

**PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT
PROPOSED DEVELOPMENT
ERVEN 580-582, 587-591, 637-641, 648-654, 657 & 658
PHILIPPI
WESTERN CAPE PROVINCE**

Prepared for

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Executive summary

Introduction

Urban Dynamics Western Cape requested that the Agency for Cultural Resource Management conduct a Phase 1 Archaeological Impact Assessment for a large mixed-use development on Erven 580-582, 587-591, 637-641, 648-654, 657 & 658 Philippi, in the Western Cape Province.

The aim of the study is to locate and map archaeological heritage sites/remains that may be negatively impacted by the planning, construction and implementation of the proposed project, to assess the significance of the potential impacts and to propose measures to mitigate against the impacts.

The proposed site is already subject to large, open cast, haul and load sand mining operations. There are large areas that have already been mined-out completely. At least 40% or more of the property has been transformed by mining activities. The remainder of the site is dominated by undulating, well vegetated and relatively stable, sand dunes.

Findings

No pre-colonial archaeological heritage remains were documented during the study.

The results of a desk top study show that although some archaeological remains have been recorded in the wider surrounding area, competing land uses are largely responsible for their destruction and damage.

Impact assessment

The Phase 1 Archaeological Impact Assessment has identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to proposed construction activities.

Unmarked pre-colonial human burials and buried shell middens may, however, be uncovered or exposed during earthmoving operations and excavation for bulk services.

Important vertebrates (fossils) may also be exposed during earthmoving operations and excavations for services.

Recommendations

With regard to the proposed development of Erven 580-582, 587-591, 637-641, 648-654, 657 & 658 in Philippi, the following recommendations are made:

- Bulk earthworks must be monitored by a professional archaeologist during the Construction Phase of the proposed development. Alternatively, monitoring can be undertaken by a suitably qualified Environmental Control Officer (ECO) subject to training by the archaeologist, and approval by Heritage Western Cape.
- Heritage remains uncovered or disturbed during earthmoving operations should not be disturbed until inspected by a professional archaeologist or palaeontologist.

- Should any unmarked human remains be disturbed, exposed or uncovered during the proposed development, these should immediately be reported the South African Heritage Resources Agency (Mrs Mary Leslie 021 462 4502), or Heritage Western Cape (Mr Calvin van Wyk 021 483 9692).

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1. INTRODUCTION

1.1 Background and brief

Urban Dynamics Western Cape, on behalf of Rapicorp 122 (Pty) Ltd requested that the Agency for Cultural Resource Management conduct a Phase 1 Archaeological Impact Assessment for a large mixed-use, residential, commercial and industrial development of Erven 580-582, 587-591, 637-641, 648-654, 657 & 658 Philippi, in the Western Cape Province.

The aim of the study is to locate and map archaeological heritage sites/remains that may be negatively impacted by the planning, construction and implementation of the proposed project, to assess the significance of the potential impacts and to propose measures to mitigate against the impacts.

The affected 22 erven are all currently zoned Rural and will be rezoned and subdivided to allow for the proposed development activities to proceed.

Heritage consultant Ms Quahnita Samie has been appointed to complete the required Notification of Intent to Develop (NID) checklist for Heritage Western Cape.

The archaeological study forms part of the wider heritage study.

The extent of the proposed development (about 480 ha) falls within the requirements for an archaeological impact assessment as required by Section 38 of the South African Heritage Resources Act (No. 25 of 1999).

2. TERMS OF REFERENCE

The terms of reference for the archaeological study were:

- to determine whether there are likely to be any archaeological sites of significance within the proposed site;
- to identify and map any sites of archaeological significance within the proposed site;
- to assess the sensitivity and conservation significance of archaeological sites within the proposed site;
- to assess the status and significance of any impacts resulting from the proposed development, and
- to identify mitigatory measures to protect and maintain any valuable archaeological sites that may exist within the proposed site.

3. THE STUDY SITE

A locality map is illustrated in Figure 1.

An aerial photograph of the farm is illustrated in Figure 2.

The subject property (S° 34 03 638 E° 18 34 663 on map datum wgs 84) is situated in Philippi, near Mitchells Plain. Access to the site is via Morgenster Road at the intersection of Vanguard Drive/N7. Much of the property is already subject to large open cast, haul and load sand mining operations, providing sand to the building and construction industry. There are large areas that have already been mined-out completely. At least 40% or more of the property has been transformed by mining activities. The remainder of the property is dominated by undulating, well vegetated and relatively stable sand dunes. The study site is vacant and there are no buildings or structures on the property. Several wide roads intersect the property that service, the mining industry, while there are a number of smaller 2-track roads and numerous footpaths that cover the remainder of the site (Figures 3-18). Surrounding and competing land-use comprises the Philippi Horticultural area in the north and west, residential suburbs (Strandfontein and Mitchell's Plain) in the south and east, and industrial enterprises such as sand mining operations.

