

# CHAPTER THREE

## Context, History & Site Analysis

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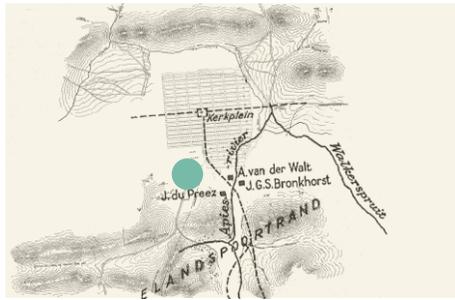
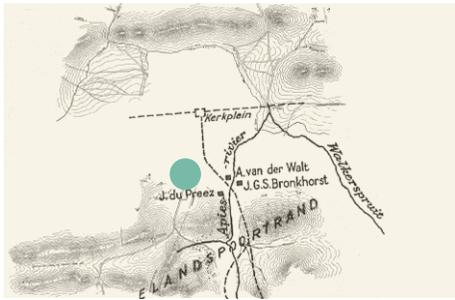
### Introduction

The study area, chosen by the author is located in the south-western quadrant of Pretoria in Salvokop. The site is situated on the northern slope of Salvokop Hill between Pretoria Main Road and the Pretoria Station. The site is currently vacant and mainly characterized by alien vegetation and an undulating slope. It is bordered and cut off from the high rise, dense CBD which is directly north of the site, by railway tracks.

In this chapter a quick overview of the development of Tshwane will be given, secondly the urban context will be studied to gain an entire understanding of the surrounding area of the site. After contextual knowledge has been gained a comprehensive analysis of the specific site will be presented with conclusive information gained in the study.



● Site Location



## DEVELOPMENT OF THE CITY OF TSHWANE

The development of the City of Tshwane started in 1853 when itinerant Boers established it as the capital of the ZAR (Zuid-Afrikaansche Republiek) after being granted independence by Great Britain which dominated Southern Africa at the time.

An orthogonal grid was developed to accommodate the evolving capital's needs.

The capital then started to rapidly develop from a rural settlement to an urban society with the discovery of gold in the Witwatersrand (1886). This had a major impact on the Zuid-Afrikaansche Republiek. The first expansions of the city was lodged within the central grid layout delimited by the Apies River in the North, East and South and by the Steenhoven Stream in the West (see figure 3.1).

As the city further expanded outside of the city center there was a greater need for residential areas which was then placed South-East of the city in the form of an orthogonal grid (which was to become Sunnyside) (Clarke et al 2011:883-884).

Further Expansion Eastwards (Arcadia) was planned using Church Street (the main horizontal axis of the city) as a main connection to the city center and as a tool for the growth of the capital.

Expansion continued to the East and West as it was limited to the North and South by the predominant ridges surrounding the city.



Figure 3.1: The Development of Pretoria (Van der Waal Versameling 2009)

