

Phase 1 Heritage Impact Assessment for a proposed new service station, business and residential area on Portions 13 and 15 of Farm Musket 2718, Bloemfontein Free State Province - Chance Finds Protocol for Developer

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21 / 02 / 2020

Introduction

The application relates to a proposed development of a new new service station, business and residential area that will cover a 8.2 ha area on Portions 13 and 15 of Farm Musket 2718, Bloemfontein (**Fig. 1 & 2**). The site is situated on relatively open grassland terrain on the corner of Frans Kleynhans Road and Woodland Hills Boulevard (**Fig. 3 & 4**).

Site Centroid Coordinates: 29° 3'51.94"S 26°10'38.47"E

Map Reference:

1:50 000 scale topographic 2926 AA Bloemfontein

1:250 000 scale geological 2926 Bloemfontein

Chance Finds Protocol for Developer

Palaeontology

If, in the event that localized fossil material is discovered exposed or eroding out of *intact superficial overburden* during the construction phase, it will in all probability resemble modern- looking, but more or less lithified animal bones and teeth and it will most likely be those belonging to bovids (Bovidae: the biological family of ruminant mammals that includes wildebeest, buffalo, antelopes, etc.) (**Fig. 5-7**).

- In the unlikely event of fossil discovery within previously undisturbed Quaternary overburden, a professional palaeontologist must be called in immediately to confirm and record the finds.
- If any newly discovered palaeontological resources prove to be significance, a Phase 2 rescue operation may be required subject to permits issued by SAHRA;
- The decision regarding the EA Application must be communicated to SAHRA and uploaded to the SAHRIS Case application.
- In the meantime, *ex situ* remains must be wrapped in paper towels or heavy duty tin foil and stored in a safe place. The material should not be washed or cleaned in any way. *In situ* material must be kept in place and protected from further damage by covering it with light but rigid object like a box, bucket or metal sheet until further confirmation by the palaeontologist.

Archaeology

- If any evidence of archaeological sites or remains, e.g. stone tool artifacts (**Fig. 8 & 9**), ostrich eggshell fragments, charcoal and ash heaps, or remnants of stone-made structures (**Fig. 10**) or unmarked graves (**Fig. 11**) are found during the proposed development, SAHRA APM Unit (Phillip Hine 021 462 5402) must be alerted.
- In the meantime, *potential archaeological structures such as stone-build enclosures, buildings or graves* must be avoided by a no-go buffer zone until further confirmation by the archaeologist. Smaller *in situ* material must be kept in place and protected from further damage by covering it with light but rigid object like a box, bucket or metal sheet.
- If unmarked human burials are uncovered, the SAHRA Burial Grounds and Graves (BGG) Unit (Thingahangwi Tshivhase/Mimi Seetelo 012 320 8490), must be alerted immediately. A professional archaeologist must be contracted as soon as possible to inspect the findings.
- If the newly discovered heritage resources prove to be of archaeological significance, a Phase 2 rescue operation may be required subject to permits issued by SAHRA;
- The decision regarding the EA Application must be communicated to SAHRA and uploaded to the SAHRIS Case application.

DECLARATION OF
INDEPENDENCE

I, Lloyd Rossouw, declare that I act as an independent specialist consultant. I do not have or will not have any financial interest in the undertaking of the activity other than remuneration for work as stipulated in the terms of reference. I have no interest in secondary or downstream developments as a result of the authorization of this project.

A handwritten signature in black ink, appearing to read 'L Rossouw', is written in a cursive style.



Figure 1. Aerial view of the development footprint.



Figure 2. Position of the site (red polygon) in relation to Bloemfontein CBD.



Figure 3. General view of the terrain, looking northeast (above) and south (below).



Figure 4. General view of the terrain, looking west (above) and north (below).



Figure 5. Example of intact bovid skeletal remains exposed within Quaternary overbank deposits (alluvium) from the Vaal River.



Figure 6. Side view (buccal view) of bovid lower dentition removed from jaw bone.



Figure 7. Example of post-cranial bovid skeletal elements including from left to right: femur, humerus, radius, tibia, scapula and vertebrae (x 3).



Figure 8. Example of general appearance of Stone Age artifacts rarely found intact as open sites and largely derived as isolated scatter on the landscape



Figure 9. Example of rare stone tool knapping site occasionally found near dolerite intrusions in the region.



Figure 10. Example of historical stone-build enclosure frequently found in the region.



Figure 11. Typical example of unmarked grave recorded around Bloemfontein - distinctive mound with occasional head markers and a characteristic **dolerite cobble** dome.