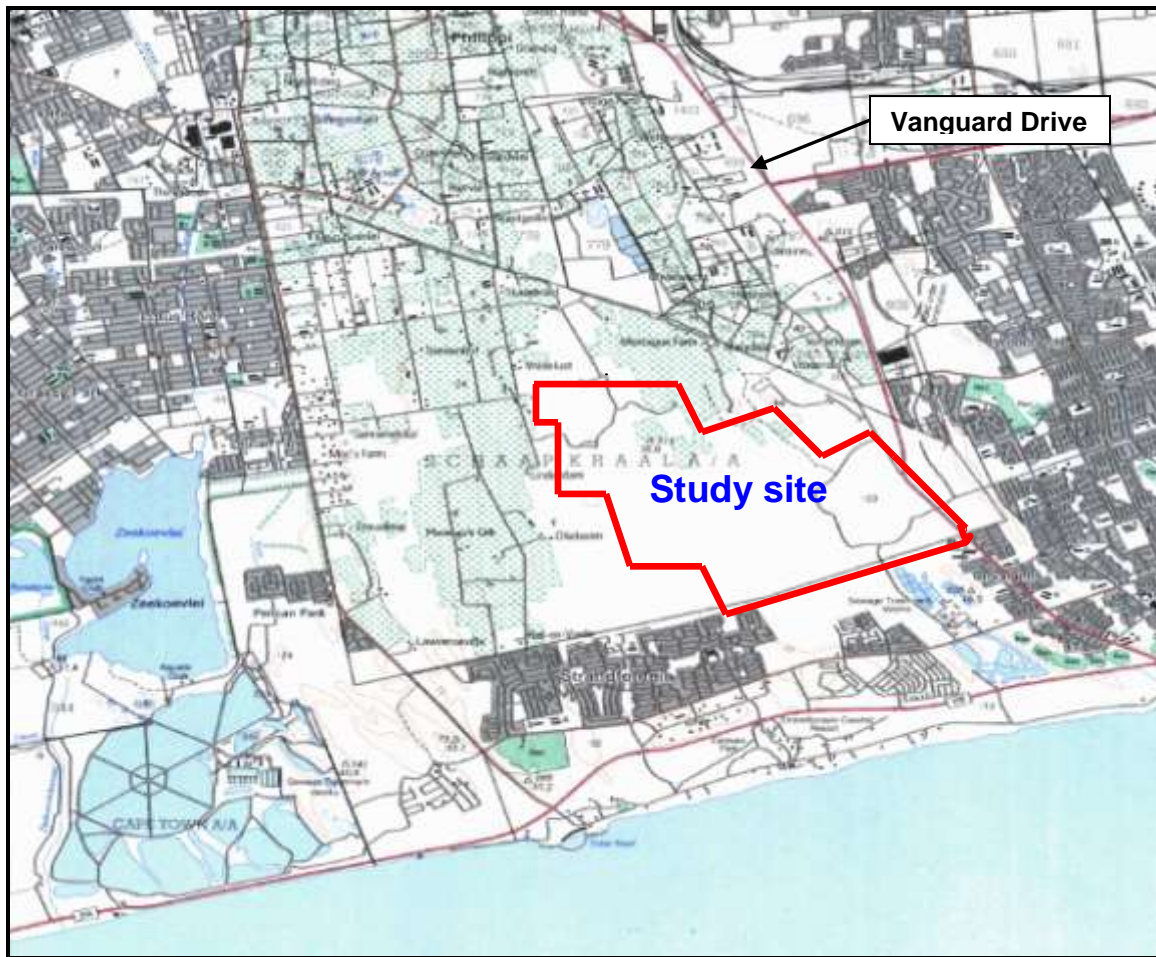


Figure 1. Locality map (3421 BB Mitchell's Plain) indicating the approximate boundary of the study site



Figure 2. Aerial photograph of the study site



Figure 3. View of the site facing north east



Figure 4. View of the site facing north east



Figure 5. View of the site facing north west



Figure 6. View of the site facing north



Figure 7. View of the site facing north



Figure 10. View of the site facing north



Figure 8. View of the site facing west



Figure 11. View of the site facing west



Figure 9. View of the site facing north west



Figure 12. View of the site facing south west



Figure 13. View of the site facing north west



Figure 16. View of the site facing south east



Figure 14. View of the site facing south



Figure 17. View of the site facing east



Figure 15. View of the site facing south east



Figure 18. View of the site facing south east

4. STUDY APPROACH

4.1 Method

The approach followed in the archaeological study entailed a foot survey of the proposed site. This entailed walking as much of the site as possible. Exposed areas, including worked out mining areas were inspected. Cuttings and current mining excavations were also searched for archaeological and palaeontological remains.