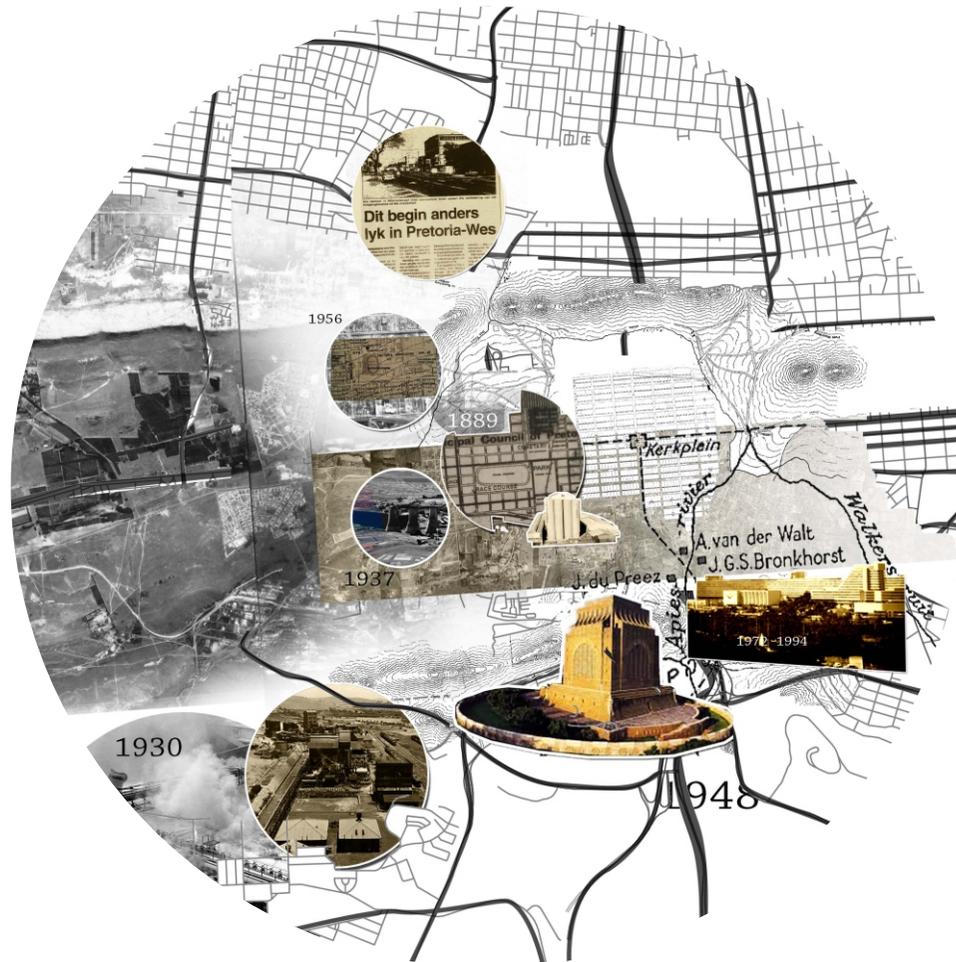


Figure 3.2: Timeline of landmarks and monuments (Discarded Landscapes Group 2016)

As an addition to the timeline on the previous page the following figure illustrates further expansion of Pretoria and highlights a few important landmark formed for example the Voortrekker Monument, Pilditch Stadium and UNISA.

## Urban Analysis

- Green Infrastructure 
- Water Bodies 
- Ridges 



### Ecological Elements

The evolution of Pretoria as mentioned was greatly influenced by its topography and ecological elements. In an urban study of Tshwane seen in figure 3.3 these elements are highlighted.

The river networks along with the ridges have steered the development of the city seen in figure 3.3. Here these can clearly be seen how the ridges steered the development of Pretoria to the east and west.

Figure 3.3: Ecological elements in Tshwane (Discarded Landscapes Group 2016)

- Degraded Infrastructure and Brownfield Sites
- Reserves and unused spaces
- Public and Private Space



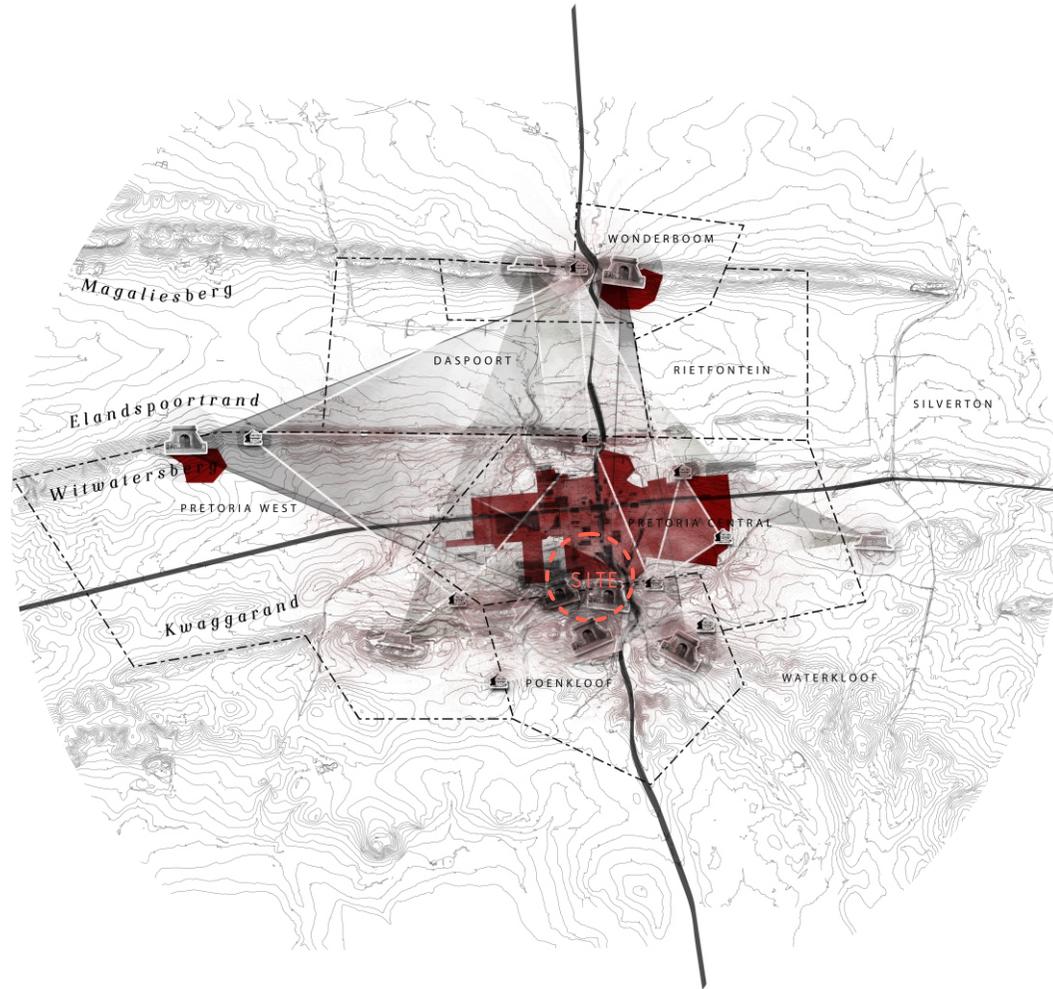
### Public and Private, Healthy and Degraded Open Space

