Cultural heritage impact assessment for the
PROPOSED RUSTENBURG RAPID TRANSPORT NETWORK,
NORTH WEST PROVINCE
CULTURAL HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED RUSTENBURG RAPID TRANSPORT NETWORK, NORTH WEST PROVINCE

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Prepared for:
ArcusGIBB
Representative: Ms S Govender
Postal Address: PO Box 2700, Rivonia, 2128
Tel: 011 807 5670
E-mail: sgovender@gibb.co.za

Prepared by:
J van Schalkwyk (D Litt et Phil), Heritage Consultant
ASAPA Registration No.: 168
Principal Investigator: Iron Age, Colonial Period, Industrial Heritage
Postal Address: 62 Coetzer Avenue, Monument Park, 0181
Mobile: 076 790 6777
Fax: 012 347 7270
E-mail: jvschalkwyk@mweb.co.za

Declaration:
I, J.A. van Schalkwyk, declare that I do not have any financial or personal interest in the proposed development, nor its developers or any of their subsidiaries, apart from the provision of heritage assessment and management services.

J A van Schalkwyk (D Litt et Phil)
Heritage Consultant
November 2012
EXECUTIVE SUMMARY

CULTURAL HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED RUSTENBURG RAPID TRANSPORT NETWORK, NORTH WEST PROVINCE

The Rustenburg Bus Rapid Transport is planned over two corridors for a total length of about 40 km that overlap in the Rustenburg CBD area. This is supported by a network of complementary and feeder services. The two proposed corridors include:

- Northeast R510 corridor from the intersection of the R510 with the D1344 along the R510 to the CBD;
- Northwest corridor from just north of Phokeng on the R565, turning at the Z523 into Lefaragatla area south of Phokeng and to the R24 prior to entering Thlabane and on to the CBD.

In accordance with Section 38 of the NHRA, an independent heritage consultant was appointed by ArcusGIBB to conduct a Heritage Impact Assessment (HIA) to determine if any sites, features or objects of cultural heritage significance occur within the boundaries of the area where it is planned to develop the project.

This report describes the cultural heritage of the landscape through which the proposed Rustenburg Bus Rapid Transport route will pass. Broadly speaking, the purpose was to determine if any problem areas occur where sites, features or objects of cultural heritage significance might necessitate the implementation of mitigation measures or, as a worst case scenario, a complete change in the proposed development plan.

- In terms of Section 7 of the NHRA, no sites that are classified by SAHRA as to be Grade I significance are known to occur in the study area or its immediate vicinity.
- In terms of Section 7 of the NHRA, all the sites which have previously been classified as National sites under the National Monuments Act, Act 28 of 1969, are now viewed as Provincial heritage sites and have Grade II significance. Fortunately, none of these are located within the road reserve.
- In terms of Section 7 of the NHRA, all other sites known to occur in the study area or its vicinity and which is not included in the above two categories, are viewed to be Grade III significance. Fortunately, none of these are located within the road reserve.

However, in considering the project, it is advisable that an ecological control officer (ECO), if not already involved, should be involved with the project. If this person is not familiar with matters of cultural heritage, it is recommended that he or she should spend some time with a heritage practitioner in order to be familiarised with potential problems and the correct procedures to follow in the case where sites, features and objects of cultural significance are encountered.

The preliminary study and field survey has identified the following which are important, from a heritage point of view, to consider when developing the rapid transport system:

Stone Age

Areas of high significance - as far as could be ascertained no sites dating to the Stone Age would be found in the vicinity of the proposed route.

- Mitigation - should any sites, features or object of cultural significance be exposed during excavation activities, all work in the region of the find must stop immediately and a heritage consultant should be contacted to investigate and evaluate the finds.
Iron Age

Areas of high sensitivity - as far as could be ascertained no sites dating to the Iron Age would be found in the vicinity of the proposed route.

- Mitigation - should any sites, features or object of cultural significance be exposed during excavation activities, all work in the region of the find must stop immediately and a heritage consultant should be contacted to investigate and evaluate the finds.

Burial sites

Areas of high sensitivity - although this type of site usually occur sporadically all over, none were identified in the proximity of the proposed route.

- Mitigation - as burial places are highly sensitive areas, it is recommended that they are demarcated off with danger tape, allowing a sufficient large enough buffer zone (e.g. 10 metres from the outside of the burial place) around it and declaring that as a no-go zone.

- Mitigation - should graves be exposed during excavation activities, all work in the region of the find must stop immediately and a heritage consultant should be contacted to investigate and evaluate the finds.

