

**PHASE ONE CULTURAL HERITAGE IMPACT
ASSESSMENT OF THE PROPOSED IBISI SEWER
RETICULATION, UMZIMKHULU LOCAL
MUNICIPALITY.**



FOR: SAT ENVIRONMENTAL CONSULTANTS

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LIST OF ABBREVIATIONS AND ACRONYMS

EIA	Early Iron Age
ESA	Early Stone Age
HISTORIC PERIOD	Since the arrival of the white settlers - c. AD 1820 in this part of the country
IRON AGE	Early Iron Age AD 200 - AD 1000 Late Iron Age AD 1000 - AD 1830
LIA	Late Iron Age
LSA	Late Stone Age
MSA	Middle Stone Age
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998 and associated regulations (2006).
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999) and associated regulations (2000)
SAHRA	South African Heritage Resources Agency
STONE AGE	Early Stone Age 2 000 000 - 250 000 BP Middle Stone Age 250 000 - 25 000 BP Late Stone Age 30 000 - until c. AD 200

EXECUTIVE SUMMARY

A phase one cultural heritage survey of the proposed expansion Ibisi Sewer Reticulation Project, UMzimkhulu Local Municipality, identified no heritage sites on the actual footprint. Some heritage sites are located to the immediate north of the footprint but these are not threatened by the proposed development and no mitigation is necessary. The area is also not part of any known cultural landscape. There is no general heritage or archaeological reason why development may not proceed as planned. The phase 1 paleo desktop study indicates that the footprint is situated in an area with a moderate fossil sensitivity. However the area has been disturbed and the Ibisi Village is transposed on top of the actual footprint. It is the opinion of the consultant that no additional paleontological studies will be required. However, attention is drawn to the South African Heritage Resources Act, 1999 (Act No. 25 of 1999) and the KwaZulu-Natal Heritage Act (Act no 4 of 2008) which, requires that operations that expose archaeological or historical remains and fossils should cease immediately, pending evaluation by the provincial heritage agency.

1 BACKGROUND INFORMATION ON THE PROJECT

Frans Prins (Active Heritage cc) was appointed by SATENVIRO to conduct heritage impact assessment (HIA) for the proposed Ibisi Sewer Reticulation.

According to the National Heritage Resources Act, 1999 (NHRA) (Act No. 25 of 1999), the heritage resources of South Africa include:

- 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 natural features of cultural significance;
- e. geological sites of scientific or cultural importance;
- f. archaeological and palaeontological sites;
- g. graves and burial grounds, including-
 - i. ancestral graves;
 - ii. royal graves and graves of traditional leaders;
 - iii. graves of victims of conflict;
 - iv. graves of individuals designated by the Minister by notice in the Gazette;
 - v. historical graves and cemeteries; and

- vi. other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- h. sites of significance relating to the history of slavery in South Africa;
- i. movable objects, including-
 - i. objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
 - ii. objects to which oral traditions are attached or which are associated with living heritage;
 - iii. ethnographic art and objects;
 - iv. military objects;
 - v. objects of decorative or fine art;
 - vi. objects of scientific or technological interest; and
 - vii. books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).

2 SCOPE OF WORK

This study aims to identify and assess the significance of any heritage and archaeological resources occurring on or adjacent to the proposed cemetery sewer reticulation area. Based on the significance, the impact of the development on the heritage resources will be determined and appropriate actions to reduce the impact on the heritage resources put forward. In terms of the NHRA, a place or object is to be considered part of the national estate if it has cultural significance or other special value because of:

- a. its importance in the community, or pattern of South Africa's history;
- b. its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- c. its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- d. its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
- e. its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;

- f. its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- g. its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
- h. its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa; and
- i. sites of significance relating to the history of slavery in South Africa.

