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Attention John Pakwe

Heritage Scoping Report

**Proposed Ephangweni Housing Development
Epangwene 5225 Mission, Draycott, District of Estcourt, uThukela DM, KwaZulu-Natal**

Project Area and Project description¹

Ephangweni is a peri-urban rural settlement located some 20 km northwest of Estcourt within the Imbabazane Local Municipality (-28.983464° 29.713906°). The KwaZulu-Natal Department of Human Settlements (DoHS), in conjunction with the uThukela District Municipality, has resolved to investigate the potential for the establishment of a formalised housing area at Ephangweni.

See Figure 1.

The envisioned developments include water and sanitation infrastructure, roads and stormwater attenuation, housing (100 households of 2500 m²) and social infrastructure. The extent of the area is approximately 25 ha.

Currently, there are approximately 12 households living on site adjacent to the Ephangweni Evangelical Lutheran Church.

See Figure 2.

(see also Images and kml. loaded to SAHRIS Case file).

¹ Information provided by the appointed EAP, Patrick Addo, NDG Afrika.

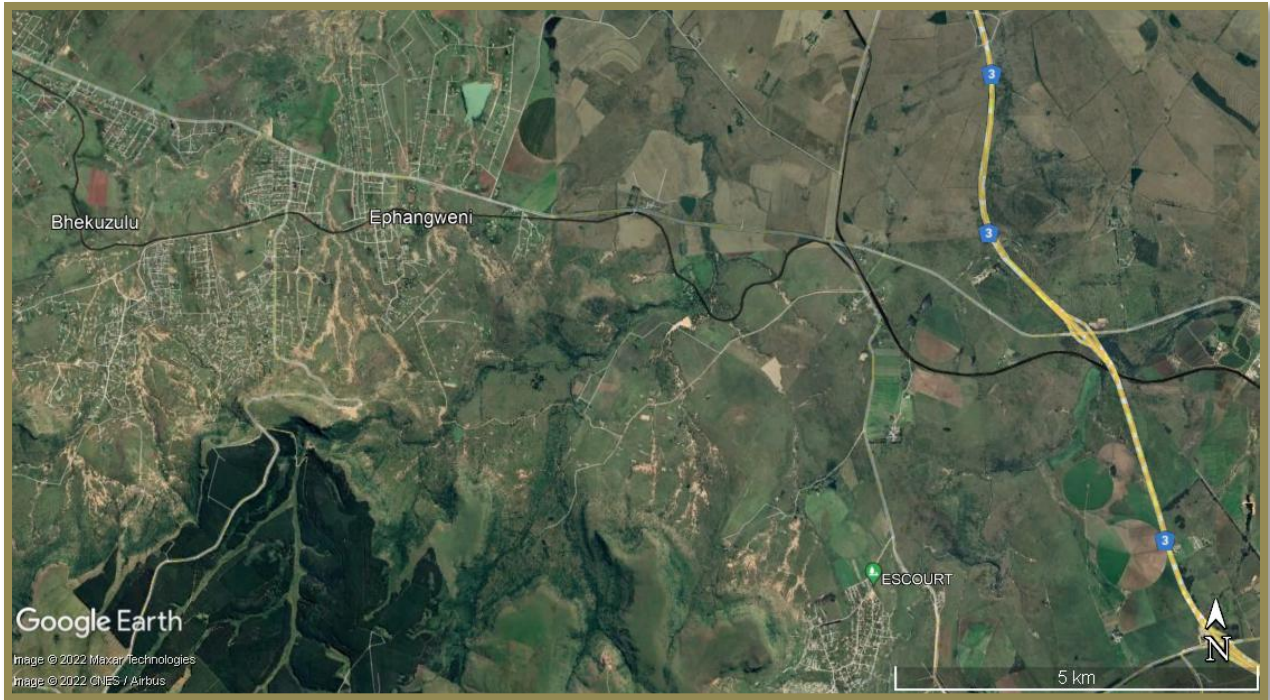


Figure 1 Ephangweni local geographical setting



Figure 2 Proposed Ephangweni development footprint and proposed site development

NDG Afrika has been appointed as the Independent Environmental Assessment Practitioner (EAP) to carry out a Basic Assessment for the proposed Ephangweni housing development in terms of NEMA (Act No.107 of 1998), as amended.

Observations

eThembeni staff inspected the site on 03 March 2022. The proposed housing development area is situated on a gentle aspect orientated NE leading to several seasonal wetlands and two donga incised drainage lines flowing to the northward west of the settlement area. The settlement lies in a rolling landscape on open *Acacia sibiriana/Hyparrhenia* grassland² with deeply weathered colluvial soils and is overlooked by the Ohloza hills.



