

**STATEMENT ON THE HERITAGE SIGNIFICANCE OF OLD RAILWAY TRACKS UNEARTHED DURING  
EARTHWORKS DONE FOR THE DEVELOPMENT OF SALVOKOP EXTENSION 5,  
CITY OF TSHWANE, GAUTENG PROVINCE**

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- Date: -

**Submission of the report:**

It remains the responsibility of the client to submit the report to the South African Heritage Resources Agency (SAHRA) or relevant Provincial Heritage Resources Agency (PHRA) by means of the online SAHRIS System.



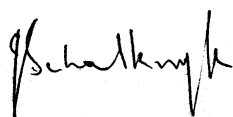
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J A van Schalkwyk  
Heritage Consultant  
February 2023



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**EXECUTIVE SUMMARY**

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<p style="text-align: center;"><b>STATEMENT ON THE HERITAGE SIGNIFICANCE OF OLD RAILWAY TRACKS UNEARTHED DURING EARTHWORKS DONE FOR THE DEVELOPMENT OF SALVOKOP EXTENSION 5, CITY OF TSHWANE, GAUTENG PROVINCE</b></p>
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The *Department of Public Works and Infrastructure (DPWI)* wants to develop a new Township, to be known as Salvokop Extension 5. During earthworks conducted on the site in preparation for the construction to commence, a number of mangled railway tracks were unearthed. As the site on which the material was found used to be part of the larger Pretoria Station Precinct, a heritage consultant was appointed in terms of Sections 34 and 38 of the National Heritage Resources Act, No. 25 of 1999 to determine the significance of the material.

After reviewing all available information, as well as studying the remains that was uncovered, we can arrive at the following conclusion:

- Considering all the overburden material that had to be removed before the railway tracks were uncovered, it is no surprise that it was not identified during the original heritage impact assessment done by Pelsler (2013);
- Apart from being located in the larger station complex, the identified material it is totally out of context as the original workshops and store rooms have been demolished at least three decades ago;
- Although the sections of the Westwood & Winby railway tracks are older than 60 years, it is ultimately only bits and pieces;
- It is known that sections of the Selati Railway Line is still in existence, i.e. at Newington Station in the Sabi Sand Game Reserve and well at the bridge across the Letaba River in the Kruger National Park and therefore some of the material is protected in its original context;
- Regarding the SAR/SAS material, it is sufficient to say that much of this material is still in use on the railway lines all over the country as well as some neighbouring countries such as Namibia, and consequently the few sections that were found on the site is regarded to be of little to no significance.

We therefore recommend the following:

- That SAHRA and the PHRA-Gauteng issue a permit to the client for the disposal of the material as soon as possible, as it creates serious problems for them during construction activities.
- Finally, the client should be commended for acting in the best interest of heritage conservation when they reported this matter for further investigation.



A SAR Class 12AR (a reboilered Class 12A) locomotive with a 4-8-2 configuration, mostly used for heavy hauling during the 1970s and 1980s. The railway track is classified as Cape gauge (3ft 6in)

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## **1. INTRODUCTION**

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### **1.1 Background**

The *Department of Public Works and Infrastructure (DPWI)* wants to develop a new Township, to be known as Salvokop Extension 5. During earthworks conducted on the site in preparation for the construction to commence, a number of mangled railway tracks were unearthed. As the site on which the material was found used to be part of the larger Pretoria Station Precinct, a heritage consultant was appointed in terms of Sections 34 and 38 of the National Heritage Resources Act, No. 25 of 1999 to determine the significance of the material.

This site used to be part of an 'industrial precinct' and that operated in support of an entity, the national railways system or South African Railways and Harbours (SAS&H), that operated on a local as well as national scale. In order to maintain and keep pace with a increasing population and growing economy, the site had to be constantly upgraded and expanded. However, as the city evolved, all of these activities had to be relocated to different areas and the original function of this part of the precinct became redundant.

### **1.2 Terms and references**

As the material has already been shifted out of context, its original location could not be identified. However, this is not seen to be a problem as the whole site has been demolished and filled with rubble, and then levelled. It remained like this for a number of years, with more and more rubbish being dumped on the site.

A search of various databases, such as the National Archives of South Africa and Transnet Heritage did not produce any information regarding the built environment that use to exist on the site before it was demolished.

## **2. LEGISLATIVE FRAMEWORK**

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### **2.1 The National Estate**

The NHRA defines the heritage resources of South Africa which are of cultural significance or other special value for the present community and for future generations that must be considered part of the national estate to include:

- places, buildings, structures and equipment of cultural significance;
- places to which oral traditions are attached or which are associated with living heritage;
- historical settlements and townscapes;
- landscapes and natural features of cultural significance;
- geological sites of scientific or cultural importance;
- archaeological and palaeontological sites;
- graves and burial grounds, including-
  - ancestral graves;
  - royal graves and graves of traditional leaders;
  - graves of victims of conflict;

- graves of individuals designated by the Minister by notice in the Gazette;
- historical graves and cemeteries; and
- other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- sites of significance relating to the history of slavery in South Africa;
- movable objects, including-
  - objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
  - objects to which oral traditions are attached or which are associated with living heritage;
  - ethnographic art and objects;
  - military objects;
  - objects of decorative or fine art;
  - objects of scientific or technological interest; and
  - books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).