Table 1. Background information

Consultant:	Frans Prins (Active Heritage cc)
Type of development:	Sewer Reticulation Development
Rezoning or subdivision:	Rezoning
Terms of reference	To carry out a Heritage Impact Assessment
Legislative requirements:	The Heritage Impact Assessment was carried out in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and following the requirements of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) and the KwaZulu-Natal Heritage Act, 1997 (Act No. 4 of 2008)

2.1. Details of the area surveyed:

The proposed development is situated adjacent to the R 56 and approximately 20 km south of Umzimkhulu, Umzimkhulu Local Municipality. It covers an area of approximately 1.5km x 1.1km. The proposed reticulation and associated pipelines transects the existing Ibisi Village. The area is characterised by rural settlements and small scale subsistence farming. The rural villages are bordered onto by disturbed grassland. The GPS coordinates for the centre of this proposed development are: 30° 24'45.79" S 29° 53' 22.76"E (Figs 1 & 2).

3 BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA

The greater Umzimkhulu area, including the village of Ibisi, has never been intensively surveyed for heritage sites. However, some sites have been recorded by cultural resource consultants who have worked in the area during the last two decades whilst archaeologists from the KwaZulu-Natal Museum have made sporadic visits to the area. The Ibisi Cemetery was surveyed in 2014 (Beater & Prins 2014) but no archaeological sites were recorded at the time. The available evidence, as captured in the KwaZulu-Natal Museum heritage site inventories, indicates that the greater Umzimkhulu area contains a wide spectrum of archaeological sites covering different time-periods and cultural traditions. These include five Early Stone Age sites, two Middle Stone Age sites, four Later Stone Age sites, two rock painting sites, four Early Iron Age sites, three Later Iron Age sites, and one historical site. Various buildings and farmsteads belonging to the Victorian and Edwardian periods occur in the area. These would also be protected by heritage legislation (Derwent 2006).

Stone Age sites of all the main periods and cultural traditions occur within the greater study area. Most of these occur in open air contexts as exposed by donga and sheet erosion. The occurrence of Early Stone Age tools in the near vicinity of permanent water resources is typical of this tradition. These tools were most probably made by early hominins such as *Homo erectus* or *Homo ergaster*. Based on typological criteria they most probably date back to between 300 000 and 1.7 million years ago. The presence of the first anatomically modern people (i.e. *Homo sapiens sapiens*) in the area is indicated by the presence of a few Middle Stone Age blades and flakes. These most probably dates back to between 40 000 and 200 000 years ago. The later Stone Age flakes and one rock painting site identified in the area are associated with the San (Bushmen) and their direct ancestors. These most probably dates back to between 200 and 20 000 years ago.

The San were the owners of the land for almost 30 000 years but the local demography started to change soon after 2000 years ago when the first Bantu-speaking farmers crossed the Limpopo River and arrived in South Africa (Mitchell 2002). By 1500 years ago these early Bantu-speaking farmers also arrived in the greater Umzimkhulu area. Due to the fact that these first farmers introduced metal technology to southern Africa they are designated as the Early Iron Age in archaeological literature. Their distinct ceramic pottery is classified to styles known as "Msuluzi" (AD 500-700), Ndongondwane (AD 700-800) and Ntshokane (AD 800-900). Most of the Early Iron Age sites in the greater Ixopo area belong to these traditions (Maggs 1989:31; Huffman 2007:325-462). These sites characteristically occur on alluvial or colluvial soil adjacent to large rivers, such as the Mzimkhulu River, below the 1000m contour. The Early Iron Age farmers originally came from western Africa and brought with them an elaborate initiation complex and a value system centred on the central significance of cattle.

Later Iron Age sites also occur in this area. These were Bantu-speaking agropastoralists who arrived in southern Africa after 1000 year ago via East Africa. Later Iron Age

