ARCHAEOLOGICAL SPECIALIST STUDY

In terms of Section 38(8) of the NHRA for a

# THE PROPOSED DEVELOPMENT OF THE KIARA PV CLUSTER AND ASSOCIATED INFRASTRUCTURE, NORTH WEST PROVINCE

**Prepared by**

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CTS HERITAGE

In Association with

**Savannah Environmental**

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## EXECUTIVE SUMMARY

The Applicant, Voltalia South Africa (Pty) Ltd, is proposing the construction of six photovoltaic (PV) solar energy facilities (known as the Kiara PV Cluster facility) located on a site approximately 16km northeast of the town of Lichtenburg in the North West Province. The solar PV cluster facility will comprise several arrays of PV panels and associated infrastructure. The development area is situated within the Ditsobotla Local Municipality within the Ngaka Modiri Molema District Municipality. The site is accessible via an existing gravel road which provides access to the development area.

The findings of this field assessment largely correlate with the findings of other specialists conducted in the area. No stone age archaeological resources were identified. A number of stone structures were identified within the development area. Some of these are indicative of historic occupation of the area in the form of ruins, old structures and stone kraals. These have been graded as having low local significance due to their contribution to history of the broader context. These features should not be impacted by the development and a no-go buffer of 20m is recommended to ensure that these features are not disturbed.

Other such features represent burials and burial grounds. These features have high levels of local significance and may not be impacted by the development activities. It is recommended that a no-development buffer of 50m is implemented around these features and that these features are fenced off to ensure that they are not disturbed.

Where there is a clear spatial relationship between the kraals, ruins and graves, these have been mapped as clusters of high sensitivity in the maps above. In order to conserve the integrity of the relationship between the kraals, ruins and graves, it is recommended that the clusters as mapped below are considered to be no-go areas for the proposed development.

Lastly, it is possible that archaeological resources may be located beneath the ground surface which may be impacted during the course of development. Recommendations in this regard are included below.

***Recommendations***

There is no objection to the proposed development of the Kiara PV cluster and associated grid connection in terms of impacts to archaeological heritage on condition that:

- The recommended no-go development areas as per Figures 8.1 to 8.6, and as per Table 1, are implemented.
- Should any buried archaeological resources or human remains be uncovered during the course of development activities, work must cease in the vicinity of these finds. The South African Heritage Resources Agency (SAHRA) must be contacted immediately in order to determine an appropriate way forward.



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# 1. INTRODUCTION

## 1.1 Background Information on Project

The Applicant, Voltalia South Africa (Pty) Ltd, is proposing the construction of six photovoltaic (PV) solar energy facilities (known as the Kiara PV Cluster facility) located on a site approximately 16km northeast of the town of Lichtenburg in the North West Province. The solar PV cluster facility will comprise several arrays of PV panels and associated infrastructure. The development area is situated within the Ditsobotla Local Municipality within the Ngaka Modiri Molema District Municipality. The site is accessible via an existing gravel road which provides access to the development area.

The PV facilities (Kiara PV 1, Kiara PV 2, Kiara PV 3, Kiara PV 4, Kiara PV 5, Kiara PV 6, Kiara PV 7) are concurrently being considered on the project site (within Portion 2 of the Farm Hollaagte 8 and the Remaining Extent of the Farm Hollaagte No. 8) and are assessed through separate Environmental Impact Assessment (EIA) processes. A facility development area (approximately 165ha) as well as grid connection solution have been considered in the Scoping phase. The infrastructure associated with this PV facility includes:

- PV modules and mounting structures
- Inverters and transformers
- Battery Energy Storage System (BESS)
- Site and internal access roads (up to 8m wide)
- Site offices and maintenance buildings, including workshop areas for maintenance and storage.
- Temporary and permanent laydown area
- Grid connection solution will include:
    - Facility Substation
    - Eskom Switching Station
    - A 275kV powerline (16.6km in length) (either single or double circuit), to connect the PV facility to the Watershed MTS. The 132kV powerline from the on-site substation to the collector substation is approximately 1.2 km long.

## 1.2 Description of Property and Affected Environment

The landscape falls within the semi-arid southern African Grassland Biome, and the vegetation across the project area is characterised largely by grassland (dense in several portions) and shrubland that is evident on undulating plains with chert bedrock outcropping in multiple locations (see Mucina et al., 2006), which served as a source of raw-material for Pleistocene and Holocene occupants of the area. Nodules were also used as demarcation/protection within potential grave structures documented within the project area (see below).

Much of the area has been affected by historical farming related activities. The evidence of crop rotation and different types of cultivation is visible in areas of the development footprint. Currently predominantly grassland for grazing. In addition, several stone quarries exist within the footprint, mainly north of the Phase 3 area.

The surface sediments are generally bioturbated sandy soils, which appear to be aeolian in terms of original deposition, with inclusions of primary nodules of chert (5-30cm in maximum diameter) deriving from the local bedrock.



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There are prominent rocky chert and dolomite ridges with some Basaltic lava outcrops in the southeast. There are no prominent flowing water sources on the property. However, a drying spring is situated within the middle of the development footprints of Phase 1 and Phase, to the property's southeast. Dirt roads and farmlands bound the site to the north, south, east and west.



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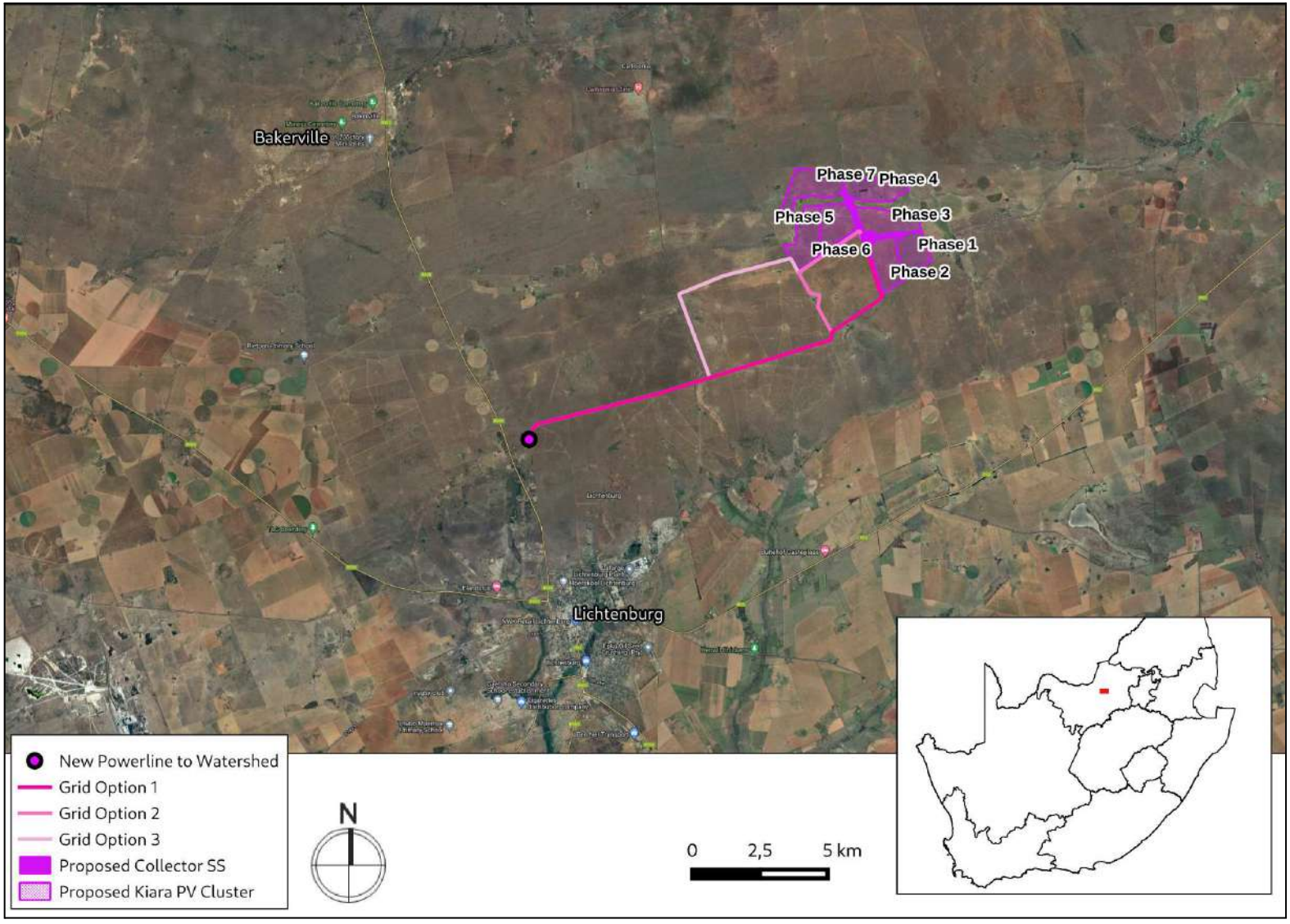


**Figure 1.1: Close up satellite image indicating proposed location of study area**



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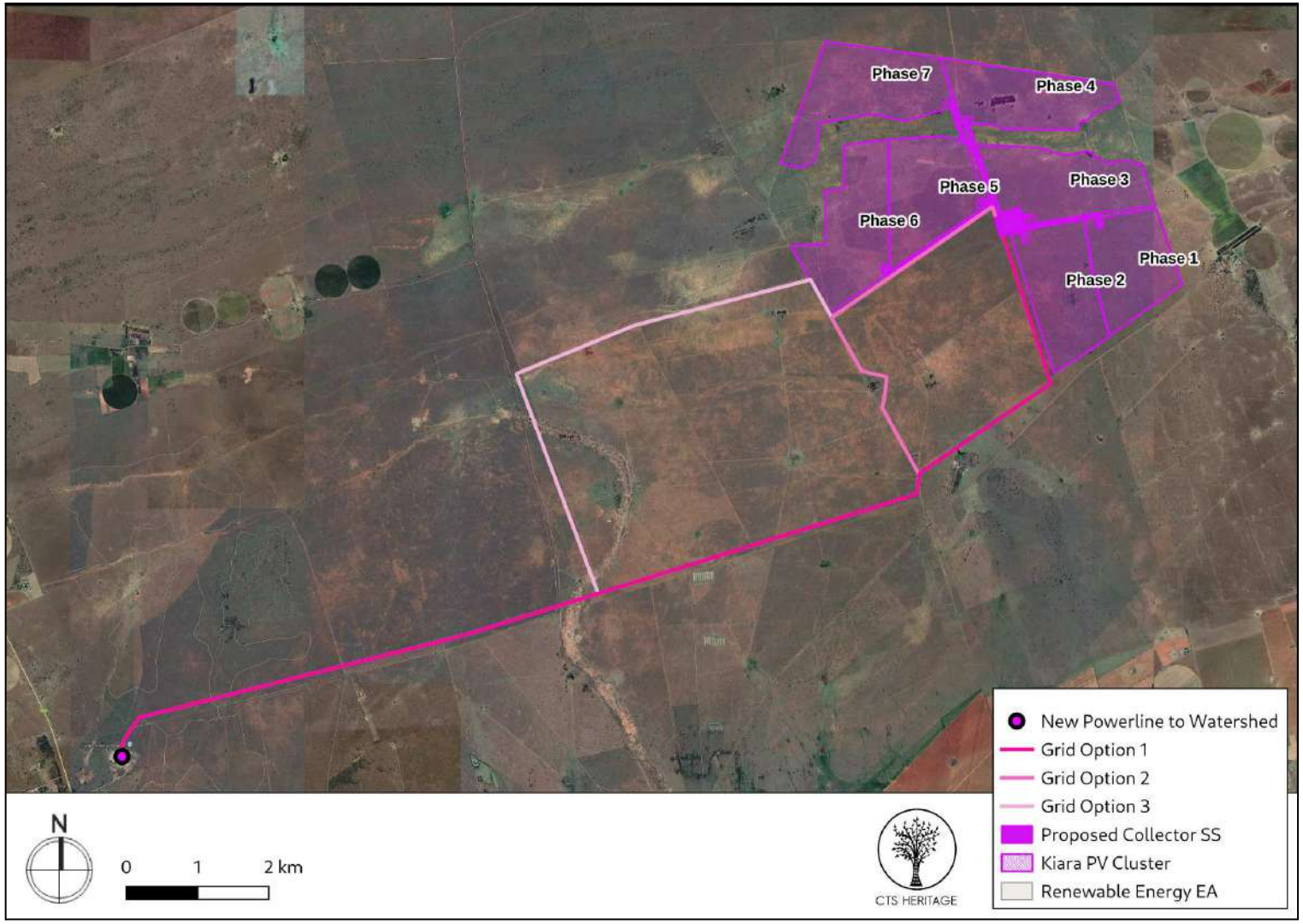


