Cultural Heritage Impact Assessment:

Phase 1 Investigation for the Proposed In-Situ Housing Upgrade of Approximately 3500 Low Income Houses in Amatikwe Phase 2 and Phase 3, eThekwini Metropolitan Municipality, KwaZulu-Natal

For

Project Applicant	**Environmental Consultant**
eThekwini Municipality: Human Settlements Unit 188 Anton Lembede Street, Durban Tel: 031 322 7848 Fax: 031 311 3493 Contact: P. Mhlongo E-mail: Pinky.Mhlongo@durban.gov.za	Asande Projects Consulting & Engineering (Pty) Ltd Rosen Office Park, No. 2 Matuka Close, Halfway House, Midrand, 1685 Tel: 011 315 6794 Fax: 011 312 3359 E-mail: lloydn@asandeprojects.co.za

By

Francois P Coetzee
Heritage Consultant
ASAPA Professional Member No: 028
99 Van Deventer Road, Pierre van Ryneveld,
Centurion, 0157
Tel: (012) 429 6297
Fax: (012) 429 6091
Cell: 0827077338
coetzfp@unisa.ac.za

Date:	December 2019
Revised:	January 2020 April 2020
Version:	3 (Final Report)

Executive Summary

This report contains a comprehensive heritage impact assessment investigation in accordance with the provisions of Sections 38(1) and 38(3) of the National Heritage Resources Act (Act No. 25 of 1999) (NHRA) and focuses on the survey results from a cultural heritage survey as requested by Asande Projects Consulting and Engineering (Pty) Ltd. eThekwini Municipality: Human Settlements Unit is planning to undertake in-situ housing upgrades for low income houses in Amatikwe Phase 2 and 3. The proposed housing project will comprise of approximately 3500 units. Infrastructure such as sewage reticulation, storm water control, roads, electricity supply and potable water connections will form part of the proposed in situ upgrade. The proposed development would not be built on a greenfield site, but where the settlement is currently situated. This survey forms part of a Basic Assessment (BA) process which includes a Public Participation process (PPP) as prescribed by the 2014 EIA regulations (as amended), as promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) (as amended), as well as the Water Use License process as prescribed in the National Water Act (Act 36 of 1998) (as amended).

The competent authority responsible for which the application for environmental authorisation will be submitted to is the KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs (EDTEA). Amatikwe Phases 2 and 3 are located in the northern region of eThekwini within Ward 56 and parts of 108 and is approximately 33 km north from Durban CBD, in eThekwini Metropolitan Municipality, KwaZulu-Natal.

The following recommendations and mitigation measures are proposed:

- Graves sites and cemeteries
  - Graves must be clearly demarcated during the construction phase
  - A buffer zone of 5 metres must be maintained at all instances
  - Consultation with and watching brief by family members during construction phase
- Historical house
  - A buffer zone of 10 metres must be maintained where possible

No Iron Age (both Stone Age and Iron Age) settlements, structures, features, assemblages or artefacts were recorded during the survey.

Please note that the graves of the families are located adjacent and/or in close proximity to residential units. Access paths and buildings will limit the space for trenching during the construction phase. This will result in a limited buffer zone, with the result that families should be present during the construction phase of the project.

In addition, please also note that not all occupants were present during the survey to confirm the location of the associated family graves. As such care should be taken to conduct further consultation with local occupants to record additional graves.

Site No	Site Type	Field Rating of Significance	Direct Impacts	Significance of Impact before Mitigation	Significance of Impact after Mitigation	Proposed Mitigation
1	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family

						members during construction phase
2	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
3	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
4	Church with graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
5	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
6	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
7	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
8	Grave	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
9	Grave	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
10	Grave	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction

						phase
11	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
12	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
13	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
14	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
15	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
16	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
17	Grave	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
18	Grave	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
19	Grave	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction

						phase
20	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
21	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
22	Grave	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
23	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
24	Grave	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
27	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
28	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
29	Church with graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
30	Grave	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction

						phase
31	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
32	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
33	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
34	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
35	Grave	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
36	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
37	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
38	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
39	Grave	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction

						phase
40	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
41	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
42	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
43	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
44	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
45	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
46	Grave	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
47	Grave	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
48	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction

						phase
49	Grave	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
50	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
51	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
52	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
55	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
56	Grave	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
57	Grave	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
58	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
59	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction

						phase
60	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
61	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
62	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
63	Grave	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
64	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
66	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
67	Large Cemetery	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
68	Grave	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
69	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction

						phase
70	Grave	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
71	Historical house	Generally protected C: Low significance	None	52 (Medium)	5 (Low)	• Buffer zone of 10 metres must be maintained where possible
72	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
73	Graves	Generally protected A: High significance	None	52 (Medium)	5 (Low)	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase

Nature:
Possible impact on 66 grave sites and one historical house

	Without mitigation	**With mitigation**
Construction Phase		
Probability	Highly probable (4)	Very Improbable (1)
Duration	Short term (2)	Short term (2)
Extent	Limited to the site (1)	Limited to the site (1)
Magnitude	Very high (10)	Minor (2)
Significance of Impact	**52 (Medium)**	**5 (Low)**
Status (positive or negative)	Negative	Positive
Reversibility	Low	Low
Irreplaceable loss of resources?	Yes	None
Cumulative impacts and indirect impacts	Construction activities may result in vibrations and dust which will also indirectly affect the heritage remains.	
Can impacts be mitigated?	Yes, buffer zones are recommended (5 metres)	

It is therefore recommended, from a cultural heritage perspective, that the proposed in-situ upgrades to 3500 low income houses in Amatikwe Phase 2 and Phase 3 may proceed taking into account and adhering to the proposed mitigation measures.

Also, please note:

Archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during development activities, such activities should be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place **(*cf*. NHRA (Act No. 25 of 1999)**, Section 36 (6)).

Definitions and abbreviations

Midden:	Refuse that accumulates in a concentrated heap.
Stone Age:	An archaeological term used to define a period of stone tool use and manufacture
Iron Age:	An archaeological term used to define a period associated with domesticated livestock and grains, metal working and ceramic manufacture
LIA:	Late Iron Age sites are usually demarcated by stone-walled enclosures
NHRA:	National Heritage Resources Act (Act No. 25 of 1999)
SAHRA:	South African Heritage Resources Agency
SAHRIS:	South African Heritage Resources Information System
PHRA-G:	Provincial Heritage Resources Authority - Gauteng
GDARD:	Gauteng Department of Agriculture and Rural Development
HIA:	Heritage Impact Assessment
DMR:	Department of Mineral Resources
I&APs:	Interested and Affected Parties
EDTEA:	KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs
EAP:	Environmental Assessment Practitioner
AMAFA:	Amafa AkwaZulu Natali (KwaZulu-Natal Heritage)

I, Francois Coetzee, hereby confirm my independence as a cultural heritage specialist and declare that I do not have any interest, be it business, financial, personal or other, in any proposed activity, application or appeal in respect of the listed environmental processes, other than fair remuneration for work performed on this project.

_____

Francois P Coetzee
Cultural Heritage Consultant
Accredited Archaeologist for the SADC Region
Professional Member of ASAPA (CRM Section) Reg no: 28

Contents

Figures

Tables

1. Introduction and Terms of Reference

Asande Projects Consulting & Engineering an independent environmental consultant was contracted by the eThekwini Metropolitan Municipality for the proposed provision of in-situ housing upgrade of approximately 3500 low income houses in Amatikwe Phase 2 and 3 within eThekwini Metropolitan Municipality, KwaZulu-Natal. The proposed development will follow the Basic Assessment (BA) process as stipulated in Section 24 of the National Environmental Management Act (Act No. 107 of 1998) (NEMA) which requires that activities (e.g. construction), which may impact on the environment must obtain an Environmental Authorization (EA) from a relevant authority before commencing with the activities. Such activities are listed under EIA Regulations (GN R324, GN R325 and GN R327) of 2014, as amended, promulgated in terms of the National Environmental Management Act (Act No. 107 of 1998). The proposed development triggers listed activities under GN R327 – Listing Notice 1 of the EIA Regulations, 2014 (as amended), and as such, the proposed development require an Application for an Environmental Authorisation in the form of a Basic Assessment (BA) process. A Water Use Licence (WUL) is also required in terms of Section 21 of the National Water Act (Act 36 of 1998) for the proposed project. The competent authority responsible for which the application for environmental authorisation will be submitted to is the KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs (EDTEA). Amatikwe Phases 2 and 3 are located in the Northern region of eThekwini within Ward 56 and parts of 108 and is approximately 33 km north from the Durban CBD. A Cultural Heritage Impact Assessment (HIA) was requested by Asande Projects Consulting & Engineering on behalf of the client to evaluate the potential impact of the proposed development.

2. Objectives

The general objective of the cultural heritage survey is to record and document cultural heritage remains consisting of both tangible and intangible archaeological and historical artefacts, structures (including graves), settlements and oral traditions of cultural significance.

As such the terms of reference of this survey are as follows:

- Identify and provide a detailed description of all artefacts, assemblages, settlements and structures of an archaeological or historical nature (cultural heritage sites) located on the study area,
- Estimate the level of significance/importance of these remains in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value,
- Assess any impact on the archaeological and historical remains within the area emanating from the development activities, and
- Propose recommendations to mitigate heritage resources where complete or partial conservation may not be possible and thereby limit or prevent any further impact.

3. Description of Physical Environment of Study Area

The heritage survey focussed on an area situated approximately 33 km north of Durban, and located in the Northern Region of eThekwini Metropolitan Municipality. The area is located within the Inanda region, west of the M25 road.

Farm Name(s) and Portions	The following portions and farms: • Groeneberg 844 FT o Portion 5 (mostly) o Various other portions of portions
Size of Survey Area	223.6217 ha
Magisterial District	eThekwini Metropolitan Municipality Ward 56 Parts of Ward 108
1:50 000 Map Sheet	2930DB
1:250 0000 Map Sheet	2930
Central Coordinates of the Development	30.935623°E 29.680455°S

Table 1: Physical Environment

The survey area falls within the Indian Ocean Coastal Belt Biome and more specifically the KwaZulu-Natal Coastal Belt (CB 3). This veld type is highly protected and located in KwaZulu-Natal and occurs in long places in places broad coastal strips along the KwaZulu-Natal coast, from near Mtunzini in the north, via Durban to Margate and just short of Port Edward in the south (Mucina & Rutherford 2006).

The project area is characterised by undulating hills and certain areas with very steep slopes. Due to the very steep topography, the area has a number of natural drainage lines and low-lying wet areas. The area consists of low-income housing and semi-rural homesteads. The area also has a number of existing infrastructure and services, including houses (formal and informal) roads and electricity. With regards to water, there are some sites that are connected to water and there are sewer pipes in close proximity to the site.

Inanda (north of Durban) normally receives about 759 mm of rain per year, with most rainfall occurring mainly during summer. The region receives the lowest rainfall (14 mm) in July and the highest (104 mm) in January. The monthly distribution of average daily maximum temperatures shows that the average midday temperatures for Inanda range from 22.2°C in July to 27.4°C in February. The region is the coldest during July when the mercury drops to 9.5°C on average during the night (SAexplorer 2019).

Current Zoning	Residential with limited subsistence agriculture
Economic activities	Residential informal business
Soil and basic geology	The area is underlain by the sediments of the Karoo Supergroup with the mudstones and lesser sandstones of the Adelaide and Tarkastad Subgroups (Beaufort Group) dominant and some Ecca Group Shale. Sandy and loam sandy soils (of marine origin) occur with mostly sand dunes in the east. The region is underlain by fairly uniform lithologies. Four different formations are found outcropping in the area, viz. Basement Granites, Natal Group Sandstone, Berea Red Sand and Quaternary Sands.
Prior activities	Residential
Socio Economic Environment	In 2001 the population of eThekwini was 3.09 million and has grown at an average annual percentage of 1.13% per annum to reach 3.44 million in 2011 (Statistics South Africa 2011). The next Census is scheduled for 2021. In order to provide the Metros population totals in the 10 years between the Censuses there are official 5 year short term demographic forecasts for eThekwini which are undertaken by Statistics

	South Africa. The forecasts use the following demographic assumptions: fertility rate, life expectancy, mortality rates, HIV/AIDS and migration. The forecast indicates that the population of eThekwini will grow by 175 thousand between 2016 and 2020 when the population total will be 3.85 million. The unemployment rate for eThekwini increased to 27.1% in Q2 2018 from 26.7% in Q1 2018. It is also important to note that the labour force absorption rate showed an insignificant increase 0.4% (from 45.8% to 43.1%) and the participation rate decreased of (from 59.31% to 59.1%) over the same period, indicating that there are more people looking for employment and the likelihood of them finding employment has Decreased. The tertiary sector accounts for the largest portion of the workforce which includes community services, finance and trade, followed by manufacturing. In terms of skill levels, the largest portion of the workforce is employed at semi-skilled level followed by skilled and low-skilled (eThekwini Municipality IDP 2019/2020).
Evaluation of Impact	An evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits NHRA (Act No. 25 of 1999, Section 38(3d)): **Positive**

Table 2: Socio-economic environment

Figure 1: Regional context of the survey footprint located north of Durban (indicated by the red area)

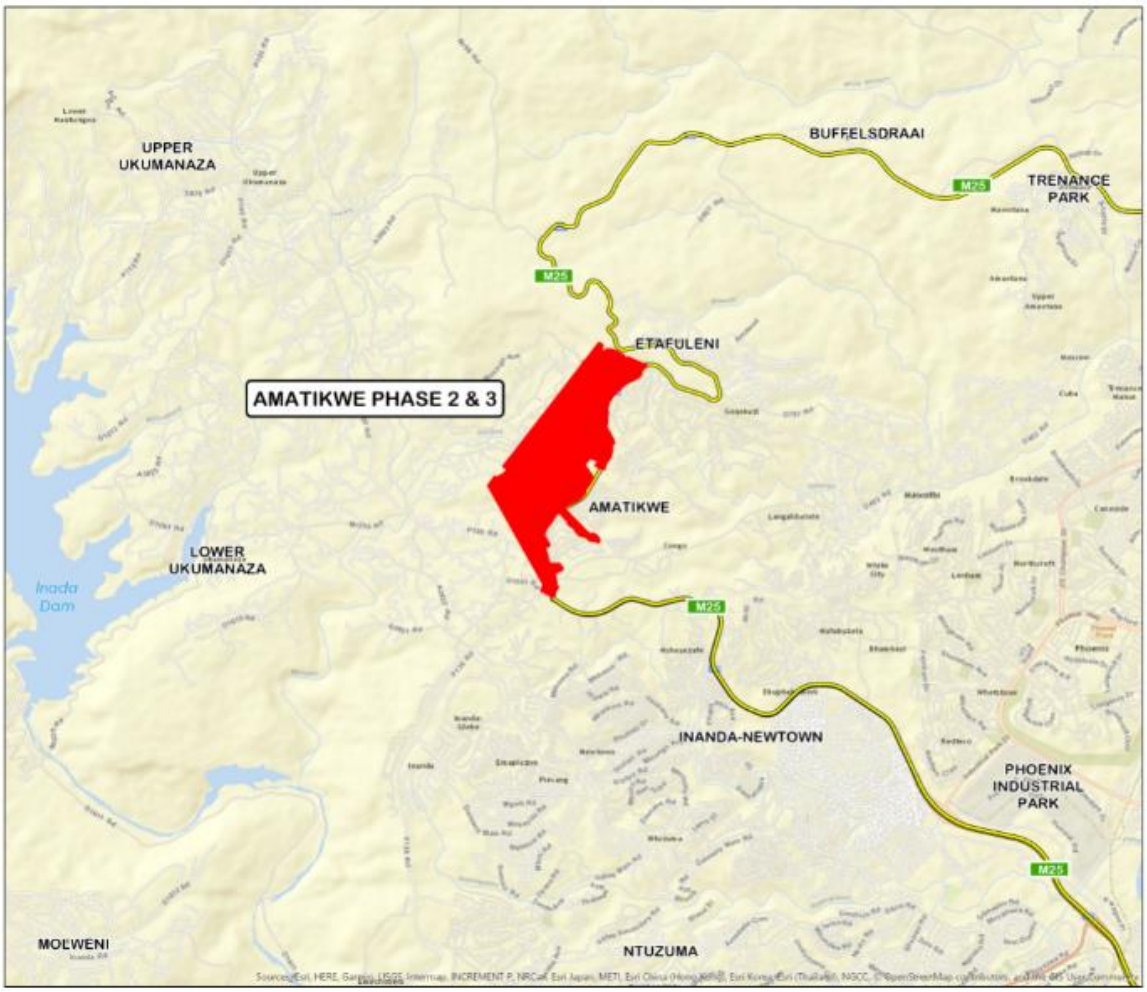


Figure 2: Local context of the survey area located in Amatikwe north of Inanda (indicated by the red area)

Figure 3: Local context of the survey footprint (1:250 000 Map 2930)