Cultural landscapes

Areas of high sensitivity - a number of features that forms part of the cultural landscape, such as memorials, entrance gates, avenues of trees and outspans/resting places occur sporadically all over. Many of these features are located on the borders of the road reserve. Fortunately, these features are clearly visible and it would be easy to avoid them.

- Mitigation - should any sites, features or object of cultural significance be exposed during excavation activities, all work in the region of the find must stop immediately and a heritage consultant should be contacted to investigate and evaluate the finds.

- Mitigation - surface features such as memorials, although illegal, should be respected and care should be taken to avoid damaging them. It is the easiest to demarcate them with danger tape, allowing a sufficient large enough buffer zone (e.g. 2 metres from the centre point) around it and declaring that as a no-go zone. If that is not possible, the feature must be photographed in situ, removed for the duration of construction to a safe storage facility and afterwards returned to its original position.

Built environment

Areas of high sensitivity - the proposed rapid transit route traverses the historic town cores of both Rustenburg and Phokeng. The installation might have an impact on heritage features such as pavements, water furrows, postal boxes, trees, etc. It is possible that some buried features may be uncovered/disturbed during construction work.

- Mitigation – excavation/construction of the route through the historic town cores should be monitored by a heritage practitioner. Although this is not required on a full time basis, the project manager/ECO must be able to stop the work if anything such as refuse dumps, water furrows, etc. are uncovered in order to get a heritage consultant to investigate and evaluate the finds.

Industrial heritage
Areas of high sensitivity - old bridges, telephone lines and power lines occur sporadically all over. Such features, e.g. telephone lines, are usually located right on the border of the road reserve.

- Mitigation - if work is taking place in regions where such lines or bridges still exists, care should be taken to avoid causing damage.

In conclusion, if the above procedures as well as those set out in Section 7 of this report are adhered to, from a heritage point of view there are no reasons why the development of the rapid transit route cannot take place.

J A van Schalkwyk  
Heritage Consultant  
November 2012
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GLOSSARY OF TERMS AND ABBREVIATIONS

Study area: Refers to the entire study area as indicated by the client in the accompanying Fig. 1 - 2.

Stone Age: The first and longest part of human history is the Stone Age, which began with the appearance of early humans between 3-2 million years ago. Stone Age people were hunters, gatherers and scavengers who did not live in permanently settled communities. Their stone tools preserve well and are found in most places in South Africa and elsewhere.

<table>
<thead>
<tr>
<th>Stone Age</th>
<th>Date Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Stone Age</td>
<td>2 000 000 - 150 000 BP</td>
</tr>
<tr>
<td>Middle Stone Age</td>
<td>150 000 - 30 000 BP</td>
</tr>
<tr>
<td>Late Stone Age</td>
<td>30 000 - until c. AD 200</td>
</tr>
</tbody>
</table>

Iron Age: Period covering the last 1800 years, when new people brought a new way of life to southern Africa. They established settled villages, cultivated domestic crops such as sorghum, millet and beans, and they herded cattle as well as sheep and goats. As they produced their own iron tools, archaeologists call this the Iron Age.

<table>
<thead>
<tr>
<th>Iron Age</th>
<th>Date Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Iron Age</td>
<td>AD 200 - AD 900</td>
</tr>
<tr>
<td>Middle Iron Age</td>
<td>AD 900 - AD 1300</td>
</tr>
<tr>
<td>Late Iron Age</td>
<td>AD 1300 - AD 1830</td>
</tr>
</tbody>
</table>

Historical Period: Since the arrival of the white settlers - c. AD 1840 - in this part of the country

LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADRC</td>
<td>Archaeological Data Recording Centre</td>
</tr>
<tr>
<td>ASAPA</td>
<td>Association of Southern African Professional Archaeologists</td>
</tr>
<tr>
<td>EIA</td>
<td>Early Iron Age</td>
</tr>
<tr>
<td>ESA</td>
<td>Early Stone Age</td>
</tr>
<tr>
<td>LIA</td>
<td>Late Iron Age</td>
</tr>
<tr>
<td>LSA</td>
<td>Later Stone Age</td>
</tr>
<tr>
<td>HIA</td>
<td>Heritage Impact Assessment</td>
</tr>
<tr>
<td>MSA</td>
<td>Middle Stone Age</td>
</tr>
<tr>
<td>NASA</td>
<td>National Archives of South Africa</td>
</tr>
<tr>
<td>NHRA</td>
<td>National Heritage Resources Act</td>
</tr>
<tr>
<td>PHRA</td>
<td>Provincial Heritage Resources Agency</td>
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<tr>
<td>SAHRA</td>
<td>South African Heritage Resources Agency</td>
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</table>
1. INTRODUCTION

The Rustenburg Bus Rapid Transport is planned over two corridors for a total length of about 40 km that overlap in the Rustenburg CBD area. This is supported by a network of complementary and feeder services. The two proposed corridors include:

- Northeast R510 corridor from the intersection of the R510 with the D1344 along the R510 to the CBD;
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South Africa’s heritage resources, also described as the 'national estate', comprise a wide range of sites, features, objects and beliefs. However, according to Section 27(18) of the National Heritage Resources Act (NHRA), Act 25 of 1999, no person may destroy, damage, deface, excavate, alter, remove from its original position, subdivide or change the planning status of any heritage site without a permit issued by the heritage resources authority responsible for the protection of such site.

