

CTS HERITAGE

HERITAGE SCREENER

CTS Reference Number:	CTS17_170
SAHRIS CASE ID:	12301
Client:	Terreco Environmental
Date:	5 March 2018
Title:	The Improvement Of National Route R63 Sections 15 And 16 From Bisho (km 5.8) To The N6 Bridge Intersection (km 1.0)
Recommendation by CTS Heritage Specialists:	<p>RECOMMENDATION: The heritage resources within the area proposed for the development have not been adequately surveyed yet See Section 8 for full recommendations.</p>

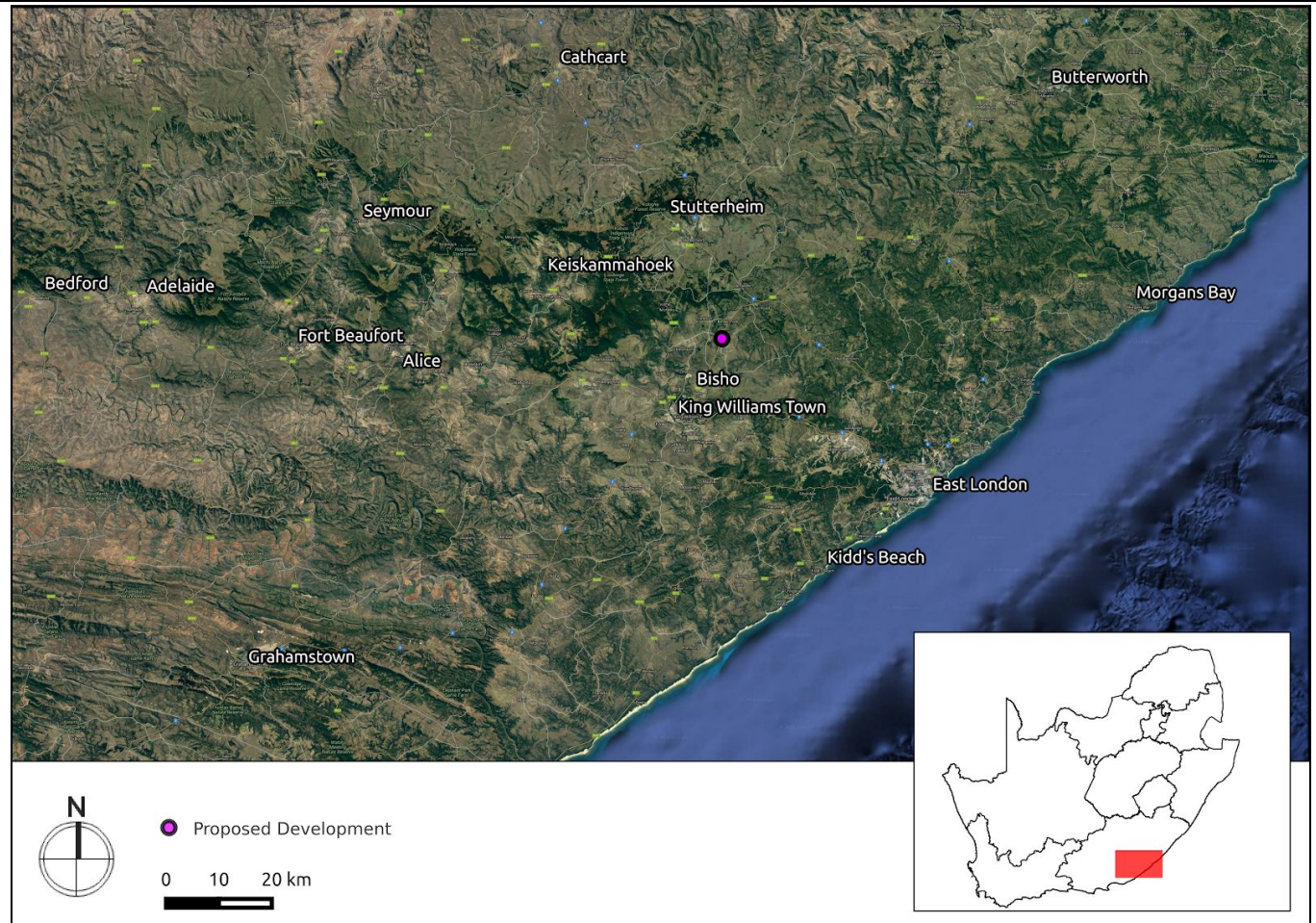
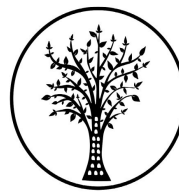


Figure 1a. Satellite map indicating the location of the proposed development in the Eastern Cape Province



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1. Proposed Development Summary

This application is for the improvement of National Route R63 Sections 15 and 16 from Bhisho (km 5.8) to the N6 Bridge Intersection (km 1.0). The project covers the last 22.7 km of Section 15 of National Route R63 plus the first kilometre of Section 16, i.e. a total length of 23.7 km. This section consists of a single carriageway rural highway. The proposal is to upgrade the existing road using borrow pits (to be established).

2. Application References

Name of relevant heritage authority(s)	Eastern Cape Provincial Heritage Resources Authority (ECPHRA)
Name of decision making authority(s)	Department of Economic Development, Environmental Affairs and Tourism (DEDEAT)

3. Property Information

Latitude / Longitude	-32.756893° / 27.489554°
Erf number / Farm number	FARM 574, FARM 275, FARM 28, FARM 26, FARM 25, Bisho-Pilton
Local Municipality	Buffalo City / Amahlathi Local Municipality
District Municipality	Amatole Municipality
Previous Magisterial District	Zwelitsha / King William's Town
Province	Eastern Cape
Current Use	National Road
Current Zoning	National Road
Total Extent	23.7km

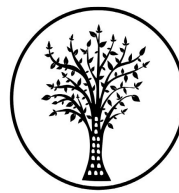
4. Nature of the Proposed Development

Total Surface Area	23.7km
Depth of excavation (m)	NA
Height of development (m)	NA
Expected years of operation before decommission	NA

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5. Category of Development

Triggers: Section 38(8) of the National Heritage Resources Act	X
Triggers: Section 38(1) of the National Heritage Resources Act	
1. Construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier over 300m in length.	X
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):	

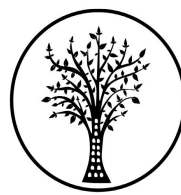
6. Additional Infrastructure Required for this Development

Borrow pits and quarries (see maps below)

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

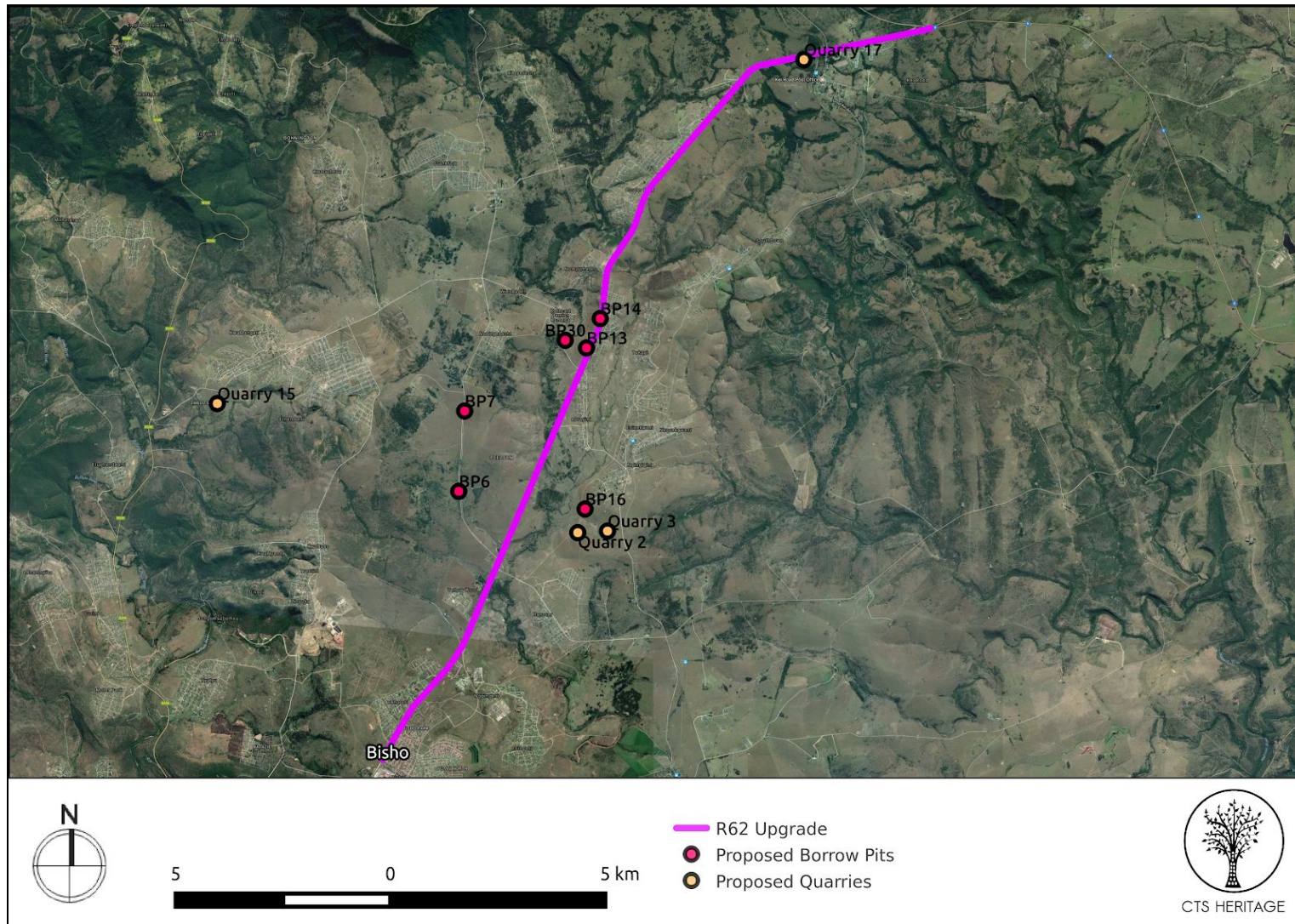
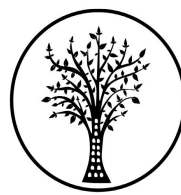