**Figure 1.2: Study Area**



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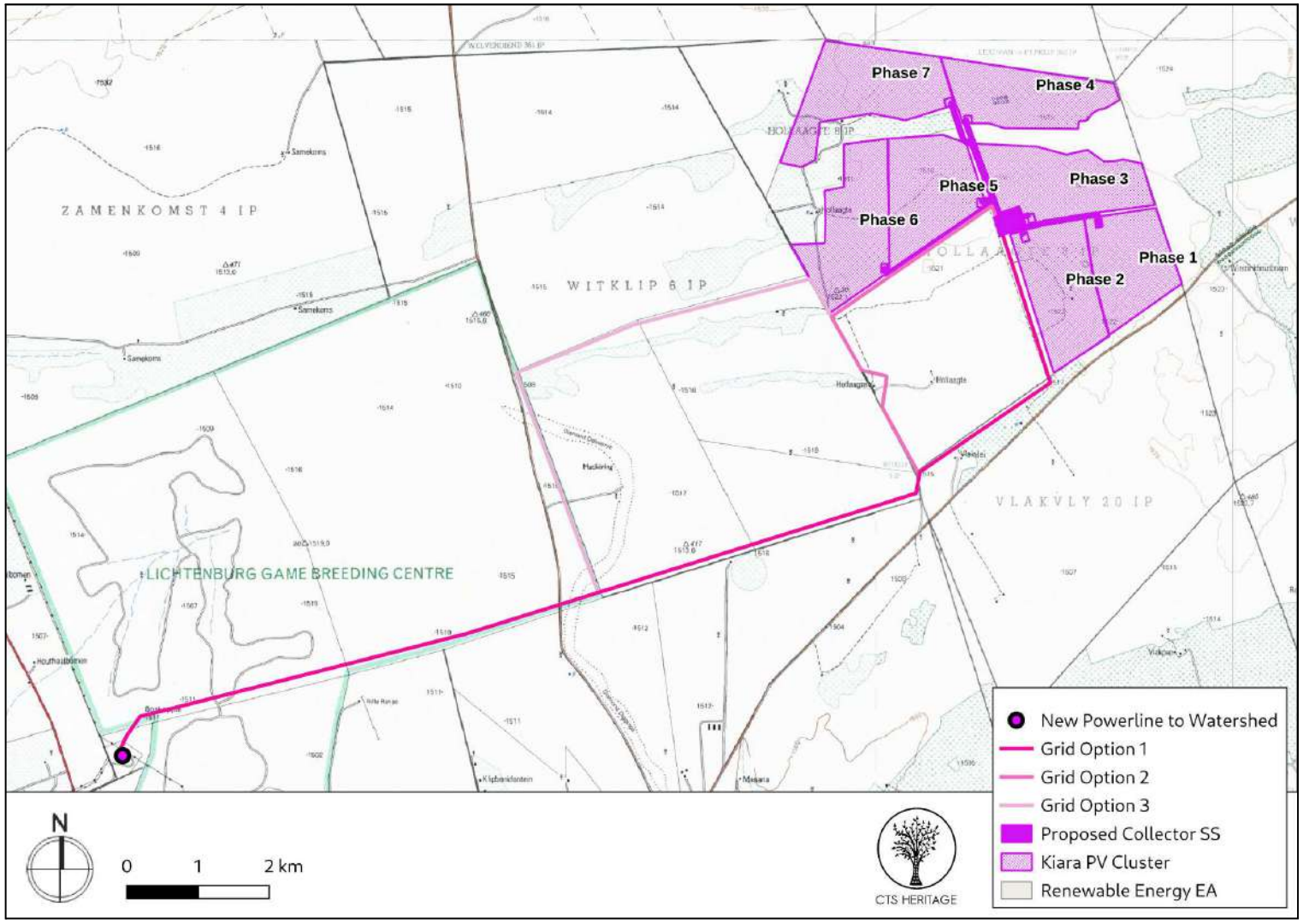


**Figure 1.3: Study Area**



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## 2. METHODOLOGY

### 2.1 Purpose of Archaeological Study

The purpose of this archaeological study is to satisfy the requirements of section 38(8), and therefore section 38(3) of the National Heritage Resources Act (Act 25 of 1999) in terms of impacts to archaeological resources.

### 2.2 Summary of steps followed

- Two archaeologists, Ms H. Fivaz and Ms S. Fairhurst, conducted a survey of the site and its environs on 14 and 15 June 2022 to determine what archaeological resources are likely to be impacted by the proposed development.
- The study area was assessed on foot in transects, photographs of the archaeological contexts and representative finds were taken, and tracks were recorded using a GPS.
- The identified resources were assessed to evaluate their heritage significance in terms of the grading system outlined in section 3 of the NHRA (Act 25 of 1999).
- Alternatives and mitigation options were discussed with the Environmental Assessment Practitioner.

### 2.3 Constraints & Limitations

The area has previously been cultivated and disturbed by human and animal activity. Therefore, sites were predominantly recognised by focussing on vegetation changes and studying Google Earth imagery and old topographic maps.

The area was surveyed as best as possible at the time and as the vegetation growth allowed. The survey tracks followed the farm roads, fences and camp boundaries from which we conducted pedestrian surveys at various points. Additionally, the ground surface of areas with noticeable vegetation changes was inspected. Unfortunately, the powerline extended onto properties to which we could not gain access due to locked gates. We surveyed the areas from the roads and fences as best as possible. As such, the authors are confident that an accurate assessment of the archaeological sensitivity of the development area has been determined.



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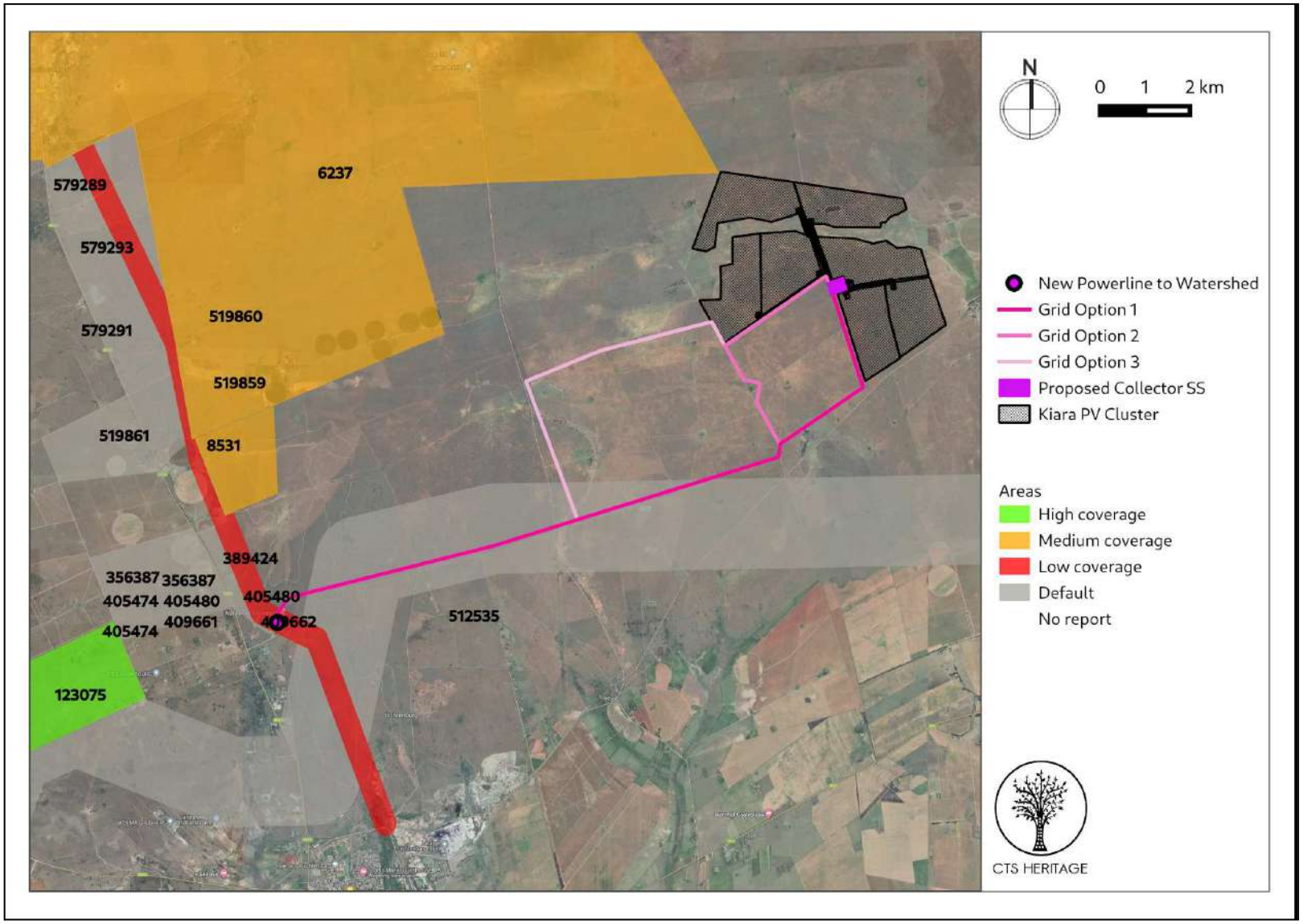


**Figure 2: Close up satellite image indicating proposed location of the study area in relation to heritage studies previously conducted**



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## 3. HISTORY AND EVOLUTION OF THE SITE AND CONTEXT

### Archaeology and Built Environment Heritage

Lichtenburg town was established in 1873 and named "Town of Light". General Del la Rey was buried in Lichtenburg after a fatal shooting incident at Langlaagte. During the 1800's, more and more farmers settled in the area. During the Second Boer War, the strategically important town of Lichtenburg was occupied by both Boer and Briton for short spells. In November 1900, a large British force under Col. Robert Baden-Powell was transferred to Lichtenburg and secured the town, and much of the territory with it. In addition, the town is known from Rudyard Kipling's poem, Lichtenberg, which relays the story of a foreign combatant in the second South African War. In 1926, Lichtenburg experienced a gold rush that lasted approximately 10 years. Lichtenburg district is now mostly a farming area, combining cattle and crop-farming and large areas of former diamond mine diggings are now used as grazing.

According to van Schalkwyk et al (1995, SAHRIS NID 6237) in their report completed for the Bakerville Diamond Fields, "land use in the area goes back to the Early Stone Age, as can be determined by the number of stone artifacts found near the old mining commissioners office. This material seems to be disturbed from its primary context because of the mining activities. It is postulated that similar occurrences will be found in other parts of the diggings, but that this material would have been disturbed out of context." As a result of the dominant land use in the area, many of the heritage resources identified by van Schalkwyk et al (1995) are associated with past and present agriculture, and consist of farming implements, a few windmills, and dipping-troughs. One such trough, located at Elandsputte on the farm Uitgevonden 355JP, was the site where the first diamond was discovered. This structure is a proclaimed national monument (now Provincial Heritage Site). Van Schalkwyk et al (1995) identified a number of burial grounds within their surveyed area (Map 5 and 5a). Heritage resources known from this area include burial grounds and graves, archaeological artefacts and old structures, often associated with farming activities or diamond mining. In his assessment completed for an adjacent PV facility, Van Schalkwyk (2021) identified no significant archaeological heritage resources, but did identify a number of informal burials. No resources are known to be located within any of the areas proposed for the development.