In accordance with Section 38 of the NHRA, an independent heritage consultant was appointed by ArcusGIBB to conduct a Heritage Impact Assessment (HIA) to determine if any sites, features or objects of cultural heritage significance occur within the boundaries of the area where it is planned to develop the project.

This HIA report forms part of the Environmental Impact Assessment (EIA) as required by the EIA Regulations in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and is intended for submission to the South African Heritage Resources Agency (SAHRA).

2. STUDY APPROACH

2.1 Scope of work

The scope of work for this study consisted of:

- Conducting of a desk-top investigation of the area, in which all available literature, reports, databases and maps were studied.
- A visit to the proposed development area.

The objectives were to

- Identify possible archaeological, cultural and historic sites within the proposed development area;
- Evaluate the potential impacts of construction, operation and maintenance of the proposed development on archaeological, cultural and historical resources;
- Recommend mitigation measures to ameliorate any negative impacts on areas of archaeological, cultural or historical importance.
2.2 Methodology

2.2.1 Survey of the literature
A survey of the relevant literature was conducted with the aim of reviewing the previous research done and determining the potential of the area. In this regard, various reports, anthropological, archaeological and historical sources were consulted. A few publications stand out.

- In 1906 L.V. Praagh produced his encyclopaedic work, *The Transvaal and its Mines*. In this publication he gave detailed information of the state of development in the region, as well as discussing topics such as geology, ethnography, zoology, etc. This source serves as baseline for determining heritage features dating to early colonial times.

- Other sources are the work of Carruthers (1990) on the Magaliesberg and older sources like Breutz (1953) on the ethnology of the various Tswana-speaking groups in the region. No inclusive review on the history of the region has yet been produced.

- Recent archaeological work by researchers such as Boeyens & Hall (2009) and Pistorius (1992, 1997, 2000, 2001) has greatly contributed to our understanding of the history of the various Tswana-speaking groups in the region.

2.2.2 Databases
The *Heritage Sites Database* and the *Environmental Potential Atlas* was consulted. Some documents were tracked down in the various databases of the National Archives of South Africa (NASA), especially in the SAB and TAB holdings. Other database sources include the Chief Surveyor General and the various lists produced by the South African Heritage Resources Agency (SAHRA).

2.2.3 Other sources
Topocadastral and other maps were also studied - see the list of references below. Aerial photographs, where available, were used.

2.3 Limitations
The results of this study were influence by the following factors:

- Even though a number of publications dealing with aspects of the heritage of this region appeared recently, very little published information regarding the location of heritage sites exists;

- The knowledge on location of heritage sites is largely informed by development projects. Areas where there is not a much development are therefore experienced as under researched.

3. HERITAGE RESOURCES

3.1 The National Estate
The National Heritage Resources Act (Act No. 25 of 1999) 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:
Heritage Impact Assessment

- 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).

4. DESCRIPTION OF THE AFFECTED ENVIRONMENT

4.1 Site location

The Rustenburg Bus Rapid Transport is planned over two corridors for a total length of about 40 km that overlap in the Rustenburg CBD area. This is supported by a network of complementary and feeder services. The two proposed corridors include (see Fig. 1 below):

- Northeast R510 corridor from the intersection of the R510 with the D1344 along the R510 to the CBD;
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4.2 Description of the heritage

4.2.1 Stone Age

The larger region has been inhabited by humans since Early Stone Age (ESA) times. Tools dating to this period are mostly, although not exclusively, found in the vicinity of watercourses. The original dating and evolutionary scheme for the development of tools during this early period, was based on a study of the river terrace gravels of the Vaal River in the Vereeniging region, referred to as the Older, the Younger and the Youngest gravels (Söhinge, Visser & Van Riet-Lowe1937; Breuil 1948). However, on subsequent investigation, the findings derived from this proved to be unacceptable as it was based on incorrect interpretations of the river gravels. It was only with the excavation of similar material from sealed, stratified sites, that it was realised that the material from the river gravels was not in its primary context, having been uncovered and washed about over many millennia. Consequently, artefacts derived from such surface collections are now seen to have little significance.

