



CTS HERITAGE

HERITAGE SCREENER

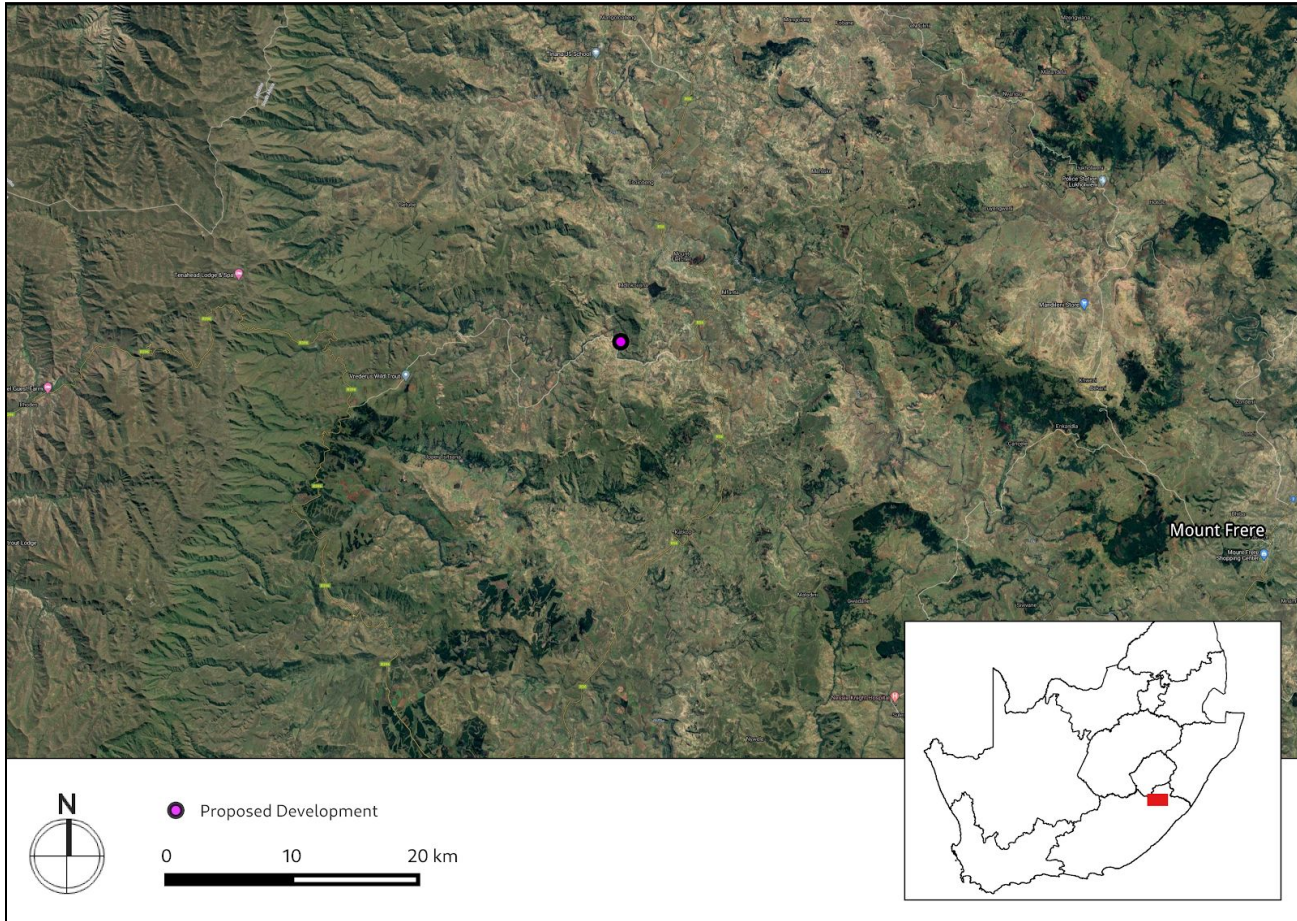
CTS Reference Number:	CTS20_129	
SAHRIS Ref Number		
Client:	Moira Cloete	
Date:	August 2020	
Title:	Proposed construction and upgrade of an existing access road and development of a new bridge on Tribal Trust Land Portion 62, Elundini Local Municipality	
Recommendation:	<p>RECOMMENDATION</p> <p>Based on the available information, the proposed development is not likely to impact on significant cultural landscape, built environment or archaeological heritage resources and as such, it is recommended that no further studies in terms of section 38 of the NHRA are required. However, it is recommended that a desktop palaeontological assessment is completed for this proposed development. The ECO should report the presence of any rock paintings to the National Inventory Unit at SAHRA and the ECPHRA while they are on site and should minimise disturbance caused by dust during roadworks in that area.</p>	

Figure 1a. Satellite map indicating the location of the proposed development in the Eastern Cape Province

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1. Proposed Development Summary

This application is for the proposed construction and upgrade of an existing access road in poor condition as well as the decommissioning of an existing unsafe, vehicular access bridge over the Luzi River near Mt. Fletcher. The Proponent intends providing the local Castle Rocks Village and community with vehicular/pedestrian access as well as enabling Eskom to energize and maintain the newly constructed electrical reticulation near Castle Rocks component of an energising project within the general area.

The total road length requiring upgrading is 3km and will not exceed 6m in width. The road follows a circular alignment as shown in the Locality Plan below. The existing bridge over the Luzi River is currently in an unsafe and structurally unsound condition and may collapse. The Engineers have proposed constructing a new access bridge over the Luzi River approximately 50m downstream from the current position. The existing bridge will be decommissioned.