communities in KwaZulu-Natal and adjacent parts of the Eastern Cape Province were the direct ancestors of the Zulu and Xhosa-speaking people (Huffman 2007). Many African groups moved through the study area due to the period of tribal turmoil as caused by the expansionistic policies of King Shaka Zulu in the 1820's. During the colonial era (1840s onwards) many African groups were settled in this area by the native administrator of the Colony of Natal, Lord Shepstone. It is known from oral history that the Umzimkhulu area was occupied by the Nhlangwini, amaWushe, amaHlubi, amaBhaca, amaZizi, amaNqolo, amaCunu and various other Zulu-speaking and Xhosa-speaking refugees in the 19th century (Bryant 1965; Jackson 1975). There are also some Mpondo and Sotho groupings in the area. Interestingly, descendants of the San still live in the area and have adopted the Zulu clan name of Ndobe. The descendants of all these ethnic groupings still live in the area. Interestingly, after the Anglo-Zulu war of 1879 and the Bambatha Rebellion of 1911 some of the African people in the study area adopted a Zulu ethnic identity.

4 BACKGROUND INFORMATION OF THE SURVEY

4.1 Methodology

A desktop study was conducted of the archaeological databases housed in the KwaZulu-Natal Museum. In addition, the available archaeological literature covering the greater Umzimkhulu area was also consulted. The SAHRIS website was consulted to ascertain the location of heritage sites in or near the footprint.

A ground survey, following standard and accepted archaeological procedures, was conducted on 20 August 2019. The footprint was visited on foot and the potential areas for expansion evaluated. The consultant was also guided by community perspectives and interviewed local residents of the area whilst conducting the ground survey. None of them had knowledge of any heritage sites or features on the actual footprint..

4.2 Restrictions encountered during the survey

4.2.1 Visibility

Visibility was good.

4.2.2 Disturbance.

The proposed development site has been disturbed by overgrazing and small-scale subsistence farming activities in the past. The rural homesteads in the area may also mask heritage sites or features. However, no disturbance of any potential heritage features was noted.

4.3 Details of equipment used in the survey

GPS: Garmin Etrek

Digital cameras: Canon Powershot A460

All readings were taken using the GPS. Accuracy was to a level of 5 m.

4.4 Locational data

Province: KwaZulu-Natal

Town: Ibisi

Municipality: Umzimkhulu Local Municipality

4.5 Description of the general area surveyed

The proposed Ibisi Reticulation Project transects the actual Ibisi Village and is situated on the west bank of the R 56. The Bisi River is located to the north of the proposed development. (Figs 1 & 6). There is no evidence for any heritage site, feature, or artefact associated with the actual footprint. The area does not form part of any known cultural landscape.

The old Bisi Bridge and iBisi Cemetery occurs to the immediate north of the footprint at GPS coordinates S 30 24' 14.36" E 29 3' 40.77" and S 30 24' 7.72" E 29 3' 37.41" respectively (Fig 3). Both these heritage sites are situated more than 100m from the proposed Sewer Reticulation Scheme. They are not threatened by the proposed development and there is no need for any mitigation.

5 STATEMENT OF SIGNIFICANCE (HERITAGE VALUE EXCLUDING PALEONTOLOGY)

As there are no heritage sites on the proposed development site the area is not significant in terms of heritage values.

5.1 Field Rating

The field rating criteria as formulated by SAHRA (Table2) does not apply to the footprint as no heritage sites or features have been identified.

Table 2. Field rating and recommended grading of sites (SAHRA 2005)

Level	Details	Action
National (Grade I)	The site is considered to be of National Significance	Nominated to be declared by SAHRA
Provincial (Grade II)	This site is considered to be of Provincial significance	Nominated to be declared by Provincial Heritage Authority
Local Grade IIIA	This site is considered to be of HIGH significance locally	The site should be retained as a heritage site
Local Grade IIIB	This site is considered to be of HIGH significance locally	The site should be mitigated, and part retained as a heritage site
Generally Protected A	High to medium significance	Mitigation necessary before destruction
Generally Protected B	Medium significance	The site needs to be recorded before destruction
Generally Protected C	Low significance	No further recording is required before destruction

6 PHASE 1 DESKTOP PALAEOLOGY ASSESSMENT

The SAHRIS fossil sensitivity map indicates that the proposed Ibisi Sewer Reticulation Scheme falls within an area with a moderate fossil sensitivity (Fig 4). However, the footprint has been disturbed by the location of the present Ibisi Village that is actually transposed on top of the proposed development. Given the present circumstance it is the opinion of the consultant that no further paleontological studies will be required. However, should the developer encounter any fossil material then all excavation and ground shifting work must cease immediately and Amafa must be contacted for further advice.

