Archaetnos Culture & Cultural
Resource Consultants
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REPORT ON A DESKTOP STUDY WITH REGARDS TO THE CULTURAL HERITAGE RELATING TO THE ESKOM RIRIES-MARUPING 22KV LINE SPLIT, NORTHERN CAPE PROVINCE

For:

Landscape Dynamics
e-mail: susanna@landscapedynamics.co.za

REPORT: **AE01806V**

by:

Prof. A.C. van Vollenhoven (L. Akad. S.A.)
BA, BA (Hons), DTO, NDM, MA (UP), MA (US),
DPhil (UP), Man Dip (TUT), DPhil (US)
Accredited member of ASAPA
Accredited member of SASCH

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Archaetnos
P.0.Box 55
GROENKLOOF
0027
Tel: **083 291 6104**
Fax: 086 520 4173
Email: antonv@archaetnos.co.za

Member: AC van Vollenhoven BA, BA (Hons), DTO, NDM, MA (Archaeology) [UP], MA (Culture History) [US], DPhil (Archaeology) [UP], Man Dip [TUT], DPhil (History) [US]

DISCLAIMER:

Although all possible care is taken to identify all sites of cultural importance during the survey of study areas, the nature of archaeological and historical sites is as such that it always is possible that hidden or subterranean sites could be overlooked during the study. Archaetnos and its personnel will not be held liable for such oversights or for costs incurred as a result thereof.

The South African Heritage Resources Agency (SAHRA) or one of its subsidiary bodies needs to comment on this report and clients are advised not to proceed with any action before receiving these. It is the responsibility of the client to submit this report to the relevant heritage authority.

SUMMARY

Archaetnos cc was appointed by Landscape Dynamics to do a desktop study regarding the cultural heritage on the ESKOM Riries-Maruping 22KV line split. This is between Kuruman and Hotazel in the Northern Cape Province. This report gives a broad overview of the heritage of the wider geographical area, but also indicates that the study area was surveyed before.

Sources that were used include a variety of literature sources, databases and unpublished reports. It is clear from the report that the broader environment of the project area had been surveyed numerous times during the past. Most importantly, this specific section of the ESKOM line had been surveyed before.

Results from previous surveys are utilized to conclude that the project may continue. It would be possible to mitigate impact on the two heritage sites present.

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1 INTRODUCTION

Archaetnos cc was appointed by Landscape Dynamics to do a desktop study regarding the cultural heritage on the ESKOM Riries-Maruping 22KV line split. This is between Kuruman and Hotazel in the Northern Cape Province.

The South African Heritage Resources Agency (SAHRA) requested a desktop study since the area had apparently already been surveyed, although as part of another project, namely the Kuruman Network Upgrade Project. The latter has received Environmental Authorisation (Ref: 14/12/16/3/3/1/1376/AM1).

It is important to note that the Riries-Maruping Project runs parallel to the Kuruman Network Upgrade Project. This report gives a broad overview of the heritage of the wider geographical area, but also aims to indicate the information from the indicated Kuruman Network Upgrade Project.

2 TERMS OF REFERENCE

The terms of reference are:

- To study various sources in order to obtain historical information related to the area.
- To write a desktop report on the cultural heritage of the study area.
- To indicate that the project area had been surveyed before.

3 METHODOLOGY

The cited sources are included in a bibliography at the end of the document. An overview of heritage legislation is also given and guidelines regarding the handling of heritage in relation to this are given. The findings are integrated in a chronological framework and reported on via this document.

4 CONDITIONS AND ASSUMPTIONS

The following conditions and assumptions have a direct bearing on the study and the resulting report:

1. Cultural Resources are all non-physical and physical man-made occurrences, as well as natural occurrences associated with human activity (Appendix A). These include all sites, structure and artifacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development. Graves and cemeteries are included in this.

2. The significance of the sites, structures and artifacts is determined by means of their historical, social, aesthetic, technological and scientific value in

relation to their uniqueness, condition of preservation and research potential (Appendix B). The various aspects are not mutually exclusive, and the evaluation of any site is done with reference to any number of these aspects.

3. Cultural significance is site-specific and relates to the content and context of the site. Sites regarded as having low cultural significance have already been recorded in full and require no further mitigation. Sites with medium cultural significance may or may not require mitigation depending on other factors such as the significance of impact on the site. Sites with a high cultural significance require further mitigation (see Appendix C).

