

Scoping Archaeological Impact Assessment

**Proposed residential development of The Hill, Erf 1638 Sedgefield
and Remainder of Portion 82 of the Farm No 205 RuygteVallei,
Knysna Municipality, Sedgefield District, Western Cape Province**

prepared for

Cape Environmental Assessment Practitioners (Cape EAPrac), Mrs Siân Holder,
Tel: 044 874 0365, Fax: 044 874 0432, e-mail: sian@cape-eaprac.co.za, 17
Progress Street, George, P.O. Box 2070, George, 6530; , **Applicant: Liberty Lane
Trading 111 (Pty) Ltd.**

by



Peter Nilssen, PO Box 2635, Mossel Bay, 6500
044 6910051 | 0827835896 | peter@carm.co.za

31 July 2015

Name, Expertise and Declaration

I, **Peter Nilssen** (PhD in archaeology, UCT 2000), herewith confirm that I am a Professional member - in good standing - of the Association of South African Professional Archaeologists (ASAPA), including the Cultural Resource Management section of the same association and am accredited to undertake the necessary archaeological studies required for the proposed development.

As the appointed independent specialist (archaeologist) for this project hereby declare that I:

- act as an independent specialist in this application;
- regard the information contained in this report as it relates to my specialist input/study to be true and correct;
- do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the NEMA, the Environmental Impact Assessment Regulations, 2010 and any specific environmental management Act;
- have and will not have no vested interest in the proposed activity proceeding;
- have disclosed, to the applicant, EAP and competent authority, any material information that have or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the NEMA, the Environmental Impact Assessment Regulations, 2010 and any specific environmental management Act;
- am fully aware of and meet the responsibilities in terms of NEMA, the Environmental Impact Assessment Regulations, 2010 (specifically in terms of regulation 17 of GN No. R. 543) and any specific environmental management Act, and that failure to comply with these requirements may constitute and result in disqualification;
- am aware that a false declaration is an offence in terms of regulation 71 of GN No. R. 543.



Signature of the specialist:

Date: **31 July 2015**

Introduction

The applicant proposes a residential development on The Hill, Erf 1638 Sedgefield and Remainder of Portion 82 of the Farm No 205 RuygteVallei, Knysna Municipality, Sedgefield District, Western Cape Province (Figures 1 & 2). The extent of the combined development property is approximately 90ha, but the development footprint will be considerably smaller (<20ha) and will be restricted to the flatter portions of the dune-top in the northern part of the properties.

The proposed Site Development Plan is shown in Figure 2 and the development activities include the following;

- *130 single residential erven;*
- *Group-housing (30 large, 40 medium & 40 small) (medium density housing);*
- *One commercial site;*
- *Membrane Bio-Reactor (MBR) sewerage package plant;*
- *Upgrade of the main access road, from Egret/N2 intersection to the development;*
- *Two water storage reservoirs (700kl each);*
- *Dual water supply system (for treated water & potable water);*
- *Associated service infrastructure (water, electricity, storm water, road network etc.); and*
- *Private Open Space, with recreational amenities (hiking/walking trails, lookout points etc.).*

"A nodal layout is proposed, designed around the site characteristics and input of a Visual Impact Assessment and comments received from conservation authorities. The Municipality has accepted the service proposals for this development. Architectural Guidelines and a Landscape Plan will be developed as part of the Planning process. The site is located on a fossil dune that resembles a hill running alongside and immediately to the north of the Sedgefield Urban Area. The steep side slopes, ridge lines and koppies are visually sensitive, other areas of the site are less visually sensitive. Since the development will not be adjacent to existing development and will be elevated, it will be noticeable. The Sedgefield area is an area of rich scenic diversity and the scenic resource of the area is high. Impact of the proposal will be largely visual and will require remediation through appropriate densities, placement and design of structures, as well as the impacts of roads and service systems" (taken from original NID).

In an interim comment on the submitted NID for the proposed development as part of the previous environmental process (2006-2011), HWC requested a Visual Impact study and a specialist Archaeological study (letter dated 2 August 2011). Further, linear and area development activities associated with the proposed development trigger the National Heritage Resources Act (Act 25 of 1999), and therefore, this author was appointed to provide archaeological input for the broader integrated Heritage Impact Assessment in terms of Section 38(8) of the National Heritage Resources Act. Cape Environmental Assessment Practitioners (Cape-EAPrac) is facilitating the EIA process.

The current phase of the process involves a Scoping Archaeological Impact Assessment (SAIA) of the affected environment. Because vegetation clearing and earthmoving activities associated with the construction phase of development may have a permanent negative impact on archaeological resources in the development footprint, this SAIA serves to report on the findings made during an archaeological foot survey and assessment of the affected environment.

