HERITAGE SURVEY OF THE PROPOSED FLOOD PROTECTION OF THE NATIONAL ROUTE 2 HIGHWAY AT THE RIVERHORSE VALLEY INDUSTRIAL PARK, ETHEKWINI METROPOLITAN MUNICIPALITY, KWAZULU-NATAL

FOR AFZELIA ENVIRONMENTAL CONSULTANTS CC

DATE: 7 April 2010

DEA EIA REF: 12/12/20/1826

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INTRODUCTION

Umlando cc was contracted by AFZELIA Environmental Consultants to undertake a heritage assessment of the proposed existing n2 flood protection proposed flood protection of the N2 highway at the Riverhorse Valley Industrial Park, Ethekwini Metropolitan Municipality. This is to ensure that if flooding does occur, then the N2 will not be closed to traffic.

“The fundamental process involves widening the watercourse channel to a width of the bridge abutments. Furthermore, the base of the channel under the bridges will be concreted or gabion-lined to reduce energy losses and thus increase water velocity in these areas in an attempt to prevent backflow and consequent predisposition to flooding. Loffelstein blocks are to line the riverbanks from the bridge control points for a distance of 30 – 50m both upstream and downstream. This will aid in preventing erosion and will protect the bridge structures from damage during flood events. A further requirement will be the widening of the river channel on the southern bank for approximately 100-200m downstream of the Five-Bridges Crossing.” (Afzelia N2 BID document April 2010).

The area consists of a flood plain and has been extensively damaged by road and bridge works. The consistent flooding over the centuries would have destroyed archaeological sites along these low-lying areas. Archaeological sites do exist in the area, but at an elevated level, at least 2m above the river

The three areas of concern are illustrated in figure 1. Figure 2 illustrates this from an aerial photograph.

