

**HERITAGE SURVEY OF THE NHLANGAKAZI ROAD
AND CAUSEWAY UPGRADE, WARD 9, NDWEDWE
LOCAL MUNICIPALITY, ILEMBE DISTRICT
MUNICIPALITY, KWAZULU-NATAL**

FOR ENVIROEDGE CC

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INTRODUCTION

“The Ndwedwe Municipality has proposed the upgrade of Nhlangakazi Access Road and Bridges, located in Ward 9 of the Ndwedwe Local Municipality, Ilembe District Municipality...

The project involves the upgrade and construction of Nhlangakazi Access Road and Bridges in Ward 9. The project includes the construction of a 6.6km length, 6m wide improved and upgraded gravel road complete with storm water drainage with culverts over existing drainage lines and bridge crossings over three separate watercourses which are tributaries of the main Mdloti River, which flows to the south-west of the proposed road upgrade. There are existing pipe crossings for some of the smaller drainage line crossings in the first portion of the road, and there are two existing bridge structures that would be replaced or upgraded. The third watercourse crossing/bridge structure may be upgraded to a formalised bridge structure...

The current road conditions are susceptible to erosion which makes access problematic for the local residents. The proposed access road upgrade and associated water course crossings with culverts and bridges will provide an improved and more reliable link road for the local residents and surrounding areas as this is the only road link for these communities...

In the southern portion, the proposed Nhlangakazi Road upgrade is located on the lower slopes of hills located to the west. The Mdloti River runs on the western side of the road and continues south. The first bridge crossing is over a tributary of the Mdloti River which lies to the east of the proposed road upgrade. The proposed Nhlangakazi Road upgrade runs to the west of this tributary and crosses another four smaller tributaries as the road continues north. In this section, there is a high point of 667masl to the west and 687masl to the east. In the central portion of the proposed road study area, the road climbs up a central

hill slope with a high point of 762masl to the west, to run along the eastern slope, and then descend down again in the north-west of the study area, where it crosses a further eight small tributaries of the Mdloti River, with a high point of 792masl located to the north-west and end section of the proposed road. The road in this section is routed along the lower slopes of the western side of a hill. The proposed road is predominantly located on the lower slopes of a central hill area, and as such it crosses numerous drainage lines as well as a number of areas of drainage and seepage. The proposed road upgrade has been designed to align with the existing road tracks...” (Enviroedge BID 2014).

The location of the road upgrade is shown in figures 1 – 3. Much of the road occurs on a slope in a valley and in the flood plain of the stream, with several river crossings.

Umlando was contracted to undertake the HIA for the road upgrade. The road upgrade will result in a 5m wide road. The current road is ~2m – 3m wide, and thus there will be areas of earth moving activity.