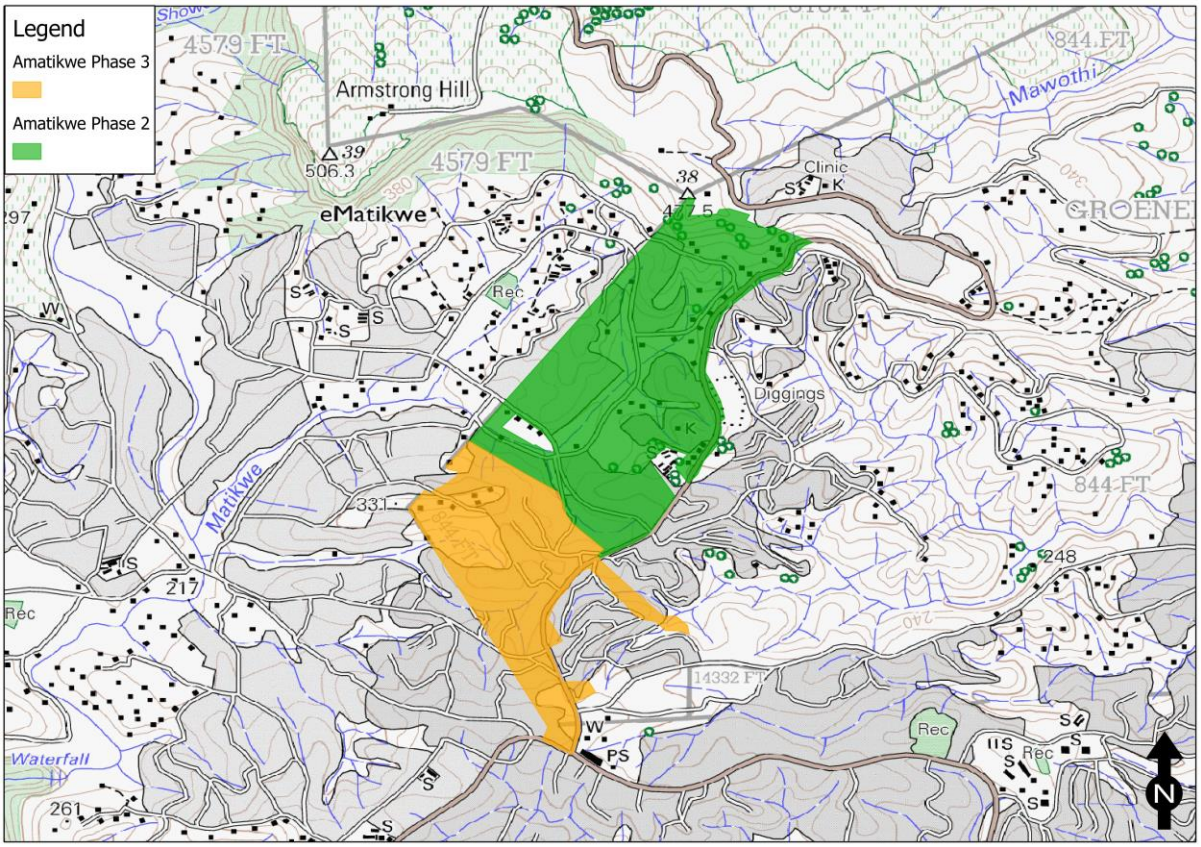


Figure 4: The survey area as indicated on the 1:50 000 topographic map 2930DB (2000)

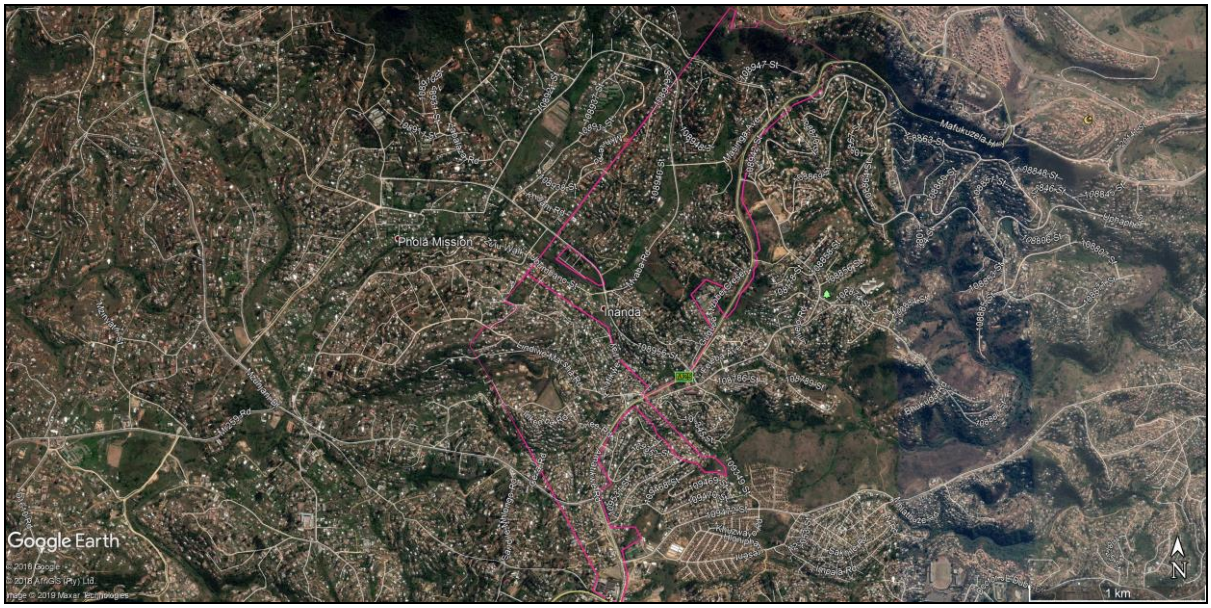


Figure 5: Survey area within local context (Google Earth 2019)

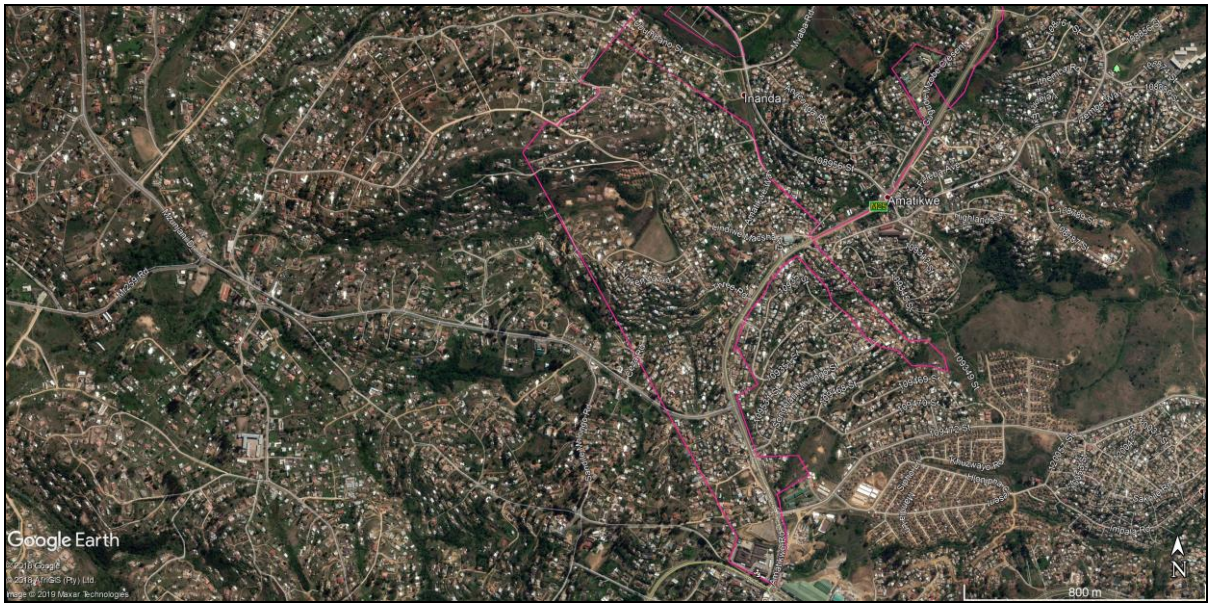


Figure 6: Detail of survey area as indicated on Google Earth Pro (Phase 3) (2019)

Figure 7: Detail of survey area as indicated on Google Earth Pro (Phase 2) (2019)

Figure 8: General view of Amatikwe Phase 3 (note current structures)

Figure 9: General view of Amatikwe Phase 3 (note current infrastructure)

Figure 10: General view of Amatikwe Phase 3 (note topography and infrastructure)

Figure 11: Existing infrastructure in Amatikwe Phase 3 (note topography)

Figure 12: Existing infrastructure in Amatikwe Phase 2

Figure 13: Existing infrastructure in Amatikwe Phase 2

Figure 14: Existing infrastructure in Amatikwe Phase 2

4. Proposed Project Description

The eThekwini Municipality: Human Settlements Unit is planning to undertake in-situ housing upgrades for low income houses in Amatikwe Phase 2 and 3. The proposed housing project will comprise approximately 3500 units. Infrastructure such as sewage reticulation, storm water control, roads, electricity supply and potable water connections will form part of the proposed in situ upgrade. The proposed development would not be built on a greenfield site, but where the settlement is currently situated. The area consists of low-income housing and semi-rural homesteads.

5. Legal Framework

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	REFERENCE APPLIED
The Constitution of the Republic of South Africa (Act No. 108 of 1996)	
The National Environmental Management Act (Act No. 107 of 1998)	Section 24
The National Water Act (Act No. 36 of 1998)	Section 21
Air Quality Act (Act No. 39 of 2004)	-

National Forests Act, Act of 84 of 1998	-
The National Heritage Resources Act (Act No. 25 of 1999)	Section 38, 34, 35, 36
National Environmental Management: Protected Areas Act (Act No. 57 of 2003)	
The Housing Act's requirements	
Conservation of Agricultural Resources Act (Act No. 85 of 1983)	
Mineral and Petroleum Resources Development Act (Act No. 28 of 2002)	
Mine Health and Safety Act (Act No. 29 of 1996) (MHSA)	
Biodiversity Act (Act 10 of 2004)	
National Infrastructure Plan	
eThekwini Metropolitan Municipality Integrated Development Plan (IDP) 2019/2010	

Table 3: Legal framework

- Section 24 of the National Environmental Management Act (Act No. 107 of 1998) (NEMA) requires that activities (e.g. construction), which may impact on the environment must obtain an Environmental Authorization (EA) from a relevant authority before commencing with the activities. Such activities are listed under EIA Regulations (GN R324, GN R325 and GN R327) of 2014, as amended, promulgated in terms of the National Environmental Management Act (Act No. 107 of 1998). The proposed development triggers listed activities under GN R327 – Listing Notice 1 of the EIA Regulations, 2014 (as amended), and as such, the proposed development require an Application for an Environmental Authorisation in the form of a Basic Assessment (BA) process. The competent authority responsible for which the application for environmental authorisation will be submitted to is the KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs (EDTEA). As the proposed provision of in-situ housing upgrade of approximately 3500 low income houses in Amatikwe phase 2 and 3 within eThekwini Municipality requires a Basic Assessment, as per the EIA Regulations, 2014 (as amended), the Basic Assessment listed activities identified to date include:
    - EIA Regulation Listing Notice 1: GNR 327 Item (19): The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from (i) a watercourse.
    - A Water Use Licence is required in terms of Section 21 of the National Water Act (Act 36 of 1998) for the proposed project. The specific water uses to be applied for will be communicated with stakeholders once confirmed by the competent authority, Department of Water and Sanitation.

- Section 38 of the NHRA (Act No. 25 of 1999) stipulates that the following activities trigger a heritage survey:

Development criteria in terms of Section 38(1a-e) of the NHRA (Act No. 25 of 1999)	**Yes/No**
Construction of road, wall, powerline, pipeline, canal or other linear form of development or barrier exceeding 300m in length	Yes
Construction of bridge or similar structure exceeding 50m in length	No
Development exceeding 5000 m^2 in extent	Yes
Development involving three or more existing erven or subdivisions	Yes
Development involving three or more erven or divisions that have been consolidated within past five years	No
Rezoning of site exceeding 10 000 m^2	No
Any other development category, public open space, squares, parks, recreation grounds	No

Table 4: Activities that trigger Section 38 of the NHRA

- Field rating system as recommended by SAHRA:

Field Rating	Grade	Significance	Recommended Mitigation
National Significance	Grade I	High significance	Conservation by SAHRA, national site nomination, mention any relevant international ranking. No alteration
Provincial Significance	Grade II	High significance	Conservation by provincial heritage authority, provincial site nomination. No alteration whatsoever without permit
Local Significance	Grade III-A	High significance	Conservation by local authority, no alteration whatsoever without permit from provincial heritage authority. Mitigation as part of development process not
Local Significance	Grade III-B	High significance	Conservation by local authority, no external alteration without permit from provincial heritage authority. Could
Generally Protected A	Grade IV-A	High/medium significance	Conservation by local authority. Site should be mitigated before destruction. Destruction permit required from
Generally Protected B	Grade IV-B	Medium significance	Conservation by local authority. Site should be recorded before destruction. Destruction permit required from provincial heritage authority.
Generally Protected C	Grade IV-C	Low significance	Conservation by local authority. Site has been sufficiently recorded in the Phase 1 HIA. It requires no further recording before destruction. Destruction permit

Table 5: Field rating system to determine site significance

- Heritage resources have lasting value in their own right and provide evidence of the origins of South African society and they are valuable, finite, non-renewable and irreplaceable.

- All archaeological remains, features, structures and artefacts older than 100 years and historic structures older than 60 years are protected by the relevant legislation, in this case the National Heritage Resources Act (NHRA) (Act No. 25 of 1999, Section 34 & 35). The Act makes an archaeological impact assessment as part of an EIA and EMPR mandatory (see Section 38). No archaeological artefact, assemblage or settlement (site) may be moved or destroyed without the necessary approval from the South African Heritage Resources Agency (SAHRA). Full cognisance is taken of this Act in making recommendations in this report.

- Full cognisance is taken of the KwaZulu-Natal Heritage Act (Act No. 4 of 2008) when making recommendations in this report.

- Cognisance will also be taken of the Mineral and Petroleum Resources Development Act (Act No 28 of 2002) and the National Environmental Management Act (Act No 107 of 1998) when making any recommendations.

- Human remains older than 60 years are protected by the NHRA, with reference to Section 36. Human remains that are less than 60 years old are protected by the Regulations Relating to the Management of Human Remains (GNR 363 of 22 May 2013) made in terms of the National Health Act No. 61 of 2003 as well as local Ordinances and regulations.

- With reference to the evaluation of sites, the certainty of prediction is definite, unless stated otherwise.

- The guidelines as provided by the NHRA (Act No. 25 of 1999) in Section 3, with special reference to subsection 3, and the Australian ICOMOS (International Council on Monuments and Sites) Charter (also known as the Burra Charter) are used when determining the cultural significance or other special value of archaeological or historical sites.

- A copy of this report will be submitted on SAHRIS as stipulated by the National Heritage Resources Act (NHRA) (Act No. 25 of 1999), Section 38 (especially subsection 4) and the relevant Provincial Heritage Resources Authority (PHRA), in this case AMAFA.

- Note that the final decision for the approval of permits, or the removal or destruction of sites, structures and artefacts identified in this report, rests with the SAHRA (or relevant PHRA).

6. Study Approach/Methodology

Geographical information (KML vector files) on the proposed prospecting areas was supplied by Asande Projects Consulting & Engineering. The most up-to-date Google Earth images and topographic maps were used to indicate the survey area. Topographic maps were sources from the Surveyor General. Please note that all maps are orientated with north facing upwards (unless stated otherwise).

The strategy during this survey was to survey the whole area that forms part of the application. As a result the project footprint was mostly surveyed by conducting intuitive pedestrian (foot) surveys and with the guidance of local representatives. As such please note that the following three members of the local community were appointed by the local council to consult with local residents and establish the location of grave and historical sites:

- Mr Fiso Linda
- Mr Goodman Mzobe
- John Mthethwa

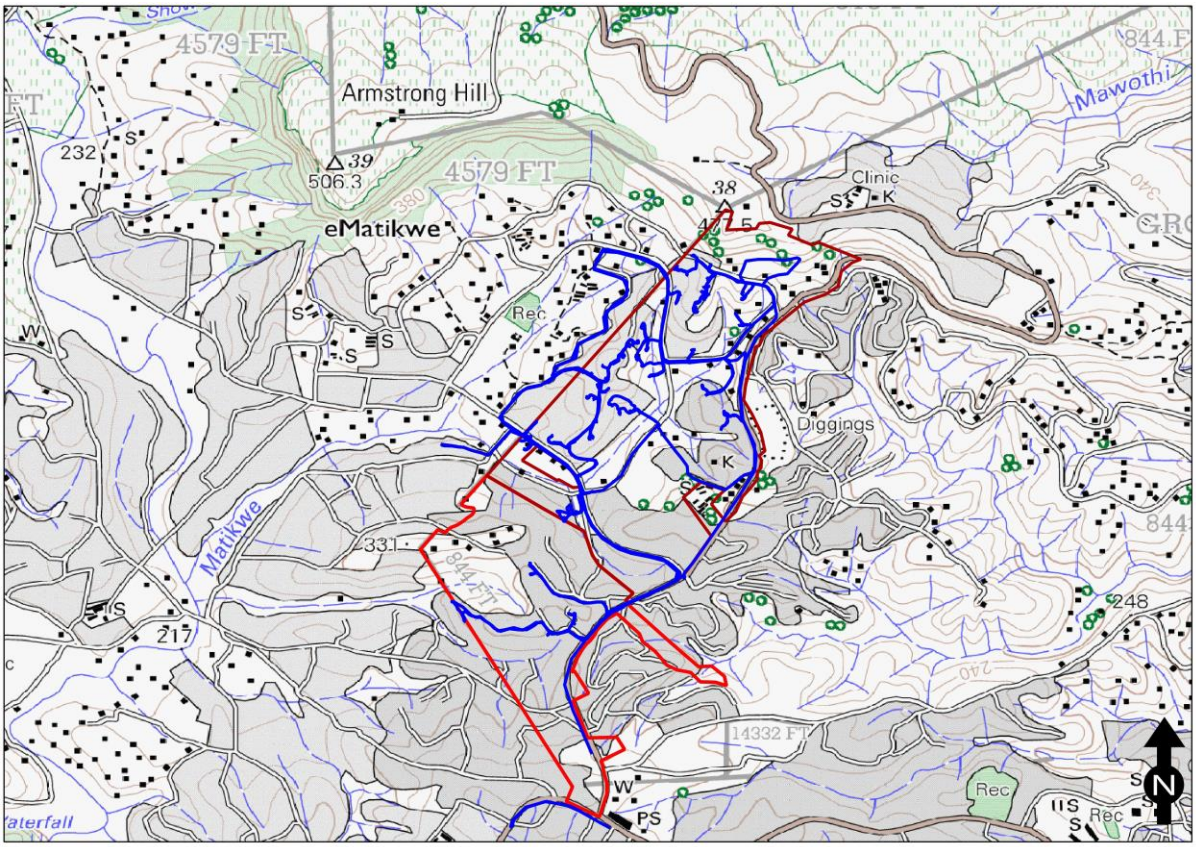


Figure 15: Recorded survey tracks for the project

6.1 Review of existing information/data

Additional information on the cultural heritage of the area was sourced from the following records:

- National Mapping Project by SAHRA (which lists heritage impact assessment reports submitted for South Africa);
- Environmental Potential Atlas (ENPAT);
- Online SAHRIS database;
- National Automated Archival Information retrieval System (NAAIRS);
- Maps and information documents supplied by the client; and
- Several heritage surveys have been conducted in the vicinity of the survey area (published and unpublished material on the area) (Anderson 2011a & 2011b; Van Schalkwyk & Wahl 2014).