2. Application References

Name of relevant heritage authority(s)	ECPHRA
Name of decision making authority(s)	DEDEAT

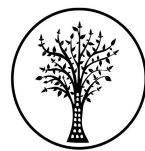
3. Property Information

Latitude / Longitude	30°45'4.49"S 28°27'14.98"E
Erf number / Farm number	Tribal Trust Land Portion 62
Local Municipality	Elundini Local Municipality
District Municipality	Ukhahlamba
Previous Magisterial District	Mt Fletcher
Province	Eastern Cape
Current Use	Road
Current Zoning	Road

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4. Nature of the Proposed Development

Total Surface Area	3km
Depth of excavation (m)	Approximately 1.5m
Height of development (m)	NA

5. Category of Development

x	Triggers: Section 38(8) of the National Heritage Resources Act
	Triggers: Section 38(1) of the National Heritage Resources Act
x	1. Construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier over 300m in length.
	2. Construction of a bridge or similar structure exceeding 50m in length.
	3. Any development or activity that will change the character of a site-
	a) exceeding 5 000m ² in extent
	b) involving three or more existing erven or subdivisions thereof
	c) involving three or more erven or divisions thereof which have been consolidated within the past five years
	4. Rezoning of a site exceeding 10 000m ²
	5. Other (state):

6. Additional Infrastructure Required for this Development

NA

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7. Mapping (please see Appendix 3 and 4 for a full description of our methodology and map legends)

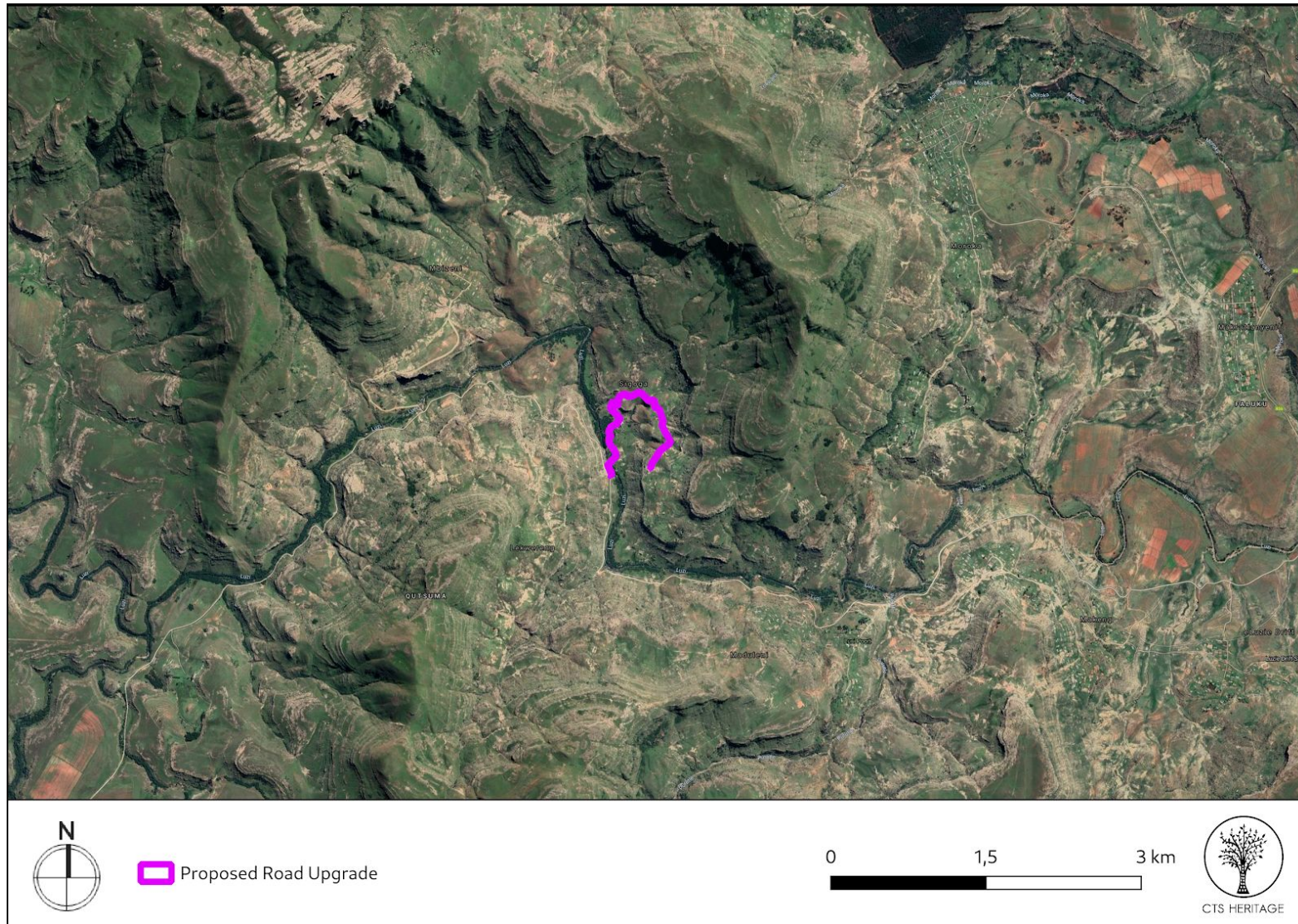


Figure 1b Overview Map. Satellite image (2019) indicating the proposed development area at closer range.

