

**PHASE I HERITAGE IMPACT ASSESSMENT (INCLUDING
PALAEOLOGICAL DESKTOP ASSESSMENT) IN TERMS OF SECTION 38
OF THE NATIONAL HERITAGE RESOURCES ACT NO 25/1999 FOR THE
PROPOSED PHASE II MAOKENG HOUSING DEVELOPMENT
(5390 ERVEN MOAKENG) (KROONSTAD), FREE STATE PROVINCE**

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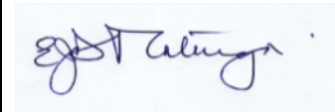
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DOCUMENT CONTROL

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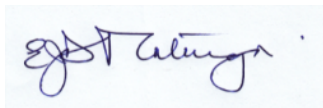
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DECLARATION OF INDEPENDENCE

(AHSA) Archaeological and Heritage Service Africa (Pty) Ltd is an independent consultancy: We hereby declare that we have no interest, be it business, financial, personal or other vested interest in the undertaking of the proposed activity, other than fair remuneration for work performed, in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999).

DISCLAIMER

All possible care was taken to identify and document heritage resources during the survey in accordance with best practices in archaeology and heritage management. However it is always possible that some hidden or subterranean sites are overlooked during a survey. The researcher will not be held liable for such oversights and additional costs thereof.



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ABBREVIATIONS

| | |
|--------------|---|
| EIA | Environmental Impact Assessment |
| HIA | Heritage Impact Assessment |
| LSA | Late Stone Age |
| LIA | Later Iron Age |
| PHRA | Provincial Heritage Resources Authority |
| MSA | Middle Stone Age |
| NHRA | National Heritage Resources Act |
| NEMA | National Environmental Management Act |
| SAHRA | South African Heritage Resources Agency |

Glossary

Archaeological material: remains resulting from human activity left as evidence of their presence which, as proscribed by South African heritage legislation, are older than 100 years, which are in the form of artefacts, food remains and other traces such as rock paintings or engravings, burials, fireplaces and structures.

Artefact/Ecofact: Any movable object that has been used, modified or manufactured by humans.

Catalogue: An inventory or register of artefacts and/or sites.

Conservation: All the processes of looking after a site/heritage place or landscape including maintenance, preservation, restoration, reconstruction and adaptation.

Cultural Heritage Resources: refers to physical cultural properties such as archaeological sites, palaeontological sites, historic and prehistorical places, buildings, structures and material remains, cultural sites such as places of rituals, burial sites or graves and their associated materials, geological or natural features of cultural importance or scientific significance. This include intangible resources such religion practices, ritual ceremonies, oral histories, memories indigenous knowledge.

Cultural landscape: “the combined works of nature and man” and demonstrate “the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both internal and external”.

Cultural Significance: is the aesthetic, historical, scientific and social value for past, present and future generations.

Early Stone Age: Predominantly the Acheulean hand axe industry complex dating to + 2Myr yrs – 250 000 yrs. before present.

Early Iron Age: Refers cultural period of the first millennium AD associated with the introduction of metallurgy and agriculture in Eastern and Southern Africa

Later Iron Age: Refers to the period after 1000AD marked by increasing social and political complexity. Evidence of economic wealth through trade and livestock keeping especially cattle

Excavation: A method in which archaeological materials are extracted, involving systematic recovery of archaeological remains and their context by removing soil and any other material covering them.

Grave: a place of burial which include materials such as tombstone or other marker such as cross etc.

Historic material: means remains resulting from human activities, which are younger than 100 years and no longer in use, which include artefacts, human remains and artificial features and structures.

Intangible heritage: Something of cultural value that is not primarily expressed in a material form e.g. rituals, knowledge systems, oral traditions, transmitted between people and within communities.

Historical archaeology: the study of material remains from both the remote and recent past in relationship to documentary history and the stratigraphy of the ground in which they are found; or archaeological investigation on sites of the historic period. In South Africa it refers to the immediate pre-colonial period, contact with European colonists and the modern industrial period.

In situ material: means material culture and surrounding deposits in their original location and context, for instance archaeological remains that have not been disturbed.

Later Iron Age: The period from the beginning of the 2nd millennium AD marked by the emergence of complex state society and long-distance trade contacts.

Late Stone Age: The period from \pm 30 000-yr. to the introduction of metals and farming technology

Middle Stone Age: Various stone using industries dating from \pm 250 000 yr. - 30 000 yrs. ago

Monuments: architectural works, buildings, sites, sculpture, elements or structures of an archaeological nature, inscriptions, cave dwellings which are outstanding from the point of view of history, art and science.

Place: means site, area, building or other work, group of buildings or other works, together with pertinent contents, surroundings and historical and archaeological deposits.

Preservation: means protecting and maintaining the fabric of a place in its existing state and retarding deterioration or change, and may include stabilization where necessary.

Sherd: ceramic fragment.

Significance grading: Grading of sites or artefacts according to their historical, cultural or scientific value.

Site: a spatial cluster of artefacts, structures, organic and environmental remains, as residues of past human activity.

EXECUTIVE SUMMARY

1. This Heritage Impact Assessment (HIA) has been prepared in support of an application for environmental authorisation for the proposed plan to provide additional high density housing stock on the north-eastern outskirts of Moakeng Township, Kroonstad, in the Moqhaka Local Municipality, Free State Province.
2. Kroonstad has a number of historical landmarks three of which have been highlighted in this report, namely the Boer Concentration Camp, the Boer Cemetery of those who died in the Concentration Camp (1900-1902) and the old Kroonstad Power Station. The Black and Coloured townships are significant as landscapes of segregation occupying the north-western fringe of the CBD, while the exclusive white suburbs were located northeast of the town and south of the Valsch River.
3. The following is a summary of the findings of the study.
4. *The Stone Age*
No material dating to the Stone Age was found. The area having been located on the outskirts of a residential area for some time, whatever surface evidence existed has been disturbed.
5. *The Iron Age*
No Iron Age sites were found.

Modern period

6. There is a large stock of buildings that constitute the homesteads on small holdings. A common architectural motif is the square or rectangular building with a pitched (hipped) roof of iron corrugated sheets. Eleven examples have been recorded in this report. Some of these buildings can be incorporated into the new township development. Otherwise where demolition becomes necessary it is advisable that the developer applies for a block permit for demolition in terms of Sections 34 and 38 of the National Heritage Resources Act.

7. The small holdings on the outskirts of Moakeng Township together bear the characteristics of a peri-urban cultural landscape. As there is no specific legislation to protect cultural landscapes, and there are elements with outstanding or unique qualities, there would be no urgency to preserve the landscape characteristics of the property.