The oldest of these tools are known as choppers, crudely produced from large pebbles found in the river. Later, *Homo erectus* and early *Homo sapiens* people made tools shaped on both sides, called bifaces. Biface technology is known as the Acheulean tradition, from St Acheul in France, where bifaces were first identified in the mid-19th century. This type of tools is very well presented in the Magaliesberge and to the north in the more mountainous regions such as at Bospoort Dam.

During Middle Stone Age (MSA) times (c. 150 000 – 30 000 BP), people became more mobile, occupying areas formerly avoided. According to Thakeray (1992) the MSA is a period that still remains somewhat murky, as much of the MSA lies beyond the limits of conventional radiocarbon dating. However, the concept of the MSA remains useful as a means of identifying a technological stage characterized by flakes and flake-blades with faceted
platforms, produced from prepared cores, as distinct from the core tool-based ESA technology.

Open sites were still preferred near watercourses. These people were adept at exploiting the huge herds of animals that passed through the area, on their seasonal migration. As a result, tools belonging to this period also mostly occur in the open or in erosion dongas. Similar to the ESA material, artefacts from these surface collections are viewed not to be in a primary context and have little or no significance.

Late Stone Age (LSA) people had even more advanced technology than the MSA people and therefore succeeded in occupying even more diverse habitats. Also, for the first time we now get evidence of people’s activities derived from material other than stone tools. Ostrich eggshell beads, ground bone arrowheads, small bored stones and wood fragments with incised markings are traditionally linked with the LSA.

LSA people preferred, though not exclusively, to occupy rock shelters and caves and it is this type of sealed context that make it possible for us to learn much more about them than is the case with earlier periods. Unfortunately only a few stratified sites are known to exist in the study area, some of which were excavated by Wadley (1988). Probably as a result of this absence of sites that were occupied on a long term basis, even fewer sites containing rock art are known from the region.

Fig. 2. Stone Age sites and features in the larger region.
*Typical erosion gully in which stone tools are found. On the right is an example dating to the Early Stone Age. Below are some late rock paintings in the region.*

4.2.2 Iron Age
Iron Age people started to settle in southern Africa c. AD 300, with one of the oldest known site at Silver Leaves south east of Tzaneen dating to AD 270. One of the better known sites, Broederstroom, is located on the southern side of the Hartebeestpoort Dam. Here archaeological excavations have revealed that early farmer people were living here by AD 470, growing a range of different crops and that they were smelting iron.

Having only had cereals (sorghum, millet) that need summer rainfall, Early Iron Age (EIA) people did not move outside this rainfall zone, and neither did they occupy the central interior highveld area. Because of their specific technology and economy, Iron Age people preferred to settle on the alluvial soils near rivers for agricultural purposes, but also for firewood and water.

The occupation of the larger geographical area (including the study area) did not start much before the 1500s. To understand all of this, we have to take a look at the broader picture. Towards the end of the first millennium AD, Early Iron Age communities underwent a drastic change, brought on by increasing trade on the East African coast. This led to the rise of powerful ruling elites, for example at Mapungubwe. The abandonment of Mapungubwe (c. AD 1270) and other contemporaneous settlements show that widespread drought conditions led to the decline and eventual disintegration of this state Huffman (2005).

By the 16th century things changed again, with the climate becoming warmer and wetter, creating condition that allowed Late Iron Age (LIA) farmers to occupy areas previously unsuitable, for example the Witwatersrand and the treeless, wind swept plains of the Free State and the Mpumalanga highveld.

This period of consistently high rainfall started in about AD 1780. At the same time, maize was introduced from Maputo and grown extensively. Given good rains, maize crops yield far more than sorghum and millets. This increase in food production probably led to increased populations in coastal area as well as the central highveld interior by the beginning of the 19th century.

This wet period came to a sudden end sometime between 1800 and 1820 by a major drought lasting 3 to 5 years. The drought must have caused an agricultural collapse on a large, subcontinent scale.

This was also a period of great military tension. Armed Qriqua and Korana raiders on horseback were active in the northern Cape and Orange Free State by about 1790. The Xhosa were raiding across the Orange River about 1805. Military pressure from Zululand spilled onto the highveld by at least 1821. Various marauding groups of displaced Sotho-Tswana moved across the plateau in the 1820s. M zijikazi raided the plateau extensively between 1825 and 1837. The Boers trekked into this area in the 1830s.

Due to their specific settlement requirements, Late Iron Age people preferred to settle on the steep slope of a mountain, possibly for protection, or for cultural considerations such as grazing for their enormous cattle herds. Because of the lack of trees they built their settlements in stone.
4.2.3 Ethno-history

Whereas it is impossible to correlate any living group of people to Early Iron Age communities, it is possible, by using ethnographic evidence, to identify some of the groups of people that entered the region in pre-colonial times (i.e. the Later Iron Age) and are currently settled in the larger region. The Tswana-speakers were located over most of the area, with some Ndebele (Nguni-speakers) to the east.

