



17 October 2018

To whom it may concern

LETTER FOR HIA EXEMPTION REQUEST: PROPOSED REHABILITATION OF ROAD P31/1 (R104), NORTH WEST PROVINCE

The above-mentioned project refers. Lokisa Environmental Consulting was appointed by deBruin and Associates (Pty) Ltd on behalf of the Department of Public Works and Roads: North West Province to submit an application for the proposed rehabilitation of Road P31/1 (R104) stretching from the Gauteng Border to Road 123/1 (R560 to Magaliesburg) as well as all culverts and the bridge over the Leeuwenspruit. Lokisa has appointed Archaetnos CC to do a heritage exemption application.

The applicable section of road to be upgraded runs from the Gauteng border (at Pelindaba) and runs south of the Hartbeespoort Dam. It stretches to the T-Junction with the R560 to Scheerpoort within the Madibeng Local Municipality. This is in the North West Province (Figure 1-2).

The project entails the rehabilitation as well as the widening of the road (in some sections). The road measures approximately 22km in extent. Existing storm water infrastructure will be replaced/extended and new storm water infrastructure will be constructed where necessary. The project can be broken down in three phases being:

- Phase 1 - from 19.76km to 26.16km. The existing road width is 11m and a 2.9m new/extra widening (to include widening on both sides $2 \times 1.45\text{m} = 2.9\text{m}$) is proposed which will bring the width of the rehabilitated road to 13.9m. Stormwater & drainage line culverts under the road (R104 & R512) earmarked for upgrade will also be upgraded. The culverts will either be replaced, additional pipes to improve flow inserted, or lengthened where necessary.
- Phase 2A - from 26.16km to 35.89km. Upgrade of this section of the road to undivided four (4) lanes dual carriageway. Almost 62% of this section of the road has 3 lanes and the carriage width is to be increased to 15.8m. The widening of the Leeuwenspruit Bridge is also included in this phase. The construction and operation of the bridge will be on one or both sides of the river. The construction of the bridge will be a “slab” (concrete platform) supported by pillars located (positioned) mainly on the river banks. Stormwater & drainage line culverts under the road (R104 & R512) earmarked for upgrade will also

be upgraded. The culverts will either be replaced, additional pipes to improve flow inserted, or lengthened where necessary.

- Phase 2B - from 35.89km to 41.76km. The existing road width is 11m and a 2.9m new/extra widening (to include widening on both sides $2 \times 1.45\text{m}=2.9\text{m}$) is proposed which will bring the width of the rehabilitated road to 13.9m. Stormwater & drainage line culverts under the road (R104 & R512) earmarked for upgrade will also be upgraded. The culverts will either be replaced, additional pipes to improve flow inserted, or lengthened where necessary.

Phase 1 is 6.4km in length and this section of the road is located in the vicinity of Pelindaba, where the Road commences at the Gauteng Border, crosses the Crocodile River and continues westward to the P103/2 (Lanseria Road) intersection. Here the widening will be 2,9 m.

Phase 2 of the road is located to the south of the Hartbeespoort Dam and extends from the P103/2 (Lanseria Road) to the Leeuwenspruit bridge, crossing the Leeuwenspruit, and from there to the T-Junction with the P123/1 (towards Sun City). Culverts are to be upgraded and the Leeuwenspruit Bridge is to be expanded. The widening here will be 4,8 m.

Phase 2B is 5.87km in length and stretches from 35.89km – 41.76km. This section of the road is located to the south west of the Hartbeespoort Dam, where the road commences at the T-Junction with the R512 (road towards Sun City) and continues westward to the T-Junction with the R560. Here the widening again will be 2,9 m.