An archaeological field assessment was conducted for the Lichtenburg PV facilities, located approximately 15km west of the proposed development area in 2019. The field assessment conducted noted that, similar to this proposed development area, the area had been disturbed and transformed by agricultural activities. Furthermore, throughout the farming areas several heaps of rocks that were removed from the agricultural fields were identified. During the field assessment conducted in 2019, *no archaeological resources, graves or burial grounds were identified* in the project area. Another field assessment for the Houthaalbomen PV Facility located 20km from the proposed development area was completed in 2014 by Van der Walt and 2021 by CTS Heritage. Van der Walt (2014) notes that "The site lies on a featureless flat plain. The entire development footprint was extensively utilised for crop farming and ploughing through the years resulted in a lateral and downward migration of artefacts making it virtually impossible to identify knapping or manufacture sites and site extent of artefact concentrations. In some areas borrowing animals brought MSA artefacts to the surface where the sand cover is more than a metre and a half thick and the possibility of finding subsurface material cannot be excluded. Most of the Stone Age archaeology in the study area consists of low densities of scattered (and possibly mixed) MSA and LSA artefacts." The findings of the 2021 field assessment report suggests



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that “the area was occupied or traversed intermittently by Stone Age groups potentially through periods in both the Middle Stone Age (MSA – 300ka:~40ka) and the Later Stone Age (LSA: 40ka: ~2ka), although artefacts that could be clearly linked with chrono-cultural periods were scarce, which is likely a function of the proximity to primary sources of raw-material. The abundance of high-quality chert rocks in the project area was likely the resource that attracted groups there and resulted in them leaving behavioural traces in the form of stone artefacts.

Indeed the majority of the stone artefacts identified look to be the result of expedient ‘testing’ of rocks for quality, and the so-called products in many of the scatters were likely transported away. In this sense no evidence of substantial densities of finds or occupational debris were identified, and the stone artefacts present are evidenced to have been produced by mobile groups moving through the area. The raw-materials exploited for stone artefact manufacture were exclusively local cherts. The presence of primary and secondary sources of chert in association with stone artefacts, are suggestive of the landscape resources that probably drew Stone Age groups to the region over an extended expanse of human evolutionary history.”



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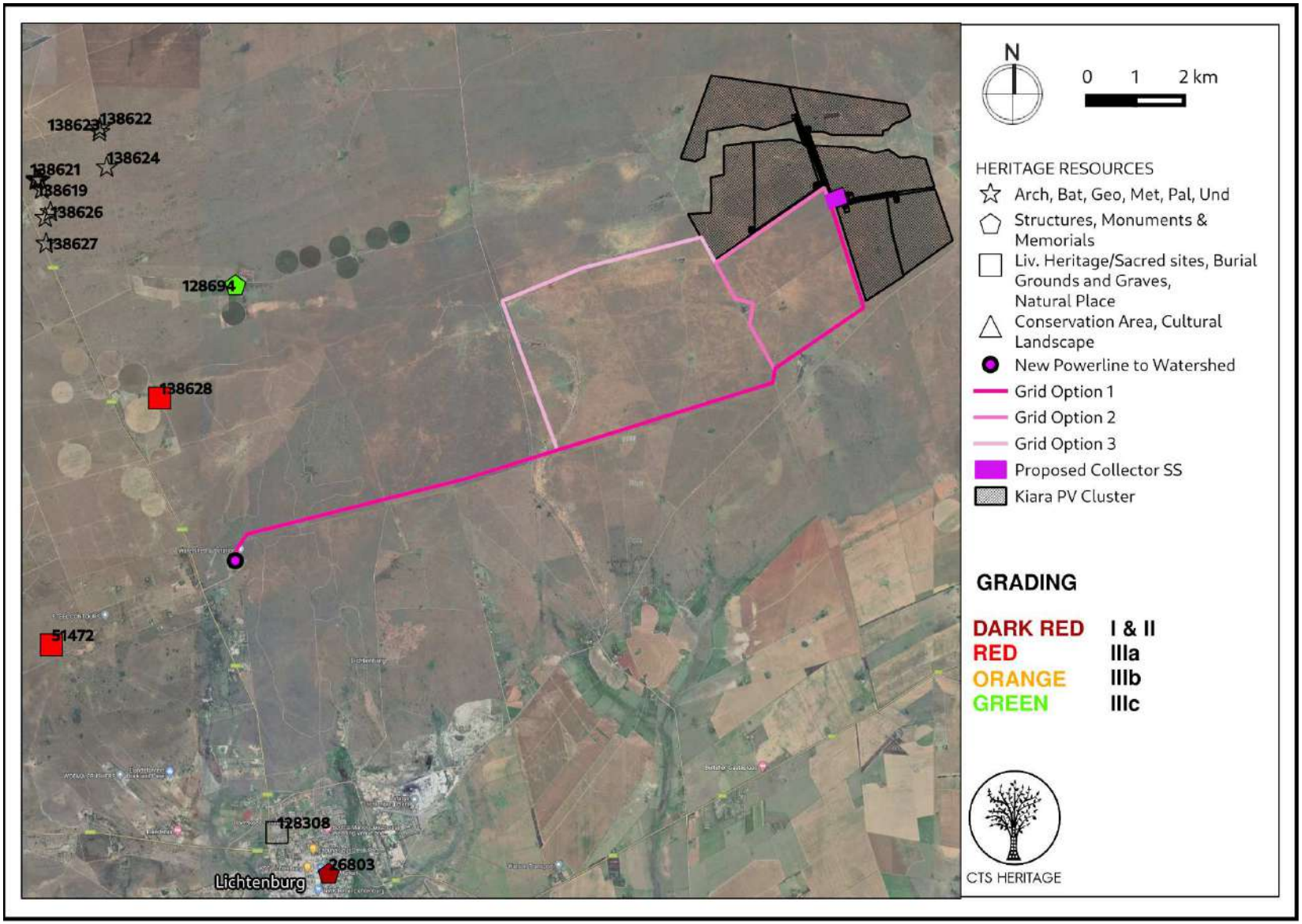


**Figure 3.1. Heritage Resources Map. Heritage Resources previously identified in and near the study area, with SAHRIS Site IDs indicated (see Heritage Screening Assessment for insets)**



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## 4. IDENTIFICATION OF HERITAGE RESOURCES

### 4.1 Field Assessment

*Stone Age Archaeology*

No lithic material was recorded within the development footprint. However, the natural occurring chert and dolomite would have provided suitable raw material for knapping tools. Therefore, it is possible that isolated formal tools can occur in the landscape, but no knapping sites were identified.

*Ruins and Kraals*

Ruins of old farm structures and kraals are ubiquitous across this broader landscape. The old farmhouse and associated remaining farmscape (023-028), dating to the mid-to-late 19th century, represent the settlement and history of the farm. No midden could be identified, and no surface scatters of 19th-century cultural material were recorded.

*Graves*

Four sites with marked graves were documented. In addition, unmarked graves may exist within the development footprints. Large heaps of collected stones could be seen throughout the footprint as stones were removed from agricultural lands to facilitate ploughing. Some of these stones may have been unknowingly removed from graves.

**Figure 4.1: Phase 1 area**

**Figure 4.2: Phase 2 area**



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**Figure 4.3: Phase 3 area**

**Figure 4.4: Phase 4 area**

**Figure 4.5: Phase 5 area**



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**Figure 4.6: Phase 6 area**

**Figure 4.7: Phase 7 area**

**Figure 4.8: Phase 7 area**



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**Figure 4.9: Existing grid connection within grid alignment corridor**

**Figure 4.10: Existing grid connection within grid alignment corridor**



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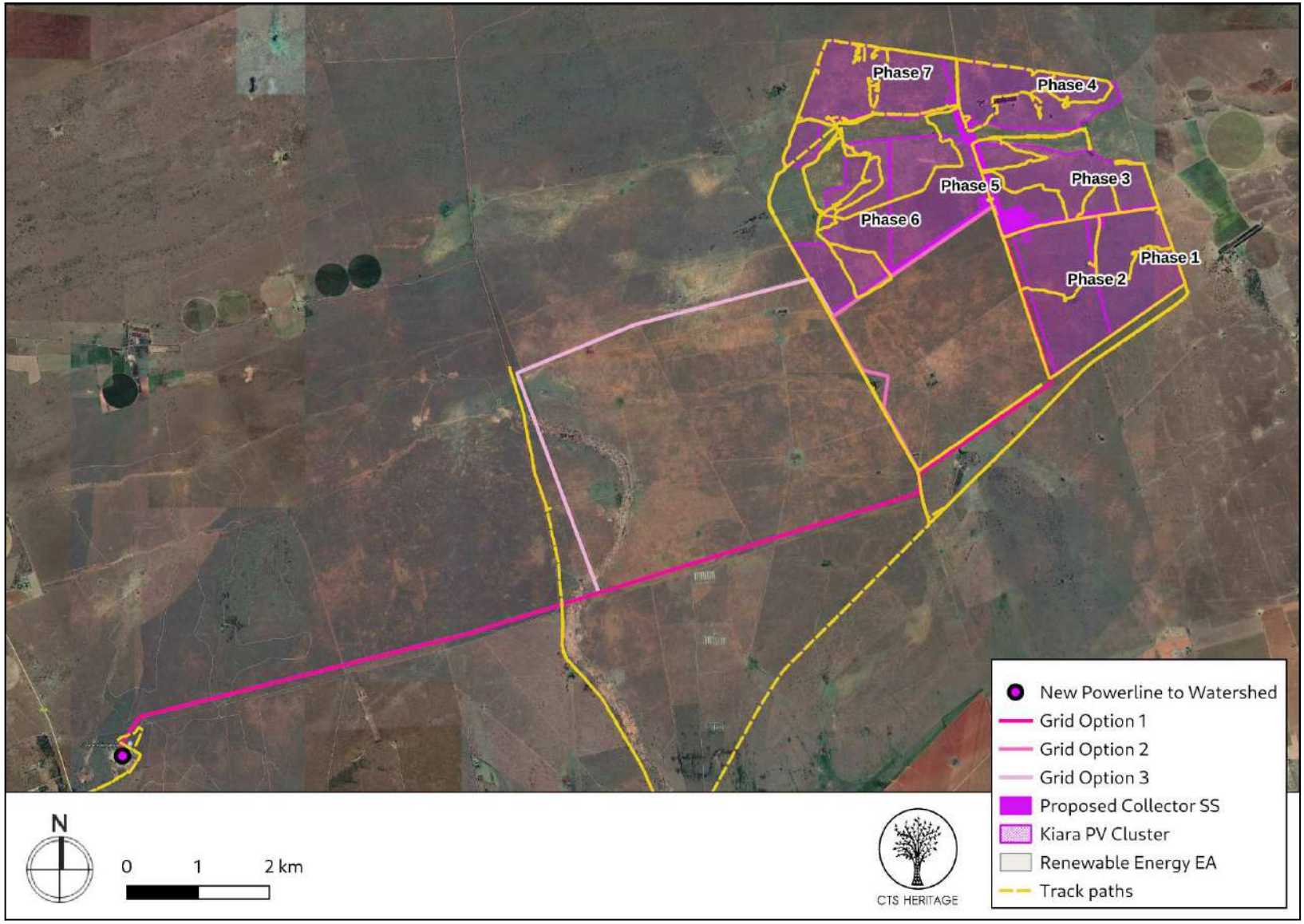


**Figure 5: Overall track paths of foot survey**



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## 4.2 Archaeological Resources identified

