

**MUSA SPECIAL NEEDS SCHOOL, NONGOMA LOCAL  
MUNICIPALITY, KWAZULU-NATAL**

**Phase 1 Heritage Impact Assessment**

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## EXECUTIVE SUMMARY

The KwaZulu-Natal Department of Health is proposing to build the Musa Special Needs School for Zululand. This report serves as the Phase 1 Heritage Impact Assessment (HIA) for the proposed school.

The development is over 5 hectares (50 000 m<sup>2</sup>) in size hence it triggers section 38 (1) (c) (i) of the National Heritage Resources Act (NHRA), 1999 (Act No 25 of 1999). The relevant section of the NHRA states that:

“(1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as—

(c) any development or other activity which will change the character of a site —

(i) exceeding 5 000 m<sup>2</sup> in extent.

The development may also impact on graves, structures, archaeological and palaeontological resources that are protected in terms of sections 33, 34, 35, and 36 of the KwaZulu-Natal Heritage Act (No. 4 of 2008) as well as sections 34, 35, and 36 of the NHRA.

The project area is situated on PTN A of sub 12 of Reserve No. 12 of No. 15832. The site is situated parallel to and adjacent to the D1822 district road which is located just off the R66 road that links Nongoma and Ulundi. The project area is situated at: 27°58'36.1"S; 31°37'37.4"E.

A site inspection of the project area was undertaken on 15 June 2017. The area is undeveloped and cattle and goats graze on the area. The vegetation consists of low scrubby thorn bush with limited grass cover due to overgrazing. There is some dumping of rubbish on the project area.

The project area is undeveloped. A house is being built on the north-western boundary of the proposed school. The project area was walked extensively. The area is overgrazed by goats and cattle so grass cover is limited in parts with scrubby thorn bush and few large trees. Paths and vehicle tracks crisscross the area.

No heritage sites were found on the site. No surface evidence of archaeological sites or artefacts were observed during the site inspection. The project area is also not part of any known cultural landscape. Much of the surrounding area is built up with residences and access roads which has transformed the landscape.

A discussion was held with Messrs Fanaza Zulu, Sizwe Zulu and Siyanda Mhkize who indicated that to their knowledge there were no sites of heritage significance to the surrounding community

on the site including graves. They said that they could remember that the area was used many years ago for the growing of maize but there is little evidence of this apart from some raised areas of ground that could have been contours used to separate the fields. Some evidence of cultivation can be seen on the 1:50 000 topographical map provided in the report.

The South African Heritage Resources Agency's Fossil Sensitivity Map indicates that the project area is situated in an area coloured in red that indicates an area of very high palaeontological / fossil sensitivity. An area of very high fossil sensitivity requires an on-site field assessment. Due to the previous disturbance of the project area, it was recommended that a desktop palaeontological assessment be undertaken to assess potential fossil finds in the project area.

The palaeontological assessment found that based on the geology of the area and the palaeontological record, it could be assumed that the formation and layout of the basement rocks, dolomites, sandstones, shales, coals, quartzites, basalts and volcanic rocks in the project area are typical for the country and do not contain any fossil material. The shales of the Vryheid Formation could contain impression fossils of plants of the *Glossopteris flora*, however, these fossil plants are present in the shales and mudstones between coal seams but seldom within coal seams. Their distribution is also extremely sporadic and unpredictable. Furthermore, coal flora plant species are not rare as they have been recovered from other sites.

The assessment therefore recommended that it was unlikely that many fossils occur in the proposed building and infrastructure sites in the shales between coal seams. Furthermore, no fossils have been recorded from this area therefore from a palaeontology perspective the proposed development can go ahead. Nonetheless, rocks of this type and age are potentially fossiliferous therefore there could be chance finds of fossils and a monitoring protocol was provided in the desktop palaeontological report to address chance finds.

Based on the above, it is recommended that the construction of the proposed school can proceed with the provision that the mitigation measures and provided in this report and in the desktop palaeontological report are adhered to.

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## APPENDICES

Appendix 1: Desktop Palaeontological Impact Assessment for the proposed New Musa Special Needs School, between Nongoma and Ulundi, northern KwaZulu Natal Province

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**AUTHOR DETAILS**

<b>Verification</b>	<b>Name</b>	<b>Qualification</b>	<b>Professional Registration</b>
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## 1. INTRODUCTION

The KwaZulu-Natal Department of Health is proposing to build the Musa Special Needs School for Zululand comprising learning spaces, eating spaces, recreation spaces and living spaces (Artek Architects 2014:1). The site is situated along the D1822 district which is situated just off the R66 provincial road between Nongoma and Ulundi, KwaZulu-Natal. The proposed project area is a greenfields site.

