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A. PHASE I CULTURAL HERITAGE RESOURCES IMPACT ASSESSMENT

(a) CULTURAL HERITAGE RESOURCES IMPACT ASSESSMENT FOR THE PROPOSED DETAIL DESIGN AND CONSTRUCTION OF ROAD K77 BETWEEN ELIZABETH ROAD AND THE K154, MIDVAAL LOCAL MUNICIPALITY, GAUTENG

(b) REPORT COMPILED BY

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(c) DEVELOPER AND CONSULTANT INFORMATION

Gauteng Provincial Department of Roads and Transport (GPDRT)

Contact person: Mr. K. Govender; 41 Simmonds Street, Sage Life Building, Marshalltown, Johannesburg 2007,

Tel: 011 355 7050; Fax: 011 355 7235; E-mail: kumen.govender@gauteng.gov.za

Project compiled for:

Spoor Environmental Services

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(d) Date of report: 17 November 2014

B. EXECUTIVE SUMMARY

The site is highveld grassland with quartzite ridges on the high ground. Visibility was good as the grass was well grazed and short. A large section was also recently burned. Though the area was well surveyed no important cultural heritage resources or graves were found on the area.

No important cultural heritage resources or graves have been found on the proposed route of the new road development.

If during construction any cultural heritage resources or graves are unearthed all work has to be stopped until the site has been inspected and mitigated by a cultural heritage practitioner.

C. TABLE OF CONTENTS

| | Page |
|--|------|
| A. Title Page | 01 |
| B. Executive Summary | 02 |
| C. Table of Contents | 03 |
| D. Background Information on the Project | 04 |
| E. Background to the Archaeological History | 05 |
| F. Description of the Property or Affected Environment | 07 |
| G. Description of sites | 08 |
| H. Description of the Artefacts, Faunal, Botanical or other Finds and Features | 12 |
| I. Clear Description of Burial Grounds and Graves | 12 |
| J. Field Rating | 12 |
| K. Statement of Significance (Heritage Value) | 12 |
| L. Recommendations | 12 |
| M. Conclusions | 13 |
| N. Bibliography | 13 |
| O. Appendices | 15 |

Maps:

- Google Map page 16
- Locality Map page 17

D. BACKGROUND INFORMATION ON PROJECT:

(a) Whether the report is part of a scoping report/EIA/HIA or not

Report will be part of a NEMA Listing Notice 2 EIA Report

(b) Type of development (e.g. low cost housing project, mining etc).

Construction of new road

(c) Whether re-zoning and/or subdivision of land is involved.

None

(d) Developer and consultant and owner and name and contact details;

Developer contact details

Gauteng Provincial Department of Roads and Transport (GPDRT)

Contact person: Mr. K. Govendor; 41 Simmonds Street, Sage Life Building, Marshalltown, Johannesburg 2007,

Tel: 011 355 7050; Fax: 011 355 7235; E-mail: kumen.govender@gauteng.gov.za

Consultants contact details:

Spoor Environmental Services, Contact person: JC van Rooyen, Postnet Suite 111 Private Bag X37, Lynnwood Ridge, 0040. Pretoria. Tel: 012 480 0612; Fax: 086 763 5635

(e) Terms of Reference

The broad generic term *Cultural Heritage Resources* refers to any physical and spiritual property associated with past and present human use or occupation of the environment, cultural activities and history. The term includes sites, structures, places, natural features and material of paleontological, archaeological, historical, aesthetic, scientific, architectural, religious, symbolic or traditional importance to specific individuals or groups, traditional systems of cultural practice, belief or social interaction.

The proposed detail design and construction of Road K77 between Elizabeth Road and the K154, Midvaal Local Municipality, Gauteng.

The Gauteng Provincial Department of Roads and Transport (GPDRT)'s route K77 is located in the Midvaal area and is planned to provide the basis for the development of the

new economic node in the area. The road infrastructure needs to be upgraded in order to ensure that the increase in traffic can be accommodated. This part of the K77 is situated between K154 (D1313) and D2310 (Elizabeth Road), a length of approximately 4.0 km.