## 2.2 Cultural significance

In the NHRA, Section 2 (vi), it is stated that “cultural significance” means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance. This is determined in relation to a site or feature’s uniqueness, condition of preservation and research potential.

According to Section 3(3) of the NHRA, a place or object is to be considered part of the national estate if it has cultural significance or other special value because of

- its importance in the community, or pattern of South Africa's history;
- its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
- its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
- its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa; and
- sites of significance relating to the history of slavery in South Africa.

A matrix (see Section 2 of Addendum) was developed whereby the above criteria were applied for the determination of the significance of each identified site. This allowed some form of control over the application of similar values for similar identified sites.

## 3. SITE LOCATION

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### 3.1 Site location

The project area is located on the northern side of what is known as Salvokop and west of the main railway station in Pretoria (Fig. 1).

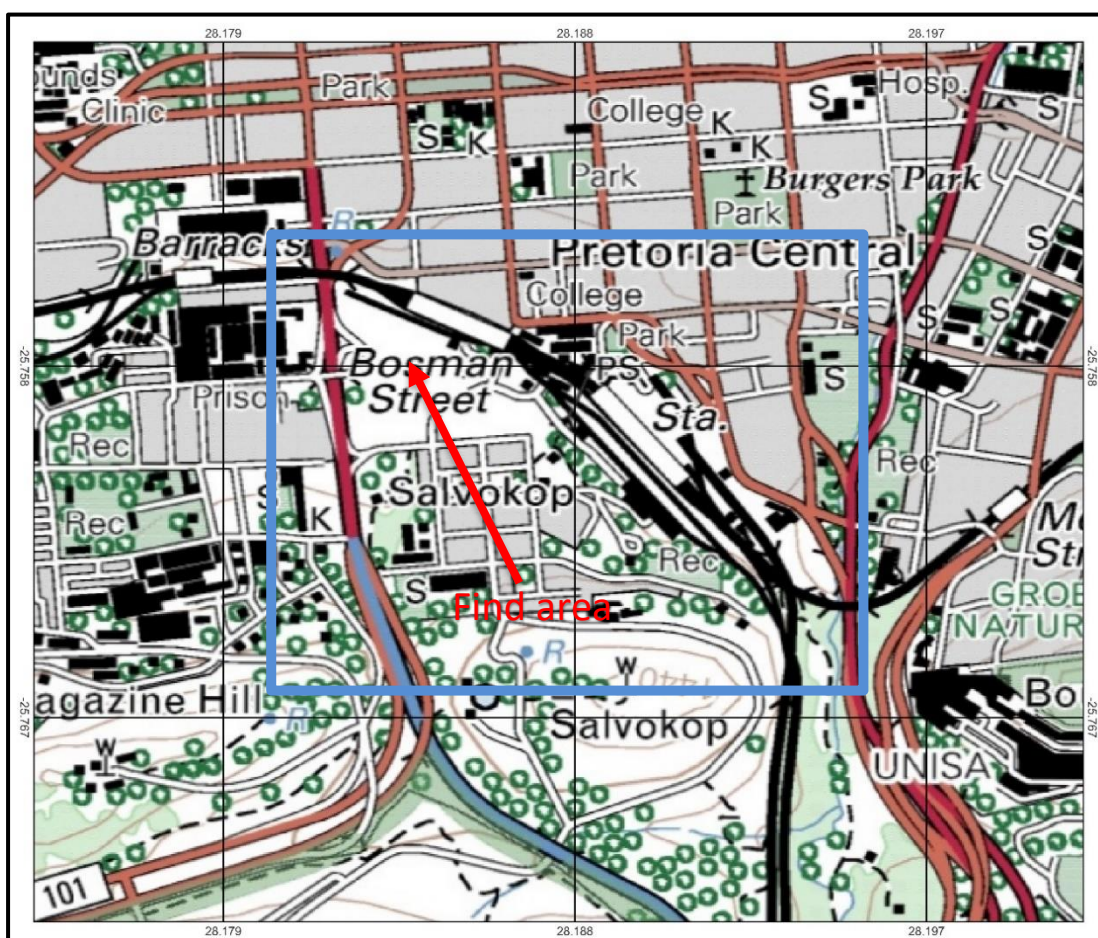


Figure 1. Location of the project area in regional context

#### 4. DESCRIPTION OF THE AFFECTED ENVIRONMENT

The history of the development and impact of the railway system on South Africa and neighbouring countries has been well documented in a number of publication and studies, e.g. Coetzee (1940); De Jong *et al* (1988), Heydenrych & Martin (1992); Mbem (2018); Meintjies (1953); Van Schalkwyk (2015); Wassefall (1989) and Weinthal (1922), to mention but a few.

The project area is located on a hill called Salvokop. Originally named Time Ball Hill, a name that was derived from a feature that was developed here by the Post-Master-General, J A de Vogel, in 1880. After the completion of the railway line and station, de Vogel devised a scheme for announcing the arrival of the different trains. Different signals were hoisted up a telegraph pole to signify which particular train has arrived – a suspended ball announced the arrival of the Kimberley train and a cone that of the Natal train. After the British take-over of Pretoria in 1900, this area fell under military control. From this hill canon salvos were fired to announce important events and the arrival or departure of visiting dignitaries. In this manner the site obtained its later name, Salvokop (Andrews & Ploeger 1989).