The different groups are, from south to north, various Bakwena groups, the Bafokeng, various Bakgatla groups, Batlokwa, BaThlako and BagaSeleka.

Fig. 4. Map showing the historic distribution of the different Tswana-speaking groups.  
(Map: Van Warmelo 1925)

4.2.4 Historic period
Things were set to change drastically during the early part of the 19th century. Not only was it a time of population movement resulting from events to the south and east, but it was also the arrival of the first white settlers in the area.

The larger region is rich in heritage sites dating to the historical period, and has an intricate history of conflict and political machinations. During the 1830s early white settlers, migrating away from the British ruled Cape area, started advancing further inland in a movement, named the *Groot Trek*, in an effort to find new fertile farm land and escape the various social and political pressures surrounding the Cape colony. The formation of the ZAR, established as an independent Boer country within South Africa in 1852, plays an important role in the history of the Bojanala district as the turbulent times of the Boer Wars had a widely felt impact on the region.

The settlement of the Voortrekkers in the Pilanesberg area during the 1830s appears to have been largely peaceful and uncontested as the Tswana groups in the area had already been greatly weakened by the Matabele conflicts. The Boers named the area after the Kgatla chief Pilane. The superior weaponry of the Boers and the weakened state of the Tswana tribes made the Pilanesberg particularly easy to occupy. As the Voortrekkers had previously fought both the Zulu and Matabele on their journey from the Cape, they found a natural alliance with the Tswana, who shared their common enemy. After the defeat of the Ndebele the *Boer* settlers claimed the Western Transvaal area by right of conquest, despite the large number of Tswana, Griqua and Korana who had aided them in the struggle. Settlement of the area between Pilanesberg and Rustenburg had already occurred as early 1840 under the leadership of Andries Pretorius, seen by the purchase of the farm *Doornkop* (Rustenburg) by Potgieter and Paul Kruger’s acquisition of *Saulspoort* in Pilanesburg. The farm *Saulspoort* became an arena for the often brutal treatment of local tribes by the Boer settlers. During this time enforced labour of the Kgatla on Boer farms, such as *Saulspoort*, became common practise, and an incident is recorded during which Kruger bound and flogged the Kgatla chief Kgamanyane in front of a public gathering (Mbenga 1997).

Rustenburg was founded in 1851 as an administrative centre for the farming community by the Voortrekkers who had settled in the area a decade before. In 1863 the president of the then *Zuid Afrikaansche Republiek*, Paul Kruger, purchased the farm Boekenhoutfontein located north west of Rustenburg, which is today the Paul Kruger Country Museum. Some of the first colonial settlers in Rustenburg included a family of Indian descent, the Bhyat’s, after whom *Fatima Bhyat Street* was renamed, who came to Rustenburg in 1877.

On 16 December 1880 the ZAR officially declared independence from Britain and started the war known as the First Boer War. A small British fort in the Rustenburg area came under siege from the *Boers* between 22 December 1880 and 6 January 1881, and fortified “block houses” can still be seen in the area.

The Second Boer War (1899-1902) turned the area around Rustenburg into a war zone. Numerous battles took place in the region, the most well-known being the siege of the British by the Boers near Mafikeng. Undoubtedly the area was affected by the British ‘Scorched Earth’ policy, and after the war many families were left with virtually nothing.

The Battle of Koster River, fought on 21/22 July 1900, is another major confrontational site in the region. Here the Australian Bushman Contingent, on their way to Rustenburg, was caught in an ambush by the Transvaal soldiers. 39 casualties were recorded and over 200 of their horses killed. The town of Koster was proclaimed in 1913.

Near Swartruggens (founded in 1875) the Battlefield of Elandsriver can still be seen. This site marks some of the last conventional fighting in the Second Boer War before the *Boers* had to resort to guerrilla warfare, and their victory here allowed them access to British supplies. The trenches and horse graves can still be seen.
Fig. 5. Rustenburg during the late 1880s.  
(Photograph by H.F. Gros)

Fig. 6. Maps of Rustenburg town dating to 1868 and 1906.
The character and economic focus of Rustenburg changed rapidly after platinum mining started in the area in 1929, and many of the mines still earn royalties for the Royal Bafokeng nation. Paul Kruger assisted the Bafokeng in buying land rights from the settlers, which allowed the Bafokeng to purchase tracts of land during the late 19th and early 20th centuries.

