

Phase 1 Archaeological and Heritage Impact Assessment on the
Remainder of Portion 186 of the farm Tiegerpoort 371 JR in respect of a
proposed hospitality development, City of Tshwane, Gauteng Province.

Compiled by:



For Henwood Environmental Solutions

Surveyor: Mr JP Celliers

6 November, 2018

I, Jean-Pierre Celliers as duly authorised representative of Kudzala Antiquity CC, hereby confirm my independence as a specialist and declare that neither I nor the Kudzala Antiquity CC have any interest, be it business, financial, personal or other, in any proposed activity, application or appeal in respect of which the client was appointed as Environmental Assessment practitioner, other than fair remuneration for work performed on this project.

SIGNATURE:

A handwritten signature in black ink, appearing to read 'J. Celliers', written over a horizontal line.

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Executive summary

Site name and location: An area of approximately 4,4 hectares on a Remainder of Portion 186 of the farm Tiegerpoort 371 JR in respect of the establishment of a lodge, wedding venue and associated infrastructure.

Purpose of the study: An archaeological and heritage study in order to identify cultural heritage resources in respect of proposed vegetation clearing for the establishment of agricultural activity.

Topographical Maps: 1:50 000 2530 BD (1943, 1970, 1984, 2010)

EIA Consultant: Henwood Environmental Services

Client:

Heritage Consultant: Kudzala Antiquity CC.

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Report date: 6 September 2018

Description and findings:

An Archaeological and Heritage Impact Assessment was undertaken by Kudzala Antiquity CC in respect of the proposed establishment of a lodge, wedding venue and associated infrastructure on an approximate 4 hectare area on Portion 186 of the farm Tiegerpoort 371 JR near The City of Tshwane in Gauteng Province. The study was done with the aim of identifying sites which are of heritage significance on the identified project areas and assess their current preservation condition, significance and possible impact of the proposed action. This forms part of legislative requirements as appears in section 38 of the National Heritage Resources Act (Act No. 25 of 1999) and the National Environmental Management Act (NEMA, 17 of 1998).

The survey was conducted on foot and with the aid of a motor vehicle in an effort to locate archaeological remains and historic sites, structures and features. Archival information including scrutiny of previous heritage surveys of the area formed the baseline information against which the survey was conducted. Six sites were documented during the survey (sites TRP1-6).

In terms of section 34 of the National Heritage Resources Act (NHRA, 25 of 1999), the ruined remains of built structures and features (sites TRP 1-5) and a stone-packed circular structure, possibly a rondavel, (site TRP 6) were documented but they are regarded as being of low significance.

In terms of section 35 of the NHRA, no archaeological sites were located.

In terms of section 36 of the NHRA, no graves or graveyards were documented. It should be noted however that poorly visible or non-visible graves may be present at sites TRP 3 and TRP 6

therefore any proposed development activities should take place beyond a 20 meter buffer of these ruins.

A total of nine (9) survey orientation locations were documented (SO 1-9) which includes a GPS location and photographs of the landscape at that particular location.

It is not within the expertise of this report or the surveyor to comment on possible palaeontological remains which may be located in the study area.

Disclaimer: *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. Kudzala Antiquity CC will not be held liable for such oversights or for costs incurred as a result of such oversights.*

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- The results of the project;
- The technology described in any report; and
- Recommendations delivered to the client.

Introduction

1.1. Terms of reference

Kudzala Antiquity CC was commissioned to conduct an archaeological and heritage resources survey in respect of the proposed establishment of a lodge and wedding venue on an approximate 4 hectare area of Portion 186 of the farm Tiegerpoort 371 JR near The City of Tshwane, Gauteng Province. The survey was conducted in order to assess the potential impact that the proposed activity may have on archaeological and heritage resources. The survey was conducted for Henwood Environmental Solutions.

1.1.1 Project overview

The client is in the process of obtaining environmental authorization to establish a lodge, wedding venue and associated amenities on selected portions within an area of approximately 4 hectares. Suitable pieces of land within this identified area will be earmarked for this activity pending environmental authorization. The lodge will consist of the following structures:

- Accommodation units;
- Conference centre / social hall
- Wedding chapel; staff quarters; and
- Place of refreshment with ancillary and subservient uses

The related and subservient uses will be inter alia reception, place of refreshment, place of amusement, laundromat, storage facility, bar, office, kitchen, lounge, dining yard and an open stoep.

The property is 4.4ha in extent of which the structures in total will occupy $\pm 1260\text{m}^2$.

Access to the site will be as present off Tierpoort road linking the Nkwe Road situated approximately 440m to the north and to Rooikat Street situated approximately 540m to the south. See the proposed site layout plan of the development in Appendix C.

1.1.2. Constraints and limitations

Surface visibility and access was reduced in some portions of the study area due to very dense bush and undergrowth and dense thick grass cover.

1.2. Legislative Framework

The National Heritage Resources Act (NHRA) (Act No. 25, 1999) and the National Environmental Management Act (NEMA) (Act No. 107 of 1998) require that individuals or institutions have specialist heritage impact assessment studies undertaken whenever development activities are planned and such activities trigger activities listed in the legislation. This report is the result of an archaeological and heritage study in accordance with the requirements as set out in Section 38 (3) of the NHRA in an effort to ensure that heritage features or sites that qualify as part of the national estate are properly managed and not damaged or destroyed.

The study aims to address the following objectives:

- Analysis of heritage issues;
- Assess the cultural significance of identified places including archaeological sites and features, buildings and structures, graves and burial grounds within a specific historic context;
- Identifying the need for more research;
- Surveying and mapping of identified places including archaeological sites and features, buildings and structures, graves and burial grounds;
- A preliminary assessment of the feasibility of the proposed development or construction from a heritage perspective;
- Identifying the need for alternatives when necessary; and
- Recommending mitigation measures to address any negative impacts on archaeological and heritage resources.

Heritage resources considered to be part of the national estate include those that are of archaeological, cultural or historical significance or have other special value to the present community or future generations.

The national estate may 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 paleontological sites;
- graves and burial grounds including:
 - (i) ancestral graves;

- (ii) royal graves and graves of traditional leaders;
- (iii) graves of victims of conflict;
- (iv) graves of individuals designated by the Minister by notice in the *Gazette*;
- (v) 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 slavery in South Africa;
- movable objects including:
 - (i) objects recovered from the soil or waters of South Africa, including archaeological and paleontological objects and material, meteorites and rare geological specimens;
 - (ii) objects to which oral traditions are attached or which are associated with living heritage
 - (iii) ethnographic art and objects;
 - (iv) military objects
 - (v) objects of decorative or fine art;
 - (vi) objects of scientific or technological interest; and
 - (vii) 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 of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).

Cultural resources are unique and non-renewable physical phenomena (of natural occurrence or made by humans) that can be associated with human (cultural) activities (Van Vollenhoven 1995:3). These would be any man-made structure, tool, object of art or waste that was left behind on or beneath the soil surface by historic or pre-historic communities. These remains, when studied in their original context by archaeologists, are interpreted in an attempt to understand, identify and reconstruct the activities and lifestyles of past communities. When these items are removed from their original context, any meaningful information they possess is lost, therefore it is important to locate and identify such remains before construction or development activities commence.

1.3. Approach and statutory requirements

The SAHRA Minimum standards of 2007 guideline document, forms the background against which the survey was planned and the report compiled. An Archaeological Impact Assessment (AIA) consists of three phases. This document deals with the first phase. This (phase 1) investigation is aimed at getting an overview of cultural resources in the project area, assigning significance to these resources, assessing the possible impact that the proposed activity may have on these resources, making recommendations pertaining to the management of heritage resources and putting forward mitigation measures where applicable.

When the archaeologist or heritage specialist encounters a situation where the planned project will lead to the destruction or alteration of an archaeological/ heritage site or feature, a second phase

investigation is normally recommended. During a phase two investigation mitigation measures are put in place and detailed investigation into the nature of the cultural material is undertaken. Often at this stage, archaeological excavation and detailed mapping of a site is carried out in order to document and preserve the cultural heritage.

Phase three consists of the compiling of a management plan for the safeguarding, conservation, interpretation and utilization of cultural resources (Van Vollenhoven, 2002).

Continuous communication between the developer and heritage specialist after the initial assessment has been carried out may result in the modification of a planned route or development to incorporate or protect existing archaeological and heritage sites.

2. Description of surveyed area

The study area falls within the City of Tshwane, Gauteng Province.

The survey was carried out on a project footprint consisting of approximately 4 hectares of Rand Highveld Grassland. The Survey area is situated approximately 25km SE of Pretoria in the Tierpoort on the side of Tierpoort Rd which was used as an access route and is also the NW edge of the survey area. The entire area is situated on the side of a 35-40-degree downward slope towards the SW edge of the survey area. The NE edge of the area is a residential/ industrial yard. The edge of the survey area is a fence line running down the slope towards a dry stream. The SW edge runs along a small dry stream.

There are a few small thickets as well as one large thicket of trees spread out over the survey area. The smaller thickets contained no archaeological remains.

Summary of finds: The Large thicket of trees contained scattered remains of walls, foundations and mud bricks that seem to be sun-dried and made from onsite materials. Within the large thicket are also the remains of a rondavel-like structure. These ruins all seem historical in origin. The survey area also shows signs of at least two levels of terracing that run along a large part of the survey area. The terracing seems to run parallel with the dry stream.

Veld type: The vegetation forms part of the Grassland Biome and classed as Rand Highveld Grassland. This veld type occurs in Gauteng, North-West, Free State and Mpumalanga Provinces in areas between rocky ridges from Pretoria to Witbank, extending onto ridges in the Stoffberg and Roossenekal regions as well as west of Krugersdorp and centred in the vicinity of Derby and Potchefstroom and extending southwards and northeastwards from there. This grassland type is found at altitudes of between 1300-1635m (Mucina and Rutherford, 2009).

Geology and soils: The geology consists of Quartzite ridges of the Witwatersrand Supergroup and the Pretoria Group as well as the Selons River Formation of the Rooiberg Group. This support soils of various qualities (Mucina and Rutherford, 2009).

Limiting factors: As mentioned under Constraints and Limitations above, in some parts of the project area dense undergrowth and grass cover limited visibility.

3. Methodology

This study consists of a detailed archival study in order to understand the study area in a historical timeframe, an archaeological background study which include scrutiny of previous archaeological reports of the area, obtained through the SAHRIS database, and published as well as unpublished written sources on the archaeology of the area, social consultation with people who live nearby and a lastly a physical survey of the affected and immediate area.

The South African Heritage Resources Agency (SAHRA) and the relevant legislation (NHRA) require that the following components be included in an archaeological impact assessment:

- Archaeology;
- Shipwrecks;
- Battlefields;
- Graves;
- Structures older than 60 years;
- Living heritage;
- Historical settlements;
- Landscapes;
- Geological sites; and
- Paleontological sites and objects.

All the above-mentioned heritage components are addressed in this report, except shipwrecks, geological sites and paleontological sites and objects.

The **purpose** of the archaeological, archival and heritage study is to establish the whereabouts and nature of cultural heritage sites should they occur on project area. This includes settlements, structures and artefacts which have value for an individual or group of people in terms of historical, archaeological, architectural and human (cultural) development.

The **aim** of this study is to locate and identify such objects or places in order to assess and rate their significance and establish if further investigation is needed. Mitigation measures can then be suggested and put in place when necessary.

3.1. Archaeological and Archival background studies

The purpose of the desktop study is to compile as much information as possible on the heritage resources of the area. This helps to provide an historical context for located sites. Sources used for this study include published and unpublished documents, archival material and maps. Information obtained from the following institutions or individuals were consulted:

- Published and unpublished archaeological reports and articles;
- Published and unpublished historical reports and articles;
- Archival documents from the National Archives in Pretoria;
- Historical maps; and
- South African Heritage Resource Information System (SAHRIS) database.

3.1.1. Previous archaeological studies in the area

Some archaeological impact assessments (AIA's) and heritage impact assessments have been done in the vicinity of the proposed development area.

Author	Year	Project name	Findings
Van Schalkwyk, J	2003	Heritage Resources In The Western Section Of The Kungwini Local Municipality, Gauteng Province	Stone age occurrences as well as Iron Age sites.
Birkholtz, P.	2009	AIA Ext 9 Kameeldrift, Kameeldrift 298 JR. Gauteng Province.	Iron age Sites and grave sites
Coetzee, F.	2008	Cultural Heritage Survey of the Proposed Residential Development on Portions 281, 282 and 283 of the Farm Zwavelpoort 373JR, Tswane Municipality	Structures older than 60 years.
Roodt, F.	2005	Phase 1 Heritage Impact assessment on Portion 182 and 209 of the farm Zwavelpoort 373 JR.	Historical structures and a grave

3.1.2. Historic maps

Historical maps were scrutinized and features that were regarded as important in terms of heritage value were identified and if they were located within the boundaries of the project area they were physically visited in an effort to determine:

- (i) whether they still exist;
- (ii) their current condition; and
- (iii) significance.

3.1.3. Physical survey

- The survey of the study area was conducted on 25 October 2018
- The survey took one day to complete.
- The documented sites were numbered sequentially.
- Sites were recorded by using a handheld Garmin Oregon 450 GPS unit and the unit was given time to reach an accuracy of at least 5 metres.
- Sites were plotted on 1:50 000 topographical maps which are geo-referenced (WGS 84) and also on Google Earth.
- Six sites were documented and consist of low significance built environment sites. A number of survey orientation sites were mapped for survey purposes.

3.2. Heritage site significance

The South African Heritage Resources Agency (SAHRA) formulated guidelines for the conservation of all cultural resources (sections 6 and 7 of the NHRA, 1999) and therefore also divided such sites into three main categories. These categories might be seen as guidelines that suggest the extent of protection a given site might receive. They include sites or features of local (Grade 3) provincial (Grade 2) national (Grade 1) significance, grades of *local significance* and *generally protected* sites with a variety of degrees of significance.

For practical purposes the surveyor uses his own classification for sites or features and divides them into three groups, those of low or no significance, those of medium significance and those of high significance (**Also see table 5.2. Significance rating guidelines for sites**).

Values used to assign significance and impact characteristics to a site include:

- **Types of significance**

The site's scientific, aesthetic and historic significance or a combination of these is established.

- **Degrees of significance**

The archaeological or historic site's rarity and representative value is considered. The condition of the site is also an important consideration.

- **Spheres of significance**

Sites are categorized as being significant in the international, national, provincial, regional or local context. Significance of a site for a specific community is also taken into consideration.

To arrive at the specific allocation of significance of a site or feature, the specialist considers the following:

- Historic context;
- Archaeological context or scientific value;
- Social value;
- Aesthetic value; and
- Research value.

More specific criteria used by the specialist in order to allocate value or significance to a site include:

- The unique nature of a site;
- The integrity of the archaeological deposit;
- The wider historic, archaeological and geographic context of the site;
- The location of the site in relation to other similar sites or features;
- The depth of the archaeological deposit (when it can be determined or is known);
- The preservation condition of the site;
- Quality of the archaeological or historic material of the site; and
- Quantity of sites and site features.

Archaeological and historic sites containing data, which may significantly enhance the knowledge that archaeologists currently have about our cultural heritage, should be considered highly valuable. In all instances these sites should be preserved and not damaged during construction activities. However, when development activities jeopardize the future of such a site, a second and third phase in the Cultural Resource Management (CRM) process is normally advised. This entails the excavation or rescue excavation of cultural material, along with a management plan to be drafted for the preservation of the site or sites.

Graves are considered very sensitive sites and should never under any circumstances be jeopardized by development activities. Graves and burial grounds are incorporated in the NHRA under section 36 and in all instances where graves are found by the surveyor, the recommendation would be to steer clear of these areas. If this is not possible or if construction activities have for some reason damaged graves, specialized consultants are normally contacted to aid in the process of exhumation and re-interment of the human remains.