Figure 1b. Overview Map. Satellite image (2018) indicating the proposed development area at closer range.



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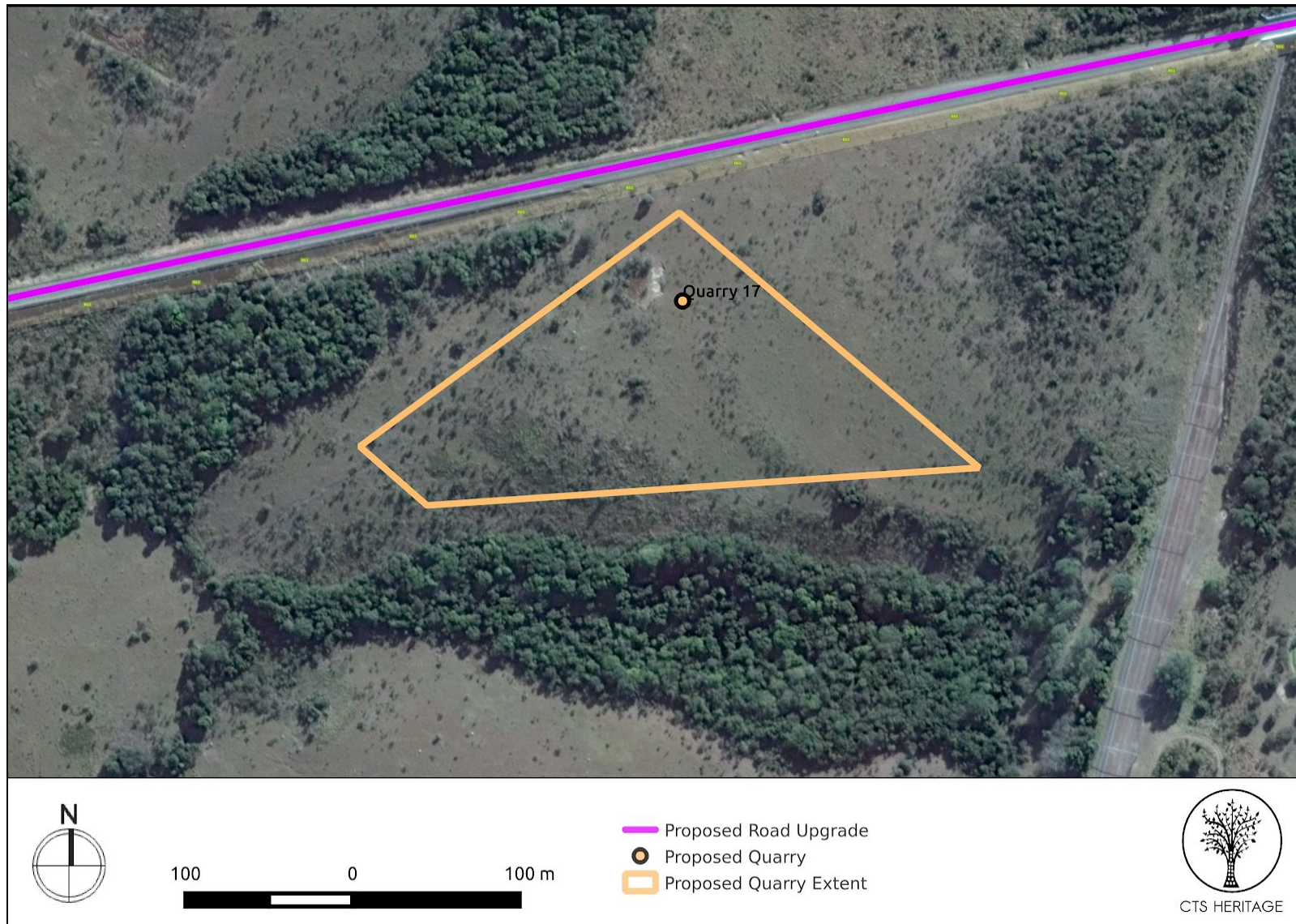
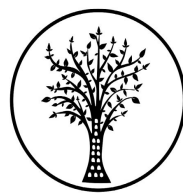


Figure 1c. Overview Map. Satellite image (2018) indicating the proposed development area at closer range.



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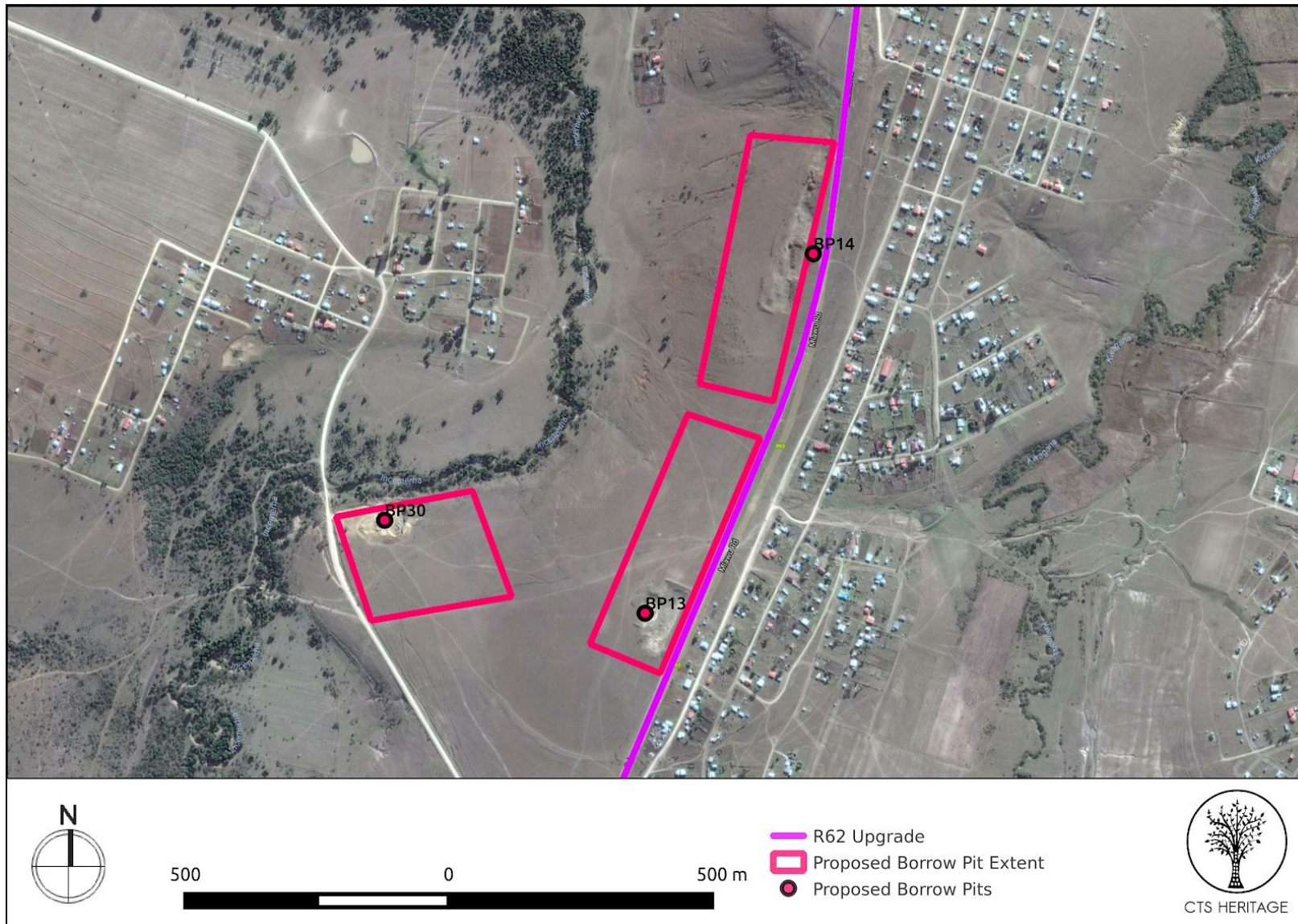
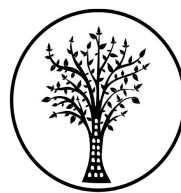


Figure 1d. Overview Map. Satellite image (2018) indicating the proposed development area at closer range.