The name Time Ball Hill also became relevant in geological terms, with reference to thick layers of quartzite and shales forming part of the Pretoria Group of the Transvaal Supergroup (Haughton 1969).





Although founded in 1850, Pretoria was officially declared a town only in 1855. Settlement clustered around what was to become known as Church Square, with a number of farms surrounding the fledgling town. Over time, especially to the north of the project area, urban densification started off. The first development was the so-called NZASM Court. By the time NZASM arrived in Pretoria, the area now known as Salvokop, was already surveyed and streets laid out. However, the NZASM official decided to adapt this to their own need, giving it a very Dutch character (Bakker *et al* 2014).



Figure 3. The Pretoria station during the late 1890s

From the layout map of the station produced in 1901 by the Imperial Military Railways (IMR – Fig. 4 below), it can be seen that the area where the development is currently taking place used to house the labourer compound and a church for these people.

Even at this early stage it is clear that the whole precinct layout evolved over time. A case in point is the roundhouse with turn table indicated on the 1901 map. This was probably the one developed for the Pretoria – Pietersburg (now Polokwane) line that was completed in 1899 (Fig. 5). However, by the 1930s, this did not exist anymore and a new, and bigger roundhouse was built towards the southern end of the station (Fig. 6).

However, what is more significant is the large-scale development that took place in the current project area. A number of sheds, probably housing workshops and store-rooms can be seen. It was probably erected in order to maintain the speedy expansion of the railway network in the country.

This development seems to remain the same throughout the years right up to the early 1990s (Fig. 6 – 9), after which less and less built features can be seen on the site. By the early 2000s nothing of this huge industrial complex remains and the site is left vacant (Fig. 10 – 13). Soon afterwards more and more development take place in the surrounding area, with a number of government departments being settled here, as well as the development of Freedom Park Heritage Site.

What is significant, is that less structures are indicated on the official 1:50 000 topographic map (Fig. 7) dating to 1939 than what is visible on the official aerial photograph dating to 1937, challenging the validity of these maps on a micro scale.