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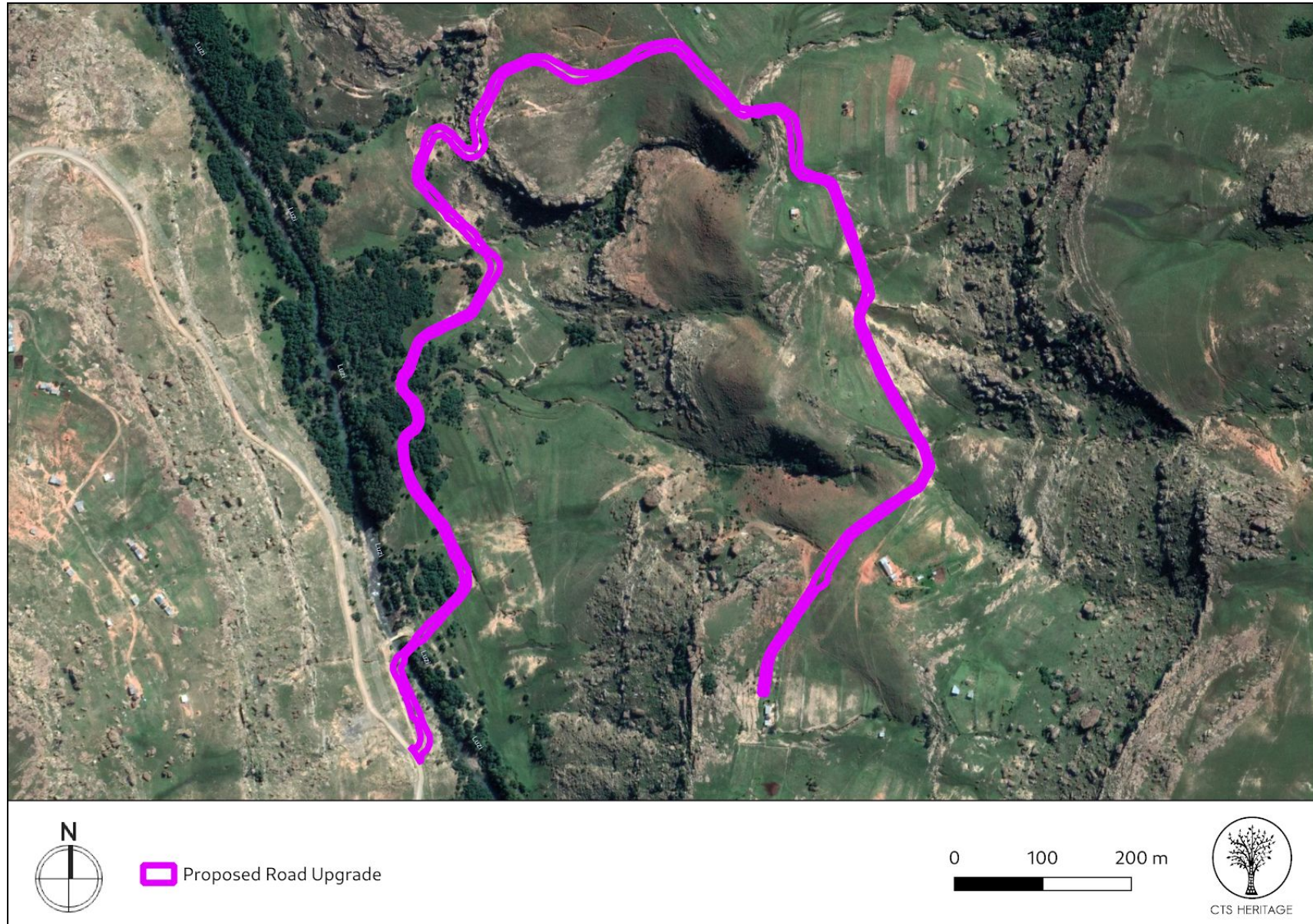


Figure 1c. Overview Map. Satellite image (2019) indicating the proposed development area at closer range.

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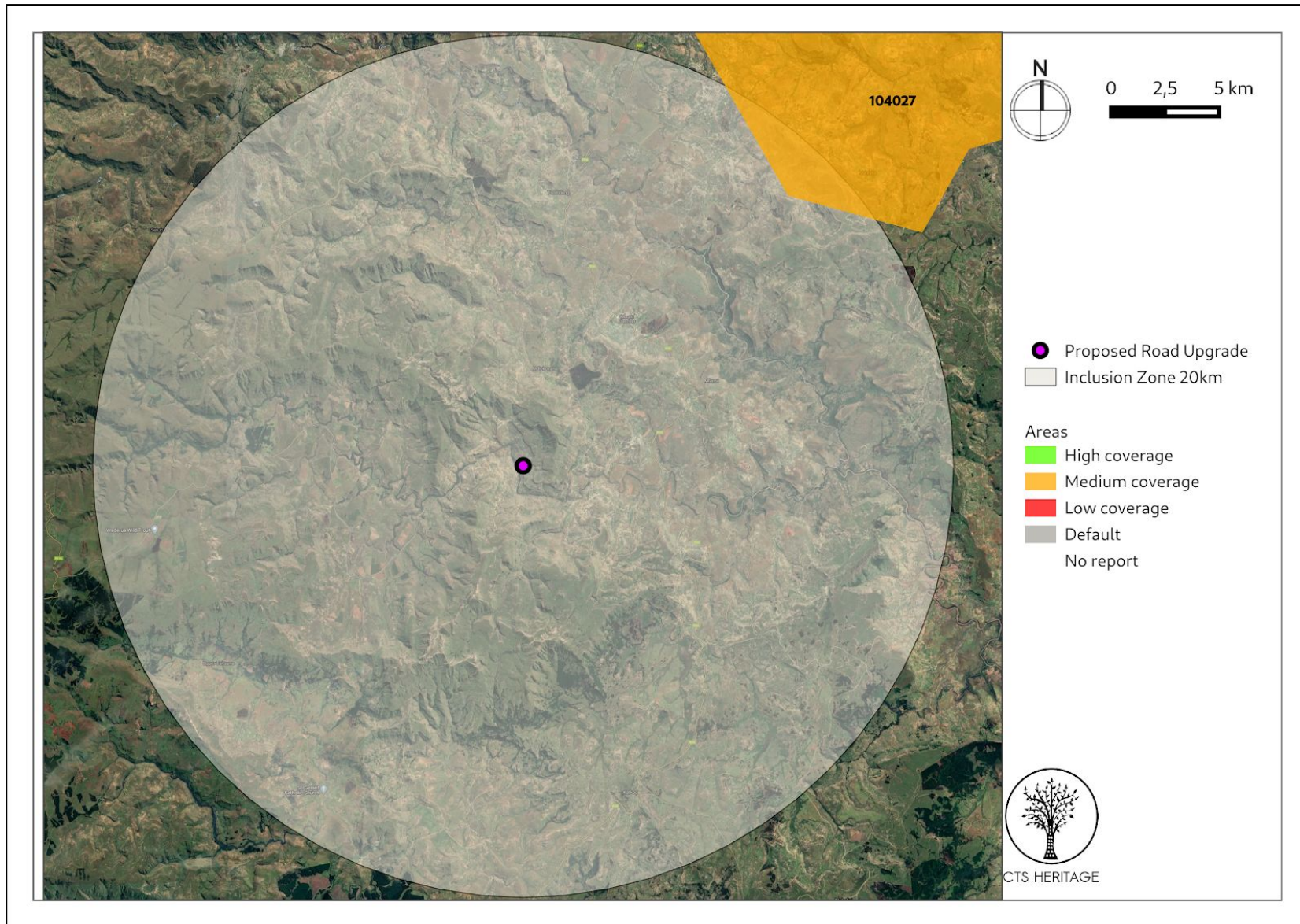