Looking at the available open space, public space, degraded space as well as private open space, one can note that the worst degradation of land is taking place in the inner city of Tshwane. Accessible public open space to a large extent can only be found outside of the CBD as development extends towards the east of Tshwane.

Designers cannot allow the inner city to degrade and ultimately be unusable. As urbanization takes place in unsustainable ways it is the designer's job to catalyse the redevelopment and re-purpose buildings and spaces in the inner city.

Figure 3.4: Image showing Public and private open space (Discarded Landscapes Group 2016)

Significant heritage fabric ●  
Degraded heritage fabric ●



### Heritage Fabric

Figure 3.5 shows the tangible heritage and cultural significance as well as lost and forgotten heritage fabric in the current context.

Many building within the inner city have great heritage and cultural value as this is in the vicinity of the original precinct where Pretoria evolved and thus most of the building are older than 60 years .

Figure 3.5: The heritage fabric in Tshwane (Discarded Landscapes Group 2016)

## History of the Site

Salvokop has an important railway heritage that has been quite well preserved (Cultmatrix 2003:32. This is due to its isolation from the CBD because of the railway lines the site has received less pressure for development.

in 1892 the very first station building was built and the area was established as a railway camp after there was enough funds due to the discovery of the main gold reef in Witwatersrand (now called Johannesburg the main intention at that time for

the railway was to link Pretoria (now Tshwane to Delagoabaai (now Maputo(Le Roux 1993:26. The Nederlandsche Zuid-Afrikaansche Spoorweg Maatschappij (NZASM was commissioned to lead the development of the area, thus they established a permanent railway camp in Salvokop (Salvokop Steering Committee 2003:21) .

After the new nationalist government launched new larger railway complexes in Koedoespoort, north of Pretoria (Tshwane the railway complex at

Salvokop rapidly decreased and later all of the facilities were moved to other railway facilities (Salvokop Steering Committee 2003:9).

Since 1900 up till today Transnet and its subsidiaries have been the national operator in charge of the railway (ibid:11).



Figure 3.6: The development of Salvokop seen on aerial photographs (Van der Waal 2009)



Figure 3.7: The development of Salvokop seen on aerial photographs (Google Earth)