Significance ranking of findings

8. The significance ranking (with a colour scheme) refers to the value of the heritage and perceived impacts and risk of the proposed development. Appropriate interventions and mitigation strategies are also proposed.

| | RANKING | TYOLOGY & SIGNIFICANCE | NO OF SITES |
|---|----------------|--|--------------------|
| 1 | High | National and Provincial heritage sites (Section 7 of NHRA). All burials including those protected under Section 36 of NHRA. They must be protected. | 0 |
| 2 | Medium A | Substantial archaeological deposits, buildings protected under Section 34 of NHRA. Footprint of early modern mining. These may be protected at the recommendations of a heritage expert. | 0 |
| 3 | Medium B | Buildings exhibiting historical characteristics of the area, but may not warrant further screening under Section 34 of NHRA. | 6 |
| 4 | Low | Heritage sites which have been recorded, but considered of minor importance relative to the proposed development. | 5 |
| | | TOTAL | 11 |

9. Inventory of sites

| SITE NO | LATITUDE | LONGITUDE | PERIOD | DESCRIPTION | RANKING | MITIGATION |
|---------|---------------|---------------|--------|--|----------|---|
| MKG01 | 27°38'30.93"S | 27°12'38.97"E | Recent | Open area, sparse vegetation. A small single room building of unplastered cement bricks. | Low | No further action required. |
| MKG02 | 27°37'50.19"S | 27°12'37.44"E | 20th C | A building with an L layout. Gabled with columned veranda facing east. Corrugated iron sheet roof. | Low | May be incorporated into the new township. Otherwise application for demolition under Section 34 of NHRA. |
| MKG03 | 27°38'0.83"S | 27°12'31.89"E | 20th C | Building with a hipped roof of corrugated iron sheets. | Medium B | May be incorporated into the new township. Otherwise application for demolition under Section 34 of NHRA. |
| MKG04 | 27°38'22.49"S | 27°12'21.20"E | 20th C | Building with a hipped roof of corrugated iron sheets. | Medium B | May be incorporated into the new township. Otherwise application for demolition under Section 34 of NHRA. |
| MKG05 | 27°38'10.43"S | 27°12'26.77"E | 20th C | Long building, gabled with corrugated iron sheet roof. | Low | Application for demolition under Section 34 of NHRA |
| MKG06 | 27°38'5.04"S | 27°12'29.81"E | 20th C | A ruined building with hipped roof of corrugated iron sheets. | Low | Building in a derelict condition. Application for demolition under Section 34 of NHRA. |
| MKG07 | 27°37'44.92"S | 27°12'38.99"E | 20th C | The main house is has an L layout with gable roof of corrugated iron sheets. | Low | May be incorporated into the new township development. Otherwise application for |

| | | | | | | |
|-------|---------------|---------------|--------|--|----------|--|
| | | | | | | demolition under Section 34 of NHRA |
| MKG08 | 27°37'18.02"S | 27°12'30.82"E | 20th C | Several buildings at the homestead including one with a hipped roof of corrugated iron sheets; 2nd building with a T shaped layout design. | Medium B | May be incorporated into the new township development. Otherwise application for demolition under Section 34 of NHRA. |
| MKG09 | 27°37'33.00"S | 27°12'7.91"E | 20th C | Building with a multi-shaped hipped roof of corrugated iron sheets. | Medium B | May be incorporated into the new township development. Otherwise application for demolition under Section 34 application of NHRA |
| MKG10 | 27°37'37.79"S | 27°11'55.84"E | 20th C | Building frame was being renovated with introduction of new window frames. Hipped roof of corrugated iron sheets. | Medium B | May be incorporated into the new township development. Otherwise Section 34 application for demolition of building under Section 34 of NHRA. |
| MKG11 | 27°37'38.49"S | 27°12'33.30"E | 20th C | Unplastered frame of brown bricks. Corrugated iron sheet hipped roof, extension at the back with single inclined roof. | Low | May be incorporated into the new township development. Otherwise Section 34 application for demolition of building under Section 34 of NHRA. |

| | | | | | | |
|-------|---------------|---------------|--------|--|----------|---|
| MKG12 | 27°37'52.60"S | 27°12'10.79"E | 20th C | Building with a hipped roof and gabled eastern facade. Corrugated iron sheets. | Medium B | May be incorporated into the new township development. Otherwise application for demolition under Section 34 of NHRA. |
| MKG13 | 27°37'51.81"S | 27°12'8.29"E | 20th C | Building with a hipped roof of corrugated iron and flat roofed veranda facing south. | Medium B | May be incorporated into the new township development. Otherwise application for demolition under Section 34 of NHRA. |

Conclusions and Recommendations

10. Some of the buildings that have been flagged in this report can be incorporated into the new township development. Otherwise where demolition becomes necessary it is advisable that the developer applies for a block permit for demolition in terms of Sections 34 and 38 of the National Heritage Resources Act.

11. A standard proviso is that in the event of other heritage resources being discovered in future phases of the project, the Provincial Heritage Resources Authority or SAHRA must be alerted immediately and an archaeologist or heritage expert called to attend.

1. INTRODUCTION

This Heritage Impact Assessment (HIA) report has been prepared in accordance with Section 38(8) of the National Heritage Resources Act (25 of 1999) for Phase II of the proposed housing development in Kroonstad, Moqhaka Local Municipality in the Fezile Dabi District, Free State Province. The report will form part on an application for environmental authorisation to be lodged by Enviosheq Consultants in fulfilment of the requirements of the National Environmental Management Act (No 107 / 1998).

1.1. Locational details of the receiving environment

| GEOGRAPHICAL LANDMARKS | LATITUDE | LONGITUDE |
|--|---------------|---------------|
| Bophelong Hospital Corner | 27°38'40.69"S | 27°12'34.26"E |
| Gravel road cutting through the property (south end) | 27°38'40.67"S | 27°12'15.26"E |
| Gravel road (north end on the R76 Road) | 27°37'28.51"S | 27°12'48.81"E |
| West end of the R76 Road (end) | 27°36'57.20"S | 27°12'12.01"E |
| Western end of the property | 27°37'19.25"S | 27°11'12.11"E |

Kroonstad is situated on the N1 highway link between Johannesburg and Bloemfontein about mid distance from the two cities in the Moqhaka Local Municipality, Fezil Dabi District, Free State Province. The central business district is tucked in a loop of one of the meanders of the Valsch River (*Afrikaans - Valsrivier*), a tributary of the Vaal River. The Valsch has a meandered course roughly trending west to its confluence with the Vaal River past Bothaville 75 km distance as the crow flies. The river rises on the western foot of the Drakensberg near Bethelhem. The topography of the area is generally flat to rolling with several brooks running south into the Valsch River. South of Relebohile and to the west of Brent Park, both residential sections of Moakeng, a fairly dense acacia forest thrives. Moakeng is a township and the largest residential suburb in Kroonstad. The name, which means place of thorns, is apt reference to the local vegetation and setting of the suburb.

The proposed development is located northeast of Moakeng Township (Figure 1). Acacia trees are scattered occupying an eastern portion of the property representing secondary growth as the area appears to have been under cultivation in the recent past (Figures 2-3). Dumping of domestic and industrial discard is taking place and

appears to be informal (Figure 4). The western portion is occupied by small land holdings or plots, and cattle and sheep graze. Homesteads are isolated and far apart and building density is sparse (Figure 5).