This report serves as the Phase 1 Heritage Impact Assessment (HIA) for the proposed school.

## 2. LEGISLATIVE BACKGROUND

The proposed development is over 5 hectares (50 000 m<sup>2</sup>) in size hence it triggers section 38 (1) (c) (i) of the National Heritage Resources Act (NHRA), 1999 (Act No 25 of 1999). The relevant section of the NHRA states that:

*“(1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as—*

*(c) any development or other activity which will change the character of a site —*

*(i) exceeding 5 000 m<sup>2</sup> in extent;*

*must notify the responsible heritage authority and furnish it with details regarding the location, nature and extent of the proposed development.*

The development may also impact on graves, structures, archaeological and palaeontological resources that are protected in terms of sections 33, 34, 35, and 36 of the KwaZulu-Natal Heritage Act (No. 4 of 2008) as well as sections 34, 35, and 36 of the NHRA.

In terms of Section 3 of the NHRA, heritage resources are described as follows:

- (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 paleontological 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).

The Phase I HIA was undertaken to assess whether any heritage resources will be impacted by the proposed school.

### **3. LOCATION**

The project area is situated on PTN A of sub 12 of Reserve No. 12 of No. 15832. The site is situated parallel to and adjacent to the D1822 district road which is located just off the R66 road that links Nongoma and Ulundi. The proposed school will be located approximately 15 km south-west of the town of Nongoma. The project area is situated at: 27°58'36.1"S; 31°37'37.4"E.

### **4. TERMS OF REFERENCE**

Undertake a Phase 1 Heritage Impact Assessment in order to determine the possible existence of archaeological, palaeontological and cultural-historical sites or features in the project area that could be impacted by the proposed school development.

Provide mitigation measures to limit or avoid the impact of the construction of the proposed school on heritage resources (if any).