During colonial times the Inanda area was originally inhabited by the Qadi people. The recent history of the greater Inanda area in particular dates back to the early 1830s, when KwaZulu-Natal was a Boer Republic called Natalia. It became an informal settlement in the 1960's when thousands of immigrant labourers, including Xhosa and Sotho-speaking people came into the area to settle. Today the area boast the well-known Inanda Heritage Route - a trail of immense significance in the recent political past of South Africa. It explores four major events, which were all situated within the greater Inanda region. These chronological events include:

- Gandhi's movement of passive resistance (Satyagraha),
- Nazareth Baptist Chruch,
- Dr John Dube's Ohlange Institute for African boys (he was also the founder of the ANC),

- The Inanda Seminary, a mission secondary boarding school that catered exclusively for African girls.

In 1904, Mohandas Gandhi, who had resided in nearby Durban since 1893, established a small village-like settlement, Phoenix Settlement, on the north-western outskirts of Inanda. Boasting residences, a clinic, a school, and a printing press, Phoenix served for a time as an important home to Gandhi, his family and his followers as they strove to follow a path of social change through passive resistance. The activist newspaper Indian Opinion, which argued strenuously for the civil rights of Indian South Africans, was published here in four languages.

Phoenix Settlement continued to serve as home to a number of residents and activists even after Gandhi's departure in 1914, including his son, Manilal Gandhi. By the early 1980s, a squatter camp, Bhambayi, occupied most of the area around the Settlement. In 1985, riots in the camp over apartheid caused heavy damage to Phoenix Settlement's buildings, and the community was largely abandoned until February 2000, when then-President Thabo Mbeki formally committed to its reopening and restoration. Phoenix settlement is now a declared heritage site.

In 1910, the Zulu mystic and charismatic preacher Isaiah Shembe founded the Nazareth Baptist Church, an African initiated church blending Christianity and indigenous Zulu traditions, in Inanda. Church doctrine emphasizes abstemious living and the Ten Commandments; its followers, themselves known as "Shembe", ascribe quasi-messianic powers to Isaiah Shembe and his descendants. The Church has undergone several schisms in the over 100 years since its founding. Most Shembe still hail from KwaZulu-Natal, and the historic and venerated Inanda church headquarters site, ekuPhakameni, remains in use.

The gravesite of Dr John Langalibalele Dube (locally known as Mafukusela) which is a declared National Heritage Site (Site ID 105054; Gazette Date: 15/06/2012 [35448]), is located some kilometres to the east of the survey footprint (across from the M25 road). Dr Dube and his wife Nokutela Dube were born here in the 1870s at an American-run Christian mission station in Inanda. The son of a highborn Zulu pastor, Dr Dube was educated at Oberlin College in the United States. Upon returning to his native Inanda, Dr Dube began to compose the first of his many thoughtful essays on the history and progress of Africans and founded the first bilingual Zulu/English newspaper, Ilanga laseNatali (The Sun of Natal), in 1903. Throughout his life, Dube was an active, pioneering author of Zulu literature. He later became a vocal force for Black African advancement and liberation, serving from 1912–1917 as the first president of the South African Native National Congress, which was to evolve into the influential African National Congress party. Inspired by the work of African-American educator Booker T. Washington and his Tuskegee University, Dube and his wife founded several schools in Inanda, including Ohlange High School, Redfern Primary School, and Langalibalele High Primary School. Dube's home neighbourhood in Inanda, Dube Village, now contains numerous memorials to his efforts.

Established by the missionary, Rev Daniel Lindley and his wife Lucy in 1869 for the American Board of Missionaries, Inanda Seminary was the first secondary school exclusively for African girls in Southern Africa and still remains the oldest girl’s private boarding school in South Africa. It was built to train girls to be teachers and ‘good wives’ to the young males being trained at Adams College in Amanzimtoti. It is significant because it has remained unscathed throughout the Apartheid era when ‘Bantu Education’ was enforced and has a

fascinating record retained in the archives. It is also a record of the origins of the Amakholwa starting, for example, with James Dube, half-brother of Chief Mqhawe of the local Qadi clan and the father of John Dube the founder of the Ohlange Institute. The original Congregational Church, built by Lindley in 1849 lies at the head of the eucalyptus lined Seminary Avenue entrance to the school. John Dube's father James was one of the first African pastors. A related important discovery during this project period was the discovery of the ruins of Daniel Lindley's original home in Umzinyathi dated 1847 which makes this a significant colonial vestige (Derwent 2006). The Ohlange School is already indicated on the topographic map (2930DB) dated to 1942.

As discussed above, the location of the various early mission stations in the region near the survey footprint is significant. To the west of the survey area is the Lindley Mission Station dating to 1858 and the Inanda Seminary and church as well as a graveyard. As a result the area was probably already densely occupied by the early 20th century. This is confirmed by the 1:50000 topographic map of 1942 (2930DB) which clearly indicates several settlements in the survey footprint.

The Surveyor General's map of the farm Groeneberg 844 FT indicates that farm was first surveyed in May 1847.

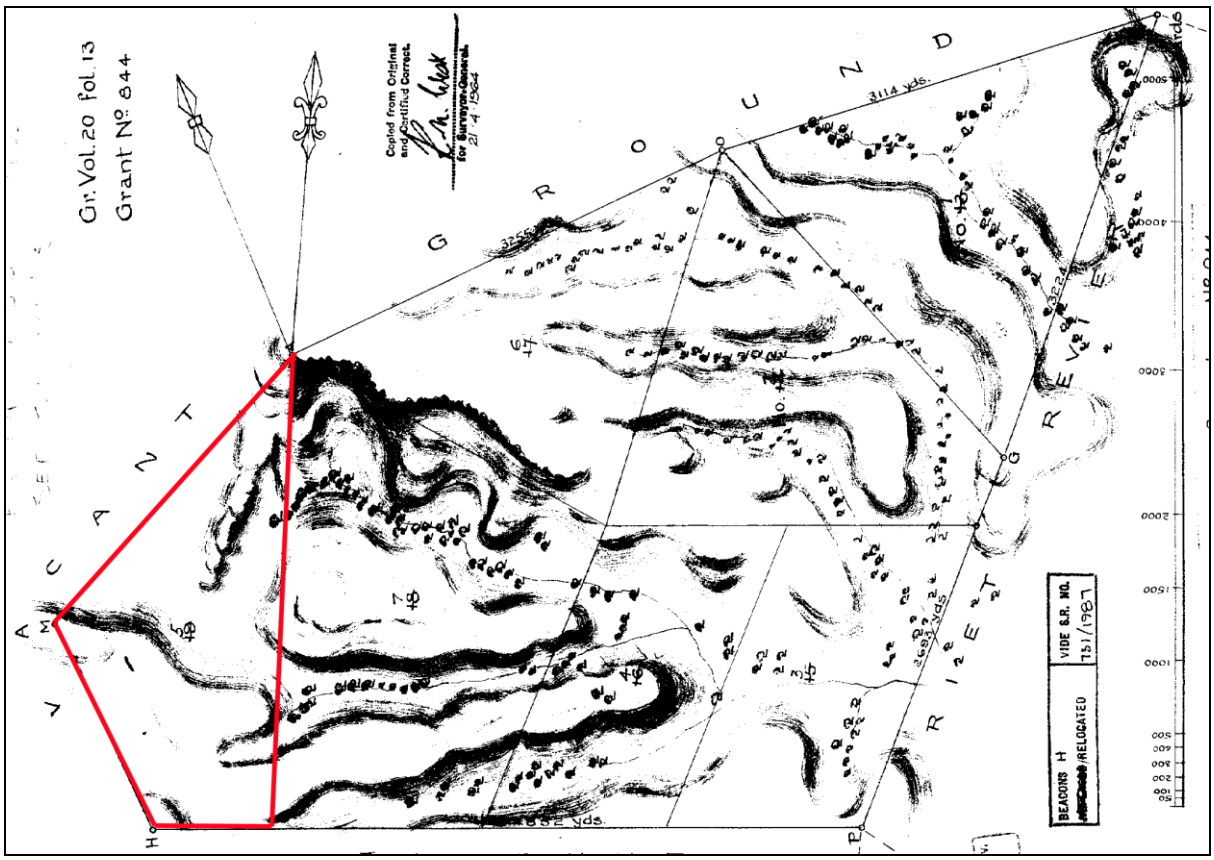


Figure 16: Surveyor General's map of the farm Groeneberg 844 FT surveyed in 1847 indicating Portion 5 (previously 10) in which most of Amatikwe Phases 2 and 3 are situated

Although several heritage impact assessments have been completed in the general vicinity of the survey footprint, no previously recorded heritage sites were noted inside the current survey area.

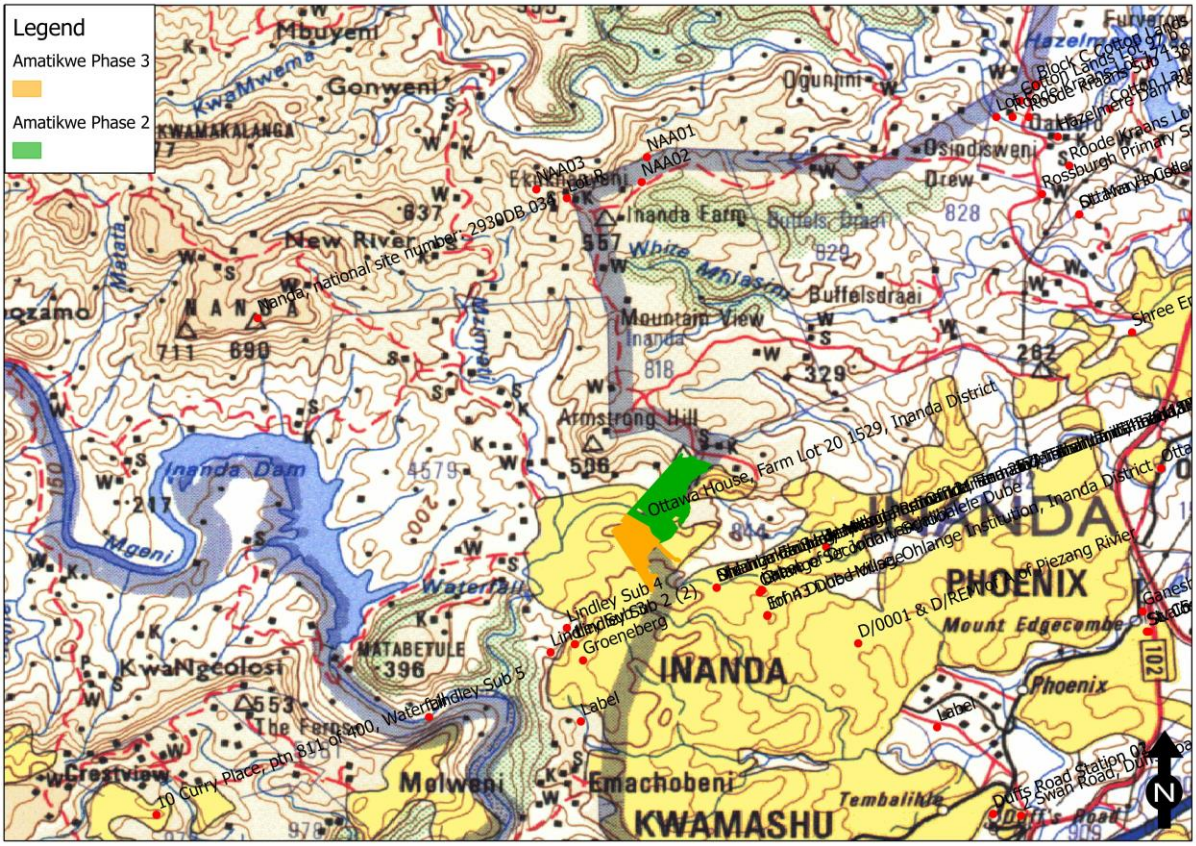


Figure 17: Recorded heritage sites near the survey footprint (SAHRIS September 2019) [Note that Ottawa House is located on the Remainder of Lot 20 No. 1557 on the Ottawa Estate and therefore located incorrectly in the SAHRIS geographic database]

Figure 18: The location of the various battles (British-Zulu War and Anglo-Boer War) that took place along the north coast

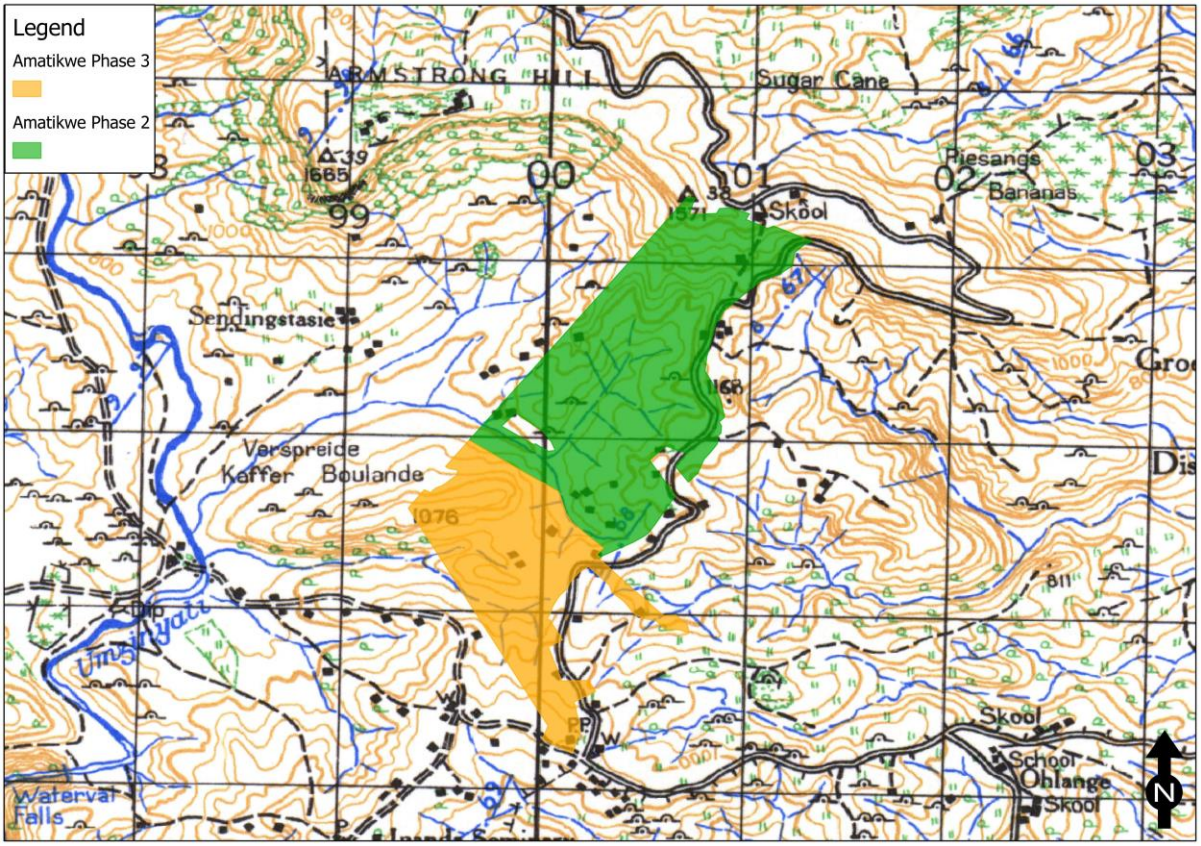


Figure 19: Early 20th century settlements as indicated on the 1:50 000 topographic map of 1942 (2930DB)

