

Appendix I2: Site Sensitivity Verification Report

SITE SENSITIVITY VERIFICATION REPORT FOR THE PROPOSED UPGRADE OF TRUNK ROAD 28, SECTION 1 – LYNX ROAD TO MIMOSA STREET, HERMANUS

Prepared for: EFG Engineers (Pty) Ltd on behalf of the
Western Cape Government: Department of Transport and
Public Works (Road Design)

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Project Manager	Eloise Costandius
Project Manager Email	ecostandius@slrconsulting.com
Author	Rizqah Baker
Reviewer	Fuad Fredericks
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ACRONYMS AND ABBREVIATIONS

Acronym / Abbreviation	Definition
BAR	Basic Assessment Report
CBA	Critical Biodiversity Area
DTPW	Western Cape Government: Department of Transport and Public Works (Road Design)
EA	Environmental Authorisation
EFG	EFG Engineers (Pty) Ltd
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
ESA	Ecological Support Area
HWC	Heritage Western Cape
NEMA	National Environmental Management Act, 1998 (No. 107 of 1998)
NID	Notice of Intent to Develop
SLR	SLR Consulting (South Africa) (Pty) Ltd
SSVR	Site Sensitivity verification Report
WCBSP	Western Cape Biodiversity Spatial Plan

1. INTRODUCTION

The Western Cape Government (WCG): Department of Transport and Public Works (Directorate: Road Design) (DTPW) is proposing to upgrade Trunk Road 28, Section 1(a section of the R43) between Botrivier and Hermanus. The R43 provides a direct link between the towns of Botrivier and Hermanus, starting at the R43 turnoff from the N2 in Botrivier and ending in Main Street in Hermanus.

The focus area of the proposed project is the section of road that starts \pm 600 m from the Lynx Road Intersection (km 23.00) at Vermont and ends at the Mimosa Street / Mountain Drive Intersection (km 29.46) in Hermanus (see Figure 1). This section of road passes through the residential suburbs of Vermont and Onrus before it crosses the Onrus River, passes Sandbaai and then through Mount Pleasant, where it terminates at the Mimosa Street / Mountain Drive Intersection in Hermanus. The road section consists of a single carriageway, except for an approximate 2.5 km section of road between the Onrus Bridge and the Mimosa Street / Mountain Drive Intersection which is a dual carriageway.

The proposed project entails the following:

- Dualling of the existing single carriageway road (between km 23.00 and km 27.14) to an Urban Class E (ii) cross-section (see Figure 2), with each carriageway consisting of two 3.7 m lanes, a 3.1 m outside shoulder and a 2.0 m sidewalk. There would also be a 5.0 m paved median between the two carriageways;
- The provision of bus stops at major intersections and junctions;
- The provision of appropriate stormwater channels along the kerbed sections and the widening of the road reserve width by 15 m to a minimum width of 45 m between km 23.00 and km 27.14 (would vary with topography);
- The provision of dedicated turning lanes at main accesses, as appropriate;
- The relocation of various services and shifting of an existing 10 m services servitude to the north adjacent to the new road reserve; and
- The dualling of the existing road over the Onrus River by constructing a new bridge next to the existing Onrus Bridge.

The widening of the road is proposed to only be undertaken towards the northern side of the existing R43.

The proposed project also entails works on various culverts along the road and the relocation and provision of new access roads to Amana / Paradise Park, Berghof Estate and Kidbrooke Place, as described below:

- The existing access road to Amana / Paradise Park from the R43 would be closed (km 23.60). An alternative access road to Amana is proposed at the intersection of Onrus Main Road and Vermont Avenue. With the closure of the existing Amana / Paradise Park access from the R43, the alternative access to Paradise Park would be via the existing Malmok Street.
- The existing access road (Lobelia Street) to Berghof Estates from the R43 (km 24.18) would be closed. A new access would be created at approximately km 24.59 and a new local access road would be provided via Erf RE/581.
- The existing access road to Kidbrooke Place (km 25.82) would be closed and relocated northwards to tie in with an existing unnamed road within the estate.

The proposed works also entail a pavement reseal on the road section between km 27.14 (Sandbaai Main Road) and km 29.46 (Mimosa Street / Mountain Drive).

The duration of the construction phase would be approximately 24 months.