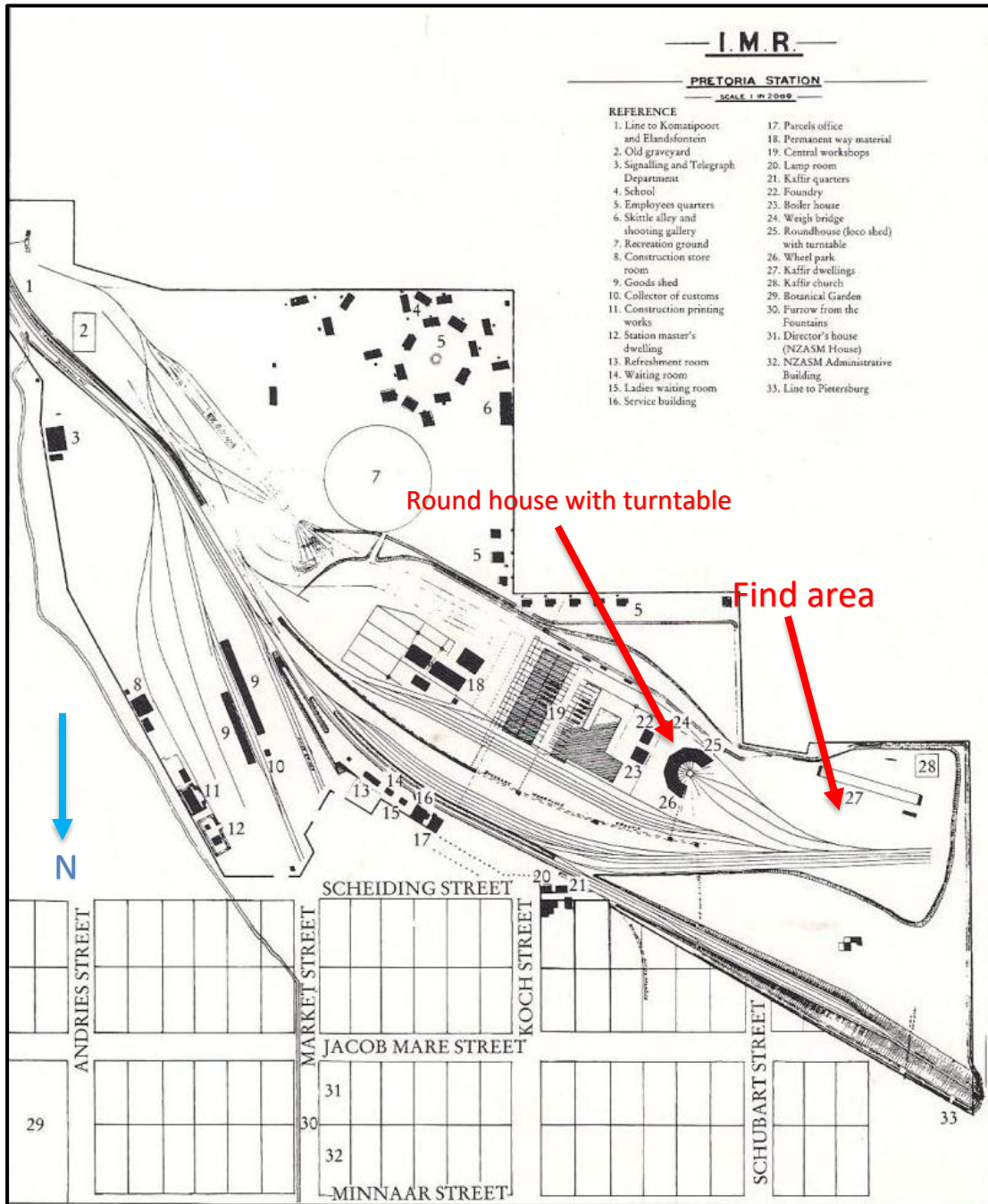


Figure 4. Site plan of the Pretoria station and environs produced by the Imperial Military Railways (IMR) in 1901

(From De Jong *et al* 1988) (Please note that north is towards the bottom on the map)



Figure 5. The Pretoria-Pietersburg round house under construction, pre-1899

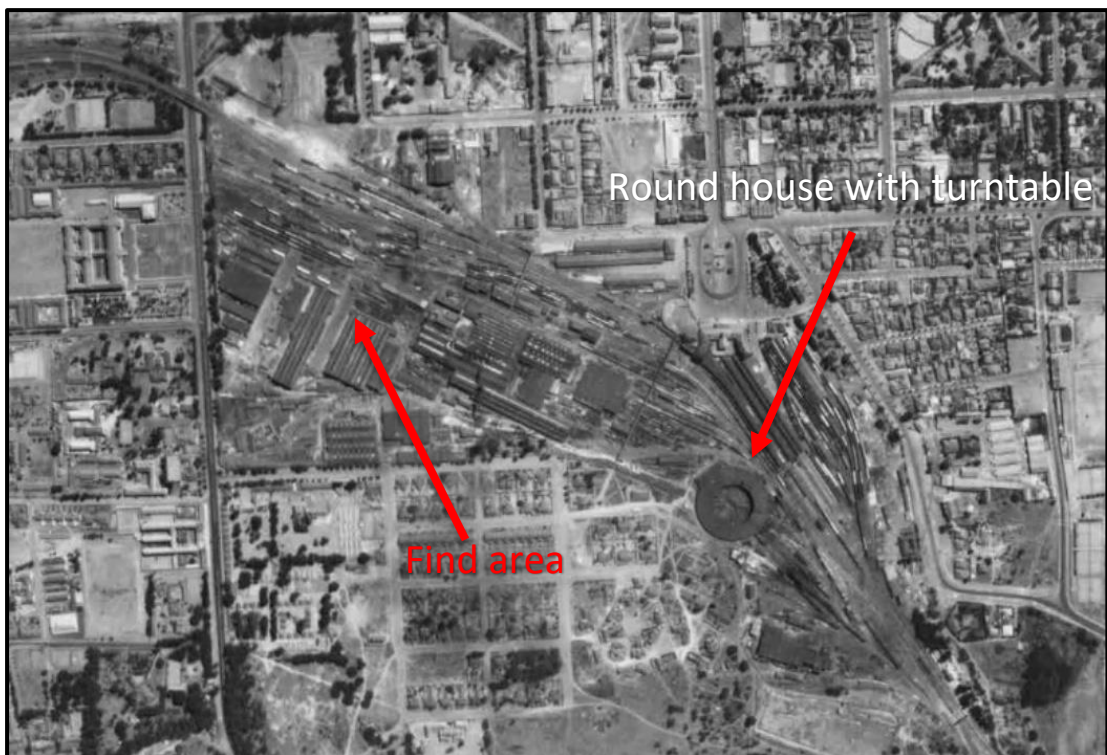


Figure 6. Aerial view of the project area dating to 1937  
(NGI photograph: 125\_001\_22484)