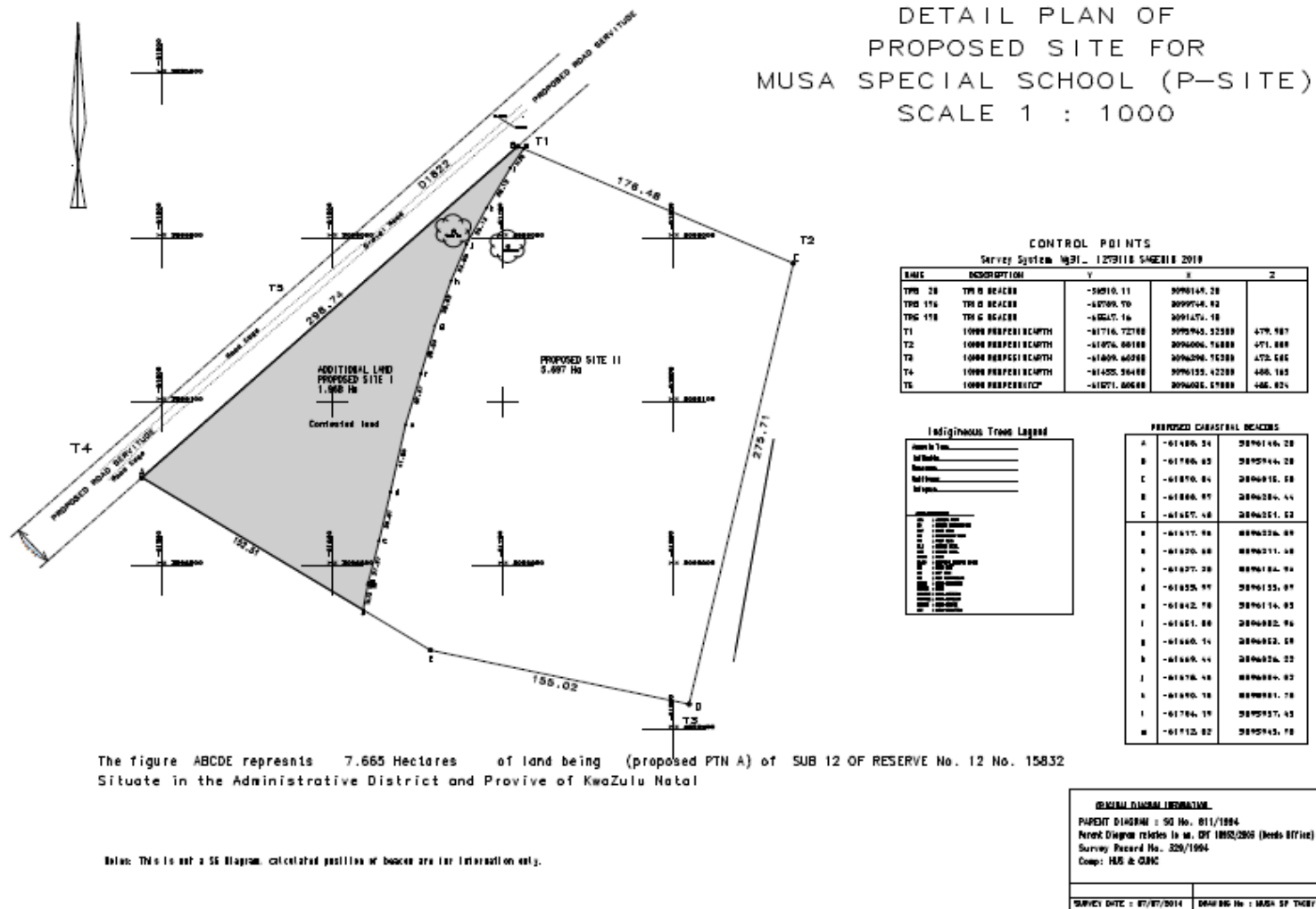


Figure 1: Layout of proposed school



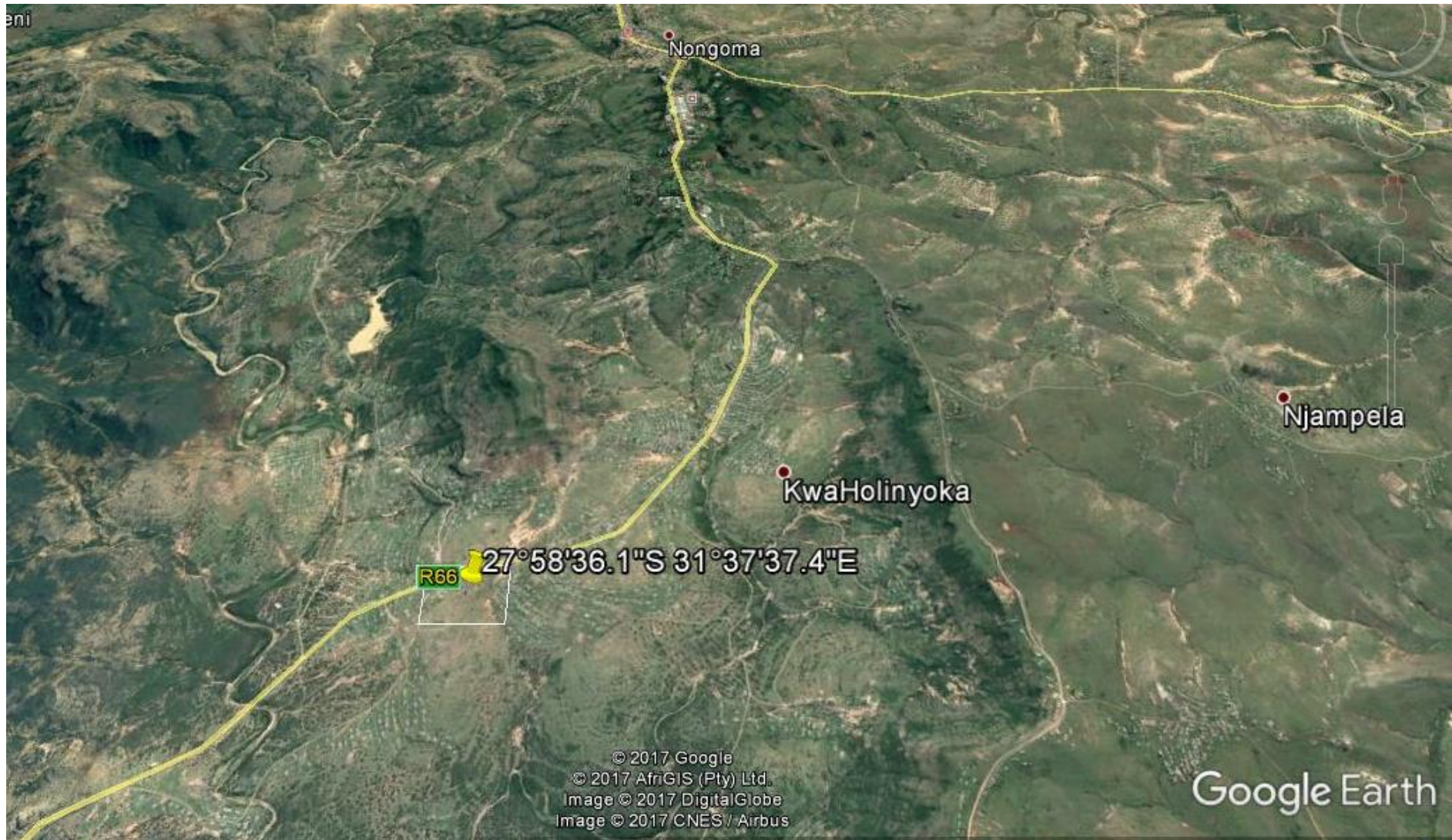


Figure 2: Google Earth image of project area in wider surrounds

## **5. METHODOLOGY**

A survey of literature was undertaken of the project area in order to place the project in a historical context and to establish what heritage resources had been identified in the immediate and wider project area.

A site inspection of the project area was undertaken on 15 June 2017. The area is undeveloped and cattle and goats graze on the area. The vegetation consists of scrubby thorn bush with limited grass cover due to overgrazing. There is some dumping of rubbish on the project area. Visibility was very good.

This HIA report will be submitted to the heritage authority of KwaZulu-Natal, namely Amafa aKwaZulu-Natali (Amafa), for their assessment and comment.

## **6. HISTORICAL BACKGROUND OF THE STUDY AREA**

The greater Nongoma area has been sporadically surveyed for archaeological heritage sites by archaeologists previously employed by the Natal Museum, the Ondini Cultural Museum and Amafa with the most systematic surveys having occurred in the Umfolozi-Hluhluwe Nature Reserve. The available evidence indicates that there are six Early Stone Age sites have been recorded that date back to between 300 000 and 1.5 million years ago. Most of these are situated in dongas close to water with little in-situ material (Prins 2014:2). Fifty nine Middle Stone Age sites have been recorded in the Umhfolozi-Hluhluwe Nature Reserve and thirty five Later Stone Age sites have been recorded (Prins 2014:3).

According to Prins (2014:3), early Stone Age tools have been recorded in the greater Ulundi district. Two Early Stone Age Sites have been recorded near the town of Nongoma. Later Stone Age tools, belonging to the San and their immediate ancestors, occur in various localities in Zululand but none has been recorded close to Nongoma as yet.

Around 1 700 years ago an initial wave of Early Iron Age people settled along the coast at the foot of sand dunes. These early people produced a characteristic pottery style known as Matola. The Matola people exploited the wild plant and animal resources of the forest and adjacent sea-shore. By 1500 years ago another wave of Iron Age migrants entered the area. Their distinct ceramic pottery is classified to styles known as "Msuluzi" (AD 500-700), Ndondondwane (AD 700-

800) and Ntshekane (AD 800-900). The majority of recorded sites belonging to this period occur in the Tugela River Basin below the 1000m contour (Prins 2014:3), south of the project area.

There is evidence that shows by 1593, a mercantile trade, presumed to have come from Delagoa Bay had penetrated as far south as the Transkei and as far inland as the Nongoma area. Ivory was the main export, while beads and copper were the main imports (Maggs 1989:42).