4. History and Archaeology

4.1. Historic period

4.1.1. Early History

In Southern Africa the domestication of the environment began only a couple of thousands of years ago, when agriculture and herding were introduced. At some time during the last half of the first millennium BC, people living in the region where Botswana, Zambia and Angola are today, started moving southward, until they reached the Highveld and the Cape in the area of modern South Africa. As time passed and the sub-continent became fully settled, these agro-pastoralists, who spoke Bantu languages, started dominating all those areas which were ecologically suitable for their way of life. This included roughly the eastern half of modern South Africa, the eastern fringe of Botswana and the north of Namibia. Historians agree that the earliest Africans to inhabit in the Lowveld in Mpumalanga were of Sotho, or more particularly Koni-origin.

Up until the 1930s, malaria would have occurred sporadically in the study area during the rainy season. During the first half of the nineteenth century, Tsetse flies also thrived in this area. Pastoralists would have avoided the moist low-lying valleys and thickly wooded regions where these insects preferred to congregate. It is unlikely that populations would be dense in areas where malaria and the “sleeping sickness” transferred by Tsetse flies was a constant threat to humans and their stock (Bergh 1999: 3; Shillington 1995: 32).

In a few decades, the course of history in the old Transvaal province would change forever. The Difaqane (Sotho), or Mfekane (“the crushing” in Nguni) was a time of bloody upheavals in Natal and on the Highveld, which occurred around the early 1820s until the late 1830s. It came about in response to heightened competition for land and trade, and caused population groups like gun-carrying Griquas and Shaka’s Zulus to attack other tribes.

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During the time of the Difaqane, a northwards migration of white settlers from the Cape was also taking place. Some travellers, missionaries and adventurers had gone on expeditions to the northern areas in South Africa, some as early as the 1720’s. The Scottish travellers Robert Scoon and William

McLuckie passed close by the area where Pretoria is situated today in 1829. In the same year, Robert Moffat and James Archbell also travelled through this area. In the mid 1830's, several travellers made their way from the Pretoria area inland. These included the travellers Robert Scoon, Dr. Andrew Smith and Captain William Cornwallis Harris (Bergh, 1999: 12-13).

It was however only by the late 1820's that a mass-movement of Dutch speaking people in the Cape Colony started advancing into the northern areas. This was due to feelings of mounting dissatisfaction caused by economical and other circumstances in the Cape. This movement later became known as the Great Trek. This migration resulted in a massive increase in the extent of that proportion of modern South Africa dominated by people of European descent (Ross 2002: 39).

Pretoria was founded in 1855 and became the capital of South Africa, then known as the Zuid-Afrikaanse Republiek (ZAR), in 1860. By 1900, Pretoria was a thriving Transvaal town, with shaded streets, well-kept gardens and a lively economy. In mid-1899, the Pretoria district had a white population of 21 000 men and 19 000 women, while the black, coloured and Indian population totalled 38 618 (Theron 1984: 1-3).

4.1.2. History of the Anglo Boer War (1899-1902) in the area

The discovery of diamonds and gold in the Northern provinces had very important consequences for South Africa. After the discovery of these resources, the British, who at the time had colonized the Cape and Natal, had intentions of expanding their territory into the northern Boer republics. This eventually led to the Anglo-Boer War, which took place between 1899 and 1902 in South Africa, and which was one of the most turbulent times in South Africa's history.

Even before the outbreak of war in October 1899 British politicians, including Sir Alfred Milner and Mr. Chamberlain, had declared that should Britain's differences with the Z.A.R. result in violence, it would mean the end of republican independence. This decision was not immediately publicised, and as a consequence republican leaders based their assessment of British intentions on the more moderate public utterances of British leaders. Consequently, in March 1900, they asked Lord Salisbury to agree to peace on the basis of the status quo ante bellum. Salisbury's reply was, however, a clear statement of British war aims (Du Preez, 1977).

During the British advance between February to September 1900, Lord Roberts replaced Genl. Buller as the supreme commander and applied a different tactic in confronting the Boer forces instead of a frontal attack approach he opted to encircle the enemy. This proved successful and resulted for instance in the surrender of Genl. Piet Cronje and 4000 burghers at Paardeberg on 27 February 1900.

This was the start of a number of victories for the British and shortly after they occupied Pretoria on 5 June 1900, a skirmish at Diamond Hill resulted in the Boer forces under command of Louis Botha, retreated alongside the Delagoa Bay railway to the east. Between the 21-27 August, Botha and 5000 burghers defended their line at Bergendal but were overwhelmed by superior numbers and artillery. This resulted in the Boer forces retreating even further east and three weeks later the British reached Komatipoort and thus the whole of the Eastern Transvaal south of the Delagoa Bay railway line was now occupied by British Forces.

The War also affected the Pretoria district. Separate concentration camps for white and a black folk were located to the southwest of Pretoria, in Irene. One battle took place at Silkaatsnek, to the northwest of Pretoria. Here, General De la Rey's Boer troops defeated the British army on 11 July 1900. The Boer side however generally lost ground against the British as the war continued, and in June 1900 the Boer military leaders decided that Pretoria would have to be surrendered to the British forces. This decision was inevitable if the war was to be continued. The town was very susceptible to a siege, and its defence would have gravely endangered the lives of its inhabitants. More importantly, the defence of the town would involve such a great number of Boers that the capture of these men would have surely meant the end of the war. Pretoria was therefore occupied by British forces on Tuesday 5 June 1900 (Bergh, 1999: 54, 250; Theron 1984: 273-279).

4.1.3. Historic maps of the study area

Since the mid-1800s up until the present, South Africa has been divided and re-divided into various districts. Since 1857, the property under investigation formed part of the Pretoria district. This remained the case until 1977, when the area under investigation was incorporated into the Bronkhorstspuit district. The new province of Gauteng was established in 1994, and the study area currently forms part of the large City of Tshwane Metropolitan Municipality, which was established in 2000 (Bergh, 1999: 17, 20-27).

When the property was surveyed in 1853 it was named Tiegerpoort 398 (sometimes misspelled as Tygerpoort or Tigerpoort). After 1950, the farm became known as Tiegerpoort 371 JR.



Fig. 4.1. A map of the Pretoria and Heidelberg gold fields dated 1887. The property under investigation, bordered in yellow, was known as Tygerpoort at the time. Pretoria is visible to the north west of the farm (Troye,1887).



Fig. 4.2. Map of the Pretoria district, dated 1917. The farm was known as Tiegerpoort 398 at the time, and formed part of the Bronkhorstspuit district (NARSSA 1917).

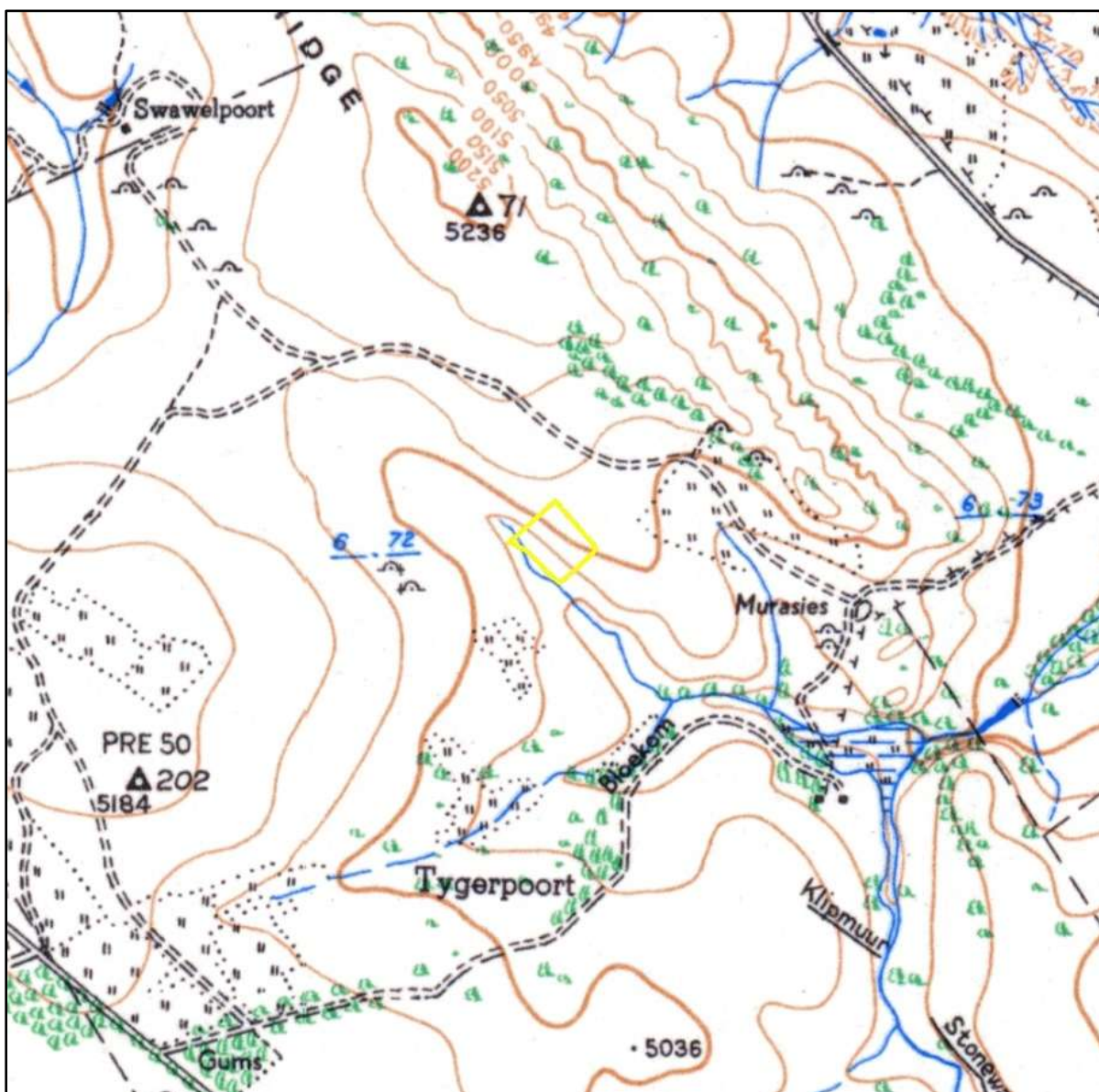


Fig. 4.3. Topographical map of the area under investigation dated 1944. A yellow border shows the approximate location of the study area. The site was located to the east of a river. To the north, one can see a road, to the west two huts, to the south a section of cultivated land and to the east more cultivated lands, huts and ruins. No buildings or other developments can be seen in the study area (Topographical Map 1944).

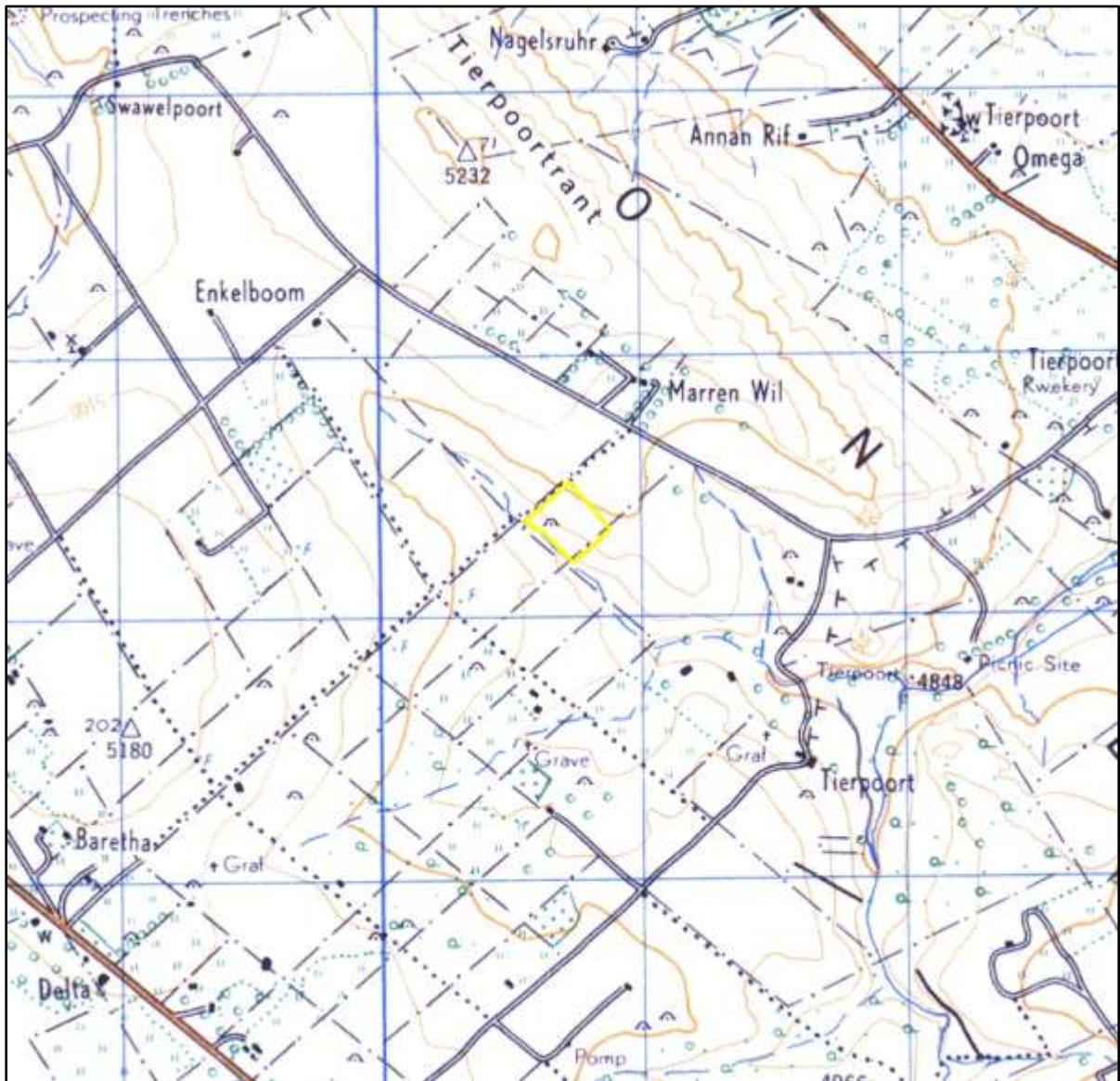


Fig. 4.4. Topographical map of the area under investigation dated 1964. A yellow border shows the approximate location of the study area. An area including the site under investigation had been divided into lots. A track / footpath formed the north western boundary of the site, and a river ran along its western boundary. A hut can be seen in the study area. A road and the Marren Wil site can be seen to the north east (Topographical Map 1964).