Figure 2. Previous HIAs Map. Previous Heritage Impact Assessments surrounding the proposed development area within 15km, with SAHRIS NIDS indicated. Please see Appendix 2 for a full reference list.

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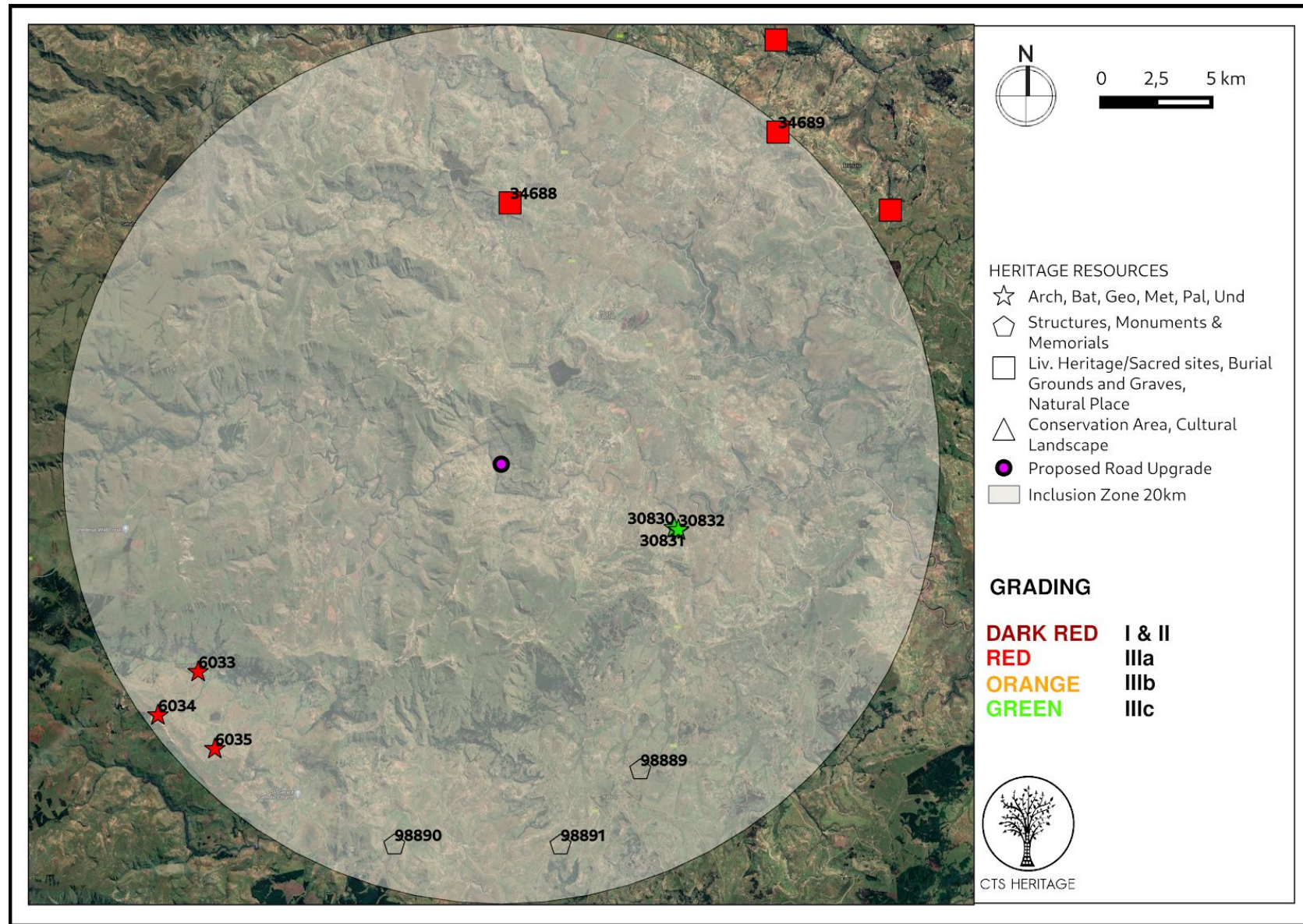


Figure 3. Heritage Resources Map. Heritage Resources previously identified in and near the study area, with SAHRIS Site IDs indicated. Please See Appendix 4 for full description of heritage resource types.