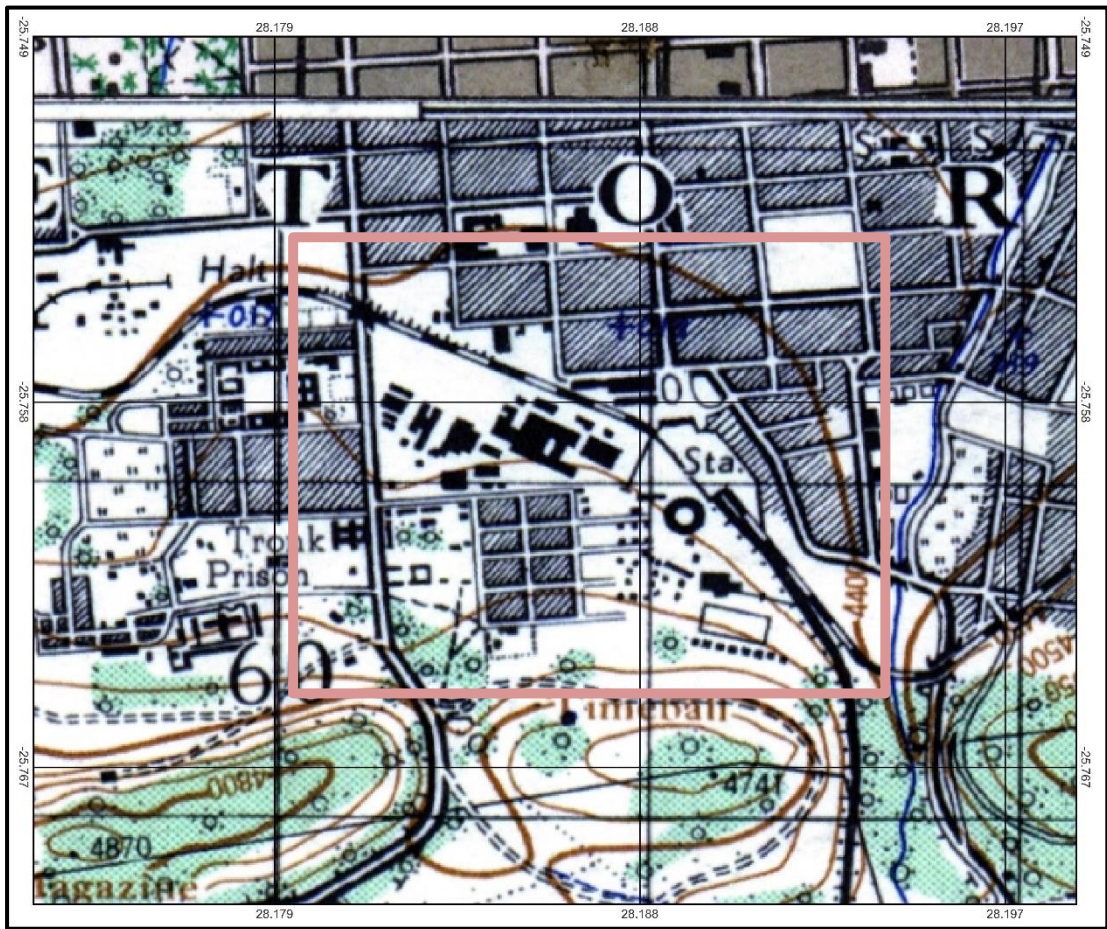


Figure 7. The project site on the 1939 version of the topographic map



Figure 8. Aerial view of the project area dating to 1958  
(NGI photograph: 411\_006\_01690)



Figure 9. Aerial view of the project area dating to 1964  
(NGI photograph: 456\_005\_08550)



Figure 10. Aerial view of the project area dating to 1991  
(NGI photograph: 951\_011\_07013)

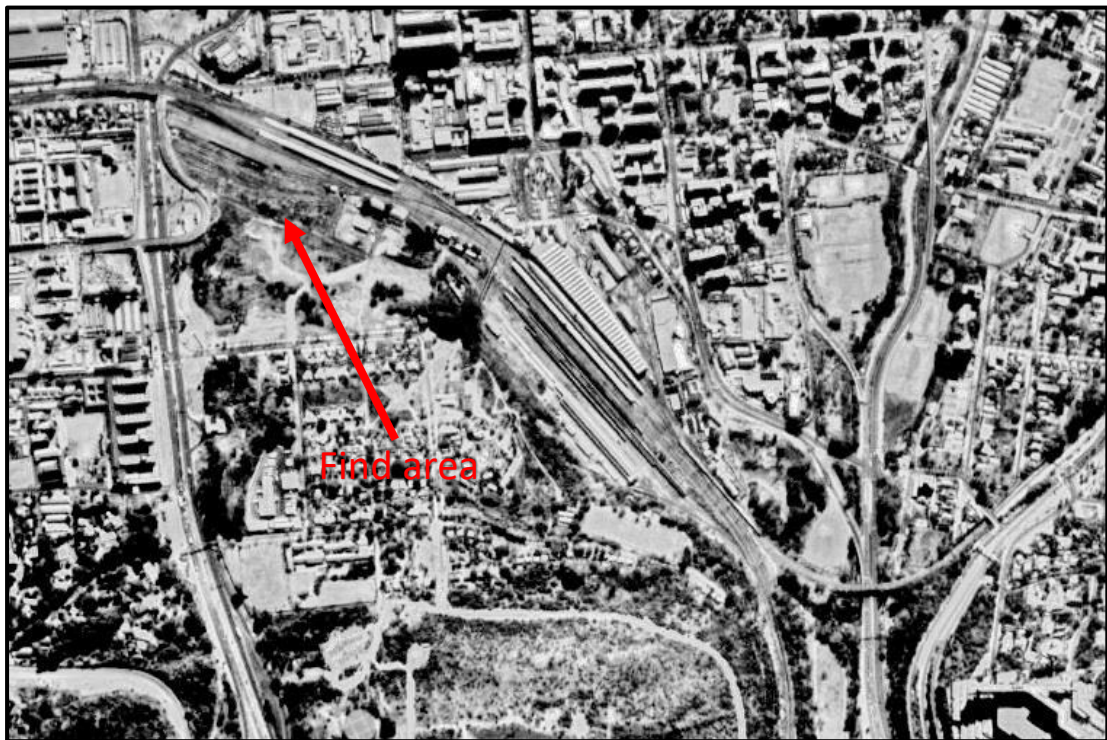


Figure 11. Aerial view of the project area dating to 2005  
(NGGI photograph: 498\_523\_006\_00352)



Figure 12. Aerial view of the project area dating to 2005  
(Image: Google Earth)



Figure 13. Aerial view of the project area dating to 2023  
(Image: Google Earth)

Earthworks conducted on the site in preparation for the development revealed how the site was used for the dumping of rubble, some of which possibly relate to the former industrial precinct, but it is not possible to determine this to any extent.