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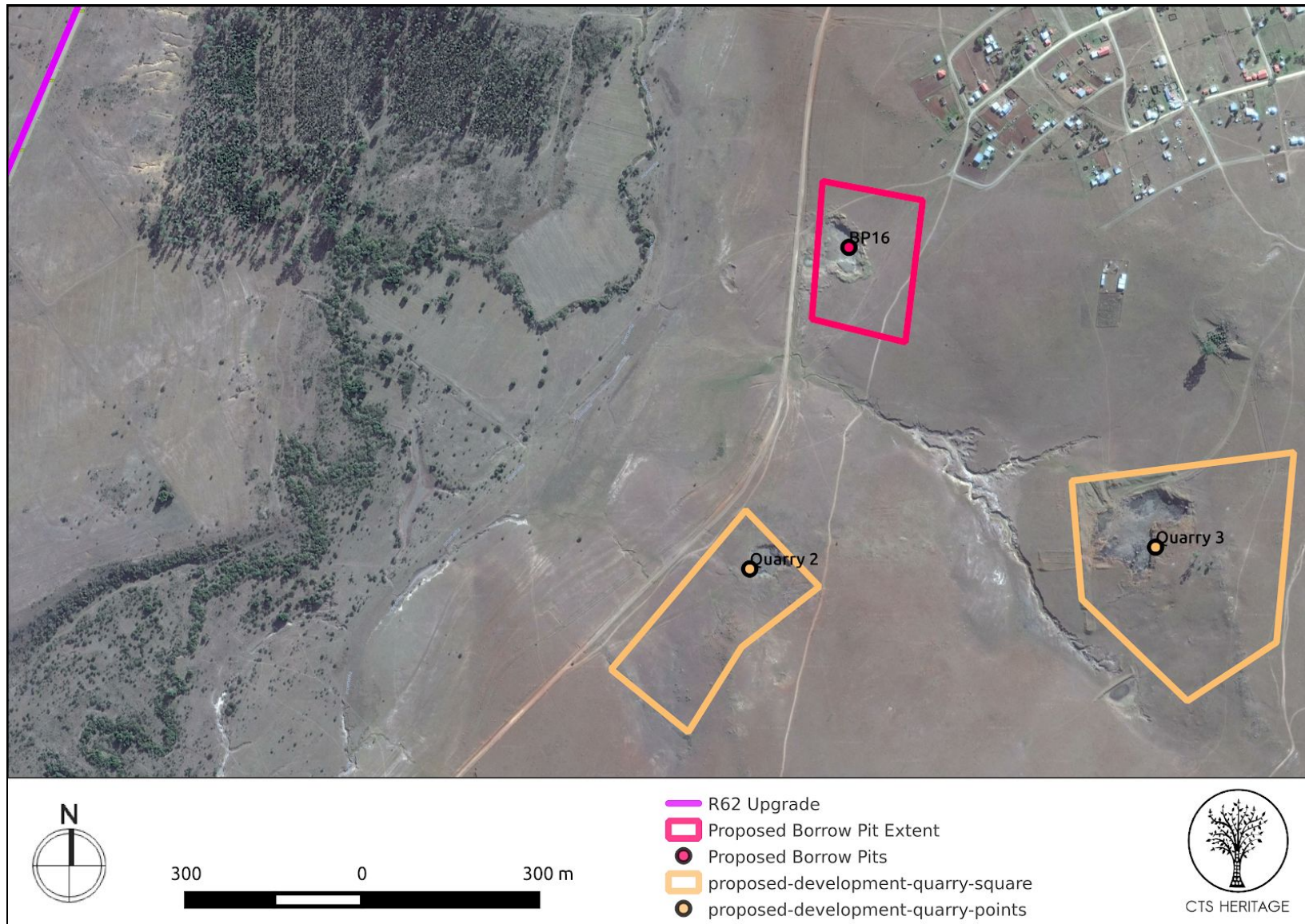
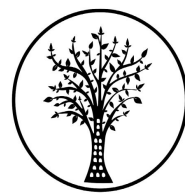


Figure 1d Overview Map. Satellite image (2018) indicating the proposed development area at closer range.



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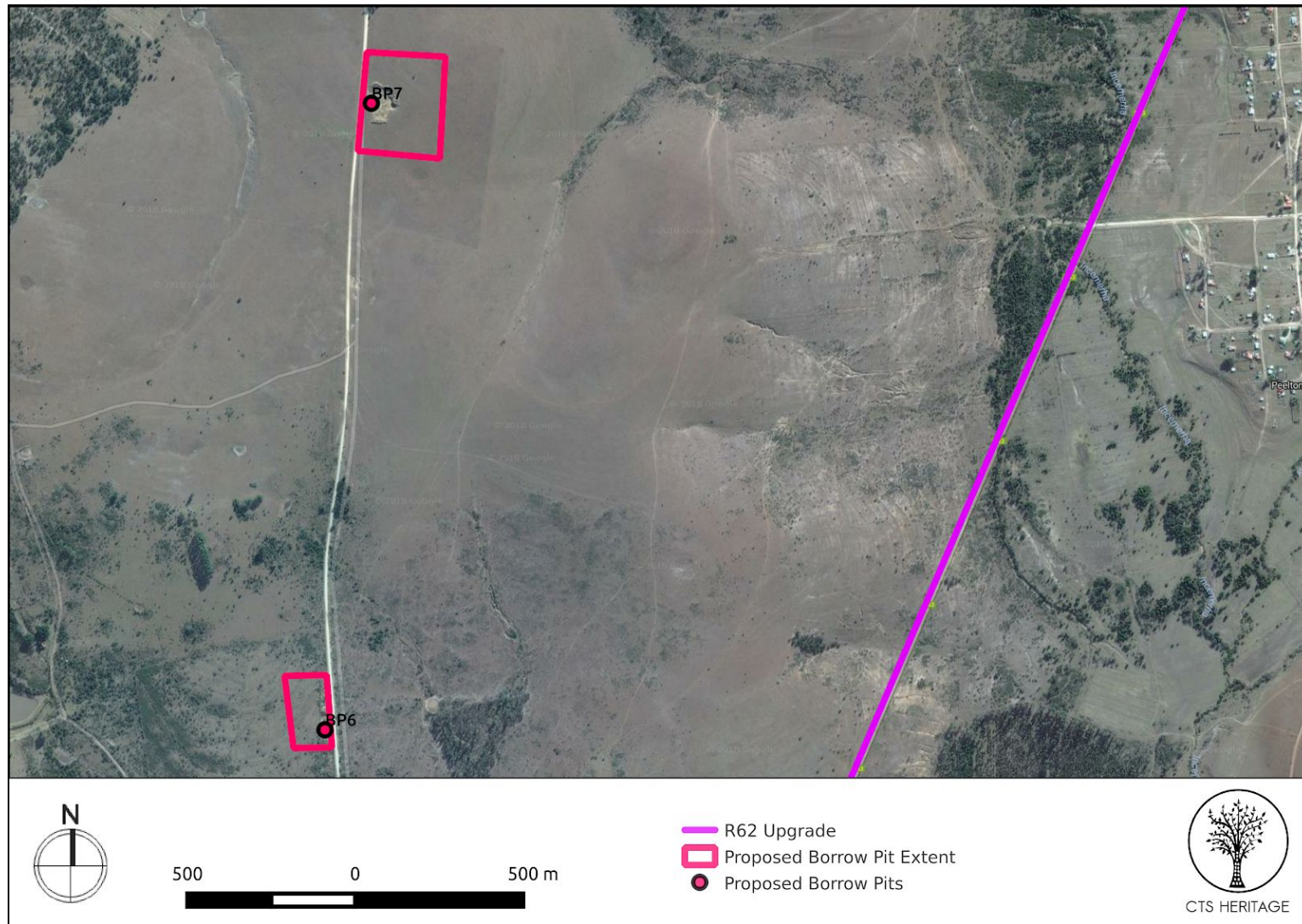
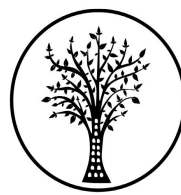


Figure 1e Overview Map. Satellite image (2018) indicating the proposed development area at closer range.