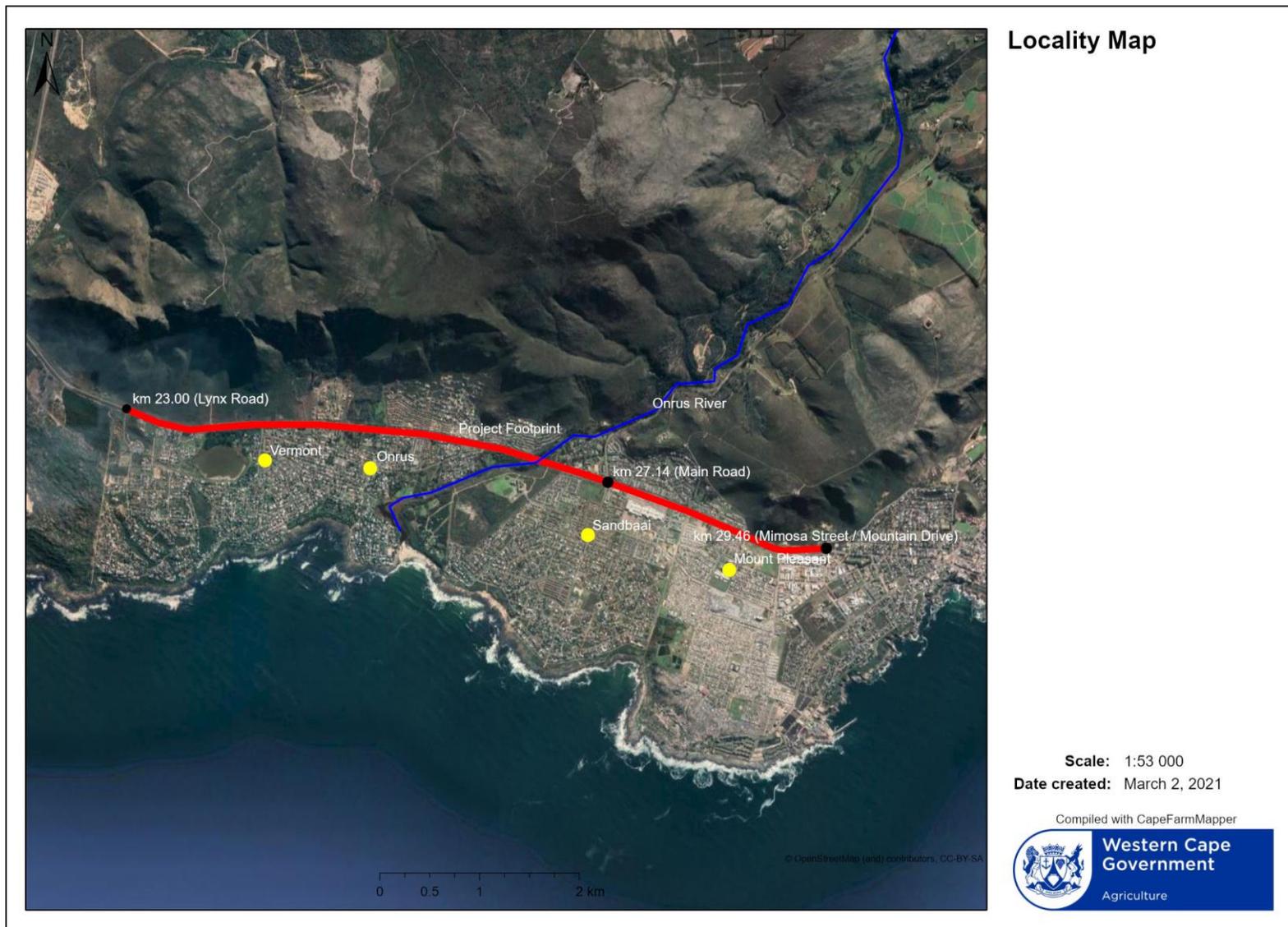


Figure 1: Locality Map (Source: Cape Farm Mapper; 2021)

2. PURPOSE OF THE REPORT

SLR Consulting (South Africa) (Pty) Ltd (SLR) has been appointed by EFG Engineers (Pty) Ltd (EFG) to undertake the required Environmental Authorisation (EA) application process in terms of the Environmental Impact Assessment (EIA) Regulations, 2014 (as amended) promulgated under the National Environmental Management Act, 1998 (No. 107 of 1998; NEMA), for the proposed project.