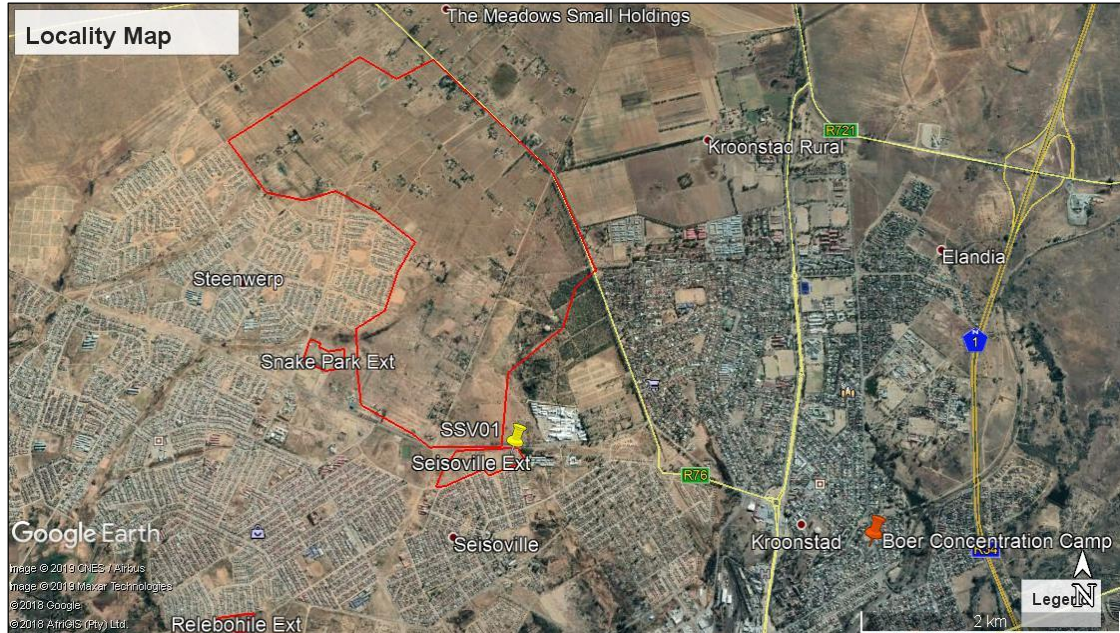


Figure 1: Google-Earth map shows the location of the proposed residential development in Moakeng west of Kroonstad CBD



Figure 2: Eastern portion of the property with scattered acacia trees. Areas appears to have been under cultivation in the recent past.



Figure 3: Acacia trees in the background, and behind them Baphelong Hospital complex on the eastern limits of the property.



Figure 4: Active dumping at a site near the eastern boundary of the property.



Figure 5: A homestead on a small holding in a western portion of the area of the proposed development.

1.2. Nature of the proposed development

The Moqhaka Local Municipality is planning Phase II expansion of Moakeng Township (5390 Erven, Maokeng) for the establishment of high density houses. The area c 488 ha in extent lies to the northeast of the township. Development of housing entail civil works for:

- Water and sew reticulation system
- Development of roads and streets
- Construction of the housing units
- Electrical supply installations with overhead and/or underground cables

The nature and scale of the proposed activities require a pre-development impact assessment to be undertaken to pre-empt potential disturbance or destruction of heritage resources if they exist in and around the footprint of the proposed development.

2. LEGAL FRAMEWORK

2.1. Section 38(3) of the National Heritage Resources Act (25/1999)

Under Section 38 of the National Heritage Resources Act (No 25 1999), the terms and conditions of an HIA are stated as follows:

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as—

(a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;

(b) the construction of a bridge or similar structure exceeding 50m in length;

(c) any development or other activity which will change the character of a site—

(i) exceeding 5 000m² in extent; or

(ii) involving three or more existing erven or subdivisions thereof; or

(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or

(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;

(d) the re-zoning of a site exceeding 10 000 m² in extent; or

(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority.

2.2. Definition of Heritage (National Estate)

Section 3 lists a wide range of cultural phenomena which could be defined as heritage, or the *National Estate*. Section 3(3) outlines criteria upon which heritage value is ascribed. This Section is useful as a field checklist for the identification of heritage resources.

2.3. Protection of Buildings and Structures Older than 60 years

Section 34 provides for provisional protection of buildings and structures more than 60 years old:

(1) No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

2.4. Protection of Archaeological Sites

Section 35 (4) of the NHRA prohibits the destruction of archaeological, palaeontological and meteorite sites:

No person may, without a permit issued by the responsible heritage resources authority—

(a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;

(b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;

(c) trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or

(d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.

2.5. Protection of graves and burial grounds

Section 36 of the NHRA gives priority for the protection of Graves and Burial Grounds of victims of conflict and graves and burial grounds more than 60 years old. Cautious approaches are considered including managed exhumations and re-interment to pave way for development. International ethical standards as set out in the World Archaeological Congress Vermillion Accord (USA, Dakota, 1989) favor this approach and recommend decisions informed by consultation with communities who by association might have strong feelings for protection *in situ* and may argue that a development project is better moved to an alternative site.

2.6. The Burra Charter on Conservation of Places of Cultural Significance

Some generic principles and standards for the protection of heritage resources in South Africa are drawn from international charters and conventions. In particular South Africa has adopted the **Australia Charter for the Conservation of Places of Cultural Significance (the Burra Charter 1999)** as a benchmark best practice in heritage management.

2.7. Concept of cultural landscapes

Cultural landscapes are defined in Paragraph 47 of the *Operational Guidelines for the Implementation of the World Heritage Convention (2015 edition)* as “cultural properties that represent the combined works of nature and of man” They are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal.

Annex 3 of the *Operational Guidelines for the Implementation of the World Heritage Convention* recognises three types of Cultural Landscapes:

- (i) Landscapes designed and created intentionally by man, e.g. parks, gardens, constructed for aesthetic reasons;
- (ii) Organically evolved landscape arising from an initial social, economic, administrative, and/or religious imperative and has developed its present form by association with and in response to its natural environment. Two subcategories are recognised: (i) a relict (or fossil) landscape and (ii) a continuing landscape which retains an active social role in contemporary society closely associated with the traditional way of life, and in which the evolutionary process is still in progress.
- (iii) Associative cultural landscape whose character is determined by natural elements upon which social, cultural or religious significance is associated.

2.8. The National Environmental Management Act (107/1998)

This environmental Act states that a survey and evaluation of cultural resources must be done in areas where development projects that will affect the environment will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made. Environmental management is a much broader undertaking to cater for cultural and social needs of people. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.

3. METHODOLOGY

3.1. Literature Review

A literature review was necessary as background study. General literature relates to the cultural sequence, location and physical setting of the property. It was necessary to locate and review reports of Heritage Impact Assessments undertaken in the broader area to form a picture of the heritage potential of the area. This author has undertaken a heritage impact study on the farm Blaauwboshfontein 229 near Boshof 190 km southeast of Kroonstad:

Matenga, E. 2019: *Phase I Heritage Impact Assessment (including palaeontological assessment) requested in terms of Section 38 of the National Heritage Resources Act no 25/1999 for a Mining Right on Portion 4 of the Farm Blaauwboschfontein 229, Boshof District, Free State Province.* The study reported a burial ground exposed during mining operations.

Stone Age lithics were found in the same area during a study by PGS heritage:

PGS Heritage 2018. *Catherine's Fancy 831, which forms part of the Blaauwbosch Mine, Boshof District, Free State Province. Heritage Impact Assessment.*

Orton, J. 2016. *Heritage Impact Assessment: Scoping and Environmental Impact Assessment for the proposed development of the Edison PV 100 MW Photovoltaic Facility near Dealesville, Free State:* In this study sparse occurrences of Stone Age

artefacts were noted. Historical ruins, graves and graveyards were found. The locale exhibited cultural landscape features exemplifying commercial farming.

