PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT
PROPOSED DEVELOPMENT
OUDTSHOORN SHOPPING CENTRE
ERF 5366, PORTION OF ERF 1
OUDTSHOORN
WESTERN CAPE PROVINCE

Prepared for

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Executive summary

Envirocor Management Services (Pty) Ltd requested that the Agency for Cultural Resource Management conduct a Phase 1 Archaeological Impact Assessment (AIA) for a proposed shopping centre on Erf 5366, Portion of Erf 1 in Oudtshoorn, in the Klein Karoo.

The subject property is located in Oudtshoorn, on the outskirt of the town, at the triangle formed by the R62 and R328 to Mossel Bay.

The aim of the study is to locate and map archaeological heritage sites and 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.

A Notification of Intent to Develop checklist has been completed the archaeologist and submitted to Heritage Western Cape (Belcom) for comment.

Low density scatters of Middle Stone Age (MSA), Later Stone Age and Early Stone Age (ESA) tools were located in the north eastern and southern portions of the subject property, but these remains have been rated as having low local significance.

However, relatively large numbers of MSA artefacts were documented in the north western portion of the proposed site. Most of the artefacts seem to have been uncovered as a result of excavations for (road) source material, and much of the material appears to occur in primary or close to primary context. The MSA artefacts are probably derived from both the top soil and underlying sandy deposits.

It is also very interesting to note that a few ESA tools were documented *in-situ*, in a stone and cobble layer in deep borrow pit cuttings alongside the R62. It is therefore quite likely that the many MSA tools described above are derived from sandy deposits that overly the stone and cobble layer.

MSA and ESA tools may therefore occur in stratigraphic sequence over the site, which is a rare and almost unique occurrence in such a context.

The archaeological heritage remains have been rated as having high local significance.

With regard to the proposed development of Erf 5366, Portion of Erf 1 Oudtshoorn, the following recommendations are made

- Stone artefacts scatters must be mapped and collected by a professional archaeologist, after which the material must be processed, analysed and stored at a recognised institution. No archaeological material may be collected without a permit issued by Heritage Western Cape.

- Vegetation clearing operations and earthmoving activities must be monitored by a professional archaeologist. Archaeological monitoring is a crucial component of conserving, and managing archaeological heritage resources on the site.

- Should any human remains be disturbed, exposed or uncovered during excavations and earthworks for the proposed project, these should immediately be reported to the South African Heritage Resources Agency (Mrs Mary Leslie (021) 462 4502), or Heritage Western Cape (Mr N. Ndlovu (021) 483 9692).

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1. INTRODUCTION

1.1 Background and brief

Envirocor Management Services (Pty) Ltd, on behalf of Cshell 271 (Pty) Ltd requested that the Agency for Cultural Resource Management conduct a Phase 1 Archaeological Impact Assessment (AIA) for a proposed shopping centre on Erf 5366, Portion of Erf 1 in Oudtshoorn, in the Klein Karoo.

The property is currently zoned Undetermined, and will be rezoned to accommodate the proposed development activities. The proposed development also makes provision for Private Open Space, Public Open Space, and infrastructure such as internal roads and services.

The extent of the proposed development (about 15 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).

The aim of the study is to locate and map archaeological sites and 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.

A Notification of Intent to Develop checklist has also been completed the archaeologist and submitted to Heritage Western Cape (Belcom) for comment.

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 Figures 1 and 2.

An aerial photograph of the study site is illustrated in Figure 3.

The subject property is located in Oudtshoorn, in the Western Cape Province, at the triangle formed by the R62 and R328 to Mossel Bay. The receiving environment comprises a typical Karoo landscape. The site is flat and vacant and covered in a mix of indigenous veld – mainly succulents, thorny scrub and bush (Figures 3-10). Some dumping of domestic refuse and building rubble occurs in the north eastern boundary, alongside the R62. Some shallow diggings also occur in this area.

A large, dried out water pan occurs near the south western boundary of the property (Figures 11 & 12). Several small, but deep, borrow pits occur alongside the R62 (Figures 13 & 14), while extensive (albeit shallow) diggings and scrapings of top soils occurs in the north western portion of the proposed site.

There are no buildings or structures on the property. There are no significant landscape features on the proposed site, either.

The surrounding land use comprises mainly vacant veld and farmland. The Oudtshoorn Pistol Club is situated directly to the east of the subject property, while the Oudtshoorn Aerodrome is located to the south east. The residential suburb of Wesbank is located near the north eastern corner of the proposed site, alongside the R62.