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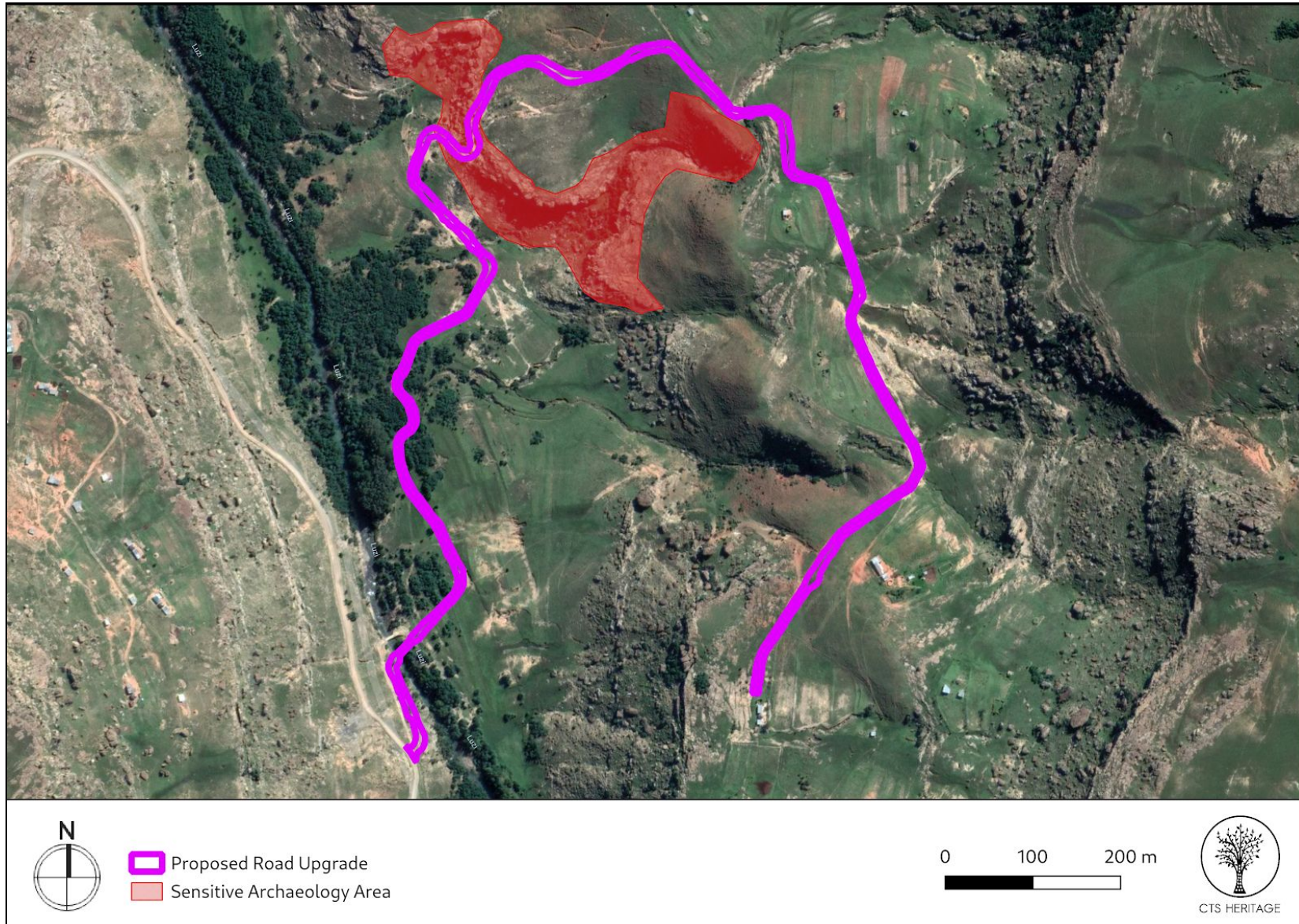
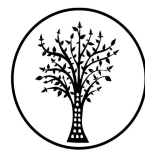


Figure 3a. Heritage Resources Map. Map indicating the area potentially sensitive for impacts to rock art and associated archaeology - the purple line follows the existing road which is going to be upgraded.

