

A LETTER OF RECOMMENDATION FOR A FULL PHASE 1 ARCHAEOLOGICAL HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED CONSTRUCTION OF A STORM WATER OUTLET FROM ZONE'S 1 & 2 AT THE COEGA INDUSTRIAL DEVELOPMENT ZONE NEAR PORT ELIZABETH, NELSON MANDELA BAY MUNICIPALITY, EASTERN CAPE PROVINCE

Prepared for: Coega Industrial Development Corporation (Pty) Ltd

Contact person: Ms A.Von Holt
Private Bag X6009
Port Elizabeth
6000
Tel: 041 4030400
Fax: 041 4030401
Cell: 0826574648
email: Andrea.VonHoldt@coega.co.za

Compiled by: Dr Johan Binneman

On behalf of: Eastern Cape Heritage Consultants

P.O. Box 689
Jeffreys Bay
6330
Tel: 042 2960399
Cell: 0728006322
email: kobusreichert@yahoo.com

Date: March 2010

A LETTER OF RECOMMENDATION FOR A FULL PHASE 1 ARCHAEOLOGICAL HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED CONSTRUCTION OF A STORM WATER OUTLET FROM ZONE'S 1 & 2 AT THE COEGA INDUSTRIAL DEVELOPMENT ZONE NEAR PORT ELIZABETH, NELSON MANDELA BAY MUNICIPALITY, EASTERN CAPE PROVINCE

PROJECT INFORMATION

Reference No. 12/12/20/886

The type of development

The construction of an open channel storm water outlet across the dunes to the sea. This channel will drain storm water from Zones 1 and 2 in the Coega Industrial Development Zone (Coega IDZ). The development will take place along the property boundary of the Coega IDZ and the National Ports Authority (NPA).

The Developer

Coega Industrial Development Corporation (Pty) Ltd
Contact person: Ms A.Von Holt
Private Bag X6009
Port Elizabeth
6000
Tel: 041 4030400
Fax: 041 4030401
Cell: 0826574648
email: Andrea.VonHoldt@coega.co.za

The Consultant

Eastern Cape Heritage Consultants
P.O. Box 689
Jeffreys Bay
6330
Tel: 042 962096
Cell: 0728006322
email: kobusreichert@yahoo.com

Terms of reference

In their *Basic Environmental Assessment for Stormwater Discharge from Zone 1 and 2 of the Coega Industrial Development Zone (IDZ), Easten Cape* (April 2007), the consultants, Mazizi Msutu and Associates made the follow statement and recommendation:

Although no heritage sites were identified during the Basic Assessment process, it is recommended that a final walk-through of the outlet alignment is undertaken prior to construction by a suitably qualified heritage specialist in order to confirm that no heritage sites are present within the servitude area. The results must be forwarded to DEAT and SAHRA for their records.

It is unclear how the consultants (Mazizi Msutu and Associates) could come to such a conclusion because there was no heritage impact assessment conducted as required by the National Heritage Resources Act (Act No. 25 of 1999, section 38). However, the consultants recommendation was accepted to conduct a reconnaissance/walk through of the proposed area for the construction of the storm water outlet across the dunes to the sea along the boundary of the Coega IDZ and NPA, within the Coega IDZ, Port Elizabeth, Nelson Mandela Municipality, Eastern Cape Province; to describe and evaluate the importance of possible archaeological heritage sites; the potential impact of the development and to make recommendations to minimize possible damage to these sites.

DESCRIPTION OF THE PROPERTY

Map: 1:50 000 3325 DC & DD 3425 BA Port Elizabeth

Location data

The proposed development the construction of the storm water outlet across the dunes to the sea is situated approximately 20 kilometres from Port Elizabeth along the southern boundary of the Coega IDZ, Port Elizabeth, Nelson Mandela Municipality, Eastern Cape Province (Maps 1-3). The distance from the inland channel to the beach is approximately 200 metres.

