

PHASE 1 HERITAGE RESOURCES SCOPING REPORT

PROPOSED REHABILITATION OF GABION STRUCTURE AT 37 ALEXANDRA AVENUE, CRAIGHALL, GAUTENG

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EXECUTIVE SUMMARY

Shasa Heritage Consultants were appointed by EnviroXcellence to conduct a Heritage Impact Scoping Report for the rehabilitation of an existing gabion used for storm water drainage system, near 37 Alexandra Avenue, Craighall- Gauteng. The property lies on the Farm Klipfontein 203 IR, portion 23, although this has been a residential area for a number of years.

The catchment of the Braamfonteinspruit a tributary of the Jukskei River which eventually drains into the Hartebeespoort Dam. During periods of heavy rainfall, due to the built up nature of the area, the existing storm water drainage mechanisms in place are not sufficient to adequately deal with the overflow water. This has resulted in structural damage to private property.

The area where the water flows is situated at the back of residential houses, where the tributary flows.

The entire area was surveyed on foot with the owners caretaker leading the way, as access to the area can only be gained through the house. Currently the water has eroded the banks to such a severe degree, that the house foundations have been impacted on, and currently, a section is being held up by poles and cement bags filled with soil. No heritage remains were recorded.

From a heritage resources point of view, we have no objection to the development taking place.

1. INTRODUCTION AND TERMS OF REFERENCE

Application purpose: To upgrade and rehabilitate an existing gabion used as a storm water drainage system

Area: Craighall- City of Johannesburg

Size: <1ha

GPS:
S26° 06' 57.8" E28° 01' 34.6"

Map reference number: 2628 AA

This report will enable the Applicant to take pro-active measures to limit the adverse effects that the development could have on heritage resources.

In terms of the National Heritage Resources Act (1999) the following is of relevance:

Historical remains

Section 34(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.

Archaeological remains

Section 35(4) 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

Burial grounds and graves

Section 36 (3)(a) No person may, without a permit issued by SAHRA or a provincial heritage resources authority-

(c) destroy, damage, alter, exhume, 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

(b) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in detection or recovery of metals.

Culture resource management

Section 38(1) Subject to the provisions of subsection (7), (8) and (9), any person who intends to undertake a development* ...

must at the very earliest stages of initiating such development notify the responsible heritage resources authority and furnish it with details regarding the location, nature, and extent of the proposed development.

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

(a) construction, alteration, demolition, removal or change of use of a place or a structure at a place;

(b) carry out any works on or over or under a place*;

(e) any change to the natural or existing condition or topography of land, and

(f) any removal or destruction of trees, or removal of vegetation or topsoil;

****‘place’** means a site, area or region, a building or other structure* ...”

****‘structure’** means any building, works, device or other facility made by people and which is fixed to the ground, ...”

2. METHOD

2.1 Sources of information and methodology

The source of information was primarily the field reconnaissance and referenced literary sources.

A pedestrian survey of the area was undertaken, during which standard methods of observation were applied. The area was surveyed on 15 December 2018 spanning early morning to midday and was thoroughly traversed. Special attention given to any areas displaying soil and or vegetative changes. As most archaeological material occurs in single or multiple stratified layers beneath the soil surface, special attention was given to disturbances, both man-made such as roads and clearings, as well as those made by natural agents such as burrowing animals and erosion. Locations of heritage remains were recorded by means of a GPS (Garmin Etrex 10). Heritage material and the general conditions on the terrain were photographed with a Nikon Coolpix L25 Digital camera.



Map 1. Survey path- white path

2.2 Limitations

The scoping survey was thorough, but limitations were experienced due to the fact that archaeological sites are subterranean and only visible when disturbed. Vegetation was moderate to dense, and visibility was fair.

2.3 Categories of significance

The significance of archaeological sites is ranked into the following categories.

- No significance: sites that do not require mitigation.
- Low significance: sites, which *may* require mitigation.
- Medium significance: sites, which require mitigation.
- High significance: sites, which must not be disturbed at all.