Study Area

The proposed development site is situated on a large fossil dune that runs roughly parallel to the present shoreline and N2 road that passes through Sedgefield (Figures 1 & 3). While portions of the dune apex are relatively flat to undulating, the southern portion of the property slopes steeply down to the south. Visible surface sediments consist of humic topsoil and aeolian dune sands.

It appears that gravels were imported to certain areas in order to stabilize roads and vehicle tracks. A portion of a vehicle track leading to a dwelling situated north of the site is stabilized with concrete. Much of the property is densely overgrown with mostly alien vegetation, including blue gums, black wattle and pine, which make much of the study area inaccessible. The NID referred to above provides a description of the historic use of the study area for private forestry.

Archaeological visibility is severely restricted due to dense ground cover and forest litter. Apart from mole heaps, the only areas open to archaeological inspection are roads, vehicle tracks, access areas for the maintenance of overhead power line, and existing disturbances. Several vehicle tracks, clearings and trails are associated with ongoing tree felling and woodcutting activities. Other recent human related disturbances to the environment include fencing, overhead power lines, a reservoir and pipelines and associated infrastructure. Examples of the affected environment are shown in Plates 1 through 3.

Overview of Previous Studies

No scientific archaeological research has been undertaken in the immediate surroundings of Sedgefield. According to records on the SAHRIS database (<http://www.sahra.org.za/sahris>), only two Archaeological Impact Assessments (AIA) have been undertaken in the surroundings of the present study area.

Both of these studies reported that dense vegetation and near total ground cover were severe limitations to archaeological investigation (Nilssen 2006 and Yates 2006). While Nilssen did not identify any archaeological remains, Yates reported on the presence of Stone Age material of either Middle Stone Age (MSA) or Later Stone Age (LSA) origin (Yates 2006). It was also reported that the sediments are suitable for the preservation of fossil bone. It is noted that the latter study was on a property close to the present study area (less than 2km to the east) and on the same dune with a similar environmental setting.

Due to their inability to conduct adequate AIAs, both archaeologists recommended that the proposed developments may proceed, but that archaeological monitoring should be conducted by a suitably qualified professional archaeologist during vegetation clearing and earthmoving activities associated with the developments.

To the best of my knowledge, no previous archaeological investigation has been done on the affected properties under investigation here.

Potential Impacts on Archaeological Resources

Because tangible heritage resources are non-renewable and each archaeological occurrence is unique, it is important that areas affected by development are assessed for the presence and sensitivity of such resources prior to development. The proposed residential

development of The Hill will involve vegetation clearing and earthmoving activities associated with both area and linear developments that could have a permanent negative impact on archaeological resources if they were to occur in the area.

The purpose of an AIA is to assess the nature and sensitivity of tangible heritage resources in the affected area, to determine the potential impacts on such resources, and to avoid and/or minimize such impacts by means of management and/or mitigation measures. Since Stone Age materials and sediments with potential to contain fossil bone were identified nearby, it is anticipated that heritage resources may be present in the current study area (Yates 2006).

Methodology for the Archaeological Impact Assessment

The purpose of an AIA is to conduct a survey of the affected areas in order to identify, record and rate the significance of archaeological resources, to assess the impact of the proposed area and linear developments on such resources and to recommend mitigation measures where necessary.

To assess the nature and significance of the archaeological record in the affected area, it was necessary to conduct a foot survey. The latter was meant to focus on the northern portion of the property that is earmarked for development. The steeper slopes in the southern half of the property will not be developed (see Figure 2).

The potential for different landforms, sediments or landscape features to contain archaeological traces is assessed according to type, such as rocky surfaces, sandy surfaces, cultivated areas, previously developed or disturbed areas, rock shelters, and so on. Overall, the significance of archaeological occurrences or sites are evaluated in terms of their content and context. Attributes that are considered in determining significance include artefact and/or ecofact types, rarity of finds, exceptional items, organic preservation, aesthetic appeal, potential for future research, density of finds and the context in which archaeological traces occur.

Dense, often impenetrable vegetation cover rendered most of the study area inaccessible. The field investigation was restricted to existing roads and tracks and the search area was recorded with a hand held GPS. The position of observations and photo localities were also fixed by GPS. Digital audio notes and a digital photographic record were made.