Locality



PRETORIA  
CENTRAL

PRETORIA  
WEST

SUNNY-  
SIDE

SALVOKOP

SITE

Skougroonde

Church  
Square

Helen Joseph Street

Railway Lines

Kgosi Mampuru Street

Pretoria  
Train Station

Nelson Mandela Drive

Weskoppies  
Hospital

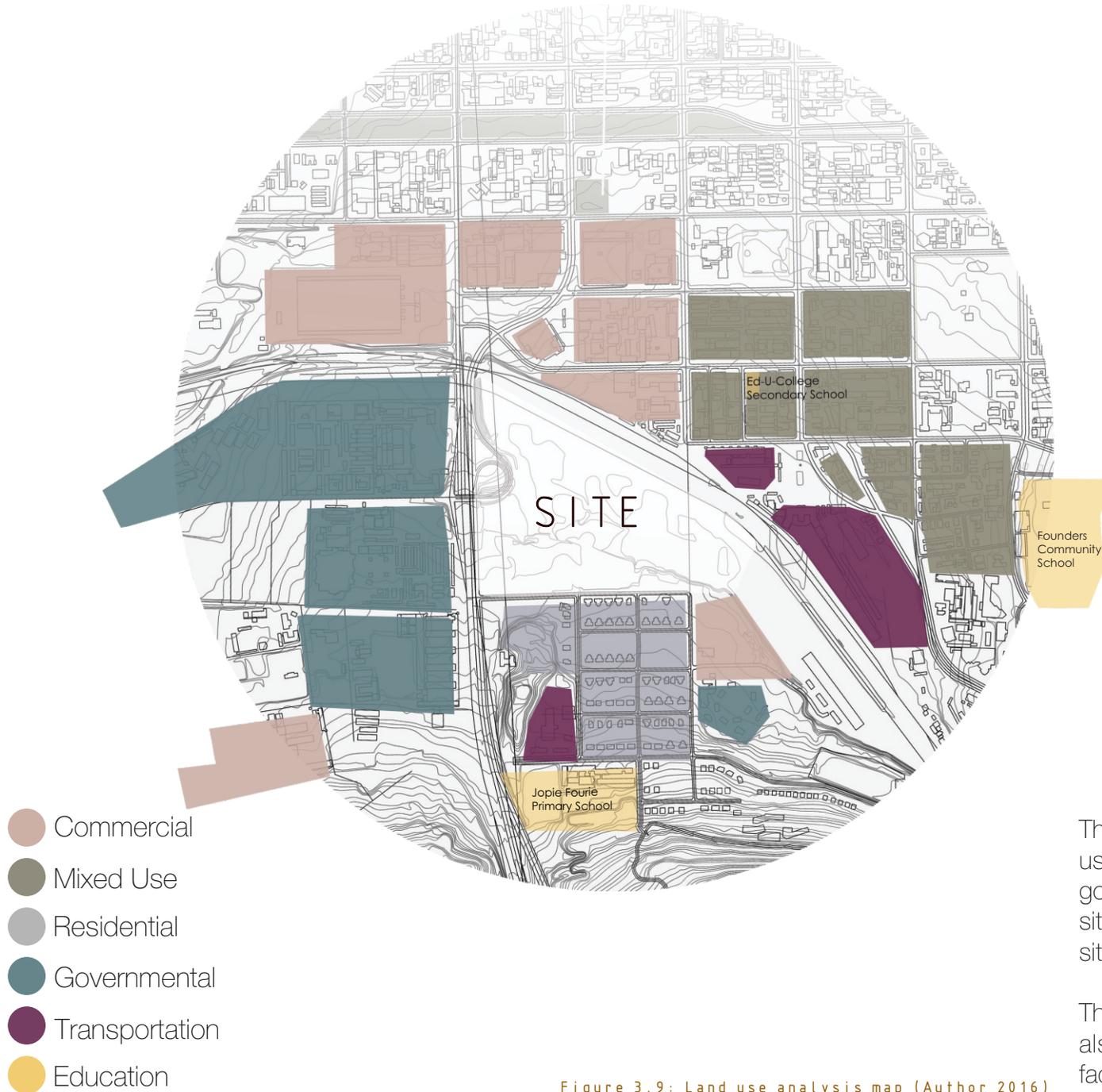
Freedom  
Park

Skanskop Hill

UNISA

Figure 3.8: Locality map of the proposed site (Author 2016)

# Land Use Analysis



The following figure illustrates the different land use types around the site. There is a large governmental presence on the western side of the site and commercial and mixed use north of the site.

The strong transportation presence near site can also be notes along with three educational facilities close to site.