**Table 2: Observations noted during the field assessment**

| Site No. | PV Area | Description | Type | Co-ordinates | | Grading | Mitigation |
|---|---|---|---|---|---|---|---|
| 001 | 4 | Stone Kraal. No archaeological context | Kraal | -26.007382 | 26.271502 | IIIC | 20m no-go Buffer. Falls within sensitive area |
| 002 | 4 | Stone Kraal. No archaeological context | Kraal | -26.007479 | 26.271509 | IIIC | 20m no-go Buffer. Falls within sensitive area |
| 003 | 4 | 2 Stone Kraals. Some metal fragments. | Kraal | -26.007706 | 26.272005 | IIIC | 20m no-go Buffer. Falls within sensitive area |
| 004 | 4 | Large Stonewalled Kraal. No archaeological context | Kraal | -26.008479 | 26.272781 | NCW | NA |
| 005 | 4 | 12 Graves. Fieldstone cairns and rectangular fieldstone frames, one remaining slate headstone. | Graves | -26.006966666 | 26.27405833 | IIIA | 20m no-go Buffer. Falls within sensitive area |
| 006 | 4 | Small Stone Structure. No archaeological context | Kraal | -26.006152777 | 26.27443888 | NCW | 20m no-go Buffer |
| 007 | 4 | Small Stone Structure. No archaeological context | Kraal | -26.0054361111 | 26.27435277 | NCW | NA |
| 008 | 4 | Stone Walls. No archaeological context. | Kraal | -26.008127777 | 26.27611111111 | IIIC | 20m no-go Buffer. Falls within sensitive area |
| 009 | 4 | Two-Room Stone Structure. No archaeological context. | Ruin | -26.007719444 | 26.27643333 | IIIC | 20m no-go Buffer. Falls within sensitive area |
| 010 | 4 | Possible Grave. Fieldstone cairn. | Graves | -26.00795 | 26.27675833 | IIIA | 50m no-go Buffer. Falls within sensitive area |
| 011 | 4 | Stone Kraal. No archaeological context. | Kraal | -26.00485 | 26.271925 | NCW | NA |
| 012 | 6 | Stone Structure. Surface scatters of metal, glass, and ceramics, but no middens were identified. | Ruin | -26.020904 | 26.244645 | IIIC | 20m no-go Buffer. Falls within sensitive area |
| 013 | 6 | Small Stone Structure. Surface scatters of metal, glass, and ceramics, but no middens were identified. | Ruin | -26.021462 | 26.24424 | IIIC | 20m no-go Buffer. Falls within sensitive area |
| 014 | 6 | Stone Structure. Surface scatters of metal, glass, and ceramics, but no middens were identified. | Ruin | -26.021268 | 26.244145 | IIIC | 20m no-go Buffer. Falls within sensitive area |
| 015 | 6 | Stone Structure. Surface scatters of metal, glass, and ceramics, but no middens were | Ruin | -26.021205 | 26.24409 | IIIC | 20m no-go Buffer. Falls within sensitive area |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | identified. | | | | | |
| 016 | 6 | Stone Structure. Surface scatters of metal, glass, and ceramics, but no middens were identified. | Ruin | -26.021415 | 26.243687 | IIIC | 20m no-go Buffer. Falls within sensitive area |
| 017 | 6 | Stone Structures. Surface scatters of metal, glass, and ceramics, but no middens were identified. | Ruin | -26.021597 | 26.24359 | IIIC | 20m no-go Buffer. Falls within sensitive area |
| 018 | 6 | Stone Structure. Surface scatters of metal, glass, and ceramics, but no middens were identified. | Ruin | -26.021973 | 26.24337 | IIIC | 20m no-go Buffer. Falls within sensitive area |
| 019 | 6 | Small Stone Circle. Area disturbed, stones collected into areas. | Ruin | -26.017775 | 26.25085833 | NCW | NA |
| 020 | 6 | Square Stone Wall Possible Garden Demarcation. No archaeological material. | Ruin | -26.0154 | 26.24875 | NCW | NA |
| 021 | 6 | 2 Stone Structures. No archaeological material. | Ruin | -26.014438888 | 26.24621388 | NCW | NA |
| 022 | 6 | 10 Graves. Fieldstone cairns. Cairns mostly intact, but burrowing animals are digging in the whole area, and a couple of grave cairns appear to be sinking | Graves | -26.018327777 | 26.24789722 | IIIA | 50m no-go Buffer |
| 023 | 7 | Original Farm House. No archaeological material. Just south of Phase 7 boundary | Ruin | -26.010725 | 26.24467222 | IIIC | 20m no-go Buffer. Falls within sensitive area |
| 024 | 7 | Stone Foundation. Part of larger werf. | Ruin | -26.010725 | 26.24594166 | IIIC | 20m no-go Buffer. Falls within sensitive area |
| 025 | 7 | Stone Kraal. Part of larger werf. | Ruin | -26.010677 | 26.245619 | IIIC | 20m no-go Buffer. Falls within sensitive area |
| 026 | 7 | Stone Foundation. Part of larger werf. | Ruin | -26.010483 | 26.245277 | IIIC | 20m no-go Buffer. Falls within sensitive area |
| 027 | 7 | Stone Foundation. Part of larger werf. | Ruin | -26.010527777 | 26.24265555 | IIIC | 20m no-go Buffer. Falls within sensitive area |
| 028 | 7 | Graves with one visible headstone, broken, large Eucalyptus tree.Jacoba van Heerden, Born 18(33/88/83/38)? Died Aged 30<br>A large Eucalyptus tree grows | Graves | -26.010088888 | 26.24325 | IIIA | 50m no-go Buffer. Falls within sensitive area |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | over the grave/s. The tree's trunk has enveloped a fence pole. It is unclear how many graves have been overgrown by tree roots. | | | | | |
| 033 | 2 | Stone Kraal. Structure probably associated with mid-century house. | Kraal | -26.032905555 | 26.27704722 | IIIC | 20m no-go Buffer. Falls within sensitive area |
| 034 | 2 | Stone Foundation. Structure probably associated with mid-century house. | Ruin | -26.033722222 | 26.27632222 | IIIC | 20m no-go Buffer. Falls within sensitive area |
| 035 | Grid | Approximately 3 graves Along Power Route. Metal cross, fieldstone cairns. | Graves | -26.054775 | 26.2557111111 | IIIA | 50m no-go Buffer |



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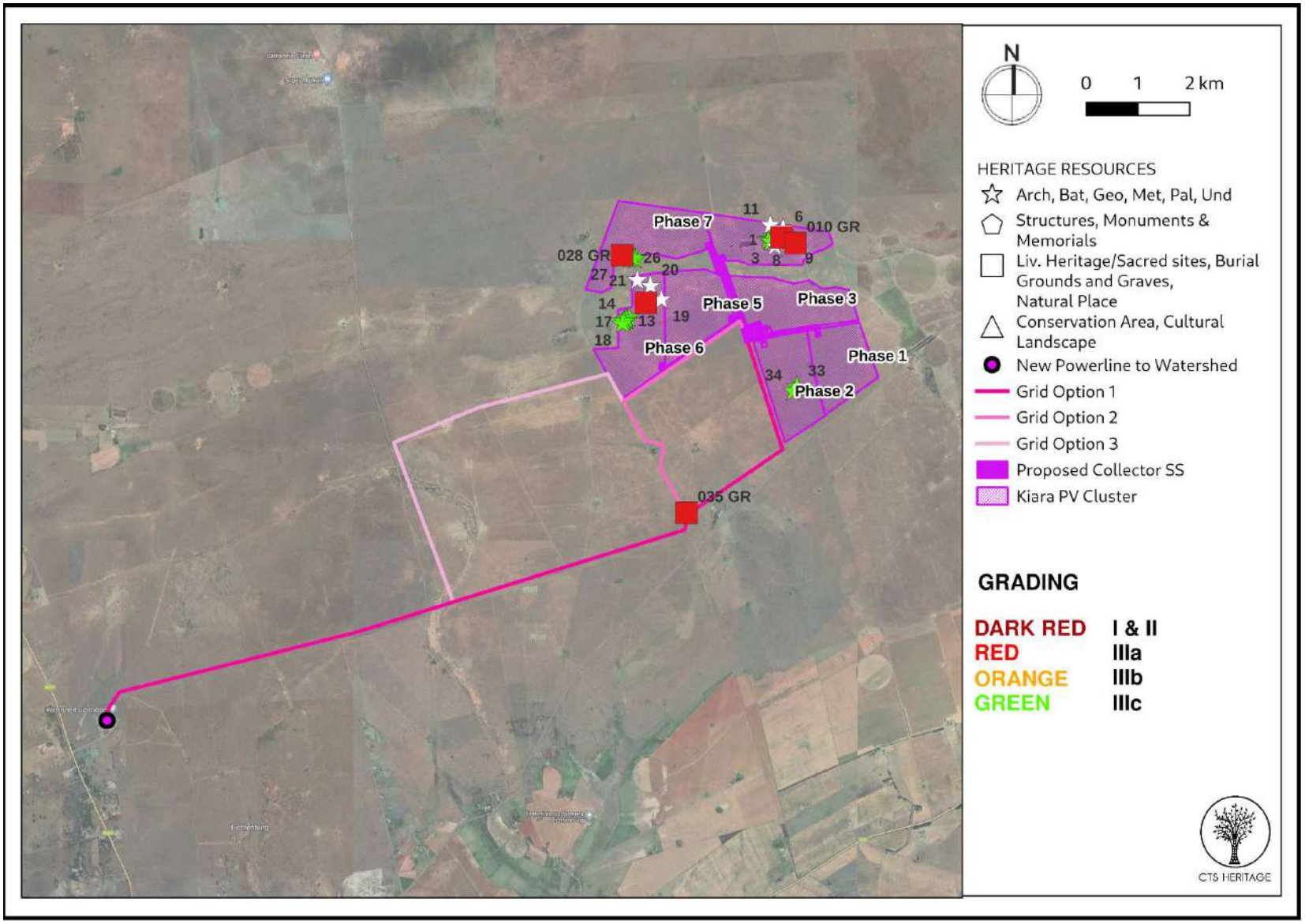


**Figure 6: Map of field observations relative to the proposed development**



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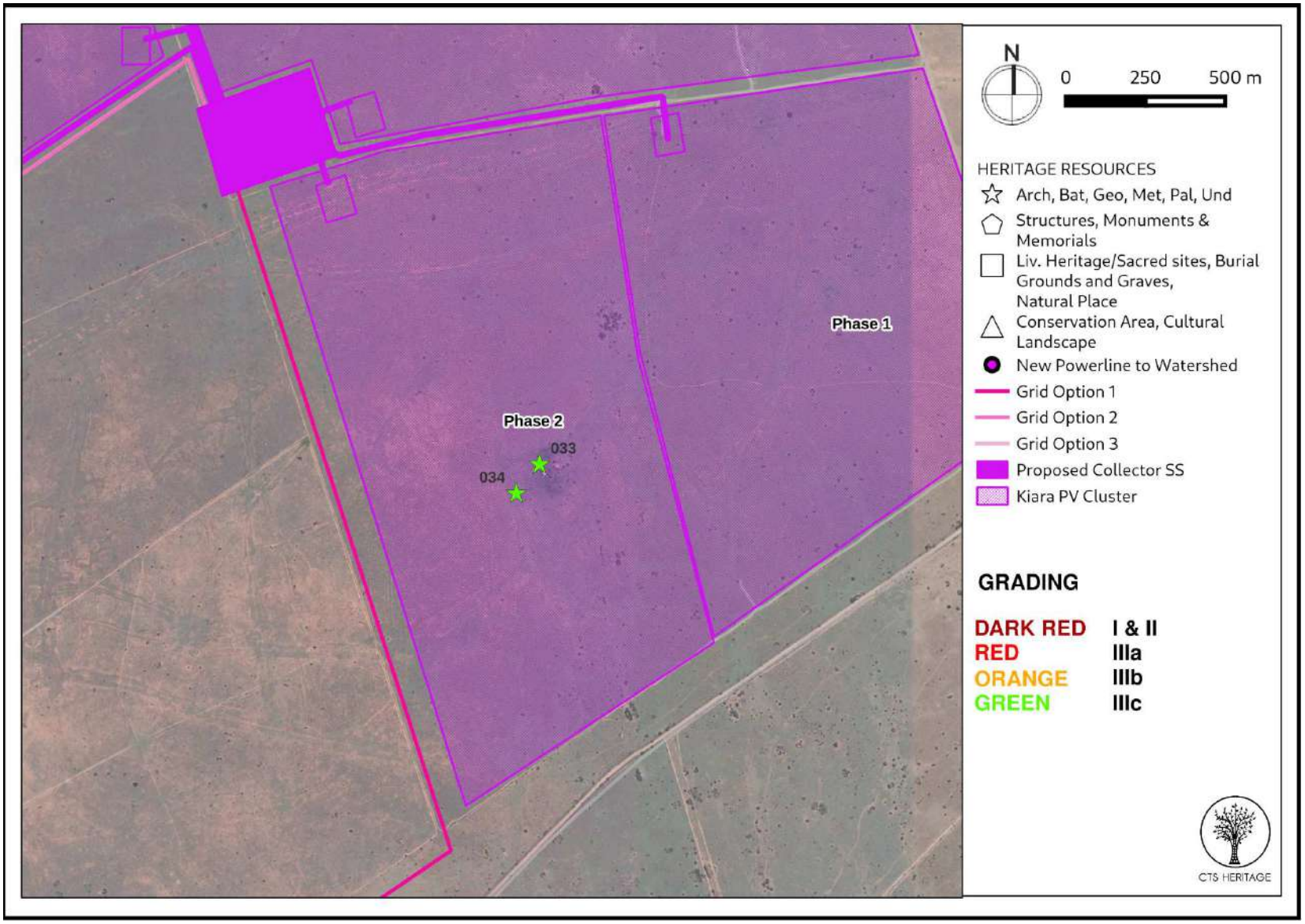