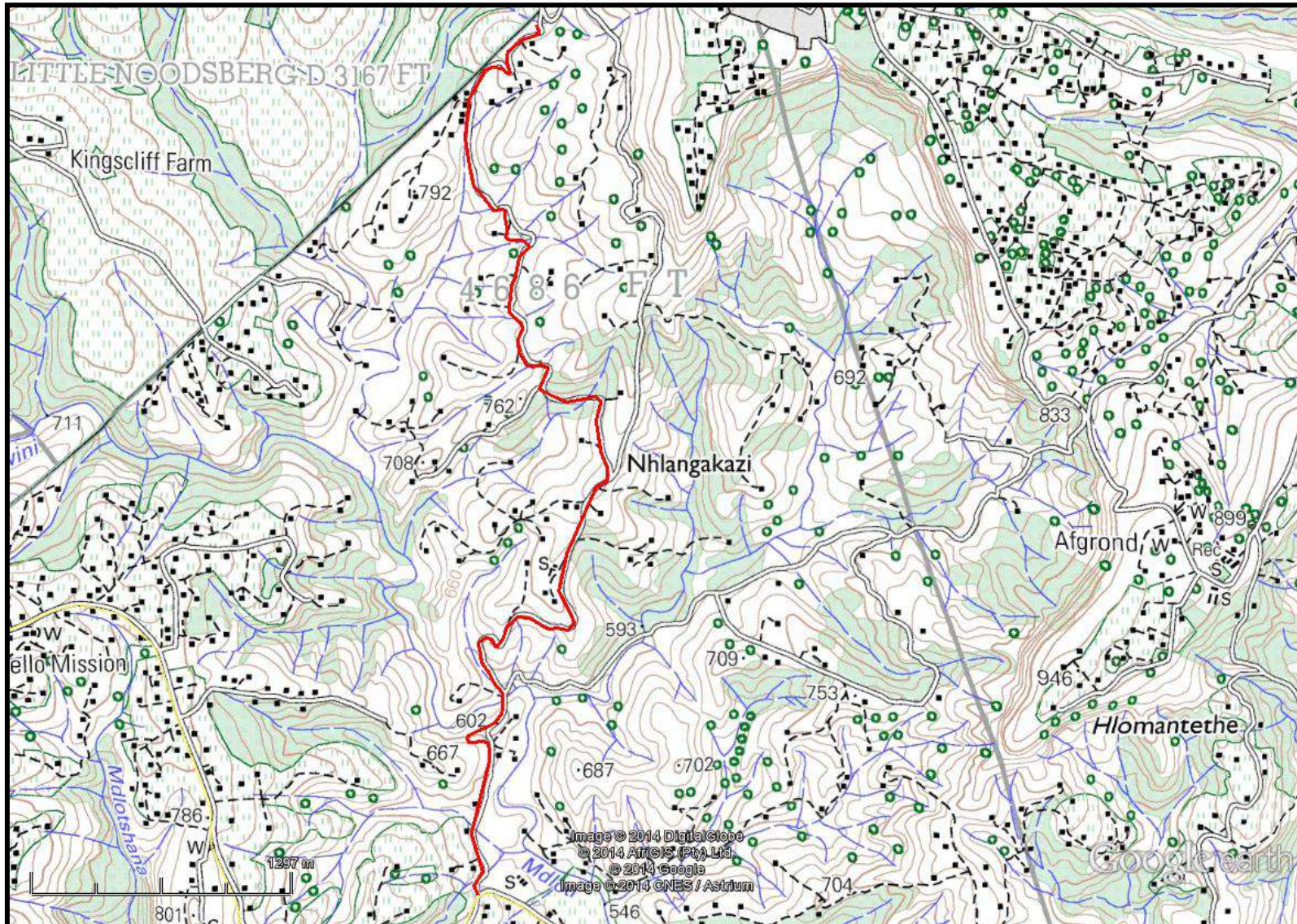
FIG. 1 GENERAL LOCATION OF THE NHLANGAKAZI ACCESS ROAD



FIG. 2: AERIAL OVERVIEW OF THE NHLANGAKAZI ACCESS ROAD



FIG. 3: TOPOGRAPHICAL MAP OF THE NHLANGAKAZI ACCESS ROAD



KWAZULU-NATAL HERITAGE ACT NO. 4 OF 2008

“General protection: Structures.—

- No structure which is, or which may reasonably be expected to be older than 60 years, may be demolished, altered or added to without the prior written approval of the Council having been obtained on written application to the Council.
- Where the Council does not grant approval, the Council must consider special protection in terms of sections 38, 39, 40, 41 and 43 of Chapter 9.
- The Council may, by notice in the *Gazette*, exempt—
- A defined geographical area; or
- defined categories of sites within a defined geographical area, from the provisions of subsection where the Council is satisfied that heritage resources falling in the defined geographical area or category have been identified and are adequately protected in terms of sections 38, 39, 40, 41 and 43 of Chapter 9.
- A notice referred to in subsection (2) may, by notice in the *Gazette*, be amended or withdrawn by the Council.