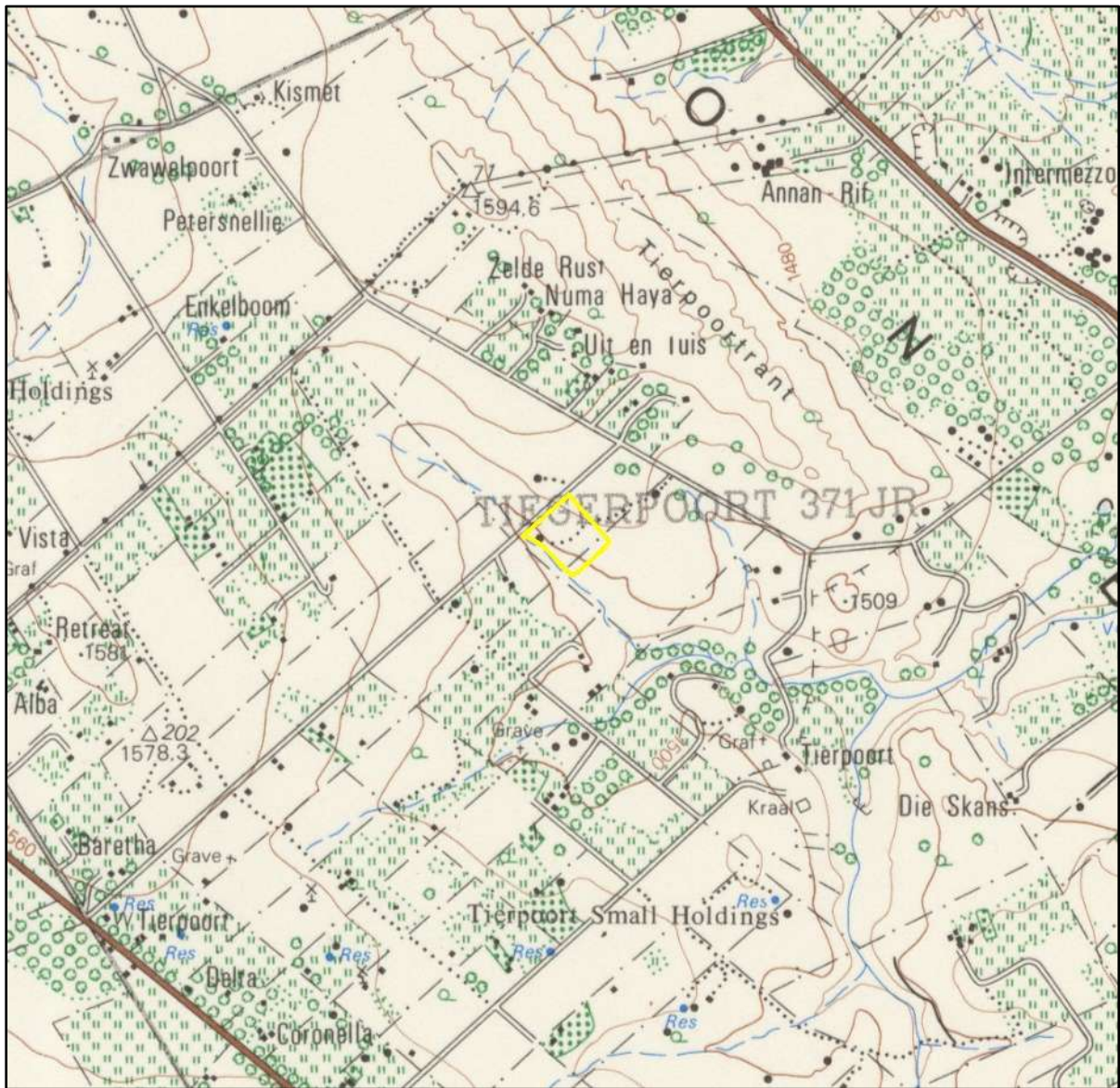


Fig. 4.5. Topographical map of the area under investigation dated to 1975. A yellow border shows the approximate location of the study area. The site under investigation formed part of the Tierpoort Small Holdings. A minor road formed the north western boundary of the site, and a river ran along its western boundary. A hut is still visible at the same place in the study area, and one can see footpaths leading from this building to individual huts nearby (Topographical Map 1975).

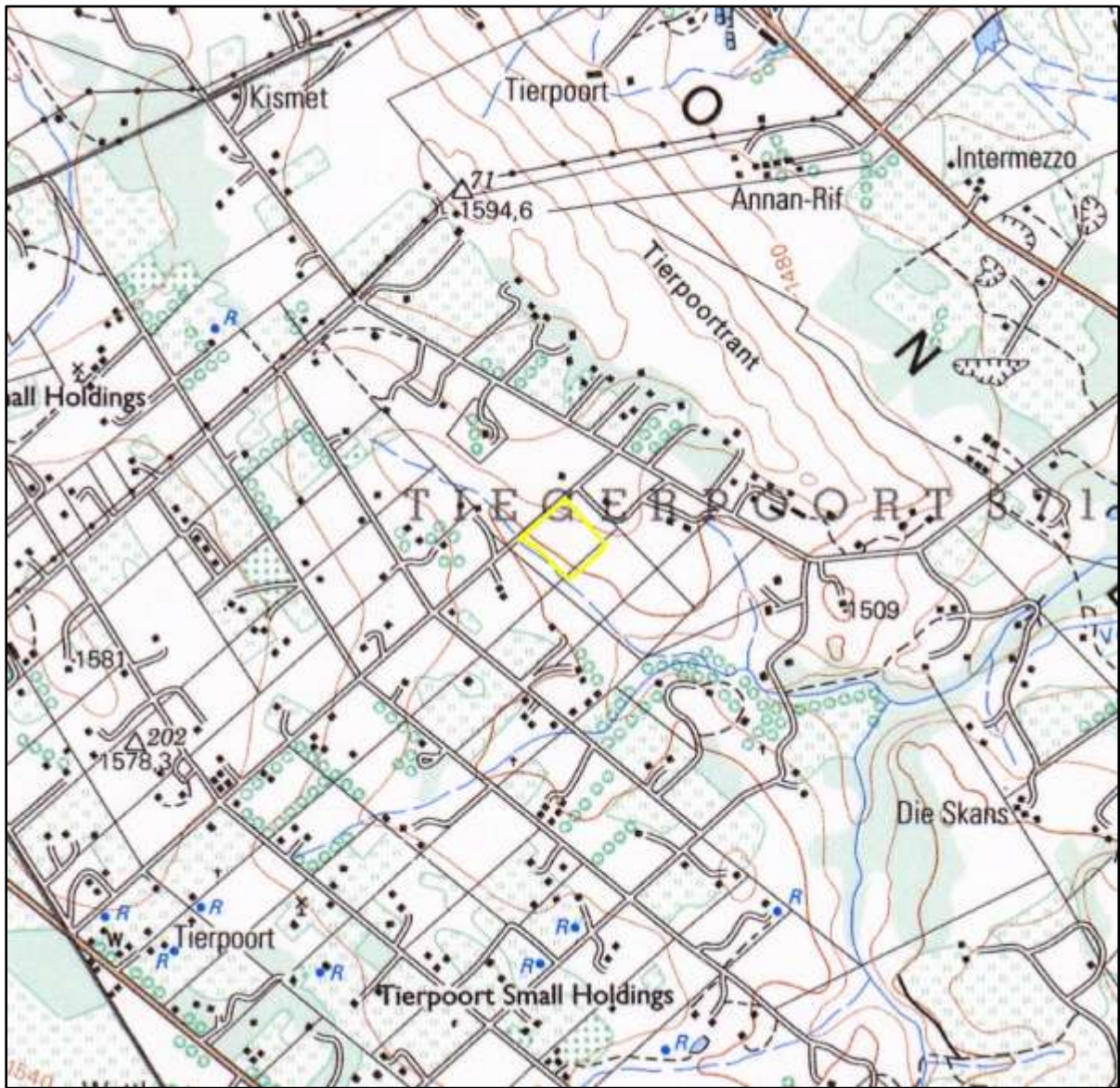


Fig. 4.6. Topographical map of the area under investigation dated 1991. A yellow border shows the approximate location of the study area. The site under investigation formed part of the Tierpoort Small Holdings. A minor road formed the north western boundary of the site, and a river ran along its western boundary. No buildings or other developments are visible in the study area. The hut visible on previous editions was probably not mapped due to its ruined state (Topographical Map 1991).

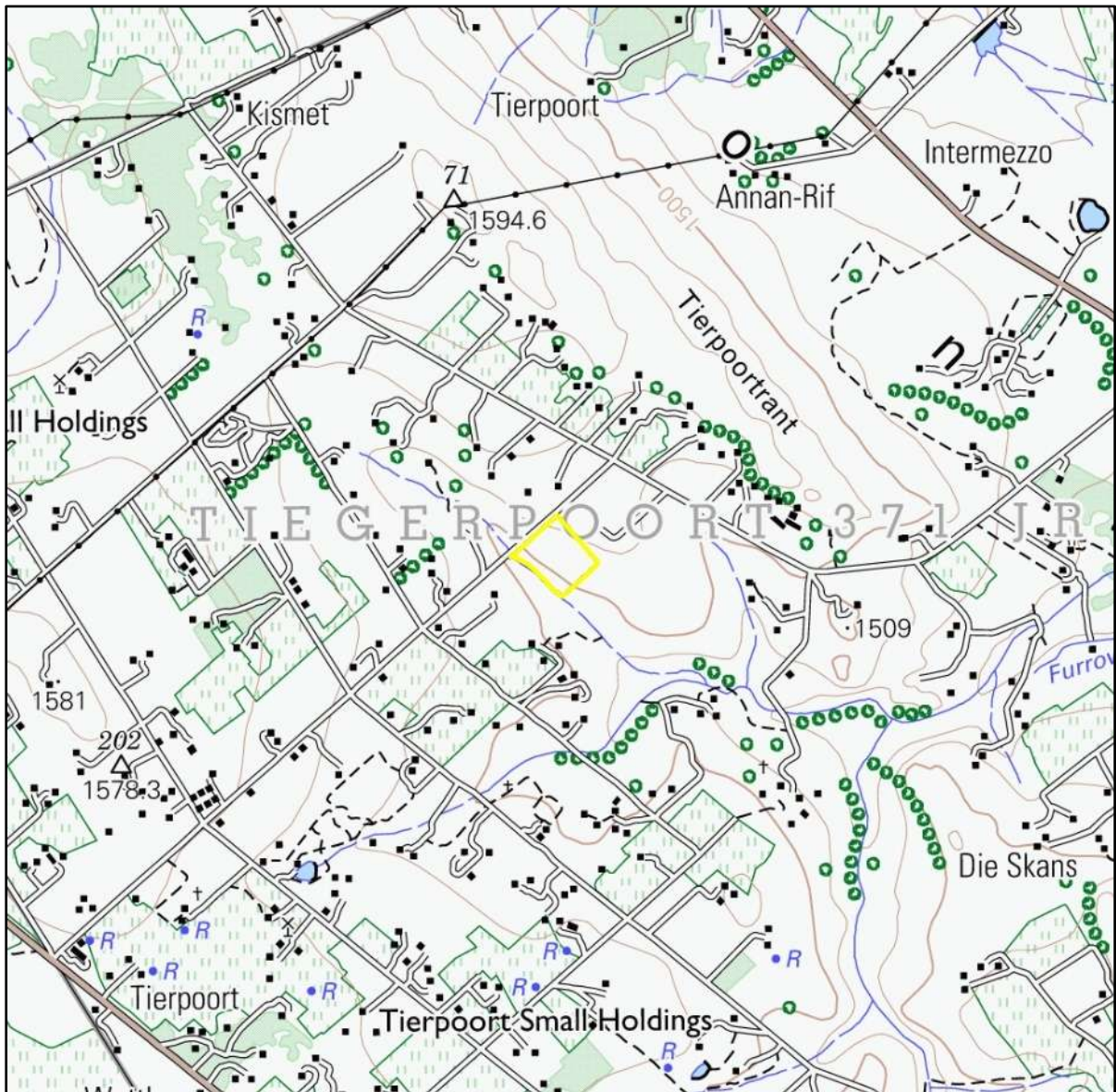


Fig. 4.7. Topographical map of the area under investigation dated to 2001. A yellow border shows the approximate location of the study area. The site under investigation formed part of the Tierpoort Small Holdings. A minor road formed the north western boundary of the site, and a river ran along its western boundary. No buildings or other developments are visible in the study area (Topographical Map 2001).

4.1.4. Historical overview of the ownership and development of the farm Tiegerpoort 371 JR.

Between 1839 and 1840, farm boundaries were drawn up in an area that includes the present-day Pretoria. Tiegerpoort 398 was surveyed in 1853 (Bergh, 1999: 15; NARSSA *TAB*, *RAK*: 2991).

Record of historical landowners

The farm Tiegerpoort 398 located in the ward Aap River, was inspected by A. P. van der Walt on 6 April 1853, and measured approximately 3000 morgen. On 20 December 1859, the deed to the farm was transported to L. L. Holthauzen, who sold it to B. J. van Jaarsveld on the same day. The property was transported from Van Jaarsveld to P. P. Henning directly thereafter, and the latter proceeded to transfer half of the farm to Jan Hendrik Henning. The farm remained in the Henning family until the late 1800s, after which time it was subdivided into several portions (NARSSA *TAB*, *RAK*: 2991).

An enquiry on the Windeed Search Engine provided the following ownership information on Portion 186 of Tiegerpoort 371 JR:

Date	Portion	Transported from	Transported to
1979	186	-	Jacobus Cornelius Schafer
1990	186	J. C. Schafer	Johannes Hendrik Wagener
1990	186	J. H. Wagener	Standard Bank of SA Ltd.

(Windeed Search Engine 2018)

History of land use

In 1901 “Koos” of the farm “Tigerpoort” (variation of Tiegerpoort), near Eerste Fabrieken, applied to the Superintendent of Native Affairs. He reported that his kraal had been burned, together with the kraals of other people in the area, and that they wished to move to Irene if shelter could be found there. This was during the time of the Anglo-Boer War (1899-1902). The Native Affairs Department wrote to the Military Governor in September 1901, enquiring whether it would be possible to get these families admitted to one of Captain Lotbiniere’s refugee camps (NARSSA *TAB*, *SNA*: 3 NA33/0).

In a letter dated 3rd October 1901, Koos testified the following: “I reside on the farm Tigerpoort, near Eerste Fabrieken. About four weeks ago a detachment of Morley’s Scouts came to my kraal and said to me that as I had behaved well and given no trouble I need not fear any harm. About two weeks ago another detachment of the same corps, - of Captain Gibson’s squadron, came to my kraal and set fire to it. The whole of the place was burned but the corn and clothing were saved. Another kraal

on Tigerpoort shared the same fate as mine. Several kraals on the adjoining farms, Mooiplaats and Boschkop, were also destroyed. Captain Gibson was not present at the burning of my kraal, but I am sure that it was done by his men. They told me that they were carrying out the instructions of the Government, in burning the kraal. They seized all my fowls but did not take anything else. Some of the people thus rendered homeless have gone to Pienaars River, others to Eerste Fabrieken. I do not know whether they have obtained any shelter. I and the inmates of my kraal wish to move to Irene if any accommodation can be found for us there.” (NARSSA TAB, SNA: 3 NA33/01).

Headman Koos also noted that no violence was used. The six scouts who had burned his kraal were all surrendered burghers, and about thirteen *stads* in the area had been destroyed. There were orders from the Military Commander in Chief at the time that all *stads* in the area had to be destroyed, and the people collected into “Native Refugee Camps”. Unless the O. C. Eerste Fabrieken required workers, the families would be sent to the nearest camp, which was Bronkhorst Spruit. The *stads* that had been burned, including the homestead of the headman “Koos”, were located on private farms owned by Boers (NARSSA TAB, SNA: 3 NA33/01).

In 1914 a portion of two morgen of Tiegertpoort 398 was purchased and approved to be used for educational purposes by the Department of Lands. By 1916 plans were underway to construct a school for 48 students, as well as teachers’ quarters at this site. A tender for the construction of the buildings by one Mr L. Canrinus of Pretoria was accepted in August 1916. The three month building contract commenced in September of that year (NARSSA SAB, PWD: 335 573).