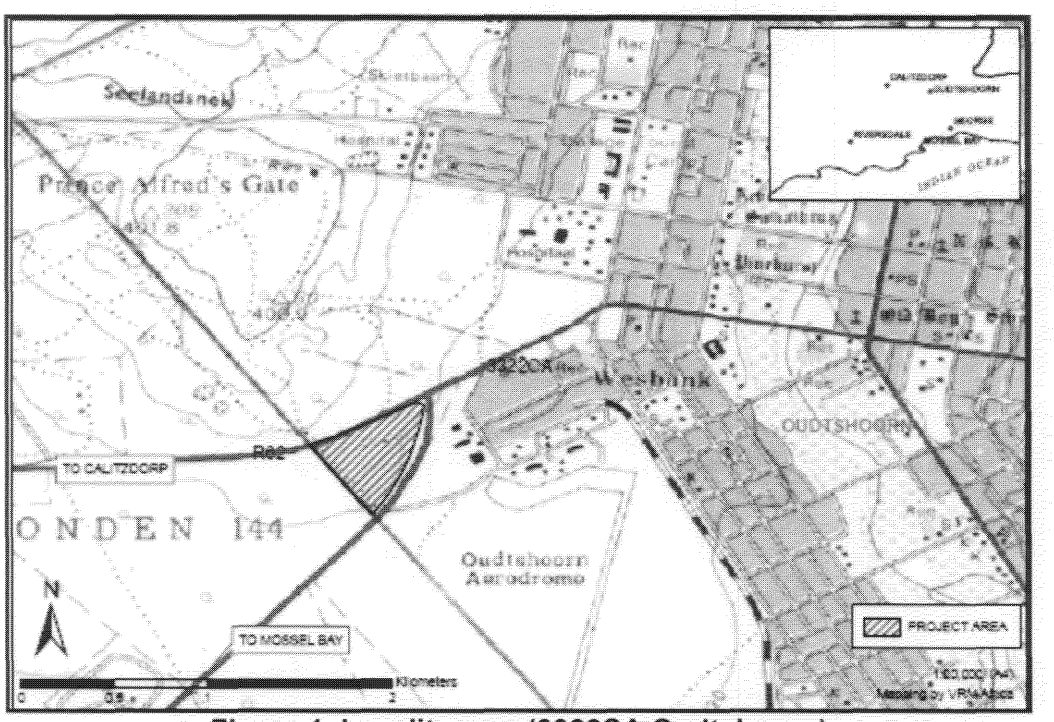

Figure 1. Locality map (3322CA Oudtshoorn)