**Figure 6.1: Map of field observations relative to the proposed development for Phase 2**



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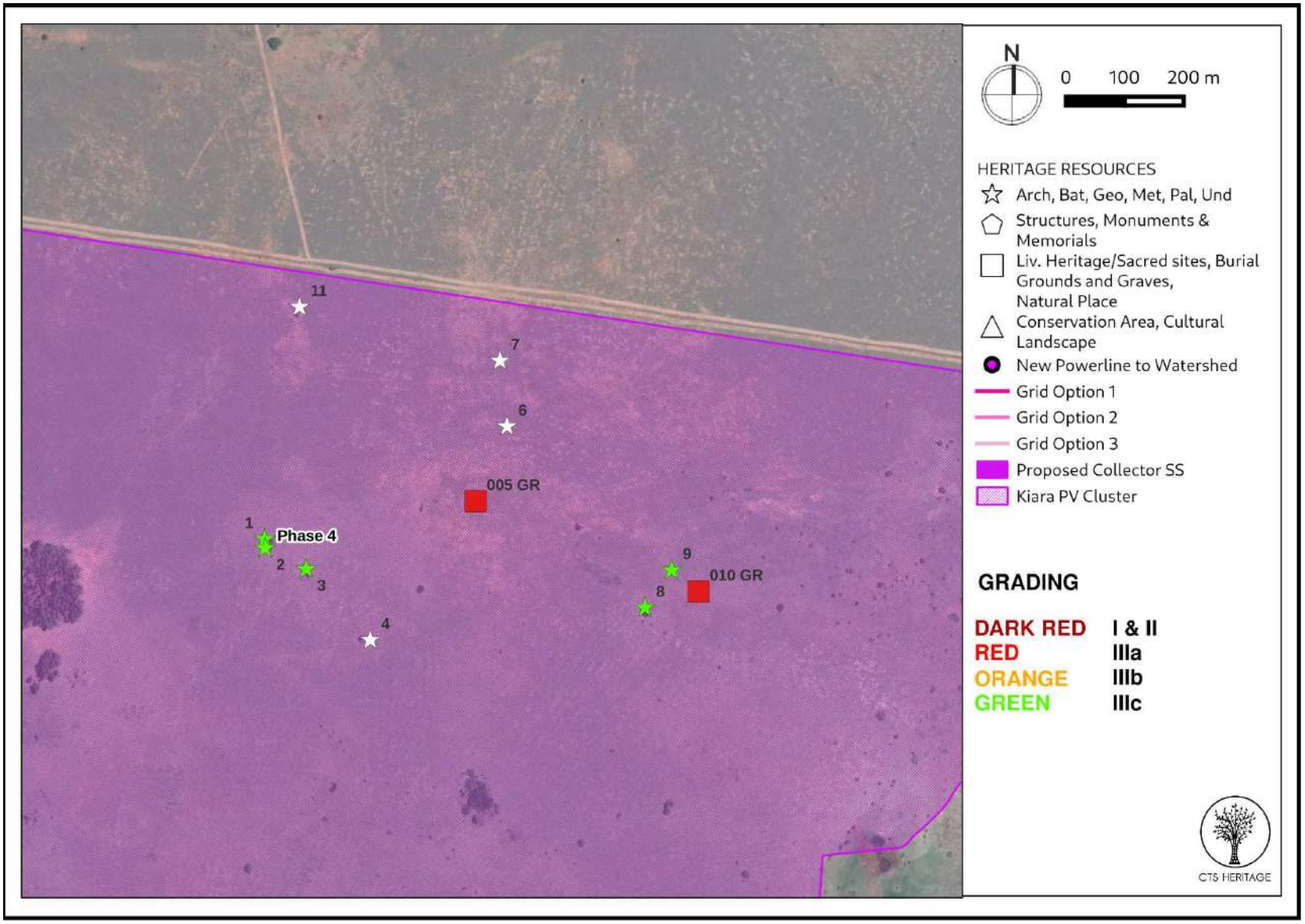


**Figure 6.2: Map of field observations relative to the proposed development Phase 4**



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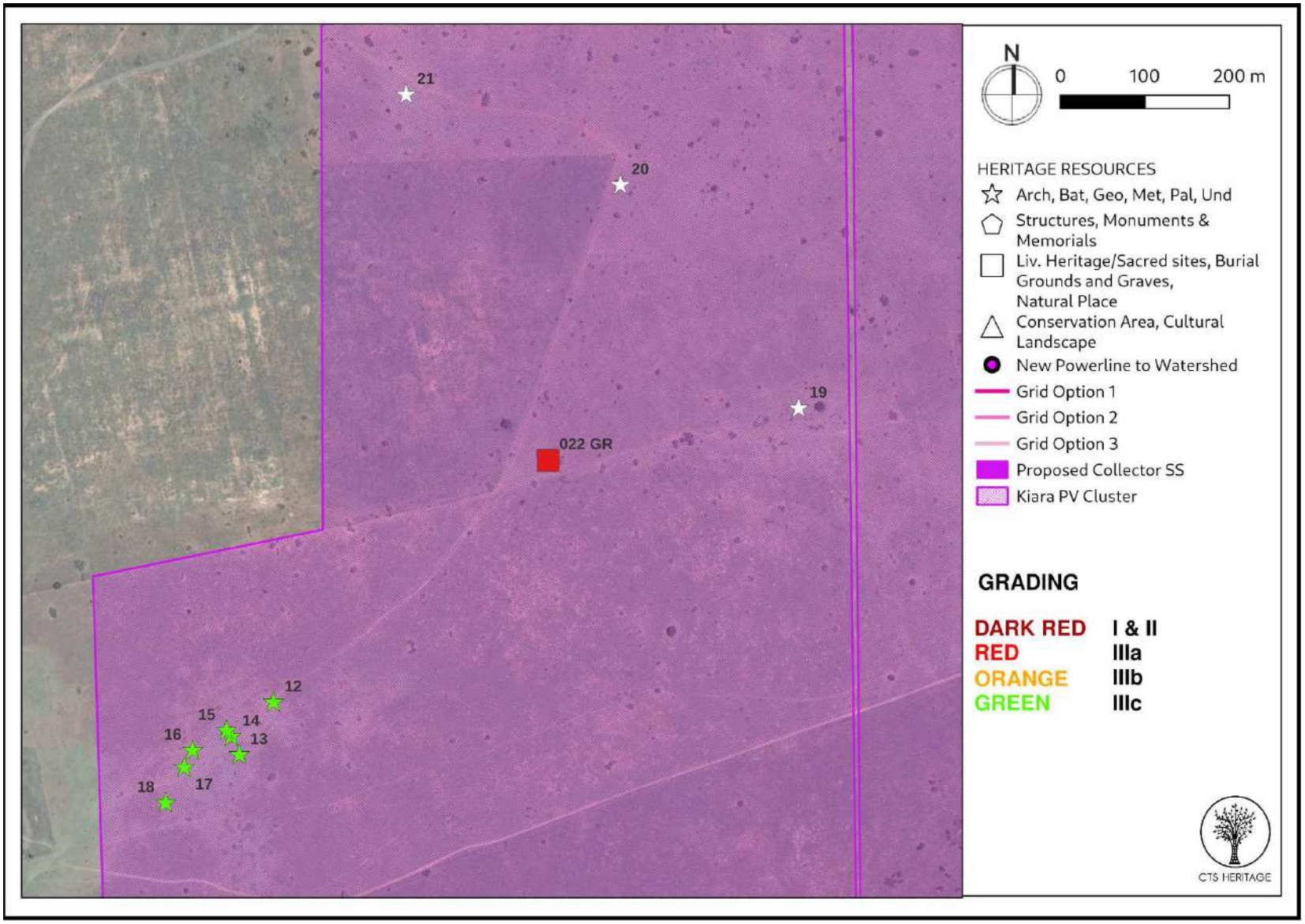


**Figure 6.3: Map of field observations relative to the proposed development Phase 6**



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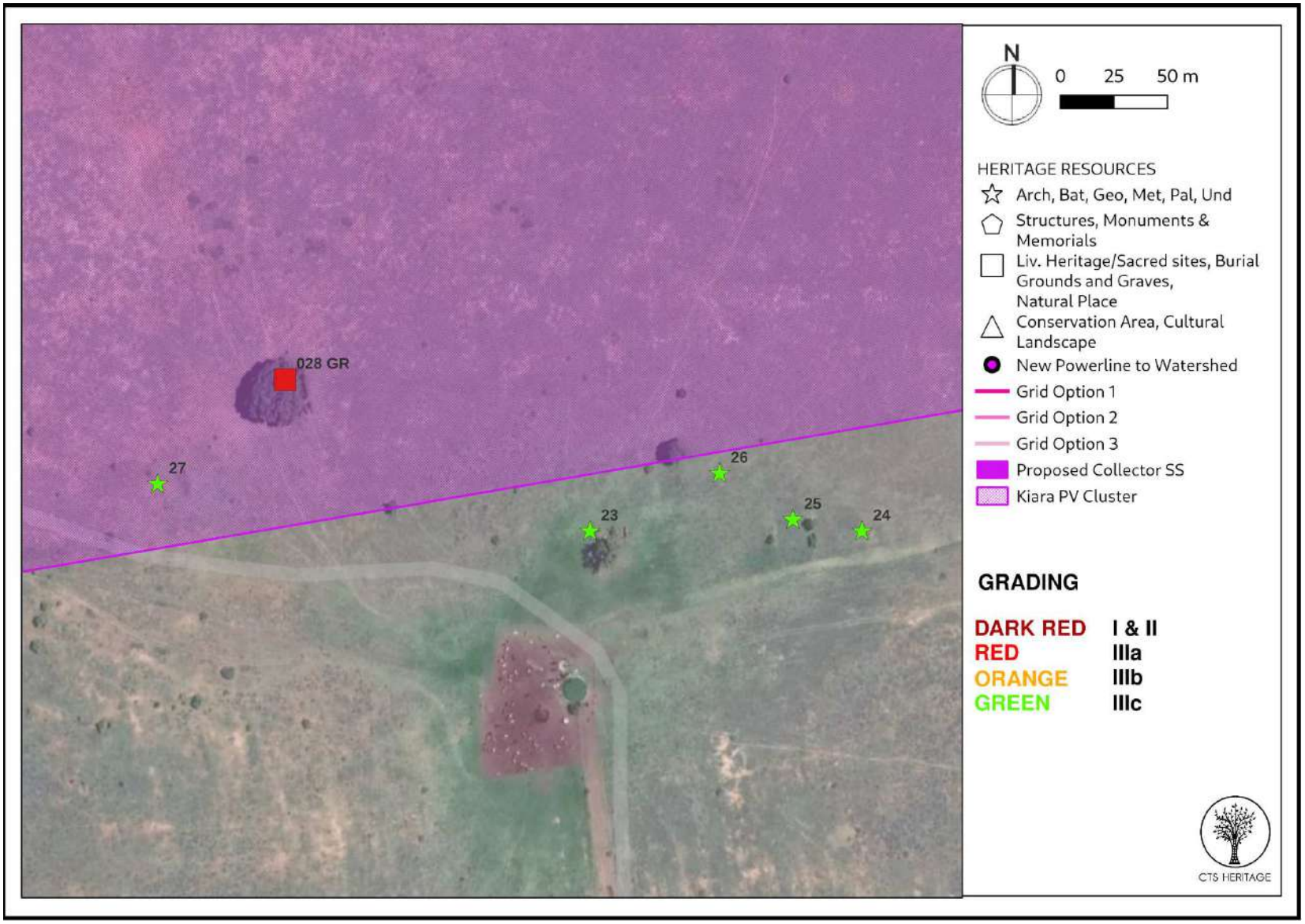