Figure 14. View of the project area prior to development starting





Figure 15 Image indicating the depth of the building excavations



Figure 16. Showing the depth of the rubble back-fill



Figure 17. Showing the depth of the back-fill



Figure 18. Showing the depth of the back-fill

## 5. THE IDENTIFIED MATERIAL

Short, twisted sections of railway tracks and support material (sleepers) were unearthed during the earthworks. This was put to one side by the contractors, where it was inspected by the heritage consultant. It is therefore important to note that the material was not in an original context.



Figure 19. Showing the depth of the back-fill with rubble



Figure 20. Showing the type of material that was unearthed

On closer inspection, it was determined that at least two different types of railway tracks are present.

### 5.1 Westwood and Winby

A small number of rail tracks bearing the name Westwood & Winby was identified<sup>1</sup>

- The Westwood & Winby tracks have a base of 109,5mm (4,3in), implying a weight of 30kg/m. This is the standard track used for mines and sidings. In contrast, ordinary SAR mainline tracks have a base of 127mm, implying a weight of 40-48kg/m.



Figure 21. A section of a Westwood & Winby track, showing the date ('92), GFNR, as well the company name (GFNR = probably a misprint for GNFR - Goods Not For Resale? - an important statement made in the production and sale of material in especially an industrial context.)

During the late 19<sup>th</sup> century, Westwood and Winby, a British steel producer, was involved with the production of railway material as well as the building of railway lines all over the world. They were also contracted by the government of the South African Republic (ZAR) to supply material and build the Selati Railway line. This line was to branch off in a north-western direction from the main Pretoria-Delagoa Bay line near Komatipoort. From there it was to follow the Selati River towards the Muchison Range Gold Fields, north of Leysdorp and southeast of Tzaneen.

For reasons which will not be address here in detail here, the whole effort collapsed. This was due to technical difficulties, health issues (e.g., malaria) and, most importantly, corruption (Barnard 1975; Meintjies 1953; Pienaar 2007).

The extent of this corruption and mismanagement is reflected in the following extract from a document in the National Archives, Kew (Reference: TS 18/466, Date: 1895-1908), regarding the **Selati Railway, Transvaal, South Africa**, and has relevance in indicating the involvement of the company *Westwood and Winby* in the operation and the litigation that followed:

James Toleman decd. F.C.Winby v. Messrs.Martin and Dobson: other actions included Harwood v. Oyens and Others, Henderson v. Oyens and Others, Winby v. Oyens and Others, Pannell v. Martin, Burt v. Martin, Martin v.Winby, Henderson v. the Northern Railway of the South African Republic, Harwood and Others v. La Compagnie Franco-Belge du Chemin de Fer

<sup>1</sup> Please consider that the sheer weight of these metal track made it impossible to view and measure them from all angles.

du Nord de la Republique Sud Africaine, Baron Robert Oppenheim and Others, Floersheim v. Winby and the South African Republic v. La Compagnie Franco-Belge etc.

The deceased (James Toleman) had invested money amounting to about £90,000 in the building of the Selati Railway in the Transvaal. Part of this money had been repaid but there was difficulty in collecting the rest owing to a dispute between the Transvaal Government and the Railway Company. The Treasury Solicitor advised that the assets bequeathed by the Testator to various charities be paid out and that it be left to the charities concerned to endeavor to collect the South African assets. The railway was apparently taken over by the South African Republic and renamed the Northern Railway. Then the Transvaal was annexed by the British Government in the course of the South African wars. It then rested with the British Government to deal with those who had invested in the line. Mention is made of a sale of the Railway Company's assets - the firm of *Westwood and Winby* were involved as builders of the Railway - and of various steps taken to protect the investors. The British Government offered the Executors of James Toleman the sum of £5,000 in compensation which it seemed was in addition to anything they could collect by other means (<https://discovery.nationalarchives.gov.uk/details/r/C5896248>).

The project was abandoned in 1894 and it was only resumed and completed by the Central South African Railways in 1909. The line was then extended via Gravelotte and Tzaneen to a junction at Soekmekaar, where it met up with the line from Pietersburg to Messina in 1912.

- Most of the tracks of the old Selati line have been lifted. A few short sections have been retained, e.g. at the rail bridge across the Letaba River at Skukuza in the Kruger National Park and at the Sabi Game Reserve. This being railways property, it could very well have been brought back to Pretoria, where it could have been used in branch lines or even ended up in the furnaces at Iscor to be milled as new tracks.