4. All recommendations are made with full cognizance of the relevant legislation.

5. It has to be mentioned that the study area is almost terra incognito as far as archaeological research is concerned. Therefore, a wider area was studied in order to get an idea of what may be expected. The latter especially refers to heritage reports in the wider geographical area.

5 LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. These are the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

5.1 The National Heritage Resources Act

According to the above-mentioned act the following is protected as cultural heritage resources:

a. Archaeological artifacts, structures and sites older than 100 years
b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography
c. Objects of decorative and visual arts
d. Military objects, structures and sites older than 75 years
e. Historical objects, structures and sites older than 60 years
f. Proclaimed heritage sites
g. Grave yards and graves older than 60 years
h. Meteorites and fossils
i. Objects, structures and sites or scientific or technological value.

The national estate (see Appendix D) includes the following:

a. Places, buildings, structures and equipment of cultural significance
b. Places to which oral traditions are attached or which are associated with living heritage
c. Historical settlements and townscapes
d. Landscapes and features of cultural significance
e. Geological sites of scientific or cultural importance
f. Archaeological and palaeontological importance

g. Graves and burial grounds
h. Sites of significance relating to the history of slavery
i. Movable objects (e.g. archaeological, palaeontological, meteorites, geological specimens, military, ethnographic, books etc.)

A Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon. An Archaeological Impact Assessment only looks at archaeological resources. The different phases during the HIA process are described in Appendix E. An HIA must be done under the following circumstances:

a. The construction of a linear development (road, wall, power line canal etc.) exceeding 300m in length
b. The construction of a bridge or similar structure exceeding 50m in length
c. Any development or other activity that will change the character of a site and exceed 5 000m^2 or involve three or more existing erven or subdivisions thereof
d. Re-zoning of a site exceeding 10 000 m^2
e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

Structures

Section 34 (1) of the mentioned act states that no person may demolish any structure or part thereof which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

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

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

Archaeology, palaeontology and meteorites

Section 35(4) of this act deals with archaeology, palaeontology and meteorites. The act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial):

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 that assists in the detection or recovery of metals or archaeological and palaeontological material or objects or use such equipment for the recovery of meteorites.
e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency (SAHRA). In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed.

Human remains

Graves and burial grounds are divided into the following:

a. ancestral graves
b. royal graves and graves of traditional leaders
c. graves of victims of conflict
d. graves designated by the Minister
e. historical graves and cemeteries
f. human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

a. destroy, damage, alter, exhume or remove from its original position of otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
b. destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
c. bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

Unidentified/unknown graves are also handled as older than 60 until proven otherwise.

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations** (**Ordinance no. 12 of 1980**) (replacing the old Transvaal Ordinance no. 7 of 1925).

Human remains that are less than 60 years old are subject to provisions of the **National Health Act** (**Act 61 of 2003**) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations** (**Ordinance no. 12 of 1980**) (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated) before exhumation can take place. Human remains can only be handled by a registered undertaker or an institution declared under the **National Health Act** (**Act 61 of 2003**).

5.2 The National Environmental Management Act

This act (Act 107 of 1998) states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of 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 should also take the cultural and social needs of people into account. 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.

6 LOCATION

The study area is located within the northern part of the Northern Cape Province. And Lies between Kuruman and Hotazel (Figure 1-2). The Kuruman Network Upgrade Project included among others, the following four sections, being:

- Gamohaan-Mothibistad
- Riries-Gamohaan
- Eldoret-Riries
- Hotazel-Eldoret (Figure 3)

It is clear from the maps that the Riries-Maruping Project, runs parallel to certain sections of the Kuruman Network Upgrade Project. These sections are the Riries-Gamohaan and Gamohaan-Mothibistad sections. Therefore, the filedwork done for the Kuruman Network Upgrade Project, covered the Riries-Maruping Project.

Figure 1: Location of Hotazel and Kuruman in the Northern Cape Province.

Figure 2: The Riries-Maruping 22KV Line Split.

Figure 3: The Kuruman Network Upgrade Project is indicated in black, enclosing the Riries-Mothibestad Project in green.

7 HISTORICL CONTEXT

The history of southern Africa is divided into three chronological time periods. These are the Stone Age, the Iron Age and the Historical Period. These will be discussed separately. Various reports in the SAHRIS database indicate that heritage surveys were indeed done in the broader geographical environment. However, with the exception of the Fourie (2015) report, none of these were actually done in the current project area. It therefore merely serves as broad background.