General protection: Graves of victims of conflict.—No person may damage, alter, exhume, or remove from its original position—

- the grave of a victim of conflict;
- a cemetery made up of such graves; or
- any part of a cemetery containing such graves, without the prior written approval of the Council having been obtained on written application to the Council.
- General protection: Traditional burial places.—
- No grave—
- not otherwise protected by this Act; and
- not located in a formal cemetery managed or administered by a local authority, may be damaged, altered, exhumed, removed from its original position, or otherwise disturbed without the prior written approval of the Council having been obtained on written application to the Council.

The Council may only issue written approval once the Council is satisfied that—

- the applicant has made a concerted effort to consult with communities and individuals who by tradition may have an interest in the grave; and
- the applicant and the relevant communities or individuals have reached agreement regarding the grave.

General protection: Battlefield sites, archaeological sites, rock art sites, palaeontological sites, historic fortifications, meteorite or meteorite impact sites.—

- No person may destroy, damage, excavate, alter, write or draw upon, or otherwise disturb any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site without the prior written approval of the Council having been obtained on written application to the Council.
- Upon discovery of archaeological or palaeontological material or a meteorite by any person, all activity or operations in the general vicinity of such material or meteorite must cease forthwith and a person who made the discovery must submit a written report to the Council without delay.
- The Council may, after consultation with an owner or controlling authority, by way of written notice served on the owner or controlling authority, prohibit any activity considered by the Council to be inappropriate within 50 metres of a rock art site.
- No person may exhume, remove from its original position or otherwise disturb, damage, destroy, own or collect any object or material associated with any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site without the prior written approval of the Council having been obtained on written application to the Council.
- No person may bring any equipment which assists in the detection of metals and archaeological and palaeontological objects and material, or excavation equipment onto any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, or meteorite impact site, or

- use similar detection or excavation equipment for the recovery of meteorites, without the prior written approval of the Council having been obtained on written application to the Council.
- The ownership of any object or material associated with any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site, on discovery, vest in the Provincial Government and the Council is regarded as the custodian on behalf of the Provincial Government.” (KZN Heritage Act of 2008)

METHOD

The method for Heritage assessment consists of several steps.

The first step forms part of the desktop assessment. Here we would consult the database that has been collated by Umlando. This databases contains archaeological site locations and basic information from several provinces (information from Umlando surveys and some colleagues), most of the national and provincial monuments and battlefields in Southern Africa (<http://www.vuvuzela.com/googleearth/monuments.html>) and cemeteries in southern Africa (information supplied by the Genealogical Society of Southern Africa). We use 1st and 2nd edition 1:50 000 topographical and 1937 aerial photographs where available, to assist in general location and dating of buildings and/or graves. The database is in Google Earth format and thus used as a quick reference when undertaking desktop studies. Where required we would consult with a local data recording centre, however these tend to be fragmented between different institutions and areas and thus difficult to access at times. We also consult with an historical architect, palaeontologist, and an historian where necessary.

The survey results will define the significance of each recorded site, as well as a management plan.

All sites are grouped according to low, medium, and high significance for the purpose of this report. Sites of low significance have no diagnostic artefacts or features. Sites of medium significance have diagnostic artefacts or features and these sites tend to be sampled. Sampling includes the collection of artefacts for future analysis. All diagnostic pottery, such as rims, lips, and decorated sherds are sampled, while bone, stone, and shell are mostly noted. Sampling usually occurs on most sites. Sites of high significance are excavated and/or extensively sampled. Those sites that are extensively sampled have high research potential, yet poor preservation of features.

Defining significance

Heritage sites vary according to significance and several different criteria relate to each type of site. However, there are several criteria that allow for a general significance rating of archaeological sites.