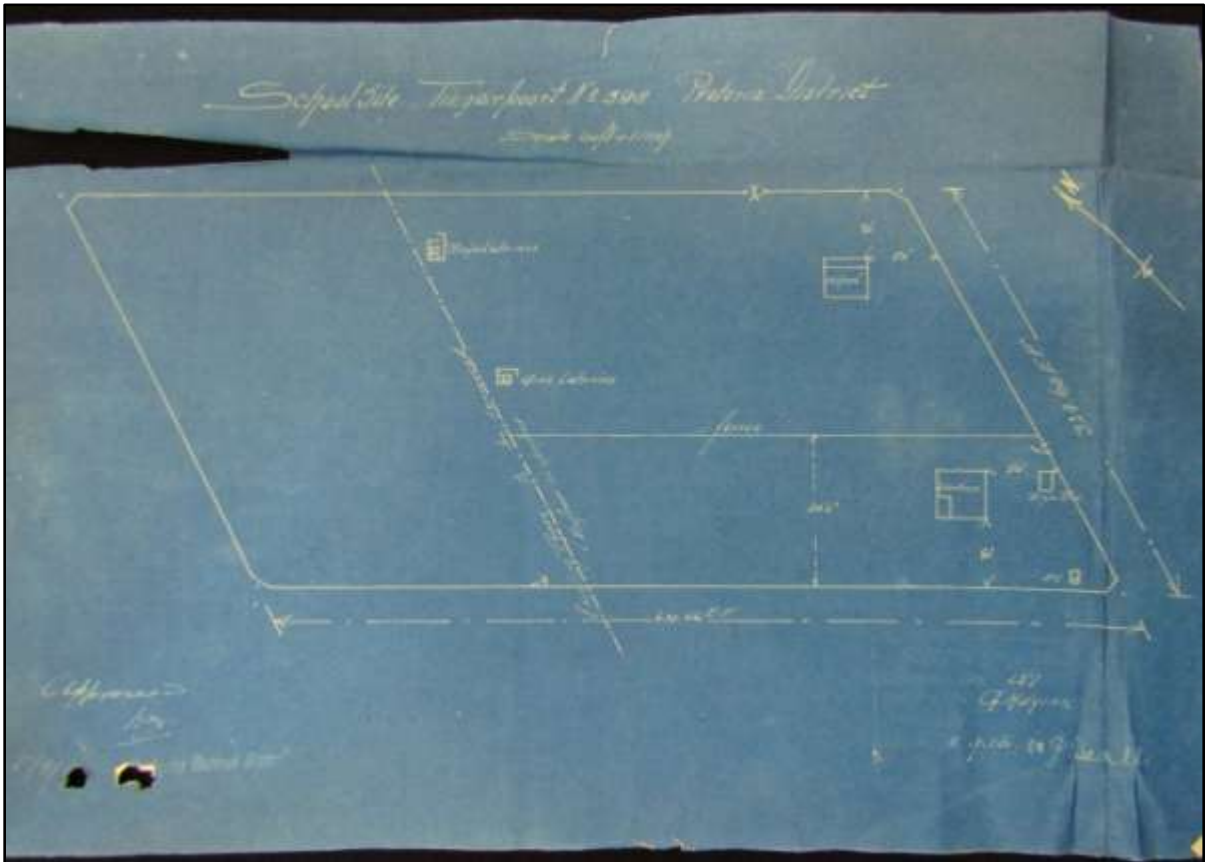


Fig. 4.8. Plan for a school on Tygerpoort dated 1916 (NARSSA SAB, PWD: 335 573).

Tygerpoort Steenwerke was established in 1936, and later became known as W. S. R. Steenwerke. In 1977 the brickworks was renamed Siegerpoort Steenwerke. By the late 1970s plans were underway to build living quarters for the workers on the nearby farm Klipkop 211. According to the company there was a demand for the production of bricks, and it was hoped that its operations could be expanded to a brick yard on Klipkop. By the early 1980s a petition was set up by various individuals from the area, complaining about the increased traffic and pollution caused due to the brickworks operation. The Minister of Industries, Commerce and Tourism however approved the expansion of the Tygerpoort Brickworks to Klipkop 211 in July 1981 (NARSSA SAB, BAO: 3/4031 A12/2/6/B78/14).

By 1970 a western part of Tygerpoort 371 JR had been subdivided into lots. The map below shows the location of the lot under investigation (yellow border). (NARSSA SAB, CDB: 3/864 TAD9/37/16).

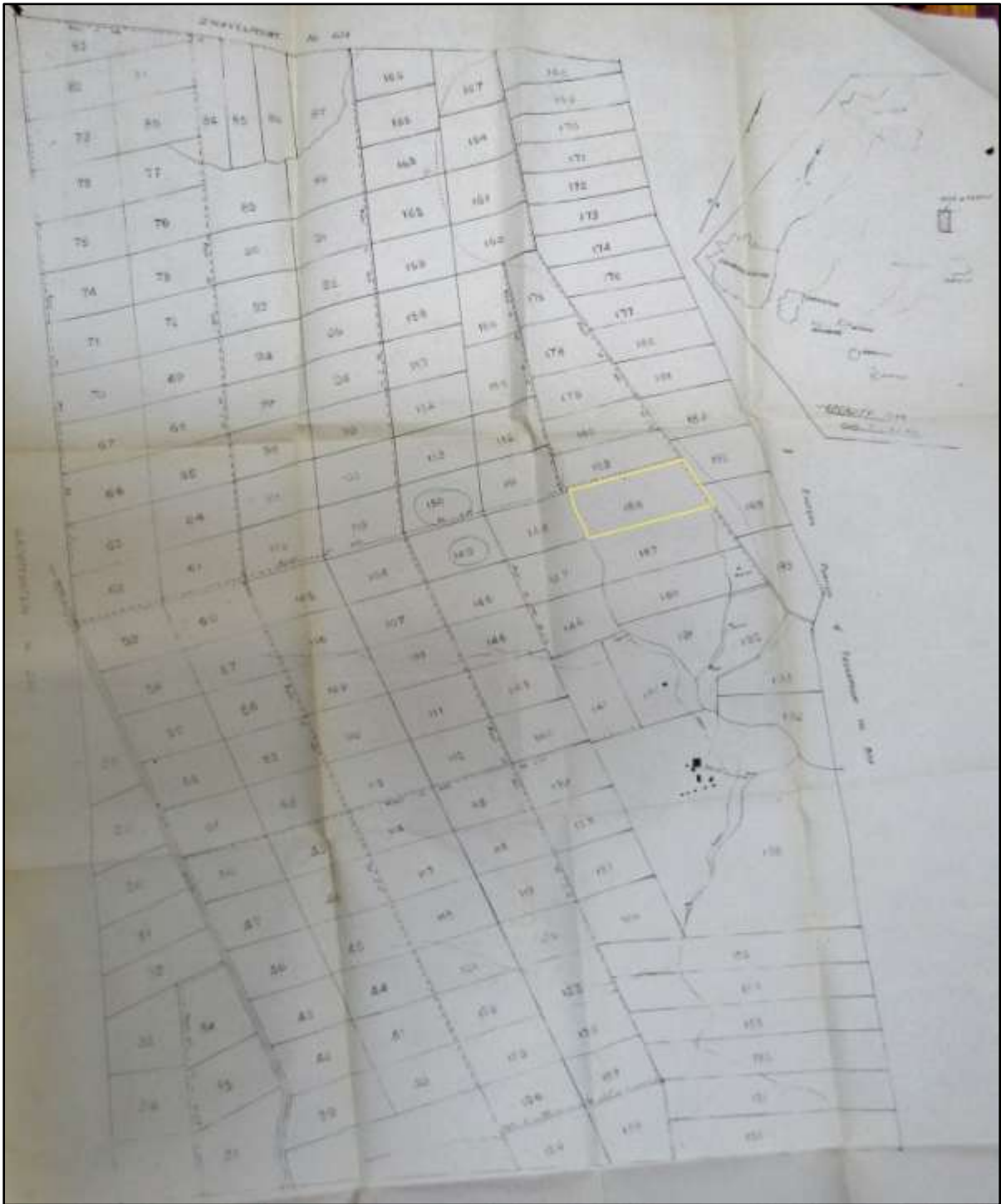


Fig. 4.9. A map showing the subdivision of the western part of Tiegertpoort 371 JR in 1970. Lot no 186 on which the study area is located is shown with a yellow border (NARSSA SAB, CDB: 3/864 TAD9/37/16).

By 1980, the owners of Portion 189 (portion of Portion 2) of Tiegerpoort were applying for permission to establish a business training conference centre on the property. This development would include two lecture halls, one dormitory block and a dining room / kitchen block. The request was granted in the same year. The following businesses existed in a 10 kilometre radius around Portion 189 at the time: Tiegerpoort Store, Butcher, Garage, Swavelbos Cash Store and Tiegerpoort Cash Store (NARSSA SAB, CDB: 14909 PB4/19/2/11/371/6).

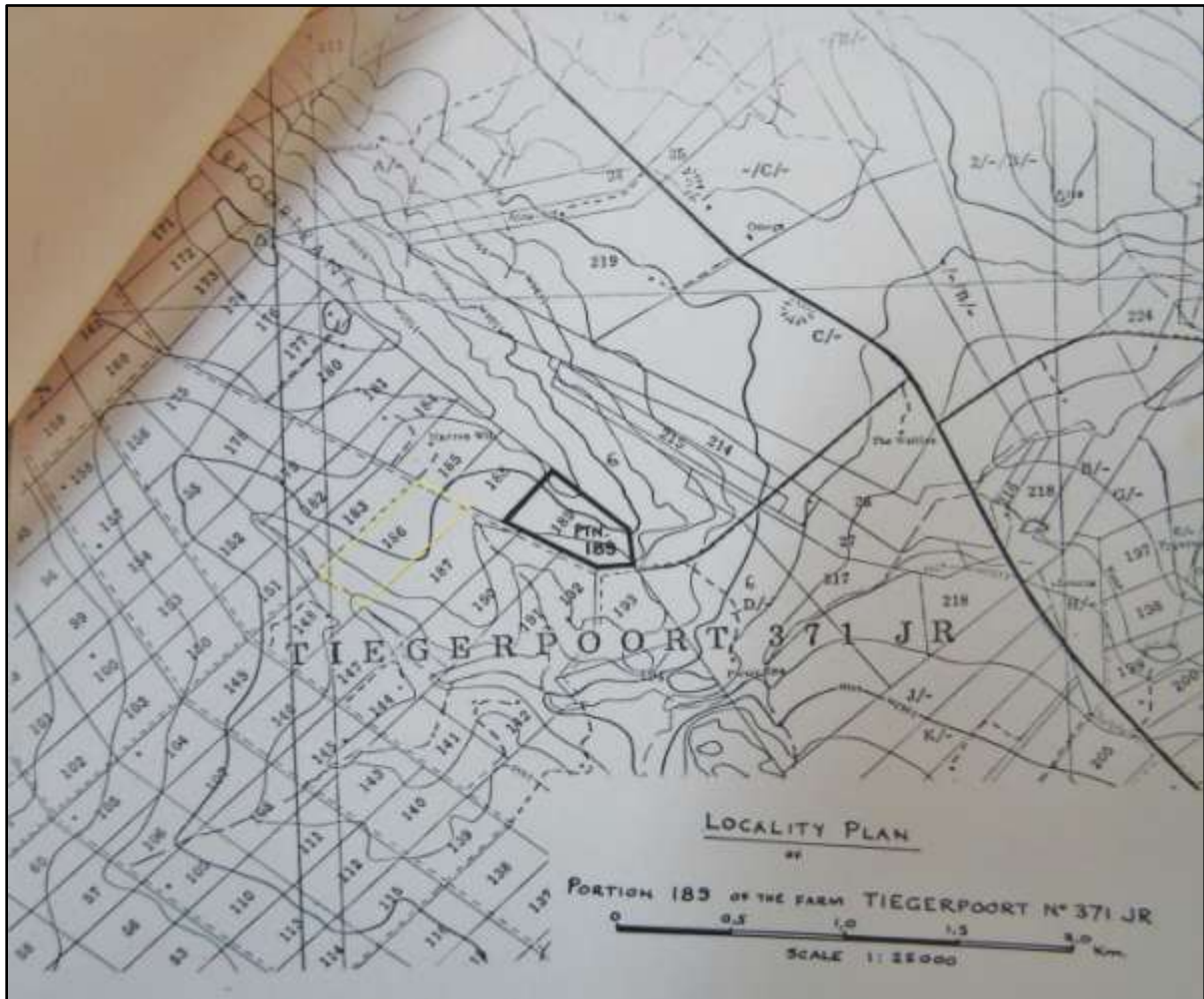


Fig. 4.10. A map of 1980 showing the subdivision of a section of Tiegerpoort 371 JR. Portion 186 is indicated with a yellow border (NARSSA SAB, CDB: 14909 PB4/19/2/11/371/6).

By the mid-1980s the conference centre was expanded to include six lecture halls, one dormitory, a dining room / kitchen, a sauna and bathrooms (NARSSA SAB, CDB: 14909 PB4/19/2/11/371/6).

In 1983 the Department of Ports and Telecommunications of the Republic of South Africa applied to establish an automatic telephone exchange building on a portion of Portion 188 of the farm

Tiegerpoort 371 JR. This portion adjoined Portion 186, which is of interest for this report. This request was granted by the Department of Local Government in June 1983 (NARSSA SAB, CDB: 14911 PB4/19/2/11/371/11).

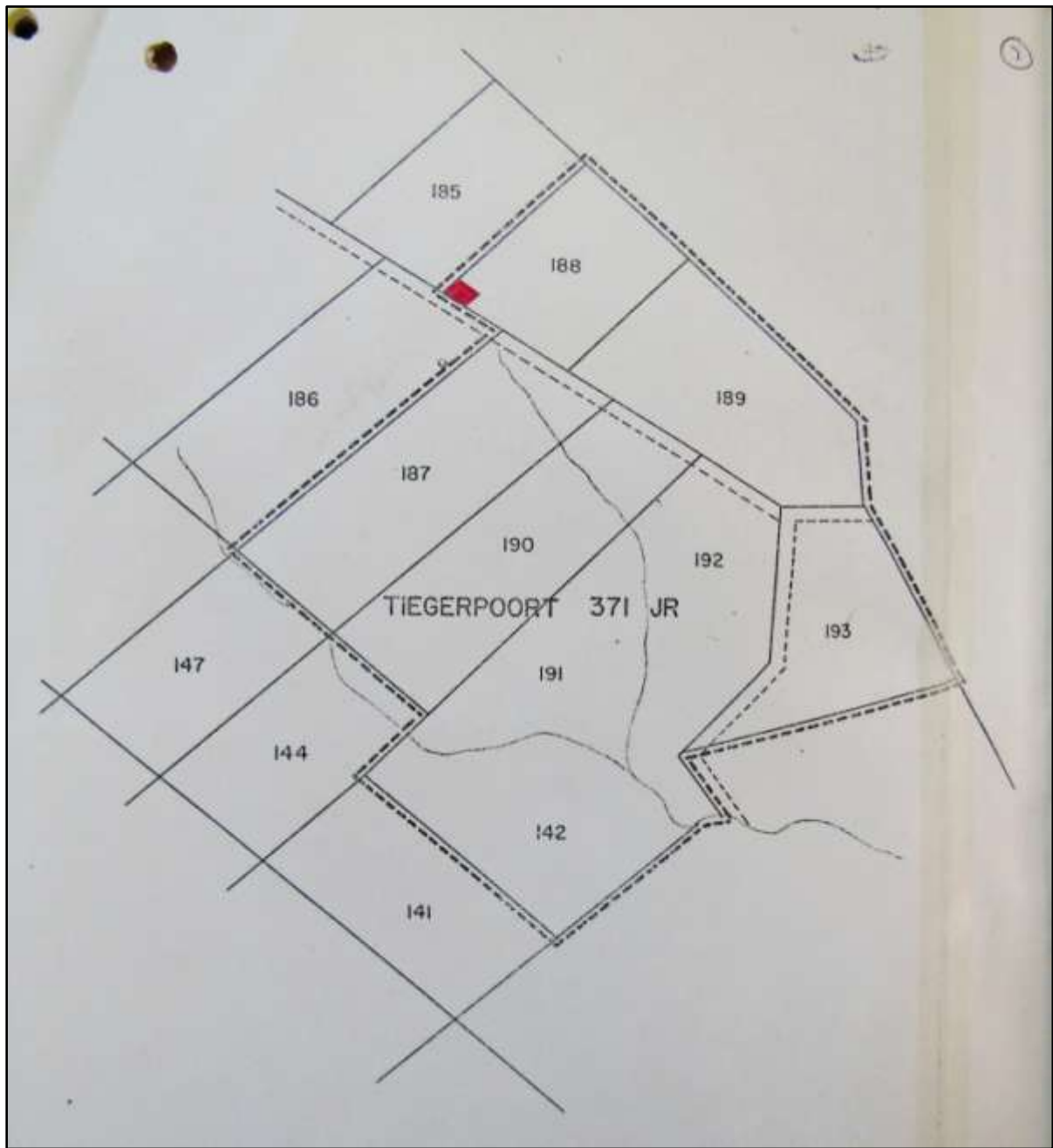


Fig. 4.11. A plan of 1983 showing the planned location of the automatic telephone exchange building (NARSSA SAB, CDB: 14911 PB4/19/2/11/371/11).