Closer to Kroonstad reference is made to an HIA study by *De Bruyn, C. 2019. Basic Assessment for the Amendment of an Existing Prospecting Right and Environmental Authorisation for Bothaville NE Ext A, situated in the Free State Province*: In spite of the large size of the area surveyed no archaeological or other heritage relics/sites were found.

3.2. Fieldwork

A site visit was made on 24 October 2019 and a ground survey undertaken by a professional archaeologist.

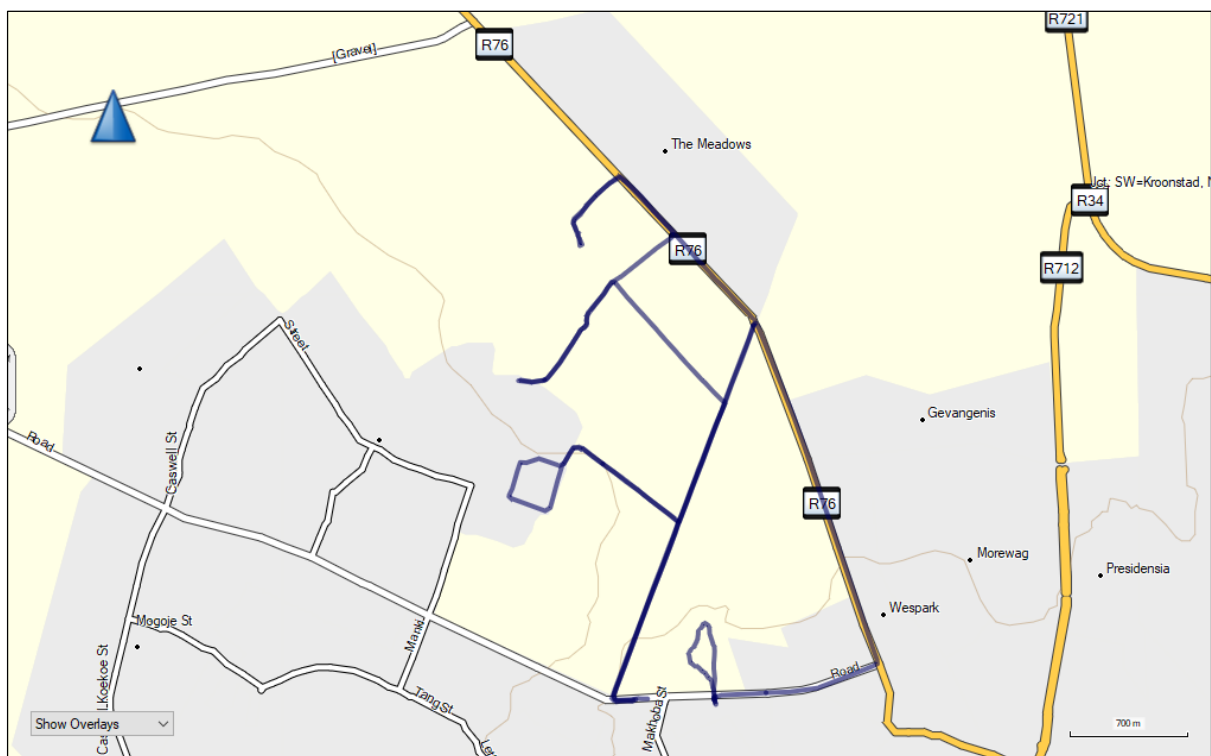


Figure 6: Track log derived from Garmin Basecamp (Track in Dark Blue).

3.3. Significance Ranking of findings

The significance ranking (with a colour scheme) refers to value of the heritage weighed against perceived impacts and risks of the proposed development. Appropriate interventions and mitigation strategies are also proposed.

| | RANKING | TYOLOGY & SIGNIFICANCE | No of sites |
|---|----------------|--|--------------------|
| 1 | High | National and Provincial heritage sites (Section 7 of NHRA). All burials including those protected under Section 36 of NHRA. | |
| 2 | Medium A | Substantial archaeological deposits, buildings protected under Section 34 of NHRA. These may be protected at the recommendations of a heritage expert. | |
| 3 | Medium B | Buildings exhibiting historical characteristics of the area, but may not warrant further screening under Section 34 of NHRA. | |
| 4 | Low | Heritage sites which have been recorded, but considered of minor importance relative to the proposed development. | |
| | | TOTAL | |

3.4. Limitations of the study and assumptions

Permission was not granted by home owners to photograph some of the buildings which will be affected by the proposed development. Public participation was conducted within the ambit of the environmental impact assessment process during which heritage issues were included on the agenda. It was therefore deemed redundant to conduct a separate heritage consultation process.

4. ARCHAEOLOGICAL AND HISTORICAL CONTEXT

An outline of the cultural sequence in South Africa provides a theoretical framework for the identification of features / structures and objects of archaeological, historical and cultural interest.

4.1. Cultural sequence summary¹

| PERIOD | EPOCH | ASSOCIATED CULTURAL GROUPS | TYPICAL MATERIAL EXPRESSIONS |
|--|------------------------------|--|--|
| Early Stone Age 2.5m – 250 000 YCE | Pleistocene | Early Hominids: <i>Australopithecines</i> <i>Homo habilis</i> <i>Homo erectus</i> | Typically large stone tools such as hand axes, choppers and cleavers. |
| Middle Stone Age 250 000 – 25 000 YCE | Pleistocene | First <i>Homo sapiens</i> species | Typically smaller stone tools such as scrapers, blades and points. |
| Late Stone Age 20 000 BC – present | Pleistocene / Holocene | <i>Homo sapiens</i> including San people | Typically small to minute stone tools such as arrow heads, points and bladelets. |
| Early Iron Age / Early Farmer Period c300 – 900 AD (or earlier) | Holocene | Iron Age Farmers | Typically distinct ceramics, bead ware, iron objects, grinding stones. |
| Later Iron Age 900ADff | Holocene | Iron Age Farmers, emergence of complex state systems | Typically distinct ceramics, evidence of long distance trade and contacts |
| (ii) Mapungubwe (K2) | 1350AD | | Metals including gold, long distance exchanges |
| (ii) Historical period | Tswana / Sotho, Nguni people | Iron Age Farmers | Stone walls Mfecance / Difaqane |
| (iii) Colonial period | 19 th Century | European settlers / farmers / missionaries/ industrialisation | Buildings, Missions, Mines, metals, glass, ceramics |

4.2. Appearance of hominids

The appearance of hominids marks the beginning of the cultural sequence for which a good fossil record exists in South Africa. Hominids were proto-humans which existed more than 3million years ago. Three famous sites in Gauteng, Limpopo and Northwest Provinces collectively represent the Cradle of Humankind inscribed as UNESCO World Heritage Site in a serial nomination.² Both Maropeng in Gauteng and Taung in the Northwest are c 250 km from the study area. To our knowledge despite a good fossil record, no hominids have been reported in the Free State Province.

¹ Adapted from Exigo Consultancy. 2015. Frances Baard District Municipality: Proposed Nkandla Extension 2 Township Establishment, Erf 258 Nkandla, Hartswater, Northern Cape Province.