These criteria are:

1. State of preservation of:

- 1.1. Organic remains:
 - 1.1.1. Faunal
 - 1.1.2. Botanical
- 1.2. Rock art
- 1.3. Walling
- 1.4. Presence of a cultural deposit
- 1.5. Features:
 - 1.5.1. Ash Features
 - 1.5.2. Graves
 - 1.5.3. Middens
 - 1.5.4. Cattle byres
 - 1.5.5. Bedding and ash complexes

2. Spatial arrangements:

- 2.1. Internal housing arrangements
- 2.2. Intra-site settlement patterns
- 2.3. Inter-site settlement patterns

3. Features of the site:

- 3.1. Are there any unusual, unique or rare artefacts or images at the site?
- 3.2. Is it a type site?
- 3.3. Does the site have a very good example of a specific time period, feature, or artefact?

4. Research:

- 4.1. Providing information on current research projects
- 4.2. Salvaging information for potential future research projects

5. Inter- and intra-site variability

- 5.1. Can this particular site yield information regarding intra-site variability, i.e. spatial relationships between various features and artefacts?
- 5.2. Can this particular site yield information about a community's social relationships within itself, or between other communities?

6. Archaeological Experience:

6.1. The personal experience and expertise of the CRM practitioner should not be ignored. Experience can indicate sites that have potentially significant aspects, but need to be tested prior to any conclusions.

7. Educational:

- 7.1. Does the site have the potential to be used as an educational instrument?
- 7.2. Does the site have the potential to become a tourist attraction?
- 7.3. The educational value of a site can only be fully determined after initial test-pit excavations and/or full excavations.

8. Other Heritage Significance:

- 8.1. Palaeontological sites
- 8.2. Historical buildings

- 8.3. Battlefields and general Anglo-Zulu and Anglo-Boer sites
- 8.4. Graves and/or community cemeteries
- 8.5. Living Heritage Sites
- 8.6. Cultural Landscapes, that includes old trees, hills, mountains, rivers, etc related to cultural or historical experiences.

The more a site can fulfill the above criteria, the more significant it becomes. Test-pit excavations are used to test the full potential of an archaeological deposit. This occurs in Phase 2. These test-pit excavations may require further excavations if the site is of significance (Phase 3). Sites may also be mapped and/or have artefacts sampled as a form of mitigation. Sampling normally occurs when the artefacts may be good examples of their type, but are not in a primary archaeological context. Mapping records the spatial relationship between features and artefacts.

RESULTS

DESKTOP STUDY

The desktop study consisted of analysing various maps for evidence of prior habitation in the study area, as well as for previous archaeological surveys. The archaeological database indicates that there are archaeological sites in the general area (fig. 4). These sites include all types of Stone Age and Iron Age sites. Two sites relating to the Bambata Rebellion occur nearby. These are the grave of Trooper Knight and the Battle of Nsuzi (see Gillings 1989 for a summary).

No known heritage sites occur in the study area.

The 1937 aerial photographs indicate that there area had several settlements

on this specific hill. There locations are given in Table 1. All of these settlements have been built over or ploughed for agricultural fields. These settlements would have had human burials around the settlement and these remains would still exist today, yet be underneath the surface and thus not visible. It is for this reason that these sites are identified as potentially highly significant. A 50m radius should be placed around the centre point given in Table 1 and the area marked as being sensitive.

TABLE 1: LOCATION OF SETTLEMENTS IN 1937

NAME	LATITUDE	LONGITUDE
A1	-29.426391773	30.841917908
A2	-29.431249059	30.844952742
A3	-29.411217287	30.841340649
A4	-29.412577135	30.839965165
A5	-29.434796595	30.843745663
A6	-29.437493000	30.842489106

The 1968 topographical map (fig. 5) indicates that the sites identified in 1937 do not exist in 1968. Agricultural fields or other settlements have covered them. 'A2' and 'B2' are an exception. The map does show that there is a track where the existing road occurs. This implies that any structures and causeways along the existing road postdate the 1970s and are thus not protected by the KZNHA.

TABLE 2: LOCATION OF SETTLEMENTS IN 1968

NAME	LATITUDE	LONGITUDE
B1	-29.429542558	30.845199833
B2	-29.432034868	30.845299912
B3	-29.435669665	30.842512127
B4	-29.443659989	30.839392803

The area is not palaeontologically sensitive according to the SHARIS sensitivity map.