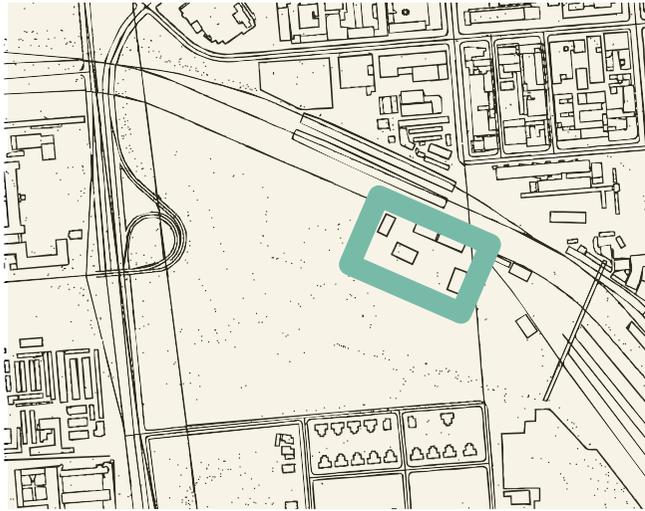
Figure 3.9: Land use analysis map (Author 2016)

Site Photos



Figure 3.10: Photo of site (Author 2106)

## Current Activities on Site



POP-UP is a NPO (non-profit organisation) with a holistic attitude toward the upliftment of under-privileged communities, aimed at teaching someone a skill and placing them back into the employment system of South Africa. As previously mentioned their main centre is situated on the proposed study area in Salvokop occupying the old resident engineers building among other seen in figure 3.11 .

An enrolment fee of one hundred rand is required as a commitment to the programme and everything else thereafter is then free of charge. Learners receive breakfast and lunch every day of their training at POP-UP. Before learners are referred to a specific program they all need to attend the Personal Growth and Life Skills program where basic life skills and etiquette is taught.

POPUP offers nine SETA accredited market related skills programmes as well as other non-accredited programmes to unemployed persons between the age of 18 and 45.

### Accredited Skills Programmes:

- AET (adult education and training) - English literacy and numeracy
- Hospitality services
- Sewing
- Computer and office administration - call centre training and cashier training
- ECD - early childhood development
- Home-based care

### Non-Accredited Skills Programmes:

- Readers are Leaders
- Waitron Training
- Child minding
- Cooking and Domestic Training
- Life Skills
- Basic Computer
- Cookie Jar Training (Baking for Profit)
- Work Place Readiness



Figure 3.11: Old engineers building now occupied by POP-UP (Author 2016)



Figure 3.12: Photo of Computer and office administration class (Author 2016)



Figure 3.13: Photo of sewing class currently in a corrugated steel building on site (Author 2016)



Figure 3.14: Photo of POP Kids who attend classes in these containers (Author 2016)



Figure 3.15: Photo of Vegetable tunnels whom one of the learners at POP-UP care for (Author 2016)



Figure 3-16: Site Analysis (Author 2016)

## Site Analysis

### Movement

The site analysis that was carried out reveals that the most movement occurred on the edges of the site where men and woman would access the CBD on their way to work and back home via the bridge on the eastern side of the site (seen in figure 3.16) and then also along Kgosi Mampuru and Pretoria Main Street on the Western side of the site. Movement on the site is only to and from POP-UP