ARCHAEOLOGICAL INVESTIGATION

Methodology

The investigation/reconnaissance was conducted by two people on foot. GPS readings were taken with a Garmin Plus II and all important features were digitally recorded. The proposed storm water outlet will be constructed over a distance of approximately 200 metres through a low dune area which have been disturbed in the past (Figs 1-6). The dune sand and dense dune vegetation made it difficult to locate archaeological sites/materials between the inland open channel and the beach and along the southern side of the proposed outlet. Shell middens may be exposed during the development. Shell middens were found a few metres north, north-east of the proposed outlet at the base of the first beach dunes.

A complex of shell middens (more than 20) were situated a mere 100 metres further north. The complex of shell middens is situated on the National Ports Authority (NPA) land. These sites were briefly visited but not recorded in any detail because the NPA property is excluded from the reconnaissance. Notwithstanding, SAHRA requires that areas adjacent (or entire property) to the footprint must also be included in the survey.

Brief description of the archaeological sites

As mentioned above, recording of the shell midden complex on the northern side of the proposed storm water outlet was not part of the terms of reference (reconnaissance), and is only briefly discussed here.

There are a large number of individual shell middens (more than 20) and shell scatters situated close to the proposed development (Fig 7-8). These shell middens are the most important and the best preserved complex between the Sunday's River and Port Elizabeth. The majority of the shell middens are dominated by *Donax serra* (white mussel) marine shell remains, but there are a few with large numbers of *Solen capensis* (pencil bait) remains as well. The middens are also rich in bone remains (juvenile seal, tortoise and mammal remains) and cultural remains

(stone tools and Later Stone Age Khoi herder pottery) (Figs 9-10). The shell middens date approximately from the past 6 000 years. The presence of juvenile seal remains are of particular interest because there are breeding colonies on the nearby islands and it would provide important information of pre-colonial settlement patterns along this part of the coast.



Figs 1-2. General views of the existing north-east (left) and south-west (right) open storm water channel. Note the large scale disturbances caused by the construction of the channel to the coastal dunes and surrounding landscape. The red arrow marks the location and direction from where the proposed channel through the dunes to the coast will be constructed.



Figs 3-6. General views from the start of the proposed open storm water channel towards the beach (top left), from the beach towards the existing channel indicated by the red arrow (top right), a shell midden close to where the channel will be constructed marked by a blue oval (bottom left) and a complex of shell middens within 100 metres from the development (bottom right).



Figs 3-6. Views of some of the shell middens (top), decorated Khoekhoen pottery (bottom left) and seal remains (bottom right).

Discussion

The vegetation which covers the low dunes made it impossible to locate archaeological sites on the propose storm water outlet over the dunes to the beach. However, the many shell middens found adjacent to the route indicate clearly that there are probably many sites covered by vegetation and dune sand. These shell middens are among the most important archaeological sites in the region and contain ceramic pot sherds (from Later Stone Age Khoekhoen pastoralist origin - last 2 000 years) and other archaeological material food remains of Holocene Later Stone Age hunter-gatherers, dating from the past 6000 years.

It is a sensitive area for archaeological sites and the development must be closely managed and monitored to avoid any further damage to sites/materials. The north-easterly open channel was constructed through the coastal dunes. This is also clearly visible on the aerial photographs and photographs taken during the construction (Mazizi Msutu and Associates April 2007) (Maps 2-3). This construction took place without a heritage impact assessment as required by the National Heritage Resources Act (Act No. 25 of 1999, section 38). It is unknown how many archaeological sites were destroyed, but if the rich shell midden complex, a 100 metres north-east of the constructed channel and proposed outlet is anything to go by, then it must have been a fair number.

RECOMMENDATIONS

The area where the proposed storm water outlet across the dunes will be constructed is an extremely sensitive archaeological terrain with a large shell midden complex in close proximity.

No visible archaeological sites were observed south-west of the proposed outlet route during the walk through/reconnaissance and it would have been an option to shift the outlet further in this direction. However, according to the *Basic Environmental Assessment for Stormwater Discharge from Zone 1 and 2 of the Coega Industrial Development Zone (IDZ), Eastern Cape* (Mazizi Msutu and Associates, April 2007), the Nelson Mandela Municipality (who owns the adjacent property) is not in favour of such a move. It is also impractical to construct the outlet further north-east.