Results of the Archaeological Survey

Over a period of about 3.5 hours on 24 and 25 July 2015, the site was accessed by vehicle and inspected on foot. Due to dense vegetation cover and very poor archaeological visibility, the site inspection was mostly restricted to exposed ground surfaces along roads, vehicle tracks, overhead power line routes and woodcutters' trails. Efforts were made to walk into the bush, but it was not possible to walk transects across the property as is normally done for an AIA. Examples of the study area are shown in Plates 1 through 3 and survey tracks are shown in Figure 3.

The only human related activities that could be identified in the study area are of recent origin and are not of heritage value; and these include roads, vehicle tracks, fencing, overhead power lines, reservoir and associated infrastructure and a water pipeline. No

archaeological remains of either the historic or pre-historic periods were seen and it appears unlikely that any built structures of historic value exist on the properties.

Due to inaccessibility and very poor archaeological visibility, it was not possible to accomplish the aim of an AIA, which is to assess the potential negative impacts of development on archaeological resources and to make recommendations in mitigation.

Recommendations

Because archaeological materials occur in the nearby landscape, it is anticipated that similar materials are present in the study area. Based on the fieldwork reported above, it is recommended that a full AIA is not feasible at the moment. It is further recommended that, from an archaeological standpoint, the proposed residential development of The Hill should be approved, provided that archaeological monitoring is conducted by a suitably qualified professional archaeologist during vegetation clearing and earthmoving activities associated with the construction phase of development.

References

Nilssen, P. 2006. Archaeological Heritage Impact Assessment. Erf 1634, Sedgefield, Western Cape Province: Proposed Rezoning, Subdivision and Development

Yates, R. 2006. Archaeological Heritage Survey. RuygteVally; Portion 17 of Farm 205, near Groenvlei, Knysna Municipality, Western Cape Province: Proposed housing development

Figures and Plates (on following pages)