Mention should specifically be made of the Fourie (2015) report, which covers the Riries-Maruping Project. He identified fifteen sites during the survey for the Kuruman Network Upgrade Project. Of these, only three are close to the Riries-Maruping project area with none of the latter falling within it. This is included in the discussion below.

7.1 Stone Age

The Stone Age is the period in human history when lithic material was mainly used to produce tools (Coertze & Coertze 1996: 293). In South Africa the Stone Age can be divided in three periods. It is however important to note that dates are relative and only provide a broad framework for interpretation. The division for the Stone Age according to Korsman & Meyer (1999) is as follows:

Early Stone Age (ESA) 2 million – 150 000 years ago

Middle Stone Age (MSA) 150 000 – 30 000 years ago
Late Stone Age (LSA) 40 000 years ago – 1850 - A.D.

No Early Stone Age sites are known from the study area or the immediate geographical region. Fourie (2015) also did not record any Stone Age occurrences during his survey.

Stone Age sites are known to occur in the larger geographical area, including the well-known Wonderwerk Cave in the Kuruman Hills to the east, Tsantsabane, an ancient specularite working on the eastern side of Postmasburg, Doornfontein, another specularite working north of Beeshoek and a cluster of important Stone Age sites near Kathu. Additional specularite workings with associated Ceramic Later Stone Age material and older Fauresmith sites (early Middle Stone Age) are known from Demaneng, Mashwening, King, Rust & Vrede, Paling, Gloucester, Sekgame and Mount Huxley to the west (Beaumont 2000: 2-3; Beaumont 2013; Dreyer 2006a; Dreyer 2013; Morris 2005: 3; Morris 2010a, 2010b; Van Schalkwyk 2010a, 2010b; Webley 2014: 6-7; Webley & Halkett 2008).

The onset of the Middle Stone Age coincided with a widespread demand for coloured or glittering minerals that arose at the time for still unknown reasons. The intensive collection of such substances soon exhausted surface exposures and led to the quest being extended underground and thus to the birth of mining practice. Specularite was commonly mined in the Postmasburg area. In 1968 AK Boshier, working in collaboration with P Beaumont, found a number of underground specularite mines on Paling (De Jong 2010: 35). Stone and Iron Age communities mined specularite associated with iron ores for cosmetic purposes at Blinkklipkop, Paling, Gloucester and other farms (De Jong 2010: 41; Snyman 2000: 3). There is a well-known Middle Stone Age site at Lyleveld (Beaumont 2000: 2; SAHRA database) which lies a few kilometres south of the surveyed area.

Many Middle and Late Stone Age tools have been found by Archaetnos during surveys in the Northern Cape. These sites are located close to Griekwastad, Hotazel, Postmasburg and Kenhardt (Archaetnos database). The sites close to Postmasburg were identified on the farms, Kapstewel, Gloucester and Lohatla, much further to the south of the surveyed area. Kaplan (2012a, 2012b) also identified Early, Middle and Late Stone Age tools close to Kuruman. Küsel and Van der Ryst (2009) identified Early and Middle Stone Age material at the Gamagara River, close to Black Rock.

A number of Stone Age sites and scattered finds of Stone Age material were identified on the farm Paling during an earlier survey (Van Vollenhoven & Pelser 2010: 12-17). Rock engraving (rock pecking) sites are known from Beeshoek, Sishen and Bruce (Beaumont 2000: 2; Morris 2005: 3; Snyman 2000: 3). The latter are associated with the Late Stone Age. Again, these lies outside of the corridors investigated.

The mentioned Late Stone Age sites are associated with the San people. Mitchell (2002: 126) indicates that the language group who occupied the Northern Cape is the /Auni-//Khomani and Eastern /Hoa. These people were hunters and gatherers

which means that they would have moved around, leaving little trace of their existence.

From the above mentioned it is clear that Stone Age people did utilize and settled in the area. One will therefore more than likely find sites or associated with these people. Scatters of Middle and Late Stone Age material has indeed been identified at during surveys further to the south of the current study area (Pelser 2012; Mabale 2009; Kruger 2014a, 2014b).