The significance of an archaeological site is based on the amount of deposit, the integrity of the context, the kind of deposit and the potential to help answer present research questions. Historical structures are defined by Section 34 of the National Heritage Resources Act, 1999, while other historical and cultural significant sites, places and features, are generally determined by community preferences.

A crucial aspect in determining the significance and protection status of a heritage resource is often whether or not the sustainable social and economic benefits of a proposed development outweigh the conservation issues at stake. Many aspects must be taken into consideration when determining significance, such as rarity, national significance, scientific importance, cultural and religious significance, and not least, community preferences. When, for whatever reason the protection of a heritage site is not deemed necessary or practical, its research potential must be

assessed and mitigated in order to gain data / information which would otherwise be lost. Such sites must be adequately recorded and sampled before being destroyed. These are generally sites graded as of low or medium significance.

2.4 Terminology

Early Stone Age: Predominantly the Acheulean hand axe industry complex dating to + 1Myr yrs – 250 000 yrs. before present.

Middle Stone Age: Various lithic industries in SA dating from ± 250 000 yr. - 30 000 yrs. before present.

Late Stone Age: The period from ± 30 000-yr. to contact period with either Iron Age farmers or European colonists.

Early Iron Age: Most of the first millennium AD

Middle Iron Age: 10th to 13th centuries AD

Late Iron Age: 14th century to colonial period. *The entire Iron Age represents the spread of Bantu speaking peoples.*

Historical: Mainly cultural remains of western influence and settlement from AD1652 onwards – mostly structures older than 60 years in terms of Section 34 of the NHRA, though more recent remains can be termed historically significant should the remains hold social significance for the local community.

Phase 1 assessment: Scoping surveys to establish the presence of and to evaluate heritage resources in a given area

Phase 2 assessments: In depth culture resources management studies which could include major archaeological excavations, detailed site surveys and mapping / plans of sites, including historical / architectural structures and features. Alternatively, the sampling of sites by collecting material, small test pit excavations or auger sampling is required.

Sensitive: Often refers to graves and burial sites although not necessarily a heritage place, as well as ideologically significant sites such as ritual / religious places. *Sensitive* may also refer to an entire landscape / area known for its significant heritage remains.

3. DESCRIPTION OF THE PROPOSED DEVELOPMENT AND TERRAIN

Vegetation: Egoli Granite Grassland (Musina and Rutherford: 2006)

Terrain: The terrain is residential in nature- built up area. The tributary of the Jukskei River runs through the residential area, which has been eroded by water action over time, which has impacted on the residential properties and caused structural damage.

Proposed development: To upgrade and rehabilitate the gabion used as a storm water drainage system.



Fig 1: View of area



Fig 2: View of area



Fig 3: View of area



Fig 4: View of area



Fig 5: View of area



Fig 6: View of area

north across the Vaal river and settled in the Suikerbosrand (Heidelberg area) and Klipriviersberg areas (Huffman 2007).

Walling primarily consists of circular patterned stone walls often displaying scallop patterns. Enclosed within these walls are the main occupation areas of the settlement, consisting of huts with clay walls and floors and cooking areas as well as small stock enclosures.

Settlements tend to be clustered together, often over large tracts of land, especially to the south of Johannesburg.

4.5 STONE AGE REMAINS

The below mentioned is generic background to the area adapted from Deacon and Deacon: 1999:

The Stone Age covers most of southern Africa and the earliest consist of the Oldowan and Acheul artefacts assemblages. Oldowan tools are regularly referred to as “choppers”. Oldowan artefacts are associated with Homo *habilis*, the first true humans. In South Africa definite occurrences have been found at the sites of Sterkfontein and Swartkrans. This area is located approximately 50km north east of the current proposed project.

Here they are dated to between 1.7 and 2 million years old. This was followed by the Acheulian technology from about 1.4 million years ago which introduced a new level of complexity. The large tools that dominate the Acheulian artefact assemblages range in length from 100 to 200 mm or more. Collectively they are called bifaces because they are normally shaped by flaking on both faces. In plan view they tend to be pear-shape and are broad relative to their thickness. Most bifaces are pointed and are classified as handaxes, but others have a wide cutting end and are termed cleavers. The Acheulian design persisted for more than a million years and only disappeared about 250 000 years ago.