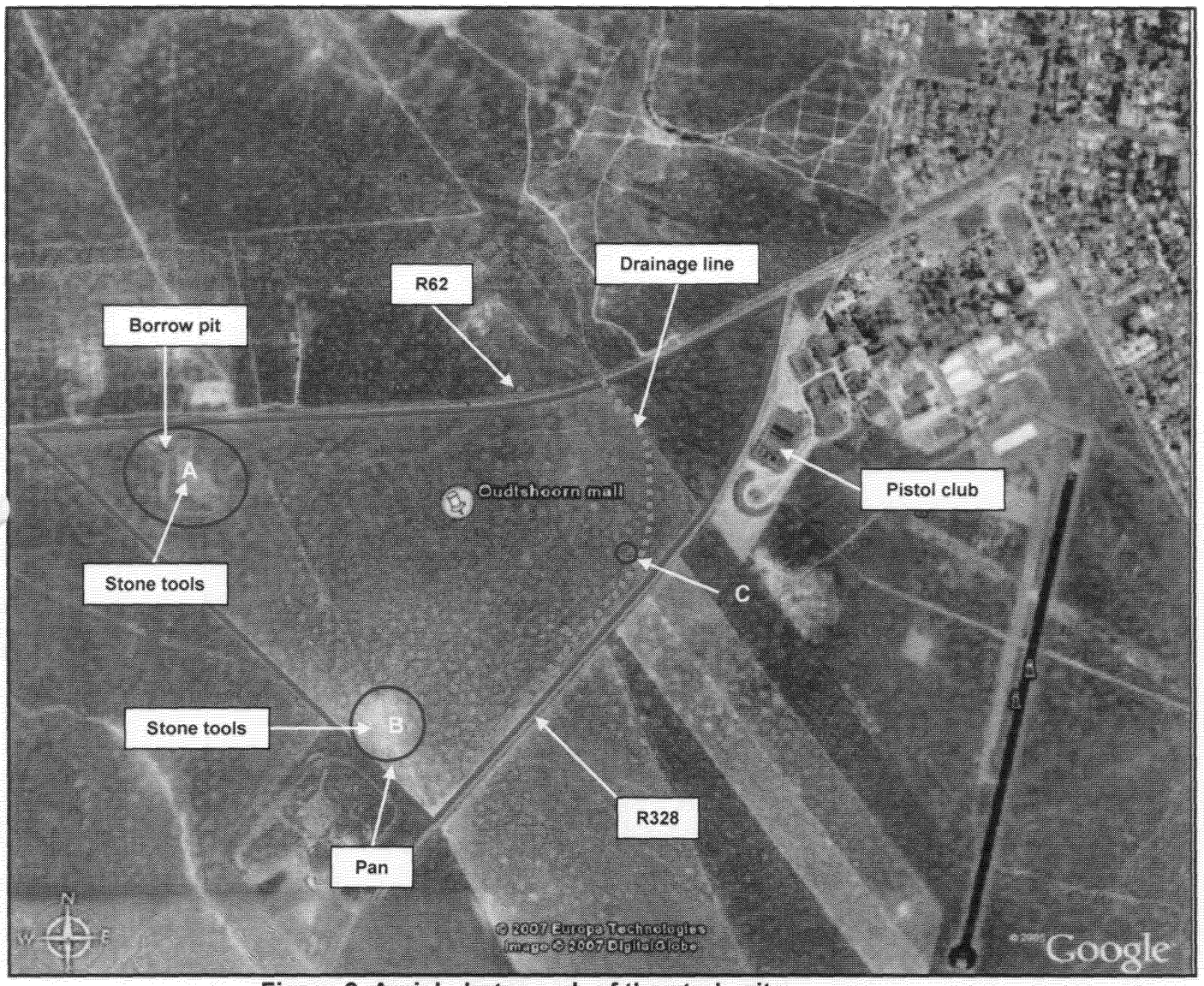

Figure 2. Aerial photograph of the study site

Figure 3. View of the site facing west. Arrow Indicates the R62

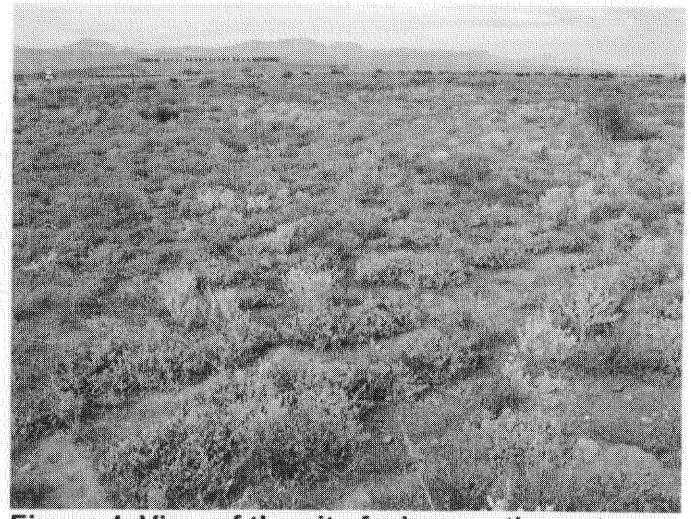

Figure 4. View of the site facing south west

Figure 5. View of the site facing west. Arrow Indicates the R62

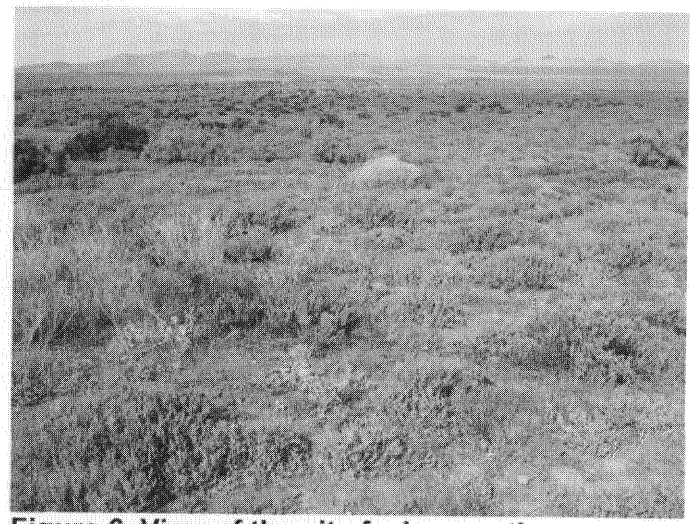

Figure 6. View of the site facing south west

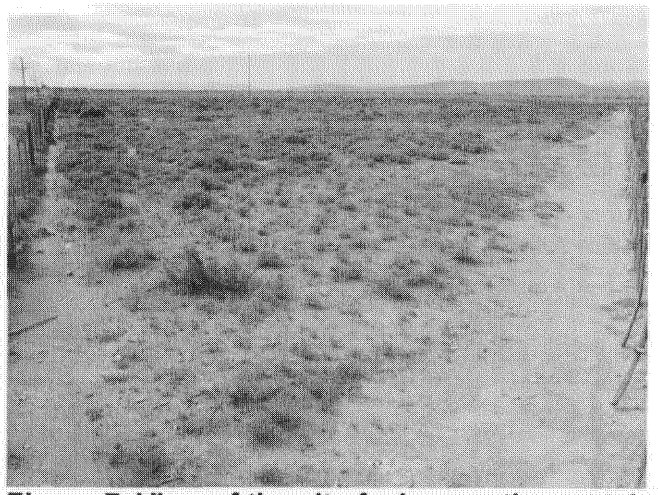

Figure 7. View of the site facing south east taken from the R62

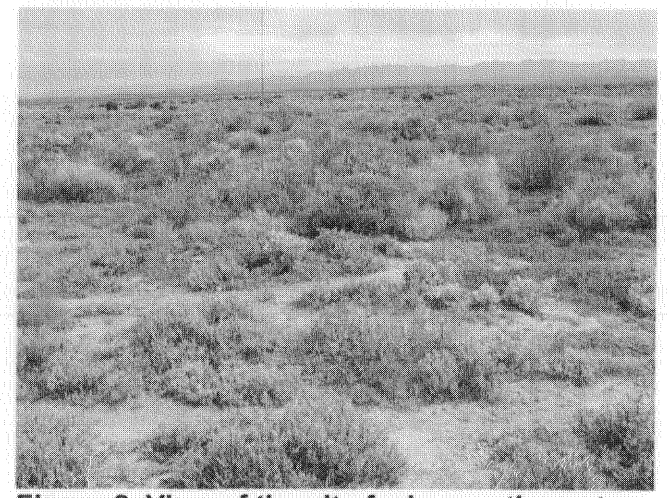

Figure 8. View of the site facing north west

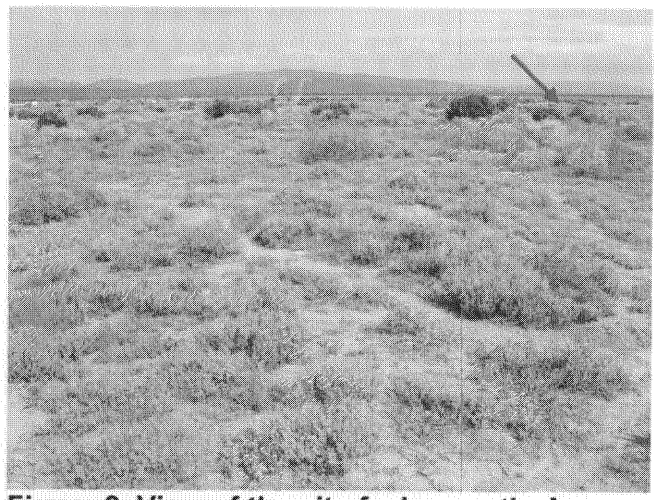

Figure 9. View of the site facing north. Arrow Indicates the R62

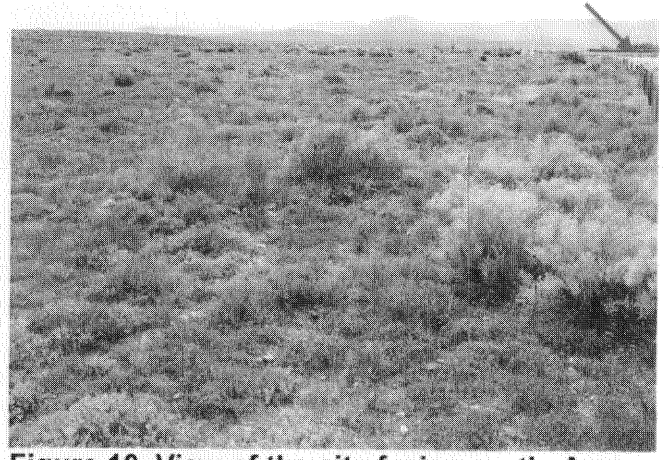

Figure 10. View of the site facing north. Arrow Indicates the R328

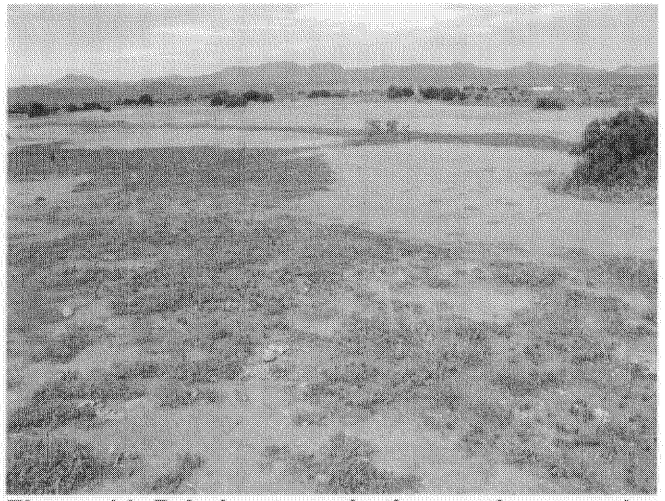

Figure 11. Dried out pan in the southern portion of the site. View facing south east

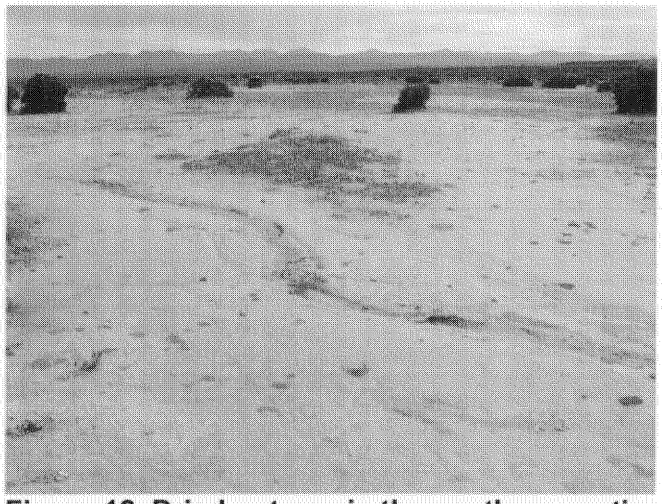