Against this background it is recommended that;

1. A full Phase 1 Archaeological Heritage Impact Assessment (AHIA) is conducted for the proposed area for the construction of the storm water outlet across the dunes to the sea along the boundary of the Coega IDZ, National Ports Authority and the Nelson Mandela Municipality. This includes adjacent land (at least 100 metres on both sides of the proposed route) under the jurisdiction of the Coega Industrial Development Corporation, National Ports Authority and the Nelson Mandela Municipality.

The objective of the assessment is to compile a document;

- to describe and evaluate the importance of possible archaeological heritage sites
 - evaluate the potential impact of the development on the sites
 - compile further recommendations to minimize possible damage to these sites.
2. Further recommendations from the AHIA may include;
 - that the visible archaeological sites on and close to the route be excavate/sampled before construction starts.
 - an archaeologist must be on site to monitor the clearing and the initial construction phase of the channel. Alternatively a person can be trained as a site monitor to report to the foreman when archaeological sites are found.
 3. If any archaeological sites are encountered during these phases, all work in that area must cease so that a systematic and professional investigation can be undertaken. Sufficient time should be allowed to remove/collect such material (See Appendix A for a list of possible archaeological sites that maybe found in the area).

Note: It must also be clear that this letter of recommendation for a full Phase 1 Archaeological Heritage Impact Assessment will be assessed by the relevant heritage resources authority. The final decision rests with the heritage resources authority, which should give a permit or a formal letter of permission for the destruction of any cultural sites.

The National Heritage Resources Act (Act No. 25 of 1999, section 38) requires a full Heritage Impact Assessment (HIA) in order that all heritage resources, that is, all places or objects of aesthetics, architectural, historic, scientific, social, spiritual linguistic or technological value or significance are protected. Thus any assessment should make provision for the protection of all these heritage components, including archaeology, shipwrecks, battlefields, graves, and structures older than 60 years, living heritage, historical settlements, landscapes, geological sites, palaeontological sites and objects.

GENERAL REMARKS AND CONDITIONS

It must be emphasised that this letter of recommendation for a full Phase 1 Archaeological Heritage Impact Assessment is based on the visibility of only a number of archaeological sites/material. These sites may not reflect the true state of affairs, because many more sites/material may be covered by soil and vegetation and will only be located once these has been removed. In the event of such finds being uncovered (during any phase of construction work), archaeologists must be informed immediately so that they can investigate the importance of the sites and excavate or collect material before it is destroyed (see attached list of possible archaeological sites and material). The *onus* is on the developer to ensure that this agreement is honoured in accordance with the National Heritage Act No. 25 of 1999.

APPENDIX A: IDENTIFICATION OF ARCHAEOLOGICAL FEATURES AND MATERIAL FROM COASTAL AREAS: guidelines and procedures for developers

1. Shell middens

Shell middens can be defined as an accumulation of marine shell deposited by human agents rather than the result of marine activity. The shells are concentrated in a specific locality above the high-water mark and frequently contain stone tools, pottery, bone and occasionally also human remains. Shell middens may be of various sizes and depths, but an accumulation which exceeds 1 m² in extent, should be reported to an archaeologist.

2. Human Skeletal material

Human remains, whether the complete remains of an individual buried during the past, or scattered human remains resulting from disturbance of the grave, should be reported. In general the remains are buried in a flexed position on their sides, but are also found buried in a sitting position with a flat stone capping and developers are requested to be on the alert for this.

3. Fossil bone

Fossil bones may be found embedded in calcrete deposits at the site. Any concentrations of bones, whether fossilized or not, should be reported.