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Figure 1f Overview Map. Satellite image (2018) indicating the proposed development area at closer range.

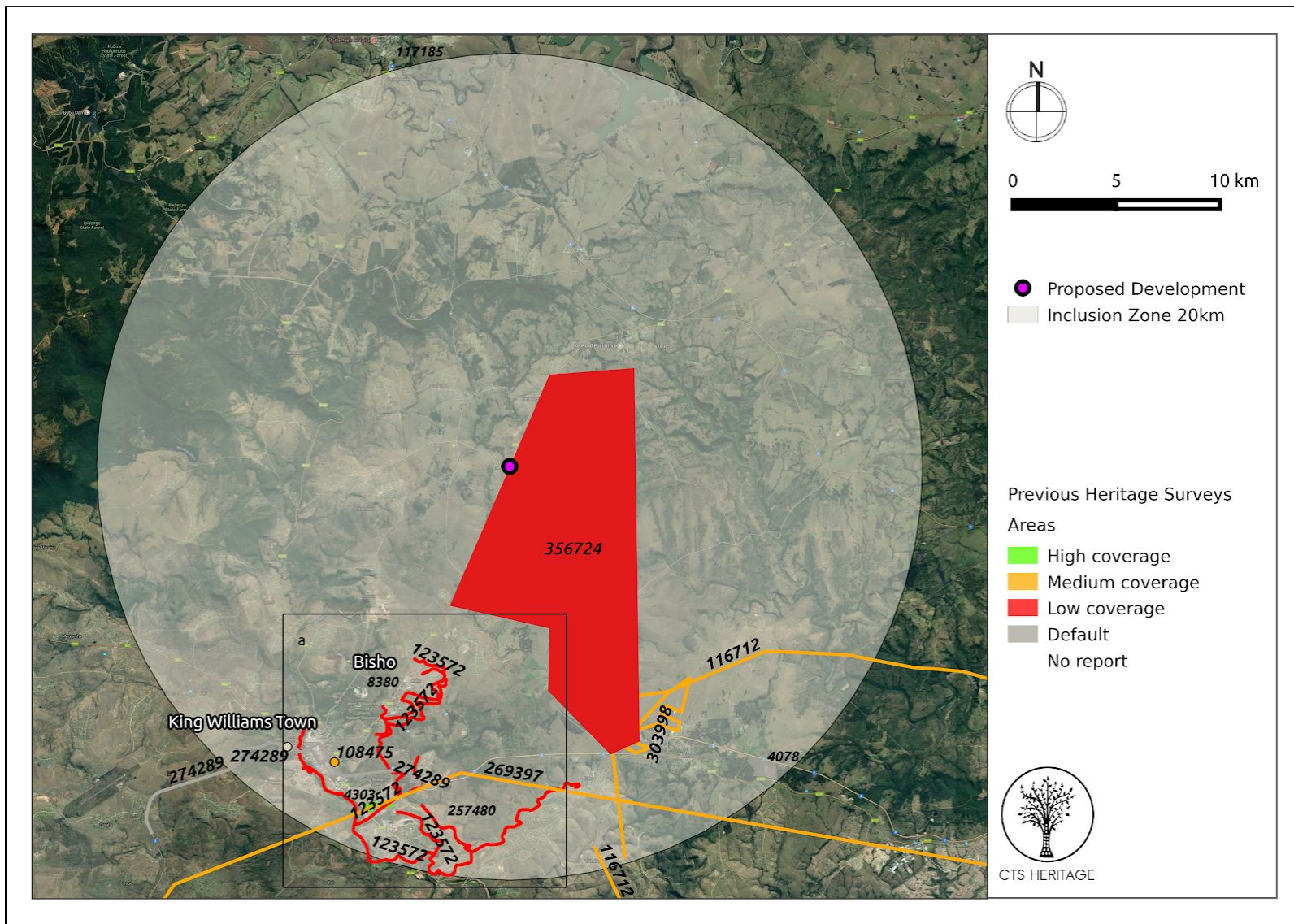
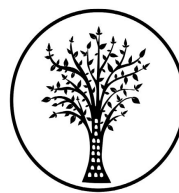
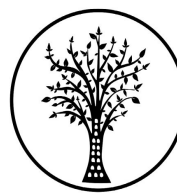


Figure 2a. Previous HIAs Map. Previous Heritage Impact Assessments surrounding the proposed development area within 20km, with SAHRIS NIDS indicated. Please see Appendix 2 for full reference list.



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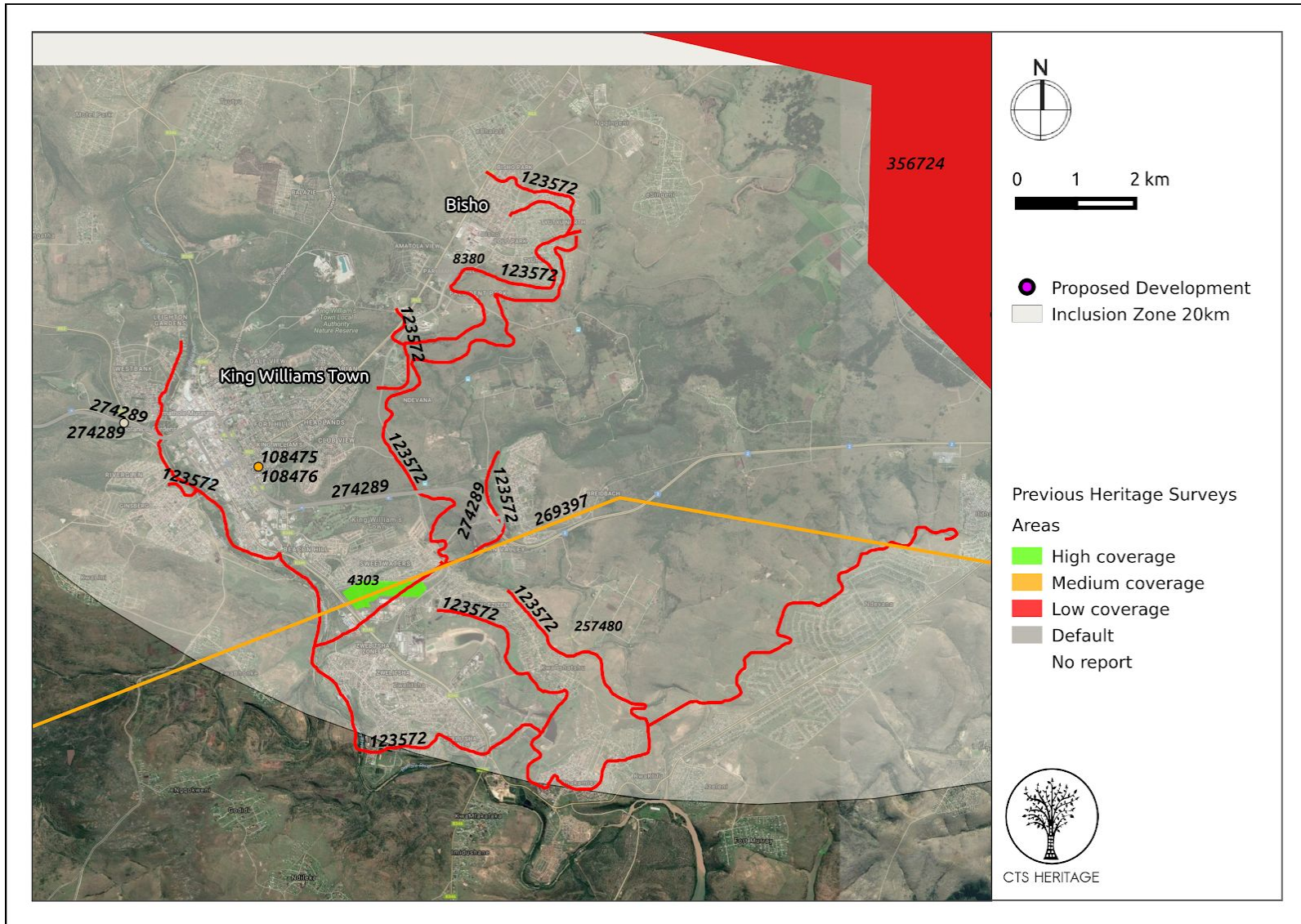
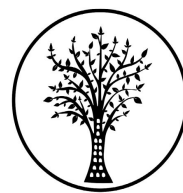


