

**HERITAGE SURVEY OF THE PROPOSED DOLERITE
BORROW PIT, PAUL ROUX**

FOR UWP CONSULTING

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INTRODUCTION

Umlando cc was contracted by UWP Consulting to undertake a heritage assessment of the proposed extension to a dolerite borrow pit and the upgrades of Sections 2 & 3 of the N5. The borrow pit is required for part of the current road upgrade and rehabilitation. The borrow pit is located about 4km east of Paul Roux, and 30km west of Bethlehem, in the Free State. The borrow pit is located on Rexford (Rexford 2, Bethlehem 433/3) on Portion 2 of the Farm Rexford Stores, No 433, Free State and the Potion 0 of the Farm Brightside, No 1167, Free State. The rehabilitation sections are located at the 21.7km and between the 35.5 to 39km marks.

The study area consists of a dolerite and sandstone koppies with associated Eastern Free State Sandy Grassland. The study area and the borrow pit is illustrated in Figures 1 and 2.

The impacts on the area will be:

- Borrow pit mine
- 2 extensions to the road reserve

The study area had the potential to include Stone Age, Rock Art and historical sites (of farm owners and their tenants). The survey recorded three heritage sites of which one is of high significance.

METHOD

The method for Heritage assessment consists of several steps.

The first step forms part of the desktop assessment. Here we would consult the databases. These databases contain most of the memorials and other

protected sites, battlefields and cemeteries in southern Africa. 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.