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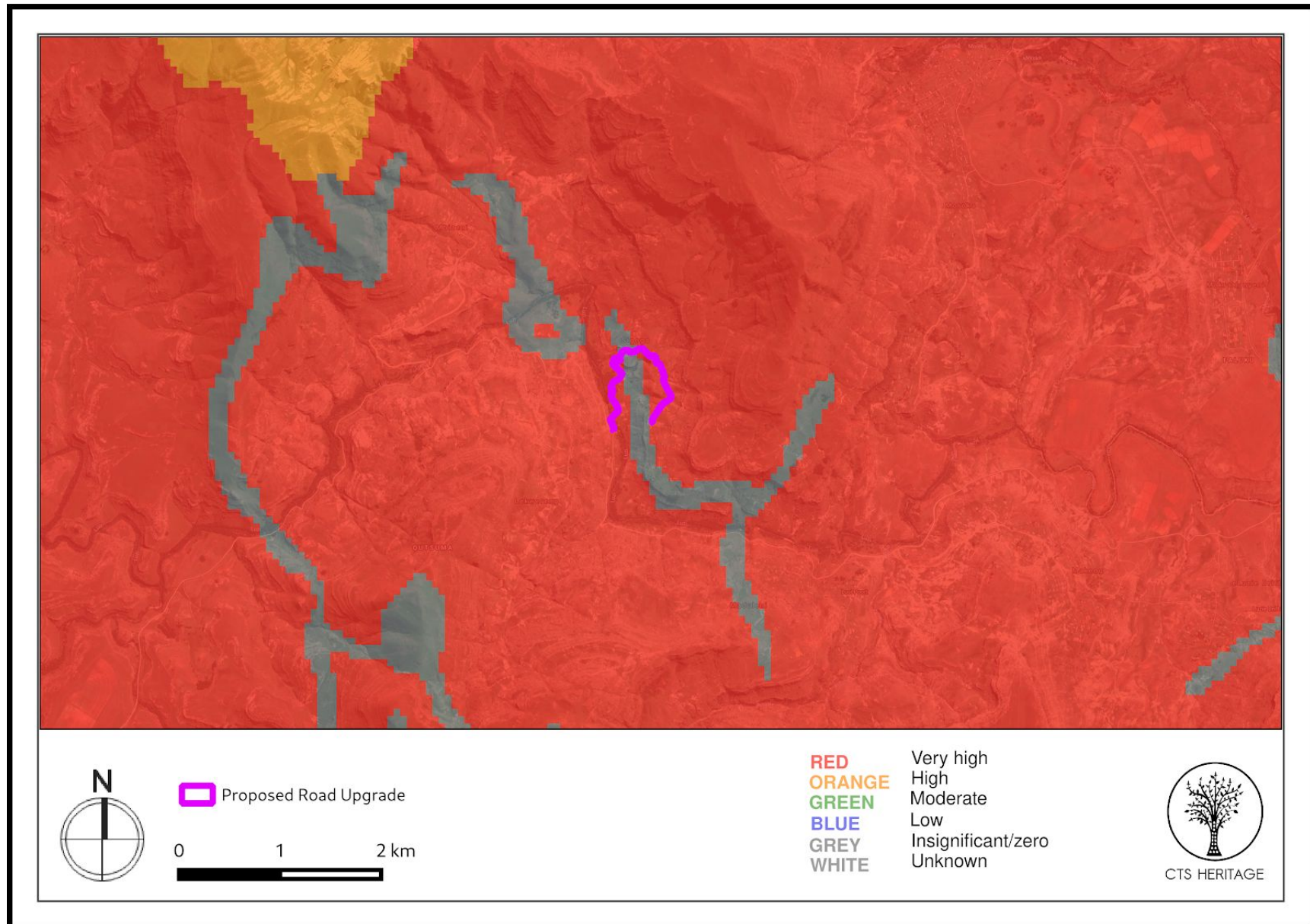
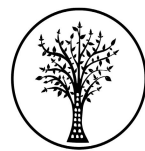


Figure 4. Palaeosensitivity Map. Indicating varied fossil sensitivity underlying the study area. Please See Appendix 3 for a full guide to the legend.

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8. Heritage statement and character of the area

This application is for the proposed upgrade of an existing road and bridge across the Luzi River located approximately 35km north of the town of Maclear. Maclear was founded in 1876 as a military camp, called *Nqanqaru Drift* and developed rapidly, reaching municipal status in 1916. Very little heritage survey work through impact assessments has taken place within the vicinity of the study area, with only one heritage report located within a 20km radius of the development area (Figure 2).

In terms of archaeological resources, isolated examples of Early and Middle Stone Age material are known to occur throughout the Eastern Cape, predominantly *ex situ* and often along water courses, while Later Stone Age sites, i.e. significant concentrations of *in situ* LSA material, are found in this region (Kruger 2013, NID 157098). The LSA rock art of this region is well-studied and abundant (Booth 2013, NID 124732), while local examples of historic rock paintings made by Europeans are also known (Kruger 2013, NID 157102). Early Iron Age (EIA) remains in the Eastern Cape are known from the areas around Mtatha, and are identified by the presence of thick-walled well-decorated pot sherds, with mixed farmers clearly settled in the region between A.D. 600-700, although it seems there was little or no settlement in the dry high-altitude grasslands of the north-western parts of the Eastern Cape and Lesotho until after AD 1600 (Kruger 2013, NID 157105). Later Iron Age (LIA) farmer communities left the river valleys to settle on hilltops, effectively expanding the area of occupation in this time period, however, in this region, stone built houses were not common, making the sites less visible in the landscape (Booth 2013, NID 124732). There are no known structures that will be impacted by the proposed road upgrade.

European incursion into this area began in the late 1700s with the arrival of the trekboers, movement that culminated in wars in the area between the new arrivals and the existing, predominantly Xhosa, inhabitants. By the mid-1800s, however, whites had annexed the area successfully, and all land was in the hands of the settlers (Kruger 2013, NID 157102). The new settlers were responsible for the establishment of farms, with farmhouses, farming infrastructure and burial grounds accompanying this development, and the establishment of large coal mines around Indwe, to the west of the study area (Mabin 1987). In this region, and related to the expansion and consolidation of the coal mine at Indwe, conflict between the white farmers and the local black people was particularly fraught, and the region around Indwe saw the eviction of people from their land three times between 1880 and 1920. It was the discovery of extensive coal deposits in the region that prompted the construction of the railway from Sterkstroom to Indwe in 1895, with the assistance of Rhodes's De Beers Company (Mabin 1987). This private railway line was taken over by the government in 1902, following the South African War, and extended to Maclear by 1906, until it was finally shut down in 2001 (Wagenaar 2003). There are no formally declared heritage resources within a 20km radius of the study area. The heritage resources identified through survey work conducted in the inclusion zone consist of burial grounds and graves, rock art and archaeological sites. In addition to these highly sensitive heritage resources, Iron Age stone walling and terracing (Kruger 2013, NID 157098) as well as historic farmsteads, cattle kraals and trading posts have been identified in the broader area (Kruger 2013, NID 157102, 157098, 157105; see Appendix 1 for Site IDs).