FIG. 1 GENERAL LOCATION OF THE PROPOSED FLOOD PROTECTION

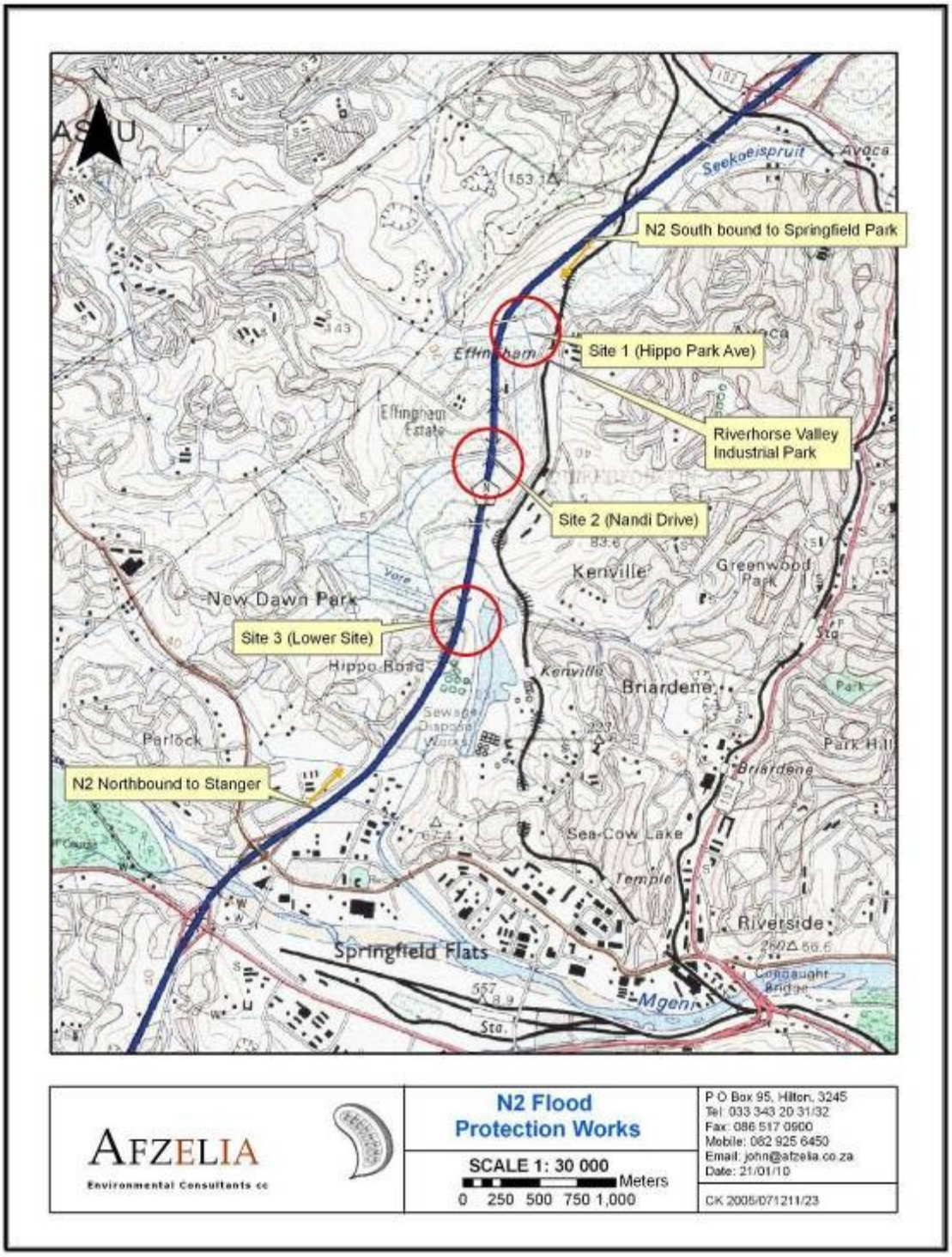
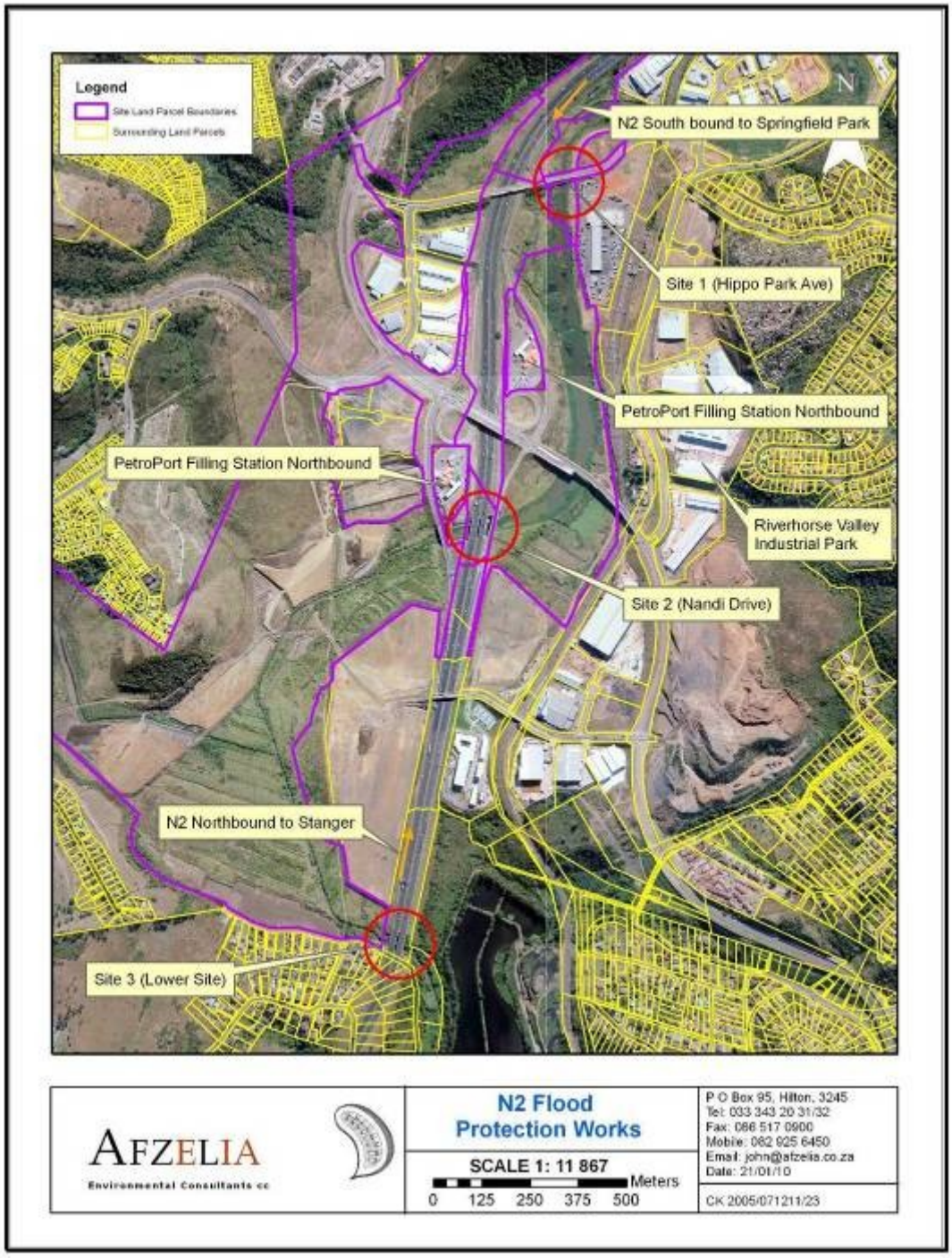


FIG. 2: PROPOSED LOCATION OF THE PROPOSED THREE AREA



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 known heritage sites in KwaZulu-Natal, and known 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