FIG. 1: GENERAL LOCALITY MAP

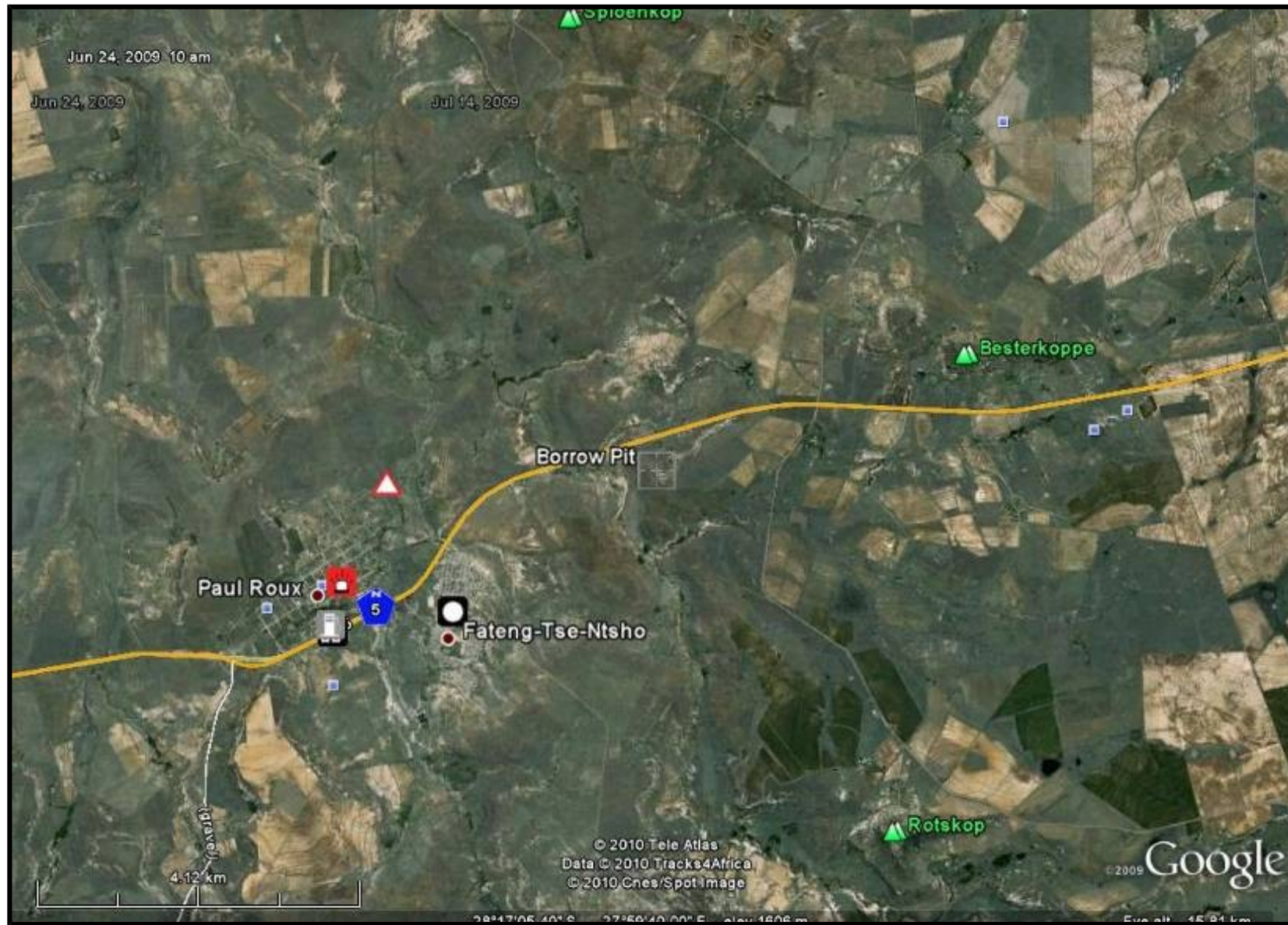


FIG. 2: PROPOSED LOCATION OF THE BORROW PIT¹