7.2 Iron Age

The Iron Age is the name given to the period of human history when metal was mainly used to produce metal artifacts (Coertze & Coertze 1996:346). In South Africa it can be divided in two separate phases according to Van der Ryst & Meyer (1999: 96-98), namely:

Early Iron Age (EIA) 200 – 1000 A.D.
Late Iron Age (LIA) 1000 – 1850 A.D.

Huffman (2007: xiii) however indicates that a Middle Iron Age should be included. His dates, which are now widely accepted in archaeological circles, are:

Early Iron Age (EIA) 250 – 900 A.D.
Middle Iron Age (MIA) 900 – 1300 A.D.
Late Iron Age (LIA) 1300 – 1840 A.D.

No Early or Middle Iron Age sites have been identified previously in the area of study. Fourie (2015) also did not identify such sites.

Iron Age people occupied the central and eastern parts of southern Africa from about 200 A.D., but the San and Khoi remained in the western and southern parts (Inskeep 1978: 126; see also Huffman 2007).

It is known that Iron Age people settled in the eastern parts of the Northern Cape (Bergh 1999: 12), but this is only the furthest intrusion of these people into the west of South Africa. It also is known that Late Iron Age people did utilize the area further to the west, albeit briefly, as they did mine copper in the Northern Cape. This was much further to the west of the study area, closer to the Orange River (Inskeep 1978: 135).

This later phase, termed the Late Iron Age (LIA), was accompanied by extensive stonewalled settlements, such as the Thlaping capital Dithakong, 40 km north of Kuruman. Sotho-Tswana and Nguni societies, the descendants of the LIA mixed farming communities, found the region already sparsely inhabited by the Late Stone Age (LSA) Khoisan groups, the so-called ‘first people’. Most of them were eventually assimilated by LIA communities and only a few managed to survive, such as the Korana and Griqua. This period of contact is sometimes known as the Ceramic Late Stone Age and is represented by the Blinkklipkop specularite mine near

Postmasburg and finds at the Kathu Pan (De Jong 2010: 36). Dreyer (2006b) also identified Iron Age occurrences close to Kuruman.

7.3 Historical Age

The historical age started with the first recorded oral histories in the area. It includes the moving into the area of people that were able to read and write. This era is sometimes called the Colonial era or the recent past. Due to factors such as population growth and a decrease in mortality rates, more people inhabited the country during the recent historical past. Therefore, much more cultural heritage resources have been left on the landscape.

Factors such as population expansion, increasing pressure on natural resources, the emergence of power blocs, attempts to control trade and penetration by Griquas, Korana and white communities from the south-west resulted in a period of instability in Southern Africa that began in the late 18th century and effectively ended with the settlement of white farmers in the interior. This period, known as the *difaqane* or *Mfecane*, also affected the Northern Cape Province, although at a relatively late stage compared to the rest of Southern Africa. Here, the period of instability, beginning in the mid-1820s, was triggered by the incursion of displaced refugees associated with the Tlokwa, Fokeng, Hlakwana and Phuting tribal groups (De Jong 2010: 36).

Geographically, the study area is part of a region known as Griqualand West. At the end of the 18th century and the beginning of the 19th century Griqua tribes coming from the south settled in the region in order to escape encroachment of Afrikaner Trekboere who was active along the Orange River. They established the town of Klaarwater, renamed Griquatown in 1813. After the discovery of diamonds in 1867 a serious dispute over the ownership of the diamond fields ensued, involving the Transvaal and Orange Free State Boer republics, Griqua, Korana and Thlaping communities and the Cape colonial government. In October 1871 the diamond fields were proclaimed British territory under the name Griqualand West. In 1879 it was annexed to the Cape Colony (De Jong 2010: 36).

The *difaqane* therefore coincided with the penetration of the interior of South Africa by white traders, hunters, explorers and missionaries. The first traders in the Northern Cape were PJ Truter's and William Somerville's journey of 1801, which reached Dithakong at Kuruman. They were again followed by Cowan, Donovan, Burchell and Campbell and resulted in the establishment of a London Mission Society station near Kuruman in 1817 by James Read (Bergh 1999: 12-13; De Jong 2010: 36). During the 1870's more travelers, such as William Sanderson, John Ryan and John Ludwig passed through the area close to Postmasburg (Snyman 2000: 3).