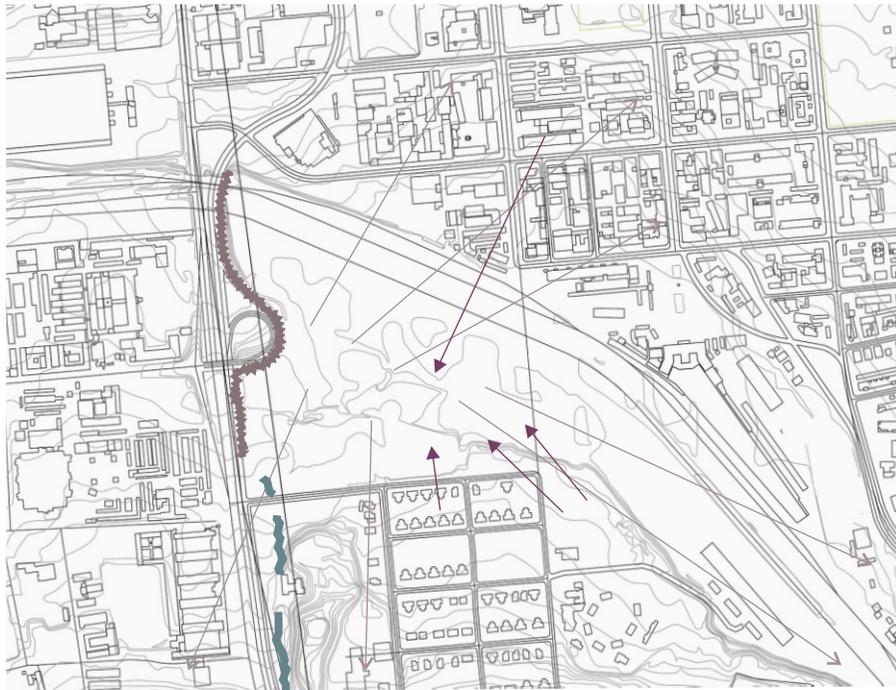
### Heritage

Salvokop has high cultural heritage significance (Pelser 2013:3). Many structures in the area is older than sixty year, for example the NZASM (Nederlandsche Zuid-Afrikaansche Spoorweg Maatschappij) Heritage Village, NZASM Court and the CSAR (Central South African Railways) semi-detached quarters (Pelser 2013:9).

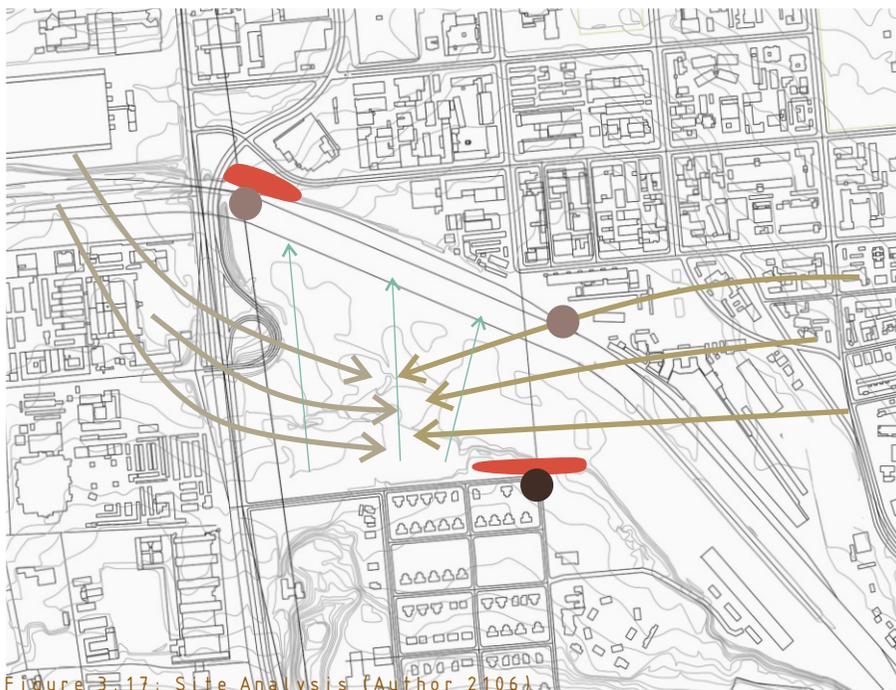
On the proposed site itself building with high cultural heritage significance is the CSAR Resident Engineer's Office (currently inhabited by POP-UP), the SAR Workshop and Steam Hammer Workshop.

### Access

The site is only accessible by vehicle from the south. Most of the open green space illustrated in figure 3.16 are mainly overtaken by alien invasive plants and need to be rehabilitated.



- Noise pollution
- Views from site
- Views to site
- Water body



- Lowest points on site
- Highest point on site
- Wind direction in summer
- Wind direction in winter
- Steep topography

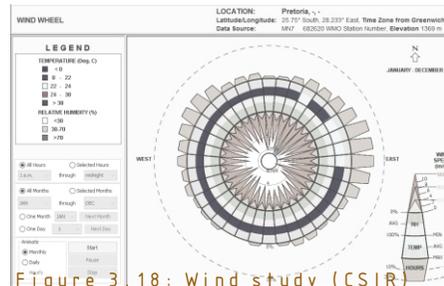


Figure 3.18: Wind study (CSIR)

Figure 3.17: Site Analysis (Author 2016)

### The Sensory

There are some breath-taking views on site as one looks at the city skyline facing north and Salvokop Hill as one faces south. There are a few building in close proximity to the site that will also have a view onto the site for example the new STATS SA building, the Department of Home Affairs building in the city as well as a few on the governmental and institutional building situated on the western side of the site.