(f) Legislative requirements of Act 25 of 1999.

Protected sites in terms of the National Heritage Resources Act, Act No. 25 of 1999

The following are the most important sites and objects protected by the National Heritage Act:

- Structures or parts of structures older than 60 years.
- Archaeological sites and objects.
- Paleontological sites.
- Meteorites.
- Ship wrecks.
- Burial grounds.
- Graves of victims of conflict.
- Public monuments and memorials.
- Structures, places and objects protected through the publication of notices in the Gazette and Provincial Gazette.
- Any other places or objects, which are considered to be of interest or of historical or cultural significance.
- Geological sites of scientific or cultural importance.
- Sites of significance relating to the history of slavery in South Africa.
- Objects to which oral traditions are attached.
- Sites of cultural significance or other value to a community or pattern of South African history

Primary Legislation:

- NEMA (Act 107 of 1998) GN No. R 544, 18 June 2010
- NWA (Act 36 of 1998)
- NHRA (Act 25 of 1999)

E. BACKGROUND TO THE ARCHAEOLOGY AND HISTORY OF THE AREA

Early industrial and mining activities and associated infrastructural development impacted negatively on the heritage resources of the study area. These include coal collieries for the gold mines of the Witwatersrand, the Vereeniging Power station and the Vaal Water Scheme (PGS 2010, 2011; Digby Wells 2013).

The area is perhaps best known for activities and heritage remains relating to the second Anglo-Boer War (1899-1902). Battle sites, cemeteries, memorials, former farm localities and historic structures, that have been mostly destroyed, constitute some of the data sets from this period (Pakenham 1933; Digby Wells 2013; Van der Walt 2013). The town of Vereeniging, established in 1882 and proclaimed in 1889, was the scene of many important events during the war. Important military luminaries represented the British and Boers during the signing of the Peace Treaty, at a locality currently near the Vereeniging Refractories Recreation Hall (Digby Wells 2013).

The region also has a rich Stone Age history. The Vaal River gravels are particularly well-known for vast numbers of lithics from the Earlier Stone Age (ESA). Well-known sites along the Vaal and Klip rivers include Klipplaatdrif, the Klip River Quarry site and the Duncanville Archaeological Reserve (Söhnge *et al.* 1937; Le Roux 1951; Mason 1968; Digby Wells 2013). Characteristic Large Cutting Tools (LCTs) of the ESA in the form of handaxes, cleavers and picks are iconic lithics. These tool types occur in large numbers in association with scraper forms and flakes. During this period landscape use by the early hominins shows a focus on water sources (Hallinan 2013). Deacon & Deacon (1999) argue that such a specialist, or stenotopic, pattern of landscape use was tied to both ecological and behavioural aspects. MacKay *et al.* (2014) argue that activities that relate to the acquisition of water, food and tool production, and perhaps also social activities, were mostly undertaken in open landscape settings. Open sites consequently constitute a major source of data on in particular the earlier periods when rock shelters were rarely used. In the study region the secure water sources also offered other subsistence resources such as raw materials for the production of stone tools, and an abundance of plant and animal foods. It is therefore not surprising that there are an abundance of sites along the Vaal and Klip rivers and huge numbers of the ESA Oldowan, and in particular the Acheulean, stone tools are present in river gravels (Digby Wells 2013; Van Schalkwyk 2013). Localities in the study area that date to the ESA constitute exceptionally important heritage resources and all developments should take the possible presence of sub-surface lithics into account.

Middle Stone Age (MSA) localities in the region are not as well-known (Thackeray 1992). Some MSA occurrences of low significance have been recorded. Nevertheless, as the MSA occur extensively in most regions of southern Africa, this should be borne in mind when developments are undertaken in the study area.

A remarkable locality near Redan contains numerous and mainly geographic rock engravings from the Later Stone Age (LSA) (Van Riet Lowe 1952; Mason 1962; Prins 2007). This fenced Provincial Heritage Site is spread over more than 4000 square metres on the remainder of Portion 29 of the farm Kookfontein 545 IQ. Digby Wells (2007) commented on a report by Matakoma by W Fourie (2007) who documented LSA scatters at Bankfontein in secondary contexts. Digby Wells (2007) recommend that site MHC003 had to be re-evaluated when the then dense vegetation cover would allow further investigations.