4.2. Archaeology

4.2.1. Stone Age

The Drakensberg separates the interior plateau also known as the Highveld from the low-lying subtropical Lowveld, which stretches to the Indian Ocean. A number of rivers amalgamate into two main river systems, the Olifants River and the Komati River. This fertile landscape has provided resources for humans and their predecessors for more than 1.7 million years (Esterhuizen & Smith in Delius, 2007).

The initial attraction of abundant foods in the form of animals and plants eventually also led to the discovery of and utilisation of various minerals including ochre, iron and copper. People also obtained foreign resources by means of trade from the coast. From 900 AD this included objects brought across the ocean from foreign shores.

The Early Stone Age (ESA)

In South Africa the ESA dates from about 2 million to 250 000 years ago, in other words from the early to middle Pleistocene. The archaeological record shows that as the early ancestors progressed physically, mentally and socially, bone and stone tools were developed. One of the most influential advances was their control of fire and diversifying their diet by exploitation of the natural environment (Esterhuizen & Smith in Delius, 2007).

The earliest tools date to around 2.5 million years ago from the site of Gona in Ethiopia. Stone tools from this site shows that early hominids had to cognitive ability to select raw material and shape it for a specific application. Many bones found in association with stone tools like these have cut marks which lead scientists to believe that early hominids purposefully chipped cobblestones to produce flakes with a sharp edge capable of cutting and butchering animal carcasses. This supplementary diet of higher protein quantities ensured that brain development of hominids took place more rapidly.

Mary Leaky discovered stone tools like these in the Olduvai Gorge in Tanzania during the 1960s. The stone tools are named after this gorge and are known as relics from the Oldowan industry. These tools, only found in Africa, are mainly simple flakes, which were struck from cobbles. This method of manufacture remained for about 1.5 million years. Although there is continuing debate about who made these tools, two hominids may have been responsible. The first of these was an early form of *Homo* and the second was *Paranthropus robustus*, which became extinct about 1 million years ago (Esterhuizen & Smith in Delius, 2007).

Some time later, around 1.7 million years ago, more specialised tools known as Acheulean tools, appeared. These are named after tools from a site in France by the name of Saint Acheul, where they were first discovered in the 1800s. It is argued that these tools had their origin in Africa and then spread towards Europe and Asia with the movement of hominids out of Africa. These tools had longer and sharper edges and shapes, which suggest that they could be used for a larger range of activities, including the butchering of animals, chopping of wood, digging roots and cracking bone. *Homo ergaster* was probably responsible for the manufacture of Acheulean tools in South Africa. This physical type was arguably physically similar to modern humans, had a larger brain and modern face, body height and proportion very similar to modern humans. *Homo ergaster* was able to flourish in a variety of habitats in part because they were dependent on tools. They adapted to drier, more open grassland settings. Because these early people were often associated with water sources such as rivers and lakes, sites where they left evidence of their occupation are very rare. Most tools of these people have been washed into caves, eroded out of riverbanks and washed downriver.

In the greater Pretoria area an Early Stone Age Terrain, known as Wonderboompoort has been identified. This area was also important to Iron Age communities, as it was located within an area where many Late Iron Age terrains were found (Bergh 1999: 4, 7).

Middle Stone Age (MSA)

A greater variety of tools with diverse sizes and shapes appeared by 250 000 before present (BP). These replaced the large hand axes and cleavers of the ESA. This technological advancement introduces the Middle Stone Age (MSA). This period is characterised by tools that are smaller in size but different in manufacturing technique (Esterhuizen & Smith in Delius, 2007).

In contrast to the ESA technology of removing flakes from a core, MSA tools were flakes to start with. They were of a predetermined size and shape and were made by preparing a core of suitable material and striking off the flake so that it was flaked according to a shape which the toolmaker desired. Elongated, parallel-sided blades, as well as triangular flakes are common finds in these assemblages. Mounting of stone tools onto wood or bone to produce spears, knives and axes became popular during the MSA. These early humans not only settled close to water sources but also occupied caves and shelters. The MSA represents the transition of more archaic physical type (*Homo*) to anatomically modern humans, *Homo sapiens*.

Later Stone Age (LSA)

Early hunter gatherer societies were responsible for a number of technological innovations and social transformations during this period starting at around 20 000 years BP. Hunting of animals proved more successful with the innovation of the bow and link-shaft arrow. These arrows were made up of a bone tip which was poisoned and loosely linked to the main shaft of the arrow. Upon impact, the tip

and shaft separated leaving the poisoned arrow-tip imbedded in the prey animal. Additional innovations include bored stones used as digging stick weights to uproot tubers and roots; small stone tools, mostly less than 25mm long, used for cutting of meat and scraping of hides; polished bone tools such as needles; twine made from plant fibres and leather; tortoiseshell bowls; ostrich eggshell beads; as well as other ornaments and artwork (Esterhuizen & Smith in Delius, 2007).

At Bushman Rock Shelter the MSA is also represented and starts at around 12 000 BP but only lasted for some 3 000 years. The LSA is of importance in geological terms as it marks the transition from the Pleistocene to the Holocene, which was accompanied by a gradual shift from cooler to warmer temperatures. This change had its greatest influence on the higher-lying areas of South Africa. Both Bushman Rock Shelter and a nearby site, Heuningneskrans, have revealed a greater use in plant foods and fruit during this period (Esterhuizen & Smith in Delius, 2007; Bergh, 1998).

Faunal evidence suggests that LSA hunter-gatherers trapped and hunted zebra, warthog and bovids of various sizes. They also diversified their protein diet by gathering tortoises and land snails (*Achatina*) in large quantities.

4.2.2. Early Iron Age

The period referred to as the Early Iron Age (AD 200-1500 approx.) started when presumably Karanga (north-east African) herder groups moved into the north eastern parts of South Africa. It is believed that these people may have been responsible for making of the famous Lydenburg Heads.

Carbon dating proved that the heads date to approximately 600 AD and was made by Early Iron Age people. These people were Bantu herders and agriculturists and probably populated Southern Africa from areas north-east of the Limpopo river. Similar ceramics were later found in the Gustav Klingbiel Nature Reserve and researchers believe that they are related to the ceramic wares (pottery) of the Lydenburg Heads site in form, function and decorative motive. This sequence of pottery is formally known as the Klingbiel type pottery. No clay masks were found in a context similar to this pottery sequence.

The earliest work on Iron Age archaeology was conducted by Trevor and Hall in 1912. This revealed prehistoric copper-, gold- and iron mines. Schwelinus (1937) reported smelting furnaces, a salt factory and terraces near Phalaborwa. In the same year D.S. van der Merwe located ruins, graves, furnaces, terraces and soapstone objects in the Letaba area.

Mason (1964, 1965, 1967, 1968) started the first scientific excavation in the Lowveld, followed by N.J. van der Merwe and Scully. M. Klapwijk (1973, 1974) also excavated an EIA site at Silverleaves and Evers and van den Berg (1974) excavated at Harmony and Eiland, both EIA sites.

Another well-known Iron Age site is the early Iron Age Site of Derdepoort where a small collection of ceramics was uncovered dating back to the 4th to 7th century AD (Nienaber et al 1997).

Research by the National Cultural History Museum resulted in the excavation of an EIA site in Sekhukuneland, known as Motolong (Van Schalkwyk, 2007). The site is characterized by four large cattle kraals containing ceramics, which may be attributed to the Mzonjani and Doornkop occupational phases.

4.2.3. Late Iron Age

The later phases of the Iron Age (AD 1600-1800's) are represented by various tribes including Ndebele, Swazi and BaKoni. In the Pretoria area it is the Ndebele who were more prominent. Under leadership of the well known Mzilikazi, the Ndebele kingdom arose during the Zulu wars of the early 1820's and this assisted in the spreading of these people among the predominantly Sotho-speaking inhabitants of the South African interior (Rasmussen, 1978).

Late Iron Age sites are also associated with Southern Ndebele sites and occur the area between Wallmannsthal and Roodeplaat Dam and also along the Pienaars River to the south of the N4 Highway (Birkhotz 2009).

The Southern Ndebele is classified under the Nguni nation and divided into three tribes namely the Manala, Ndzundza and Hwaduba. The Manala represents the majority of the Southern Ndebele of KwaNdebele (Jansen van Vuuren, 1983: 9-10).

According to Birkholtz (2009) the Manala Ndebele moved from Ezotshaneni to a place known as Embilaneni (place of dassies) in 1717. The new settlement spread over the Bronberg mountains east of Pretoria and included an area that can be defined by a number of present-day farms including Tiegerpoort 371-JR. The Embilaneni settlement was occupied over a period of 30 years between 1717 and 1747.

The name Ndebele is an Anglicized form of the Nguni word *Amandebele*, which in turn comes from the Sotho word *Matebele*. This Sotho word presumably means "strangers from the east" (Rasmussen, 1978: 161). The Sotho, residing in the central regions of South Africa generally applied this name to Nguni-speaking peoples from the eastern coast.

The best-known part of Ndebele history must surely be that of the chief Nyabela (Mapoch) who gave refuge to the murderer of the Pedi king Sekhukune. Providing Mampuru, the half brother of

Sekhukune with protection put Nyabela in a difficult position with the ZAR (Zuid Afrikaansche Republiek). His kraal, situated near Roosenekal is commonly known as Mapoch's Caves and is a popular tourist attraction in modern times.

This kraal was besieged by ZAR forces and a battle raged for several months after which the Nyabela surrendered and Mampuru was delivered on July 7, 1883. The war ended with the commando burning down Nyabela's capital. His people were once again scattered over the Transvaal as indentured labourers (Bulpin 1969; Jansen van Vuuren 1983).

5. Site descriptions, locations and impact significance assessment

Six sites were documented during the survey. They consist of six built environment sites consisting of stone terraces, ruined remains of buildings and much degraded features which may have served as dwellings or structures (sites TRP1-6).

A total of nine survey orientation locations were documented (SO 1-9) which includes a GPS location and photographs of the landscape at that particular location.

The heritage sites and survey orientation sites are tabled in Appendix B and their photos in Appendix D. A map of their location is also provided in Appendix C.

Tables indicate the **site significance rating scales and status** in terms of possible impacts of the proposed actions on any located or identified heritage sites (**Table 5.5 & 5.6**).

Table 5.1. Summary of located sites and their heritage significance

Type of site	Identified sites	Significance
Graves and graveyards	None	N/A
Late Iron Age	None	N/A
Early Iron Age	None	N/A
Historical buildings, structures or ruins	Six (sites TRP1-6)	Low; GPC
Stone Age sites	None	N/A

Table 5.2. Significance rating guidelines for sites

Field Rating	Grade	Significance	Recommended Mitigation
National Significance (NS)	Grade 1	High Significance	Conservation, nomination as national site
Provincial Significance (PS)	Grade 2	High Significance	Conservation; Provincial site nomination
Local significance (LS 3A)	Grade 3A	High Significance	Conservation, No mitigation advised
Local Significance (LS 3B)	Grade 3B	High Significance	Mitigation but at least part of site should be retained
Generally Protected A (GPA)	GPA	High/ Medium Significance	Mitigation before destruction
Generally Protected B (GPB)	GPB	Medium Significance	Recording before destruction
Generally Protected C (GPC)	GPC	Low Significance	Destruction

5.1. Description of located sites and survey orientations

Located Sites:

5.1.1. Site TRP 1

Location: See Appendix B, C and D (fig.1)

Description: A small packed-stone feature. Too weathered to positively identify its purpose.

Impact of the proposed development: The proposed activity will possibly impact on the feature.

Recommendation: The feature is of low significance. No mitigation recommended.



Photo taken North

5.1.2. Site TRP 1B

Location: See Appendix B, C and D (fig. 2)

Description: Linear ill-defined stone packed terracing roughly parallel to the streambed. It was possibly constructed to counter soil erosion as part of agricultural activities in the past.

Impact of the proposed development: The proposed activity will probably impact on the feature as it is located close to the proposed buildings/ infrastructure (See provisional layout plan, Appendix C).

Recommendation: The feature is of low significance. No mitigation recommended.



Photo taken South-east

5.1.3. Site TRP 1C

Location: See Appendix B, C and D (fig.3)

Description: Linear ill-defined stone packed terracing roughly parallel to the streambed. It was possibly constructed to counter soil erosion as part of agricultural activities in the past.

Impact of the proposed development: The proposed activity will probably not impact on the feature as it is not located close to the proposed buildings/ infrastructure (See provisional layout plan, Appendix C).

Recommendation: The feature is of low significance. No mitigation recommended.



Photo taken North-west

5.1.4. Site TRP 2

Location: See Appendix B, C and D (fig. 4)

Description: Linear ill-defined stone packed terracing roughly parallel to the streambed. It was possibly constructed to counter soil erosion as part of agricultural activities in the past.

Impact of the proposed development: The proposed activity will probably not impact on the feature as it is not located close to the proposed buildings/ infrastructure (See provisional layout plan in Appendix C).

Recommendation: The feature is of low significance. No mitigation recommended.



Photo taken in a Southern direction

5.1.5. Site TRP 3

Location: See Appendix B, C and D (fig. 5, 6).

Description: The ruined remains of a possible building foundation and collapsed walling of some locally manufactured clay bricks. Much weathered and possibly served as farm workers quarters at some stage. Care should be taken here regarding construction activities as there is a possibility that unmarked graves may be located close to such a structure

Impact of the proposed development: The feature will possibly not be impacted upon during the proposed development or activity as it is not located in an area earmarked for any development (See provisional layout plan in Appendix C

Recommendation: The structures are not considered to be of heritage value. It is however recommended to limit construction activities around a buffer of 20m from the feature.



Photo taken South-east

5.1.6. Site TRP 4

Location: See Appendix B, C and D (fig. 7, 8).

Description: This is a single square packed stone feature. Too weathered to positively identify its purpose.

Impact of the proposed development: The feature will possibly not be impacted upon during the proposed development or activity as it is not located in an area earmarked for any development (See provisional layout plan in Appendix C

Recommendation: The feature is of low significance. No mitigation recommended.



Photo taken North-west

5.1.7. Site TRP 5

Location: See Appendix B, C and D (fig. 9).

Description: This is a single square packed stone feature. It is too weathered to positively identify its purpose, no diagnostic material remains in order to establish its function.