The change from Acheulian with their characteristic bifaces, handaxes and cleavers to Middle Stone Age (MSA), which are characterized by flake industries, occurred about 250 000 years ago and ended about 30 000 – 22 000 years ago. For the most part the MSA is associated with modern humans; Homo sapiens. MSA remains are found in open spaces where they are regularly exposed by erosion as well as in caves. Characteristics of the MSA are flake blanks in the 40 – 100 mm size range struck from prepared cores, the striking platforms of the flakes reveal one or more facets, indicating the preparation of the platform before flake removal (the prepared core technique), flakes show dorsal preparation – one or more ridges or arise down the length of the flake – as a result of previous removals from the core, flakes with convergent sides (laterals) and a pointed shape, and flakes with parallel laterals and a rectangular or quadrilateral shape: these can be termed pointed and flake blades respectively. Other flakes in MSA assemblages are irregular in form.

The change from Middle Stone Age to Later Stone Age (LSA) took place in most parts of southern Africa little more than about 20 000 years ago. It is marked by a series of technological innovations or new tools that, initially at least, were used to do much the same jobs as had been done before, but in a different way. Their introduction was associated with changes in the nature of hunter-gatherer material culture. The innovations associated with the Later Stone Age “package” of tools include rock art – both paintings and engravings, smaller stone tools, so small that the formal tools less than 25mm long are called microliths (sometimes found in the final MSA) and Bows and arrows.

Significance: None

4.6 PALAEONOTOLOGICAL SENSITIVITY

The proposed development area is primarily underlain by Witwatersrand Supergroup rocks (Du Preez: 2019, ecological and wetland report) considered to be no palaeontological significance. The overlying Quaternary component is also regarded as being of low palaeontological significance due to the extremely degraded condition of the surface area of the site. Furthermore- erosion of the area has given additional insight into any potential deposit.

5. BACKGROUND ON THE AREA

Report on SAHRIS from the area:

Case 1820- Fibre Optic cable from Johannesburg to Cape Town- FJ De Jonge- 2011. No heritage resources directly associated with area designated for this development.

Case 10850- Upgrade Jan Smuts - J van Der Walt- 2017. Mainly, the cultural landscape of the tree lined streets was of significance.

6. EVALUATION AND STATEMENT OF SIGNIFICANCE

No heritage materials were recorded within the designated storm water drainage area.

6.1	<u>Significance</u>	<u>Rating</u>
1	The importance of the cultural heritage in the community or pattern of South Africa's history (Historic and political significance)	None
2	Possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage (Scientific significance).	None
3	Potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage (Research/scientific significance)	None
4	Importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects (Scientific significance)	None
5	Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group (Aesthetic significance)	None
6	Importance in demonstrating a high degree of creative or technical achievement at a particular period (Scientific significance)	None
7	Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (Social significance)	None
8	Strong or special association with the life and work of a person, group or organization of importance in the history of South Africa (Historic significance)	None

9	The significance of the site relating to the history of slavery in South Africa.	None
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6.2 Section 38(3) (c) An assessment of the impact of the development on such heritage resources.

As no heritage resources were recorded, there will be no impact. However, not all resources are visible above ground. However, many areas have eroded severely, allowing for better assessment of the area.

6.3 Section 38(3) (d) An evaluation of the impact of the development on heritage resources relative to the sustainable economic benefits to be derived from the development.

As no heritage resources were recorded with the storm water drainage area and that the development is a rehabilitation of an existing system where property damage is occurring, the upgrade would be beneficial to community development.

6.4 Section 38(3) (e) The results of consultation with the communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources.

Social consultative process is ongoing as part of EIA.

6.5 Section 38(3)(f) If heritage resources will be adversely affected by the proposed development the consideration of alternatives.

No heritage remains were recorded.

6.6 Section 38(3)(g) Plans for mitigation of any adverse effects during and after the completion of the proposed development.