In the known heritage resources maps (see maps 3a to 3f above as well as Appendix 2), the areas which appear to be devoid of heritage resources **have not yet been systematically surveyed** and as such, cannot be understood to represent areas devoid of heritage resources. The area of development, located as it is within a watercourse, and adjacent to disturbed agricultural land, is unlikely to yield *in situ*, or significant, heritage resources. However, although there are no known rock art sites in the area, there remains the possibility of rock art and associated archaeology being present in the rocky overhangs of the rocky outcrop that runs through the area proposed for development. As such, care must be taken when construction is taking place in proximity to the area indicated as sensitive for archaeology in Figure 3a. Rock Art sites, and a buffer zone around such sites of 10m, are protected in terms of the NHRA and may not be impacted, directly or indirectly. The current track which is being upgraded for the roadworks is at least 120m from the centre of the largest overhang and it is unlikely that negative impacts to possible rock art in the overhang will be made. However, the ECO should report the presence of any rock paintings to the National Inventory Unit at SAHRA and the ECPHRA while they are on site and should minimise disturbance caused by dust during roadworks in that area.

The possibility of burials being present in the area, given their abundance in well surveyed areas to the south east, cannot be ruled out, and if any archaeological or human remains material is identified during development then work must cease and the Eastern Cape PHRA contacted immediately regarding a way forward.

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The study area falls within a region of very high palaeontological sensitivity (see map 4 above as well as Appendix 3). According to the SAHRIS Fossil Layer Browser, the underlying bedrocks consist of the Molteno and Elliot Formations of the Late Triassic. These rock types are extremely rich in very diverse fossil flora, including ferns, horsetails, and particularly gymnosperm including conifers, ginkgophytes, cycads, seed ferns etc, as well as silicified woods and palynomorphs, as well as important insect biota, rare fish, bivalves, invertebrate trace fossils, and dinosaur trackways. The deposits constitute the richest Triassic floras in the world, while the trackways provide some of the earliest indirect evidence for the first dinosaurs. As such, it is recommended that a desktop palaeontological assessment is complete for this proposed development (see attached).

RECOMMENDATION

Based on the available information, the proposed development is not likely to impact on significant cultural landscape, built environment or archaeological heritage resources and as such, it is recommended that no further studies in terms of section 38 of the NHRA are required. However, it is recommended that a desktop palaeontological assessment is completed for this proposed development. The ECO should report the presence of any rock paintings to the National Inventory Unit at SAHRA and the ECPHRA while they are on site and should minimise disturbance caused by dust during roadworks in that area.

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APPENDIX 1: List of heritage resources within the 20km Inclusion Zone

Site ID	Site no	Full Site Name	Site Type	Grading
30830	UMLANDO-MFR3:		Archaeological	Grade IIIc
30831	UMLANDO-MFR4		Archaeological	Grade IIIc
30832	UMLANDO-MFR5:		Archaeological	Grade IIIc
34688	FOB006	FOBANE 006	Burial Grounds & Graves	Grade IIIa
34689	FOB007	FOBANE 007	Burial Grounds & Graves	Grade IIIa
6034	3028CD 001	kwaBhaliwe	Rock Art	Grade IIIa
6035	3028CD 002	kwaMantangane	Rock Art	Grade IIIa
6033	3028CD 003	eLalini ebomvu	Rock Art	Grade IIIa
98889	XVA61	Xhosa Vernacular Architecture 61	Building	Grade IIIc
98890	XVA62	Xhosa Vernacular Architecture 62	Building	Grade IIIc
98891	XVA63	Xhosa Vernacular Architecture 63	Building	Grade IIIc

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APPENDIX 2: Reference List

Heritage Impact Assessments				
Nid	Report Type	Author/s	Date	Title
104027	AIA Phase 1	Frans Prins, Sian Hall	08/07/2012	CULTURAL HERITAGE IMPACT ASSESSMENT OF THE PROPOSED FOBANE WATER SUPPLY SCHEME, ALFRED NZO DISTRICT MUNICIPALITY.
3763	AIA	Cobus Dreyer	05/10/2007	First Phase Archaeological and Cultural Heritage Assessment of the Proposed Diamond Prospecting on the Farm Saamwerk (Portion 14 Grootrivierwagendrif 29), Aliwal North, Eastern Cape:
124732	AIA	Celeste Booth	31/03/2013	Archaeological Desktop Study for the Proposed Elliot Wind Energy Facility on a Site West of Elliot, Sakhisizwe Local Municipality
4398	HIA	Len van Schalkwyk, Elizabeth Wahl	13/11/2007	Heritage Impact Assessment of Waste Water Treatment Works, Ugie, Eastern Cape Province, South Africa
157102	AIA	Neels Kruger	31/03/2013	Archaeological Impact Assessment for the Sinqumeni & Dulati Bulk Water Supply Scheme, Eastern Cape Province
157098	AIA	Neels Kruger	31/07/2013	Archaeological Impact Assessment for the Cluster 6 Lokshini Water Supply Augmentation Project, Chris Hani District Municipality, Eastern Cape Province
157105	AIA	Neels Kruger	30/11/2013	Archaeological Impact Assessment for the Ngcobo Cluster 6 Rising Main West Bulk Water Supply Scheme, Upper Gcaka Area, Eastern Cape Province

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APPENDIX 3 - Keys/Guides

Key/Guide to Acronyms

AIA	Archaeological Impact Assessment
DARD	Department of Agriculture and Rural Development (KwaZulu-Natal)
DEA	Department of Environmental Affairs (National)
DEADP	Department of Environmental Affairs and Development Planning (Western Cape)
DEDEAT	Department of Economic Development, Environmental Affairs and Tourism (Eastern Cape)
DEDECT	Department of Economic Development, Environment, Conservation and Tourism (North West)
DEDT	Department of Economic Development and Tourism (Mpumalanga)
DEDTEA	Department of economic Development, Tourism and Environmental Affairs (Free State)
DENC	Department of Environment and Nature Conservation (Northern Cape)
DMR	Department of Mineral Resources (National)
GDARD	Gauteng Department of Agriculture and Rural Development (Gauteng)
HIA	Heritage Impact Assessment
LEDET	Department of Economic Development, Environment and Tourism (Limpopo)
MPRDA	Mineral and Petroleum Resources Development Act, no 28 of 2002
NEMA	National Environmental Management Act, no 107 of 1998
NHRA	National Heritage Resources Act, no 25 of 1999
PIA	Palaeontological Impact Assessment
SAHRA	South African Heritage Resources Agency
SAHRIS	South African Heritage Resources Information System
VIA	Visual Impact Assessment