7 RECOMMENDATIONS

The development of the proposed Ibisi Sewer Reticulation Scheme may proceed in terms of general heritage values as no heritage and archaeological sites are in any danger of being destroyed or altered. There is no need for mitigation. It should also be pointed out that the KwaZulu-Natal Heritage Act requires that operations exposing archaeological and historical residues as well as fossils should cease immediately pending an evaluation by the heritage authorities.

8 RISK PREVENTATIVE MEASURES ASSOCIATED WITH CONSTRUCTION

Not applicable.

9 MAPS AND FIGURES

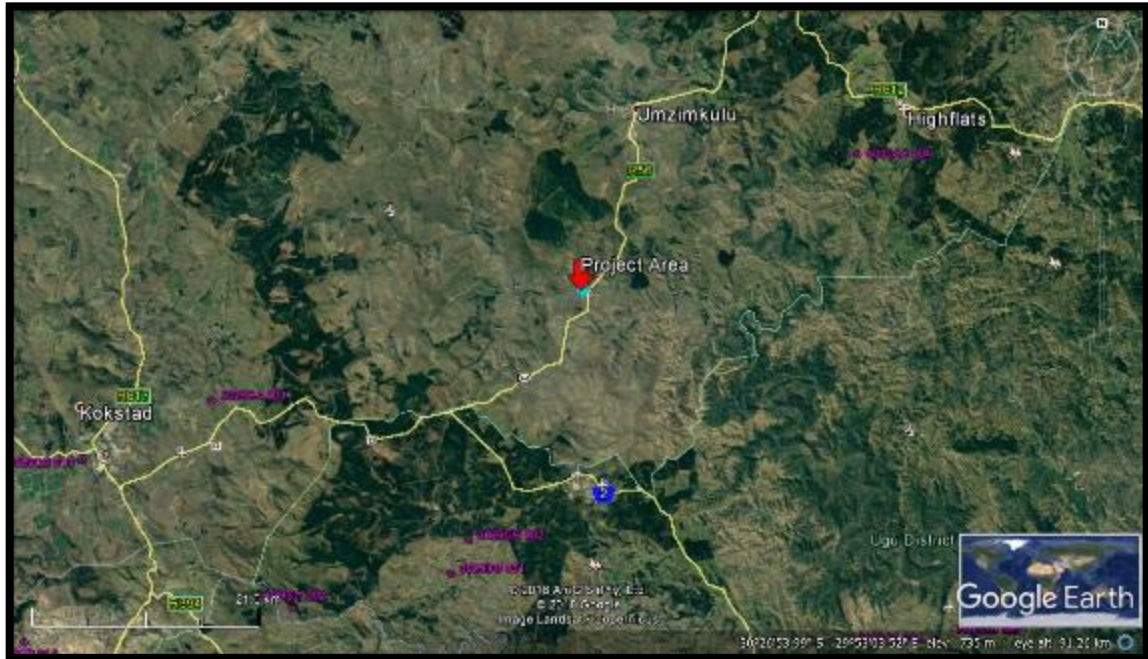


Figure 1. Google aerial photograph showing the location of the project area to the south of Umzimkhulu. The purple markers indicates the location of known archaeological sites in the greater area.



Figure 1. Google aerial photograph showing the location and context of the proposed Ibisi Sewer Reticulation Scheme.