However, the area remained up till today, a largely farming orientated community. Much of the heritage potential of the study area is therefore located within the many farmsteads in the area. Farmhouses and related structures (e.g. barns, sheds, etc.), as well as cemeteries dot the landscape. Equally important, are the homesteads, related structures and cemeteries of the farm labourers living on these farms.

Fig. 7. Elements of the historical and industrial heritage in the countryside.
5. SITE SIGNIFICANCE AND ASSESSMENT

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.

In order to assist in the determining of significance of heritage resources, the National Heritage Resources Act (Act no 25 of 1999) (see Appendix 1) stipulates the assessment criteria and grading of archaeological sites. The assessment criteria which are applied to each individual site, is presented in a matrix form in Appendix 2 of this report. The various grading categories distinguished are set out in Section 7 of the Heritage Act:

- **Grade I**: Heritage resources with qualities so exceptional that they are of special national significance;
- **Grade II**: Heritage resources which, although forming part of the national estate, can be considered to have special qualities which make them significant within the context of a province or a region; and

- **Grade III**: Other heritage resources worthy of conservation, and which prescribes heritage resources assessment criteria, consistent with the criteria set out in section 3(3), which must be used by a heritage resources authority or a local authority to assess the intrinsic, comparative and contextual significance of a heritage resource and the relative benefits and costs of its protection, so that the appropriate level of grading of the resource and the consequent responsibility for its management may be allocated in terms of section 8.

Sites regarded as having low significance are viewed to be recorded in full after identification and would require no further mitigation. Impact from the development would be judged to be low. Sites with a medium to high significance would therefore require mitigation. Mitigation, in most cases the excavation of a site, is in essence destructive and therefore the impact can be viewed as high and as permanent.

Based on current knowledge and understanding of the area, one can evaluate the heritage sites in the area as follows:

- Stone tools dating from all periods of the Stone Age are known to occur sporadically in the study area. As these objects are open finds and not in their original position anymore, and are classified as find-spots rather than sites. Such places and artefacts are viewed as having a low significance. So far only a few ‘sealed’ sites (i.e. caves or rock shelters that were occupied) are known from the Magaliesberge (Hartebeestpoort Dam region), but detailed surveys would undoubtedly reveal many more.

All the known Stone Age find-spots in the study area are currently viewed as being of Grade III significance. In contrast, depending on the themes and quality of the paintings, the rock shelters containing rock art might be classified as Grade II sites.

- The majority of known Iron Age sites in the study area date to the Late Iron Age. These settlements occur on the hills or outcrops and are characterised by intricate stone walling. It is difficult to estimate the exact number of such sites that might exist, but it would probably run into thousands. In contrast, sites dating to the Early Iron Age, such as the famous site at Broederstroom, dating to AD 470 are few and far between. However these sites are very important, giving us insight into the lives of the predecessors of the current Black population of the region.

All the Iron Age sites currently known in the area are viewed to be of Grade III significance. It is possible that, as a result of more detailed studies, the significance of some of these would be elevated to Grade II level. The significance of Early Iron Age sites is viewed to be Grade II for the simple reason that there are fewer of them.

- Sites dating to the historic period can be related to early farming, infrastructure development, mining, industries and towns. These also include sites of conflict, e.g. dating to the Anglo-Boer War, cemeteries, etc. Included with these are also a number of sites of ethno-historical significance, such as the tribal capitals of the different groups of Tswana- and Ndebele-speakers living in the area. What is lacking is information of sites of significance relating to the freedom struggle culminating with the establishment of a democratic elected government.

All sites dating to historic times currently known in the area are viewed to be of Grade III significance. The exception would be cemeteries dating to the Anglo-Boer War, which are viewed to be of Grade II significance.
Heritage sites are fixed features in the environment, occurring within specific spatial confines. Any impact upon them is permanent and non-reversible. Those resources that cannot be avoided and that are directly impacted by the development can be excavated/recorded and a management plan can be developed for future action. Those sites that are not impacted can be written into the management plan, whence they can be avoided or cared for in the future.

6.1 Objectives

- Protection of archaeological, historical and any other site or land considered being of cultural value within the project boundary against vandalism, destruction and theft.
- The preservation and appropriate management of new discoveries in accordance with the National Heritage Resources Act (Act No. 25 of 1999), should these be discovered during construction.

6.2.1 Construction phase

General management objectives and commitments:
- To avoid disturbing sites of heritage importance; and
- To avoid disturbing burial sites.

The following shall apply:
known sites should be clearly marked in order that they can be avoided during construction activities.

- The contractors and workers should be notified that archaeological sites might be exposed during the construction work.