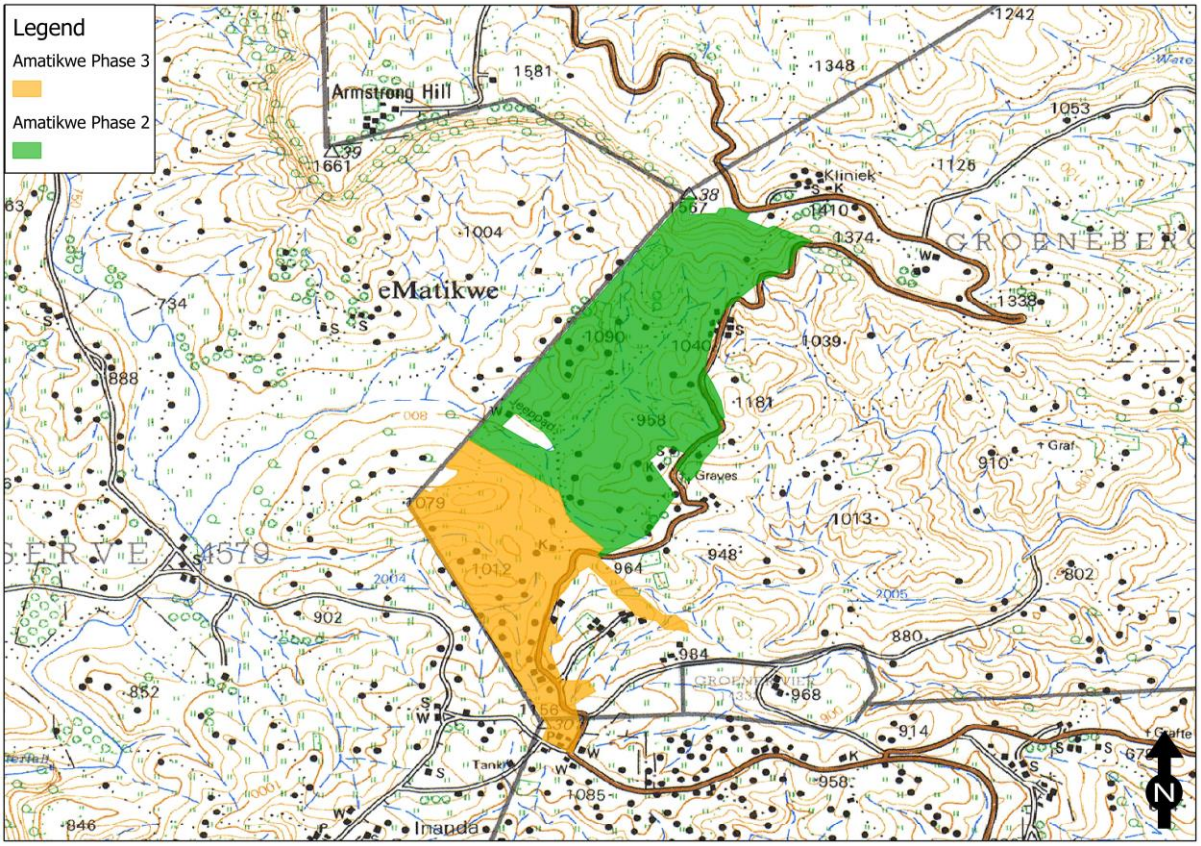


Figure 20: Mid-20th century settlements as indicated on the 1:50 000 topographic map of 1969 (2930DB)

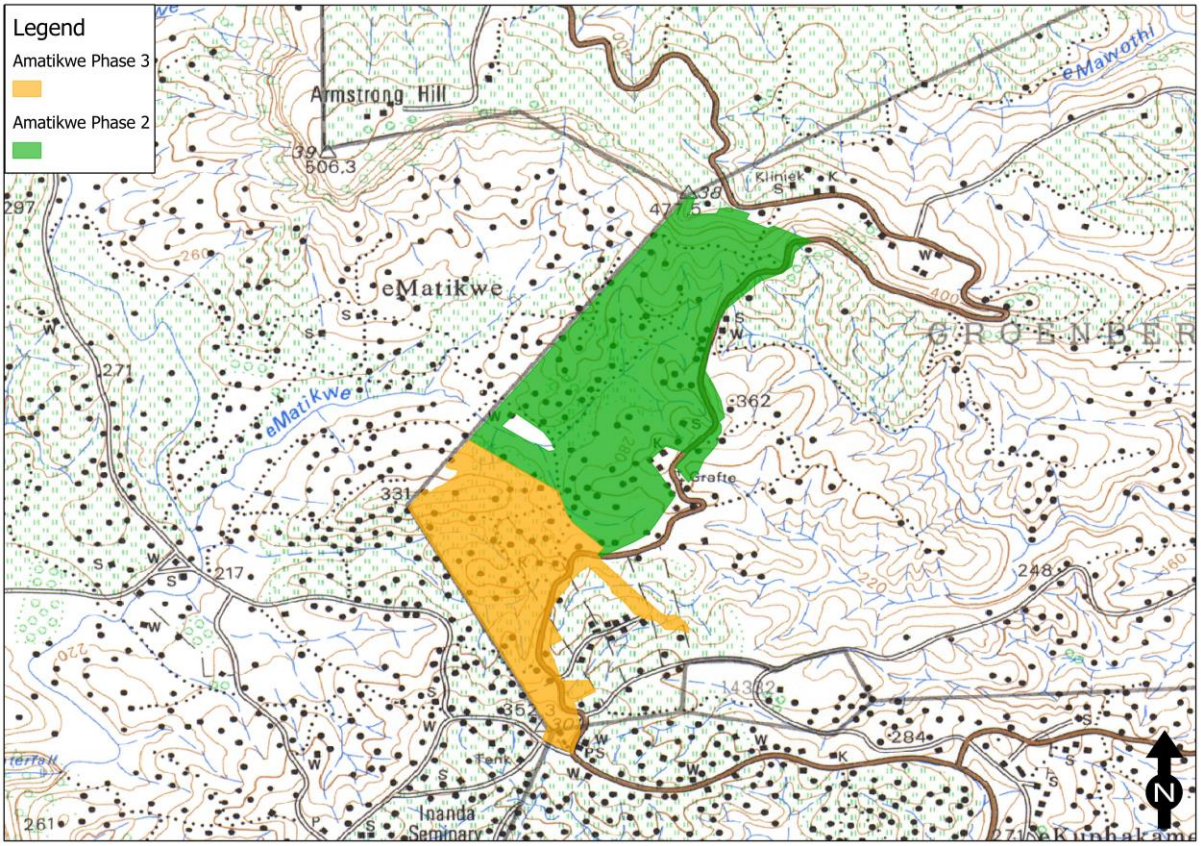


Figure 21: Late 20th century settlements as indicated on the 1:50 000 topographic map of 1981 (2930DB)

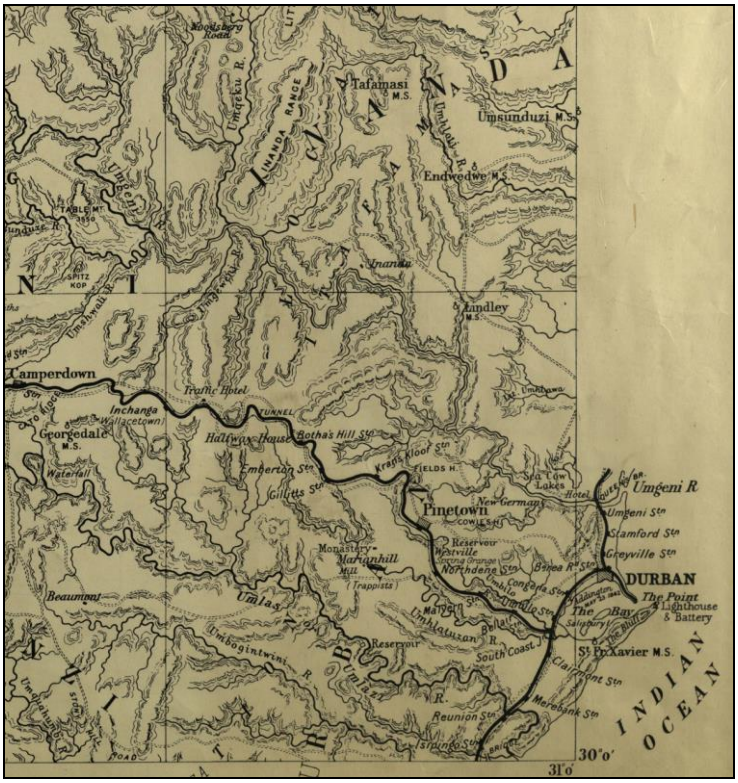


Figure 22: The survey area as indicated on the War Office map of Pietermaritzburg (No. 1367) dated 1900

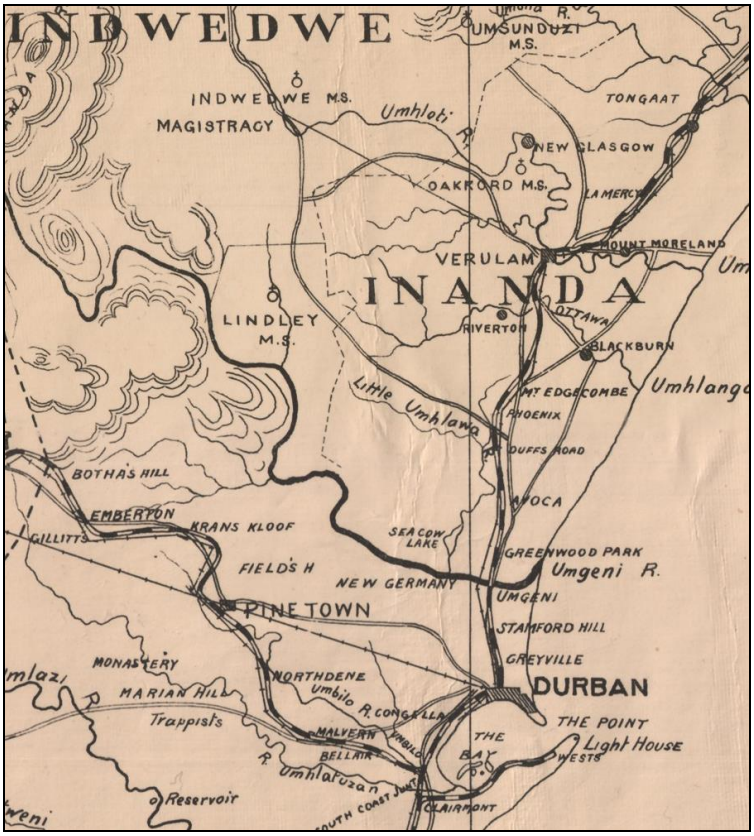


Figure 23: The survey area in Inanda as indicated on the Map of the Colony of Natal and Zululand (Lewis 1897)

6.2 Palaeontological sensitivity

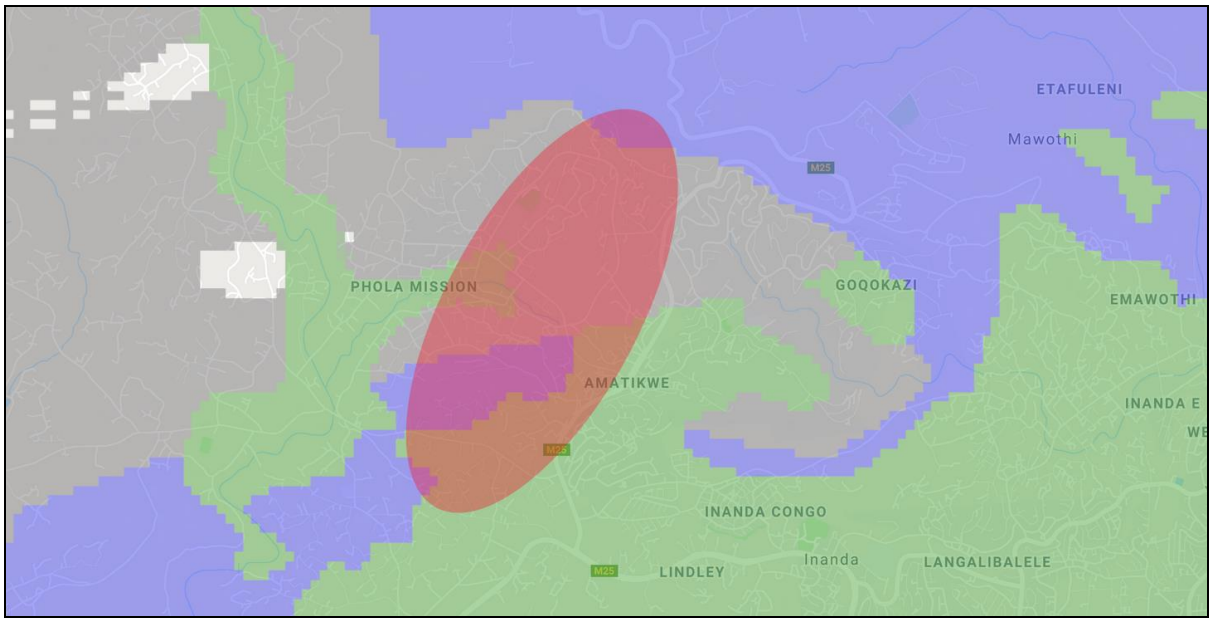


Figure 24: No high palaeontological sensitivity zones are located in the survey footprint

Colour	Sensitivity	Required Action
RED	VERY HIGH	Field assessment and protocol for finds is required
ORANGE/YELLOW	HIGH	Desktop study is required and based on the outcome of the desktop study, a field assessment is likely
GREEN	MODERATE	Desktop study is required
BLUE	LOW	No palaeontological studies are required however a protocol for finds is required
GREY	INSIGNIFICANT/ZERO	No palaeontological studies are required
WHITE/CLEAR	UNKNOWN	Will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

The palaeontological sensitivity map was extracted from the SAHRIS database and clearly shows green (moderate), grey (insignificant) and small areas of blue (low) sensitivity. As a result a palaeontological desktop study will be required.

6.3 Site visits

The field survey was conducted on 16 and 17 November 2019.

6.4 Social interaction and current residents

Various individual residents living in the survey footprint were engaged during the field survey. The current councillors of Amatikwe namely, Councillor Musa Nyaba (Ward 56) and Councillor Sduduzo Khuzwayo (Ward 108) granted access to the area and appointed three spokesmen to assist during the survey.

6.5 Public Consultation and Stakeholder Engagement

A Public Participation Process has been conducted in terms of Chapter 6 of EIA Regulations, GN R326 of the NEMA, 1998 (Act No. 107 of 1998) and Chapter 17 (2) of the Water Use License Application and Appeals Regulations. The Public Participation Guidelines in the Integrated Environmental Management Guideline Series (Guideline 7) was also used, as published in Government Gazette No. 35769 on 10 October 2012. The Public Participation Process involved the following:

- Site notices were erected at prominent points on and around the study area.
- Background Information documents were distributed to stakeholders that include authorities and state departments, councillors in the area, neighbouring properties, and estates/ developments that may be affected by the proposed development.
- Registered mail was sent to all surrounding landowners within a 100m radius of the study area.
- An advertisement was placed in a local newspaper and in the municipal newspaper.

6.6 Assumptions, restrictions, gaps and limitations

The extreme topography (very steep valleys and thick undergrowth) of the survey footprint coupled with limited access roads resulted in several challenges. In addition, the area is also severely disturbed due to the building of houses and clearing of areas by the current residents.

Due to the local spokesmen appointed by the local councillors that assisted during the survey, all known historical sites, cemeteries and family graves were identified and located. However, some residents of household yards could not be consulted due to their absence and/or inability to assist. Neighbours assisted in indicating certain areas that might also contain family graves. As a result of the mentioned factors please note that not all known graves and grave sites were recorded during the survey, but residents will be able to indicate them during the construction phase.

6.7 Methodology for assessment of potential impacts

All impacts identified during the EIA stage of the study will be classified in terms of their significance. Issues were assessed in terms of the following criteria:

- The **nature**, a description of what causes the effect, what will be affected and how it will be affected;
- The **physical extent**, wherein it is indicated whether:
  - 1 - the impact will be limited to the site;
  - 2 - the impact will be limited to the local area;
  - 3 - the impact will be limited to the region;
  - 4 - the impact will be national; or
  - 5 - the impact will be international.
- The **duration**, wherein it is indicated whether the lifetime of the impact will be:
  - 1 - of a very short duration (0–1 years);
  - 2 - of a short duration (2-5 years);
  - 3 - of a medium-term (5–15 years);
  - 4 - of a long term (> 15 years); or
  - 5 - permanent.
- The **magnitude** of impact, quantified on a scale from 0-10, where a score is assigned:
  - 0 - small and will have no effect;
  - 2 - minor and will not result in an impact;
  - 4 - low and will cause a slight impact;
  - 6 - moderate and will result in processes continuing but in a modified way;
  - 8 - high, (processes are altered to the extent that they temporarily cease); or
  - 10 - very high and results in complete destruction of patterns and permanent cessation of processes;
- The **probability** of occurrence, which describes the likelihood of the impact actually occurring and is estimated on a scale where:
  - 1 - very improbable (probably will not happen);
  - 2 - improbable (some possibility, but low likelihood);
  - 3 - probable (distinct possibility);
  - 4 - highly probable (most likely); or
  - 5 - definite (impact will occur regardless of any prevention measures);
- The **significance**, which is determined through a synthesis of the characteristics described above (refer formula below) and can be assessed as low, medium or high;
- The **status**, which is described as either positive, negative or neutral;
  - The degree to which the impact can be reversed;
  - The degree to which the impact may cause irreplaceable loss of resources; and
  - The degree to which the impact can be mitigated.

The significance is determined by combining the criteria in the following formula:

S = (E+D+M) x P; where:
S = Significance weighting
E = Extent
D = Duration
M = Magnitude
P = Probability

Points	Significance Weighting	Discussion
< 30 points	Low	Where this impact would not have a direct influence on the decision to develop in the area.
31-60 point	Medium	Where the impact could influence the decision to develop in the area unless it is effectively mitigated.
> 60 points	High	Where the impact must have an influence on the decision process to develop in the area.