Figure 3 Approach to Mphangweni settlement and the proposed development area in the foreground

The only archaeological remains observed on the surface during our inspection were randomly scattered quartzite Middle Stone Age (MSA) flakes exhibiting wash wear and patina occurring within the donga drainage to the southeast and northwest of the study area. Such material is found ubiquitously throughout the province and derives from open-air MSA (c. 120-30Kya) knapping scatters. Their random occurrence is the result of millennia of movement under colluvial flow over the landscape. Not being in any primary context they are consequently of low scientific significance. No further mitigation is recommended.

² *sensu* Mucina, L. and Rutherford, M.C., Eds. (2006) The Vegetation of South Africa, Lesotho, and Swaziland. Strelitzia 19, South African National Biodiversity Institute, Pretoria.



Figure 4 Incised dongas in which random weathered MSA flakes were observed

The underlying lithology comprises mudrock and subordinate sandstones of the Adelaide Subgroup of the Beaufort Karoo Supergroup. The Adelaide Subgroup is a significant fossil-

bearing lithology and the northern outcrop areas comprise mainly the *Dicynodon* Assemblage Zone and are considered highly sensitive.

However, significant palaeontological material is unlikely to be impacted upon as the overlying Quaternary substrate is deep and weathered (Dr. Alan Smith pers. comm). Construction activities are unlikely to extend beyond three meters below the surface. I have been advised by Dr. Gideon Groenewald³ and Dr. G.A. Botha⁴ over the years that such surface activities, as envisaged, would not impact any potentially fossiliferous deeper underlying lithologies.

Dr. Alan Smith, a palaeontologist of UKZN Dept. of Geology, is of the opinion that given the latter it would only be feasible to undertake an *in situ* inspection once excavations for construction have been incepted. Has been retained by the Okhahlamba DM to undertake such an inspection, in communication with the appointed ECO, once construction approval has been issued.

Any R.o.D issued in terms of this Scoping Report should state that a Palaeontologist is appointed to undertake a site inspection once construction and excavation activities are authorised.

A Palaeontology Chance Find Protocol is appended for incorporation into the issued EMP (Appendix 2).

The only historical structure that could potentially be impacted by the proposed housing project is a plastered clay brick church. This is the Friedhof Evangelical Lutheran Mission Church and its associated cemetery, dating to the latter part of the 19th Century. However, the church continues to be used and maintained by the local parish, and descendants of the original German settlers in the region. Despite requiring certain TLC and maintenance interventions, the church is in good order under the curateship of Fr. James van Wyk I.

³ Groenewald, G. 2012. Palaeontological Technical Report for KZN. Amafa aKwaZulu-Natali. Pietermaritzburg.

⁴ Head: Council for Geo Science. KZN Office. Pietermaritzburg.



Figure 5 The historical Friedhof Mission Church is currently in use by local parishioners.