² Deacon, J. and N. Lancaster. 1986. *Later Quaternary Palaeoenvironments of Southern Africa*. Oxford: Oxford University Press.

4.3. The Stone Age

4.3.1. The Early Stone Age (2 million to 250 000 years BP)

The Stone Age commenced more than 2 million years before present (BP) representing a more explicit record of the cultural sequence divided into three epochs, the Early, Middle and Late Stone Ages. These Early Stone Age people made stone and bone implements. Material evidence is found in caves, rock-shelters and on river sides and edges of streams, and very rarely seen in open country.³ Archetypal tools include the pear-shaped handaxe, cleavers and cores from which tools were flaked. These tool industries have been called Oldowan and Acheulean and were probably used to butcher large animals such as elephants, rhinoceros and hippopotamus. Acheulean artefacts are usually found near sites where they were manufactured and thus in close proximity to the raw material or at kill sites. The early hunters were still hominids meaning that they had not evolved to the present human form. Locales along and adjacent to the Orange – Vaal River systems have yielded evidence of great interest for this early period.⁴

4.3.2. Middle Stone Age (MSA) [250 000 yrs – 30 000 yrs BP]

The Middle Stone Age (MSA) appeared 250 000 years ago marking the introduction of a new tool kit which included prepared cores, parallel-sided blades and triangular points hafted to make spears. By then humans had become skilful hunters, especially of large grazers such as wildebeest, hartebeest and eland. By then humans had evolved significantly to become anatomically modern. Caves were used for shelter suggesting permanent or semi-permanent settlement. Furthermore there is archaeological evidence from some of the caves indicating that people had mastered the art of making fire.⁵ The coverage west of Kimberley is good with a number of field surveys have been carried out along the Vaal and Orange Rivers confirming significant hunter gatherer activity in the area from the MSA onwards. This author has

³ <http://archaeology.about/od/bterms/g/bordercave.htm>

⁴ Morris, D. 2009. Phase 1 Archaeological Impact Assessment at Bucklands Settlement near Douglas, Northern Cape, p3.

⁵ Deacon, J & H. Deacon. 1999. *Human Beginnings in South Africa*. Cape Town: David Philip.

encountered lithics of the MSA/LSA in the broader area to the west and northwest of the study area.

Florisbad located 165 km to the southwest is a famous fossil site which has yielded among other finds a pre-modern human skull dating back to the transition from the ESA to the MSA 260 000 years BP.⁶

4.3.3. Later Stone Age (LSA)[40 000 yrs to ca2000 yrs BP]

Homo sapiens, which refers to modern humans, appeared 50 000 years BP. Several behavioural traits are exhibited, such as rock art and purposeful burials with ornaments, became a regular practice. LSA technology is characterised by microlithic scrapers and segments made from very fine-grained rock. Spear hunting continued, but LSA people also hunted small game with bows and poisoned arrows. Because of poor preservation, open sites become of less value compared to rock shelters. The practitioners of the Late Stone Age as with Rock Art are ancestors of the Khoisan.⁷

4.4. The Iron Age Culture [ca. 2000 years BP]

The Iron Age culture supplanted the Stone Age at least 2000 years ago, associated with the introduction of farming and use of several metals and pottery. The Iron Age has been synonymous speakers of Bantu languages practicing agriculture and keeping domestic animals such as cattle, sheep, goat and chickens. This correlation is a subject on ongoing debate. There is increasing evidence that sheep and probably cattle as well might have moved into the area much earlier than the Iron Age.⁸

4.4.1. Early Iron Age

Early Iron Age was a gradual spread or expansion of settlement of different groups of people indigenous to the continent which took place over a long period of time, rather than a migration in the strict sense of the word. Generally, however, the EIA is

⁶ Florisbad. Found at: <http://www.nasmus.co.za/museum/satellite-museums/florisbad>. Consulted March 2019.

⁷ Gaigher, S. 2012. Heritage Impact Assessment Report for the proposed establishment of the Prieska Solar Energy facility located east of Prieska on Portion 3 of the Farm Holsoot 47, Northern Cape Province, p15.

⁸ Evers, T. M. 1988. *Recognition of Groups in the Iron Age of Southern Africa*. Unpublished PhD Thesis, University of Witwatersrand. Huffman 2007. *A Handbook on the Iron Age*. Scottsville: UKZN Press

rendered in terms of two migration streams seen as converging in South Africa, one originating in eastern Africa, which has been called the *Urewe-Kwale Tradition* (the eastern stream) and another from the west, spreading through Zambia and Angola, which he termed the *Kalundu Tradition* (western stream). There are few if any sites attributed to the EIA in the central and western parts of the country. Most EIA settlements are concentrated in the woodland zone in the eastern part of the country preferred for settlement, although there is strong possibility that transhumant pastoralism was practiced and seasonal hunting camps were established in the inhospitable western regions of the country.

4.4.2. The Later Iron Age

The Later Iron Age (LIA) is generally associated with the footprint of the Sotho and Tswana which archaeologists have divided into a number of facies on the basis of ceramic studies (Huffman 2007). Extensive stonewalled settlements have been found in the Kroonstad area (Dreyer 2006, cited in De Bruyn 2019, p40). These sites could date from the 16th century. A LIA stonewalled settlement has been recorded on the farm Middenspruit 151 northwest of Kroonstad. The stonewalled sites in the Vrede Fort Dome have been associated with the Fokeng (de Bruyn 2019, p40).

4.5. The Historical Period

Two important phenomena have dominated the recent history of South Africa, namely the Difaqane/Mfecane and the Great Trek. The Difaqane is generally seen as a violent episode connected with the unification wars waged by Tshaka of the Zulu Kingdom. This triggered migrations from the eastern seaboard onto the High Veld. One of the major events is the flight of Mzilikazi, one of Tshaka's generals, who broke away and formed the Ndebele nation. They entered the Highveld in the late 1820s and mounted raids against the Sotho and Tswana and in the process occupied the Vaal area for close to a decade. While the Difaqane was unfolding there were also population shifts from the southwest beginning with the entry of the Griquas and the Koranas into the area. In the mid-1830s the Boer Trek was in motion exacerbating the competition for land. In the ensuing confrontations Mzilikazi

and the Ndebele were forced to leave the region in 1837 settling north of the Limpopo River.

Kroonstad was established in 1855 as the first town after the foundation of the Orange Free State Republic by the Orange River Convention (1854). The name which in Afrikaans translate to Crown City is reported to have been named after a horse which drowned at a drift across the Valsch River. The ford where the incident happened is also known as Kroondrift.

The town was the site of one of the most notorious concentration camps established by the British forces in 1900 to receive Boer women and children from the surrounding farms (Figures 7-8). The British army employing scorched earth tactics had burnt the farmsteads and destroyed the local economy. Due to poor administration conditions in the concentration camps deteriorated causing sickness. The railway line supplied goods and transported soldiers and this is thought to have exacerbated the deteriorating social conditions in the town. Towards the end of the war conditions improved and when it ended the camp inmates were repatriated.⁹ The Concentration Camp is a historical site located at the northwest corner of Marais St and Beyer Street (Lat: 27°39'4.99"S; Long: 27°14'19.35"E). A cemetery is located on 10de Rd in Industria south of the area of the development and close to the old power station (Lat: 27°40'18.04"S; Long: 27°12'23.36"E).