The Great Trek of the Boers from the Cape in 1836 brought large numbers of Voortrekkers up to the borders of large regions known as Bechuanaland and Griqualand West, thereby coming into conflict with many Tswana groups and also the missionaries of the London Mission Society. The conflict between Boer and Tswana communities escalated in the 1860s and 1870s when the Korana and Griqua communities became involved and later also the British government. The

conflict mainly centered on land claims by various communities. For decades the western border of the Transvaal Boer republic was not fixed. Only through arbitration (the Keate Arbitration), triggered by the discovery of gold at Tati (1866) and diamonds at Hopetown (1867) was part of the western border finally determined in 1871. Ten years later, the Pretoria Convention fixed the entire western border, thereby finally excluding Bechuanaland and Griqualand West from Boer domination (De Jong 2010: 36).

The incorporation of Griqualand West into the Cape Colony promoted colonial settlement in the area from the 1880s. Government-owned land was surveyed and divided into farms, which were transferred to farmers. Surveyors were given the task of surveying and naming some of the many farms in this region. These farms were allocated to prospective farmers, but permanent settlement only started in the late 1920s and the first farmsteads were possibly built during this period (De Jong 2010: 36). The Griqua town of Blinkklip (established in 1882), originally a mission station, was renamed Postmasburg in 1892 and became the centre of a magisterial district (Snyman 2000: 6). Another town, Olifantshoek, was established in the 1880s. The region remained sparsely populated until the advent of the 20th century, when cattle farming became popular (De Jong 2010: 36).

Prospecting started in the Postmasburg area during 1882 and manganese was discovered here during 1886 (Snyman 2000: 6, 13). Henry George Brown, who was commissioned in 1888 by the government of British Bechuanaland to erect the first government buildings in Kuruman, became interested in the iron ores that were known from the Klipfontein Hills. While prospecting there in the late 19th century, he became the first person to identify manganese in what is today known as the Eastern Belt of the Postmasburg Manganese Field.

During previous heritage studies in the vicinity (Webley & Halkett 2008; Pelser & Van Vollenhoven 2009a, 2009b, Küsel & Van der Ryst 2009; Van Vollenhoven & Pelser 2010, Morris 2010a, 2010b; Pelser 2012 and Van Vollenhoven 2017 identified various sites related to mining activities and farming as well as a memorial close to Kuruman. These are however outside of the investigated area. Grave sites are known from the farms Gloucester and Lohatla as well as closer to Kuruman, Kathu and Black Rock.

The fifteen sites identified by Fourie (2015) are all from this period in time (Figure 4). These are the following:

K1 and K10 – Cemeteries
K2, K7, K8, K9, K11, K13, K14 and K15 – Farmsteads
K3 and K6 – Asbestos mines
K4 – Sacred/ Religious site
K5 – The Moffat Mission – a declared Provincial heritage site
K12 – Memorial

As indicated earlier, only three of these are close to the Riries-Maruping project area, being K3, K4 and K5 (Figure 5). All of these however are within reasonable distance from the project area and will therefore not be influenced by it.

Figure 4: Sites identified by Fourie (2015) in relation to the Riries-Maruping project area.

Figure 5: Sites near or inside of the Riries-Maruping project area.

8 DISCUSSION

Looking at the above maps, it is clear that there will be no impact on sites K3, K4 and K5. It is therefore only discussed briefly below.

K3 is a historical asbestos mine – coordinates 27.40452 & -23.26232. Fourie gave it a rating of 4A and described it as the infrastructure and remains of the old Wandrag Asbestos Mine. The infrastructure included several houses, offices, a labour compound and storerooms. The staff accommodation is still in use and the houses are being occupied. The labour compound and several other structures are not being used and are in a derelict state.

K4 is a Sacred/ Religious site – coordinates 27.38431 & -23.34377. Fourie gave it a rating of 3A and indicated that it could possible qualify to be declared a Provincial heritage site. He describes it as being a large overhang with evidence of religious activities. Several areas with the ashes of fires were identified as well as areas where candles were placed. The site is visited frequently and the area under the overhang is disturbed. Recent historic graffiti is visible on sections of the overhang wall, while feint rock art figures are discernible. Further investigation could possibly indicate the presence of a stone age site and/or rock art on the overhang walls.

K5 is a declared Provincial Heritage site, the Moffat Mission – coordinates 27.42334 & -23.42936. It is therefore rated as grade 2. The missionary is linked to Dr Robert Moffat.