4. Stone artefacts

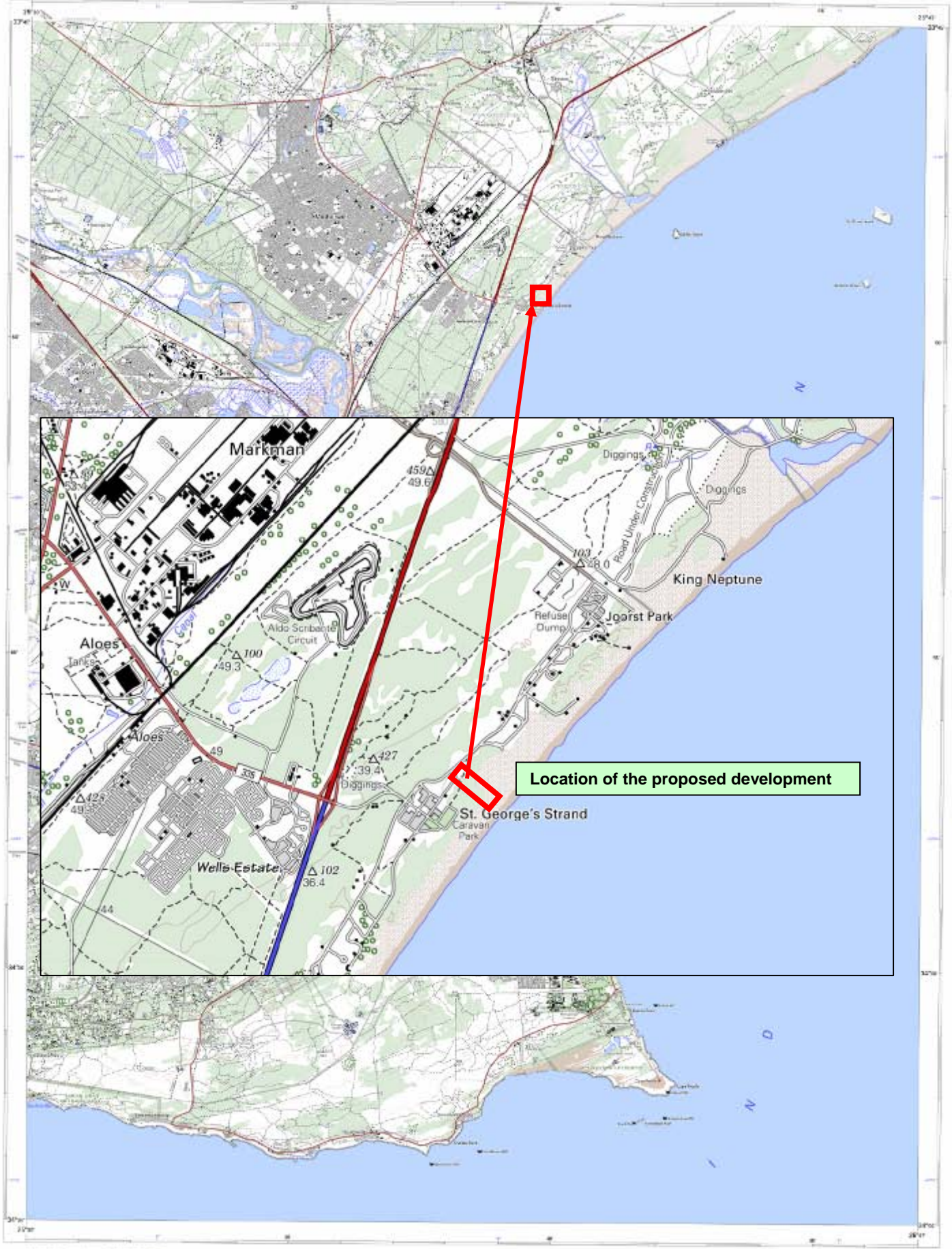
These are difficult for the layman to identify. However, large accumulations of flaked stones which do not appear to have been distributed naturally should be reported. If the stone tools are associated with bone remains, development should be halted immediately and archaeologists notified.