7. The Cultural Heritage Sites

7.1. Isolated occurrences

Isolated occurrences are artefacts or small features recorded on the surface with no contextual information. No other associated material culture (in the form of structures or deposits) was noted that might provide any further context. This can be the result of various impacts and environmental factors such as erosion and modern developments. By contrast archaeological sites are often complex sites with evidence of archaeological deposit and various interrelated features such as complex deposits, stone walls and middens. However, these isolated occurrences are seen as remains of erstwhile complex or larger sites and they therefore provide a broad indication of possible types of sites or structures that might be expected to occur or have occurred in the survey footprint.

Throughout the survey area no isolated occurrences were recorded.

7.2 Heritage sites

A total of 66 graves sites and cemeteries as well as one historical building (Site 72) were recorded during the survey. Most of the graves are clearly demarcated and is located in close proximity to residential houses and churches. With a few exceptions, none of the graves sites are fenced off. Site 72 is a historical multi-room house with a corrugated roof and north-facing veranda with the original section that probably dates to the 1900s or 1910s with later additions (probably 1950s), also several early houses are indicated on the topographic map dating to 1969. The house is currently occupied by a family.

No archaeological (both Stone Age and Iron Age) settlements, structures, features, assemblages or artefacts were recorded during the survey.

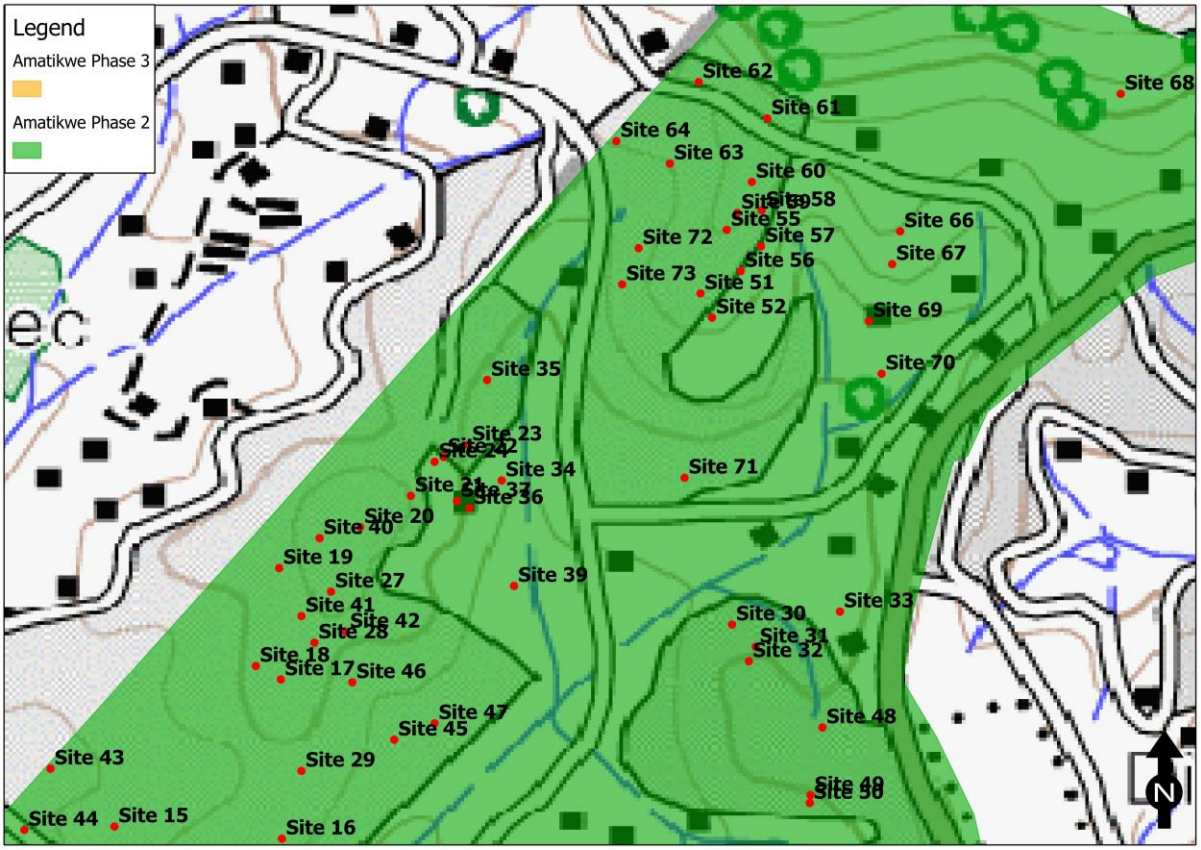


Figure 25: The location of the heritage sites in the northern section of Phase 2

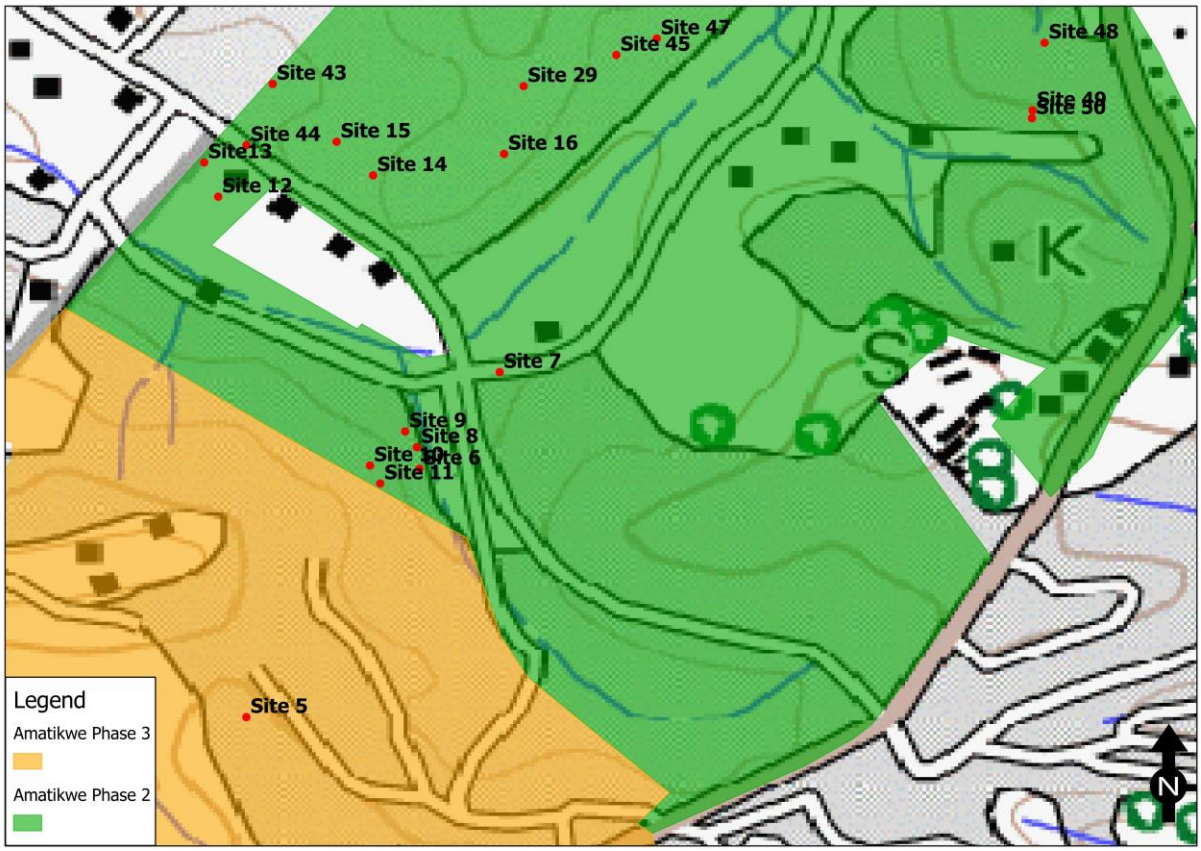


Figure 26: The location of the heritage sites in the southern section of Phase 2

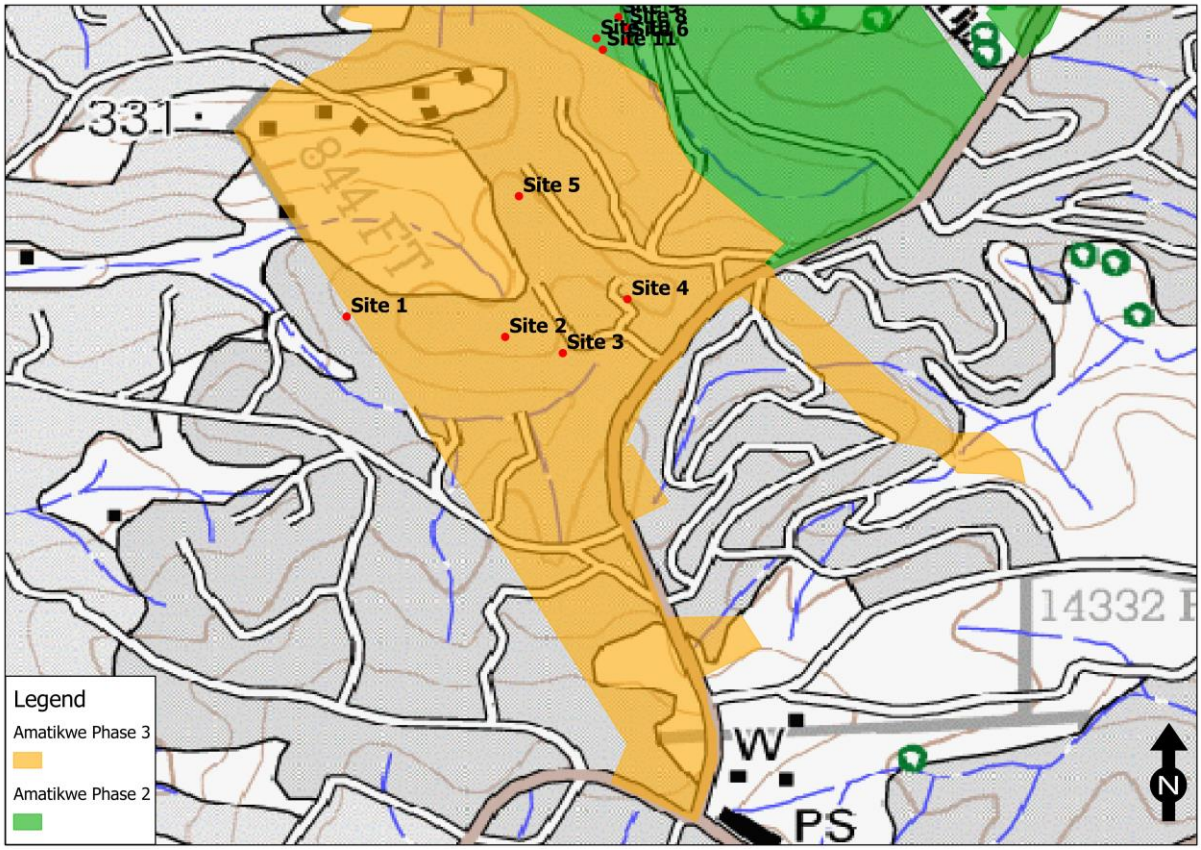


Figure 27: The location of the heritage sites in Phase 3

8. Locations and Evaluation of Sites

Site No	Coordinates	Site Type	Field Rating of Significance	Impact	Proposed Mitigation
1	29.688481°S 30.927894°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
2	29.688851°S 30.930778°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
3	29.689145°S 30.931826°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
4	29.688165°S 30.933004°E	Church with graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and

					watching brief by family members during construction phase
5	29.686292°S 30.931028°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
6	29.683462°S 30.933001°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
7	29.682361°S 30.933917°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
8	29.683216°S 30.932973°E	Grave	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
9	29.683037°S 30.932839°E	Grave	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
10	29.683425°S 30.932438°E	Grave	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
11	29.683630°S 30.932555°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
12	29.680362°S 30.930707°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase

13	29.679972°S 30.930547°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
14	29.680119°S 30.932473°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
15	29.679736°S 30.932057°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
16	29.679875°S 30.933967°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
17	29.678060°S 30.933955°E	Grave	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
18	29.677907°S 30.933670°E	Grave	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
19	29.676791°S 30.933936°E	Grave	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
20	29.676325°S 30.934860°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
21	29.675968°S 30.935438°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible

					• Consultation with and watching brief by family members during construction phase
22	29.675525°S 30.935812°E	Grave	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
23	29.675386°S 30.936091°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
24	29.675580°S 30.935708°E	Grave	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
27	29.677060°S 30.934527°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
28	29.677641°S 30.934338°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
29	29.679102°S 30.934190°E	Church with graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
30	29.677435°S 30.939100°E	Grave	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
31	29.677688°S 30.939370°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase

32	29.677853°S 30.939292°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
33	29.677287°S 30.940331°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
34	29.675793°S 30.936473°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
35	29.674648°S 30.936307°E	Grave	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
36	29.676108°S 30.936106°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
37	29.676026°S 30.935963°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
39	29.676995°S 30.936614°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
40	29.676450°S 30.934397°E	Grave	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase

41	29.677338°S 30.934190°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
42	29.677518°S 30.934698°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
43	29.679077°S 30.931328°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
44	29.679775°S 30.931030°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
45	29.678747°S 30.935247°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
46	29.678093°S 30.934770°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
47	29.678560°S 30.935708°E	Grave	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
48	29.678608°S 30.940131°E	Grave	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
49	29.679379°S 30.939995°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must

					be maintained where possible • Consultation with and watching brief by family members during construction phase
50	29.679468°S 30.939987°E	Grave	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
51	29.673662°S 30.938741°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
52	29.673938°S 30.938872°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
55	29.672938°S 30.939040°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
56	29.673407°S 30.939199°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
57	29.673125°S 30.939431°E	Grave	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
58	29.672714°S 30.939440°E	Grave	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
59	29.672744°S 30.939160°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family

					members during construction phase
60	29.672391°S 30.939326°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
61	29.671667°S 30.939502°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
62	29.671253°S 30.938720°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
63	29.672182°S 30.938392°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
64	29.671926°S 30.937781°E	Grave	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
66	29.672955°S 30.941018°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
67	29.673328°S 30.940926°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
68	29.671388°S 30.943532°E	Large Cemetery	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase

69	29.673977°S 30.940660°E	Grave	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
70	29.674577°S 30.940805°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
71	29.675762°S 30.938559°E	Grave	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase
72	29.673146°S 30.938035°E	Historical house	Generally protected C: Low significance	None	• Buffer zone of 10 metres must be maintained where possible
73	29.673559°S 30.937847°E	Graves	Generally protected A: High significance	None	• Graves must be clearly demarcated • Buffer zone of 5 metres must be maintained where possible • Consultation with and watching brief by family members during construction phase

9. Management Measures

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 proposed development can be excavated/recorded and a management plan can be developed for future action. Those sites that are not impacted on can be written into the management plan, whence they can be avoided or cared for in the future.

9.1 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 NHRA, should these be discovered during construction activities

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 activities.

- 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 heritage practitioner 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 NHRA (Act No. 25 of 1999), Section 51. (1).

9.2 Control

In order to achieve this, the following should be in place:

- A person or entity, e.g. the Environmental Control Officer, should be tasked to take responsibility for the heritage sites and should be held accountable for any damage.
- Known sites should be located and isolated, e.g. by fencing them off. All construction workers should be informed that these are no-go areas, unless accompanied by the individual or persons representing the Environmental Control Officer as identified above.
- In areas where the vegetation is threatening the heritage sites, e.g. growing trees pushing walls over, it should be removed, but only after permission for the methods proposed has been granted by SAHRA. A heritage official should be part of the team executing these measures.

10. Recommendations and Conclusions

The following recommendations and mitigation measures are proposed:

- ***Graves sites and cemeteries***
  - Graves must be clearly demarcated during the construction phase
  - A buffer zone of 5 metres must be maintained at all instances
  - Consultation with and watching brief by family members during construction phase
- ***Historical house***
  - A buffer zone of 10 metres must be maintained where possible

No Iron Age (both Stone Age and Iron Age) settlements, structures, features, assemblages or artefacts were recorded during the survey.

Please note that the graves of the families are located adjacent and/or in close proximity to residential units. Access paths and buildings will limit the space for trenching during the construction phase. This will result in a limited buffer zone, with the result that families should be present during the construction phase of the project.

In addition, please also note that not all occupants were present during the survey to confirm the location of the associated family graves. As such care should be taken to conduct further consultation with local occupants to record additional graves.

It is therefore recommended, from a cultural heritage perspective, that the proposed in-situ upgrades to 3500 low income houses in Amatikwe Phase 2 and Phase 3 may proceed taking into account and adhering to the proposed mitigation measures.

Nature: Possible impact on 66 grave sites and one historical house		
	Without mitigation	**With mitigation**
Construction Phase		
Probability	Highly probable (4)	Very Improbable (1)
Duration	Short term (2)	Short term (2)
Extent	Limited to the site (1)	Limited to the site (1)
Magnitude	Very high (10)	Minor (2)
Significance of Impact	**52 (Medium)**	**5 (Low)**
Status (positive or negative)	Negative	Positive
Reversibility	Low	Low
Irreplaceable loss of resources?	Yes	None
Cumulative impacts and indirect impacts	Construction activities may result in vibrations and dust which will also indirectly affect the heritage remains.	
Can impacts be mitigated?	**Graves:** Yes, buffer zones are recommended (5 metres) **Historical house:** Yes, buffer zones are recommended (10 metres)	

Table 6: Significance of the impact

Also, please note:

Archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during development activities, such activities should be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place **(*cf*. NHRA (Act No. 25 of 1999)**, Section 36 (6)).