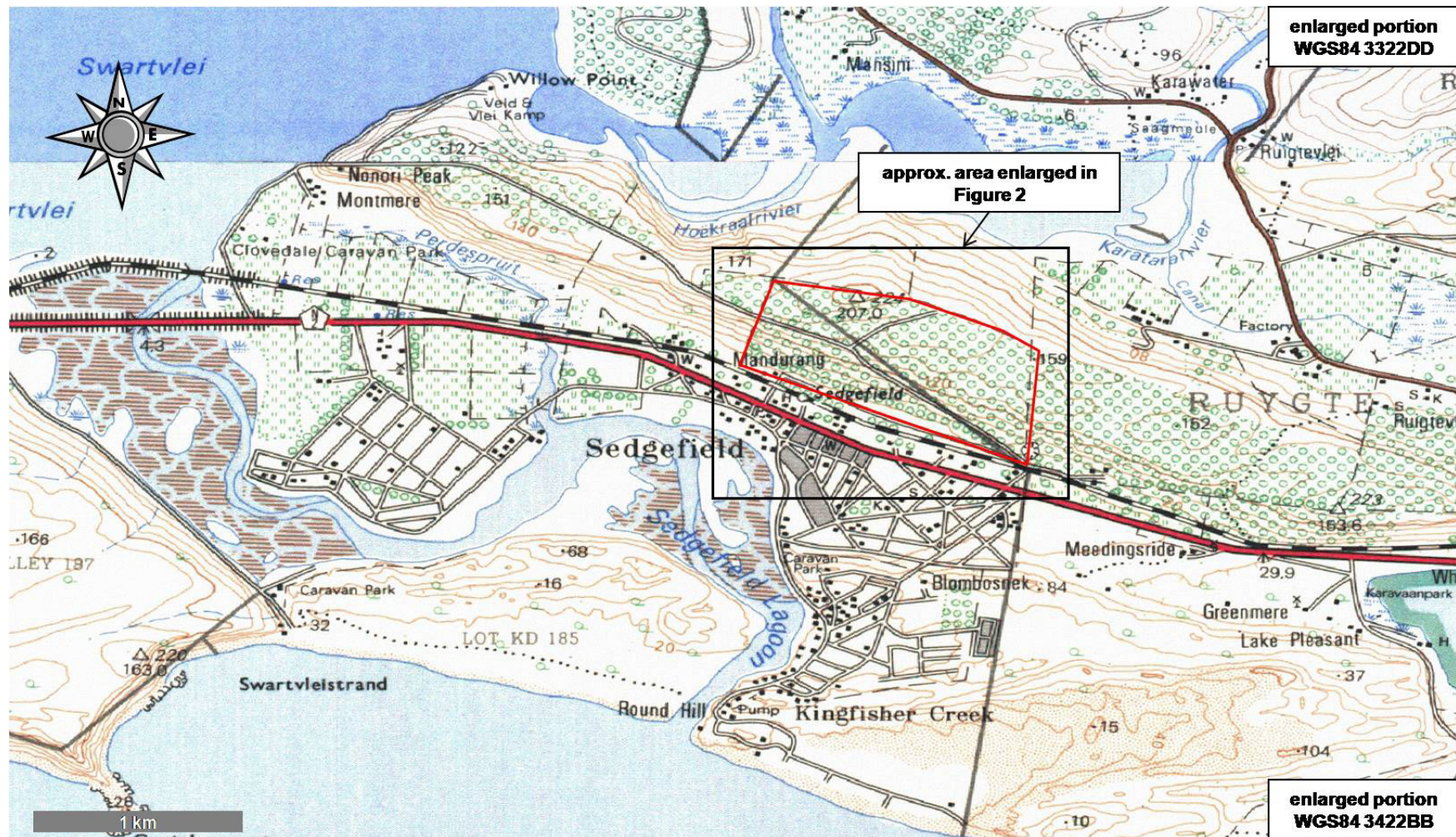
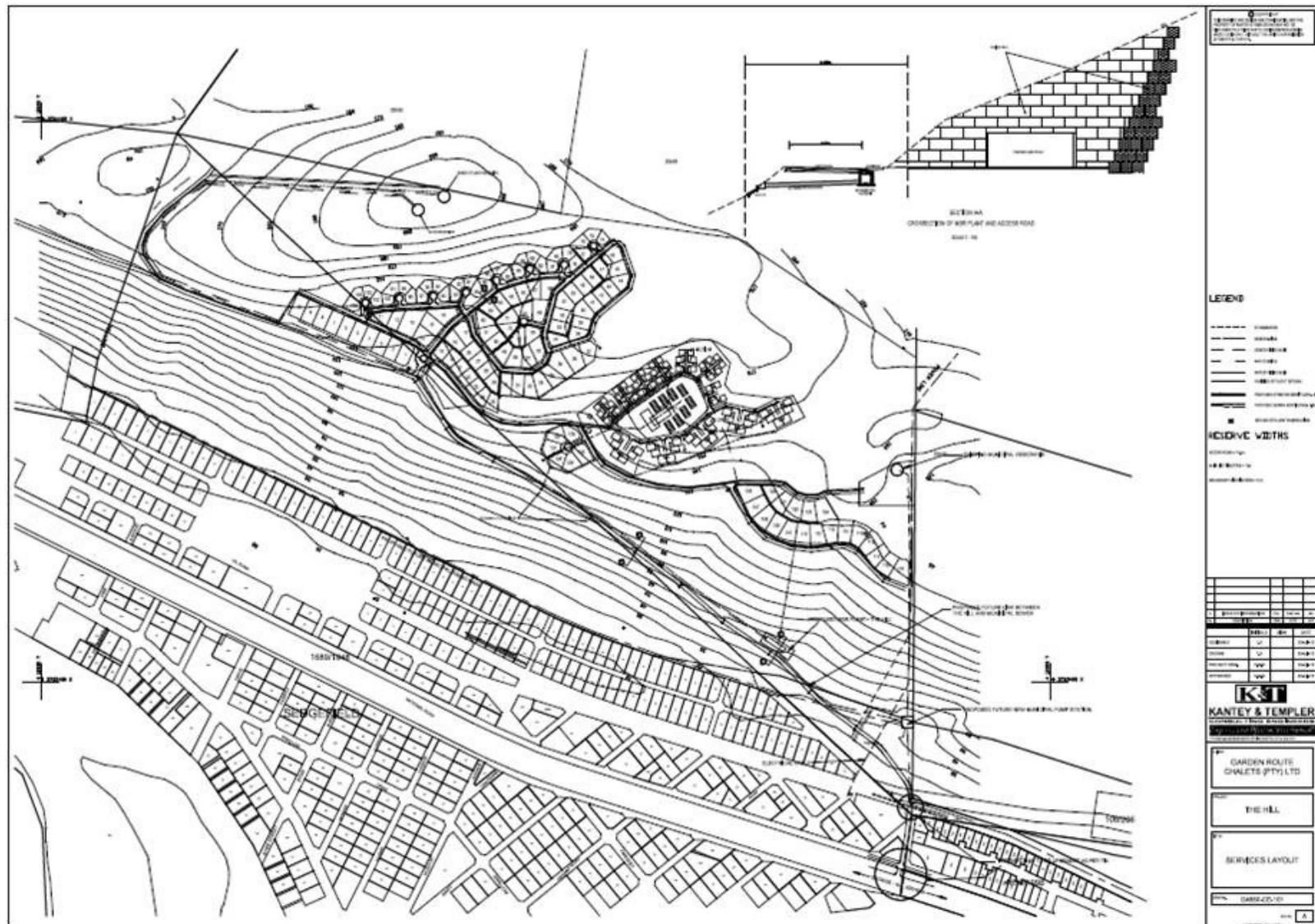


Figure 1. Location of study area (red polygon) relative to Sedgefield, Western Cape Province.