The project area is situated between Nongoma and Ulundi. Ulundi (oNdini) was the seat of the Zulu King Cetshwayo kaMpande (Laband & Thompson 1989:194) and during the Anglo-Zulu War of 1879, Ulundi was attacked by the British. The Battle of Ulundi was the decisive battle that took place on the 4th July 1879 and marked the end of the Anglo-Zulu War, as well as the breakup of the Zulu nation/ Cetshwayo was forced to flee but was captured in the Ngome forest in August and exiled to Robben Island (SAHO 2014:1)

The emakhosini valley (Valley of the Kings) is situated in the immediate environs of Ulundi. This area also contains the military capital of King Dingane – the half-brother and successor of Shaka. Sites associated with Zwide, the leader of the Ndwandwe clan who initially opposed Shaka, occurs closer to the project area not far from Nongoma. Historical era sites relating to the Anglo-Zulu War of 1879 also occur in the general area. Most of these sites are situated closer to Ulundi (Prins 2014:4).

The history of Benedictine hospital goes way back to 1926 when the Benedictines founded Nongoma. They started a mission east of Nongoma-Vryheid road, about 1 km north of Nongoma village. In 1935, the station was moved to a new and much larger property west of the main road. Over the next 40 years Nongoma became by far the biggest mission institute in Zululand and the mission hospital was at the centre of the whole complex. It was officially started in 1937 (KZN Department of Health 2001:1).



## 7. RESULTS OF SITE INSPECTION

The project area is undeveloped. A house is being built on the north-western boundary of the proposed school and this development is fenced.

The project area was walked extensively. The area is overgrazed by goats and cattle so grass cover is limited in parts with scrubby thorn bush and few large trees. Paths and vehicle tracks crisscross the area.



**Figure 3: Overview of project area**



**Figure 4: View of residential development on boundary of proposed school**

No heritage sites were found on the site. No surface evidence of archaeological sites or artefacts were observed during the site inspection. The dumping of litter, including builders' rubble, has occurred to a limited extent on the project area.



**Figure 5: View of project area with sparse grass cover, trees and bushes**



**Figure 6: Dumping of litter**

A discussion was held with the builders of the residence mentioned earlier. Messrs Fanaza Zulu, Sizwe Zulu and Siyanda Mhkize indicated that to their knowledge there were no sites of heritage significance to the surrounding community on the site including graves. They said that they could remember that the area was used many years ago for the growing of maize but there is little evidence of this apart from some raised areas of ground that could have been contours used to separate the fields. Limited evidence of cultivation can be seen on the 1:50 000 (2731DC) topographical map provided below.