FIG. 4: LOCATION OF KNOWN HERITAGE SITES NEAR THE STUDY AREA

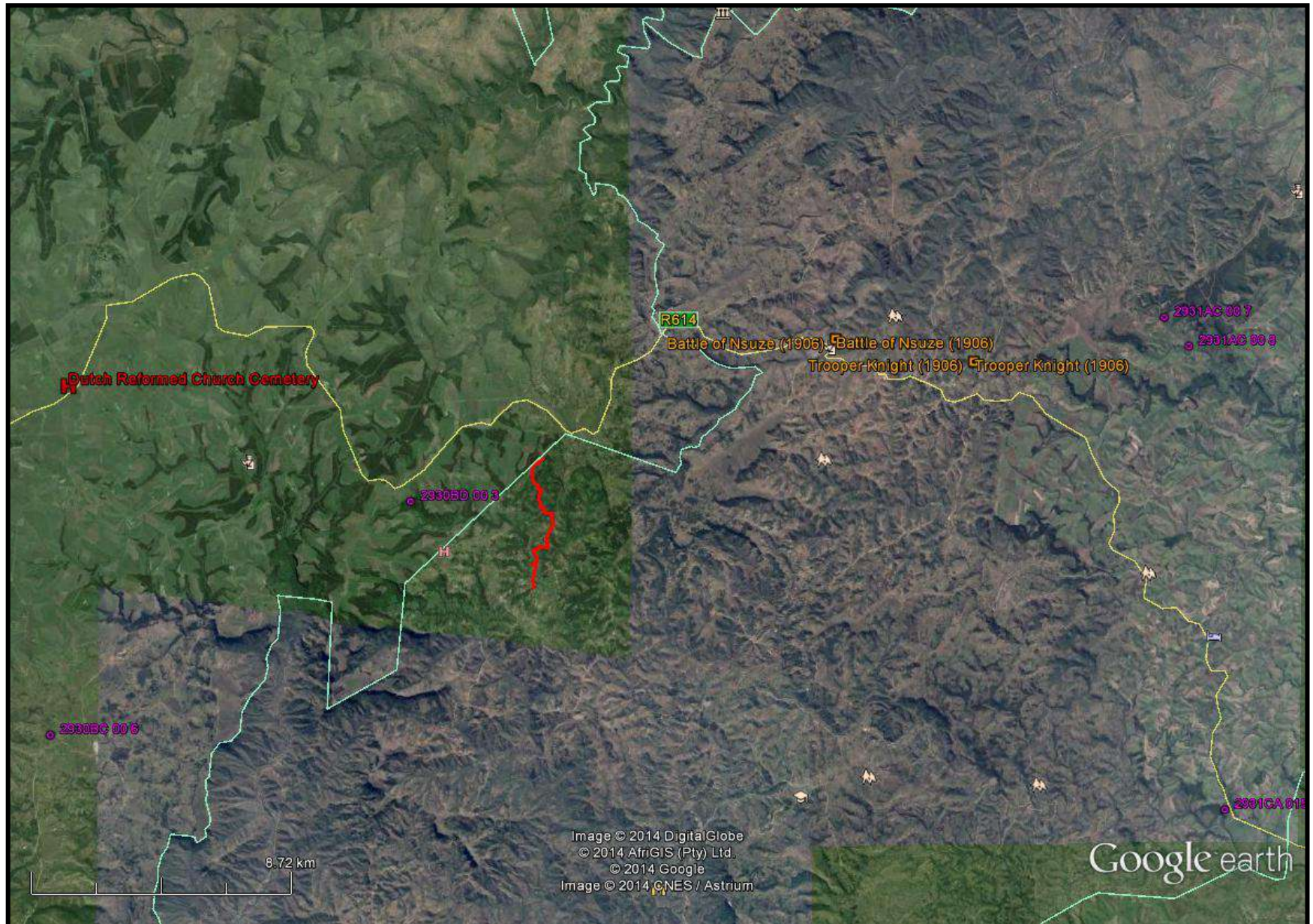


FIG. 5: STUDY AREA IN 1937

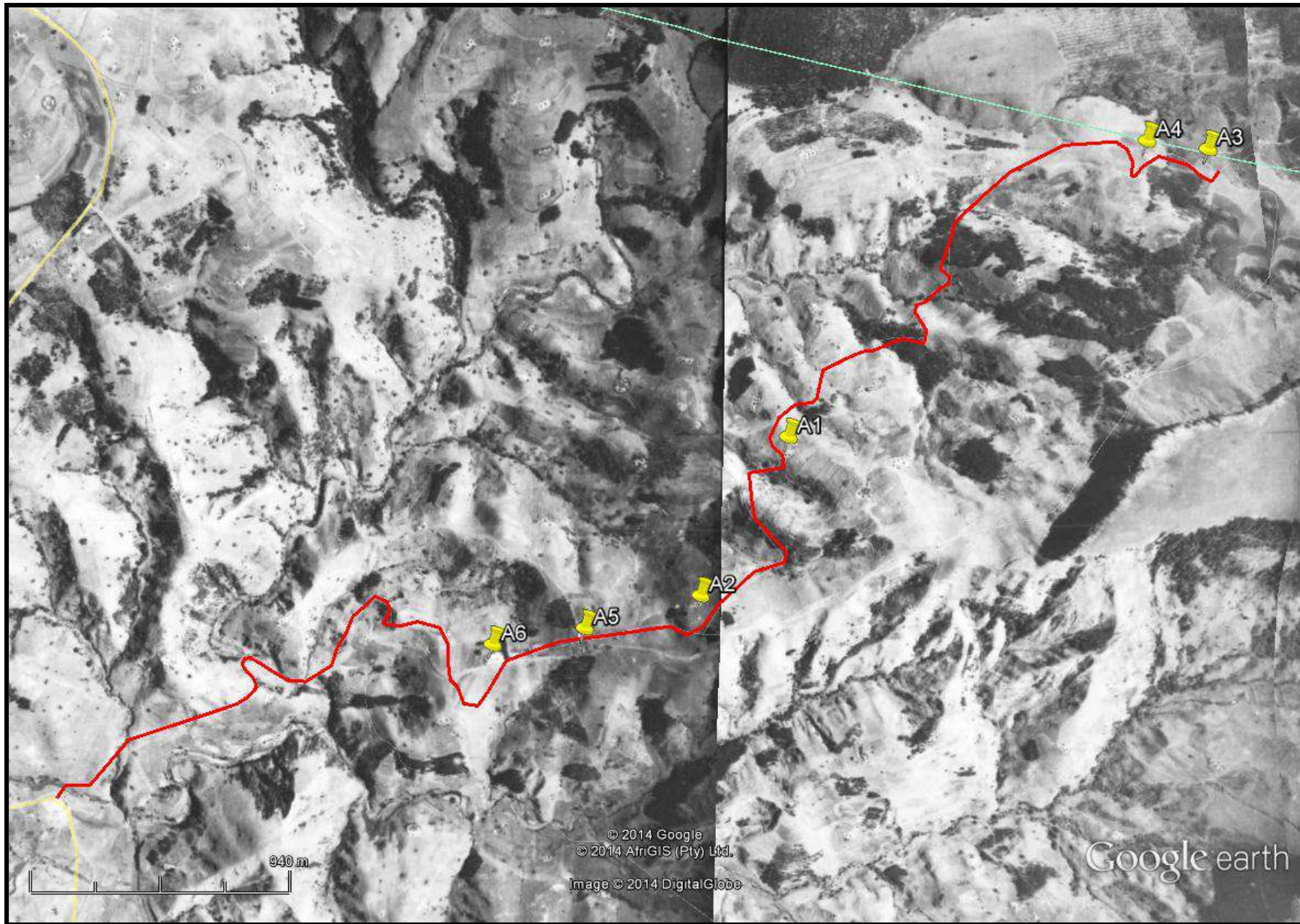