Figure 2b. Inset Map



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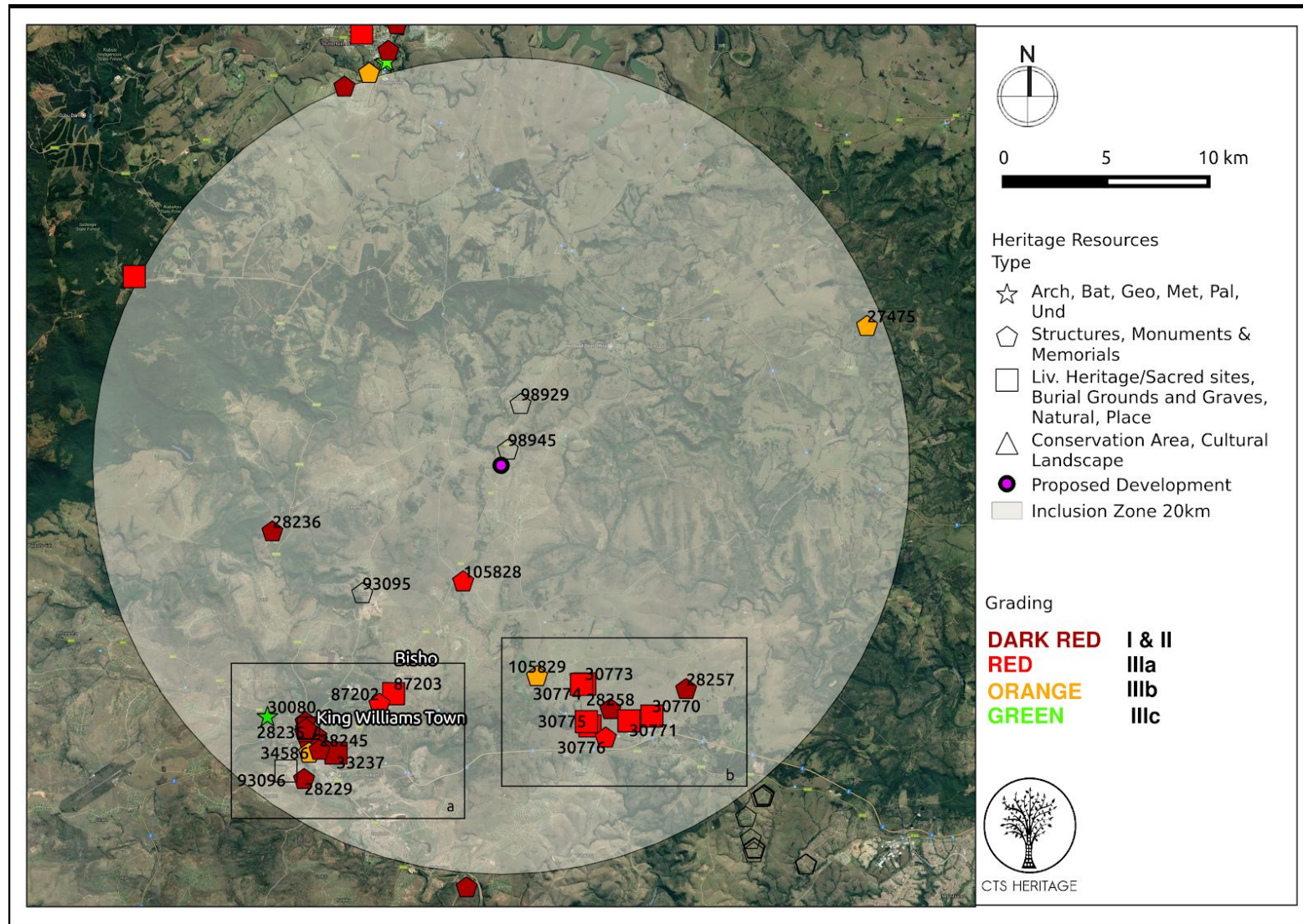
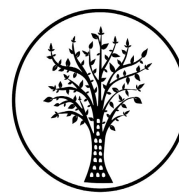


Figure 3. Heritage Resources Map. Heritage Resources previously identified in and near the study area, with SAHRIS Site IDs indicated (see Figure 3b for inset). Please See Appendix 4 for full description of heritage resource types.



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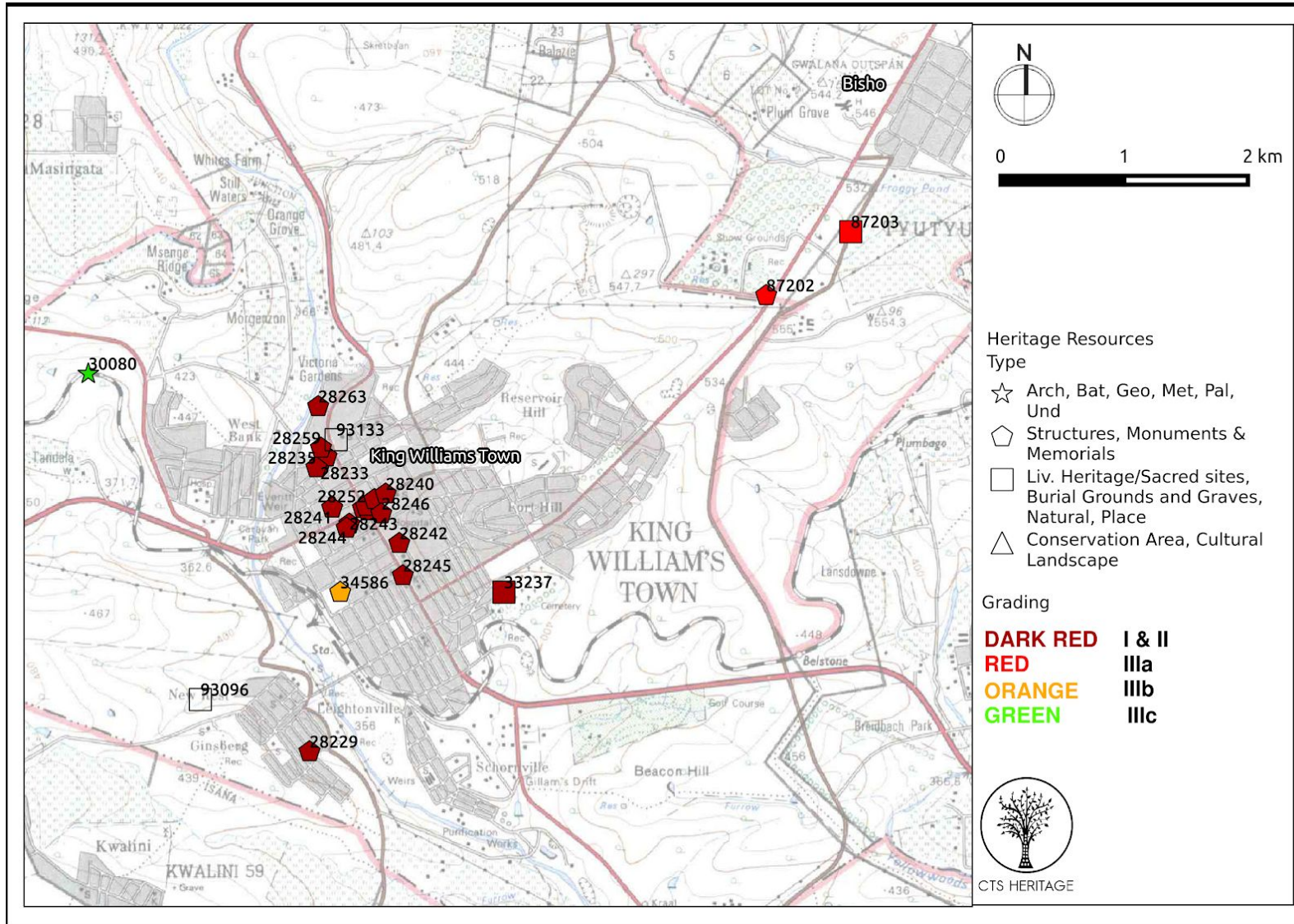
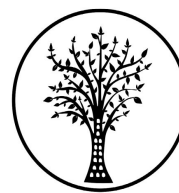


Figure 3a. Inset Map. Indicating spatial layout of sites in this region. Please see Appendix 1 for all Site IDs.