## 5.2 South African Railways/Suid-Afrikaanse Spoorweë

The largest number of tracks were milled at Iscor (Pretoria) factory. They bear dates varying between 1944 and 1966, and have a base of 127mm, implying a weight of 40-48kg/m, therefore having been used on mainline tracks.

In 1928 the company Iscor (Iron and Steel Corporation, or Yskor – Yster en Staal Korporasie) was founded by the Union of South Africa government and the first works was established in Pretoria. Selection of the site in Pretoria was based on the existence of an already existing foundry, established by two brothers of Dutch origin, Cornelius (Cor) and Johan Delfos. From 1916 they started to exploit iron deposits in the area where the Iscor factory is located today, exploiting ore bodies from the Timeball Hill Series. It is said that their finding of this ore was based on the existence of old smelting sites dating to the Late Iron Age (Engelbrecht *et al* 1955).

Most of the railway tracks used in the expanding of the South African Railway lines were milled here in Pretoria.

Railway development in South Africa overall used an international standard, known as Cape gauge. The name Cape gauge is derived from the name Carl Abraham Pihl (CAP), a Norwegian engineer who pioneered the 3ft 6in gauge. This gave rise to the term “CAP-gauge”, and in German as “Kapspur”, which eventually became more widely known as Cape gauge.

- Suffice it to say that because this type of material was used on the railway lines in South Africa as well as neighbouring countries such as Namibia, and, as a result, large volumes of this material remain in use in order for us to be able to say that the few pieces that was found on the project site have little to no significance.



Figure 22. A section of a SAR track, showing the size, Iscor/Yskor logo as well as the date 1964

## 6. CONCLUSIONS AND RECOMMENDATIONS

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After reviewing all available information, as well as studying the remains that was uncovered, we can arrive at the following conclusion:

- Considering all the overburden material that had to be removed before the railway tracks were uncovered, it is no surprise that it was not identified during the original heritage impact assessment done by Pelsler (2013);
- Apart from being located in the larger station complex, the identified material it is totally out of context as the original workshops and store rooms have been demolished at least three decades ago;
- Although the sections of the Westwood & Winby railway tracks are older than 60 years, it is ultimately only bits and pieces;
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- Regarding the SAR/SAS material, it is sufficient to say that much of this material is still in use on the railway lines all over the country as well as some neighbouring countries such as Namibia, and consequently the few sections that were found on the site is regarded to be of little to no significance.

We therefore recommend the following:

- That SAHRA and the PHRA-Gauteng issue a permit to the client for the disposal of the material as soon as possible, as it creates serious problems for them during construction activities.
- Finally, the client should be commended for acting in the best interest of heritage conservation when they reported this matter for further investigation.

## 7. REFERENCES

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### 7.1 Data bases

Chief Surveyor General  
Environmental Potential Atlas, Department of Environmental Affairs and Tourism.  
Heritage Atlas Database, Pretoria  
National Archives of South Africa  
SAHRA Archaeology and Palaeontology Report Mapping Project (2009)  
SAHRIS Database

### 7.2 Literature

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### **7.3 Archival sources, maps and aerial photographs**

1: 50 000 Topographic maps

Google Earth

Aerial Photographs: National Geospatial Information

DRISA: Digital Railway Images of South Africa

<http://artefacts.co.za>

<http://vmus.adu.org.za>

<http://www.sahra.org.za/sahris>



## **8. ADDENDUM**

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### **1. Indemnity and terms of use of this report**

The findings, results, conclusions and recommendations given in this report are based on the author's best scientific and professional knowledge as well as available information. The report is based on survey and assessment techniques which are limited by time and budgetary constraints relevant to the type and level of investigation undertaken and the author reserve the right to modify aspects of the report including the recommendations if and when new information may become available from ongoing research or further work in this field, or pertaining to this investigation.

Although all possible care is taken to identify all sites of cultural importance during the investigation of study areas, it is always possible that hidden or sub-surface sites could be overlooked during the study. The author of this report will not be held liable for such oversights or for costs incurred as a result of such oversights.

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## 2. Assessing the significance of heritage resources and potential impacts

A system for site grading was established by the NHRA and further developed by the South African Heritage Resources Agency (SAHRA 2007) and has been approved by ASAPA for use in southern Africa and was utilised during this assessment.

### 2.1 Significance of the identified heritage resources

According to the NHRA, Section 2(vi) the **significance** of a heritage sites and artefacts is determined by it aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technical value in relation to the uniqueness, condition of preservation and research potential. It must be kept in mind that the various aspects are not mutually exclusive, and that the evaluation of any site is done with reference to any number of these.