A Screening Tool Report was generated as part of the EA application process. According to the Screening Tool Report, the following specialist assessments were identified and recommended to be undertaken as part of the environmental process:

- Agricultural Impact Assessment;
- Landscape / Visual Assessment;
- Archaeological and Cultural Impact Assessment;
- Palaeontology Impact Assessment;
- Noise Impact Assessment;
- Traffic Impact Assessment;
- Geotechnical Assessment;
- Socioeconomic Assessment;
- Ambient Air Quality Impact Assessment; and
- Animal Species Assessment.

In accordance with the Procedures for the Assessment and Minimum Criteria for Reporting on identified Environmental Themes in terms of Sections 24(5)(a) and (h) and 44 of NEMA, this Site Sensitivity Verification Report (SSVR) has essentially been compiled to provide a rationale for the specialist studies undertaken as part of the environmental process.

3. DESKTOP ANALYSIS

The project area is located within the G40G quaternary catchment. The main aquatic feature within this catchment is the Onrus River. A number of smaller watercourses drain the hillslopes along the section of the road to be upgraded, but most of these watercourses are no longer visible within the lower reaches, downstream of the road, due to residential development. Additionally, none of the watercourses crossed by the road contain any significant aquatic habitat.

The vegetation of South Africa, including that of the fynbos biome, was mapped by Mucina, Rutherford and Powrie (2005) (VEGMAP) and subsequently by SANBI (2012, 2018). According to this classification and mapping, the R43 traverses a zone of Hangklip Sand Fynbos (Endangered) and a minor zone of Overberg Sandstone (Critically Endangered). In terms of the Western Cape Biodiversity Spatial Plan (WCBSPP), portions of the affected watercourses have been mapped as aquatic Ecological Support Areas (ESAs), while the Onrus River is mapped as an aquatic Critical Biodiversity Area (CBA). However, this is only associated with the wetland habitats along the river upstream and downstream of the road, but not within the actual road reserve, while the portions of the watercourses mapped as ESAs lie to the west of the proposed works.

Where the R43 crosses the Onrus River, the river is confined to a narrow channel where there is a sudden transition from a wider more braided river channel with a wetland, to a single channelled watercourse with a dense riparian area that comprises of alien woodland habitat. The Onrus River is also mapped as a Fish Support Area in terms of the Freshwater Ecosystem Protected Areas map (SANBI).

Archaeological resources in the form of Later Stone Age shell middens and associated artefactual material have been found in the broader region. However, no archaeological material of any type was identified in the proposed area of disturbance. The Onrust Cemetery lies to the south of the R43. The cemetery is graded as a IIIA heritage resource in terms of the Overstrand Heritage Survey. A wall separates the cemetery from the R43. The section of the R43 between Hawston and the Hemel-en-Aarde turnoff is considered to be a scenic route of secondary importance. No other places, buildings, structures and equipment of historical and cultural significance are located within the proposed project area of disturbance.

This section of road passes through the residential suburbs of Vermont and Onrus before it crosses the Onrus River, passes Sandbaai and then through Mount Pleasant, where it terminates at the Mimosa Street / Mountain Drive Intersection in Hermanus.

4. SITE ASSESSMENT

Site assessments were undertaken by the Freshwater Specialist in September 2019, and by the Botanical Specialist in January and December 2020. Invasive alien plants such as *Acacia saligna*, *Leptospermum laevigatum*, *Hypericum revolutum* and *Pennisetum clandestinum* are located within the road reserve. No undisturbed remnants of Hangklip Sand Fynbos (Endangered) or Overberg Sandstone Fynbos (Critically Endangered) are located within the road reserve. A secondary vegetation community, which contains a mix of indigenous species that does not fall within the definition of the above-mentioned fynbos classification, has developed within the road reserve as a result of road construction and periodic maintenance. Notably, *Thamnochortus insignis* is one such species that has proliferated within the road reserve yet is not native to the area. It is believed that the use of the reed as thatching material by local residents has led to the distribution.