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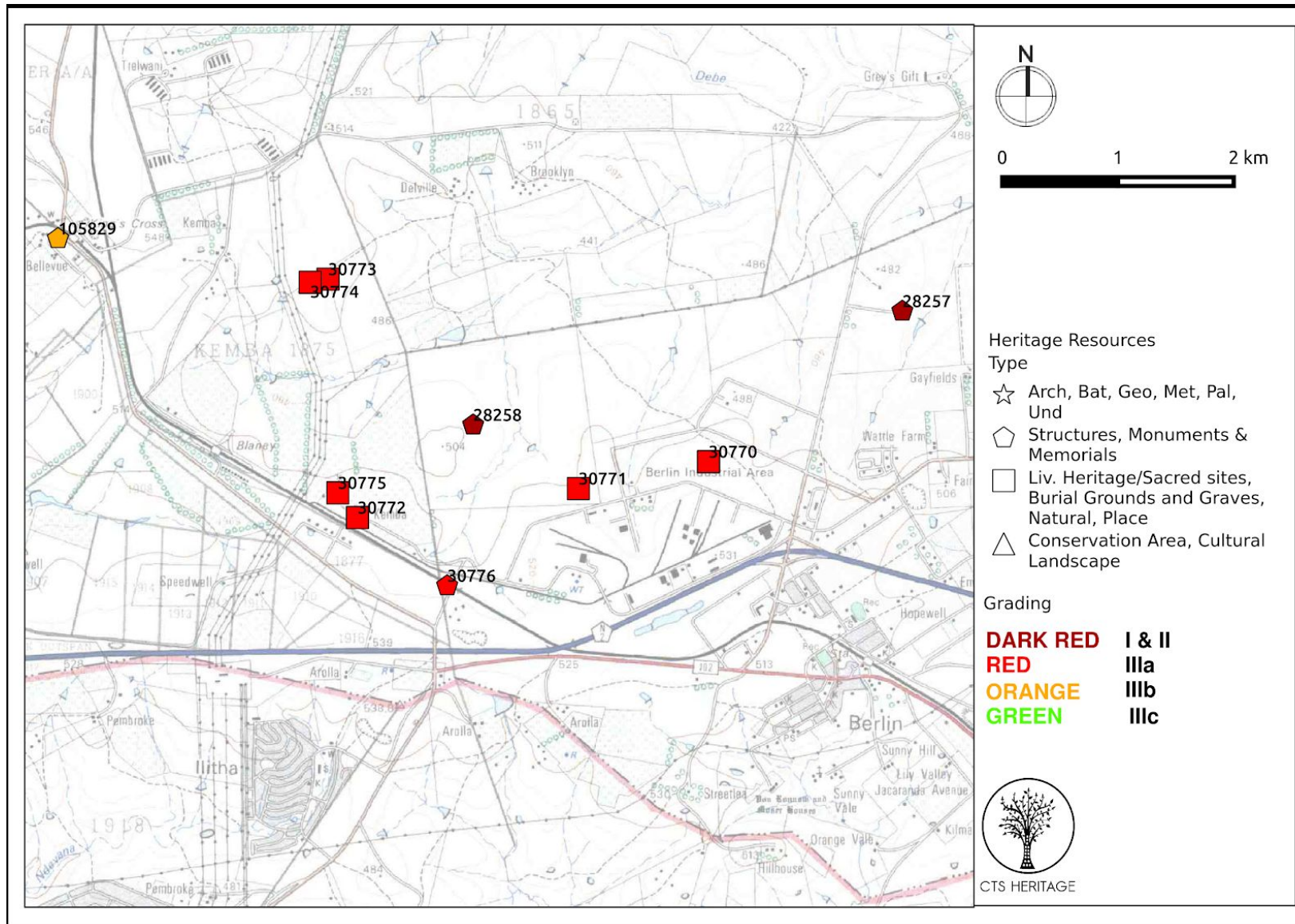
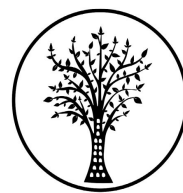


Figure 3b. Inset Map. Indicating spatial layout of sites in this region. Please see Appendix 1 for all Site IDs



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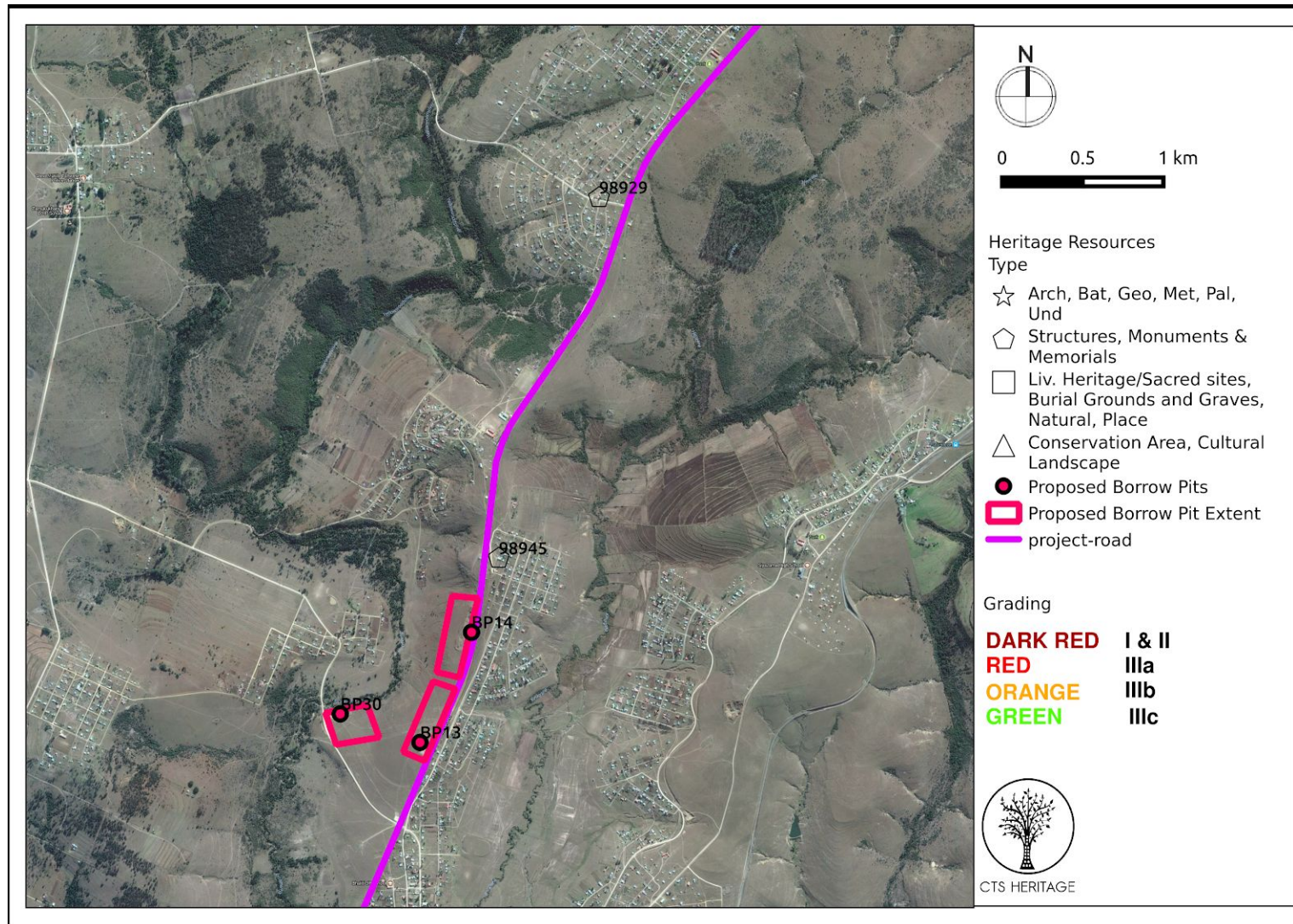
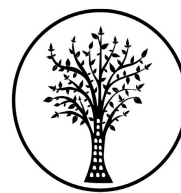


Figure 3c. Inset Map. Indicating spatial layout of sites in this region relative to the proposed development. Please see Appendix 1 for all Site IDs. 98945 and 98929 are sites with local significance recorded during the Xhosa Vernacular Architecture Survey by OpenHeritage in 2016.