⁹ <https://www2.lib.uct.ac.za/mss/bccd/Histories/Kroonstad/> In this article the following important references are cited: E.H. Hobhouse, *The Brunt of the War and Where it Fell* (London, Methuen, 1902). E.H. Hobhouse, *War Without Glamour* (Bloemfontein, Nasionale Pers, 1924). E.H. Hobhouse, *Emily Hobhouse. Boer War Letters*, ed by R. van Reenen (Cape Town, Human & Rousseau, 1984).

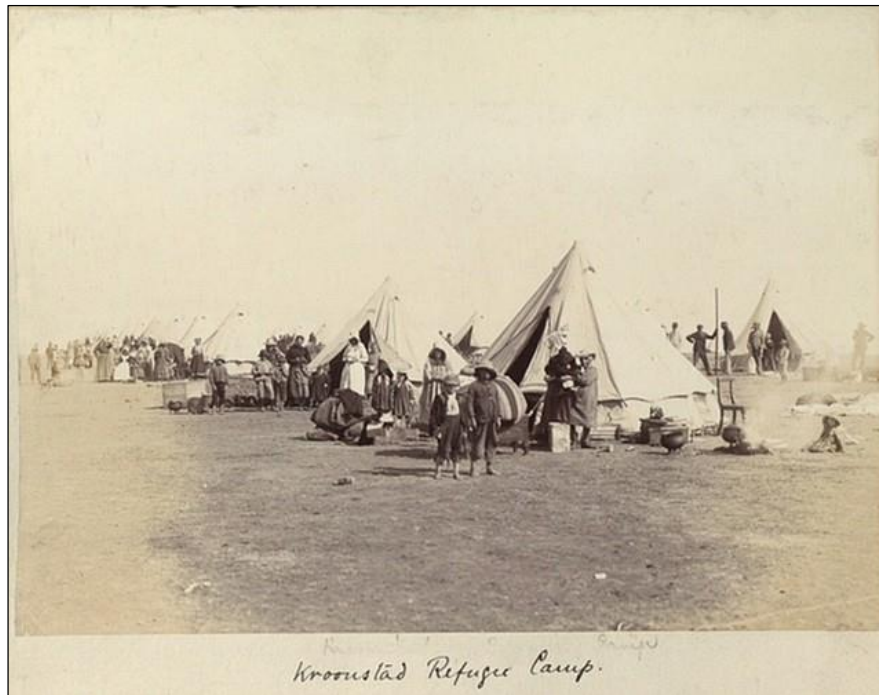


Figure 7: Archived photo of the Kroonstad Concentration camp during the South African War 1899-1902.



Figure 8: Another archived photo of the Kroonstad Concentration camp during the South African War 1899-1902¹⁰

¹⁰ Anglo Boere Oorlog/Boer War (1899-1902) KROONSTAD Camp/Kamp. Found at:

The town boasted its own power station, and although it was decommissioned in the 1980s the town has retained its power generation licence (Figure 9). Like most towns in South Africa the town exhibited a landscape of segregation which was later formalised into apartheid. Marabastad also known as Kroonstad Location is the oldest black township dating back to the 19th century to which Seisoville is an extension. Therein can be seen a few oldest residential buildings of un-plastered fired earthen bricks.



Figure 9: The Old Kroonstad Power Station is a historical landmark located in Industria east of Brent Park.

Further west of Seisoville, Brentpark was reserved for the Coloureds under the same segregation scheme. Relebohile, the site of the proposed second housing development was established in 1998-9. Snake Park, where the third housing development is located started informally in 1991 and sprouted in 1994 – 1995 after the attainment of freedom.

https://www.geni.com/photo/view/-1?album_type=project&end=&photo_id=6000000022948175500&project_id=14062&start=&tagged_profiles=

5. FINDINGS OF THE HERITAGE SURVEY

5.1. Heritage sensitivity of the broader area

Kroonstad has a number of historical landmarks three of which have been highlighted, namely the Boer Concentration Camp, the Boer Cemetery where those who died in the Concentration Camp were interred, and the old Kroonstad Power Station. The Black and Coloured townships are significant as landscapes of segregation occupying the north-western fringe of the CBD, while the exclusive white suburbs were located northeast of the town and south of the Valsch River.

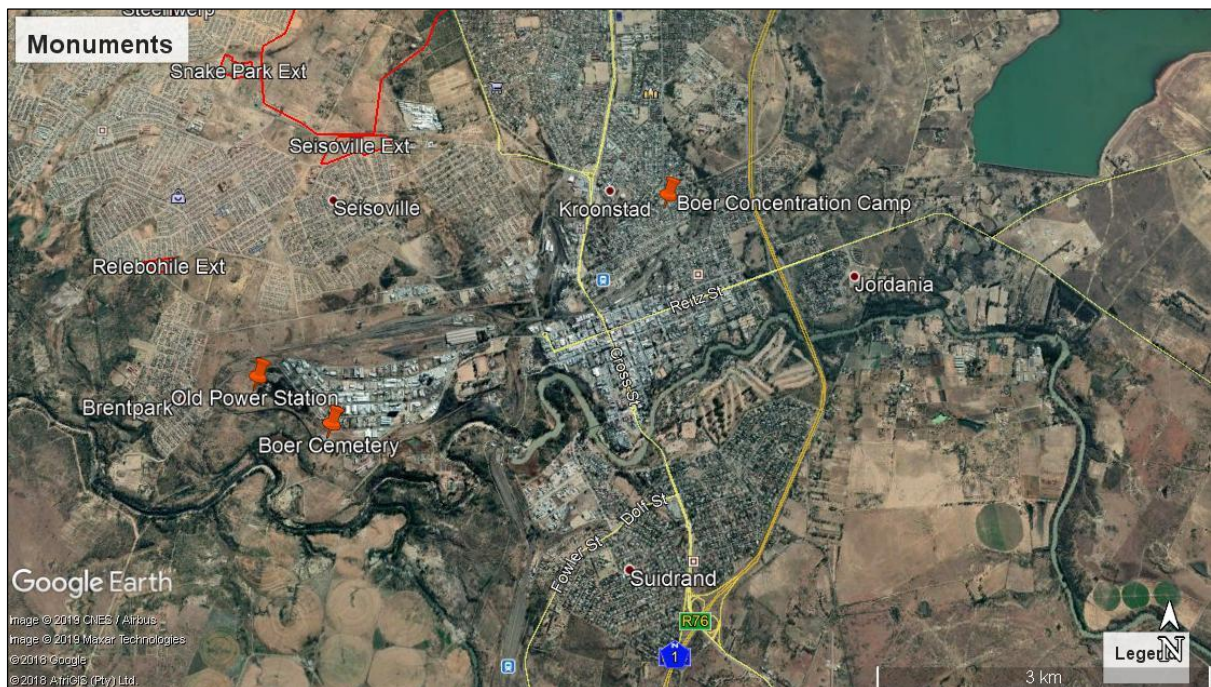


Figure 10: Google map of Kroonstad shows the location in Kroonstad of the Boer Concentration Camp, Boer Cemetery and Old Power Station.

