floating flat roof of the five storey buildings frames the external skin. The building is built from simple materials with direct construction methods.

Note - only the relevant campus history for the proposed project was mentioned.



FIG 3.15\_Gordon Leith Building West elevation



FIG 3.16\_Photo of Gordon Leith Building South elevation



FIG 3.17\_South and Middle blocks West elevation



FIG 3.18\_Photo of Eaton Louw Building East elevation



# C

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# Character photo analysis



FIG 3.19\_South East Roof corner photo of campus from Church street towards Nelson Mandela Drive facing west



National Reserve Bank

NG Church

Union Buildings

Lion Bridge

FIG 3.20\_Photo taken from ABSA building roof facing east down Church street





FIG 3.21\_SE campus corner from Church street towards Nelson Mandela Drive facing NW



FIG 3.22\_Campus from Church Street facing NW



FIG 3.25\_Campus from Church Street facing NE



FIG 3.26\_Campus bus stop from Church Street facing SW



FIG 3.23\_SE campus corner from Church street towards Nelson Mandela Drive facing W



FIG 3.24\_Opposite Campus from Church Street facing W



FIG 2.27\_SW campus corner facing NE



FIG 2.28\_NW campus corner from Church Street facing NW



FIG 3.29\_Gordon Leith Building facade on Church street





FIG 3.31\_Architectural Language of Eaton & Louw Building, TUT Science campus



FIG 3.32\_Binding Roof Canopy



FIG 3.35\_Internal courtyard, tectonic and stereotomic grid systems with direct detailing



FIG 3.36\_View towards Nelson Mandela Drive



FIG 3.33\_NE corner facade of Eaton & Louw Building on Nelson Mandela Drive TUT Science campus



FIG 3.34\_Tectonic Sunscreen



FIG 3.37\_Buildings connected with central circulation spine



FIG 3.38\_Reserve Bank visual axis from Eaton & Louw mezzanine parking



# S

# tatus quo

## Tshwane Inner city Development and Re-generation Strategy:

- Located within a 2.5 km radius from Church Square, the strategy focuses on intensive developments aimed at commercial, office, retail and residential. High density developments specifically located in Arcadia and Sunnyside. (City of Tshwane 2005:2)
- Identified as the meeting place for all cultures and people between Nelson Mandela Drive and Church Street; as a strategic location for a landmark catalytic development for the Inner City and for Tshwane by means of international and local attractions. (City of Tshwane 2005: 14)
- The site also falls under the Cultural Circle which is envisioned to become a series of contemporary cultural landmarks linked to a mono-rail system and pedestrian networks. (City of Tshwane 2005: 18)
- "The old Pretoria Technikon building in the inner city... should be upgraded and developed to further compliment the Capital of Culture." (City of Tshwane, 2005: 19)

## Vision for the Cultural Circle

- Identify upgrading methods on existing facilities and map all current cultural assets.
- Implement a strategy for marketing these attractions as part of tourism.

- Develop interventions suited for public gatherings, open air theatre and music festivals.
- Facilitate cultural facilities such as exhibitions, museums and theatres.
- Develop and action plan to facilitate and sponsor an Art-in-public program within the capital precinct.
- Further budget policies should focus on the development of public art.
- Attract important cultural events by means of an action plan aimed at partnerships, sponsors and inducements. (City of Tshwane, 2005: 19)

## Nelson Mandela Development Corridor Precinct Framweork:

- Located alongside Nelson Mandela Drive on the eastern edge of the Inner City.
- Dual carriageway into the city and is the new main entrance to Pretoria which also allows for prime exposure.
- The focal area for future arts, culture, government, business, sports, entertainment and commercial developments.
- Suitable for high profile, high intensity private investments that maximize this highly visible location. (City of Tshwane 2005: 13)
- Courtyard type buildings should address public space. (Gapp 2006: 158)

FIG 3.39\_Urban Design Vision Map