- Should any heritage artefacts be exposed during excavation, work on the area where the artefacts were discovered, shall cease immediately and the Environmental Control Officer shall be notified as soon as possible;

- All discoveries shall be reported immediately to a museum, preferably one at which an archaeologist is available, so that an investigation and evaluation of the finds can be made. Acting upon advice from these specialists, the Environmental Control Officer will advise the necessary actions to be taken;

- Under no circumstances shall any artefacts be removed, destroyed or interfered with by anyone on the site; and

- Contractors and workers shall be advised of the penalties associated with the unlawful removal of cultural, historical, archaeological or palaeontological artefacts, as set out in the National Heritage Resources Act (Act No. 25 of 1999), Section 51 (1).

6.2.2 Operation phase

No additional measures will be required once the project has been finalised.

7. CONCLUSIONS

This report describes the cultural heritage of the landscape through which the proposed Rustenburg Bus Rapid Transport route will pass. Broadly speaking, the purpose was to determine if any problem areas occur where sites, features or objects of cultural heritage significance might necessitate the implementation of mitigation measures or, as a worst case scenario, a complete change in the proposed development plan.

- In terms of Section 7 of the NHRA, no sites that are classified by SAHRA as to be Grade I significance are known to occur in the study area or its immediate vicinity.

- In terms of Section 7 of the NHRA, all the sites which have previously been classified as National sites under the National Monuments Act, Act 28 of 1969, are now viewed as Provincial heritage sites and have Grade II significance. Fortunately, none of these are located within the road reserve.

- In terms of Section 7 of the NHRA, all other sites known to occur in the study area or its vicinity and which is not included in the above two categories, are viewed to be Grade III significance. Fortunately, none of these are located within the road reserve.

However, in considering the project, it is advisable that an ecological control officer (ECO), if not already involved, should be involved with the project. If this person is not familiar with matters of cultural heritage, it is recommended that he or she should spend some time with a heritage practitioner in order to be familiarised with potential problems and the correct procedures to follow in the case where sites, features and objects of cultural significance are encountered.

The preliminary study and field survey has identified the following which are important, from a heritage point of view, to consider when developing the rapid transport system:

Stone Age
Areas of high significance - as far as could be ascertained no sites dating to the Stone Age would be found in the vicinity of the proposed route.

- Mitigation - should any sites, features or object of cultural significance be exposed during excavation activities, all work in the region of the find must stop immediately and a heritage consultant should be contacted to investigate and evaluate the finds.

**Iron Age**

Areas of high sensitivity - as far as could be ascertained no sites dating to the Iron Age would be found in the vicinity of the proposed route.

- Mitigation - should any sites, features or object of cultural significance be exposed during excavation activities, all work in the region of the find must stop immediately and a heritage consultant should be contacted to investigate and evaluate the finds.

**Burial sites**

Areas of high sensitivity - although this type of site usually occur sporadically all over, none were identified in the proximity of the proposed route.

- Mitigation - as burial places are highly sensitive areas, it is recommended that they are demarcated off with danger tape, allowing a sufficient large enough buffer zone (e.g. 10 metres from the outside of the burial place) around it and declaring that as a no-go zone.

- Mitigation - should graves be exposed during excavation activities, all work in the region of the find must stop immediately and a heritage consultant should be contacted to investigate and evaluate the finds.

**Cultural landscapes**

Areas of high sensitivity - a number of features that forms part of the cultural landscape, such as memorials, entrance gates, avenues of trees and outspans/resting places occur sporadically all over. Many of these features are located on the borders of the road reserve. Fortunately, these features are clearly visible and it would be easy to avoid them.

- Mitigation - should any sites, features or object of cultural significance be exposed during excavation activities, all work in the region of the find must stop immediately and a heritage consultant should be contacted to investigate and evaluate the finds.

- Mitigation - surface features such as memorials, although illegal, should be respected and care should be taken to avoid damaging them. It is the easiest to demarcate them with danger tape, allowing a sufficient large enough buffer zone (e.g. 2 metres from the centre point) around it and declaring that as a no-go zone. If that is not possible, the feature must be photographed in situ, removed for the duration of construction to a safe storage facility and afterwards returned to its original position.

**Built environment**

Areas of high sensitivity - the proposed rapid transit route traverses the historic town cores of both Rustenburg and Phokeng. The installation might have an impact on heritage features such as pavements, water furrows, postal boxes, trees, etc. It is possible that some buried features may be uncovered/disturbed during construction work.
Mitigation – excavation/construction of the route through the historic town cores should be monitored by a heritage practitioner. Although this is not required on a full time basis, the project manager/ECO must be able to stop the work if anything such as refuse dumps, water furrows, etc. is uncovered in order to get a heritage consultant to investigate and evaluate the finds.

