MARITENG CONSULTING ENGINEERS (PTY) LTD

TRAFFIC AND TRANSPORTATION CONSULTANTS



COMPANY NUMBER: 2009/017320/07 VAT REG NO: 4<u>50 025 9025</u>

DIRECTORS: L J DU TOIT

Date

Your Reference Our reference Enquiries

| PrTech, BTech(Civ) Transportation | |
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| : | 132/88 |
| : | Louis du Toit |
| : | 23 July 2020 |

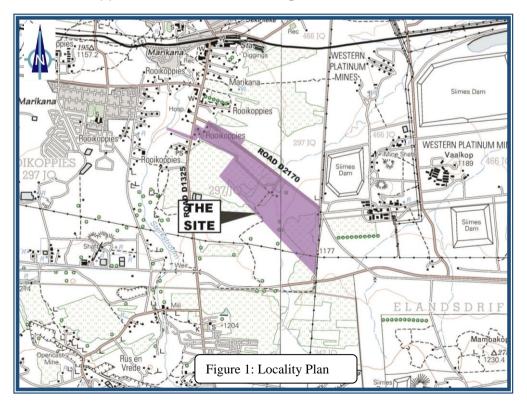
Khare Inc P.O. Box 489 FLORIDA HILLS 1716

For Attention: Messrs. C Theron/E Taute

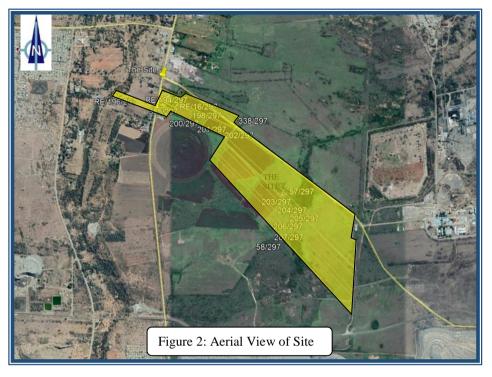
Desktop Study: Proposed Township Marikana Extension 14

The purpose of the desktop investigation is to provide an initial assessment of the proposed Township Marikana Extension 14, from a traffic engineering viewpoint.

The location of the applicant site is shown in **Figures 1 and 2**.



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1. Introduction

The proposed development is earmarked for a mixed-use development and will mainly comprises of residential dwellings, with related business erven, educational erven, etc.

2. Provincial Road Network

The applicant site is affected by the following provincial roads:

Along the northern boundary of the applicant site is Road D2170, an unsurfaced road. Access is proposed from this road at four (4) positions, as shown in Mariteng Plan No.: 132-88-01. The position of these intersections is in line with the COTO Document entitled "South African Road Classification and Access Management Manual (TRH 26)", dated August 2012.

An intersection spacing of 480m is proposed along the road. As part of the initial desktop study a 40.0m road reserve is proposed along this section of the road.

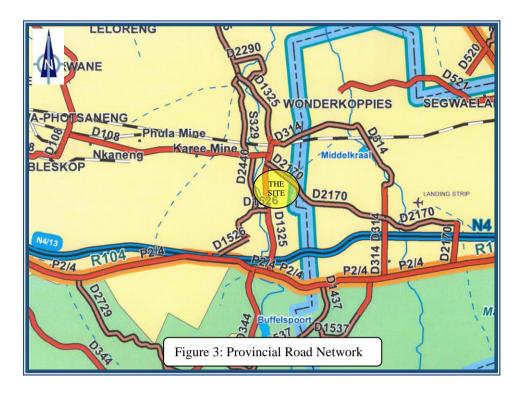
The intersection spacing and final road reserve will be discussed and motivated as part of the comprehensive traffic report to be prepared at a later stage.

Along the western boundary of the applicant site is Road D1325, a single lane surfaced road.

Based on the length of the property abutting the road and based on the standards contained in the TRH 26 no access can be provided from the road.

As part of the study a 48.4m road reserve is proposed and will be confirmed by with the provincial Department as part of the comprehensive traffic report to be prepared at a later stage.

The details of the provincial roads network in the area is shown in Figure 3.



3. Local Authority Road Network

The applicant site is affected by the following local authority roads:

- To the south of the applicant site is an unnamed surfaced road. For the purpose of this report it is marked Road A. The site is not abutting the road and no access point is currently proposed from Road A.
- Along the eastern boundary of the applicant site is an unnamed unsurfaced road. For the purpose of this report it is marked Road B. A single access point is proposed from the road, as shown in **Mariteng Plan No.: 132-88-01**. As part of the initial investigation a 25.0m road reserve is assumed along this section of the road.

The intersection spacing and final road reserve will be motivated as part of the comprehensive traffic report to be prepared at a later stage.

Road B intersects with Road B to the southeast of the applicant site.

4. Development Potential

Khare Incorporated will finalise the land uses and development potential for the applicant site. The details will be included in the comprehensive traffic report to determine the internal and external road network upgrade, public transport requirements, etc.