Figure 12. Dried out pan in the southern portion of the site. View facing north west

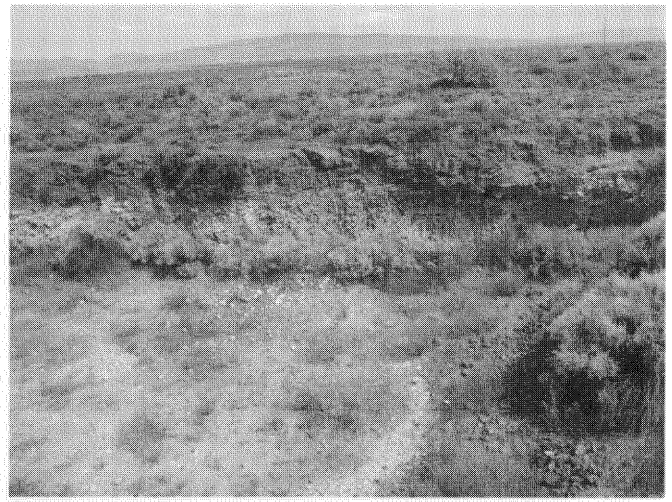

Figure 13. Borrow pit alongside the R62

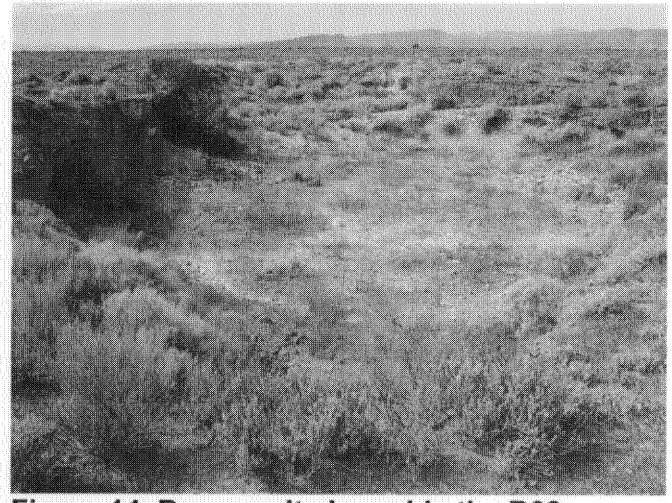

Figure 14. Borrow pit alongside the R62

4. STUDY APPROACH

4.1 Method of survey

The approach followed in the archaeological study entailed a foot survey of the proposed site.

Archaeological heritage remains were plotted using a Garmin Gecko GPS 201 unit set on map datum wgs 84.

The site visit and assessment took place on the 3rd of April, 2007.

A desktop study was undertaken.

4.2 Constraints and limitations

There were no major constraints or limitations associated with the study, although relatively large portions of the property are covered in thick indigenous veld, resulting in poor archaeological visibility.

4.3 Identification of potential risks

The following project actions will likely impact negatively on archaeological heritage remains.