Impact of the proposed development: The feature will possibly not be impacted upon during the proposed development or activity as it is not located in an area earmarked for any development (See provisional layout plan in Appendix C

Recommendation: The feature is of low significance. No mitigation recommended.



Photo taken North-west

5.1.8. Site TRP 6

Location: See Appendix B, C and D (fig. 10, 11).

Description: This is a small stone-built circular structure which probably served as a dwelling. It reminds of a rondavel. The structure is indicated on topographical maps of 1964 and 1975 but omitted from maps dated to 1991 and 2001. It is possible that it was not mapped due to its ruined condition. Care should be taken here regarding construction activities as there is a possibility that unmarked graves may be located close to such a structure.

Impact of the proposed development: The feature will possibly not be impacted upon during the proposed development or activity as it is not located in an area earmarked for any development (See provisional layout plan in Appendix C)

Recommendation: The structures are not considered to be of heritage value. It is however recommended to limit construction activities around a buffer of 20m from the feature.



Photo taken North-west

Survey orientation sites:

5.1.9. Site SO 1.

Location: See Appendix B, C and D (fig. 12).

Description: Survey orientation location.

Impact of the proposed development/ activity: N/A

Recommendation: N/A



Photo taken West.

5.1.10. Site SO 2.

Location: See Appendix B, C and D (fig. 13).

Description: Survey orientation location.

Impact of the proposed development/ activity: N/A

Recommendation: N/A



Photo taken South.

5.1.11. Site SO 3.

Location: See Appendix B, C and D (fig. 14).

Description: Survey orientation location.

Impact of the proposed development/ activity: N/A

Recommendation: N/A



Photo taken North

5.1.12. Site SO 4.

Location: See Appendix B, C and D (fig. 15).

Description: Survey orientation location.

Impact of the proposed development/ activity: N/A

Recommendation: N/A



Photo taken North

5.1.13. Site SO 5.

Location: See Appendix B, C and D (fig. 16).

Description: Survey orientation location.

Impact of the proposed development/ activity: N/A

Recommendation: N/A



Photo taken Northwest

5.1.14. Site SO 6.

Location: See Appendix B, C and D (fig. 17, 18).

Description: Survey orientation location.

Impact of the proposed development/ activity: N/A

Recommendation: N/A



Photo taken East

5.1.15. Site SO 7.

Location: See Appendix B, C and D (fig. 19).

Description: Survey orientation location.

Impact of the proposed development/ activity: N/A

Recommendation: N/A



Photo taken Southwest

5.1.16. Site SO 8.

Location: See Appendix B, C and D (fig. 20).

Description: Survey orientation location.

Impact of the proposed development/ activity: N/A

Recommendation: N/A



Photo taken East

5.1.17. Site SO 9.

Location: See Appendix B, C and D (fig. 21-23).

Description: Survey orientation location.

Impact of the proposed development/ activity: N/A

Recommendation: N/A



Photo taken North-east

TABLE 5.3. General description of located sites and field rating.

Site No.	Description	Type of significance	Degree of significance	NHRA heritage resource & rating
TRP 1	Packed stone feature	Built environment	Archaeological: N/K Historic: Low	Structures (Sec. 34). Low. GP C.
TRP 1 B	Stone terracing	Built environment	Archaeological: N/K Historic: Low	Structures (Sec. 34). Low. GP C.
TRP 1 C	Stone terracing	Built environment	Archaeological: N/K Historic: Low	Structures (Sec. 34). Low. GP C.
TRP 2	Stone terracing	Built environment	Archaeological: N/K Historic: Low	Structures (Sec. 34). Low. GP C.
TRP 3	Foundation remains & collapsed walling	Built environment	Archaeological: N/K Historic: Low	Structures (Sec. 34). Low. GP C.
TRP 4	Packed stone square	Built environment	Archaeological: N/K Historic: Low	Structures (Sec. 34). Low. GP C.
TRP 5	Packed stone square	Built environment	Archaeological: N/K Historic: Low	Structures (Sec. 34). Low. GP C.
TRP 6	Circular walling collapsed	Built environment	Archaeological: N/K Historic: Low	Structures (Sec. 34). Low. GP C.
SO1	Survey orientation location	N/A	Archaeological: N/A Historic: N/A	None
SO2	Survey orientation location	N/A	Archaeological: N/A Historic: N/A	None
SO3	Survey orientation location	N/A	Archaeological: N/A Historic: N/A	None
SO4	Survey orientation location	N/A	Archaeological: N/A Historic: N/A	None
SO5	Survey orientation location	N/A	Archaeological: N/A Historic: N/A	None
SO6	Survey orientation location	N/A	Archaeological: N/A Historic: N/A	None
SO7	Survey orientation location	N/A	Archaeological: N/A Historic: N/A	None
SO8	Survey orientation location	N/A	Archaeological: N/K Historic: N/A	None
SO9	Survey orientation location	N/A	Archaeological: N/K Historic: N/A	None

N/K – Not Known

TABLE 5.4. Site condition assessment and management recommendations.

Site no.	Type of Heritage resource	Integrity of cultural material	Preservation condition of site	Relative location	Quality of archaeological/historic material	Quantity of site features	Recommended conservation management
TRP 1	Built environment	Not known	Poor	Tiegerpoort 371 JR	Archaeological: Poor Historic: Poor	1	Low significance. None
TRP 1B	Built environment	Not known	Poor	Tiegerpoort 371 JR	Archaeological: Poor Historic: Poor	1	Low significance. None
TRP 1C	Built environment	Not known	Poor	Tiegerpoort 371 JR	Archaeological: Poor Historic: Poor	1	Low significance. None
TRP 2	Built environment	Not known	Poor	Tiegerpoort 371 JR	Archaeological: Poor Historic: Poor	1	Low significance. None
TRP 3	Built environment	Not known	Poor	Tiegerpoort 371 JR	Archaeological: Poor Historic: Poor	1	Low significance. Note that unmarked graves may be present, 20 m buffer
TRP 4	Built environment	Not known	Poor	Tiegerpoort 371 JR	Archaeological: Poor Historic: Poor	1	Low significance. None
TRP 5	Built environment		Very Poor	Tiegerpoort 371 JR	Archaeological: Poor Historic: Poor		Low significance. None
TRP 6	Built environment		Poor	Tiegerpoort 371 JR	Archaeological: Poor Historic: Poor		Low significance. Note that unmarked graves may be present, 20 m buffer
SO 1	N/A	N/A	N/A	Tiegerpoort 371 JR	Archaeology: N/A Historically: N/A	-	N/A
SO 2	N/A	N/A	N/A	Tiegerpoort 371 JR	Archaeology: N/A Historically: N/A	-	N/A

SO 3	N/A	N/A	N/A	Tiegerpoort 371 JR	Archaeology: N/A Historically: N/A	-	N/A
SO 4	N/A	N/A	N/A	Tiegerpoort 371 JR	Archaeology: N/A Historically: N/A	-	N/A
SO 5	N/A	N/A	N/A	Tiegerpoort 371 JR	Archaeology: N/A Historically: N/A	-	N/A
SO 6	N/A	N/A	N/A	Tiegerpoort 371 JR	Archaeology: N/A Historically: N/A	-	N/A
SO 7	N/A	N/A	N/A	Tiegerpoort 371 JR	Archaeology: N/A Historically: N/A	-	N/A
SO 8	N/A	N/A	N/A	Tiegerpoort 371 JR	Archaeology: N/A Historically: N/A	-	N/A
SO 9	N/A	N/A	N/A	Tiegerpoort 371 JR	Archaeology: N/A Historically: N/A	-	N/A

TABLE 5.5. Significance Rating Scales of Impact

Site No.	Nature of impact	Type of site	Extent	Duration	Intensity	Probability	Score total
TRP1	Buildings and accommodation	Packed stone feature	Site	Short term	Moderate	Possible	4
TRP1 B	Buildings and accommodation	Stone terracing	Site	Short term	Moderate	Possible	4
TRP 1C	Buildings and accommodation	Stone terracing	Site	Short term	Low	Possible	3
TRP2	Buildings and accommodation	Stone terracing	Site	Short term	Moderate	Highly probable	5
TRP3	Buildings and accommodation	Collapsed walling & foundation	Site	Short term	Low	Possible	3
TRP4	Buildings and accommodation	Graves	Site	Short term	Low	Possible	3
TRP5	Buildings and accommodation	Packed stone feature	Site	Short term	Low	Possible	3
TRP6	Buildings and accommodation	Collapsed walling & foundation. Circular ruin remains.	Site	Short term	Low	Possible	3
SO 1	Buildings and accommodation	N/A	N/A	Short term	Low	Possible	3
SO 2	Buildings and accommodation	N/A	N/A	Short term	Low	Probable	3
SO 3	Buildings and accommodation	N/A	N/A	Short term	Low	Probable	3
SO 4	Buildings and accommodation	N/A	N/A	Short term	Low	Probable	3

SO 5	Buildings and accommodation	N/A	N/A	Short term	Low	Probable	3
SO 6	Buildings and accommodation	N/A	N/A	Short term	Low	Probable	3
SO 7	Buildings and accommodation	N/A	N/A	Short term	Low	Probable	3
SO 8	Buildings and accommodation	N/A	N/A	Short term	Low	Probable	3
SO 9	Buildings and accommodation	N/A	N/A	Short term	Low	Probable	3

***Notes:** Short term ≥ 5 years, Medium term 5-15 years, Long term 15-30 years, Permanent 30+ years

Intensity: Very High (4), High (3), Moderate (2), Low (1)

Probability: Improbable (1), Possible (2), Highly probable (3), Definite (4)

TABLE 5.6. Site current status and future impact scores

Site No.	Current Status	Low impact (4-6 points)	Medium impact (7-9 points)	High impact (10-12 points)	Very high impact (13-16 points)	Score Total
TRP1	Neutral	-	9	-	-	9
TRP1 B	Neutral	-	9	-	-	9
TRP 1C	Neutral	6	-	-	-	6
TRP2	Neutral	-	9	-	-	9
TRP3	Neutral	6	-	-	-	6
TRP4	Neutral	4	-	-	-	4
TRP5	Neutral	4	-	-	-	4
TRP6	Neutral	4	-	-	-	4
SO 1	Neutral	-	-	-	-	-
SO 2	Neutral	-	-	-	-	-
SO 3	Neutral	-	-	-	-	-
SO 4	Neutral	-	-	-	-	-
SO 5	Neutral	-	-	-	-	-
SO 6	Neutral	-	-	-	-	-
SO 7	Neutral	-	-	-	-	-
SO 8	Neutral	-	-	-	-	-
SO 9	Neutral	-	-	-	-	-

5.2. Cumulative impacts on the heritage landscape

Cumulative impacts can occur when a range of impacts which result from several concurrent processes have impact on heritage resources. The importance of addressing cumulative impacts is that the total impact of several factors together is often greater than one single process or activity that may impact on heritage resources. There may be some impact on sites TRP1, TRP 1B and TRP2 as they are close to or in the proposed footprint area of the planned buildings and features (see the provisional layout plan in Appendix C). Sites TRP 3-6 will probably not be directly impacted upon as they are all located west and northwest (TRP 3) of the planned developments. The sites are not of heritage significance but there may be unmarked graves or graves of still-born infants located close to sites TRP3 and TRP 6. Therefore it is recommended to keep a buffer of 20 meters around each of these sites and in so doing avoid any possibility of accidental negative impact. Also see section 6.1. Recommended management measures.

6. Summary of findings and recommendations

Six sites were documented during the survey (sites TRP1-6).

In terms of section 34 of the National Heritage Resources Act (NHRA, 25 of 1999), the ruined remains of built structures and features (sites TRP 1-5) and a stone-packed circular structure, possibly a rondavel, (site TRP 6) were documented but they are regarded as being of low significance.

In terms of section 35 of the NHRA, no archaeological sites were located.

In terms of section 36 of the NHRA, no graves or graveyards were documented. It should be noted however that poorly visible or non-visible graves may be present at sites TRP 3 and TRP 6 therefore any proposed development activities should take place beyond a 20 meter buffer of these ruins.

A total of nine survey orientation locations were documented (SO 1-9) which includes a GPS location and photographs of the landscape at that particular location.

It is not within the expertise of this report or the surveyor to comment on possible paleontological remains which may be located in the study area.

The bulk of archaeological remains are normally located beneath the soil surface. It is therefore possible that some significant cultural material or remains were not located during this survey and will only be revealed when the soil is disturbed. Should excavation or large scale earth moving activities reveal any human skeletal remains, broken pieces of ceramic pottery, large quantities of sub-surface charcoal or any material that can be associated with previous occupation, a qualified archaeologist should be notified immediately. This will also temporarily halt such activities until an archaeologist has assessed the situation. It should be noted that if such a situation occurs it may have further financial implications.

6.1. Recommended management measures

Management objectives include not to impact on sites of heritage significance. Monitoring programmes which should be followed when a “chance find” of a heritage object or human remains occur, include the following:

- 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).

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Appendix A

Terminology

“Alter” means any action affecting the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or other decoration or any other means.

“Archaeological” means –

- Material remains resulting from human activity which are in a state of disuse and are in or on land and which are older than 100 years, including artifacts, human and hominid remains and artificial features or structures;
- Rock Art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area within 10m of such representation;
- Wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the Republic, as defined respectively in sections 3, 4 and 6 of the Maritime Zones Act, 1994 (Act No. 15 of 1994), and any cargo, debris or artifacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation; and
- Features, structures and artefacts associated with military history which are older than 75 years and the sites on which they are found;

“Conservation”, in relation to heritage resources, includes protection, maintenance, preservation and sustainable use of places or objects so as to safeguard their cultural significance;

“Cultural significance” means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance;

“Development” means any physical intervention, excavation, or action, other than those caused by natural forces, which may in the opinion of a heritage authority in any way result in a change to the nature, appearance or physical nature of a place, or influence its stability and future well-being, including –

- construction, alteration, demolition, removal or change of use of a place or a structure at a place;
- carrying out any works on or over or under a place;

- subdivision or consolidation of land comprising, a place, including the structures or airspace of a place;
- constructing or putting up for display signs or hoardings;
- any change to the natural or existing condition or topography of land; and
- any removal or destruction of trees, or removal of vegetation or topsoil;

“Expropriate” means the process as determined by the terms of and according to procedures described in the Expropriation Act, 1975 (Act No. 63 of 1975);

“Foreign cultural property”, in relation to a reciprocating state, means any object that is specifically designated by that state as being of importance for archaeology, history, literature, art or science;

“Grave” means a place of internment and includes the contents, headstone or other marker of such a place, and any other structure on or associated with such place;

“Heritage resource” means any place or object of cultural significance;

“Heritage register” means a list of heritage resources in a province;

“Heritage resources authority” means the South African Heritage Resources Agency, established in terms of section 11, or, insofar as this Act (25 of 1999) is applicable in or in respect of a province, a provincial heritage resources authority (PHRA);

“Heritage site” means a place declared to be a national heritage site by SAHRA or a place declared to be a provincial heritage site by a provincial heritage resources authority;

“Improvement” in relation to heritage resources, includes the repair, restoration and rehabilitation of a place protected in terms of this Act (25 of 1999);

“Land” includes land covered by water and the air space above the land;

“Living heritage” means the intangible aspects of inherited culture, and may include –

- cultural tradition;
- oral history;
- performance;
- ritual;
- popular memory;
- skills and techniques;
- indigenous knowledge systems; and
- the holistic approach to nature, society and social relationships;

“Management” in relation to heritage resources, includes the conservation, presentation and improvement of a place protected in terms of the Act;

“Object” means any moveable property of cultural significance which may be protected in terms of any provisions of the Act, including –

- any archaeological artifact;
- palaeontological and rare geological specimens;
- meteorites;
- other objects referred to in section 3 of the Act;

“Owner” includes the owner’s authorized agent and any person with a real interest in the property and –

- in the case of a place owned by the State or State-aided institutions, the Minister or any other person or body of persons responsible for the care, management or control of that place;
- in the case of tribal trust land, the recognized traditional authority;

“Place” includes –

- a site, area or region;
- a building or other structure which may include equipment, furniture, fittings and articles associated with or connected with such building or other structure;
- a group of buildings or other structures which may include equipment, furniture, fittings and articles associated with or connected with such group of buildings or other structures;
- an open space, including a public square, street or park; and
- in relation to the management of a place, includes the immediate surroundings of a place;

“Site” means any area of land, including land covered by water, and including any structures or objects thereon;

“Structure” means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

Appendix B

List of sites

A total of six sites were documented which consist of built environment sites of low significance. The sites were numbered TRP1-6. The abbreviation "TRP" represents the farm Tiegerpoort 371 JR.