**Figure 6.4: Map of field observations relative to the proposed development Phase 7**



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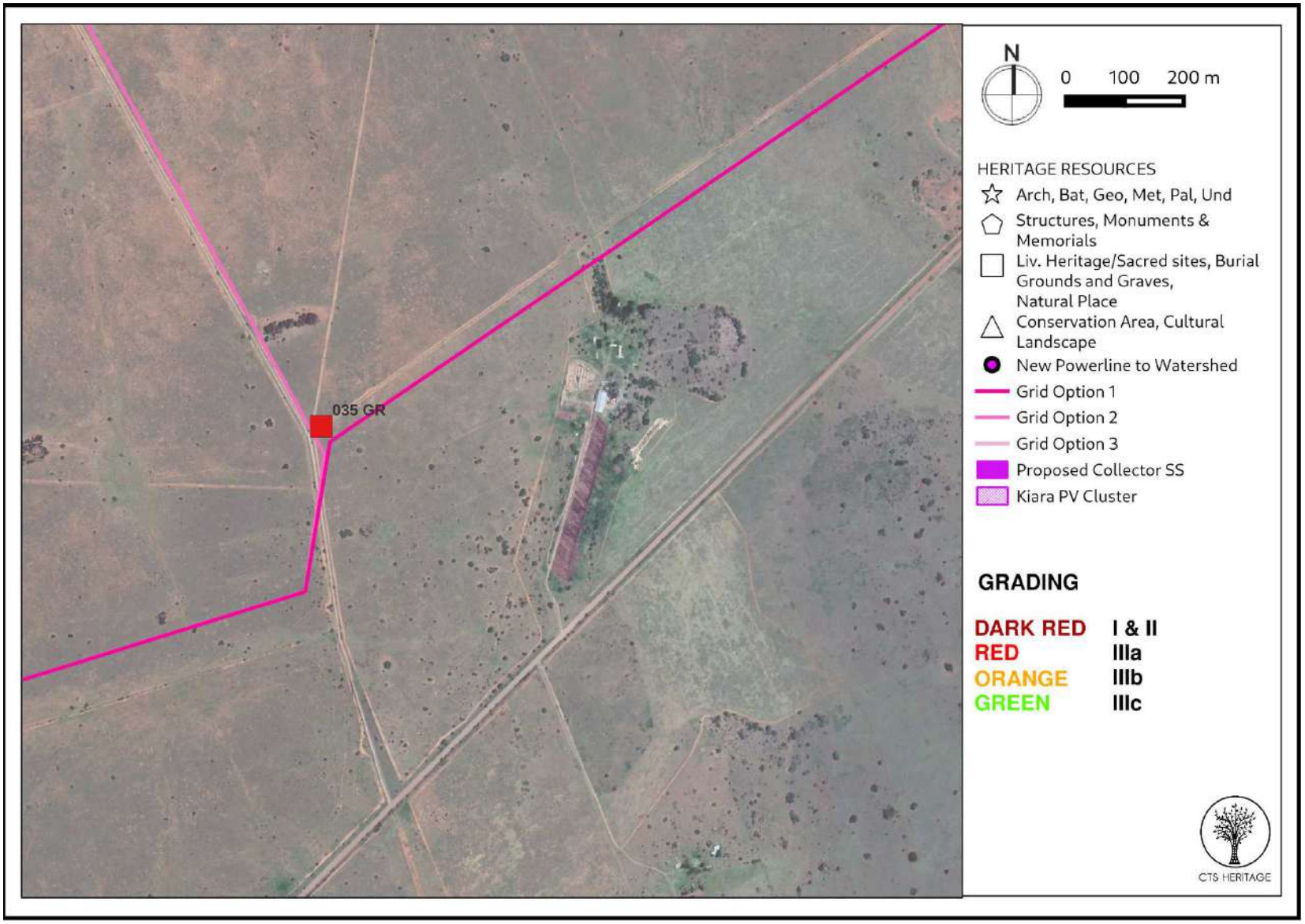


**Figure 6.5: Map of field observations relative to the proposed development - grid**



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### 4.3 Selected photographic record

(a full photographic record is available upon request)

**Figure 7.1: Observations 1 and 2**

**Figure 7.2: Observations 1 and 2**

**Figure 7.3: Observation 3**



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**Figure 7.4: Observation 4**

**Figure 7.5: Observation 5**

**Figure 7.6: Observation 5**



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**Figure 7.7: Observation 6**

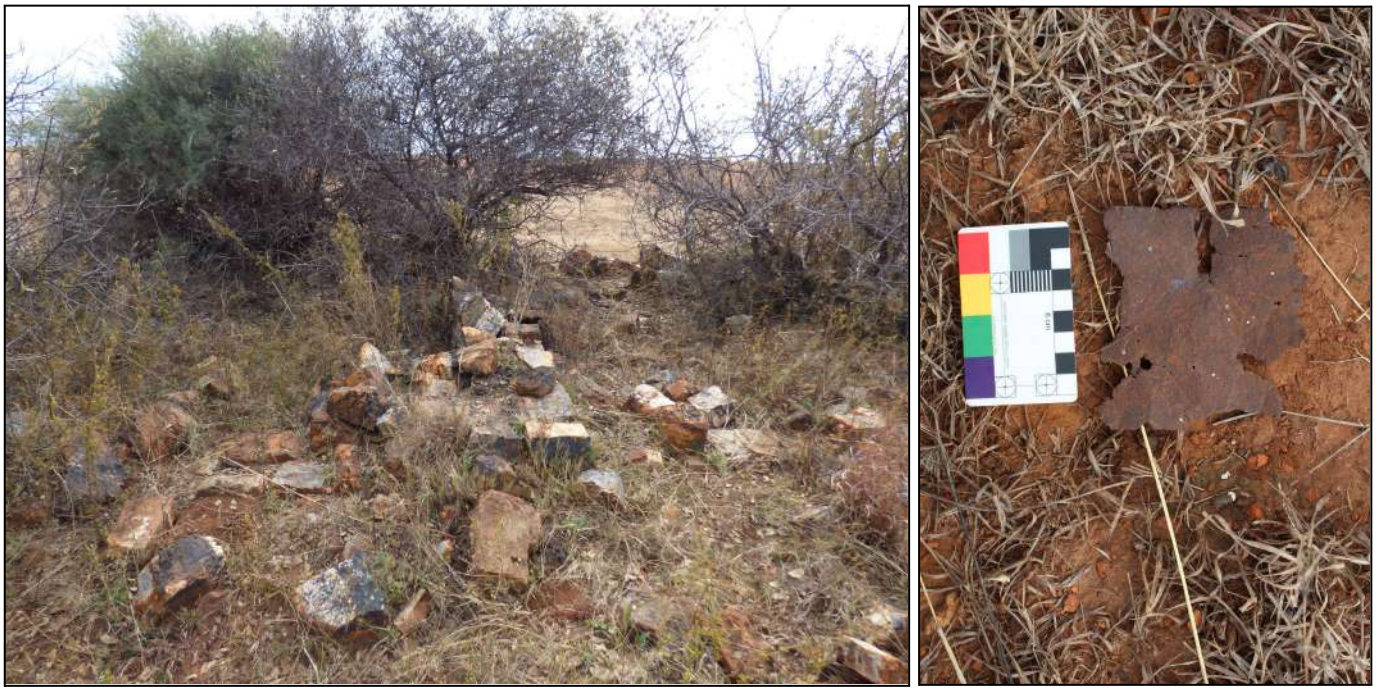

**Figure 7.8: Observation 7**



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**Figure 7.9: Observation 7**

**Figure 7.10: Observation 8**

**Figure 7.11: Observation 9**



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**Figure 7.12: Observation 10**

**Figure 7.13: Observation 11**



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**Figure 7.14: Observation 12 - 18**

**Figure 7.15: Observation 12 - 18**

**Figure 7.16: Observation 12 - 18**



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**Figure 7.17: Observation 19**

**Figure 7.18: Observation 20**

**Figure 7.19: Observation 21**



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**Figure 7.22: Observation 22 - Graves graded IIIA**

**Figure 7.23: Observation 23**

**Figure 7.23: Observation 23**



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**Figure 7.24: Observation 24 - 26**

**Figure 7.25: Observation 24 - 26**

**Figure 7.26: Observation 27**



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**Figure 7.27: Observation 28**

**Figure 7.28: Observation 28**



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**Figure 7.29: Observation 33**

**Figure 7.30: Observation 34**

**Figure 7.30: Observation 34**



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## 5. ASSESSMENT OF THE IMPACT OF THE DEVELOPMENT

### 5.1 Assessment of impact to Archaeological Resources

No stone age archaeological resources were identified during the field assessment despite the presence of abundant raw material sources. In other nearby projects, Stone Age archaeological resources that were identified were graded as having low levels of scientific significance. As such, it is very unlikely that the proposed development will impact on significant Stone Age archaeological heritage..

A number of stone structures were identified within the study area. These have been categorised as either kraals or ruins of varying heritage value. Where the kraals and ruins form part of a cluster of resources, these have been graded as IIIC for their historical contextual significance and their contribution to the cultural landscape. It is recommended that a no-development buffer of 20m is implemented around these Grade IIIC structures. Where ruins or kraals are isolated on the landscape, their heritage value is limited and as such, these have been graded as Not Conservation-Worthy (NCW).

A number of graves were identified within the areas proposed for development. All the graves are ascribed high local levels of cultural value and as such, are graded IIIA. It is important that human remains are not disturbed through the process of construction of this development and as such, it is recommended that a 50m no-go buffer zone with a fence is implemented around these sites.

The clusters of resources have been mapped with their recommended no-go buffer areas in the maps below. In order to conserve the integrity of the relationship between the kraals, ruins and graves, it is recommended that the clusters as mapped below are considered to be no-go areas for the proposed development.