The site visit and assessment took place on the 9th and 10th October, 2007.

A desktop study was also undertaken.

4.2 Constraints and limitations

A large portion of the property is heavily infested with alien vegetation, resulting in low archaeological visibility. A large portion of the property has already been mined for sand, and is a severely degraded and transformed state.

4.3 Identification of potential risks

- Unmarked pre-colonial human burials and buried shell middens may be uncovered or exposed during earthmoving operations and excavation for bulk services.
- Important vertebrate (fossils) may also be exposed during earthmoving operations and excavation for bulk services.

4.4 Results of the desk-top study

Philippi was named after Dr Philip Faure, the first minister of the Wynberg parish of The Dutch Reformed Church. Before the Philippi area was settled by German immigrants after 1877, it was named 'The Flats'. The settlers came from all over Germany and were predominantly poor farmers, day labourers, wood workers and craftsmen.

The immigrants were settled in Mannenberg (Claremont Flats), Wynberg Flats, Ottery and Philippi. The intention was that they would raise cattle and sell butter and vegetables but the sandy soils of the Cape Flats were not suitable for farming. Despite these hardships, many of the settlers persisted with small scale farming.

The immigrants planted willows and later Port Jackson to serve as windbreaks between the fields and to bind the sand. By 1883 the farming activities in the area were more successful. The settlement eventually grew to become an important market garden providing the inhabitants of Cape Town with a variety of fresh vegetables (Halkett & Hart 1997).

According to heritage consultant Ms Q. Samie (2007), the site of the proposed development has historically been an area characterised by agricultural small holdings.

Archaeological studies undertaken to date in Philippi and the surrounding area have yielded mixed results. Records from the Archaeological Data Recording Centre, Iziko:South African Museum indicate that Early Stone Age (ESA) tools were first documented by amateur archaeologists in the 1950's from the area referred to as the 'Cape Flats', but the precise location of these sites is unknown. The Museums collections data base indicates that some of this material is currently housed at the museum. These include a range of stone tools, bored stones, 'spearheads' and fragments of pottery (Sarah Wurtz pers. comm., 2006).

In the late 1960's archaeologists recorded thin scatters of stone artefacts and shell middens (ancient rubbish dumps) on the beaches at Strandfontein, Swartklip and Macassar (Kaplan 1993; Rudner 1968, H. Deacon, pers. comm. 1993).

Middle Stone Age (MSA) tools have been found on previously buried calcrete surfaces (or palaeosurfaces) at the Olympic Sand Mine near Macassar (Graham Avery, SA Museum, pers. comm. 2006). MSA tools and marine shell embedded in the weathered cliffs have been documented at Swartklip and Wolfgat on the False Bay coastline (Avery, 2003).

According to Mr Ken Young (pers. comm. 2002), a retired building contractor living in Riebeek West, several 'Bushmen' burials were uncovered during excavations and bulk earthworks for the Strandfontein Pavilion, but these were illegally re-buried in soft sands in the surrounding area.

A marginal scatter of marine shellfish and a few pieces of ostrich eggshell was located during a survey of Pelican Park, which lies about 2.5 kms to the south west of the subject property (Kaplan 2001a, 2005a). A thin scatter of fragmented shellfish was also located on a highly degraded sand dune alongside Strandfontein Road (Kaplan 2002a).

It is worth noting that a study of proposed sand mining sites on Erven 550, 552, 548 and 559 Philippi situated directly to the north and alongside the subject property, and Erven 659, 660 and 661 Mitchell's Plain situated south west of the study site did not locate any archaeological heritage remains (Kaplan 2005b, c, d, 2006b, c).

Several of the subject erven in the southern portion of the site, alongside Strandfontein, were also previously searched in 2002 for the then proposed N21 (R300) Cape Town Ring Road Toll Project. No archaeological remains were found (Kaplan 2002a) in this area, either.

Further afield, several studies have been undertaken in the Khayelitsha/Macassar area. Except for a very thin scatter of shellfish and a small piece of ostrich eggshell, no coherent archaeological remains have been located in this area (Kaplan 2001b, 2002b, 2003).

The paucity of pre-colonial archaeological sites along the sandy beach and behind the fore dunes in the wider study area appears to confirm a hunter-gatherer settlement pattern that is fairly well represented along the South African coastline (Deacon & Deacon 2002; Kaplan 1993).

Much more, however, is known about the palaeontological heritage of the broader study area.