A total of nine survey orientation sites were recorded. The sites were named SO 1-16.

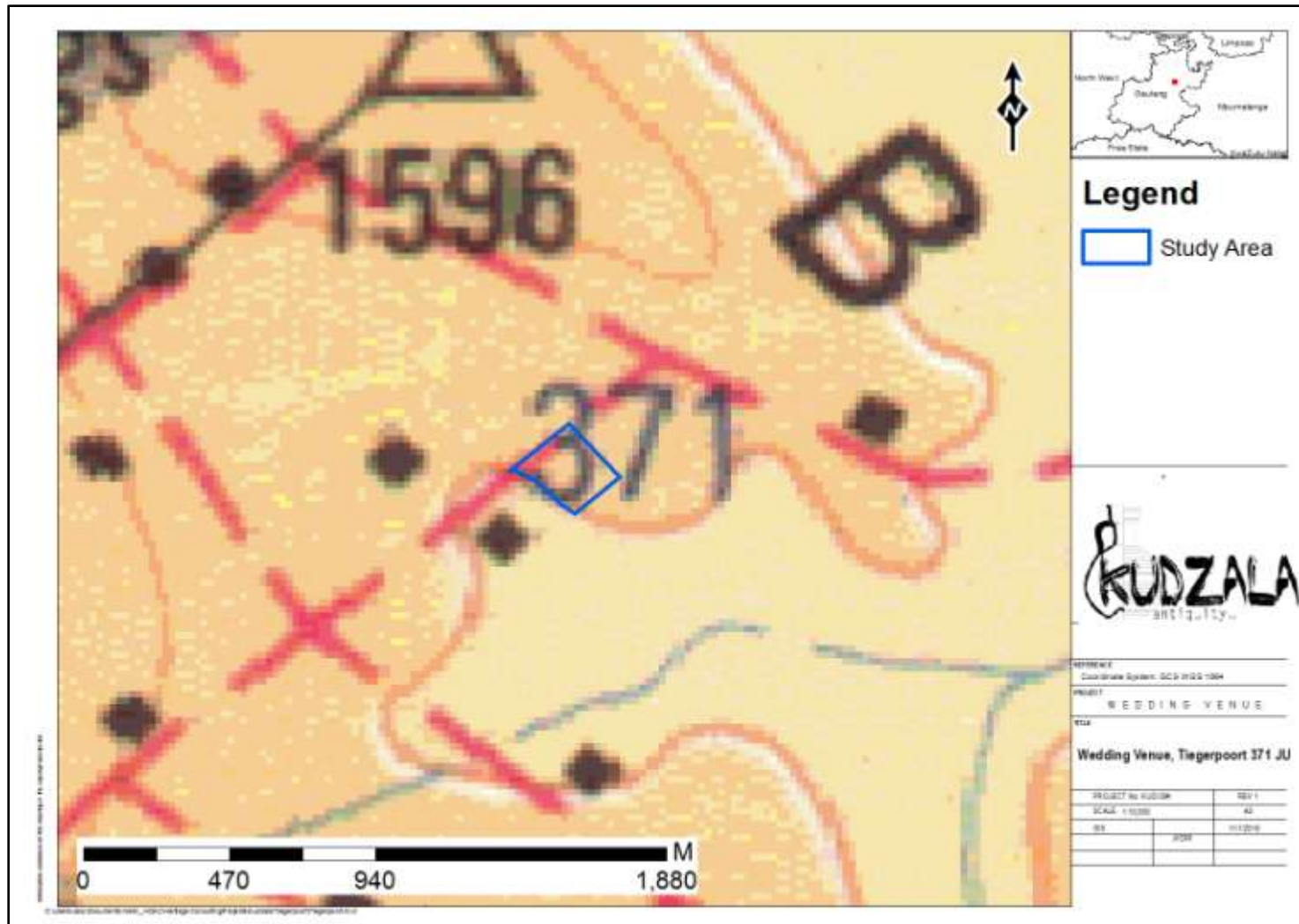
Table A. Located sites

Site Name	Date of compilation	GPS Coordinates		Photo figure No.
TRP 1	25/10/2018	S25°52'42.61"	E028°24'18.00"	1
TRP 1B	25/10/2018	S25°52'40.90"	E028°24'14.37"	2
TRP 1C	25/10/2018	S25°52'42.70"	E028°24'15.07"	3
TRP 2	25/10/2018	S25°52'39.62"	E028°24'14.07"	4
TRP 3	25/10/2018	S25°52'39.07"	E028°24'12.59"	5, 6
TRP 4	25/10/2018	S25°52'43.11"	E028°24'15.12"	7, 8
TRP 5	25/10/2018	S25°52'42.92"	E028°24'14.69"	9
TRP 6	25/10/2018	S25°52'41.15"	E028°24'12.86"	10, 11

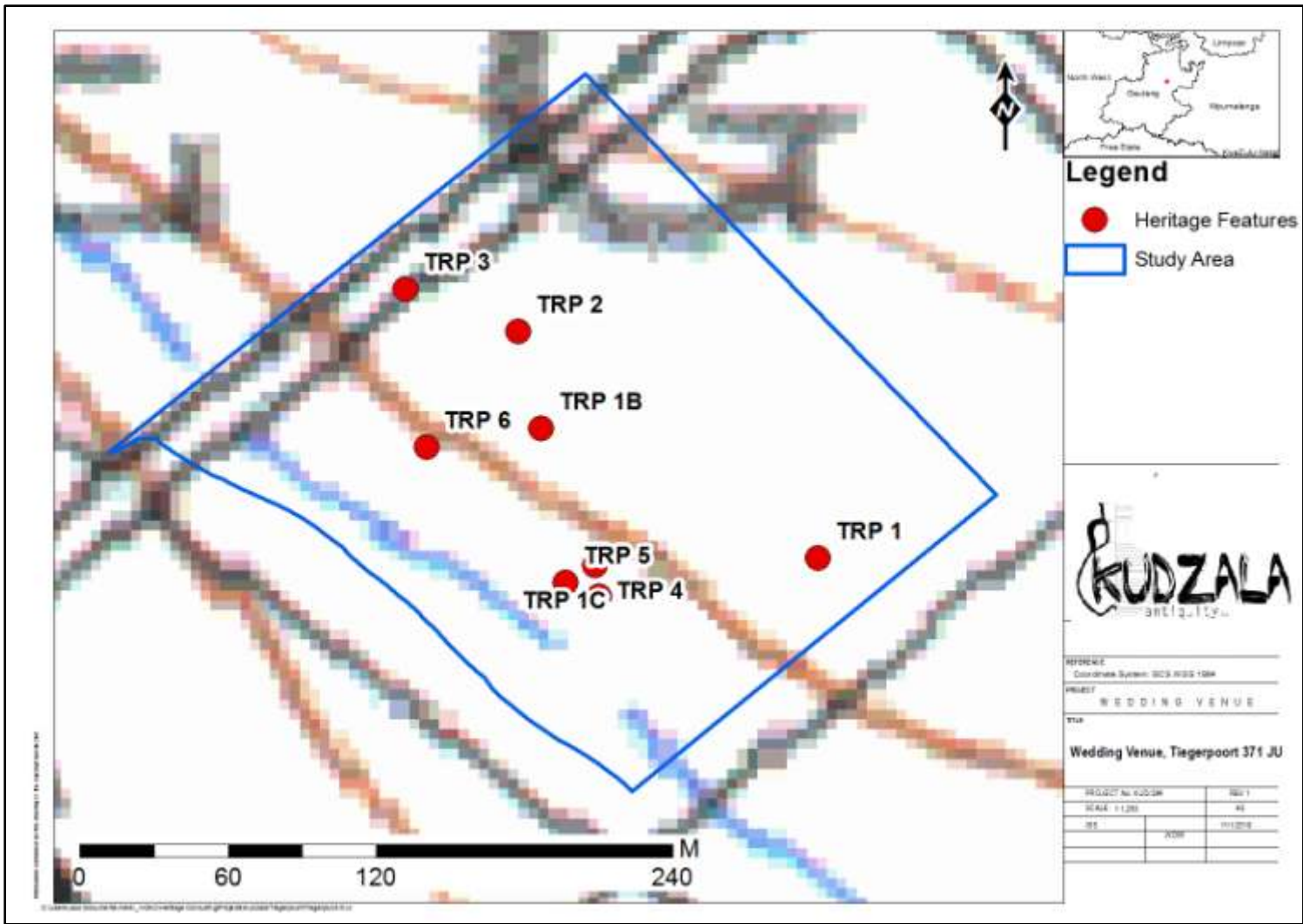
Table B. Survey Orientation Locations.

Site Name	Date of compilation	GPS Coordinates		Photo figure No.
SO 1	24/08/2018	S25°52'41.74"	E028°24'19.86"	12
SO 2	24/08/2018	S25°52'37.35"	E028°24'14.78"	13
SO 3	24/08/2018	S25°52'40.48"	E028°24'16.69"	14
SO 4	24/08/2018	S25°52'41.73"	E028°24'16.48"	15
SO 5	24/08/2018	S25°52'41.24"	E028°24'15.98"	16
SO 6	24/08/2018	S25°52'39.37"	E028°24'14.73"	17, 18
SO 7	24/08/2018	S25°52'38.48"	E028°24'12.75"	19
SO 8	24/08/2018	S25°52'44.02"	E028°24'16.32"	20
SO 9	25/08/2018	S25°52'41.59"	E028°24'11.53"	21-23

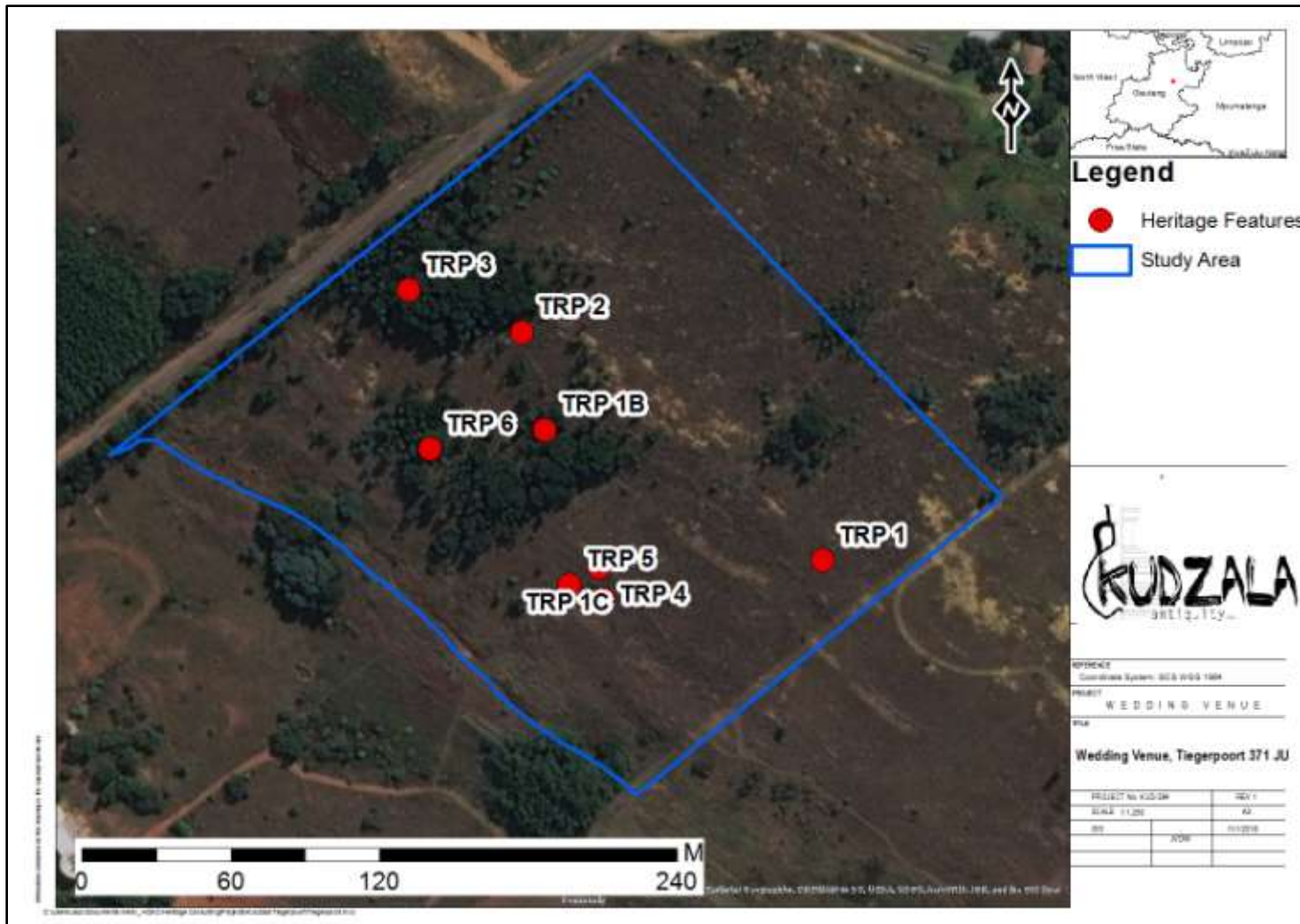
Appendix C



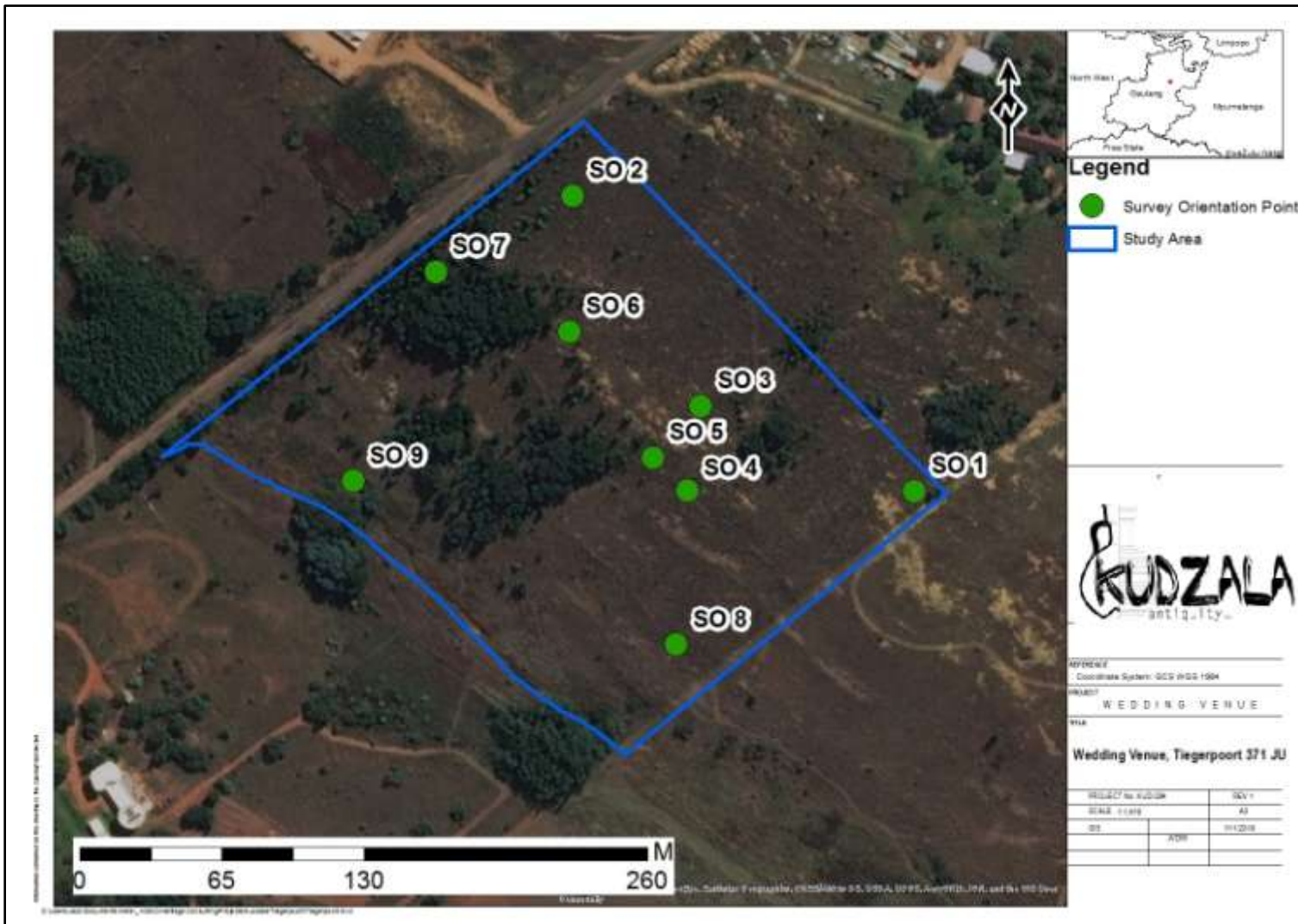
Regional locality map of the study area (blue border).