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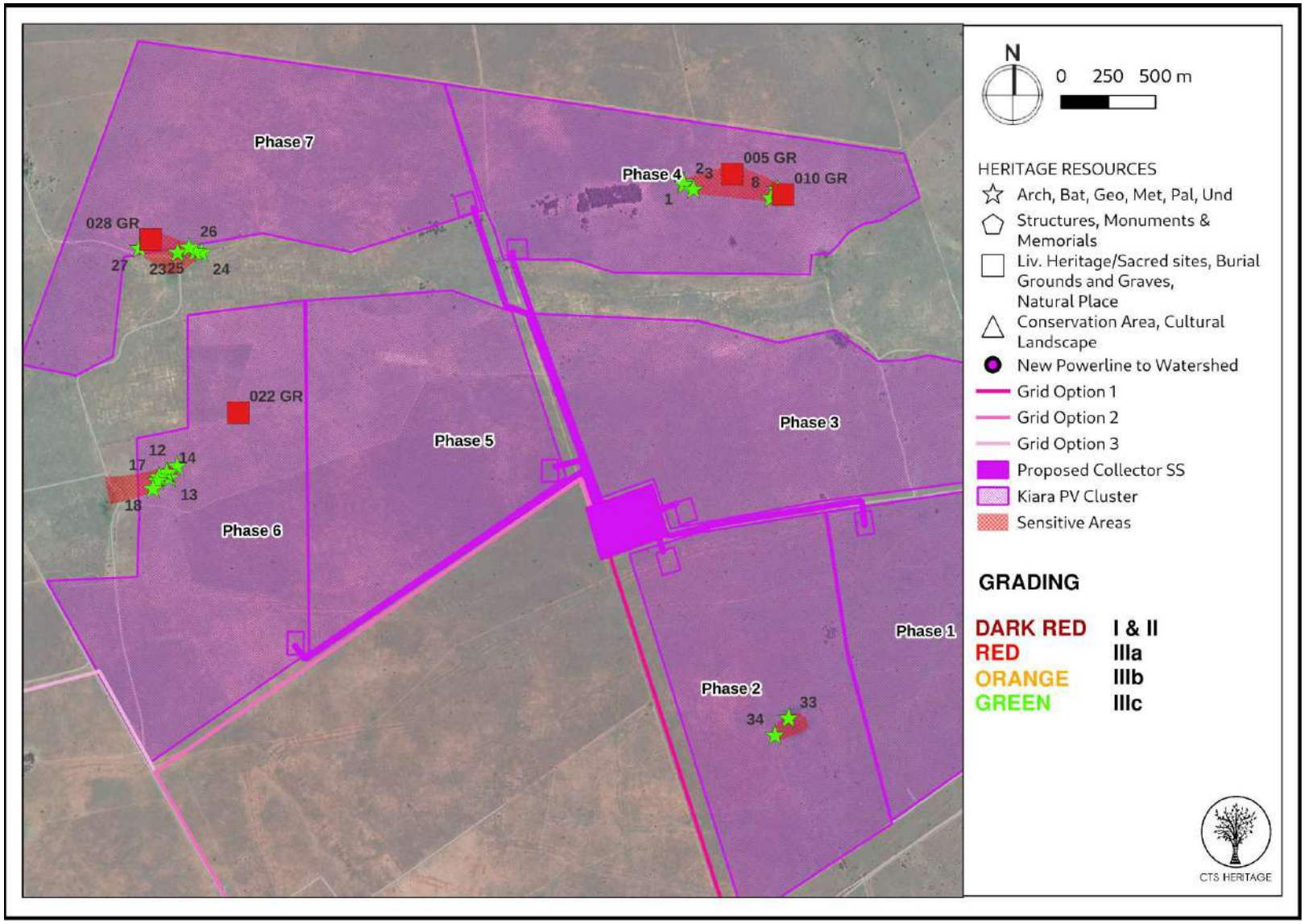


**Figure 8.1: Map of heritage resources identified during the field assessment, relative to the study area and associated archaeological sensitivity**



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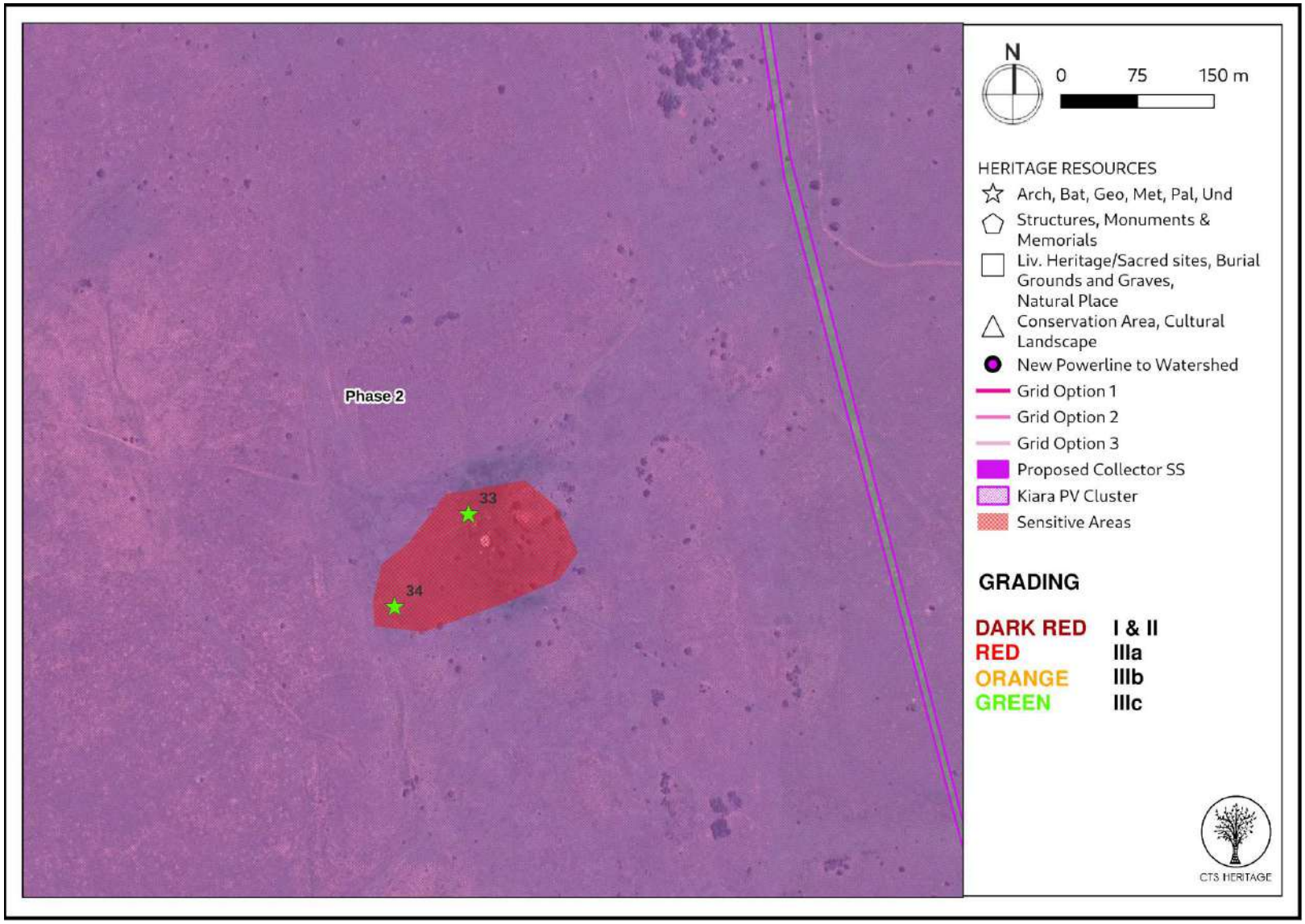


**Figure 8.2: Map of heritage resources identified during the field assessment, relative to the study area and associated archaeological sensitivity for Phase 2**

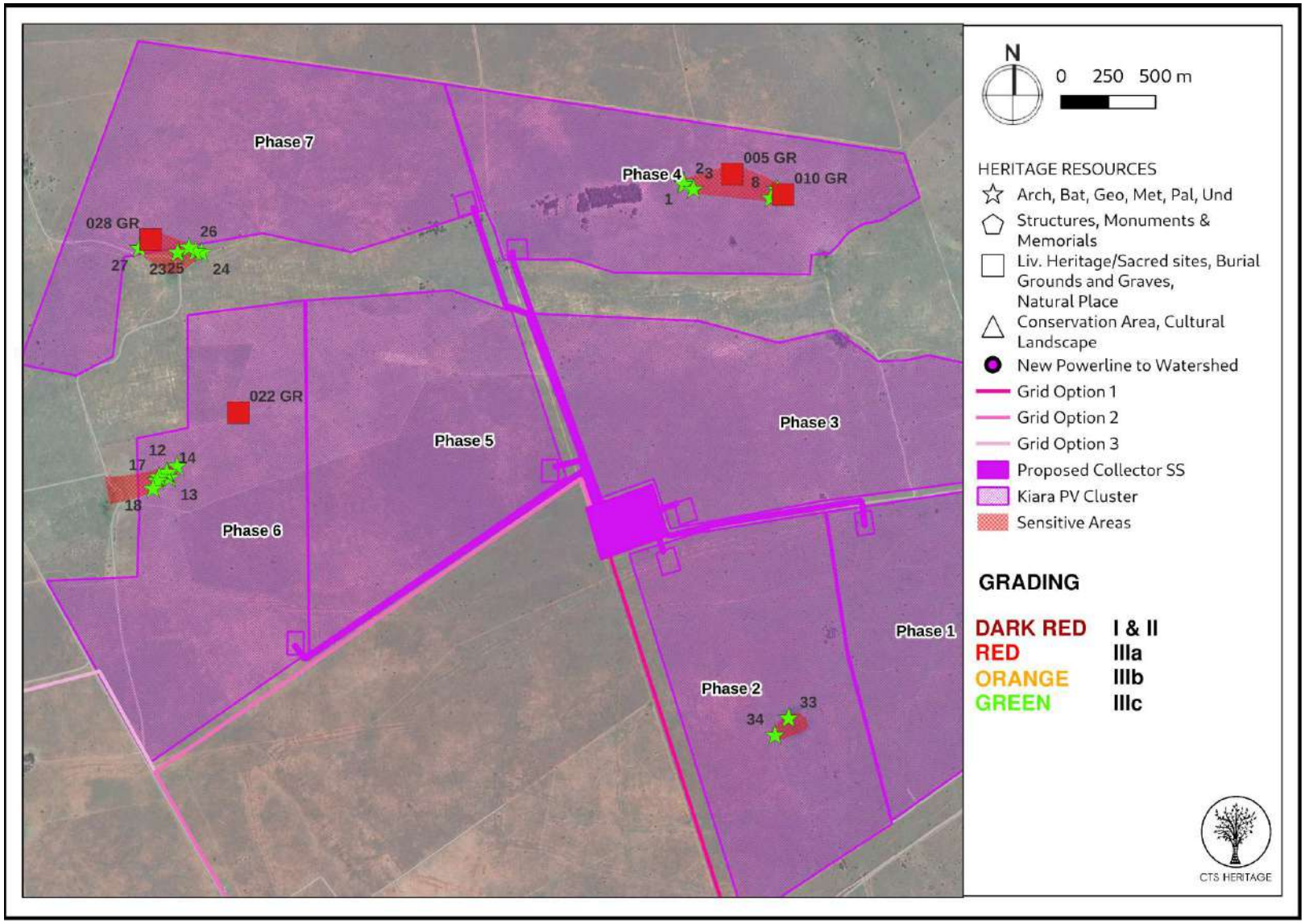


**Figure 8.3: Map of heritage resources identified during the field assessment, relative to the study area and associated archaeological sensitivity for Phase 4**



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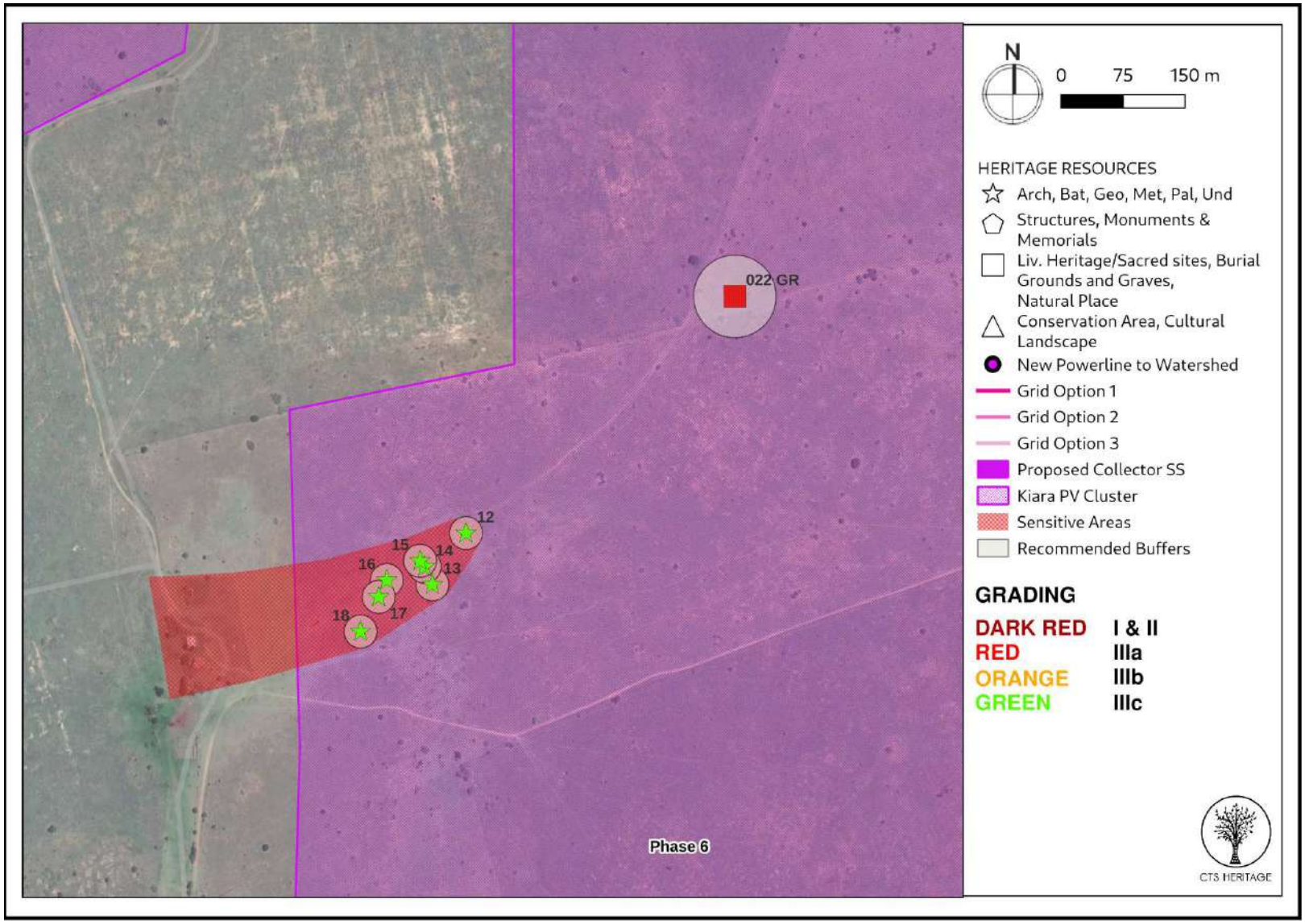