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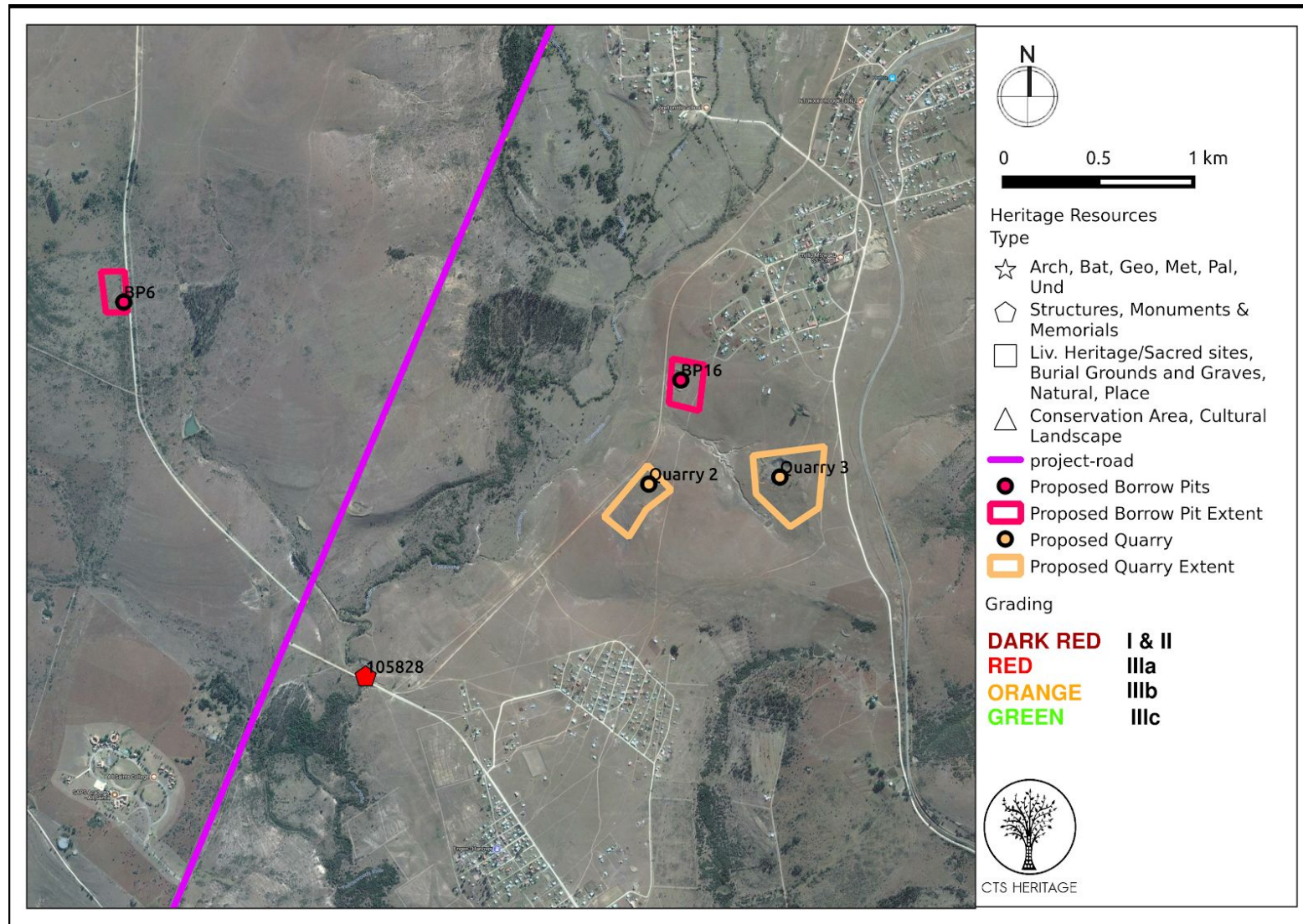
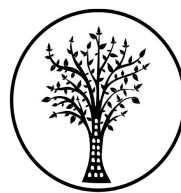


Figure 3d. Inset Map. Indicating spatial layout of sites in this region relative to the proposed development. Please see Appendix 1 for all Site IDs. 105828 is Lonsdale Bridge, currently graded IIIa.



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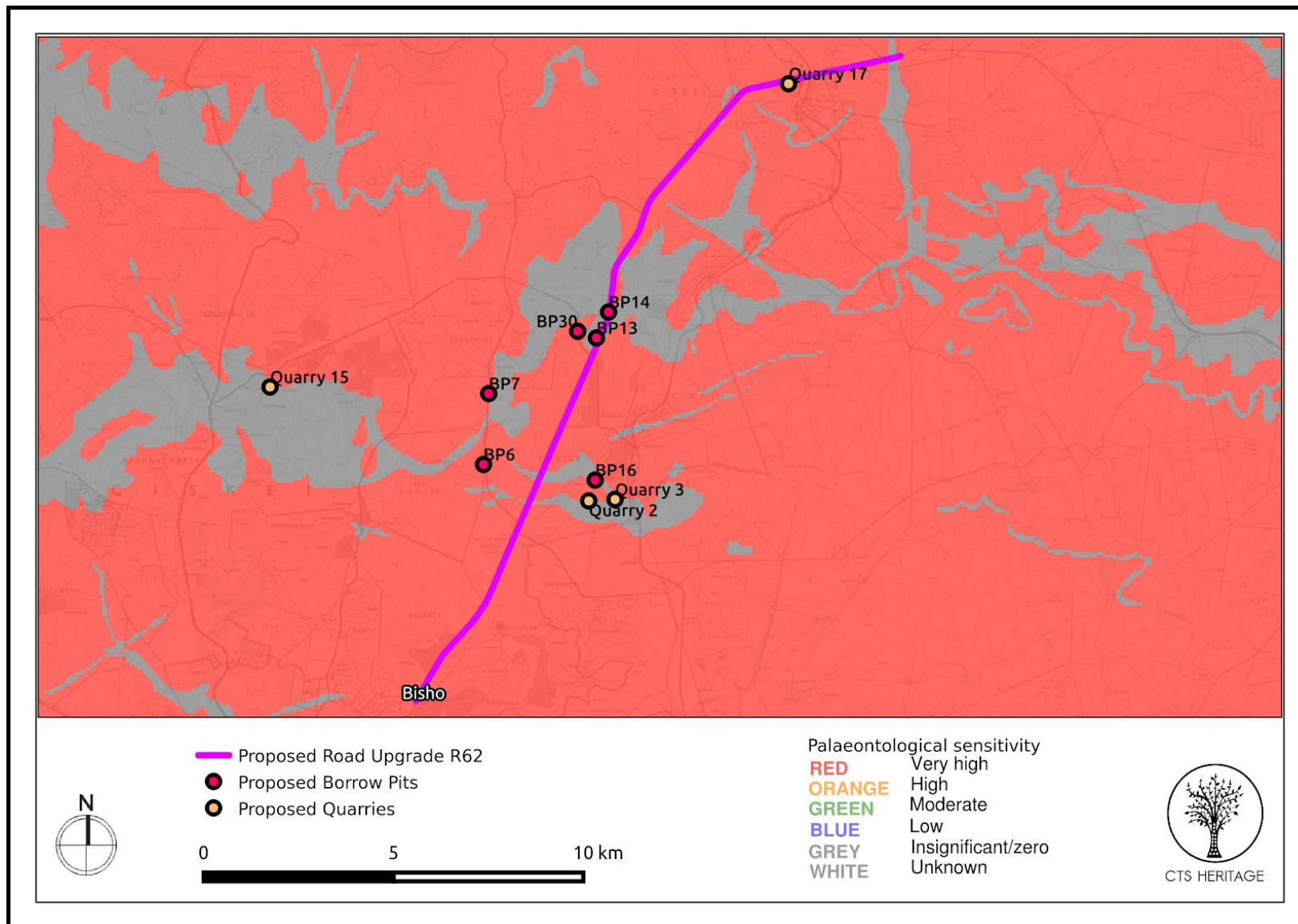
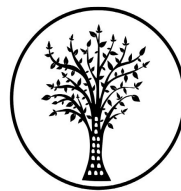


Figure 4. Palaeosensitivity Map. Indicating varied fossil sensitivity underlying the study area. Please See Appendix 3 for full guide to the legend



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8. Heritage statement and character of the area

This application is for the improvement of National Route R63 Sections 15 and 16 from Bhisho (km 5.8) to the N6 Bridge Intersection (km 1.0). The project covers the last 22.7 km of Section 15 of National Route R63 plus the first kilometre of Section 16, i.e. a total length of 23.7 km. This section consists of a single carriageway rural highway. The proposal is to upgrade the existing road using borrow pits (to be established). Six borrow pits and three quarries are proposed.

A number of heritage assessments have been conducted in the area (Figures 2a and 2b). Gaigher (2015 NID 356723) gives a summarised archaeological history of the area and notes the possibility of finding Early, Middle and Later Stone Age artefacts, as well as evidence of pastoralist settlements and Iron Age settlements. However, Gaigher's (2015) field assessment of the area directly adjacent to the R63 identified no archaeological resources. He notes that "the area has been subject to severe alteration in the past therefore the occurrence of pre-contact sites that have been obscured by more modern activities should not be dismissed. It is important in this regard that any excavations be monitored". In addition, Gaigher's (2015) field assessment identified a number of structures of historic significance as well as marked and unmarked burial grounds and graves. As the proposed development is simply the upgrading of the existing R63 road, it is envisaged that the bulk of the impact will be located at the proposed borrow pits and quarries. As per Figures 3c and 3d, it can be seen that the proposed development will not directly impact on any of the known heritage resources in the area, however the development may impact on unknown heritage resources. As such, it is recommended that the locations of the proposed borrow pits and quarries be assessed for impacts to archaeological resources as well as historic structures and unmarked burials.