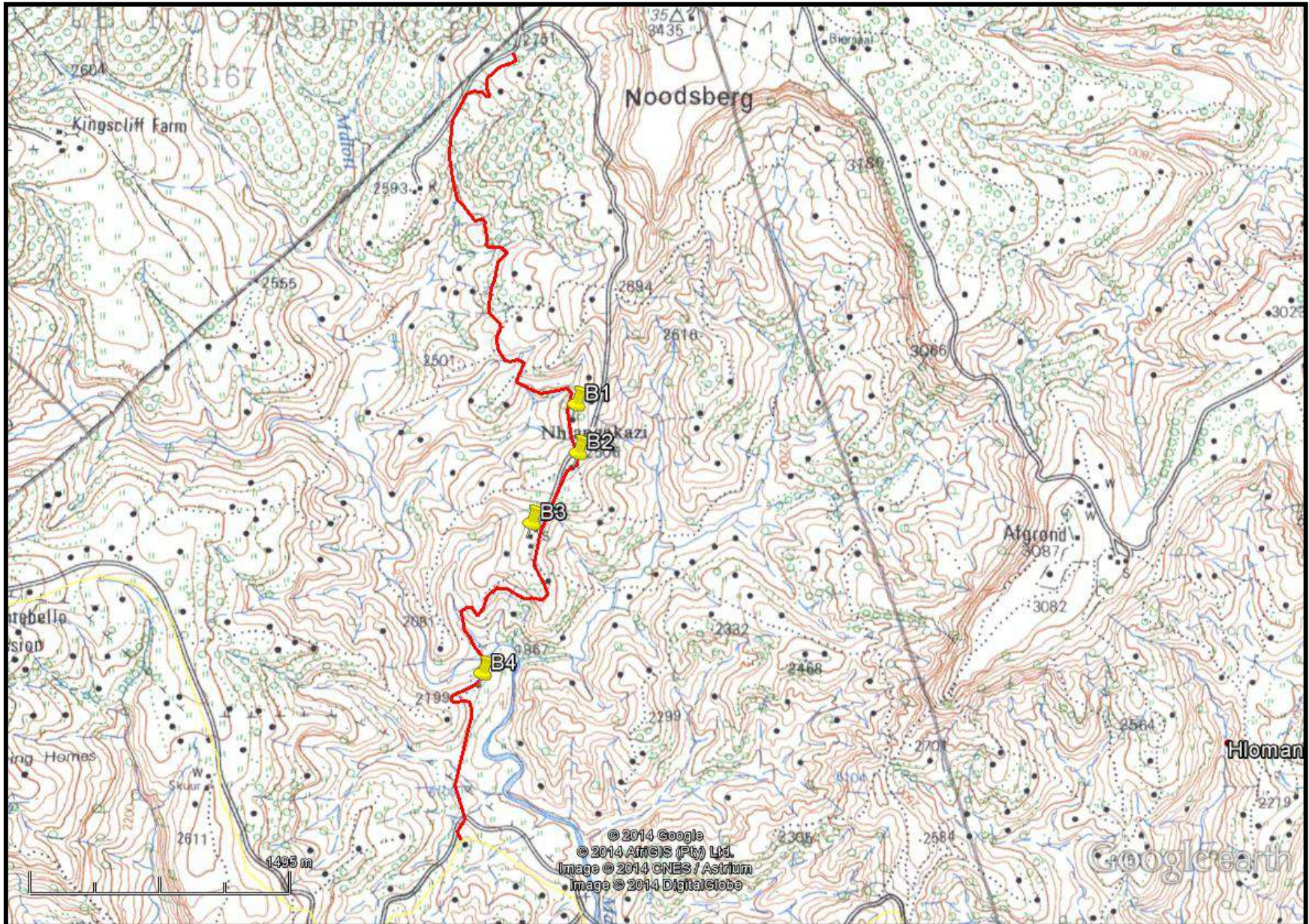


FIG. 6: STUDY AREA IN 1968



FIELD SURVEY

No heritage sites were observed along the route. This is because much of the development is in already disturbed land or road reserves, and/or on steep slopes. None of the sites noted in the desktop study were observed during the survey. Figure 7 shows some of these areas.