**Figure 8.4: Map of heritage resources identified during the field assessment, relative to the study area and associated archaeological sensitivity for Phase 6**



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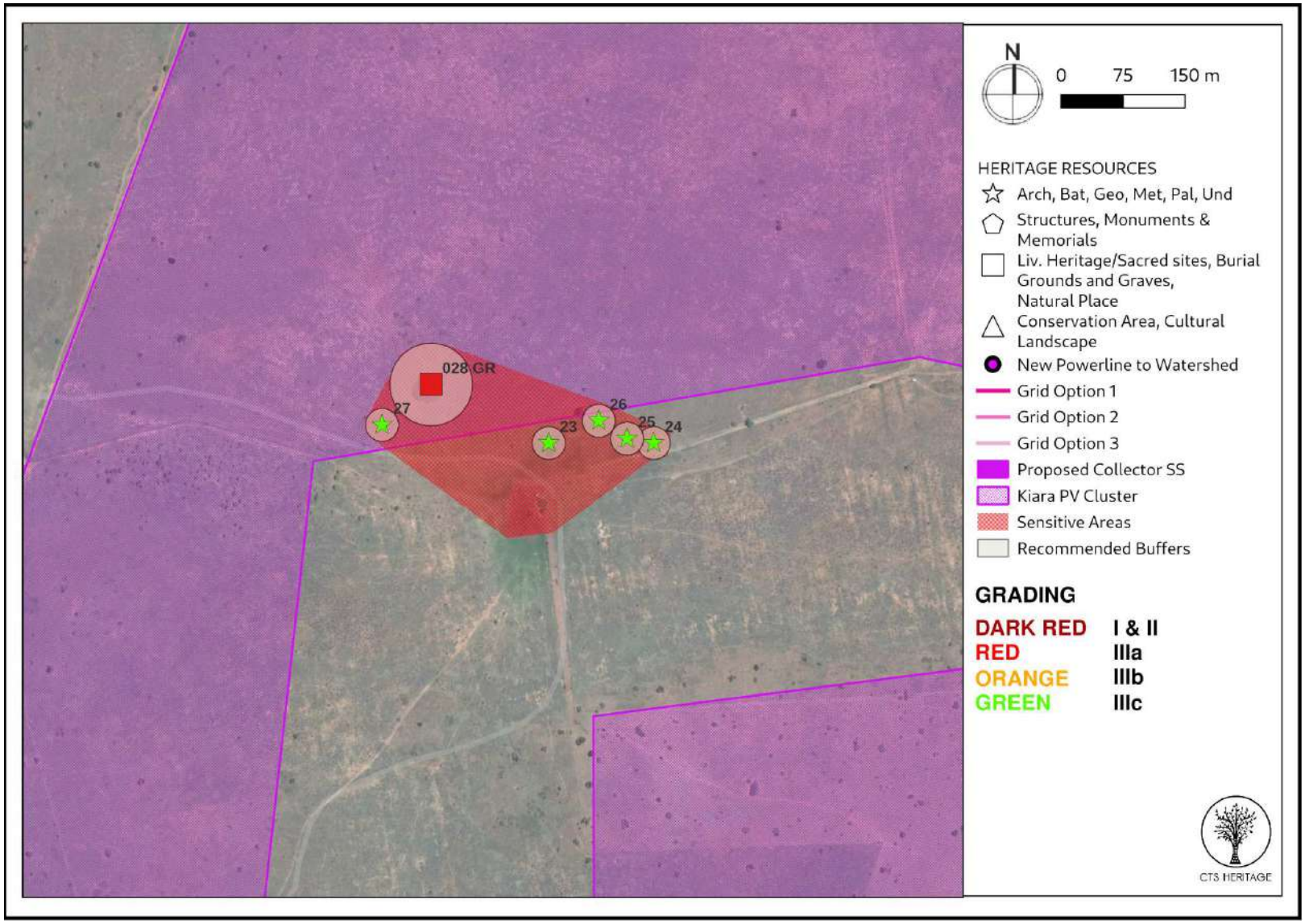


**Figure 8.5: Map of heritage resources identified during the field assessment, relative to the study area and associated archaeological sensitivity for Phase 7**



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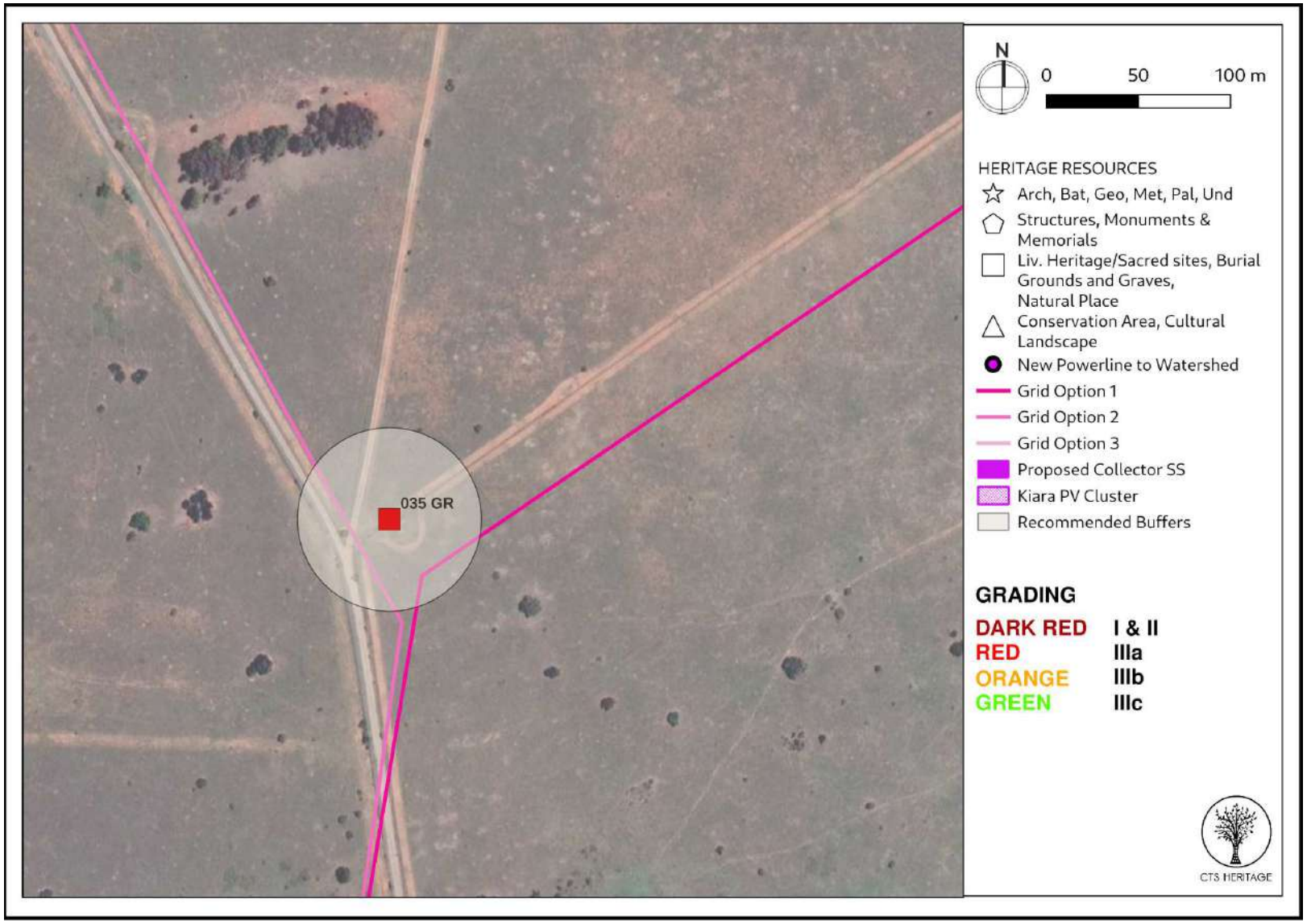


**Figure 8.6: Map of heritage resources identified during the field assessment, relative to the study area and associated archaeological sensitivity for the grid connection**



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## 6. CONCLUSION AND RECOMMENDATIONS

The findings of this field assessment largely correlate with the findings of other specialists conducted in the area. No stone age archaeological resources were identified. A number of stone structures were identified within the development area. Some of these are indicative of historic occupation of the area in the form of ruins, old structures and stone kraals. These have been graded as having low local significance due to their contribution to history of the broader context. These features should not be impacted by the development and a no-go buffer of 20m is recommended to ensure that these features are not disturbed.

Other such features represent burials and burial grounds. These features have high levels of local significance and may not be impacted by the development activities. It is recommended that a no-development buffer of 50m is implemented around these features and that these features are fenced off to ensure that they are not disturbed.

Where there is a clear spatial relationship between the kraals, ruins and graves, these have been mapped as clusters of high sensitivity in the maps above. In order to conserve the integrity of the relationship between the kraals, ruins and graves, it is recommended that the clusters as mapped below are considered to be no-go areas for the proposed development.

Lastly, it is possible that archaeological resources may be located beneath the ground surface which may be impacted during the course of development. Recommendations in this regard are included below.

***Recommendations***

There is no objection to the proposed development of the Kiara PV cluster and associated grid connection in terms of impacts to archaeological heritage on condition that:

- The recommended no-go development areas as per Figures 8.1 to 8.6, and as per Table 1, are implemented.
- Should any buried archaeological resources or human remains be uncovered during the course of development activities, work must cease in the vicinity of these finds. The South African Heritage Resources Agency (SAHRA) must be contacted immediately in order to determine an appropriate way forward.



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## 7. REFERENCES

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|---|---|---|---|---|
| **Nid** | **Report Type** | **Author/s** | **Date** | **Title** |
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| 8330 | AIA Phase 1 | Francois P Coetzee | 01/03/2008 | Cultural Heritage Survey of the PPC Slurry Operation, near Zeerust, North West Province |
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**Additional Reports:**


- Lavin, J. 2018. HERITAGE IMPACT ASSESSMENT In terms of Section 38(8) of the NHRA for the DEVELOPMENT OF THE LICHTENBURG 1, 2 and 3 PV SOLAR ENERGY FACILITY AND ASSOCIATED INFRASTRUCTURE ON A SITE NEAR LICHTENBURG, NORTH WEST PROVINCE. Unpublished Report.
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