

Exemption from Phase 1 Palaeontological Impact Assessment: Upgrading of 4.9 km - long section of Road D1814 from gravel, single carriageway to a surfaced, dual carriageway, Gauteng Province.

Map Reference:

1:50 000 topographic map 2528 CB Silverton

1:250 000 scale geological map 2528 Pretoria.

Site Coordinates: 25°41'1.47"S 28°27'35.55"E to 25°43'26.22"S 28°29'11.08"E

The proposed activity calls for upgrading of Road D1814 from gravel, single carriageway to a surfaced, dual carriageway. Road D1814 is located about 7 km west of Cullinan in Gauteng Province (**Fig. 1**). The upgraded road will be approximately 4.9 km in length, with a proposed road reserve of 62 metres. Existing storm water infrastructure will be replaced/extended and new storm water infrastructure will be constructed.

The affected area is primarily underlain by diabase intrusions considered to be no palaeontological significance and to a very small degree by Rayton Formation sandstone and shale of the Vaalian Pretoria Group (Transvaal Supergroup) considered to be of very low palaeontological significance (**Fig. 2**). The overlying Quaternary component (geologically recent superficial sediments/residual soils) is also regarded as of low palaeontological significance due to an apparent lack of suitably intact alluvial deposits along the route (e.g. Pienaarspoort tributary).

It is recommended that exemption from further palaeontological studies is granted for the proposed project, provided that all excavation activities are restricted to within the boundaries of the development footprint. In the unlikely event of fossil discovery within the Quaternary overburden within the road reserve during the exploration phase of the development (i.e. modern-looking but more or less lithified animal bones and teeth), a professional palaeontologist must be called in immediately to confirm and record the finds. 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.

References

Eriksson et al. 2006. **In:** Johnson, M.R, Anhaeusser, C.R. and Thomas, R.J. (Eds.) *The geology of South Africa*, pp. 237-260. Geological Society of South Africa. Johannesburg & the Council for Geoscience, Pretoria.

SAHRIS PalaeoSensitivity Map 2017 (<http://www.sahra.org.za/sahris/map/palaeo>).

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', written in a cursive style.

Dr. L. Rossouw

PO Box 38806

Langenhovenpark 9330

18 / 08 / 2017

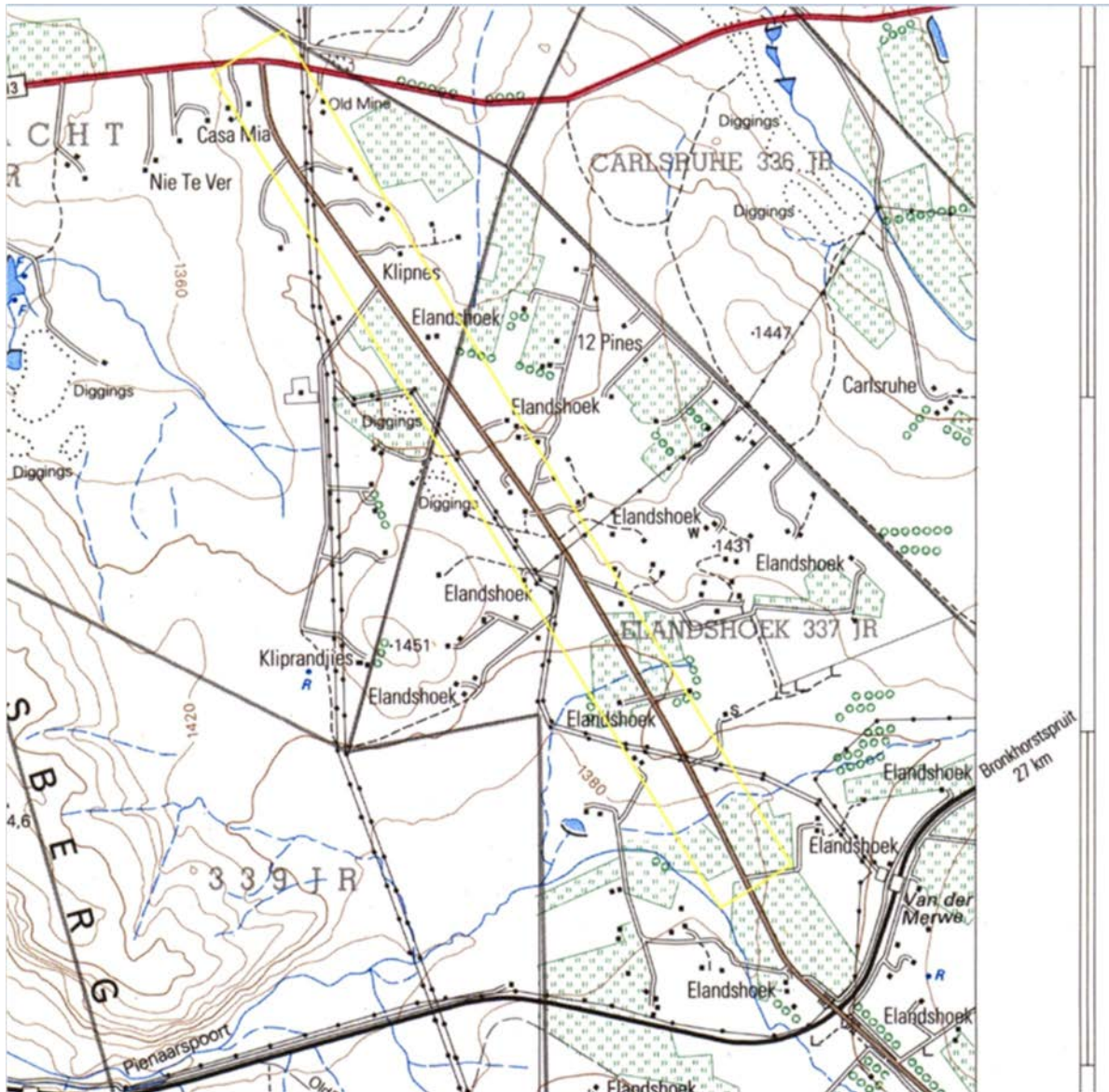


Figure 1. Map of the proposed development area (portion of 1:50 000 scale topographic 2528 CB Silverton).



Figure 2. Aerial view of the road section (top). The is primarily underlain by diabase intrusions (SAHRIS Palaeo-sensitivity Map, grey areas, right insert) and to a very small degree by Transvaal Supergroup sandstone and shales (SAHRIS Palaeo-sensitivity Map, green areas, right insert).