¹ Blue polygon = current borrow pit; orange polygon = proposed borrow pit

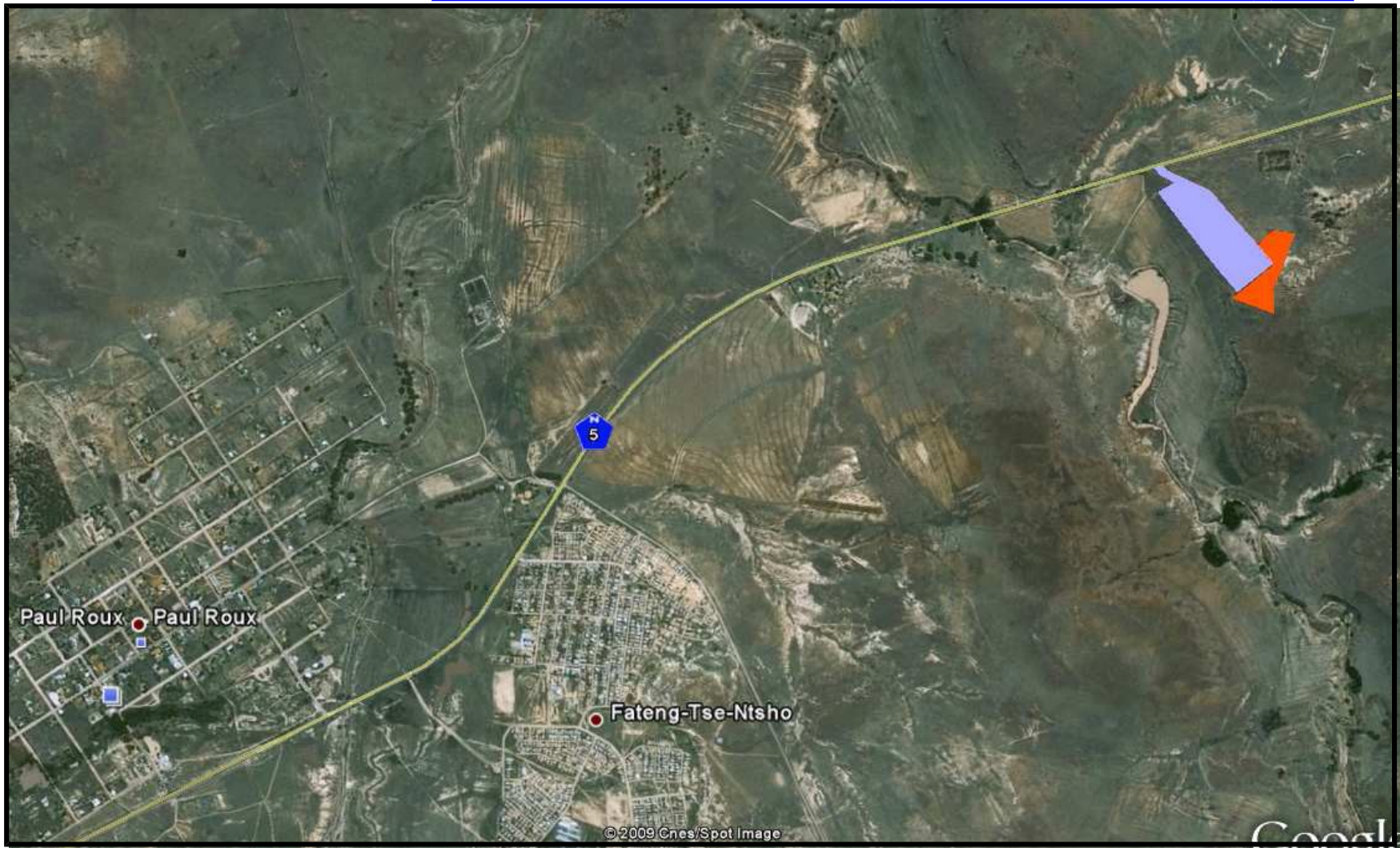
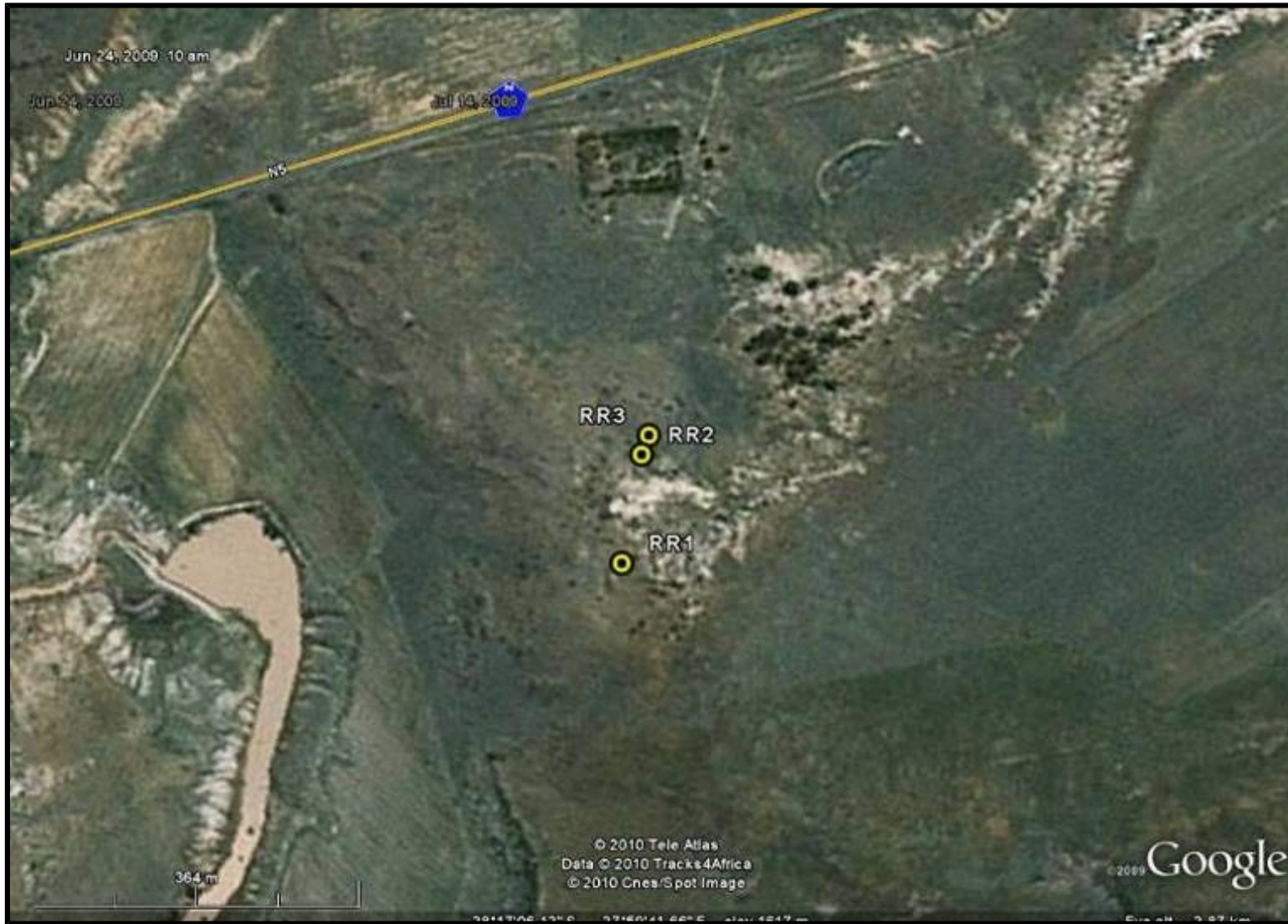