The actions are likely to occur during the Construction Phase of the proposed project.

- Vegetation clearing operations, bulk earthworks and deeper excavations will very likely expose important archaeological heritage remains such as Middle Stone Age and even Early Stone Age tools.

- Unmarked human remains may also be exposed or uncovered during earthmoving operations.

4.4 Results of the desk top study

Several AIA's have been undertaken in Oudtshoorn, or the outskirts of the town.

Large numbers of Later Stone Age (LSA) and Middle Stone Age (MSA) tools, including rare, hollow-based points, were documented on land surrounding the Oudtshoorn Golf Course (Kaplan 2005).

Low density scatters of MSA and LSA tools were also documented on land set aside for a proposed resort development and private nature reserve north east of Oudtshoorn (Kaplan 2000).

5. LEGISLATIVE REQUIREMENTS

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

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

The National Heritage Resources (NHR) Act 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 NHR 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 HHR 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. IMPACT ASSESSMENT AND DESCRIPTION

Very low density scatters of stone artefacts were located in the north eastern portion of the property, alongside the R62 and R328. The tools comprise mainly LSA and MSA stone flakes, chunks and a few blade tools (Figure 15). The occasional large ESA flake and flaked chunk were also documented in disturbed lands near a farm gate alongside the R62. All the tools are in both rough and fine grained locally available quartzite.

The archaeological heritage remains have been rated as having low local significance.

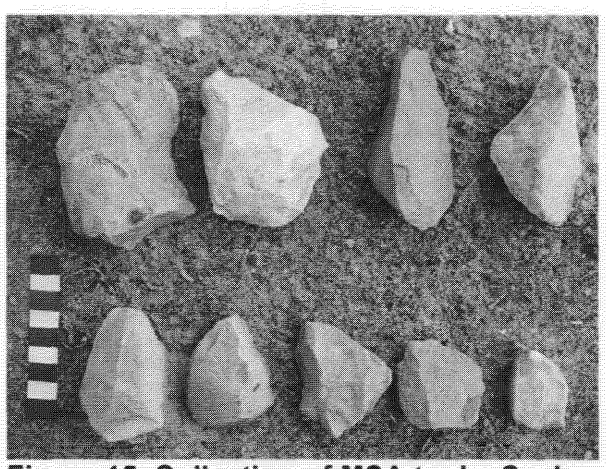

Figure 15. Collection of MSA tools. Scale is in cm

Relatively large numbers of MSA tools, including both retouched and unmodified flakes, blade tools, chunks, hammerstones, irregular cores and manuports were documented on both compact and occasionally looser sands, on large patches of disturbed lands, in the north western portion of the proposed site (refer to A in Figure 2). All the tools are in locally available quartzite. Most of the material appears to have been uncovered and exposed as a result of shallow earthworks, possibly as source material used for road building purposes (Figures 16 & 17).

Much of the archaeological material appears to occur in primary, or close to primary context, as the tools are not rolled or abraded. No tools were found embedded or compressed into the compact light brown-coloured sands, further suggesting that they originated from an overlying sand layer (Figures 18 and 19).

A GPS co-ordinate for the site is S° 33 36 064 E° 22 09 639.