A detail Heritage Impact Assessment was done by Prof Tom Huffman in 2009 on the farms Roodepoort 159 IR and Driefontein 146 IR. These farms lie west of Nooitgedacht 176 IR on the quartzite ridge. Here he found scattered occurrence of Early Middle and Later Stone Age sites as

well as some stonewalling possible of Khai origin. He also recorded some farm settlements and graves (Huffman T.N. 2009 Heritage Assessment for the Roodepoort – Driefontein project Gauteng)

African farmer stone-walled sites represent another major heritage resource as the Highveld region was settled by later African communities, in particular near Heidelberg and in the Suikerbosrand area, and in particular in the Suikerbosrand Nature Reserve (Mason 1962, 1968; National Cultural History Museum 1999). Mason (1968) recorded numerous sites with aerial photography. Wits archaeology has subsequently undertaken research at Suikerbosrand (Huffman et al. 2006/2007; McQuilkan 2009). Coetzee (2013) in an HIA recorded an absence of Iron Age settlements on the Farm Vischgat 467 LR in the Midvaal Local Municipality.

F. DESCRIPTION OF THE PROPERTY OF AFFECTED ENVIRONMENT

(a) Details of area surveyed:

- Full location Data for Province, Magisterial District/Local Authority and property (e.g. farm/erf) name and number etc.;
- ❖ Gauteng Provincial Department of Roads and Transport (GPDRT), 41 Simmonds Street, Sage Life Building, Marshalltown, Johannesburg, 2007. Tel: 011 355 7050; Fax: 011 355 7235.
- ❖ Midvaal Local Municipality, Cnr Junius & Mitchell Street, Meyerton, 1962. P.O. Box 9, Meyerton, 1960. Tel: 016 360 7400, Fax: 016 360 7519

| DIRECTLY AFFECTED LANDOWNERS | | | |
|-------------------------------------|------------------------|----------------------|--------------------------|
| SG CODE | ERF DESCRIPTION | TOWNSHIP NAME | OWNERS |
| T0IR00000000014900001 | RE1 149-IR | ROODEPOORT 149-IR | WA BOTHA |
| T0IR00000000017600010 | 10 176-IR | NOOITGEDACHT 176-IR | BLUE ROSE DEVELOPMENT CC |
| T0IR00000000017600032 | 32 176-IR | NOOITGEDACHT 176-IR | BLUE ROSE DEVELOPMENT CC |
| T0IR00000000017600008 | 8 176-IR | NOOITGEDACHT 176-IR | BLUE ROSE DEVELOPMENT CC |
| T0IR00000000017600016 | 16 176-IR | NOOITGEDACHT 176-IR | J DAUVELLIER |
| T0IR00000000017600023 | 23 176-IR | NOOITGEDACHT 176-IR | CBR DEVELOPMENT (PTY)LTD |

- Location map(s)/ orthophotos of the general area. These must include the map name and number (e.g. 3313 DC Bellville). Maps must include at least a 1:50 000 and (if) available also a 1:10 000 (i.e. most detail possible). Large scale colour satellite photos make a useful addition. Maps should be preferable at least A4 size.

Map: 1/50 000 Alberton 2628AC
Attached pages 16 & 17

- Either the Location Map or the Site Map must have the polygon of the area surveyed marked on it and full geographical co-ordinates for all relevant points and where applicable, indication of the area to be developed (footprint).

| | | |
|---------------------------------|-----------------|-----------------|
| Starting point - Elizabeth Road | S26° 26' 31.92" | E28° 01' 42.26" |
| Crossing at a small river | S26° 25' 39.02" | E28° 03' 14.13" |
| Heidelberg Road crossing | S26° 24' 55.42" | E28° 03' 25.18" |
| Kliprivier connection | S26° 22' 28.91" | E28° 03' 39.47" |
| End of new road on R550 | S26° 22' 00.33" | E28° 03' 22.24" |