FIG. 3: LOCATION OF THE HERITAGE SITES



RESULTS

The desktop did not reveal any known heritage sites. However, a study of the aerial photographs indicated that there is historical stone walling nearby, and the occurrence of probably blue gums suggests an area of human occupation. This occurs just outside of the study area.

RR1

RR1 consists of a few (less than ten) Late Stone Age (LSA) stone tools that are in a secondary context, and are scattered over a wide area. The stone tools are made on cryptocrystalline silicates² (CCS). These are standard stone tools and consist of flakes. The main site probably occurs near the top of the koppies, and this is outside of the study area

Significance: Stone tools such as this occur throughout the southern Africa. These are of low significance.

Mitigation: No mitigation is required as the stone tools are in a secondary context

RR2

RR2 is located at the base of the sandstone outcrop. The site consists of three circular features and a potential grave. The features are circular and rectangular in shape (fig. 4). Two possible graves consist of a raised mound with stones (fig. 5). Given the proximity of these cairns to the houses, there is a probability that these are graves. The graves and features appear to be younger than 60 years, although this will need to be confirmed.

Significance: The house foundations are of low significance, while the possible graves are of high significance.

² An archaeological term for a variety of opalines, agates, chert, etc.

FIG. 4: HOUSE FOUNDATIONS AT RR2



FIG. 5: POSSIBLE GRAVES AR RR2



Mitigation: The landowner and farm labourers in the area will need to be interviewed to determine if these are graves and if any living relative may claim the remains. If there is no claimant to the possible remains, and no positive identification, then someone competent in excavating human remains should excavate the remains to determine if these are indeed graves, and their degree of preservation.

A more detailed management plan is given below.

RR3

RR3 is located about 30m away from RR2. It consists of one possible grave with a headstone (fig. 6). The feature is probably related to RR2.

Significance: The possible grave is of high significance.