9 RECOMMENDATIONS AND CONCLUSION

It can be concluded that the desktop assessment of the Riries-Maruping 22kv Line Split Project has been completed successfully. It is clear that no known heritage sites exist here and that the area was well covered during the survey for the Kuruman Network Upgrade Project.

It is therefore recommended that:

1. This report is seen as ample mitigation for the project.

2. The project may continue, but only after receiving comments from SAHRA.

3. It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. Operating controls and monitoring should therefore be aimed at the possible unearthing of such features. Care should therefore be taken when development commences that if any of these are discovered, a qualified archaeologist be called in to investigate the occurrence. In This regards the following ‘Chance find Procedure’ should be followed:

    - Upon finding any archaeological or historical material all work at the affected area must cease.

- The area should be demarcated in order to prevent any further work there until an investigation has been completed.
- An archaeologist should be contacted immediately to provide advice on the matter.
- Should it be a minor issue, the archaeologist will decide on future action, which could include adapting the HIA or not. Depending on the nature of the find, it may include a site visit.
- SAHRA's APM Unit may also be notified.
- If needed, the necessary permit will be applied for with SAHRA. This will be done in conjunction with the appointed archaeologist.
- The removal of such archaeological material will be done by the archaeologist in lieu of the approval given by SAHRA, including any conditions stipulated by the latter.
- Work on site will only continue after removal of the archaeological/ historical material was done.

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APPENDIX A

Definition of terms:

Site: A large place with extensive structures and related cultural objects. It can also be a large assemblage of cultural artifacts, found on a single location.

Structure: A permanent building found in isolation or which forms a site in conjunction with other structures.

Feature: A coincidental find of movable cultural objects.

Object: Artifact (cultural object).

(Also see Knudson 1978: 20).

APPENDIX B

Definition/ statement of heritage significance:

Historic value:	Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.
Aestetic value:	Important in exhibiting aesthetic characteristics valued by a community or cultural group.
Scientific value:	Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period
Social value:	Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.
Rarity:	Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.
Representivity:	Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province region or locality.

APPENDIX C

Cultural significance:

- Low — A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings.

- Medium — Any site, structure or feature being regarded less important due to a number of factors, such as date and frequency. Also, any important object found out of context.

- High — Any site, structure or feature regarded as important because of its age or uniqueness. Graves are always categorized as of a high importance. Also, any important object found within a specific context.

Heritage significance:

- Grade I — Heritage resources with exceptional qualities to the extent that they are of national significance

- Grade II — Heritage resources with qualities giving it provincial or regional importance although it may form part of the national estate

- Grade III — Other heritage resources of local importance and therefore worthy of conservation

Field ratings:

- National Grade I significance	should be managed as part of the national estate
- Provincial Grade II significance	should be managed as part of the provincial estate
- Local Grade IIIA	should be included in the heritage register and not be mitigated (high significance)
- Local Grade IIIB	should be included in the heritage register and may be mitigated (high/ medium significance)
- General protection A (IV A)	site should be mitigated before destruction (high/ medium significance)
- General protection B (IV B)	site should be recorded before destruction (medium significance)
- General protection C (IV C)	phase 1 is seen as sufficient recording and it may be demolished (low significance)

- APPENDIX D

Protection of heritage resources:

- Formal protection

National heritage sites and Provincial heritage sites – grade I and II
Protected areas - an area surrounding a heritage site
Provisional protection – for a maximum period of two years
Heritage registers – listing grades II and III
Heritage areas – areas with more than one heritage site included
Heritage objects – e.g. archaeological, palaeontological, meteorites, geological specimens, visual art, military, numismatic, books, etc.

- General protection

Objects protected by the laws of foreign states
Structures – older than 60 years
Archaeology, palaeontology and meteorites
Burial grounds and graves
Public monuments and memorials

APPENDIX E

Heritage Impact Assessment phases

1. Pre-assessment or scoping phase – establishment of the scope of the project and terms of reference.
2. Baseline assessment – establishment of a broad framework of the potential heritage of an area.
3. Phase I impact assessment – identifying sites, assess their significance, make comments on the impact of the development and makes recommendations for mitigation or conservation.
4. Letter of recommendation for exemption – if there is no likelihood that any sites will be impacted.
5. Phase II mitigation or rescue – planning for the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.
6. Phase III management plan – for rare cases where sites are so important that development cannot be allowed.