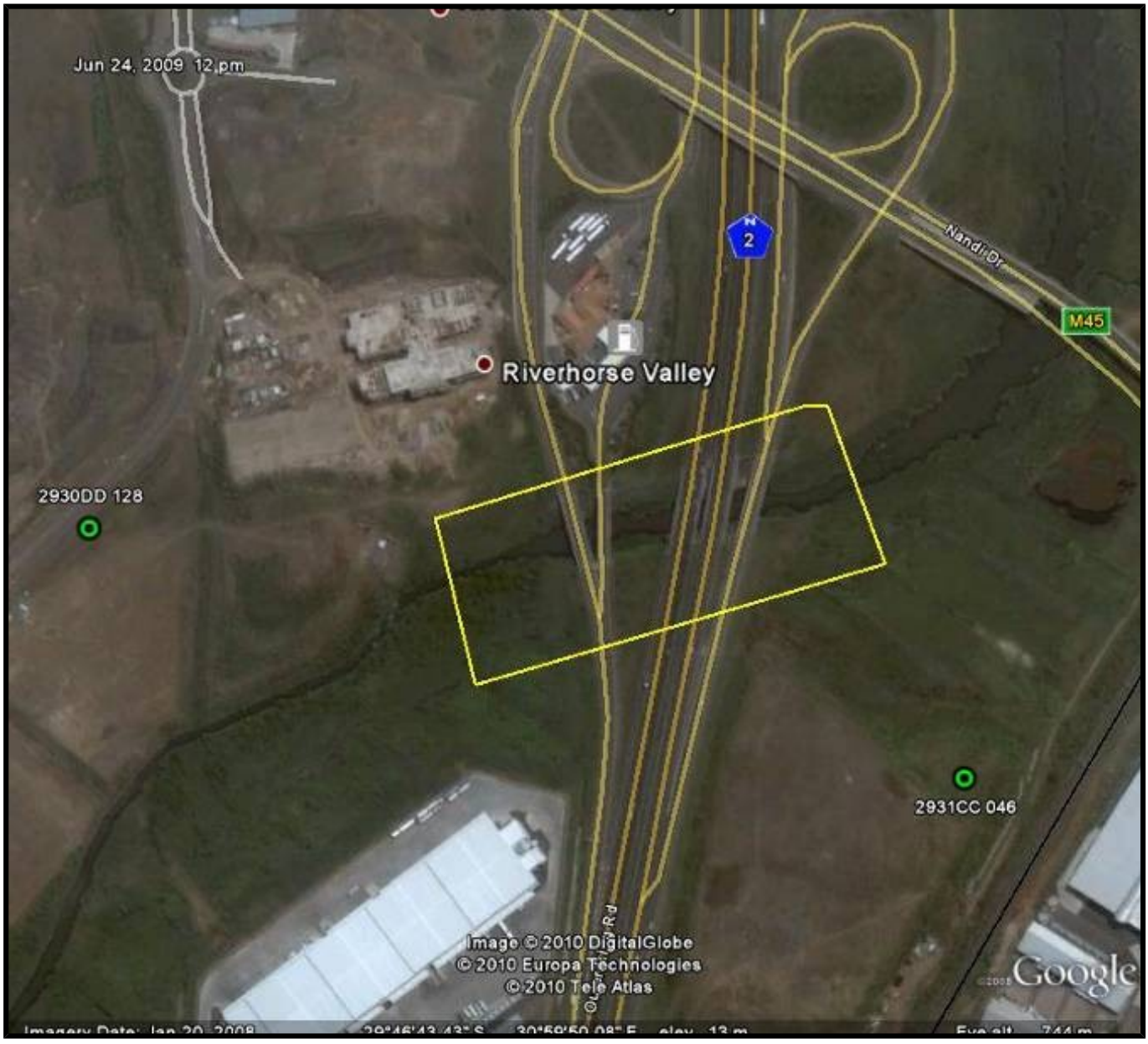
8.4. Graves and/or community cemeteries

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. 3: SITE 2[1]



[1] Green Dots indicate previously recorded sites.

FIG. 4: LOCATION OF SITE 3

RESULTS

The database search indicated that archaeological sites exist in the general area; however, these do not occur on the level of the river. The sites are Late Iron Age sites and tend to be related to iron production.

Figures 3 – 4 illustrate the location of the flood protection. These clearly show that the area is in the river itself and does not extend onto the elevated areas and that the general area has been extensively modified by industrial activity. Figure 5 illustrates these three areas as well.

No archaeological sites were observed during the survey.

MANAGEMENT PLAN

No management plan is required as there are no heritage sites.

CONCLUSION

Umlando undertook a heritage impact assessment of the proposed flood protection works along the N2. The database search indicted that there are archaeological sites in the general area; however, no heritage sites were observed in the study area.

FIG. 5: PHOTOGRAPHS OF SITES 1 - 3