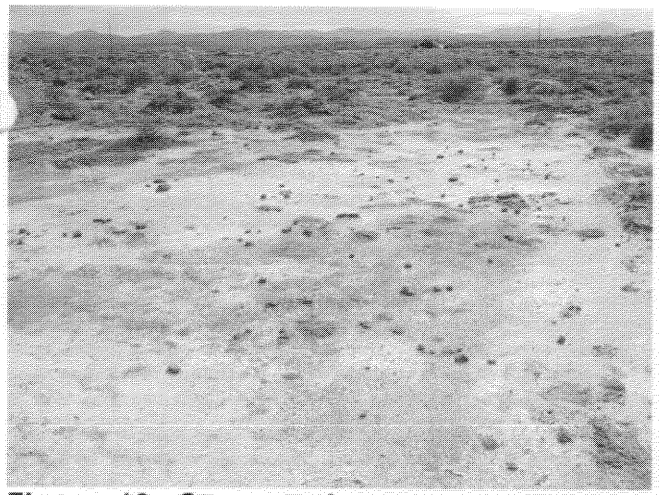

Figure 16. Stone tools occur on compact surfaces

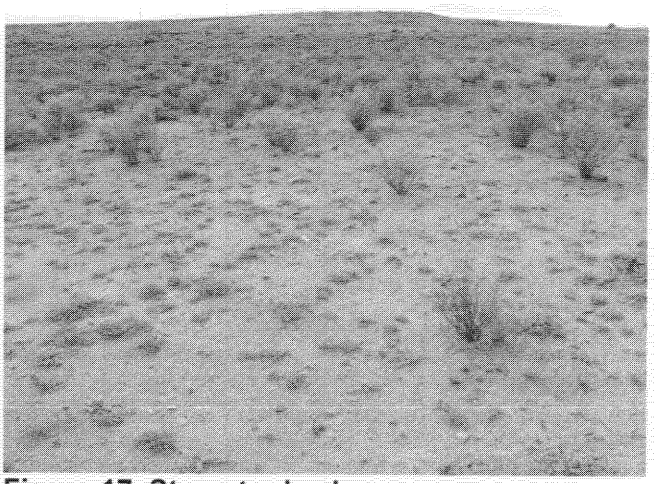

Figure 17. Stone tools also occur on looser sandy soils

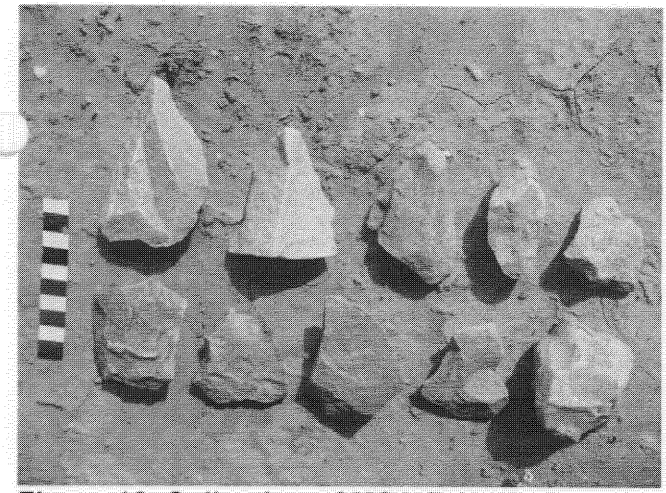

Figure 18, Collection of MSA flake tools. Scale is in cm

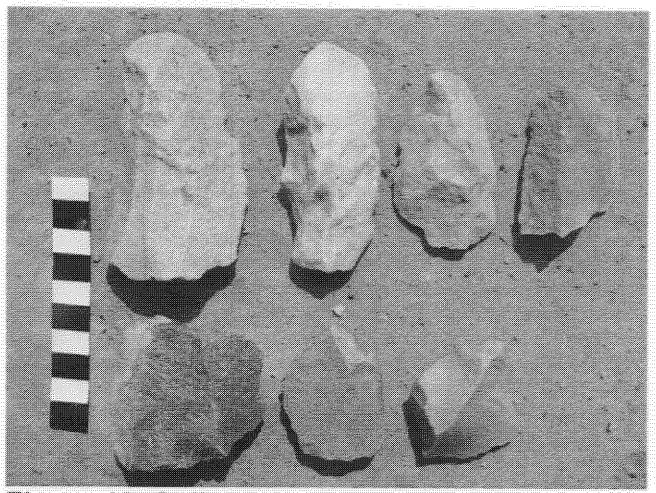

Figure 19. Collection of MSA blade tools and flakes. Scale is In cm

ESA tools, including one unifacial handaxe, one cleaver, several large flakes, flaked chunks and cores (n = 2), as well as MSA blade tools and flakes, were also documented in the north western portion of the proposed site, alongside the R62. Most of the ESA tools were found on soft red sands that have been excavated as a result of diggings and deep borrow pit excavations alongside the road (Figures 20 & 21). Several of the ESA tools are also heavily weathered and patinated. The tools are all in quartzite.

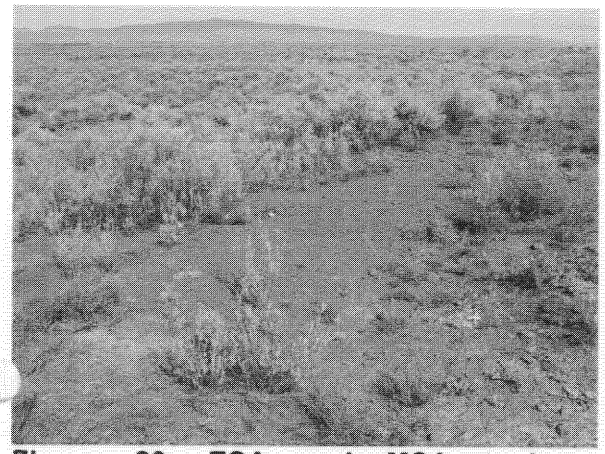

Figure 20. ESA and MSA tools were documented on red sands alongside the R62

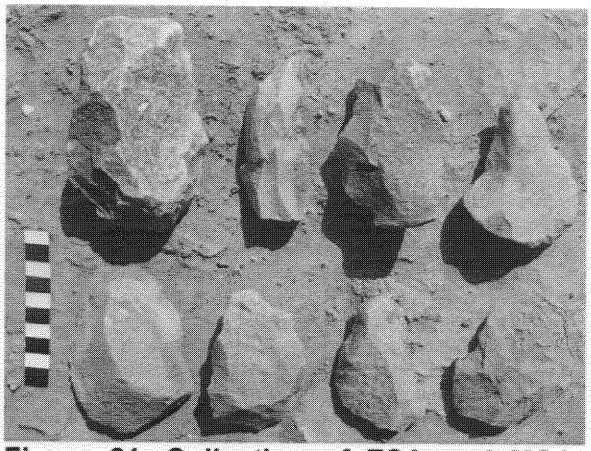

Figure 21. Collection of ESA and MSA tools. Scale is in cm

It is also very important to note that several ESA tools were documented *in-situ*, in a cobble and stone layer in the deep, borrow pit cuttings alongside the R62 (Figures 22 & 23). The stone tools in this horizon are underlain by thick clay deposits and weathered calcrete and overlain by a compact brown sand layer and lighter sandy soils (refer also to Figure 13). It is therefore quite likely that the many MSA tools described above are derived from the sandy deposits that overly the stone and cobble layer. MSA and ESA tools may therefore occur in stratigraphic sequence over the site, which is a rare and almost unique occurrence in such a context.

The archaeological heritage remains have been rated as having potentially high local significance.