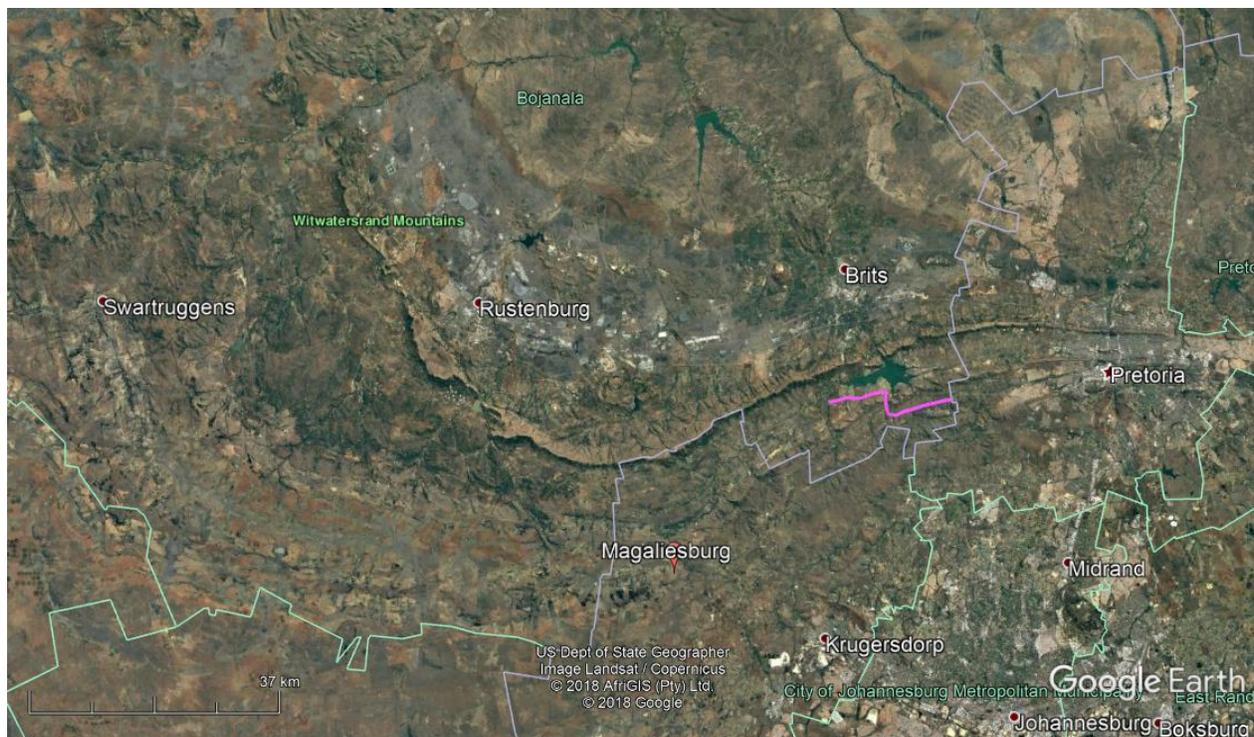


Figure 1: Location of the proposed development (pink line) in the North West Province.