**Industrial heritage**

Areas of high sensitivity - old bridges, telephone lines and power lines occur sporadically all over. Such features, e.g. telephone lines, are usually located right on the border of the road reserve.

- Mitigation - if work is taking place in regions where such lines or bridges still exists, care should be taken to avoid causing damage.

In conclusion, if the above procedures as well as those set out in Section 7 of this report are adhered to, from a heritage point of view there are no reasons why the development of the rapid transit route cannot take place.
8. REFERENCES

8.1 Data bases

Chief Surveyor General

Environmental Potential Atlas, Department of Environmental Affairs and Tourism.

Heritage Atlas Database, Pretoria.

National Archives of South Africa

8.2 Literature


### 8.3 Maps and aerial photographs

1: 50 000 Topocadastral maps

Google Earth
APPENDIX 1. RELEVANT LEGISLATION

All archaeological and palaeontological sites, and meteorites are protected by the National Heritage Resources Act (Act no 25 of 1999) as stated in Section 35:

(1) Subject to the provisions of section 8, the protection of archaeological and palaeontological sites and material and meteorites is the responsibility of a provincial heritage resources authority: Provided that the protection of any wreck in the territorial waters and the maritime cultural zone shall be the responsibility of SAHRA.

(2) Subject to the provisions of subsection (8)(a), all archaeological objects, palaeontological material and meteorites are the property of the State. The responsible heritage authority must, on behalf of the State, at its discretion ensure that such objects are lodged with a museum or other public institution that has a collection policy acceptable to the heritage resources authority and may in so doing establish such terms and conditions as it sees fit for the conservation of such objects.

(3) Any person who discovers archaeological or palaeontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority, or to the nearest local authority offices or museum, which must immediately notify such heritage resources authority.

(4) No person may, without a permit issued by the responsible heritage resources authority-
   (a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
   (b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
   (c) trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
   (d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.

In terms of cemeteries and graves the following (Section 36):

(1) Where it is not the responsibility of any other authority, SAHRA must conserve and generally care for burial grounds and graves protected in terms of this section, and it may make such arrangements for their conservation as it sees fit.

(2) SAHRA must identify and record the graves of victims of conflict and any other graves which it deems to be of cultural significance and may erect memorials associated with the grave referred to in subsection (1), and must maintain such memorials.

(3) No person may, without a permit issued by SAHRA or a provincial heritage resources authority-
   (a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
   (b) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
   (c) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals.

(4) SAHRA or a provincial heritage resources authority may not issue a permit for the destruction or damage of any burial ground or grave referred to in subsection (3)(a) unless it is satisfied that the applicant has made satisfactory arrangements for the exhumation and re-interment of the contents of such graves, at the cost of the applicant and in accordance with any regulations made by the responsible heritage resources authority.
APPENDIX 2: CONVENTIONS USED TO ASSESS THE SIGNIFICANCE OF HERITAGE RESOURCES

Significance
According to the NHRA, Section 2(vi) the significance of heritage sites and artefacts is determined by its 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

<table>
<thead>
<tr>
<th>1. Historic value</th>
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<tbody>
<tr>
<td>Is it important in the community, or pattern of history</td>
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<tr>
<td>Does it have strong or special association with the life or work of a person, group or organisation of importance in history</td>
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<td>Does it have significance relating to the history of slavery</td>
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<th>2. Aesthetic value</th>
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<tr>
<td>It is important in exhibiting particular aesthetic characteristics valued by a community or cultural group</td>
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<th>3. Scientific value</th>
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<tbody>
<tr>
<td>Does it have potential to yield information that will contribute to an understanding of natural or cultural heritage</td>
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<td>Is it important in demonstrating a high degree of creative or technical achievement at a particular period</td>
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<th>4. Social value</th>
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<tr>
<td>Does it have strong or special association with a particular community or cultural group for social, cultural or spiritual reasons</td>
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<th>5. Rarity</th>
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<tr>
<td>Does it possess uncommon, rare or endangered aspects of natural or cultural heritage</td>
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<th>6. Representivity</th>
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<tr>
<td>Is it important in demonstrating the principal characteristics of a particular class of natural or cultural places or objects</td>
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<tr>
<td>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</td>
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<tr>
<td>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.</td>
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<th>7. Sphere of Significance</th>
<th>High</th>
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<th>Low</th>
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<tr>
<td>International</td>
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<td>National</td>
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<td>Provincial</td>
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<td>Regional</td>
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<td>Local</td>
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<tr>
<td>Specific community</td>
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<th>8. Significance rating of feature</th>
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<tbody>
<tr>
<td>1. Low</td>
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<tr>
<td>2. Medium</td>
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<td>3. High</td>
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