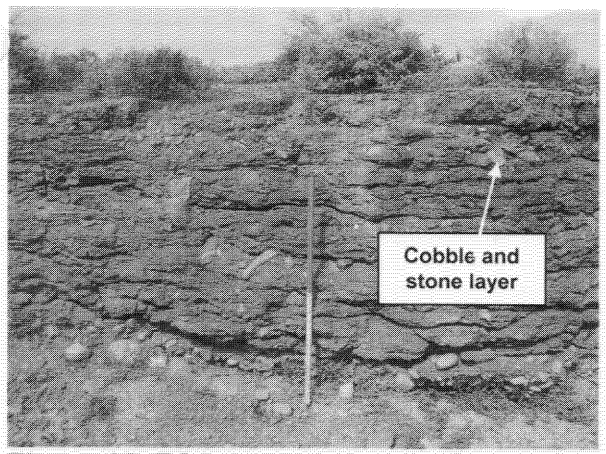

Figure 22. ESA tools were documented in the cobble & stone layer. Ranging rod is 1m

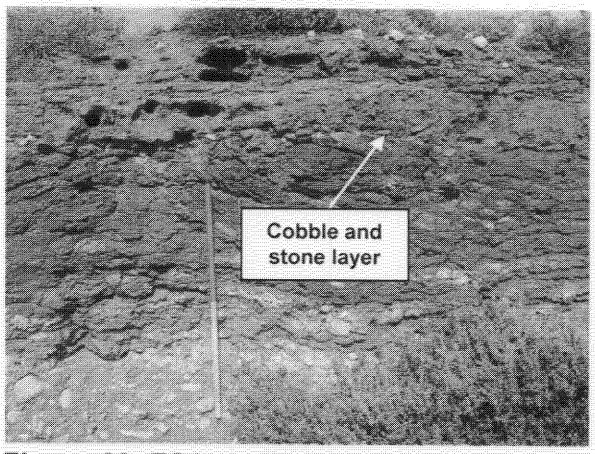

Figure 23. ESA tools were documented in the cobble & stone layer.

Low density scatters of LSA, MSA and a few ESA tools, were documented on the surface of a dry water pan in the south western portion of the proposed site (refer to B in Figures 2 & Figures 11 & 12). The material occurs in a very disturbed and degraded context, as a result of trampling and much evidence of grazing. Several of the tools are also snapped and broken, possibly as a result of trampling (Figure 24). Most of the tools are in quartzite, but a few of the LSA tools are in indurated shale and quartz. A GPS co-ordinate for the site is S° 33 36 437 E° 22 10 074.

MSA tools were also documented on soft, trampled sands and sediments near the fence line, along the southern boundary of the property (Figure 25). Some of these sediments may derive from the drainage line that runs through this portion of the site (refer to Figure 2).

The archaeological heritage remains have been graded as having low local significance.

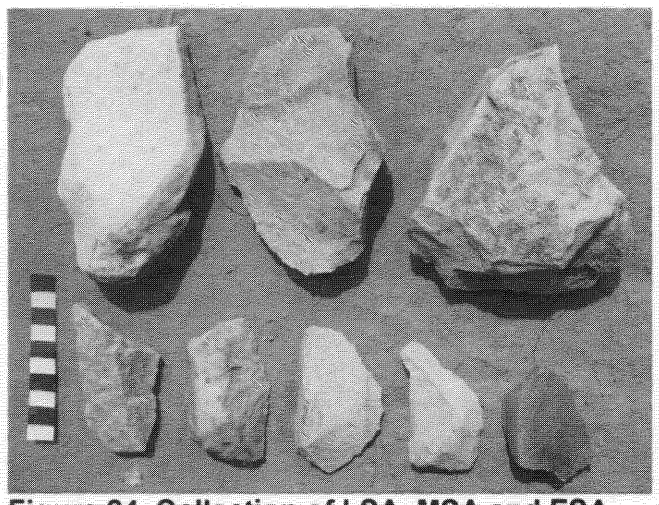

Figure 24. Collection of LSA, MSA and ESA Tools. Scale is in cm.

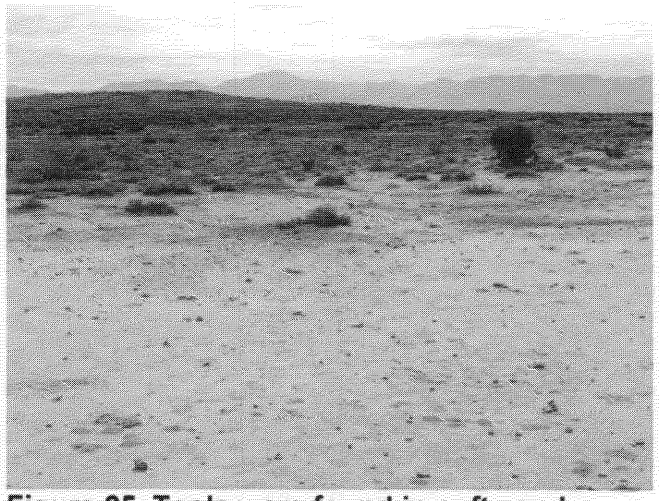

Figure 25. Tools were found in soft sand and sediments alongside the fence line

A thin scatter of about 25 MSA and LSA tools were documented on a compact brown sandy surface on a small patch of ground about 20 m west of the fence line, in the north eastern portion of the proposed site, alongside the R328 (refer to C in Figure 2 and Figure 26). The tools, all in quartzite, comprise one end scraper, three blade tools, one core, and numerous unmodified and retouched flakes and chunks. Several ESA tools were also noted. The material appears to be in primary context. A GPS co-ordinate for the site is S° 33 36 302 E° 22 10 460.

The archaeological heritage remains have been graded as having high local significance.

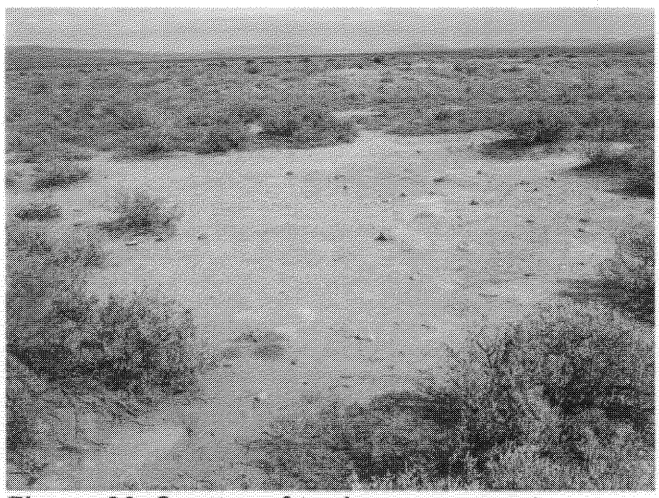

Figure 26. Scatter of tools on compact surface (Site C).