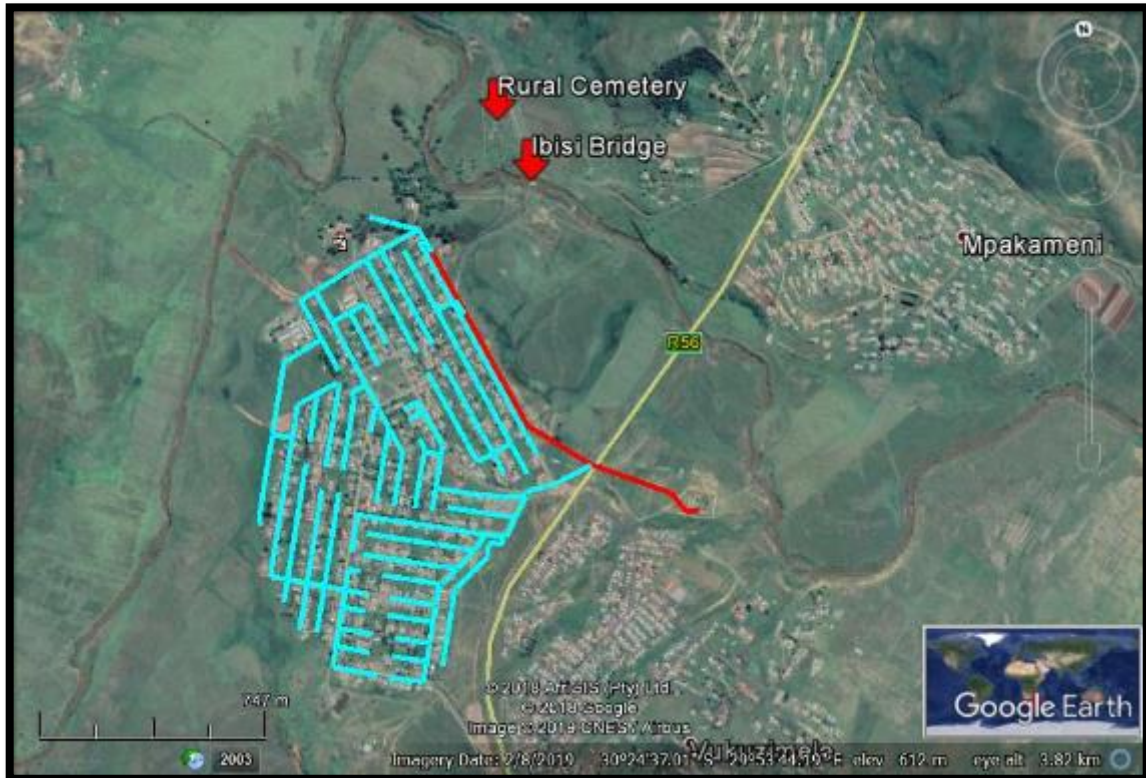
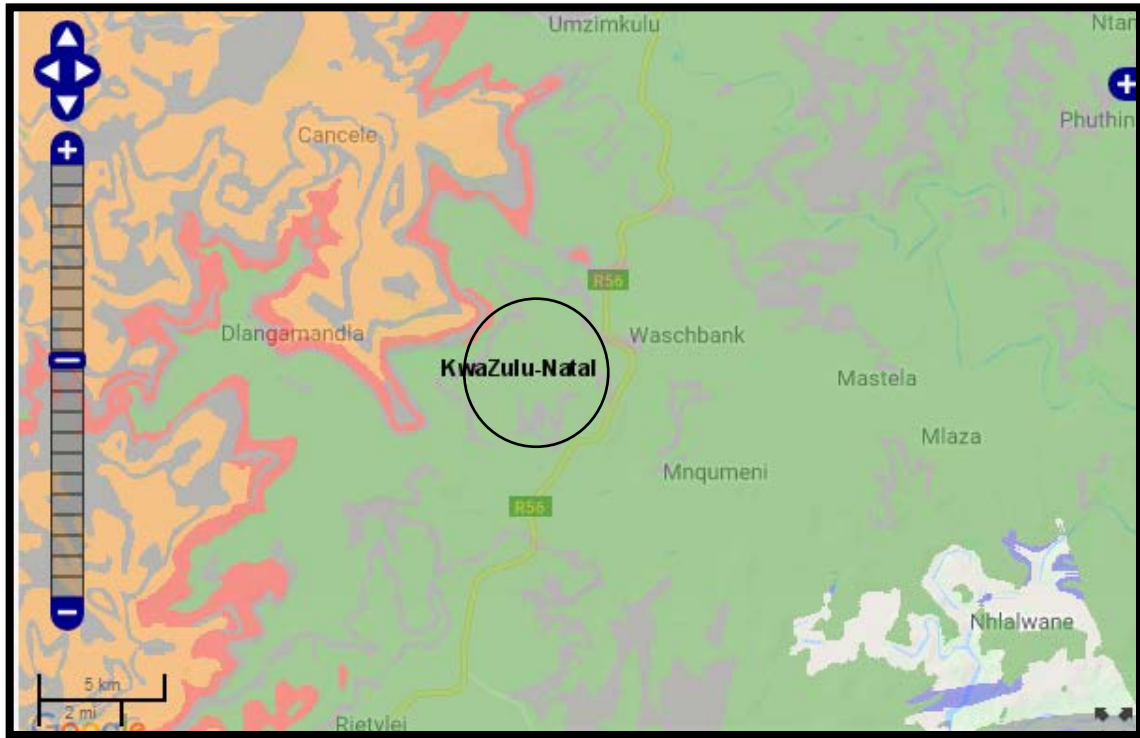