11. References

Anderson, G. 2011a. Heritage survey of the Proposed Northern Aqueduct Augmentation Project, KwaZulu-Natal. Unpublished report.

Anderson, G. 2011b. Heritage survey of the Housing Upgrade for Congo, KwaZulu-Natal. Unpublished report.

Derwent, S. 2006. Heritage Sites in KwaZulu-Natal: a Guide to Some Great Places. University of KwaZulu-Natal Press

Huffman, T. N. 2007. *Handbook to the Iron Age: the Archaeology of Pre-Colonial Farming Societies in Southern Africa*. University of KZN Press: Pietermaritzburg.

Lewis, F.J. 1897. Map of the Colony of Natal and Zululand. Surveyor General's Office. Natal.

Lombard, M., Wadley, L., Deacon, J., Wurz, S., Parsons, I., Mohapi, M., Swart, J. & Mitchell, P. 2012. South African and Lesotho Stone Age Sequence Update (I). *The South African Archaeological Bulletin*. Vol 67 (195): 123-144.

Mucina, L. & Rutherford, M.C. 2010. The Vegetation of South Africa, Lesotho and Swaziland. *Strelitzia 19*. Pretoria: South African National Biodiversity Institute.

National Heritage Resources Act. Act No. 25 of 1999. Government Printer: Pretoria.

Ordnance Survey Office (Intelligence Division). 1900. Pietermaritzburg, Natal. War Office No. 1367. Southampton: War Office.

Office of the President. 27 November 1998. National Environmental Management Act (Act No. 107 of 1998). Government Gazette Vol 401 (19519). Pretoria: Government Printer.

Rambarath, S., Blackmore, A. & Goosen, M. 2013. Amatikulu Nature Reserve Integrated Management Plan 2009-213. Ezemvelo KZN Wildlife.

SAHRA, 2005. Minimum Standards for the Archaeological and the Palaeontological Components of Impact Assessment Reports, Draft version 1.4.

South African Heritage Resources Agency (SAHRA). Report Mapping Project. Version 1.0, 2009.

Van Schalkwyk, L. & Wahl, E. 2014. Phase 1 Heritage Impact Assessment Report: Proposed Bhambayi Phase 1 Extension Housing Development, Phoenix, eThekwini Metropolitan Municipality, KwaZulu-Natal.

Other Sources

Google Earth Pro 2019 (Images: 2020)

National Archives (NAAIRS) (Accessed January 2020)

SAHRIS Database. http://www.sahra.org.za/sahris (Accessed January 2020)

SWAS: www.weathersa.co.za/climate (Accessed January 2020)

https://www.cwgc.org [Commonwealth War Grace Commission] (Accessed January 2020)

Addendum 1: Archaeological and Historical Sequence

The table provides a general overview of the chronological sequence of the archaeological periods in South Africa.

PERIOD	APPROXIMATE DATES
Earlier Stone Age	more than 2 million years ago to >200 000 years ago
Middle Stone Age	<300 000 years ago to >20 000 years ago
Later Stone Age (Includes hunter-gatherer rock art)	<40 000 years ago up to historical times in certain areas
Early Iron Age	c. AD 200 - c. AD 900
Middle Iron Age	c. AD 900 – c. AD 1300
Late Iron Age (Stonewalled sites)	c. AD 1300 - c. AD 1840 (c. AD 1640 - c. AD 1840)

< = less than; > = greater than

Archaeological Context

Stone Age Sequence

Concentrations of Early Stone Age (ESA) sites are usually present on the flood-plains of perennial rivers and may date to over 2 million years ago. These ESA open sites may contain scatters of stone tools and manufacturing debris and secondly, large concentrated deposits ranging from pebble tool choppers to core tools such as handaxes and cleavers. The earliest hominins who made these stone tools, probably not always actively hunted, instead relying on the opportunistic scavenging of meat from carnivore fill sites.

Middle Stone Age (MSA) sites also occur on flood plains, but are also associated with caves and rock shelters (overhangs). Sites usually consist of large concentrations of knapped stone flakes such as scrapers, points and blades and associated manufacturing debris. Tools may have been hafted but organic materials, such as those used in hafting, seldom preserve. Limited drive-hunting activities are also associated with this period.

Sites dating to the Later Stone Age (LSA) are better preserved in rock shelters, although open sites with scatters of mainly stone tools can occur. Well-protected deposits in shelters allow for stable conditions that result in the preservation of organic materials such as wood, bone, hearths, ostrich eggshell beads and even bedding material. By using San (Bushman) ethnographic data a better understanding of this period is possible. South African rock art is also associated with the LSA.

The following chronological sequence was recently established by prominent Stone Age archaeologists (Lombard et al 2012):

Later Stone Age

- Age Range: recent to 20-40 thousand years ago

- General characteristics: expect variability between assemblages, a wide range of formal tools, particularly scrapers (microlithic and macrolithic), backed artefacts, evidence of hafted stone and bone tools, borers, bored stones, upper and lower grindstones, grooved stones, ostrich eggshell (OES) beads and other orna ments, undecorated/decorated OES fragments, flasks/flask fragments, bone tools (sometimes with decoration), fishing equipment, rock art, and ceramics in the final phase.

    - **Ceramic or Final Later Stone Age**
        - Generally < 2 thousand years ago
        - MIS 1
        - Contemporaneous with, and broadly similar to, final Later Stone Age, but includes ceramics
        - Economy may be associated with hunter-gatherers or herders

      Technological characteristics
        - Stone tool assemblages are often microlithic
        - In some areas they are dominated by long end scrapers and few backed microliths; in others formal tools are absent or rare
        - Grindstones are common, ground stone artefacts, stone bowls and boat-shaped grinding grooves may occur
        - Includes grit- or grass-tempered pottery
        - Ceramics can be coarse, or well-fired and thin-walled; some times with lugs, spouts and conical bases; sometimes with decoration; sometimes shaped as bowls
        - Ochre is common
        - Ostrich eggshell (OES) is common
        - Metal objects, glass beads and glass artefacts also occur

    - **Final Later Stone Age**
        - 100 – 4000 years ago
        - MIS 1
        - Hunter-gatherer economy

      Technological characteristics
        - Much variability can be expected
        - Variants include macrolithic (similar to Smithfield [Sampson 1974]) and/or microlithic (similar to Wilton) assemblages
        - Assemblages are mostly informal (Smithfield)
        - Often characterised by large untrimmed flakes (Smithfield)
        - Sometimes microlithic with scrapers, blades and bladelets, backed tools and adzes (Wilton-like)
        - Worked bone is common
        - OES is common
        - Ochre is common
        - Iron objects are rare
        - Ceramics are absent

    - **Wilton**
        - 4000 – 8000 years ago

- MIS 1
- At some sites continues into the final Later Stone Age as regional variants (e.g. Wilton Large Rock Shelter and Cave James)

Technological characteristics

- Fully developed microlithic tradition with numerous formal tools
- Highly standardised backed microliths and small convex scrapers (for definition
- of standardisation see Eerkens & Bettinger 2001)
- OES is common
- Ochre is common
- Bone, shell and wooden artefacts occur

- **Oakhurst**
  - 7000 – 12 000 years ago
  - MIS 1
  - Includes Albany, Lockshoek and Kuruman as regional variants

Technological characteristics

- Flake based industry
- Characterised by round, end, and D-shaped scrapers and adzes
- Wide range of polished bone tools
- Few or no microliths

- **Robberg**
  - 12 000 to 18 000 years ago
  - MIS 2

Technological characteristics

- Characterised by systematic bladelet (<26mm) production and the occurance of outils ecailles or scaled pieces
- Significant numbers of unretouched bladelets and bladelet cores
- Few formal tools
- Some sites have significant macrolithic elements

- **Early Late Stone Age**
  - 18 000 – 40 000 years ago
  - MIS 2-3
  - Informal designation
  - Also known as transitional MSA-LSA
  - Overlapping in time with final Middle Stone Age

Technological Characteristics

- Characterised by unstandardised, often microlithic, pieces and includes the bipolar technique
- Described at some sites, but not always clear whether assemblages represent a real archaeological phase or a mixture of LSA/MSA artefacts

Middle Stone Age

- Age Range: 20 000 – 30 000 years ago
- General characteristics: Levallois or prepared core techniques (for definitions see Van Peer 1992; Boeda 1995; Pleurdeau 2005) occur in which triangular flakes with convergent dorsal scars, often with faceted striking platforms, are produced. Discoidal systems (for definition see Inizan et al. 1999) and intentional blade production from volumetric cores (for definition see Pleurdeau 2005) also occur; formal tools may include unifacially and bifacially retouched points, backed artefacts, scrapers, and denticulates (for definition see Bisson 2000); evidence of hafted tools; occasionally includes marine shell beads, bone points, engraved ochre nodules, engraved OES fragments, engraved bone fragments, and grindstones.
- In the sequence below we highlight differences or characteristics that may be used to refine interpretations depending on context.

- **Final Middle Stone Age**
  - 20 000 – 40 000 years ago
  - MIS 3
  - Informal designation partly based on the Sibudu sequence

Technological characteristics
- Characterised by high regional variability that may include, e.g. bifacial tools, bifacially retouched points, hollow-based points
- Triangular flake and blade industries (similar to Strathalan and Melikane)
- Small bifacial and unifacial points (similar to Sibudu and Rose Cottage Cave)
- Sibudu point characteristics: short, stout, lighter in mass com pared to points from the Sibudu technocomplex, but heavier than those from the Still Bay
- Can be microlithic
- Can include bipolar technology
- Could include backed geometric shapes such as segments, as well as side scrapers

Sibudu
- 45 000 – 58 000 years ago
- MIS 3
- Previously published as informal late Middle Stone Age and post-Howieson's Poort at Sibudu
- Formerly known post-Howieson's Poort, MSA 3 generally, and MSA III at Klasies River

Technological characteristics
- Most points are produced using Levallois technique
- Most formal retouch aimed at producing unifacial points
- Sibudu unifacial point (type fossil) characteristics: faceted platform; shape is somewhat elongated with a mean length of 43.9 mm), a mean breadth of 26.8 mm and mean thickness of 8.8 mm (L/B ratio 1.7); their mean mass is 11.8 g (Mohapi, 2012)
- Some plain butts
- Rare bifacially retouched points
- Some side scrapers are present
- Backed pieces are rare

- **Howieson’s Poort**

- 58 000 – 66 000 years ago
- MIS 3-4

Technological characteristics

- Characterised by blade technology
- Includes small (<4 cm) backed tools, e.g. segments, scrapers, trapezes and backed blades
- Some denticulate blades
- Pointed forms are rare or absent

- **Still Bay**
  - 70 000 – 77 000 years ago
  - MIS 4-5a

Technological characteristics

- Characterised by thin (<10 mm), bifacially worked foliate or lanceolate points
- Semi-circular or wide-angled pointed butts
- Could include blades and finely serrated points (Lombard et al. 2010)

- **Pre-Still Bay**
  - 72 000 – 96 000 years ago
  - MIS 4-5

Technological characteristics

- Characteristics currently being determined / studied

- **Mossel Bay**
  - 77 000 to —105 000 years ago
  - MIS 5a-4
  - Also known as MSA II at Klasies River or MSA 2b generally

Technological characteristics

- Characterised by recurrent unipolar Levallois point and blade reduction
- Products have straight profiles; percussion bulbs are prominent and often splintered or ring-cracked
- Formal retouch is infrequent and restricted to sharpening the tip orshaping the butt

- **Klasies River**
  - 105 000 to —130 000 years ago
  - MIS 5d-5e
  - Also referred to as MSA I at Klasies River or MSA 2a generally

Technological characteristics

- Recurrent blade and convergent flake production
- End products are elongated and relatively thin, often with curved profiles
- Platforms are often small with diffused bulbs
- Low frequencies of retouch
- Denticulate pieces

- **Early Middle Stone Age**

- Suggested age MIS 6 to MIS 8 (130 000 to —300 000 years ago)
- Informal designation

Technological characteristics

- This phase needs future clarification regarding the designation of cultural material and sequencing
- Includes discoidal and Levallois flake technologies, blades from volumetric cores and a generalised toolkit

- **Earlier Stone Age**
  - Age range: >200 000 to 2 000 000 years ago
  - General characteristics: early stages include simple flakes struck from cobbles, core and pebble tools; later stages include intentionally shaped handaxes, cleavers and picks; final or transitional stages have tools that are smaller than the preceding stages and include large blades.
  - In the sequence below we highlight differences or characteristics that may be used to refine interpretations depending on context.

- **ESA-MSA transition**
- 200 to —600 thousand years ago
- MIS 7-15

Technological characteristics

- Described at some sites as Fauresmith or Sangoan
- Relationships, descriptions, issues of mixing and ages yet to be clarified
- Fauresmith assemblages have large blades, points, Levallois technology, and the remaining ESA components have small bifaces
- The Sangoan contains small bifaces (<100 mm), picks, heavy and light-duty denticulated and notched scrapers
- The Sangoan is less well described than the Fauresmith

- **Acheulean**
  - 300 thousand to —1.5 million years ago
  - MIS 8-50

Technological characteristics

- Bifacially worked handaxes and cleavers, large flakes > 10 cm
- Some flakes with deliberate retouch, sometimes classifiedas scrapers
- Gives impression of being deliberately shaped, but could indicate result of knapping strategy
- Sometimes shows core preparation
- Generally found in disturbed open-air locations

- **Oldowan**
  - 1.5 to >2 million years ago
  - MIS 50-75

Technological characteristics

- Cobble, core or flake tools with little retouch and no flaking to predetermined patterns

- Hammerstones, manuports, cores
- Polished bone fragments/tools

Iron Age Sequence

The earliest agriculturalists in Southern Africa are represented by Silver Leaves ceramics which is a facies of the Urewe Tradition. By AD 450 Silver Leaves was replaced by Mzonjani. The distribution of Mzonjani pottery indicates that by this time agriculturists had expanded into the coastal belt of what is now KwaZulu-Natal, reaching some 100 km south of Durban. Most Mzonjani sites lie within six kilometres of the shoreline, so this correlation does not extend to the more significant ore reserves further inland.

By the 7th century the second-phase pottery, called Msuluzi, associated with the Kalundu Tradition, became dominant, indicating that the ancestors of these agriculturists entered southern Africa from the northwest. Msuluzi ceramics gave rise to Ndondondwane by the end of the 8th century, and Ndondondwane in turn became Ntshekane by the mid-10th century.

The Kalundu sequence in KwaZulu-Natal ended in the mid- to late 11th century and was replaced by the Blackburn facies. A sharp stylistic disjunction exists between Ntshekane and Blackburn, which has long been taken to mark significant social changes at the start of the second millennium. Huffman argue that the break in ceramic tradition is best explained by the arrival of Nguni speakers from East Africa (Huffman 2007).

Blackburn sites are known from the coastal belt north and south of Durban. Similar material occurs north of the Mhlatuze lagoon (Richards Bay) (KwaZulu-Natal Museum records). The Blackburn facies developed into Moor Park, which in KwaZulu-Natal has dates of AD 1300 to about AD 1650–1700. The distribution of Moor Park sites indicates that for the first time Iron Age agriculturists settled in the higher altitude grasslands. Sites are recorded near Estcourt, Bergville and Dundee. The stone-walled Moor Park sites in the grasslands are typically located on steep-sided hilltops.

The Late Iron Age (LIA) settlements are characterised by stone-walled enclosures situated on defensive hilltops c. AD 1640 - AD 1830). This occupation phase has been linked to the arrival of ancestral Northern Sotho, Tswana and Ndebele (Nguni–speakers) in the northern regions of South Africa with associated sites dating between the sixteenth and seventeenth centuries AD. The terminal LIA is represented by late 18th/early 19th century settlements with multichrome Moloko pottery commonly attributed to the Sotho-Tswana. These settlements can in many instances be correlated with oral traditions on population movements during which African farming communities sought refuge in mountainous regions during the processes of disruption in the northern interior of South Africa, resulting from the so-called difaqane (or mfecane).