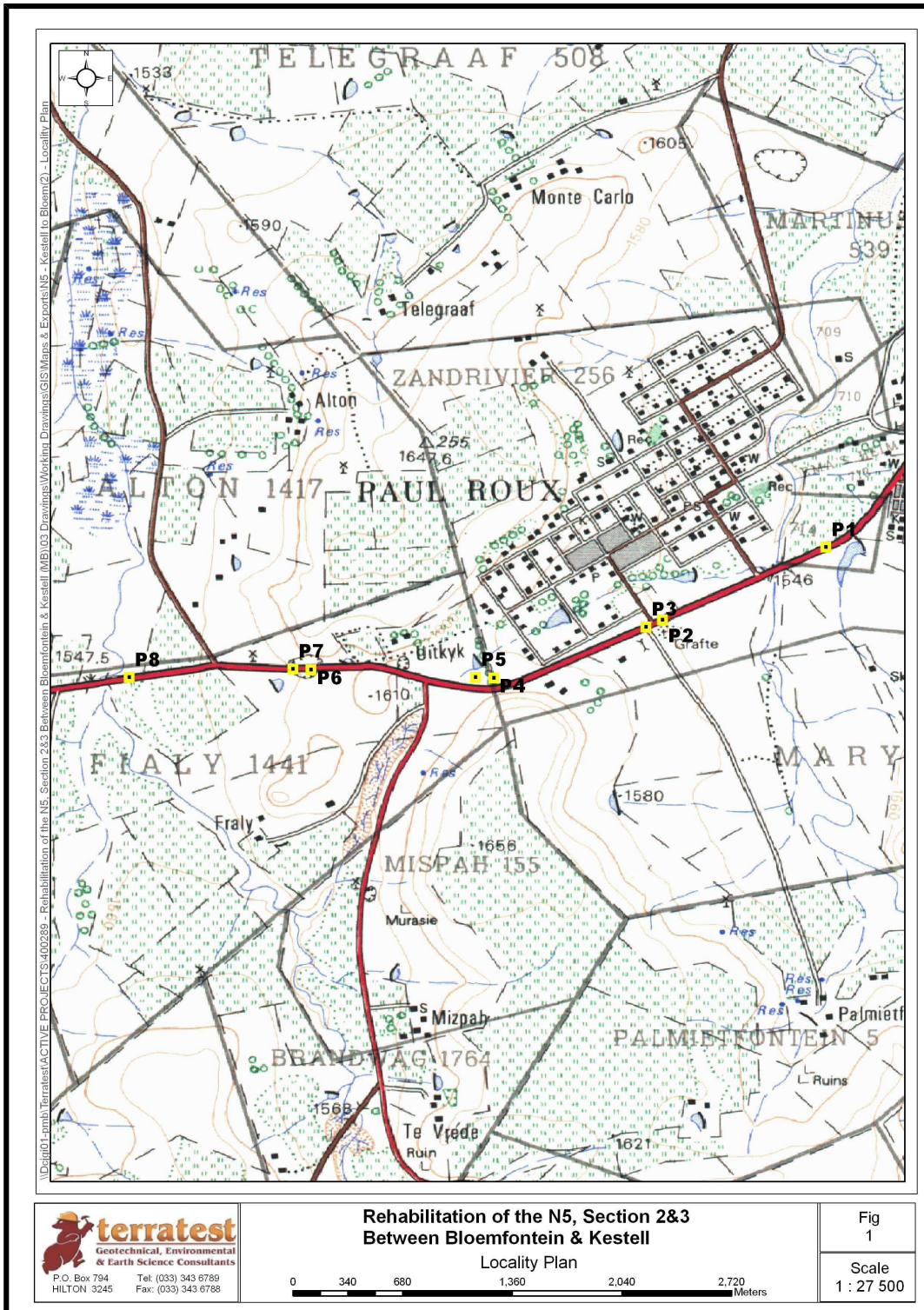
Mitigation: The landowner and farm labourers in the area will need to be interviewed to determine if these are graves and if any living relative may claim the remains. If there is no claimant to the possible remains, and no positive identification, then someone competent in excavating human remains should excavate the remains to determine if these are indeed graves, and their degree of preservation.

REHABILITATION SECTIONS 2 & 3

Two sections along the N5 will be realigned. Section 2 will be realigned for 300mm at km 21.7. The second realignment will occur at Section 3 for the construction of a 3500m long climbing lane between km 35.5 and km 39.0, i.e. for 3.5km. Both realignments occur within the current road servitude.