Reference is made to the cultural sequence as a checklist to determine the heritage sensitivity of the area.

5.2. The Stone Age

No material dating to the Stone Age was found. The area having been located on the outskirts of a residential area for some time, whatever surface evidence existed has been disturbed.

5.3. The Iron Age

No Iron Age sites were found.

5.4. Modern period

There is a large stock of buildings that constitute homesteads on the small land holdings. They normally consists of a conspicuous main house and support infrastructure. The common architectural motif is the square or rectangular building with a pitched (hipped) roof of iron corrugated sheets (Figure 11). This was a popular design of the early years of the development of Johannesburg and the entire Witwatersrand Region and was obviously commonly adopted elsewhere in South Africa from the beginning of the 20th Century. Eleven (ii) examples have been recorded in this report, but there are several more, which were not accessible for study. Most of these buildings can be incorporated into the new township design. Otherwise where demolition becomes necessary it is advisable that the developer applies for a block permit for demolition in terms of Sections 34 and 38 of the National Heritage Resources Act.



Figure 11: Residential building with pitched roof of corrugated iron sheets.

5.5. Evaluation of potential impacts on cultural landscapes

The concept of cultural landscapes came into the heritage discourse in the 1990s and since then it has been of relevant application when dealing with heritage in built environments. Paragraph 47 of the *Operational Guidelines for the Implementation of the World Heritage Convention* (2015 edition) defines Cultural Landscapes as “cultural properties that represent the combined works of nature and of man” They are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal.

Urban landscapes may include central business districts, industrial parks, residential precincts and community parks, scenic highways, rural communities, institutional grounds, cemeteries, battlefields and zoological gardens. They are composed of a number of character-defining features which, individually or collectively contribute to the landscape's physical appearance as they have evolved over time. In addition to vegetation and topography, cultural landscapes may include water features, such as

ponds, streams, and fountains; circulation features, such as roads, paths, steps, and walls; buildings; and furnishings, including fences, benches, lights and sculptural objects.

The small holdings on the outskirts of Moakeng Township together bear the characteristics of a peri-urban cultural landscape. Every plot has a nucleus of several buildings which form the homestead. Often the homesteads are insulated by plantings of exotic trees and stand conspicuous as isolated stands of vegetation in an otherwise sparsely wooded veld.

As there is no specific legislation to protect cultural landscape, and the case under study does not possess outstanding or unique qualities, there would be no urgency to preserve the landscape characteristics of the property. Instead individual elements that have been flagged, i.e. the buildings require further screening for demolition or retention under Section 34 NHRA.

5.6. Significance ranking of findings

The significance ranking (with a colour scheme) refers to the value of the heritage and perceived impacts and risk of the proposed development. Appropriate interventions and mitigation strategies are also proposed.

| | RANKING | TYOLOGY & SIGNIFICANCE | NO OF SITES |
|---|----------------|--|--------------------|
| 1 | High | National and Provincial heritage sites (Section 7 of NHRA). All burials including those protected under Section 36 of NHRA. They must be protected. | 0 |
| 2 | Medium A | Substantial archaeological deposits, buildings protected under Section 34 of NHRA. Footprint of early modern mining. These may be protected at the recommendations of a heritage expert. | 0 |
| 3 | Medium B | Buildings exhibiting historical characteristics of the area, but may not warrant further screening under Section 34 of NHRA. | 6 |
| 4 | Low | Heritage sites which have been recorded, but considered of minor importance relative to the proposed development. | 5 |
| | | TOTAL | 13 |

6. CONCLUSIONS AND RECOMMENDATIONS

Some of the buildings that have been flagged in this report can be incorporated into the new township design. Otherwise where demolition becomes necessary it is advisable that the developer applies for a block permit for demolition in terms of Sections 34 and 38 of the National Heritage Resources Act.

A standard proviso is that in the event of other heritage resources being discovered in future phases of the project, the Provincial Heritage Resources Authority or SAHRA must be alerted immediately and an archaeologist or heritage expert called to attend.

7. CATALOGUE OF HERITAGE SITES

7.1. Inventory

| SITE NO | LATITUDE | LONGITUDE | PERIOD | DESCRIPTION | RANKING | MITIGATION |
|---------|---------------|---------------|--------|--|----------|---|
| MKG01 | 27°38'30.93"S | 27°12'38.97"E | Recent | Open area, sparse vegetation. A small single room building of unplastered cement bricks. | Low | No further action required. |
| MKG02 | 27°37'50.19"S | 27°12'37.44"E | 20th C | A building with an L layout. Gabled with columned veranda facing east. Corrugated iron sheet roof. | Low | May be incorporated into the new township. Otherwise application for demolition under Section 34 of NHRA. |
| MKG03 | 27°38'0.83"S | 27°12'31.89"E | 20th C | Building with a hipped roof of corrugated iron sheets. | Medium B | May be incorporated into the new township. Otherwise application for demolition under Section 34 of NHRA. |
| MKG04 | 27°38'22.49"S | 27°12'21.20"E | 20th C | Building with a hipped roof of corrugated iron sheets. | Medium B | May be incorporated into the new township. Otherwise application for demolition under Section 34 of NHRA. |
| MKG05 | 27°38'10.43"S | 27°12'26.77"E | 20th C | Long building, gabled with corrugated iron sheet roof. | Low | Application for demolition under Section 34 of NHRA |
| MKG06 | 27°38'5.04"S | 27°12'29.81"E | 20th C | A ruined building with hipped roof of corrugated iron sheets. | Low | Building in a derelict condition. Application for demolition under Section 34 of NHRA. |

| | | | | | | |
|-------|---------------|---------------|--------|--|----------|--|
| MKG07 | 27°37'44.92"S | 27°12'38.99"E | 20th C | The main house is has an L layout with gable roof of corrugated iron sheets. | Low | May be incorporated into the new township development. Otherwise application for demolition under Section 34 of NHRA |
| MKG08 | 27°37'18.02"S | 27°12'30.82"E | 20th C | Several buildings at the homestead including one with a hipped roof of corrugated iron sheets; 2nd building with a T shaped layout design. | Medium B | May be incorporated into the new township development. Otherwise application for demolition under Section 34 of NHRA. |
| MKG09 | 27°37'33.00"S | 27°12'7.91"E | 20th C | Building with a multi-shaped hipped roof of corrugated iron sheets. | Medium B | May be incorporated into the new township development. Otherwise application for demolition under Section 34 application of NHRA |
| MKG10 | 27°37'37.79"S | 27°11'55.84"E | 20th C | Building frame was being renovated with introduction of new window frames. Hipped roof of corrugated iron sheets. | Medium B | May be incorporated into the new township development. Otherwise Section 34 application for demolition of building under Section 34 of NHRA. |
| MKG11 | 27°37'38.49"S | 27°12'33.30"E | 20th C | Unplastered frame of brown bricks. Corrugated iron sheet hipped roof, extension at the back with single inclined roof. | Low | May be incorporated into the new township development. Otherwise Section 34 application for demolition of building under Section 34 of NHRA. |


| | | | | | | |
|-------|---------------|---------------|--------|--|----------|---|
| MKG12 | 27°37'52.60"S | 27°12'10.79"E | 20th C | Building with a hipped roof and gabled eastern facade. Corrugated iron sheets. | Medium B | May be incorporated into the new township development. Otherwise application for demolition under Section 34 of NHRA. |
| MKG13 | 27°37'51.81"S | 27°12'8.29"E | 20th C | Building with a hipped roof of corrugated iron and flat roofed veranda facing south. | Medium B | May be incorporated into the new township development. Otherwise application for demolition under Section 34 of NHRA. |

| SITE NO | COORDINATES | | PERIOD |
|---------|---------------|---------------|--------|
| MKG01 | 27°38'30.93"S | 27°12'38.97"E | Recent |