Full guide to Palaeosensitivity Map legend

RED:	VERY HIGH - field assessment and protocol for finds is required
ORANGE/YELLOW:	HIGH - desktop study is required and based on the outcome of the desktop study, a field assessment is likely
GREEN:	MODERATE - desktop study is required
BLUE/PURPLE:	LOW - no palaeontological studies are required however a protocol for chance finds is required
GREY:	INSIGNIFICANT/ZERO - no palaeontological studies are required
WHITE/CLEAR:	UNKNOWN - these areas will require a minimum of a desktop study.

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APPENDIX 4 - Methodology

The Heritage Screener summarises the heritage impact assessments and studies previously undertaken within the area of the proposed development and its surroundings. Heritage resources identified in these reports are assessed by our team during the screening process.

The heritage resources will be described both in terms of **type**:

- Group 1: Archaeological, Underwater, Palaeontological and Geological sites, Meteorites, and Battlefields
- Group 2: Structures, Monuments and Memorials
- Group 3: Burial Grounds and Graves, Living Heritage, Sacred and Natural sites
- Group 4: Cultural Landscapes, Conservation Areas and Scenic routes

and **significance** (Grade I, II, IIIa, b or c, ungraded), as determined by the author of the original heritage impact assessment report or by formal grading and/or protection by the heritage authorities.

Sites identified and mapped during research projects will also be considered.

DETERMINATION OF THE EXTENT OF THE INCLUSION ZONE TO BE TAKEN INTO CONSIDERATION

The extent of the inclusion zone to be considered for the Heritage Screener will be determined by CTS based on:

- the size of the development,
- the number and outcome of previous surveys existing in the area
- the potential cumulative impact of the application.

The inclusion zone will be considered as the region within a maximum distance of 50 km from the boundary of the proposed development.

DETERMINATION OF THE PALAEOONTOLOGICAL SENSITIVITY

The possible impact of the proposed development on palaeontological resources is gauged by:

- reviewing the fossil sensitivity maps available on the South African Heritage Resources Information System (SAHRIS)
- considering the nature of the proposed development
- when available, taking information provided by the applicant related to the geological background of the area into account

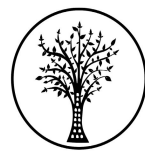
DETERMINATION OF THE COVERAGE RATING ASCRIBED TO A REPORT POLYGON

Each report assessed for the compilation of the Heritage Screener is colour-coded according to the level of coverage accomplished. The extent of the surveyed coverage is labeled in three categories, namely low, medium and high. In most instances the extent of the map corresponds to the extent of the development for which the specific report was undertaken.

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Low coverage will be used for:

- desktop studies where no field assessment of the area was undertaken;
- reports where the sites are listed and described but no GPS coordinates were provided.
- older reports with GPS coordinates with low accuracy ratings;
- reports where the entire property was mapped, but only a small/limited area was surveyed.
- uploads on the National Inventory which are not properly mapped.

Medium coverage will be used for

- reports for which a field survey was undertaken but the area was not extensively covered. This may apply to instances where some impediments did not allow for full coverage such as thick vegetation, etc.
- reports for which the entire property was mapped, but only a specific area was surveyed thoroughly. This is differentiated from low ratings listed above when these surveys cover up to around 50% of the property.

High coverage will be used for

- reports where the area highlighted in the map was extensively surveyed as shown by the GPS track coordinates. This category will also apply to permit reports.

RECOMMENDATION GUIDE

The Heritage Screener includes a set of recommendations to the applicant based on whether an impact on heritage resources is anticipated. One of three possible recommendations is formulated:

(1) The heritage resources in the area proposed for development are sufficiently recorded - The surveys undertaken in the area adequately captured the heritage resources. There are no known sites which require mitigation or management plans. No further heritage work is recommended for the proposed development.

This recommendation is made when:

- enough work has been undertaken in the area
- it is the professional opinion of CTS that the area has already been assessed adequately from a heritage perspective for the type of development proposed

(2) The heritage resources and the area proposed for development are only partially recorded - The surveys undertaken in the area have not adequately captured the heritage resources and/or there are sites which require mitigation or management plans. Further specific heritage work is recommended for the proposed development.

This recommendation is made in instances in which there are already some studies undertaken in the area and/or in the adjacent area for the proposed development. Further studies in a limited HIA may include:

- improvement on some components of the heritage assessments already undertaken, for instance with a renewed field survey and/or with a specific specialist for the type of heritage resources expected in the area
- compilation of a report for a component of a heritage impact assessment not already undertaken in the area

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- undertaking mitigation measures requested in previous assessments/records of decision.

(3) The heritage resources within the area proposed for the development have not been adequately surveyed yet - Few or no surveys have been undertaken in the area proposed for development. A full Heritage Impact Assessment with a detailed field component is recommended for the proposed development.

Note:

The responsibility for generating a response detailing the requirements for the development lies with the heritage authority. However, since the methodology utilised for the compilation of the Heritage Screeners is thorough and consistent, contradictory outcomes to the recommendations made by CTS should rarely occur. Should a discrepancy arise, CTS will immediately take up the matter with the heritage authority to clarify the dispute.

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