No heritage sites were observed in the realignment areas. A recent memorial was observed and this is discussed below.

FIG. 6: LOCATION OF REHABILITATION SECTIONS 2 & 3



ROAD SIDE MEMORIAL

There is a road side memorial in the affected area (fig. 7). The memorial consists of four cross and small bushes. These are presumably related to a road accident and the post date 1950, i.e. are younger than 60 years, and probably occur within the last 10 years. These do occur in the road reserve and they are not graves given the size and the fact that it would be illegal to have modern graves along the freeway. These types of memorials have no legal status as far as I know, and it becomes an ethical issue.

I suggest that if permission is needed to erect memorials then there should be a record of it with the municipality that runs this area, or with the department of roads. One can attempt to obtain contact numbers of the relatives and advise them of what is happening, or just inform the relevant authority. One can store the memorials and bushes for the duration of construction, and erect a small sign (with relevant contact details) stating that the memorials have been stored and will be re-erected after road works have been completed. The sign should be in three languages preferably including the local languages.

GENERAL COMMENT

It is often difficult to determine whether a mound of stones, or a cairn, is a grave or some other feature. This is especially the case where headstones are not used, or if they are used, there is no writing. One thus needs to assume that a mound of stones, or a headstone, may indeed be a grave, if it is located on the approximate location for graves: graves tend to be located in specific areas within southern African linguistic groups. The only way to determine if it is a grave, and if there are no claimants, is by excavation.

There are several areas that will require rehabilitation. There are no heritage sites in these areas.

FIG. 6: POSSIBLE GRAVES AR RR3



FIG. 7: ROADSIDE MEMORIALS



MANAGEMENT PLAN

The stone tools do not require any further mitigation, and thus do not require a management plan. These stone tools are very sparse and essentially do not form a site. No permit from SAHRA would be required.

The house floors at RR2 should be recorded by means of photography and mapping. While the house foundations are not that old (i.e. less than 60 years old), they are part of a vernacular architecture, and this information should at least be preserved in some manner.

The legislation and processes pertaining to human graves is as follows:

- 1) In terms of Section 36 (3) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) no person may, without a permit issued by the relevant heritage resources authority:
 - (a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or
- 2) any burial ground or part thereof which contains such graves;
- 3) (b) destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
- 4) (c) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals.

The Legislation and General Procedures Related To Human Remains³

The legislation and procedures relating to can be summarised as follows:

³ Information supplied by SAHRA.

1. In terms of the National Heritage Resources Act (No. 25 of 1999), graves older than 60 years (not in a municipal graveyard) are protected. Human remains younger than 60 years should be handled only by a registered undertaker 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.
2. 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).
3. 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.
4. If the developer wishes to relocate or disturb the graves:
 - a. A 60-day public participation (social consultation) process as required by section 36, 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.

- b.** If as a result of the public participation, the family (where descendants are identified) or the community agree to the relocation process then the graves may be relocated.
 - i.** The archaeologist must submit a permit application to SAHRA 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).
- 5.** 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.
- 6.** 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.

Process Related To the Graves at the Borrow Pit

The occurrence of possible graves requires careful consideration and may require a social impact assessment. I must note that there is currently no

confirmation if these are graves or some other feature that appears to be a grave.

The first task would be to determine if there any claimants to the possible graves. In this case, one would need to find out who lived at RR2 and if there are any immediate living relatives. The landowner should be able to assist in this regard. If there are no immediate know descendants, then it may be possible to test excavate the areas to determine if there are indeed human remains in these features. If no human remains are observed, then one can assume that these are not graves, and the proposed borrow pit may continue. If human remains were observed, the excavations would stop immediately and cover the graves again. A social impact assessment may then be required.

If the second option is chosen, and if the graves are older than 60 years old, then I suggest a meeting between the archaeologist responsible for the exhumations and the undertaker occurs so that they can agree on their requirements.