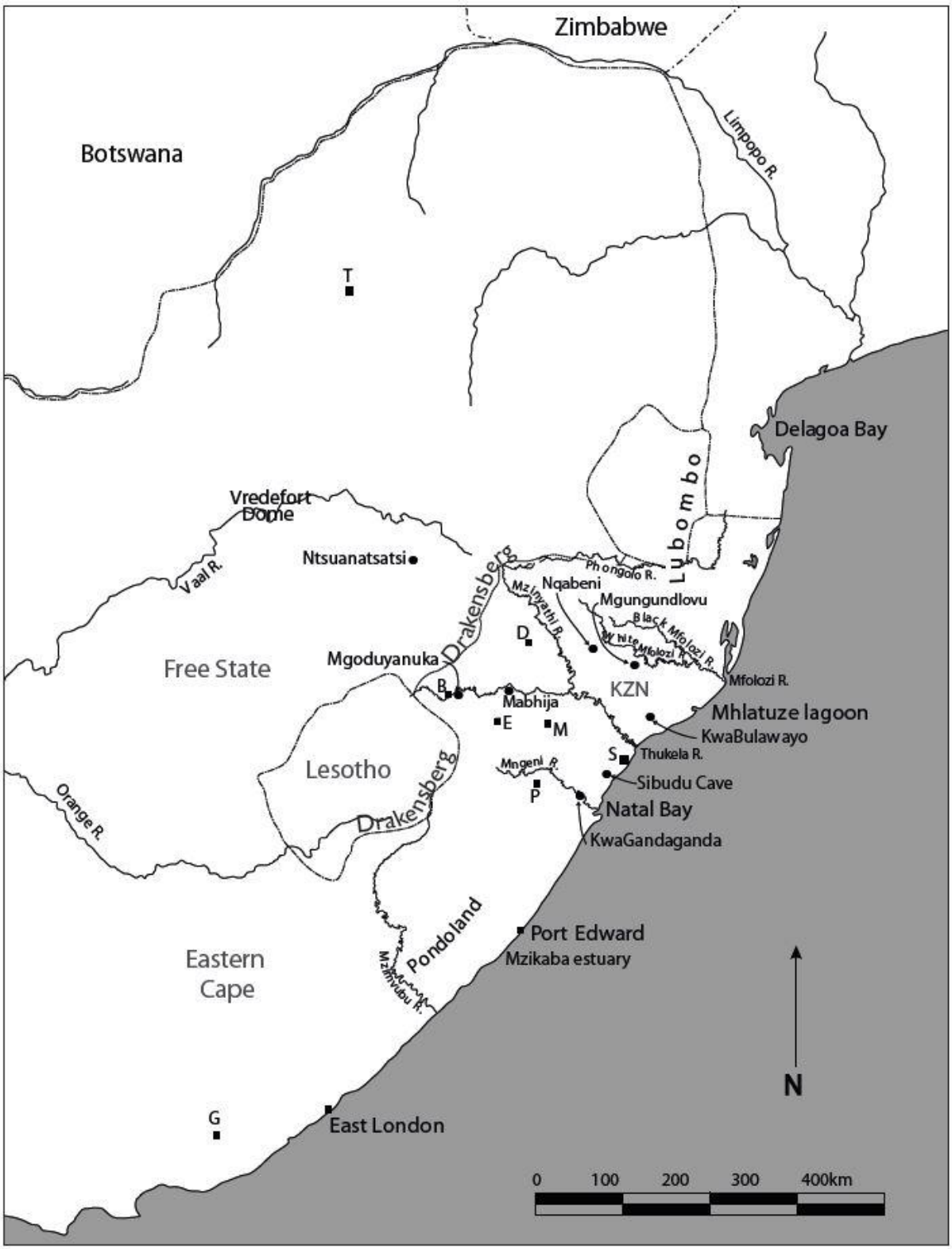


Figure 28: Location of various Iron Age sites in the region

Ethno-historical Context

The area was one of the most important agricultural areas of the Kingdom of KwaZulu since the reigns of Kings Malandela, Jama, Senzangakhona, Shaka, Dingane and Mpande. During the reigns of Kings Shaka and Dingane, the eNdondakusuka area formed part of the area

regarded as Prince Mpande's sphere of influence. He had his house kwaMfemfe eGcotsheni in Ndulinde, which is where Prince Shingana was born and buried in 1911.

The historical events which occurred in this area include:

- The Battle of Tugela which was fought on the slopes of Ndondakasuka in 1838 between a group of settlers from Port Natal under John Cane and Robert Biggar, and an impi of Dingane's forces. King Dingane sent forces to eThekwini to destroy the settlers, but they took refuge in their ships, and were not attacked.
- The Battle of Ndondakasuka followed in 1856, and was fought between King Mpande's sons Cetshwayo and Mbuyazwe to contest the right of succession to the Zulu throne, provoked by Colonial interests.
- Deteriorating relations between King Cetshwayo and the colonial authorities resulted in the Ultimatum given to King Cetshwayo's izinduna on 11 December 1878 at the Ultimatum Tree on the banks of the Tugela in the eNdondakusuka Municipality area. This lead to the invasion of the Kingdom of KwaZulu on 22 January 1879, and the start of the Anglo - Zulu War, which saw the epic battles which have become part of world history.
- Fort Tenedos was built during the initial phases of the Anglo-Zulu war. Located on the northern bank of Tugela River. The site of this sort is best viewed from Fort Pearson, which is part of the Harold Johnsons Nature Reserve.

When Mpande had called on the Boers for help, he had presented his son, Cetshwayo, as his heir, but the ageing Mpande became fearful that Cetshwayo would threaten his position. He began to encourage another of his sons, Mbuyazi, to believe that he would be heir. Cetshwayo's adherents became known as the uSuthu, after the large Sotho-type cattle his supporters had captured from the Pedi. Mbuyazi's adherents were known as the iziGqoza, from the word meaning "to drop down like drops of water from a roof", in reference to the steady trickle of adherents moving to his side.

Cetshwayo, however, commanded considerably more support than Mbuyazi. As a pretext for a showdown, the two sons received permission from Mpande to hold a joint hunt in the Royal Hunting Grounds at the confluence of the Black and White Umfolozi Rivers, the place which is now Imfolozi Game Reserve. The uSuthu came better prepared for battle and the iziGqoza lost their nerve and withdrew without a blow being struck.

Mpande then allocated Mbuyazi land in the south, where his own influence had once been at its greatest. He hoped this would facilitate the recruitment of more adherents for Mbuyazi, and that he would be close enough to solicit support from the British, but, if he were beaten, could flee to Natal. This was too much for Cetshwayo and he mobilised his uSuthu to drive them out. Mbuyazi heard they were coming and moved south towards the lower Thukela River. He requested help from the British, and John Dunn crossed the border with 35 frontier policemen, 100 African hunters, and was later joined by a few white trader-hunters and their assistants. After failed attempts to get Mbuyazi's women, children and cattle across the fast-flowing river, Dunn suggested that the greatly outnumbered iziGqoza take the initiative and attack first. Late on the first day, as the two armies moved closer to one another, Dunn's mounted force opened fire on the uSuthu advance scouts. The next day, the iziGqoza, although assisted by Dunn's men, were routed and massacred. Dunn escaped by swimming across the river, but many of his riflemen were killed. The death toll has never been accurately assessed, but must have numbered in the thousands. Mbuyazi and five brothers were killed, but his body was never identified.

Mpande came to terms with Cetshwayo's claim to the throne and in 1857 they reached a formal reconciliation. In return for Cetshwayos's promise to keep the peace, Mpande pledged him a considerable role in ruling the nation, on condition that Mpande remain the ultimate authority. Deteriorating relations between King Cetshwayo and the colonial authorities resulted in the Ultimatum given to King Cetshwayo's izinduna on 11 December 1878 at the Ultimatum Tree on the banks of the Tugela in the Mandeni Local Municipality area. This led to the invasion of the Kingdom of KwaZulu on 22 January 1879, and the start of the Anglo-Zulu War, which saw the epic battles which have become part of world history.

These events form the nucleus of a rich historical past, which in addition to many other events and stories such as the history of the Dunn family at Mangethe. Great battles have been fought by the Zulus against the British in this area through the involvement of King Cetshwayo. Then there is the legacy of the Scottish immigrant, John Dunn, and his 48 Zulu wives and 117 children. Also culturally significant landmarks such as the Ultimatum Tree being located on the banks of the Thukela River.

Inanda Township is one of the original townships in the eThekwini Metropolitan Municipality. In the 1600s Inanda Township was nothing more than an oasis for the few local Indigenous farmers. Until in the late 1700s when white settlers arrived in the area. Then in the 1800s, In 1936, Indian farmers joined life in Inanda. They lived harmoniously with their African counterparts in the area. In 1951, July 7, the then government introduced the Group Areas Act, which meant more and more Black people moved into Inanda Township. However with no proper infrastructure from town-planning, housing, schools, clinics, roads, sanitation, and no water system. Between 1984-1987, there were serious political and racial clashes/riots between the Indian & African communities. Which drove away all Indian occupants to nearby areas such as Verulam, KwaZulu-Natal, Phoenix, Durban, and Ottawa, KwaZulu-Natal (Wikipedia December as listed 2019).

Addendum 2: Description of the Recorded Sites

A system for grading the significance of heritage sites was established by the NHRA (Act No. 25 of 1999) and further developed by the South African Heritage Resources Agency (SAHRA 2007) and has been approved by ASAPA for use in southern Africa and was utilised during this assessment.

Sites (see numbers below)

A. GENERAL SITE DESCRIPTION				
Site type	Grave sites			
Site Period	Early 20th century to present			
Physical description	The sites comprise individual graves that are associated with a specific family unit and are usually situated near or adjacent to the house. Most of the graves are demarcated with either granite, cement or packed stone/bricks headstones and bases. The orientation of the graves is mostly east-west with the headstone on the western side. Please note that unmarked graves are by default regarded as older than 60 years and are therefore protected by the NHRA (Act No 25 of 1999, Section 36).			
Integrity of deposits or structures	Stable (often overgrown)			
Site extent	Approximately 10 x 10 metres to 100 metres diameter			
B. SITE EVALUATION				
B1. HERITAGE VALUE			**Yes**	**No**
Historic Value				
It has importance to the community or pattern of South Africa's history or precolonial history.				X
It has strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa.				X
It has significance relating to the history of slavery in South Africa.				X
Aesthetic Value				
It has importance in exhibiting particular aesthetic characteristics valued by a particular community or cultural group.				X
Scientific Value				
It has potential to yield information that will contribute to an understanding of South Africa's natural and cultural heritage.				X
It has importance in demonstrating a high degree of creative or technical achievement at a particular period.				X
It has importance to the wider understanding of the temporal change of cultural landscapes, settlement patterns and human occupation.			X	
Social Value				
It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place).			X	
Tourism Value				
It has significance through its contribution towards the promotion of a local sociocultural identity and can be developed as tourist destination.				X
Rarity Value				
It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage.				X
Representative Value				
It is importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects.				X
B2. REGIONAL CONTEXT				
Other similar sites in the regional landscape.			X	
C. SPHERE OF SIGNIFICANCE	**High**	**Medium**	**Low**	
International			X	
National		X		
Provincial		X		

Local	X		
Specific community	X		
D. FIELD REGISTER RATING			
National/Grade 1 [should be registered, retained]			
Provincial/Grade 2 [should be registered, retained]			
Local/Grade 3A [should be registered, mitigation not advised]			
Local/Grade 3B [High significance; mitigation, partly retained]			
Generally Protected A [High/Medium significance, mitigation]			X
Generally protected B [Medium significance, to be recorded]			
Generally Protected C [Low significance, no further action]			
E. GENERAL STATEMENT OF SITE SIGNIFICANCE			
Low			
Medium			
High			X
F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT			
None			X
Peripheral			
Destruction			
Uncertain			

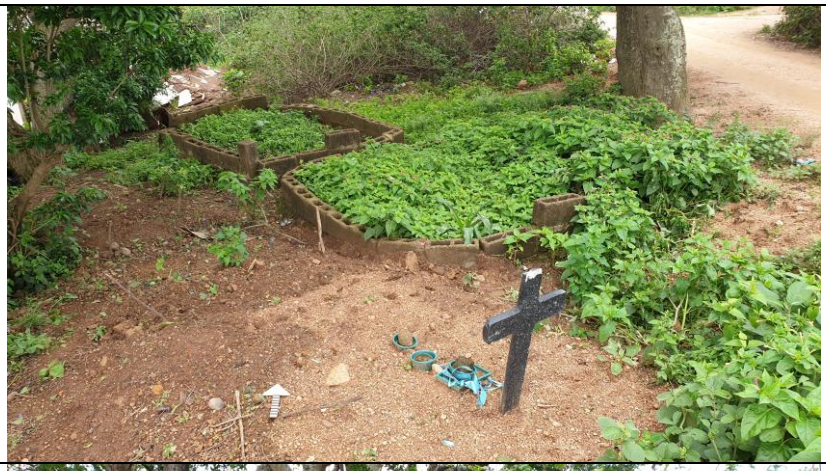
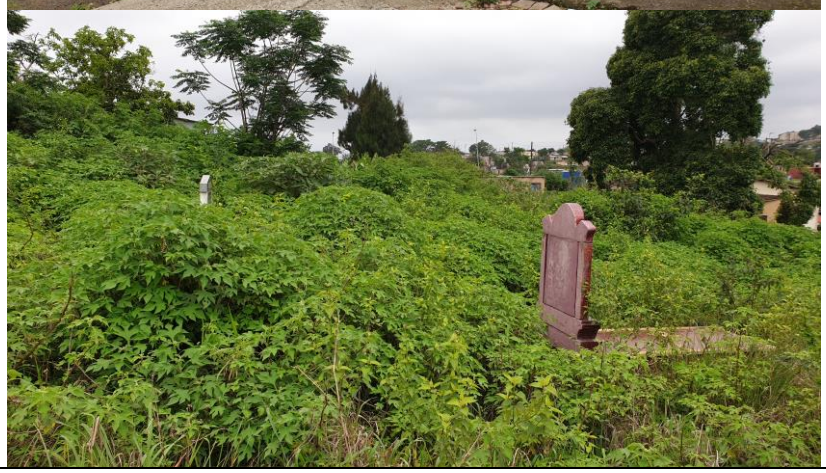
G. RECOMMENDED MITIGATION

- Graves should be clearly demarcated
- A buffer zone of 5 metres must be maintained during the construction phase
- Consultation with and watching brief by family members during construction phase

H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS

- National Heritage Resources Act (Act No. 25 of 1999, Section 36)
- Regulations Relating to the Management of Human Remains, in terms of the National Health Act No. 61 of 2003
- Removal of Graves and Dead Bodies Ordinance (Ordinance No. 7 of 1925)
- Ordinance on Exhumations (Ordinance No. 12 of 1980)
- Local and regional provisions, laws and by-laws

SITE NO	PHOTOGRAPH	FAMILY NAME
1		Mhlongo (4graves)

2		Msomi (7 graves)
3		Sithole (8/9 graves)
4	 	Full Gospel Church building with cemetery (±100 graves)

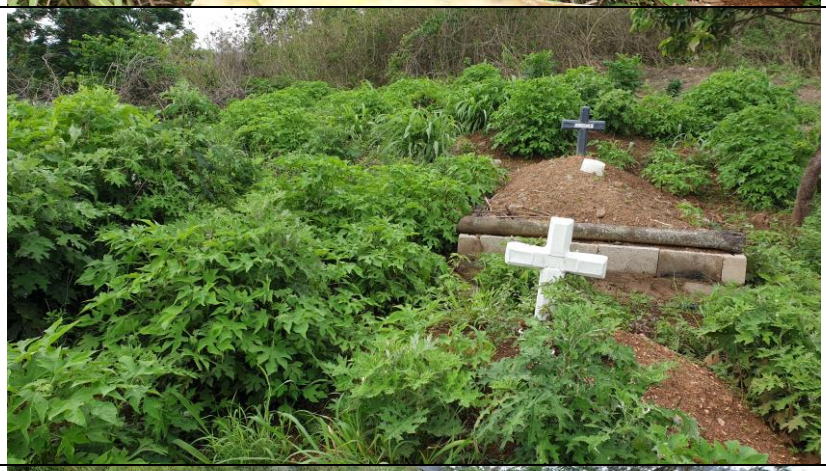
5		Mjaokho (8 graves)
6		Various graves (50 graves)
7		Grandmother (unknown) (1 grave)
8		Mkhize (1 grave)

9		Mazubane (1 grave)
10		Ramos (1 grave)
11		Khumalo (3graves)
12		Masinga (8 graves)

13		Khumalo (15 graves) Msomi (2 graves)
14		Buthelezi (4 graves)
15		Mbambo (18 graves)
16		Mchunu (10 graves)

17		Mthethwa (1 grave)
18		Ntsele (1 grave)
19		Mzobe (1 grave)
20		Khanyile (20 graves)

21		Sibisi (6 graves)
22		Mkhabela (1 grave)
23		Dlamini (8 graves)
24		Dlamini (1 grave)

27		Ngcongo (3 graves)
28		Various families (20 graves)
29		Graveyard next to church (±50 graves)
30		Nqcobo (2 graves) Unknown (1 grave) Next to church (3 graves) Cele (1 grave)

		
31		Graves near church (2 graves)

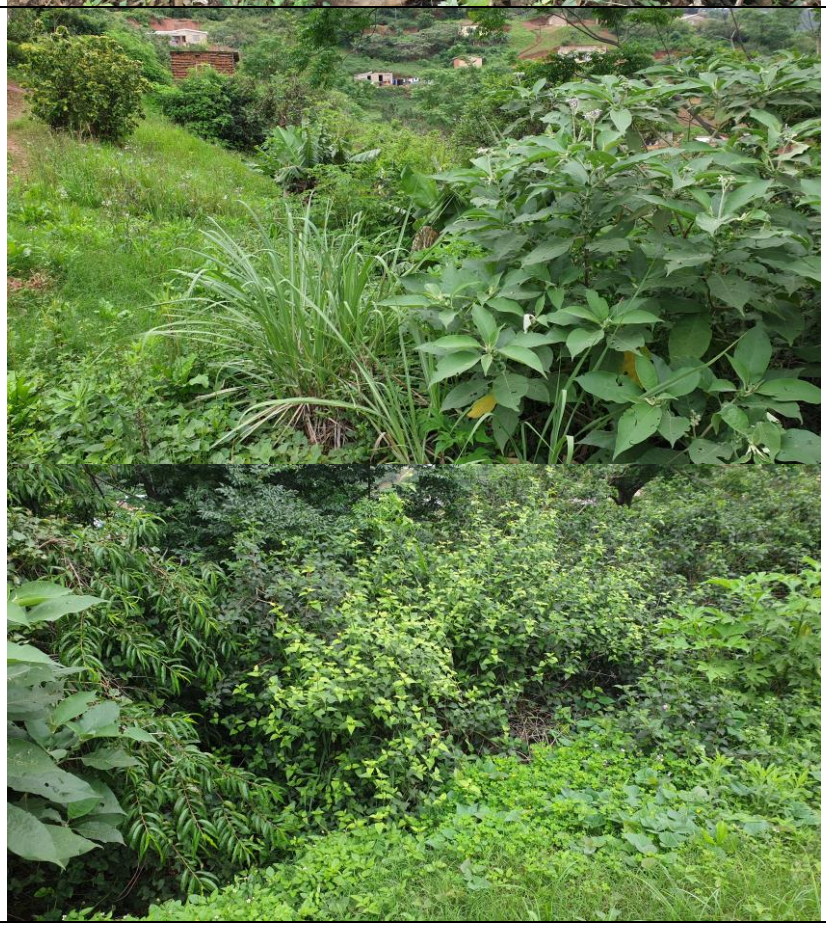
32		Large family graveyard near church
33		Graveyard
34		Ntshangase (4 graves)
35		Mdladla (1 grave)