The proposed new access road between Lobelia Street and Chanteclair Avenue would transverse a transformed area. Immediately adjacent to Berghof, there exists remnant fynbos that has been heavily degraded by trees having grown and subsequently being felled. Towards the east, the area is mostly vegetated with exotic species such as *Eucalyptus conferruminata*, *Pinus halepensis*, *Hakea drupacea* and *Acacia* spp.

5. RATIONALE FOR REQUIRED SPECIALIST STUDIES

5.1 AGRICULTURAL IMPACT ASSESSMENT

An agricultural impact assessment is not deemed necessary as the proposed upgrade of the R43 and the associated new access roads are proposed to be undertaken within a widened declared provincial road reserve and is not considered to impact on any agricultural activities.

5.2 LANDSCAPE/VISUAL IMPACT ASSESSMENT

A landscape / visual impact assessment is not deemed necessary as the proposed project entails the upgrade of an existing road.

5.3 ARCHAEOLOGICAL AND CULTURAL HERITAGE IMPACT ASSESSMENT

A Notice of Intent to Development (NID) has been submitted to Heritage Western Cape (HWC). An Archaeological and Cultural Heritage Impact Assessment was not deemed necessary by HWC (see Appendix E of the draft BAR).

5.4 PALAEOLOGY IMPACT ASSESSMENT

Refer to response above. The NID included information on palaeontology. A palaeontology impact assessment was not deemed necessary by HWC (see Appendix E of the draft BAR).

5.5 NOISE IMPACT ASSESSMENT

A noise impact assessment is not deemed necessary as the proposed project will entail the redevelopment of noise berms which would be demolished as part of the proposed project. The provision of additional noise berms would also be considered, as appropriate.

5.6 TRAFFIC IMPACT ASSESSMENT

A traffic assessment was undertaken by the engineering team to inform the preliminary design of the project, with no further stand-alone assessment deemed necessary. Extracts of the traffic assessment taken from the project engineer's Concept and Viability Report are attached as Appendix G5 of the draft BAR.

5.7 GEOTECHNICAL ASSESSMENT

A geotechnical assessment was undertaken by the engineering team to inform the design of structures along the proposed road upgrade section. No additional input is deemed necessary. Extracts of the geotechnical assessment taken from the project engineer's Concept and Viability Report are attached as Appendix G4 of the draft BAR.

5.8 SOCIOECONOMIC ASSESSMENT

A specialist socioeconomic assessment is not deemed necessary due to the limited extent and short duration of the proposed project. Potential socio-economic impacts have been addressed in the draft BAR, as appropriate.

5.9 AMBIENT AIR QUALITY IMPACT ASSESSMENT

An ambient air quality impact assessment is not deemed necessary as the proposed project will produce minimal dust and vehicle emissions that will be released into the atmosphere. Air quality / dust nuisances during construction would be managed through the effective implementation of the relevant provisions of the EMPr (see Appendix H of the draft BAR).

5.10 ANIMAL SPECIES ASSESSMENT

An animal species assessment is not deemed necessary as the proposed project is essentially to be undertaken within a widened road reserve and is not considered to impact on any animal species. Furthermore, no animal species were observed on site. Potential impacts would be managed according to the provisions of the EMPr (see Appendix H of the draft BAR).

6. CONCLUSION

The DTPW is proposing to upgrade a section of the R43 between Botrivier and Hermanus. SLR has been appointed by EFG to undertake the required EA Application process in terms of the EIA Regulations, 2014 (as amended) promulgated under NEMA.

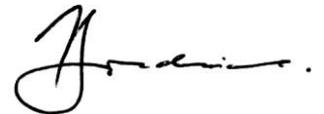
A Screening Tool Report was generated for the proposed project. According to the Screening Tool Report, various specialist studies were identified and recommended to be undertaken as part of the environmental process. As set out above, none of the specialist studies recommended by the Screening Tool Report were deemed necessary to be undertaken as part of the environmental process. Traffic and geotechnical assessments were undertaken by the engineering team.



Rizqah Baker
(Report Author)



Eloise Costandius
(Project Manager)



Fuad Fredericks
(Reviewer)

AFRICAN OFFICES

South Africa

CAPE TOWN

T: +27 21 461 1118

FOURWAYS

T: +27 11 467 0945

Namibia

WINDHOEK

T: + 264 61 231 287