Most of the surface area of the 'Cape Flats' is covered in loose, light coloured dune sands of the Witsand Formation. It is these deposits that are mined for building sand. Layers of relatively hard cemented ancient dune sand (also known as aeolianites) and calcrete occurs at varying depths within the sand profile. It is in these cemented and calcrete sediments that vertebrate fossils most commonly occur (John Pether, pers. comm. 2006).

The most common fossil found in the dune sands and older aeolianites of the surrounding area are the shells of land snails (terrestrial gastropods). Fossil bones are, more scarce but may occur on the sand surface, where wind erosion has blown away previously deposited sand. These may include not only clusters of shell, but smaller dune animals, such as tortoise, lizards, moles, rabbits, rodents, birds, etc and sometimes the bones of larger animals such as antelope and ostrich (Pether 2006). Some fossils have been found on a sand mine near Zandvliet/Macassar (Halkett & Hart 1997), but according to consulting palaeontologist Dr John Pether (2006), better chances of finding fossils arise when older, buried surfaces (or palaeosurfaces) are encountered.

Most of the known fossils to date have been recorded from the highly eroded cliff shoreline at Swartklip (Monwabisi), Wolfgat and Mnandi, on the False Bay coastline. The cliffs along Baaden Powel Drive have been formed by the sea having cut back into an older pile of cemented and semi-cemented, ancient dune sands that were blown up onto the shore when sea-level was lower than it has been for the last several thousand years. The erosion has provided vertical sections revealing their fossil content. Gnawing and tooth marks on the fossils found in these deposits indicate that they were most likely accumulated by the activity of brown hyenas. These include the bones of the extinct giant long-horned buffalo, grysbok, vaalribbok, springbok, black wildebeest, reedbuck, blue antelope, eland, kudu, hippopotamus, white rhinoceros, the extinct Cape zebra, quagga and ostrich. The carnivores include leopard, lion, serval cat, mongoose, otter, honey badger, polecat, hunting dog, jackal and brown hyena. These fauna date to between 40 000 and 110 000 years ago, when the area was wetter and cooler than it is today and the sea level much further away – as no marine animals are present (Pether 2006).

The results of the desk top study show that both archaeological and palaeontological heritage remains have been recorded in the wider study area, but that competing land uses are largely responsible for their destruction and damage.

5. LEGISLATIVE REQUIREMENTS

The following section provides a brief overview of the relevant legislation with regard to the archaeology of proposed site.

5.1 The National Heritage Resources Act (Act No. 25 of 1999)

The National Heritage Resources Act (NHRA) requires that "...any development or other activity which will change the character of a site exceeding 5 000m², or the rezoning or change of land use of a site exceeding 10 000 m², requires an archaeological impact assessment"

The relevant sections of the Act are briefly outlined below.

5.2 Archaeology (Section 35 (4))

Section 35 (4) of the NHRA stipulates that no person may, without a permit issued by HWC, destroy, damage, excavate, alter or remove from its original position, or collect, any archaeological material or object.

5.3 Burial grounds and graves (Section 36 (3))

Section 36 (3) of the NHRA stipulates that no person may, without a permit issued by the South African Heritage Resources Agency (SAHRA), 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.

6. FINDINGS

No pre-colonial archaeological heritage remains were documented in the study area that includes Erven 580-582, 587-591, 637-641, 648-654, 657 & 658, in Philippi.

7. IMPACT STATEMENT

The impact of the proposed development on pre-colonial archaeological heritage remains is likely to be **low**.

Unmarked pre-colonial burials and hidden shell middens may be uncovered during earthmoving operations.

Important vertebrate fossils may also be uncovered or exposed in underlying aeolianites, and calcrete palaeosurfaces, during bulk earthworks and excavations.

8. CONCLUSION

The Phase 1 Archaeological Impact Assessment of erven 580-582, 587-591, 637-641, 648-654, 657 & 658 in Philippi, has identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to proposed development activities.

9. RECOMMENDATIONS

With regard to the proposed development of Erven 580-582, 587-591, 637-641, 648-654, 657 & 658 Philippi, the following recommendations are made:

- Bulk earthworks must be monitored by a professional archaeologist during the Construction Phase of the proposed development. Alternatively, monitoring can be undertaken by a qualified Environmental Control Officer (ECO) subject to training by the archaeologist, and approval by Heritage Western Cape.
- Heritage remains uncovered or disturbed during earthmoving operations should not be disturbed until inspected by a professional archaeologist or palaeontologist. Consulting palaeontologist Dr John Pether (083 744 6295) can be contacted.
- Should any unmarked human remains be disturbed, exposed or uncovered during the proposed development, these should immediately be reported the South African Heritage Resources Agency (Mrs Mary Leslie 021 462 4502), or Heritage Western Cape Mr Calvin van Wyk 021 483 9692).

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