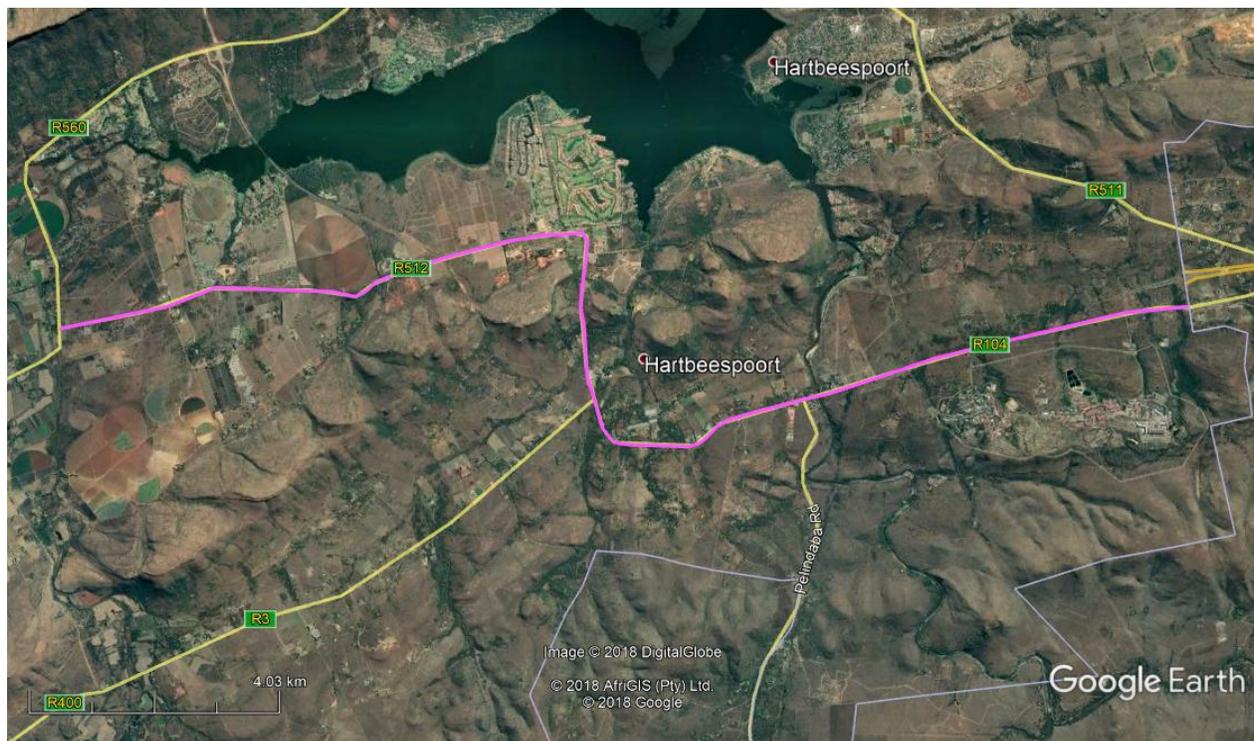


Figure 2: Detailed view of the road.

The entire area is disturbed and widening of the road is limited to the existing road reserve (Figure 4-11). The characteristics of the area in which the road is situated is mainly rural residential in nature with a strong focus of low intensity rural tourism. The western portion of the area is characterised by Residential developments. Commercial uses are also located adjacent to the existing road.

The vegetation of the study site is low and open, with high levels of degradation and disturbance, which has led to the encroachment of acacia thorn trees as well as some other invasive alien weeds and tree species such as blue gum (eucalyptus), syringa and poplar.

A total of 13 natural watercourses are found along the road and will be minimally impacted by the proposed upgrade and widening as a result of the upgrade of the culverts that are proposed. No expansion is proposed for the bridge over the Crocodile river. Leeuwenspruit (on which the bridge to be extended is located) flows in a north-east direction, and confluences with the Broederstroom, which flows north for approximately 1 km and into the Hartbeespoort Dam.

No buildings, structures and or other features of cultural or heritage significance will be impacted upon, however a chance find procedure will be implemented in the Environmental Management Programme as per the Specialist's recommendation.



Figure 4: General view along the road.



Figure 5: View of landscaped features along the road.



Figure 6: View of vegetation along the route.



Figure 7: View of open areas along the road.



Figure 8: Views of the road indicating commercial and residential developments.



Figure 9: Another view of showing commercial developments.



Figure 10: View of road showing farming activities.



Figure 11: Alien tree species along the route.

It is my opinion that the project may be exempted from doing a Heritage Impact Assessment

(HIA). The following is applicable:

- The development will be limited to the road reserve, which is an already disturbed area.
- The characteristics along the road is mostly disturbed with indications of commercial and residential developments and agriculture
- The vegetation along the route is dominated by pioneer species and the regrowth of alien species.
- No buildings will be impacted on as these are not situated close to the development.
- Open areas, cleared from vegetation is present.

Due to the mentioned factors, the chances therefore of finding any heritage related features are indeed extremely slim. It is therefore believed that an additional Heritage Impact Assessment (HIA) is not needed for this project. This letter serves as an exemption request to the relevant heritage authority.

The developer should however note that due to the nature of archaeological material, such sites, objects or features, as well as graves and burials may be uncovered during construction activities on site. The Chance Find Procedure for this will be to immediately cease work and contract an archaeologist as a matter of urgency to assess such occurrences.

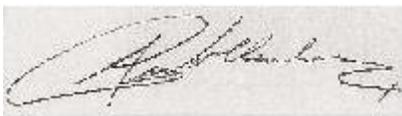
Road camps may only be placed in existing open areas, i.e. areas cleared from vegetation and clearly disturbed.

Recommendation:

That the development be exempted from doing an HIA.

I trust that you will find this in order.

Yours faithfully

A handwritten signature in black ink, appearing to read 'AC van Vollenhoven', written over a light-colored rectangular background.

Prof AC van Vollenhoven: Director