It is expected that the proposed development will generate more than 150 trips, during the weekday morning and weekday afternoon peak hours of the adjacent road network.

5. Access Arrangements

Access to the site will be provided from Road D2170 and Road B. For the section of land located to the west of Road D1325, provision is made for a new road (marked Road C) to be linked with the Road D1325/Road D2170 intersection.

The details are shown in Mariteng Plan No.: 132-88-01.

6. External Road Upgrade

Given the size of the development, it is expected that the development will be responsible for some external road upgrade. These upgrades include amongst others the following:

- Surfacing of Road D2170, between Road D1325 and Road B. This includes the possible widening of the existing bridge structure. NOTE: In the event the widening of the bridge is financially not viable, alternative access roads will be investigated.;
- Extension of Road D2170, between Road D1325 and Road C;
- Construction of Road C, between Road D2170 and Road A; and
- Surfacing of Road B.

The full extent of all the external road upgrade to be determined once a comprehensive traffic report is compiled.

Details are shown in Mariteng Plan No.: 132-88-01.

7. Internal Road Network

The extend of the internal road network is shown in Mariteng Plan No.: 132-88-01.

8. Public Transport Facilities

The proposed development will be a high public transport trip generator and additional public transport facilities will be required to accommodate the additional commuter demand.

Provision will be made for the following formal stops:

- Along Road D2170, downstream of the four (4) intersections proposed along the road;
- Along Road B, downstream of the proposed intersection; and
- In addition to this, and as part of the comprehensive traffic report, the possibility of additional facilities along the internal roads will also be investigated.

9. Non-Motorized Transport Facilities

Paved walkway (minimum 2.0m wide) will be provided along key internal roads, with the following criteria:

- Along all Class 3, 4 and possibly Class 5a: Provide paved walkways along both sides of the road.
- Along the Class 5b roads: The possibility of paved walkways on one or both sides will be investigated.

10. Summary

Based on the initial traffic assessment it can be concluded that:

- a) The proposed development will generate more than 150 peak hour trips.
- b) Road D1325 and Road D2170 are provincial roads. Any intersections proposed along these roads will have to comply with the design requirements of the North West Province – Department Roads and Transport.
- c) Road A and Road B is identified as local authority roads.

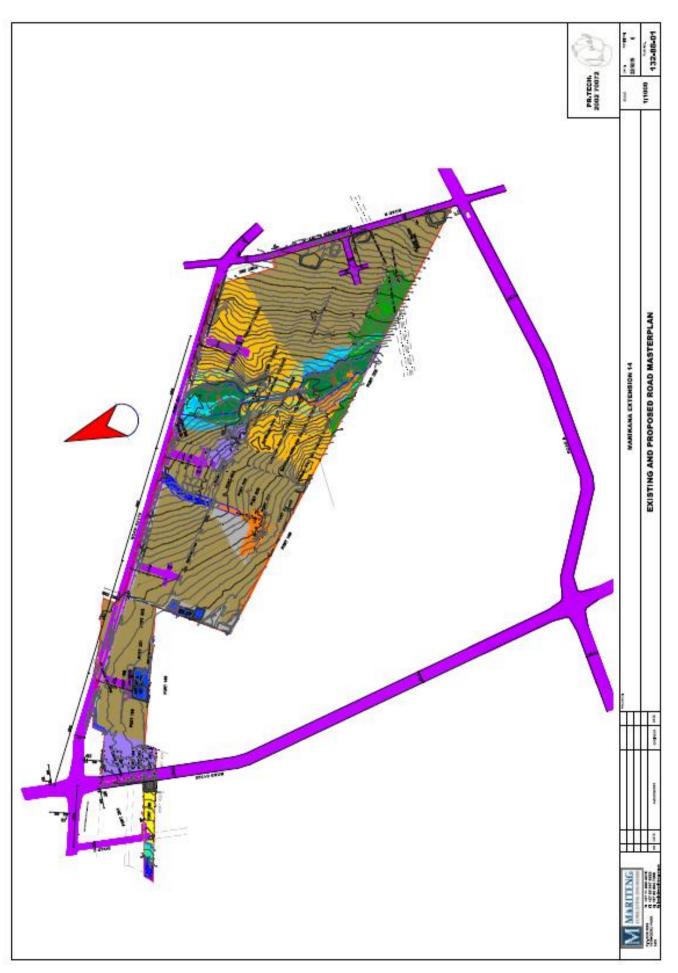
- d) A new road marked Road C is proposed to provide access to the land parcel located to the west of Road D1325.
- e) The study area is well served with existing roads which will provide sufficient access to the applicant site.
- f) A comprehensive traffic report is required, to determine the full impact of the proposed development on the road network.

We trust the technical information provided will assist with the planning of this project.

Yours faithfully For: Mariteng Consulting Engineers

Louis du Toit (Pr Tech) Director

Mariteng Plan No.: 132-88-01 – Existing and Proposed Road Master Plan



MARITENG CONSULTING ENGINEERS