The area proposed for development is located on the Balfour Formation of very high palaeontological sensitivity, and the Karoo Granite Suite of no palaeontological sensitivity according to the SAHRIS Palaeosensitivity Map. According to Durand (2014 NID 356724), "the Balfour Formation consists of a fluvial succession which was set down in the foredeep of the Karoo Basin from the late Permian to the onset of the Triassic." He goes on to note that "The Balfour Formation coincides with the upper part of the Adelaide Subgroup which is dominated by the Dicynodon Assemblage Zone... The lower part of the Balfour Formation yields fossils associated with the Cistecephalus Assemblage Zone such as the dicynodonts Diictodon, Cistecephalus, Oudenodon, Aulacephalodon, Pristerodon and Emydops and theriodonts including therocephalians such as Ictidosuchops and Ictidosuchoides and gorgonopsians such as Gorgonops, Lycaenops and Prorubidgea." It is therefore very likely that the proposed borrow pits and quarries will impact on very significant palaeontological heritage resources. It is recommended that an assessment of impacts to palaeontological heritage is undertaken.

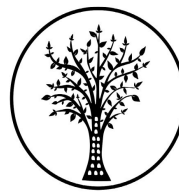
RECOMMENDATION:

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.

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APPENDIX 1

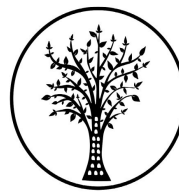
List of heritage resources within the 20km Inclusion Zone

Site ID	Site no	Full Site Name	Site Type	Grading	Declaration
NA	9/2/090/0010-004	Old hostel, Mgwali Mission complex, Stutterheim District	Building	NA	Provisional Protection
28229	9/2/050/0038	Steve Biko's House, 698 Ngxata Street, Ginsberg, King William's Town	Building	Grade II	Provincial Heritage Site
28233	9/2/050/0027	South African Missionary Museum, Berkley Street, King William's Town	Building	Grade II	Provincial Heritage Site
28234	9/2/050/0028	Old Methodist Manse, 25 Berkley Street, King William's Town	Building	Grade II	Provincial Heritage Site
28235	9/2/050/0029	Old Synagogue, Berkley Street, King William's Town	Building	Grade II	Provincial Heritage Site
28236	9/2/050/0036	Lutheran Church complex, Braunschweig	Building	Grade II	Provincial Heritage Site
28240	9/2/050/0024	Dale College Boys' Primary School, Albert Road, King William's Town	Building	Grade II	Provincial Heritage Site
28241	9/2/050/0025	Town Hall, MacLean Street, King William's Town	Building	Grade II	Provincial Heritage Site
28242	9/2/050/0026	Grey Hospital, King William's Town	Building	Grade II	Provincial Heritage Site
28243	9/2/050/0015	Lonsdale Chambers, Taylor Street, King William's Town	Building	Grade II	Provincial Heritage Site
28244	9/2/050/0016	British Kaffrarian Savings Bank, MacLean Square, King William's Town	Building	Grade II	Provincial Heritage Site
28245	9/2/050/0017	Old Railway station, Alexandra Road, King William's Town	Building	Grade II	Provincial Heritage Site
28246	9/2/050/0018	Victoria Drill Hall, Queens Road, King William's Town	Building	Grade II	Provincial Heritage Site
28249	9/2/050/0011	Stead Wing, Kaffrarian Museum, Alexandra Road, King William's Town	Building	Grade II	Provincial Heritage Site
28252	9/2/050/0014/001	Daines Wing, Kaffrarian Museum, Alexandra Road, King William's Town	Building	Grade II	Provincial Heritage Site
28253	9/2/050/0014/002	Natural History Wing, Kaffrarian Museum, Albert Road, King William's Town	Building	Grade II	Provincial Heritage Site

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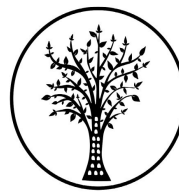
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28254	9/2/050/0009	Sun Building, Alexandra Road, King William's Town	Building	Grade II	Provincial Heritage Site
28257	9/2/050/0005	Von Ronow House and Moser Cottage, Berlin, King William's Town District	Building	Grade II	Provincial Heritage Site
28258	9/2/050/0006	Brownlee Congregational Church, Reserve Road, King William's Town	Building	Grade II	Provincial Heritage Site
28259	9/2/050/0007	Old Residency, Reserve Road, King William's Town	Building	Grade II	Provincial Heritage Site
28263	9/2/050/0004	5 Hood Street, King William's Town	Building	Grade II	Provincial Heritage Site
30080	UMLANDO-EMQ	Emqwasheni	Artefacts	NA	NA
30770	UMLANDO-BER01	NA	Burial Grounds & Graves	NA	NA
30771	UMLANDO-BER02	NA	Burial Grounds & Graves	NA	NA
30772	UMLANDO-BER03	NA	Burial Grounds & Graves	NA	NA
30773	UMLANDO-BER04	NA	Burial Grounds & Graves	NA	NA
30774	UMLANDO-BER05	NA	Burial Grounds & Graves	NA	NA
30775	UMLANDO-BER31	NA	Burial Grounds & Graves	NA	NA
30776	UMLANDO-R54	NA	Building	NA	NA
33237	9/2/050/38/1	Mr. S.B. Biko	Burial Grounds Graves	NA	National Heritage Site
34586	ERF9805	ERF 9805 - 168 Buffalo Rd, King Williams Town, Eastern Cape	Building	NA	NA
87202	FibreCo002	FibreCo002	Monuments Memorials	NA	NA
87203	FibreCo003	FibreCo003	Burial Grounds Graves	NA	NA
93095	Steve Biko-Zanempilo Clinic	Steve Biko-Zanempilo Clinic	Building	NA	NA
93096	9/2/050/0038/1	Steve Biko's Grave	Burial Grounds Graves	NA	NA
93133	9/2/502/0022	Lovedale	Place	NA	NA
98929	XVA101	Xhosa Vernacular Architecture 101	Building	NA	NA



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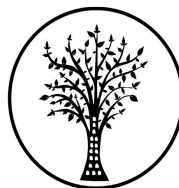
98945	XVA117	Xhosa Vernacular Architecture 117	Building	NA	NA
105828	LONS01	Lonsdale Bridge	Transport infrastructure	Grade IIIa	NA
105829	KCS	Kings Cross Siding	Building	Grade IIIb	NA

APPENDIX 2

Reference List

Heritage Impact Assessments				
Nid	Report Type	Author/s	Date	Title
116712	HIA	Johnny Van Schalkwyk	01/04/2011	Heritage Impact Assessment For The Proposed Eskom 400kv Electricity Transmission Line, Neptune To Poseidon Substations, East London To Cookhouse, Eastern Cape Province
269397	AIA	Celeste Booth	2/3/2015	FibreCo Repeater Sites Routes 3 and 4_Heritage_2015 AIA report
356723	HIA	Stefan Gaigher	25/3/2015	Heritage Impact Assessment Report for the Proposed Upgrade and Construction the Kei-Road Water Treatment Works and Conveyance

Palaeontological Impact Assessments				
Nid	Report Type	Author/s	Date	Title
8914	PIA	Robert Gess	30/03/2011	Palaeontological heritage component of FibreCo Telecommunications, basic assessment for the proposed fibre optic data cable project: Route 5: PE to Durban
108476	PIA	Lloyd Rossouw	11/12/2012	Phase 1 PIA of a Proposed New Citrus Packshed at Ripplemead Farm near Peddie, Eastern Cape Province
356724	PIA	JF Durand	01/09/2014	Scoping Report Palaeontology Proposed Development of Water Reticulation System between Kei Road and Berlin General, Eastern Cape



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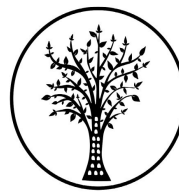
APPENDIX 3 - Keys/Guides

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 PALAEONTOLOGICAL 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

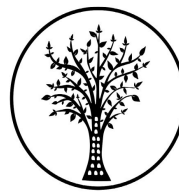
DETERMINATION OF THE COVERAGE RATING ASCRIBED TO A REPORT POLYGON

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

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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.

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:

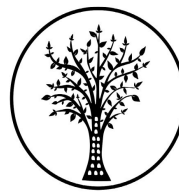
(1) The heritage resources in the area proposed for development are sufficiently recorded - The surveys undertaken in the area adequately captured the heritage resources. There are no known sites which require mitigation or management plans. No further heritage work is recommended for the proposed development.

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:



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- 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
- 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.

The compilation of the Heritage Screener will not include any field assessment. The Heritage Screener will be submitted to the applicant within 24 hours from receipt of full payment. **If the 24-hour deadline is not met by CTS, the applicant will be refunded in full.**

CTS Heritage

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