A dispersed scatter of MSA and LSA flakes, blades and chunks, manuports and at least one hammerstone were documented in the drainage line located near the eastern boundary of the property (Figures 27 & 28). The tools were located not too far from the above scatter of tools in Site C. Two large ESA flakes were also noted. All the tools are in quartzite, and occur in a disturbed context.

The archaeological heritage remains have been graded as having low local significance.

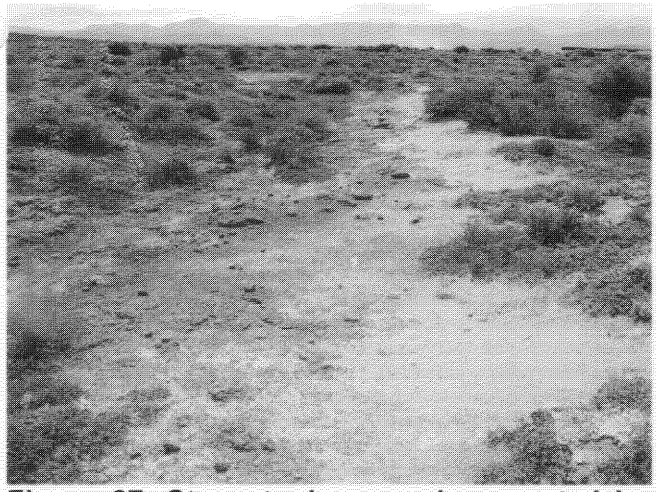

Figure 27. Stone tools were documented in the drainage line

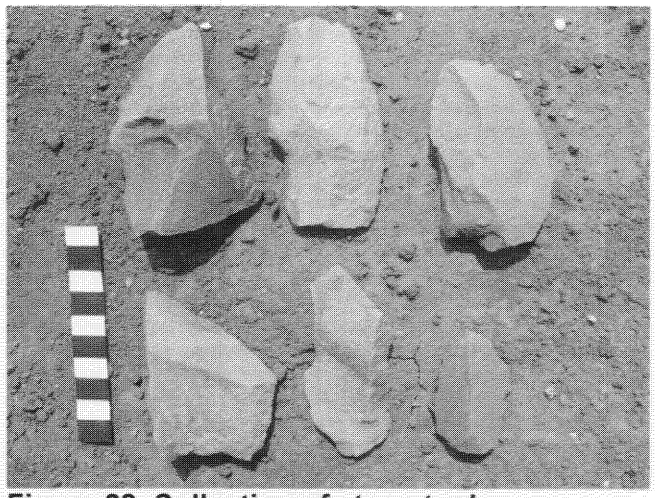

Figure 28. Collection of stone tools documented in the drainage line

7. IMPACT STATEMENT

Potentially important Middle Stone Age tools may be exposed or uncovered in underlying sandy deposits, once earthmoving operations penetrate and remove the overlying top soils.

Much older (and equally important) Early Stone Age tools may also be exposed, possibly *in–situ*, and in stratigraphic sequence, in deeper, cobble and stone layers below the sandy deposits.

In this context, it is instructive to note that up to 70 000, ESA and MSA tools have been documented and collected during monitoring of earthmoving operations at Pinnacle Point near Mossel Bay (Nilssen 2005 and pers. comm.). ESA and Middle Stone Age (MSA) artefacts are located in both the top soil and underlying sandy deposits in stratigraphic sequence, although it does appear as if the bulk of the artefacts are derived from the

sand layer. The artefacts recovered show little evidence of abrasion and polish, suggesting that they were not rolled or transported by natural agents. It therefore appears likely that many of the artefacts were located in primary or close to primary context (Nilssen 2005:4).

No artefacts appear to be present in the underlying clay and calcrete deposits at Pinnacle Point. However, it is interesting to note that a carnivore (probably hyena) lair and an accumulation of well-preserved fossil bone were documented in limestone deposits nearly 3 m below the surface (Nilssen pers. comm.).

The key point is that the archaeology below the surface is undisturbed and it is precisely the context of the finds that is so important for conservation purposes.

8. RECOMMENDATIONS

With regard to the proposed development of Erf 5366, Portion of Erf 1 Oudtshoorn, the following recommendations are made

- Stone artefacts scatters (A & C) recorded above must be mapped and collected by a professional archaeologist prior to construction activities commencing, after which the material must be processed, analysed and stored at a recognised institution. No archaeological material may be collected without a permit issued by Heritage Western Cape.

- Vegetation clearing operations and earthmoving activities must be monitored by a professional archaeologist. Archaeological monitoring is a crucial component of conserving and managing archaeological resources on the site. Monitoring should follow the model and procedures developed by Dr. P. Nilssen at Pinnacle Point.[1]

- Should any human remains be disturbed, exposed or uncovered during excavations and earthworks for the proposed project, these should immediately be reported to the South African Heritage Resources Agency (Mrs Mary Leslie (021) 462 4502), or Heritage Western Cape (Mr N. Ndlovu (021) 483 9692).

[1] Dr P. Nilssen can be contacted on 082 783 5896

9. REFERENCES

Kaplan, J. 2005. Phase 1 Archaeological Impact Assessment Karoo Heritage Estate and Oudtshoorn Golf Club. Report prepared for Hilland Associates. Agency for Cultural Resource Management.

Nilssen, P.J. 2005. Development at Pinnacle Point, Mossel Bay. Archaeological monitoring of vegetation clearing and all earthmoving activities. Progress Report. Report prepared for Heritage Western Cape. Mossel Bay Archaeology Project.