DESCRIPTION: Open area, sparse vegetation. A small single room building of unplastered cement bricks.

| | |
|------------------------------|-----------------------------|
| HERITAGE SIGNIFICANCE | None |
| MITIGATION | No further action required. |


| SITE NO | COORDINATES | | PERIOD |
|---|---------------|--|--------------------|
| MKG02 | 27°37'50.19"S | 27°12'37.44"E | 20 th C |
|  | | | |
| <p>DESCRIPTION: A building with an L layout. Gabled with columned veranda facing east. Corrugated iron sheet roof.</p> | | | |
| HERITAGE SIGNIFICANCE | | Low | |
| MITIGATION | | May be incorporated into the new township. Otherwise application for demolition under Section 34 of NHRA. | |


| SITE NO | COORDINATES | | PERIOD |
|---------|--------------|---------------|--------------------|
| MKG03 | 27°38'0.83"S | 27°12'31.89"E | 20 th C |




DESCRIPTION: Building with a hipped roof of corrugated iron sheets.

| | |
|------------------------------|---|
| HERITAGE SIGNIFICANCE | Medium B |
| MITIGATION | May be incorporated into the new township. Otherwise application for demolition under Section 34 of NHRA. |

| SITE NO | COORDINATES | | PERIOD |
|---|---------------|---|--------------------|
| MKG04 | 27°38'22.49"S | 27°12'21.20"E | 20 th C |
|  | | | |
| <p>DESCRIPTION: Building with a hipped roof of corrugated iron sheets.</p> | | | |
| HERITAGE SIGNIFICANCE | | Medium B | |
| MITIGATION | | May be incorporated into the new township. Otherwise application for demolition under Section 34 of NHRA. | |

| SITE NO | COORDINATES | | PERIOD |
|--|---------------|---|--------------------|
| MKG05 | 27°38'10.43"S | 27°12'26.77"E | 20 th C |
|  | | | |
| <p>DESCRIPTION: Long building, gabled with corrugated iron sheet roof.</p> | | | |
| HERITAGE SIGNIFICANCE | | Low | |
| MITIGATION | | Application for demolition under Section 34 of NHRA | |

| SITE NO | COORDINATES | | PERIOD |
|--|--------------|--|--------------------|
| MKG06 | 27°38'5.04"S | 27°12'29.81"E | 20 th C |
|  | | | |
| <p>DESCRIPTION: A ruined building with hipped roof of corrugated iron sheets.</p> | | | |
| HERITAGE SIGNIFICANCE | | Low | |
| MITIGATION | | Building in a derelict condition. Application for demolition under Section 34 of NHRA. | |


| SITE NO | COORDINATES | | PERIOD |
|---------|---------------|---------------|--------------------|
| MKG07 | 27°37'44.92"S | 27°12'38.99"E | 20 th C |





DESCRIPTION: The main house is has an L layout with gable roof of corrugated iron sheets.


| | |
|------------------------------|--|
| HERITAGE SIGNIFICANCE | Low |
| MITIGATION | May be incorporated into the new township development. Otherwise application for demolition under Section 34 of NHRA |


| SITE NO | COORDINATES | | PERIOD |
|--|---------------|---|--------------------|
| MKG08 | 27°37'18.02"S | 27°12'30.82"E | 20 th C |
|  | | | |
| <p>DESCRIPTION: Several buildings at the homestead including one with a hipped roof of corrugated iron sheets; 2nd building with a T shaped layout design.</p> | | | |
| HERITAGE SIGNIFICANCE | | Medium B | |
| MITIGATION | | May be incorporated into the new township development. Otherwise application for demolition under Section 34 of NHRA. | |

| SITE NO | COORDINATES | | PERIOD |
|--|---------------|---|--------------------|
| MKG09 | 27°37'33.00"S | 27°12'7.91"E | 20 th C |
|  | | | |
| <p>DESCRIPTION: Building with a multi-shaped hipped roof of corrugated iron sheets.</p> | | | |
| HERITAGE SIGNIFICANCE | | Medium B | |
| MITIGATION | | May be incorporated into the new township development. Otherwise application for demolition under Section 34 application of NHRA. | |

| SITE NO | COORDINATES | | PERIOD |
|--|---------------|--|--------------------|
| MKG10 | 27°37'37.79"S | 27°11'55.84"E | 20 th C |
|  | | | |
| <p>DESCRIPTION: Building frame was being renovated with introduction of new window frames. Hipped roof of corrugated iron sheets.</p> | | | |
| HERITAGE SIGNIFICANCE | | Medium B | |
| MITIGATION | | May be incorporated into the new township development. Otherwise Section 34 application for demolition of building under Section 34 of NHRA. | |

| SITE NO | COORDINATES | | PERIOD |
|---|--|---------------|--------------------|
| MKG11 | 27°37'38.49"S | 27°12'33.30"E | 20 th C |
|  | | | |
| <p>DESCRIPTION: Unplastered frame of brown bricks. Corrugated iron sheet hipped roof, extension at the back with single inclined roof.</p> | | | |
| HERITAGE SIGNIFICANCE | | Low | |
| MITIGATION | May be incorporated into the new township development. Otherwise Section 34 application for demolition of building under Section 34 of NHRA. | | |

| SITE NO | COORDINATES | | PERIOD |
|---|---------------|---|--------|
| MKG12 | 27°37'52.60"S | 27°12'10.79"E | 20th C |
|  | | | |
| <p>DESCRIPTION: Building with a hipped roof and gabled eastern facade. Corrugated iron sheets.</p> | | | |
| HERITAGE SIGNIFICANCE | | Medium B | |
| MITIGATION | | May be incorporated into the new township development. Otherwise application for demolition under Section 34 of NHRA. | |

| SITE NO | COORDINATES | | PERIOD |
|---|---------------|---|--------------------|
| MKG13 | 27°37'51.81"S | 27°12'8.29"E | 20 th C |
|  | | | |
| <p>DESCRIPTION: Building with a hipped roof of corrugated iron and flat roofed veranda facing south.</p> | | | |
| HERITAGE SIGNIFICANCE | | Medium B | |
| MITIGATION | | May be incorporated into the new township development. Otherwise application for demolition under Section 34 application of NHRA. | |

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Consulted June 2019.

<https://www2.lib.uct.ac.za/mss/bccd/Histories/Kroonstad/> In this article the following important references are cited: E.H. Hobhouse, *The Brunt of the War and Where it Fell* (London, Methuen, 1902).

Consulted June 2019.

Legislation and Policies

National Heritage Resources Act (No 25: 1999)

National Environmental Management Act (No 107/1998)

ICOMOS Australia Charter for the Conservation of Places of Cultural Significance

(the Burra Charter 1999)