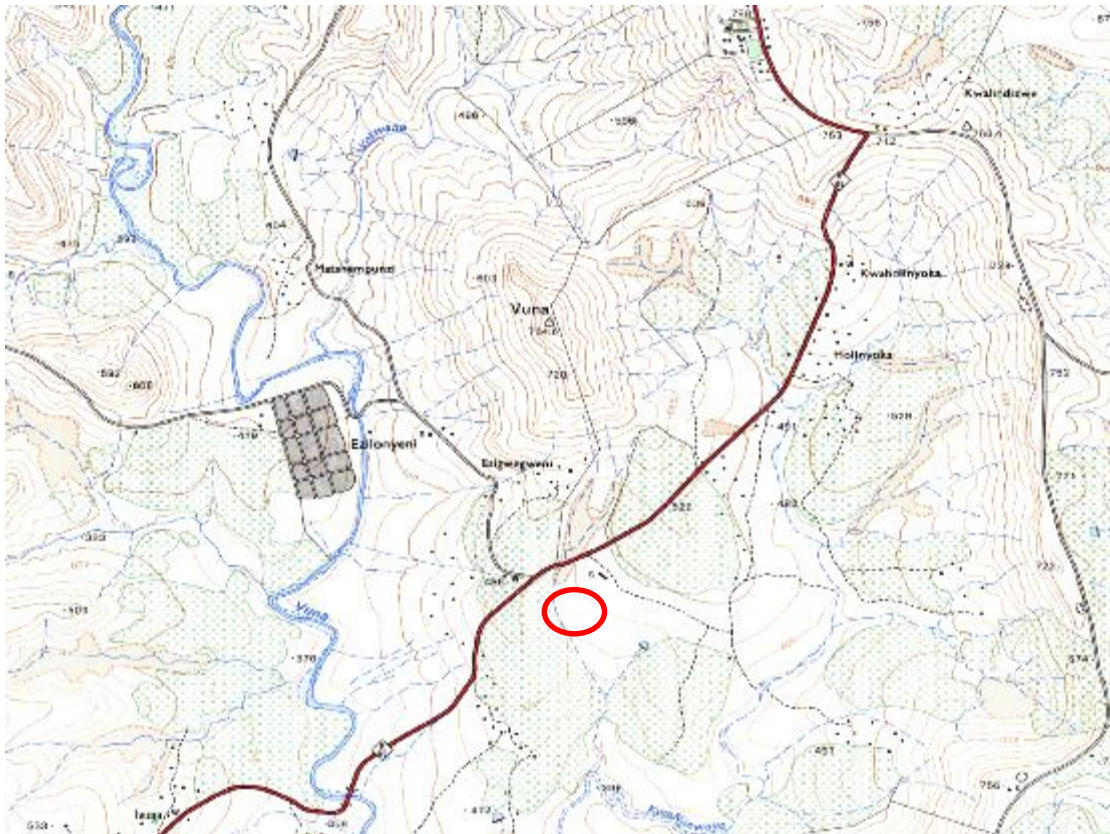


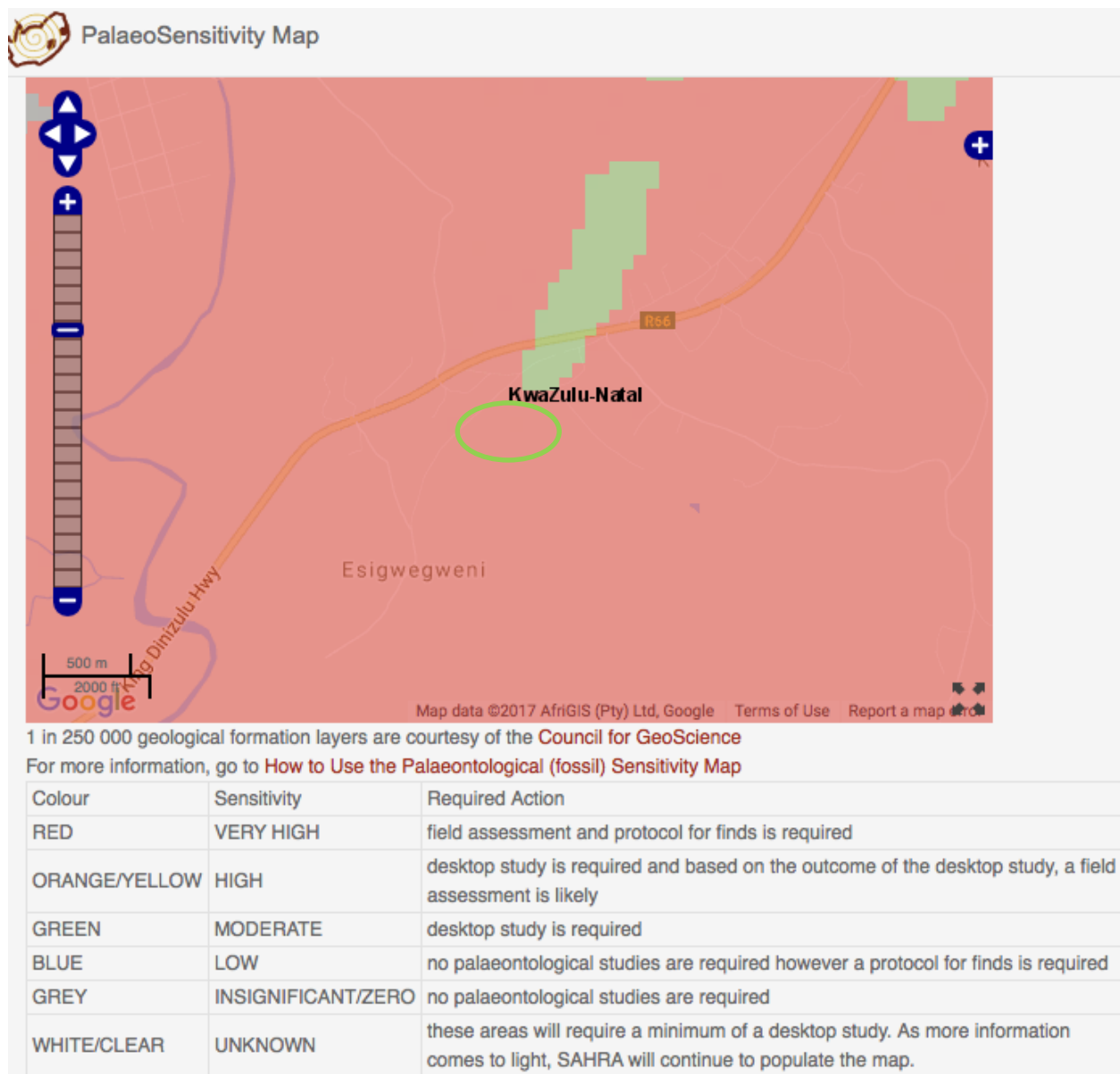
Figure 7: Section of 1:50 000 map indicating project area in red



Figure 8: Residential development on periphery of project area

The project area is also not part of any known cultural landscape. Much of the surrounding area is built up with residences and access roads which has transformed the landscape.