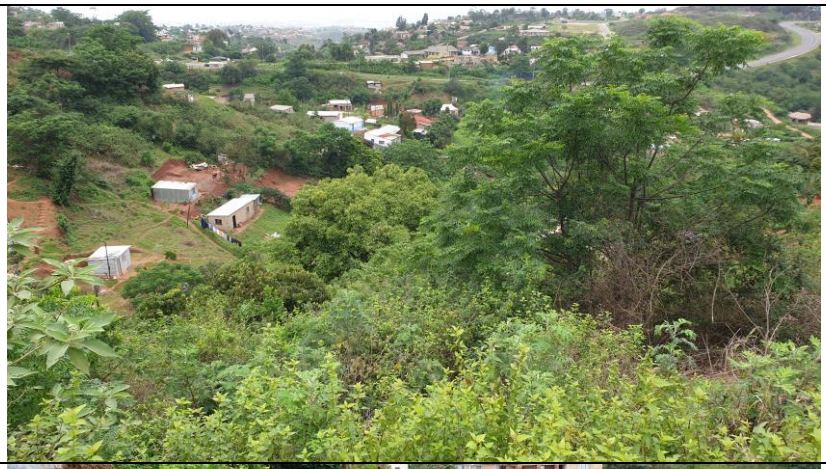
36		Tusi (2 graves)
37		Tusi 92 graves)
39		Gcwabaza (2 graves) and another 2 graves further down road
40		Gumede (1 grave)

41		Mzimela (6 graves)
42		Mbambo (2 graves)
43		Bhengu (3 graves)
44		Msimanga (4 graves)

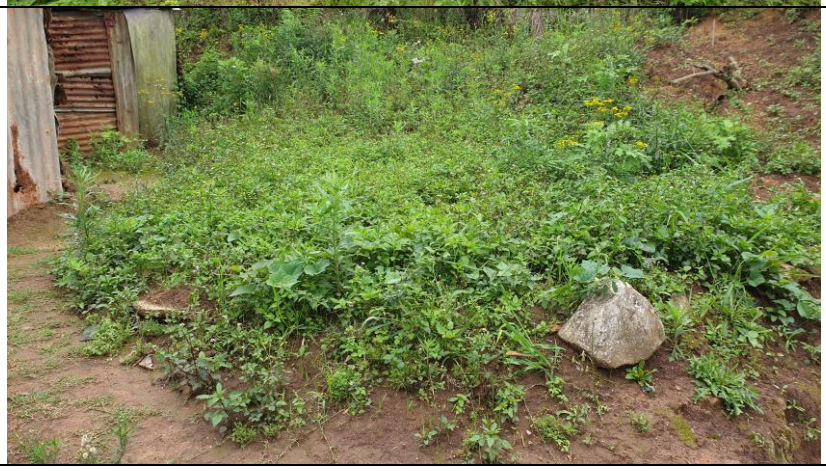
45		Mtetwa (2 graves)
46		Mkize (2 graves)
47		Khuzwayo (1 grave)
48		Dladla (1 grave)

49		Gumede (2 graves)
50		Gumede (1grave)
51	 	Unknown (3 graves) Nkabinde (2 graves)

52		Madondo (2 graves)
55		Hlangu (4 graves)
56		Kheswa (6 graves)

57		Bhuku (1 grave) [site situated 50 metres east of GPS point near large tree]
58		Bulose (1 grave)
59	 	Mthembe (5 graves)

60		Mkhiza (5 graves)
61		Unknown (3 graves)
63		Koza (5 graves)
64		Mazibuko (1 grave)

66		Nzama (3 graves)
67		Sthole (2 graves)
68		Large graveyard Mcube (1 grave)
69		Chili (1 grave)

70		Nzama (3 graves)
71		Mbhela (1 grave)
73		Mwandla (8 graves) Unknown (1 grave) [10 metres from Site 73]

Site 72

A. GENERAL SITE DESCRIPTION	
Site type	Historical house
Site Period	Probably 1900s
Physical description	The site comprises a multi-room house which is constructed with bricks and plaster with a corrugated iron roof. The doors and window frames are all made from wood. The front facade and veranda are facing north. A chimney is attached to the house on the western side. The house probably originally only consisted of the small section with the north-facing veranda (the original section) that probably dates to the 1900s or 1910s with the larger flat roofed addition added later (probably 1950s).
Integrity of deposits or structures	No deposits or middens were recorded. House is still occupied.

Site extent	Main house: 20 m x 8 m; wall height 3 m			
B. SITE EVALUATION				
B1. HERITAGE VALUE			**Yes**	**No**
Historic Value				
It has importance to the community or pattern of South Africa's history or precolonial history.				X
It has strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa.				X
It has significance relating to the history of slavery in South Africa.				X
Aesthetic Value				
It has importance in exhibiting particular aesthetic characteristics valued by a particular community or cultural group.				X
Scientific Value				
It has potential to yield information that will contribute to an understanding of South Africa's natural and cultural heritage.				X
It has importance in demonstrating a high degree of creative or technical achievement at a particular period.				X
It has importance to the wider understanding of the temporal change of cultural landscapes, settlement patterns and human occupation.			X	
Social Value				
It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place).				X
Tourism Value				
It has significance through its contribution towards the promotion of a local sociocultural identity and can be developed as tourist destination.				X
Rarity Value				
It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage.				X
Representative Value				
It is importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects.				X
B2. REGIONAL CONTEXT				
Other similar sites in the regional landscape.			X	
C. SPHERE OF SIGNIFICANCE	**High**	**Medium**	**Low**	
International			X	
National			X	
Provincial			X	
Local			X	
Specific community			X	
D. FIELD REGISTER RATING				
National/Grade 1 [should be registered, retained]				
Provincial/Grade 2 [should be registered, retained]				
Local/Grade 3A [should be registered, mitigation not advised]				
Local/Grade 3B [High significance; mitigation, partly retained]				
Generally Protected A [High/Medium significance, mitigation]				
Generally protected B [Medium significance, to be recorded]				
Generally Protected C [Low significance, no further action]			X	
E. GENERAL STATEMENT OF SITE SIGNIFICANCE				
Low			X	
Medium				
High				
F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT				
None			X	
Peripheral				
Destruction				
Uncertain				
G. RECOMMENDED MITIGATION				
• Maintain a buffer zone of 10 metres during construction phase				

H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS

- National Heritage Resources Act (Act No. 25 of 1999, Section 34)

I. PHOTOGRAPHS

Figure 29: General view of the historical house

Addendum 3: Surveyor General Farm Diagram

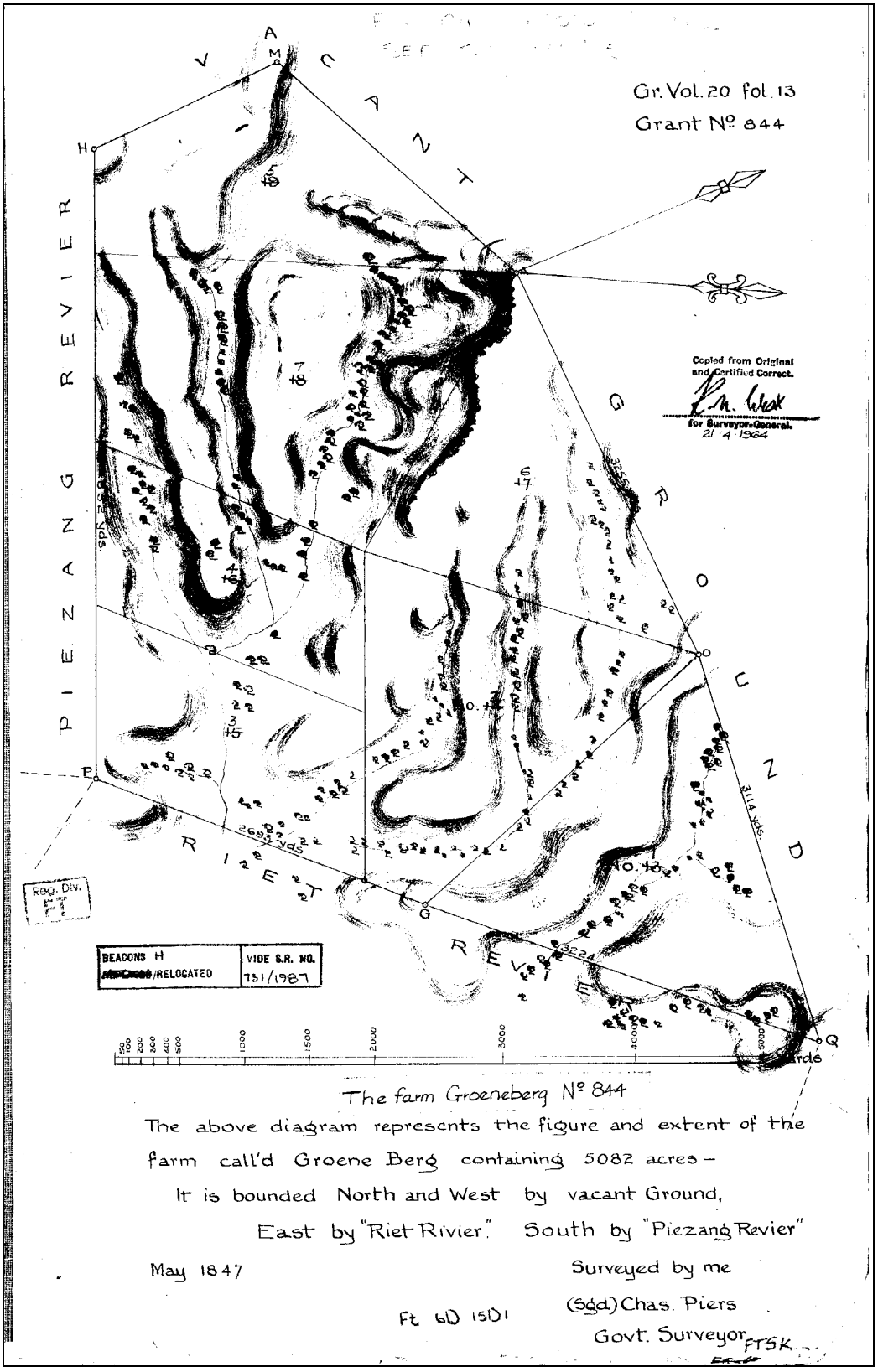


Figure 30: Surveyor General's sketch of the farm Groeneberg 844 FT which was first surveyed in May 1847

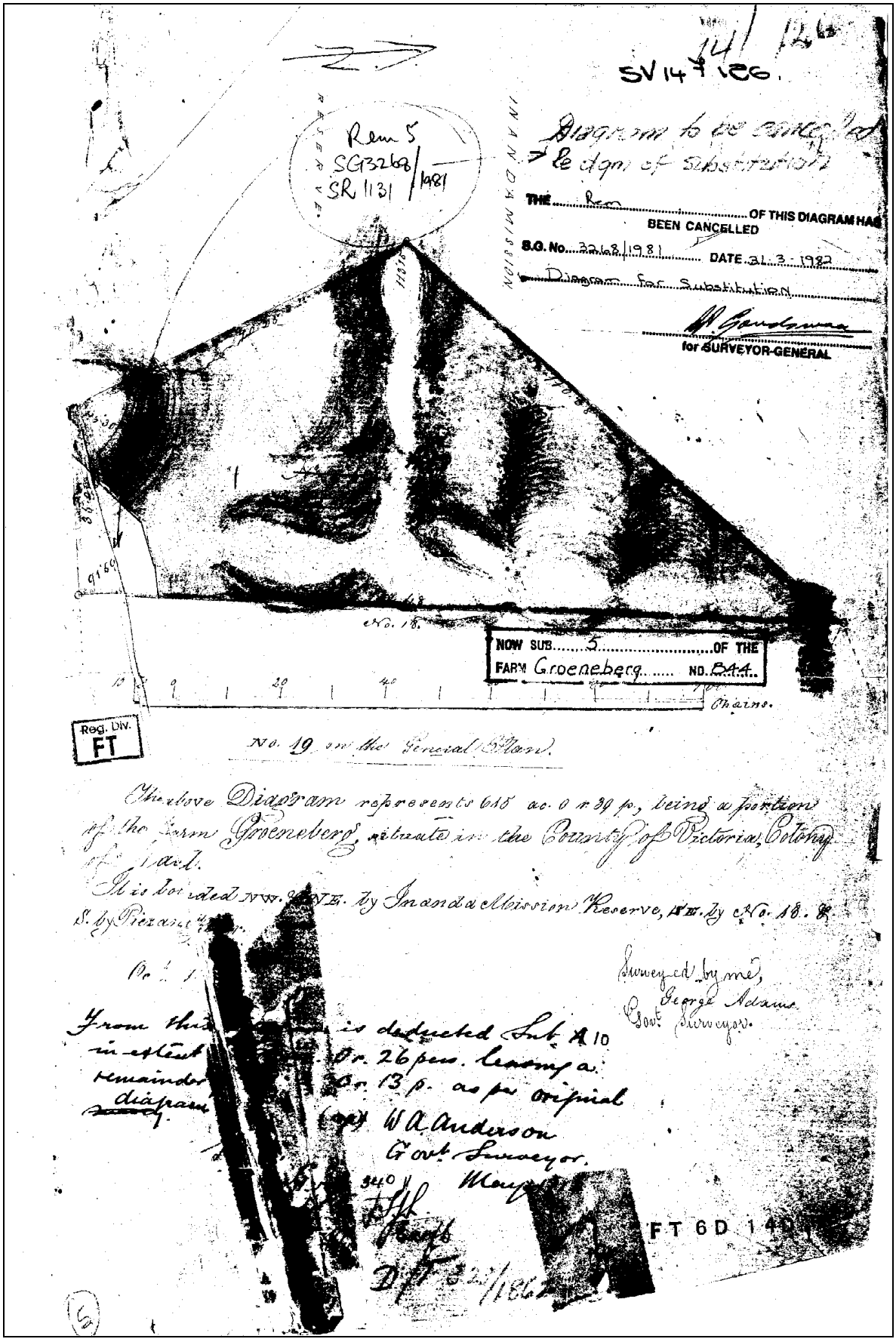


Figure 31: Surveyor General's sketch of Portion 5 of the farm Groeneberg 844 FT which was first surveyed in May 1847

Addendum 4: Relocation of Graves

Marked graves younger than 60 years do not fall under the protection of the NHRA (Act No. 25 of 1999) with the result that exhumation, relocation and reburial can be conducted by an undertaker. This will include logistical aspects such as social consultation, purchasing of plots in cemeteries, procurement of coffins, etc. Other legislative measures which may be pertinent include the Removal of Graves and Dead Bodies Ordinance (Ordinance No. 7 of 1925), Regulations Relating to the Management of Human Remains (GNR 363 of 22 May 2013) made in terms of the National Health Act No. 61 of 2003, Ordinance on Exhumations (Ordinance No. 12 of 1980) as well as any local and regional provisions, laws and by-laws that may be in place.

Marked graves older than 60 years are protected by the NHRA (Act No. 25 of 1999) an as a result an archaeologist must be in attendance to assist with the exhumation and documentation of the graves. Note that unmarked graves are by default regarded as older than 60 years and therefore also falls under the NHRA (Act No. 25 of 1999, Section 36).

The relocation of graves entails the following procedure:

- Notices of intent to relocate the graves must be put up at the burial site for a period of 60 days. This should contain contact information where communities and family members can register as interested and affected parties. All information pertaining to the identification of the graves must be documented for the application of a SAHRA permit. All notices must be in at least 3 languages, of which English is one. This is a requirement by law.
- These notices of intention must also be placed in at least two local newspapers and have the same information as above.
- Local radio stations can also be used to try contact family members. This is not required by law, but can be helpful.
- During this time (60 days) a suitable cemetery must be identified near to the development or otherwise one specified by the family of the deceased.
- An open day for family members should be arranged after the period of 60 days so that they can gather to discuss the way forward, and to sort out any problems. The developer needs to take the families requirements into account.
- Once the 60 days have passed and all the information from the family members have been received, a permit can be requested from SAHRA. This is a requirement by law.
- Once the permit has been issued, the graves may be exhumed and relocated.
- All headstones must be relocated with the graves as well as any remains and any additional objects found in the grave.

Information needed for the SAHRA permit application

- The permit application must be done by an archaeologist.
- A map of the area where the graves have been located.
- A survey report of the area prepared by an archaeologist.
- All the information on the families that have identified graves.
- A letter of permission from the landowner granting permission to the developer to exhume and relocate the graves.

- A letter (or proof of purchase of the plots) from the new cemetery confirming that the graves will be reburied there.
- Details of the farm name and number, magisterial district and GPS coordinates of the gravesite.

Graves are generally be classified into four categories. These are:

- Graves younger than 60 years;
- Graves older than 60 years, but younger than 100 years;
- Graves older than 100 years; and
- Graves of victims of conflict or of individuals of royal descent.