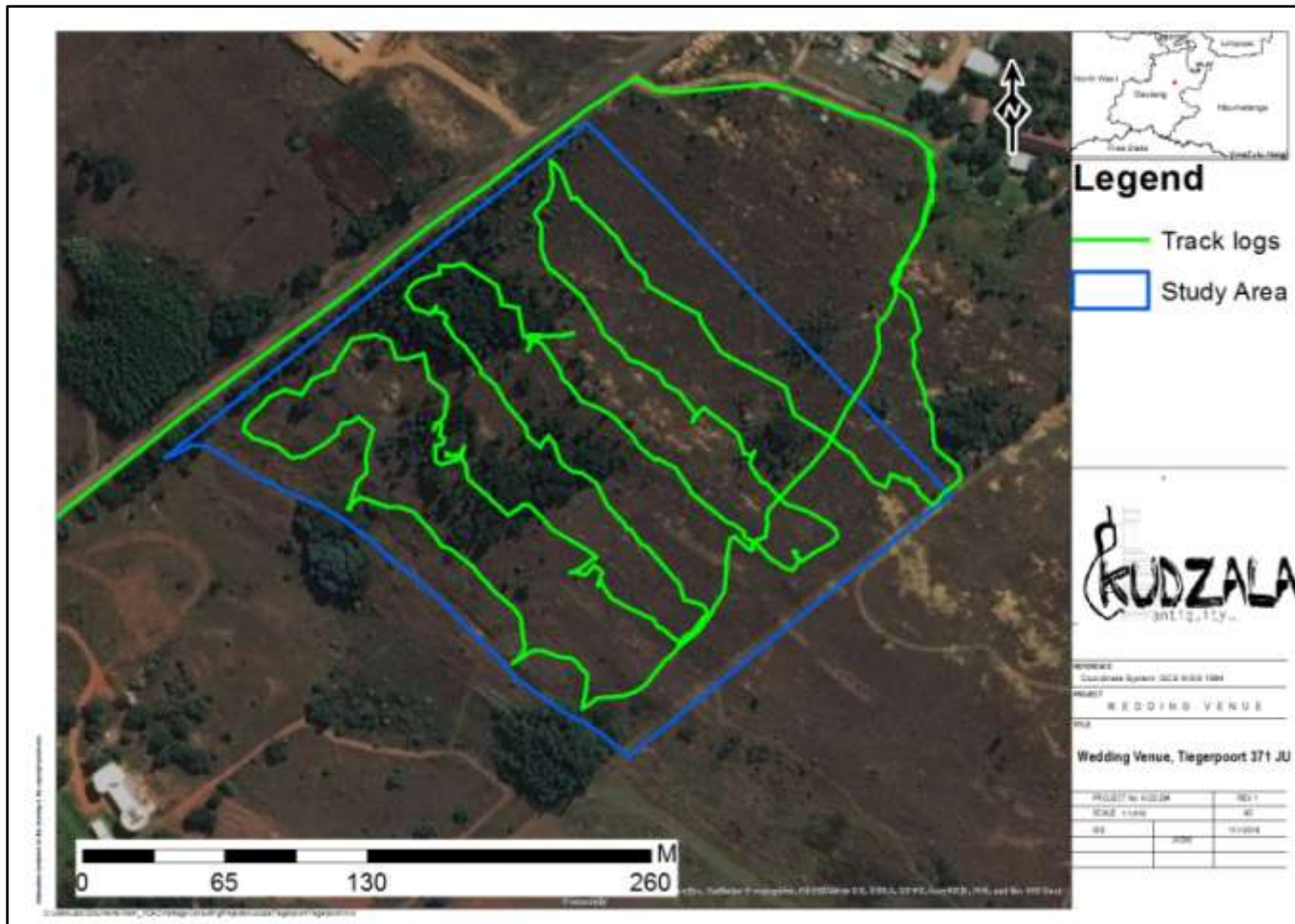
Site locations on the 1:50 000 topographical map 2528 CD 1991 within the project area (blue border).



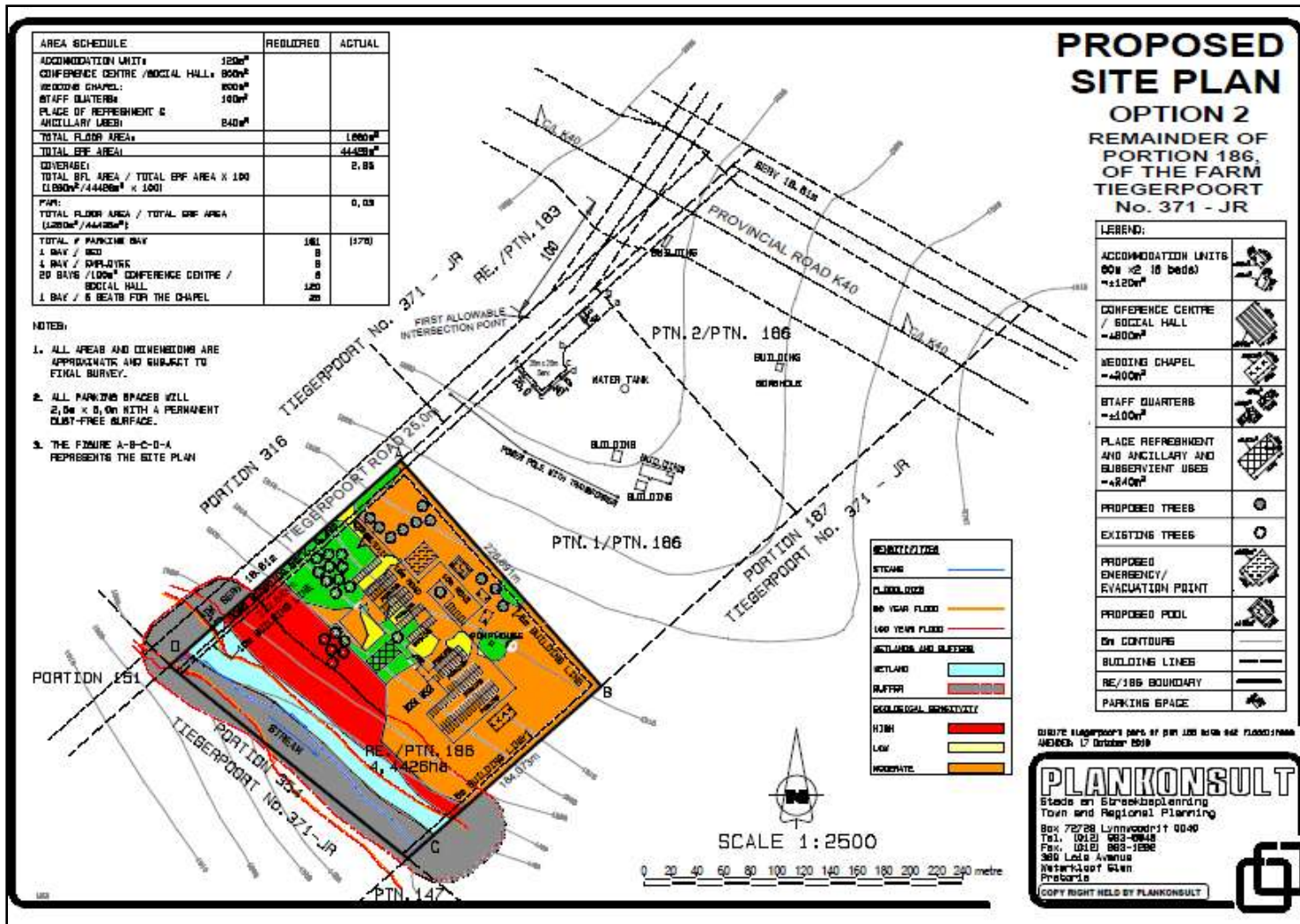
Site locations on Google Earth 2018 within the project area (blue border).



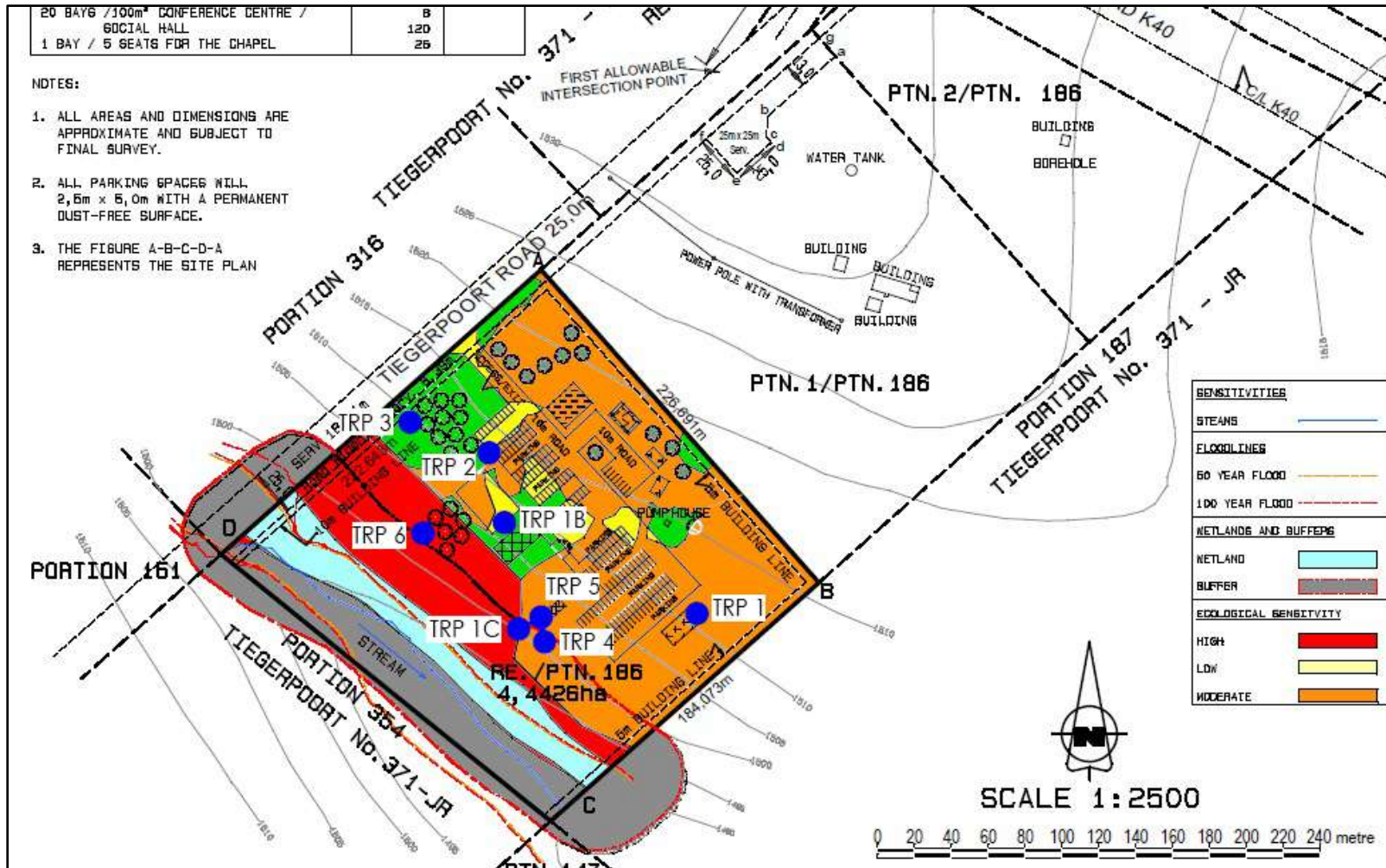
Survey orientation locations on Google Earth 2018 within the project area (blue border).



Survey tracks on Google Earth within the project area (blue border).



Proposed site plan with all planned facilities indicated.



Proposed site plan with located sites indicated with blue dots and corresponding site numbers.

Appendix D

Site Photos



Fig. 1. Site TRP 1. Packed stone feature.



Fig. 2. Site TRP 1B. Extended terracing. Photo taken in a South-eastern direction.



Fig. 3. Site TRP 1C. Extended terracing. Photo taken in a North-western direction.



Fig. 4. Site TRP 2. Terracing. Photo taken in an eastern direction.



Fig. 5. Site TRP 3. Collapsed walling and some remains of a foundation.



Fig. 6. Site TRP 3. Collapsed walling, possibly once served as workers quarters.



Fig. 7. Site TRP 4. Square packed stone feature.



Fig. 8. Site TRP 4. Square packed stone feature.

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Fig. 9. Site TRP 5. Packed stone feature. Photo taken in a Western direction.



Fig. 10. Site TRP 6. A section of the circular stone walled rondavel.

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Fig. 11. Site TRP 6. The remains of the stone-packed walling. It was probably living quarters for farm workers.

Survey Orientation Photos



Fig. 12. Site SO1. A view towards the West.



Fig. 13. Site SO2. Photo taken in a Southern direction.



Fig. 14. Site SO3. Dense thicket.



Fig. 15. Site SO 4. A number of rubble heaps are located on the project area. Photo taken in a western direction.



Fig. 16. Site SO 5. Photo taken in a North-western direction.



Fig. 17. Site SO 6. Photo taken in a Northern direction.



Fig. 18. Site SO 6. Photo taken in a Southern direction.



Fig. 19. Site SO 7. Dense thicket, black wattle bush.



Fig. 20. Site SO 8. Photo taken in a Northern direction.



Fig. 21. Site SO 9. Photo taken in a North-western direction.



Fig. 22. Site SO 9. Photo taken in a South-eastern direction.



Fig. 23. Site SO 9. Photo taken in a Western direction.

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