The South African Heritage Resources Agency’s Fossil Sensitivity Map indicates that the project area is situated in an area coloured in red that indicates an area of very high palaeontological / fossil sensitivity (see **Figure 9** below). As indicated in **Figure 9**, an area of very high fossil sensitivity requires an on-site field assessment. Due to the previous disturbance of the project area, it is recommended that a desktop palaeontological assessment be undertaken to assess potential fossil finds in the project area and the impact that the school development would have on these fossils and make further recommendations if required.



**Figure 9: Fossil sensitivity of project area indicated with green circle**

The desktop palaeontological assessment (see **Appendix 1**) found that based on the geology of the area and the palaeontological record, it could be assumed that the formation and layout of the basement rocks, dolomites, sandstones, shales, coals, quartzites, basalts and volcanic rocks in the project area are typical for the country and do not contain any fossil material. The shales of the Vryheid Formation could contain impression fossils of plants of the *Glossopteris flora*, however, these fossil plants are present in the shales and mudstones between coal seams but seldom within coal seams. Their distribution is also extremely sporadic and unpredictable. Furthermore, coal flora plant species are not rare as they have been recovered from other sites.

The assessment therefore recommended that it was unlikely that many fossils would occur in the proposed building and infrastructure sites in the shales between coal seams. Furthermore, no fossils have been recorded from the area therefore from a palaeontology perspective the proposed development can go ahead. Nonetheless, rocks of this type and age are potentially fossiliferous therefore if there are chance finds of fossils, a monitoring protocol was provided in the palaeontological report. Any further palaeontological assessment would only be required after excavations and drilling have commenced and if fossils are found by the geologist or environmental personnel. The monitoring protocol is to be included in the Environmental Management Programme (EMPr).

## **8. RECOMMENDATIONS AND CONCLUSION**

No heritage resources were found in the project area during the site inspection. Discussions with local residents indicated that there were no graves or areas or sites of importance or of significance to the community in the area. Nevertheless there is a possibility that excavation and construction work may expose archaeological material. Should archaeological material be exposed during construction then all development work should stop immediately and a heritage specialist and Amafa must be contacted for further evaluation (see mitigation measures below).

Due to the high fossil sensitivity of the project area, a desktop palaeontological assessment was recommended and undertaken. Based on the findings of this report, it was recommended that from a palaeontological perspective the project could proceed. It is therefore recommended that the construction of the proposed school proceed with the proviso that the mitigation measures provided in the chapter below are adhered to as well as the measures included in the monitoring protocol which forms part of the desktop palaeontological assessment.



## 9. MITIGATION MEASURES

- For any chance finds of heritage resources, such as graves or archaeological residues, all work must cease in the area affected and the Contractor must immediately inform the Project Manager. A registered heritage specialist must be called to site for inspection. The relevant heritage resource agency (Amafa) must also be informed about the finding.
- The heritage specialist will assess the significance of the resource and provide guidance on the way forward.
- Written permission must be obtained from Amafa if heritage resources are to be removed, destroyed or altered.
- All heritage resources found in close proximity to the construction area must be protected by a 3m buffer in which no construction can take place. The buffer material (danger tape, fencing, etc.) must be highly visible to construction crews.
- Under no circumstances may any heritage material be destroyed or removed from site unless under direction of a heritage specialist.
- Should any remains be found on site that is potentially human remains, the South African Police Service (SAPS) should also be contacted. No SAPS official may disturb or exhume such remains, whether of recent origin or not, without the necessary permission.
- If there are chance finds of fossils, adherence to the measures included in the monitoring protocol in **Appendix 1** must be enforced.

## 10. REFERENCES

Artek Architects. 2014. *Concept Report: New Musa Special Needs School*. Unpublished report

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