Activity	Potential Impact	Significance without mitigation	Mitigation Measures	Significance with mitigation	Monitoring
Drainage system upgrade and rehabilitation	Surface and ground disturbance will destroy potential heritage and environmental resources	High	<ul style="list-style-type: none"> Identify heritage resources prior to road construction Rescue sites in cases where alternatives are not possible 	Minimal to none	Monitoring and contacting the local heritage authority should any materials be unearthed during construction

7. RECOMMENDATIONS

Based on recorded lack of heritage materials, we have no objection to the development taking place.

The discovery of previously undetected subterranean heritage remains on the terrain must be reported to the Heritage Authority or the archaeologist, and may require further mitigation measures.

8. BIBLIOGRAPHY

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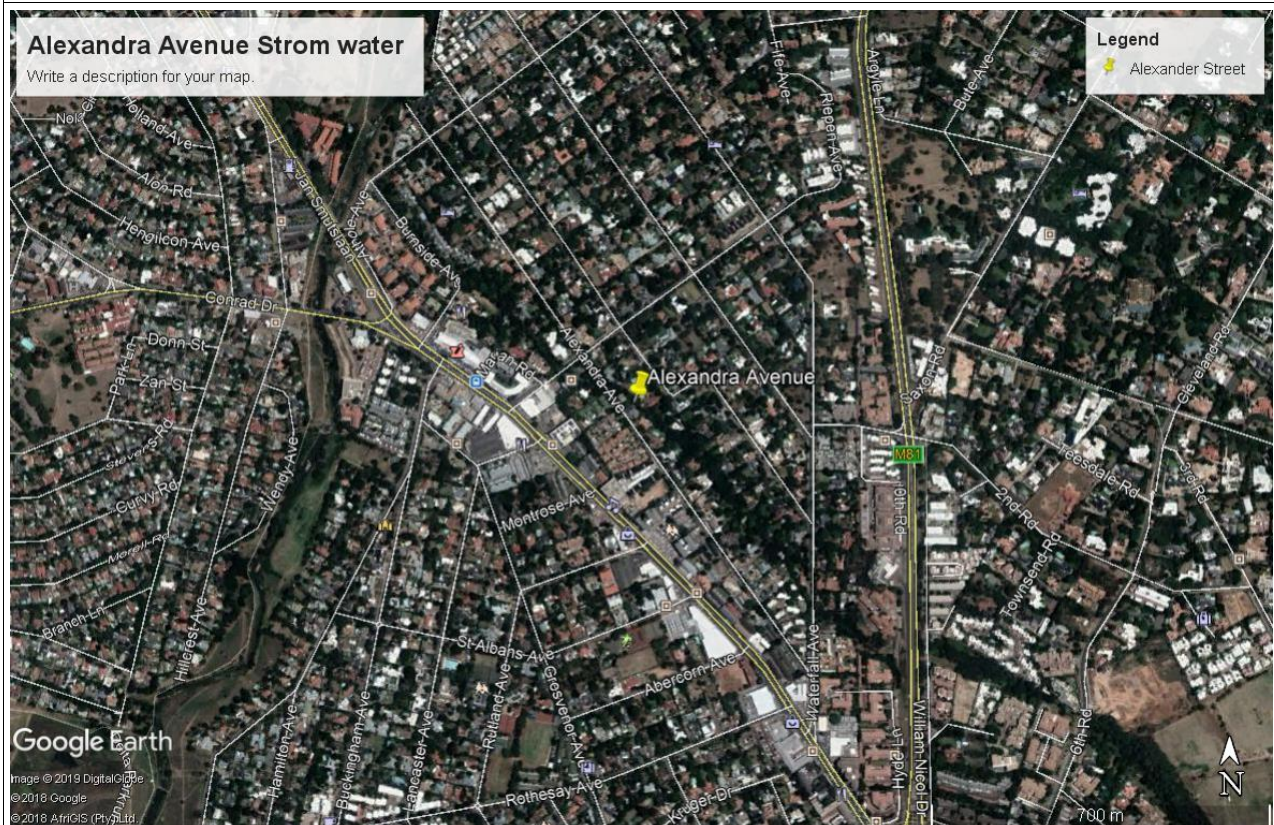
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Map 2: Google map close view of proposed area



Map 3. View of area in relation to the wider geography