❖ *See Attached Locality Maps*

(b) Description of the Methodology

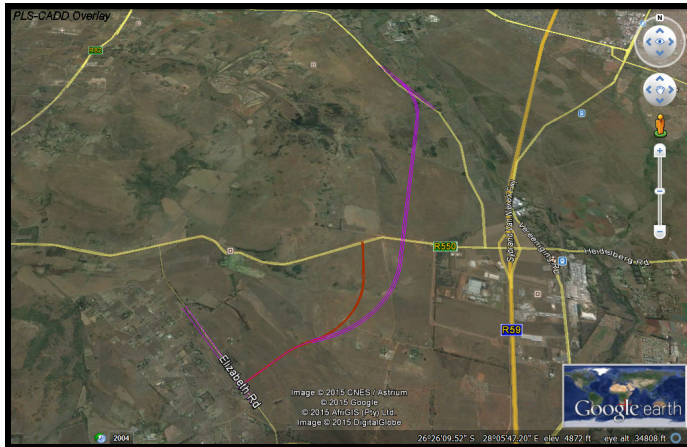
All existing literature was researched. The database of the National Cultural History Museum Pretoria was also visited.

The site was twice visited and inspected on foot and by vehicle. The visibility was good as at sections of the route the grass was burned recently. In the rest of the area the grass was short because of cattle grazing in the area. The area was photographed in detail.

G. DESCRIPTION OF SITES MAPPED

A Heritage Resources Impact Assessment was done in 2014 of the proposed K77 road (see map of original route in red). Because of a wetland the road was moved further east and extended to the R550 (Kliprivier Road). Because the route changed the road was surveyed again.

The proposed K77 will start at Elizabeth Road (S26° 26' 31.92" & E28° 01' 42.26") and run uphill through open grassland and then downhill through a patch of indigenous trees – see photograph.



From here the road runs downhill to the small river and will cross it at (S26° 25' 39.02" & E28° 03' 14.13"). Here it will also cross a mayor pipeline - see photograph.



From here the road will run up hill just east of a quartzite ridge to cross the Heidelberg dirt Road at S26° 24' 55.42" & E28° 03' 25.18". Along this section of the route the grass was recently burnt – see photograph.



From the Heidelberg Road the road continues in a northerly direction through a flat area of Highveld grassland of which a large area was recently burned. Here and there are patches of eucalyptus trees.



The K77 road will join the R550 (Kliprivier Road) at $S26^{\circ} 22' 28.91''$ & $E28^{\circ} 03' 39.47''$ which is an existing tar road which will be broadened to end at $S26^{\circ} 22' 00.33''$ & $E28^{\circ} 03' 22.24''$ – see photograph.



Visibility along the route was very good as the grass was short or recently burned. No important Cultural Heritage Resources or graves were found on or near the proposed route of the K77 road.

H. DESCRIPTION OF THE ARTEFACTS, FAUNAL, BOTANICAL OR OTHER FINDS AND FEATURES

None

I. CLEAR DESCRIPTION OF BURIAL GROUNDS AND GRAVES

None

J. EVALUATION AND RATING (FIELD RATING)

Not applicable

K. STATEMENT OF SIGNIFICANCE (HERITAGE VALUE)

Not applicable

L. RECOMMENDATIONS

Though the proposed route of the new road was searched in detail, no important Cultural Heritage Resources or graves were found on the site.

There is no objection to the construction of the new road from a cultural heritage resources point of view.

If during construction any cultural heritage resources or graves are unearthed all work has to be stopped until the site has been inspected and mitigated by a cultural heritage practitioner.

M. CONCLUSION

No important cultural heritage resources or graves are present on the proposed route of the new power line.