The human remains on the hill to be disturbed by the borrow pit will need to be removed. In terms of the legislation, only those graves older than 60 years are required to be exhumed by an archaeologist registered with SAHRA. An undertaker may exhume those graves younger than 60 years, provided that the undertaker follows the correct procedures.

I suggest that the living family members (if they exist) discuss the relocation of the ancestors and decide if they would like the remains reburied nearby, or in a formal and declared cemetery. I would suggest that they are reburied in a declared cemetery, as a new 'cemetery' may require an additional environmental impact assessment.

Those graves possibly older than 60 years need to be exhumed under the supervision of an archaeologist according to the National Heritage Resources Act (No. 25 of 1999). I suggest that the archaeologist supervises the entire process of grave removal. A list of qualified archaeologists is available from SAHRA. Umlando does not undertake this type of work⁴.

CONCLUSION

Umlando undertook a heritage survey of a proposed extension to an existing borrow pit near Paul Roux, Free State. The proposed study area consists of Late Stone Age material in a secondary context, as well as house foundations with possible graves. The proposed borrow pit will need to determine if these possible graves are indeed graves and then mitigate for it. I have outlined the processes related to human graves.

⁴ We can recommend companies with whom we have previously consulted

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM



SITE CATEGORY: (X where applicable)

Stone Age: X

Early Iron Age:

Late Iron Age:

Historical Period:

Recorder's Site No.: RR1

Official Name: Rexford (Rexford 2, Bethlehem 433/3) on Portion 2 of the Farm Rexford Stores, No 433, Free State and the Potion 0 of the Farm Brightside, No 1167, Free State

Local Name:

Map Sheet:

GPS reading: S28 17 09.4 E27 59 40.3

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From Paul Roux, drive for 4km towards Bethlehem. There is an existing borrow pit on the right hand side. Site is on top of the hill and surrounds

SITE DESCRIPTION:

Type of Site: Open

Merits conservation: No

Threats: Yes

What threats: borrow Pit

RECORDING:

Graphic record:

Digital pictures:

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: February 2010

Owner: ?

Description of site and artefactual content.

Ephemeral scatter of CCS LSA flakes

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM



SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age:
Historical Period: X

Recorder's Site No.:RR2

Official Name: Rexford (Rexford 2, Bethlehem 433/3) on Portion 2 of the Farm Rexford Stores, No 433, Free State and the Portion 0 of the Farm Brightside, No 1167, Free State

Local Name:

Map Sheet:

GPS reading: S28 17 05.5 E27 59 41.1

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From Paul Roux, drive for 4km towards Bethlehem. There is an existing borrow pit on the right hand side. Site is at base of sandstone outcrop.

SITE DESCRIPTION:

Type of Site: house and graves
Merits conservation: yes
Threats: yes
What threats: borrow pit

RECORDING:

Graphic record:

Digital pictures:

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson
Address: PO Box 102532, Meerensee, 3901
Date: February 2010

Description of site and artefactual content.

Site consists of three house foundations probably younger than 60 years old, and 2 possible graves. House foundations should be photographed and amped. Graves need to be verified

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM



SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age:
Historical Period: X

Recorder's Site No.: RR3

Official Name: Rexford (Rexford 2, Bethlehem 433/3) on Portion 2 of the Farm Rexford Stores, No 433, Free State and the Portion 0 of the Farm Brightside, No 1167, Free State

Local Name:

Map Sheet:

GPS reading: S28 17 04.8 E27 59 41.4

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From Paul Roux, drive for 4km towards Bethlehem. There is an existing borrow pit on the right hand side. Site is at base of sandstone outcrop.

SITE DESCRIPTION:

Type of Site: graves

Merits conservation: yes

Threats: yes

What threats: borrow pit

RECORDING:

Graphic record:

Digital pictures:

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: February 2010

Description of site and artefactual content.

One possible grave younger than 60 years. Grave needs to be verified.