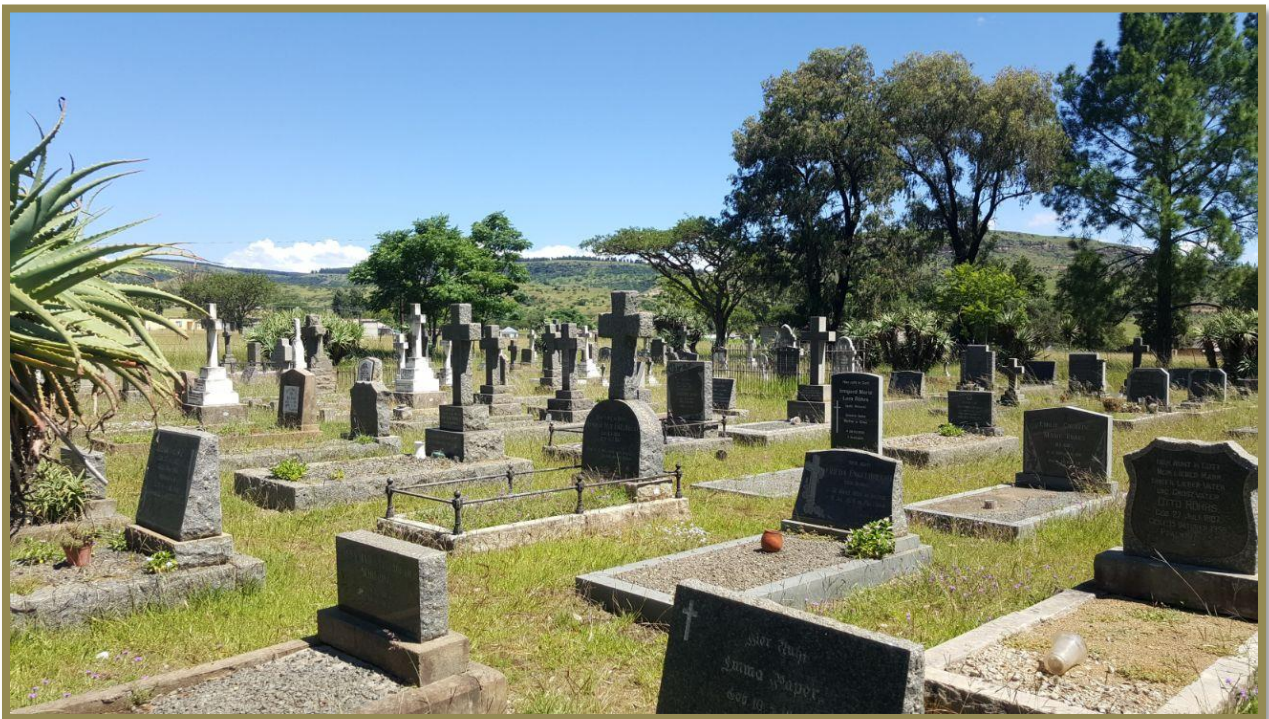


Figure 6 Graves within the historical cemetery precinct



Figure 7 Memorial Stone at the current Friedhof Lutheran Church
Photo Credit: Eckhard von Fintel. 2012.

Recommendations

In the absence of any heritage resources of significance, and the palaeontological mitigation recommended, we accordingly request that Amafa allow the Mphangweni development to proceed with no further heritage resource mitigation; suffice that the aforementioned palaeontological mitigation recommended and the protocols in Appendices 1 and 2 are made binding to any Environmental Authorisations issued.

Please can you notify us timeously, via the loaded SAHRIS Case File, as to the decision of Amafa in this regard?

Yours sincerely



Len van Schalkwyk
Principle Investigator.

Appendix 1
Protocol for the Identification, Protection, and Recovery of Heritage Resources
During Construction and Operation

It is possible that sub-surface heritage resources could be encountered during the construction phase of this project. The Environmental Control Officer and all other persons responsible for site management and excavation should be aware that indicators of sub-surface sites could include:

- Ash deposits (unnaturally grey appearance of soil compared to the surrounding substrate);
- Bone concentrations, either animal or human.
- Ceramic fragments, including potsherds.
- Stone concentrations that appear to be formally arranged (may indicate the presence of an underlying burial, or represent building/structural remains); and
- Fossilised remains of fauna and flora, including trees.

In the event that such indicator(s) of heritage resources are identified, the following actions should be taken immediately:

- All construction within a radius of at least 20 m of the indicator should cease. This distance should be increased at the discretion of supervisory staff if heavy machinery or explosives could cause further disturbance to the suspected heritage resource.
- This area must be marked using clearly visible means, such as barrier tape, and all personnel should be informed that it is a no-go area.
- A guard should be appointed to enforce this no-go area if there is any possibility that it could be violated, whether intentionally or inadvertently, by construction staff or members of the public.
- No measures should be taken to cover up the suspected heritage resource with soil, or to collect any remains such as bone or stone.
- If a heritage practitioner has been appointed to monitor the project, s/he should be contacted, and a site inspection arranged as soon as possible.
- If no heritage practitioner has been appointed to monitor the project, the head of archaeology at Amafa's Pietermaritzburg office should be contacted; telephone 033 3946 543.
- The South African Police Services should be notified by an Amafa staff member or an independent heritage practitioner if human remains are identified. No SAPS official may disturb or exhume such remains, whether of recent origin or not.
- All parties concerned should respect the potentially sensitive and confidential nature of the heritage resources, particularly human remains, and refrain from making public statements until a mutually agreed time.
- Any extension of the project beyond its current footprint involving vegetation and/or earth clearance should be subject to prior assessment by a qualified heritage practitioner, considering all information gathered during the initial assessment.

Appendix 2 Palaeontology Chance Find Protocol

The Ephangweni site area is demarcated red on the SAHRIS Palaeosensitivity map, and a chance find protocol is thus recommended.

In the event of any palaeontological finds, a Palaeontologist accredited by a PHRA or SAHRA must be notified immediately by the project ECO or EAP:

- a site inspection must be arranged at the earliest opportunity with the Palaeontologist.
- construction activity must be halted in the area of finds and the Palaeontologist must be given sufficient opportunity to remove the material before activities continue.
- mitigation may involve the systematic collection and recording of a sample of the fossils discovered and their documentation, labeling, packaging, boxing, and curation at a cost to the developer
- It is the responsibility of the Developer, as guided by the appointed Palaeontologist to:
 - allow for such a representative sample to be retrieved.
 - Assist in the supply of materials, labour, and machinery to excavate, load, and transport sampled material from the sampling site/s to an HSE-compliant sorting area.
 - provide safe storage for fossil material retrieved prior to being transported to an accredited curation facility for curation.