N. BIBLIOGRAPHY

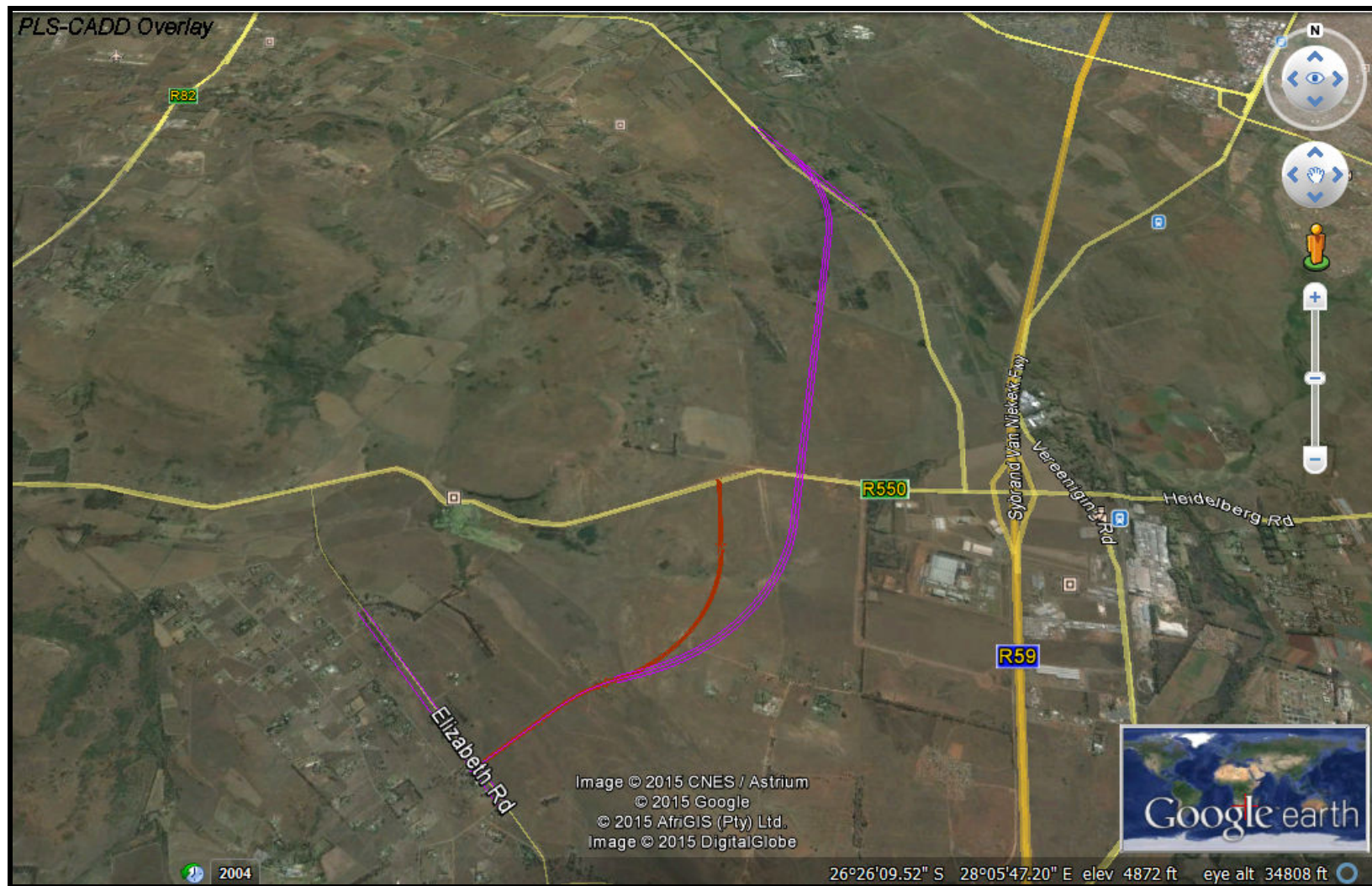
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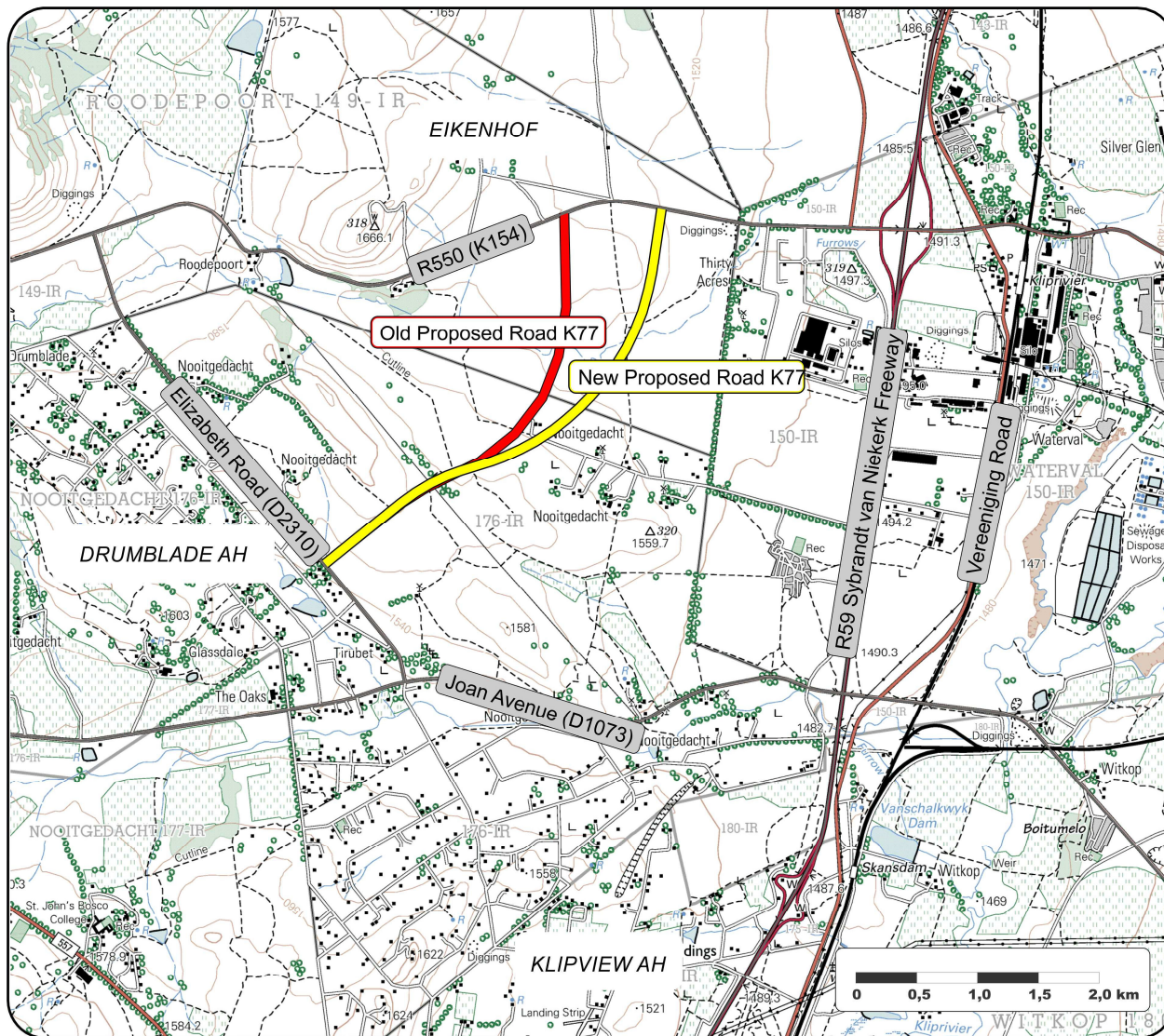
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O. APPENDICES

- Google Map page 16
- Locality Map page 17



Google image: Purple line indicates new road



Legend:

- Old Proposed K77:
Elizabeth Road to the K154
- New Proposed K77:
Elizabeth Road to the K154
- Existing Roads



Project:

Proposed Road K77:
Elizabeth Rd and the K154
Midvaal, Gauteng

Applicant:



Consultant:



June 2015

Figure 1:

Road K77:
Old and new position