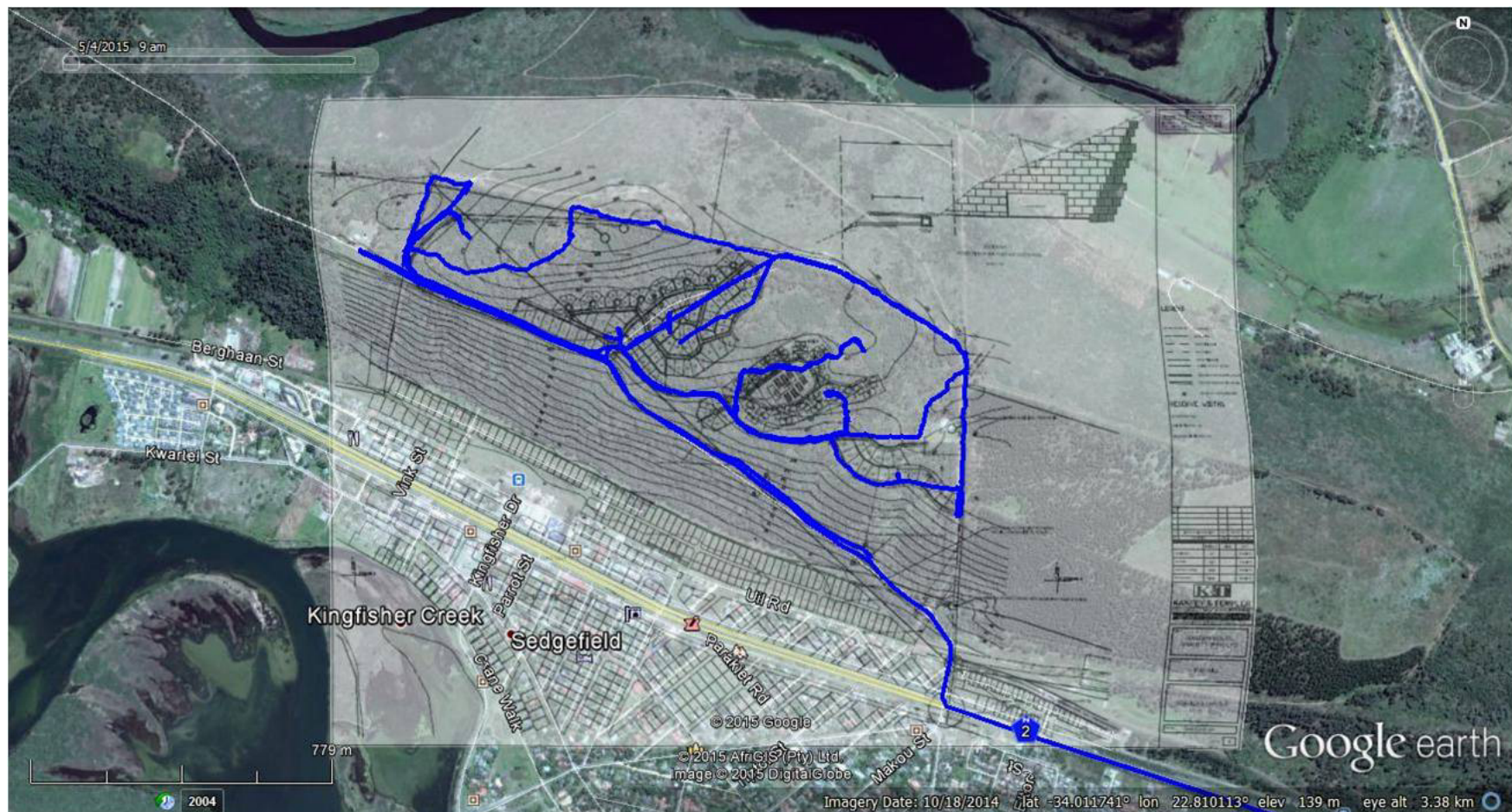


Figure 3. Site Development Plan overlaid on Google Earth image. Blue lines represent archaeological survey tracks as fixed by a hand held GPS.



Plate 1. Examples of the affected environment.



Plate 2. Examples of the affected environment.



Plate 3. Examples of the affected environment.