Figure 3. The location of the Ibisi Cemetery and the old Bisi Bridge to the north of the footprint. None of these sites are threatened by the proposed development and there is no need for mitigation.



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	these areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

Figure 4. Fossil Sensitivity Map of the Project Area as indicated by the black circle. The green background indicates that the area is of moderate paleontological sensitivity. However, it is the opinion of the consultant that no desktop study by a qualified palaeontologist is necessary as the area has been disturbed and built-up by recent anthropogenic activities.



Figure 5. The Ibisi Cemetery, a heritage site, is situated approximately 200m to the north of the footprint. The Ibisi village is visible in the background. There is no need for mitigation.



Figure 6. The Bisi River Bridge is older than 60 years old. However, this heritage feature is situated more than 300m to the immediate north of the footprint (see Ibisi Village in the background). There is no need for any mitigation.

9 REFERENCES

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APPENDIX 1

RELOCATION OF GRAVES

Burial grounds and graves older than 60 years are dealt with in Article 36 of the NHR Act, no 25 of 1999. Graves located within a formal cemetery and administered by a local authority falls under the: KwaZulu-Natal Cemeteries and Crematoria Act 12 of 1996. Legislation also applies to graves younger than 60 years. These include: a) the Human Tissues Act (Act No.65 of 1983 and as amended), b) the Removal of Graves and Dead Bodies Ordinance (Ord. No. 7 of 1925) and c) the Exhumations Ordinance (Ord. No. 12 of 1980).

Below follows a broad summary of how to deal with grave in the event of proposed development.

- If the graves are younger than 60 years, an undertaker can be contracted to deal with the exhumation and reburial. This will include public participation, organising cemeteries, coffins, etc. They need permits and have their own requirements that must be adhered to.
- If the graves are older than 60 years old or of undetermined age, an archaeologist must be in attendance to assist with the exhumation and documentation of the graves. This is a requirement by law.

Once it has been decided to relocate particular graves, the following steps should be taken:

- Notices of the intention to relocate the graves need to be put up at the burial site for a period of 60 days. This should contain information where communities and family members can contact the developer/archaeologist/public-relations officer/undertaker. All information pertaining to the identification of the graves needs to be documented for the application of a SAHRA permit. The notices need to be in at least 3 languages, English, and two other languages. This is a requirement by law.
- Notices of the intention needs to be placed in at least two local newspapers and have the same information as the above point. This is a requirement by law.
- Local radio stations can also be used to try contact family members. This is not required by law, but is helpful in trying to contact family members.
- During this time (60 days) a suitable cemetery need to be identified close to the development area 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. This is a requirement by law.
- Once the 60 days has 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 received, the graves may be exhumed and relocated.
- All headstones must be relocated with the graves as well as any items found in the grave