MANAGEMENT PLAN

No heritage sites were observed along the route; however, there is a possibility of human remains occurring in the general area, and/or the road. A general management plan is thus required if human remains are accidentally uncovered.

If graves are uncovered during the course of the construction then certain processes need to be followed. In terms of the National Heritage Resources Act (No. 25 of 1999), and KZN Heritage Act of 1997 and 2008, state those graves older than 60 years (not in a municipal graveyard) are protected, as well as all unclaimed recent graves. Only a registered undertaker should handle human remains younger than 60 years or an institution declared under the Human Tissues Act. Anyone who wishes to develop an area where there are graves older than 60 years is required to follow the process described in the legislation (section 36 and associated regulations). The specialist will require a permit from the heritage resources authority:

- Determine/ confirm the presence of the graves on the property. Normally the quickest way to proceed is to obtain the service of a professional archaeologist accredited to undertake burial relocations. The archaeologist will provide an estimate of the age of the graves. There may be a need for archival research and possibly test excavations (permit required).

FIG. 7: SCENIC VIEWS OF THE ROAD



- The preferred decision is to move the development so that the graves may remain undisturbed. If this is done, the developer must satisfy SAHRA/KZN Heritage that adequate arrangements have been made to protect the graves on site from the impact of the development. This usually involves fencing the grave (yard) and setting up a small site management plan indicating who will be responsible for maintaining the graves and how this is legally tied into the development. It is recommended that a distance of 10-20 m is left undisturbed between the grave and the fence around the graves.
- If the developer wishes to relocate or disturb the graves:
 - A 60-day public participation (social consultation) process as required by section 36 (and regulations - see attachment), must be undertaken to identify any direct descendants of those buried on the property. This allows for a period of consultation with any family members or community to ascertain what their wishes are for the burials. It involves notices to the public on site and through representative media. The archaeologist, who can explain the process, may do this but for large or sensitive sites, a social consultant should be employed. Archaeologists often work with undertakers, who rebury the human remains.
 - If because of the public participation, the family (where descendants are identified) or the community agree to the relocation process then the graves may be relocated.
 - The archaeologist must submit a permit application to SAHRA/KZN Heritage for the disinterment of the burials. This must include written approval of the descendants or, if there has not been success in identifying direct descendants, written documentation of the social consultation process, which must indicate to SAHRA's satisfaction, the efforts that have been made to locate them. It must also include details of the exhumation process and the place to which the burials are to be

- relocated. (There are regulations regarding creating new cemeteries and so this usually means that relocation must be to an established communal rural or formal municipal cemetery.)
- Permission must be obtained before exhumation takes place from the landowner where the graves are located, and from the owners/managers of the graveyard to which the remains will be relocated.
 - Other relevant legislation must be complied with, including the Human Tissues Act (National Department of Health) and any ordinances of the Provincial Department of Health). The archaeologist can usually advise about this.

CONCLUSION

A heritage survey was undertaken for the road and causeway upgrades for the Nhlankazi Road. The road appears to post-date 1970s but the area has had more recent settlements from the beginning of the 20th century. No archaeological sites were noted during the survey; however, Iron Age and Stone Age sites do occur in the general area.

The occurrence of 20th century settlements in the study area is important. These settlements are likely to have human remains as traditional burial practices were still undertaken at this time. These graves are now subsurface features and would only be observed if they were exposed. I placed a 50m radius around six sites so that the area should be noted as being sensitive for potential human remains.

REFERENCES

Gillings K. 1989 The Bambata Rebellion Of 1906: Nkandla Operations And The Battle Of Mome Gorge, 10 June 1906. *Military History Journal* **8(1)**.

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