The noise of trains passing by the site contributes to a certain unique vibrant feeling of the site. This can be seen as a negative or positive depending on the user. There is quite a bit of noise pollution coming from the cars driving past the site on Kgosi Mampuru and Pretoria Main Street especially in peak hour traffic times. Not many exhaust fumes enter the site due to its relation in height to these roads.

### Topography

The surface of the site is not steep with a general slope of 1:40. A small portion of the site on the very eastern corner has a very steep slope of 1:4. Drainage is this towards the north.

### Air Movement

In a study by the CSIR specific information about the predominant wind direction as well as wind speed in the area could be accessed.

From the analysis the following has been concluded:

### Strengths

- The study area's proximity to public transport nodes is of great benefit. It is walking distance from the Pretoria train station as well as the Pretoria Gautrain station.
- The site lies west of Pretoria Main and Kgosi Mampuru Street allowing quick and easy access to site and to public transport.
- The site is in close proximity to the CBD of Pretoria thus ensuring that there is a great demand of people in close proximity to the site daily.
- The Study Area has a very important heritage fabric which can be preserved through the upliftment of the area.

### Weaknesses

- The heritage significant buildings in Salvokop have not been looked after and maintained thus they are deteriorating.
- Although the highway right next to the site is a big strength there are times through the day where it can be seen as a weakness due to the noise from traffic that it projects on to the site.
- The site is disconnected from the CBD by the harsh train tracts with a very small bridge linking Salvokop and the site to the CBD.
- There is a shortage and of residential units in the area as one starts to see 2 – 3 families sharing a single residential property and with the new Stats SA building almost finished (housing 3000 employers in it vicinity) in Salvokop this problem will become worse.

### Opportunities

- The terrain is unplanned and ambiguous.
- There are beautiful views from the site to the City and to Salvokop.
- It is in close proximity to many transport nodes.
- Many studies have already been done on the ecological and heritage significance of the site making the influence of these factors on the site very clear to the author.
- POP-UP (People's Upliftment Programme) a NGO currently operating on site can be used to run various programmes of a design proposal empowering POP-UP as well as the greater area.

### Threats

- There are certain corners on site that are deemed as unsafe because lack of surveillance due to minimal pedestrian access.
- The soil on site is not in a very good condition due to previous development on site, vehicular circulation on the soil, pumping of heavy building material on site and the removal thereof exposing the soil resulting in the capping of the soil.
- There are many alien plant species growing on site.
- There are train tract remains in certain areas on site underground.
- Just next to the site a few trains lay abandoned and disintegrated.

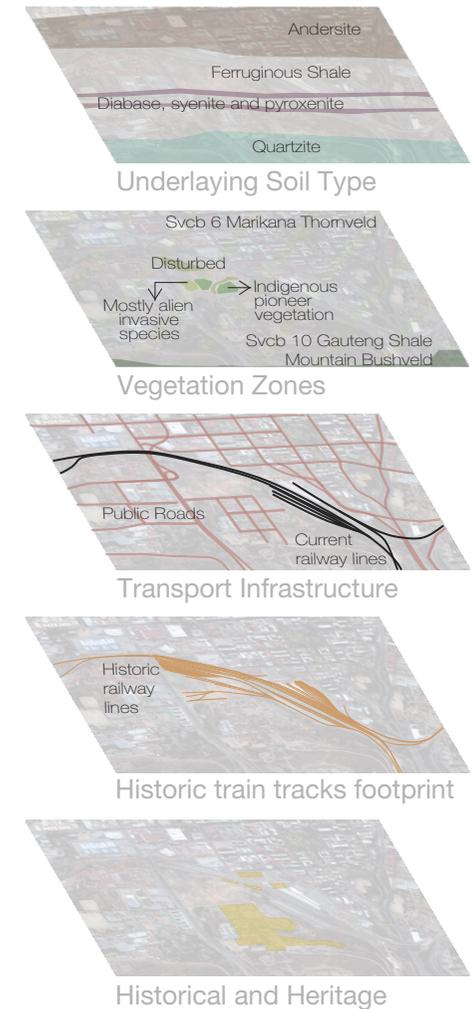


Figure 3.19:  
Extra Analysis (Author 2016)

Except for the strength and opportunities mentioned above that will enhance the design, weaknesses and threats will be vigorously addressed to turn these negative aspects on site into positives through design.