#### Matrix used for assessing the significance of each identified site/feature

1. SITE EVALUATION				
1.1 Historic value				
Is it important in the community, or pattern of history				
Does it have strong or special association with the life or work of a person, group or organisation of importance in history				
Does it have significance relating to the history of slavery				
1.2 Aesthetic value				
It is important in exhibiting particular aesthetic characteristics valued by a community or cultural group				
1.3 Scientific value				
Does it have potential to yield information that will contribute to an understanding of natural or cultural heritage				
Is it important in demonstrating a high degree of creative or technical achievement at a particular period				
1.4 Social value				
Does it have strong or special association with a particular community or cultural group for social, cultural or spiritual reasons				
1.5 Rarity				
Does it possess uncommon, rare or endangered aspects of natural or cultural heritage				
1.6 Representivity				
Is it important in demonstrating the principal characteristics of a particular class of natural or cultural places or objects				
Importance in demonstrating the principal characteristics of a range of landscapes or environments, the attributes of which identify it as being characteristic of its class				
Importance in demonstrating the principal characteristics of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province, region or locality.				
2. Sphere of Significance		High	Medium	Low
International				
National				
Provincial				
Regional				
Local				
Specific community				
3. Field Register Rating				
1.	National/Grade 1: High significance - No alteration whatsoever without permit from SAHRA			
2.	Provincial/Grade 2: High significance - No alteration whatsoever without permit from provincial heritage authority.			
3.	Local/Grade 3A: High significance - Mitigation as part of development process not advised.			

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4.	Local/Grade 3B: High significance - Could be mitigated and (part) retained as heritage register site	
5.	Generally protected 4A: High/medium significance - Should be mitigated before destruction	
6.	Generally protected 4B: Medium significance - Should be recorded before destruction	
7.	Generally protected 4C: Low significance - Requires no further recording before destruction	

### 3. Curriculum vitae

#### Johan Abraham van Schalkwyk

##### Personal particulars

Date of birth: 14 April 1952  
Identity number: 520414 5099 08 4  
Marital status: Married; one daughter  
Nationality: South African

##### Current address: home

62 Coetzer Ave, Monument Park, Pretoria, 0181  
Mobile: 076 790 6777; E-mail: jvschalkwyk@mweb.co.za

##### Qualifications

1995 DLitt et Phil (Anthropology), University of South Africa  
1985 MA (Anthropology), University of Pretoria  
1981 BA (Hons), Anthropology, University of Pretoria  
1979 Post Graduate Diploma in Museology, University of Pretoria  
1978 BA (Hons), Archaeology, University of Pretoria  
1976 BA, University of Pretoria

##### Non-academic qualifications

12th HSRC-School in Research Methodology - July 1990  
Dept. of Education and Training Management Course - June 1992  
Social Assessment Professional Development Course - 1994  
Integrated Environmental Management Course, UCT - 1994

##### Professional experience

Private Practice  
2017 - current: Professional Heritage Consultant

##### National Museum of Cultural History

1992 - 2017: Senior researcher: Head of Department of Research. Manage an average of seven researchers in this department and supervise them in their research projects. Did various projects relating to Anthropology and Archaeology in Limpopo Province, Mpumalanga, North West Province and Gauteng. Headed the Museum's Section for Heritage Impact Assessments.  
1978 - 1991: Curator of the Anthropological Department of the Museum. Carried out extensive fieldwork in both anthropology and archaeology

##### Department of Archaeology, University of Pretoria

1976 - 1977: Assistant researcher responsible for excavations at various sites in Limpopo Province and Mpumalanga.

##### Awards and grants

1. Hanisch Book Prize for the best final year Archaeology student, University of Pretoria - 1976.
2. Special merit award, National Cultural History Museum - 1986.
3. Special merit award, National Cultural History Museum - 1991.
4. Grant by the Department of Arts, Culture, Science and Technology, to visit the various African countries to study museums, sites and cultural programmes - 1993.
5. Grant by the USA National Parks Service, to visit the United States of America to study museums, sites, tourism development, cultural programmes and impact assessment programmes - 1998.
6. Grant by the USA embassy, Pretoria, under the Bi-national Commission Exchange Support Fund, to visit cultural institutions in the USA and to attend a conference in Charleston - 2000.
7. Grant by the National Research Foundation to develop a model for community-based tourism - 2001.

8. Grant by the National Research Foundation to develop a model for community-based tourism - 2013. In association with RARI, Wits University.

**Publications**

Published more than 70 papers, mostly in scientifically accredited journals, but also as chapters in books.

**Conference Contributions**

Regularly presented papers at conferences, locally as well as internationally, on various research topics, ranging in scope from archaeology, anthropological, historical, cultural historical and tourism development.

**Heritage Impact Assessments**

Since 1992, I have done more than 2000 Phase 1 and Phase 2 impact assessments (archaeological, anthropological, historical and social) for various government departments and developers. Projects include environmental management frameworks, roads, pipeline-, and power line developments, dams, mining, water purification works, historical landscapes, refuse dumps and urban developments.

**Latest publications**

Van Schalkwyk, J.A. 2020. A cognitive approach to ordering of the world: some case studies from the Sotho- and Tswana-speaking people of South Africa. In Whitley, D.S., Loubser, J.H.N. & Whitelaw, G. (eds.) *Cognitive Archaeology. Mind, Ethnography, and the Past in South African and Beyond*. London: Routledge. Pp. 184-200.

Namono, C. & Van Schalkwyk, J.A. 2020. Appropriating colonial dress in the rock art of the Makgabeng plateau, South Africa. In Wingfield, C., Giblin, J. & King, R. (eds) *The pasts and presence of art in South Africa: Technologies, Ontologies and Agents*. University of Cambridge: McDonald Institute for Archaeological Research. Pp. 51-62.