5. Stone features and platforms

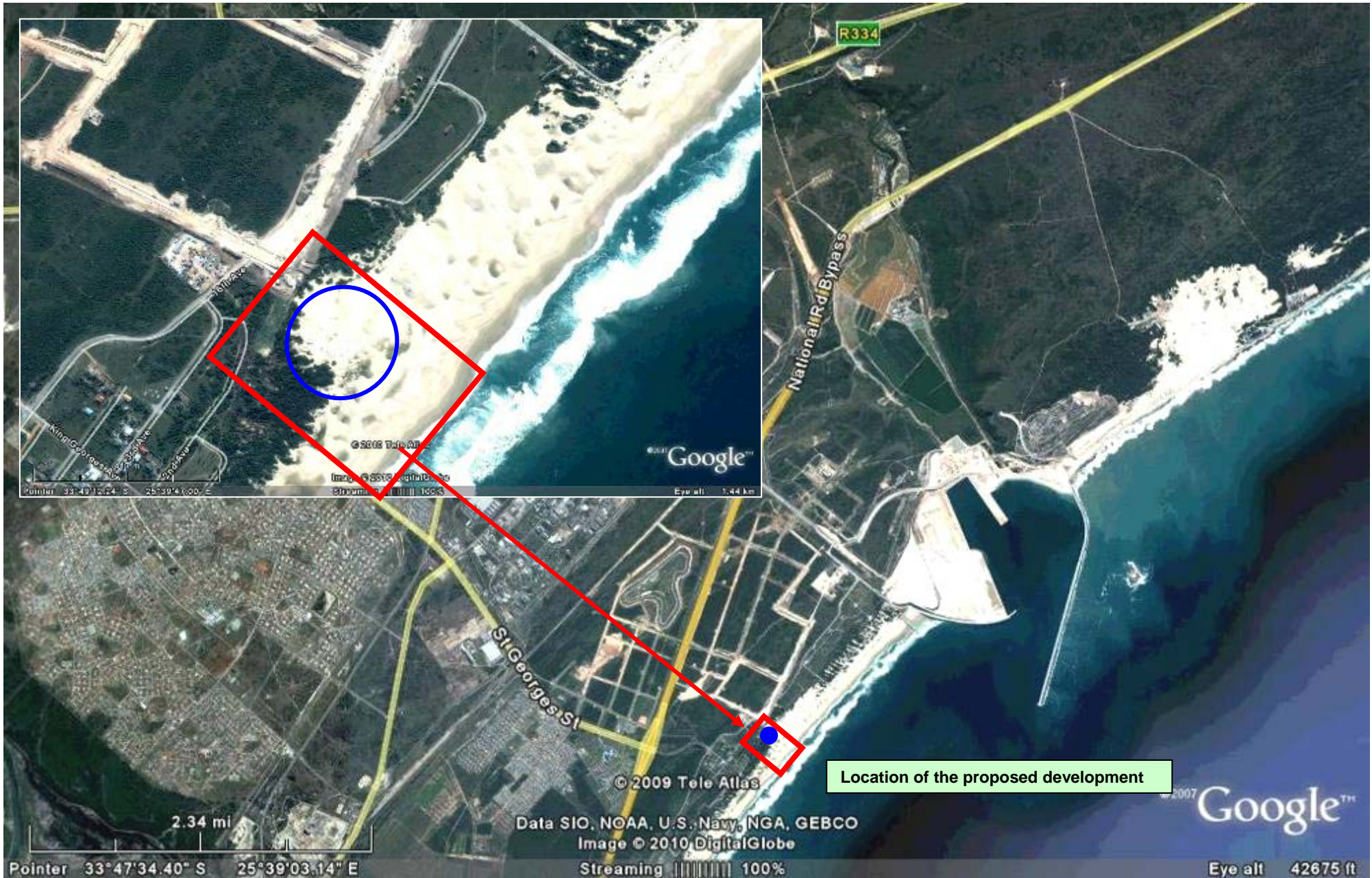
These occur in different forms and sizes, but easily identifiable. The most common are an accumulation of roughly circular fire cracked stones tightly spaced and filled in with charcoal and marine shell. They are usually 1-2 metres in diameter and may represent cooking platforms for shell fish. Others may resemble circular single row cobble stone markers. These occur in different sizes and may be the remains of wind breaks or cooking shelters.

6. Historical artefacts or features

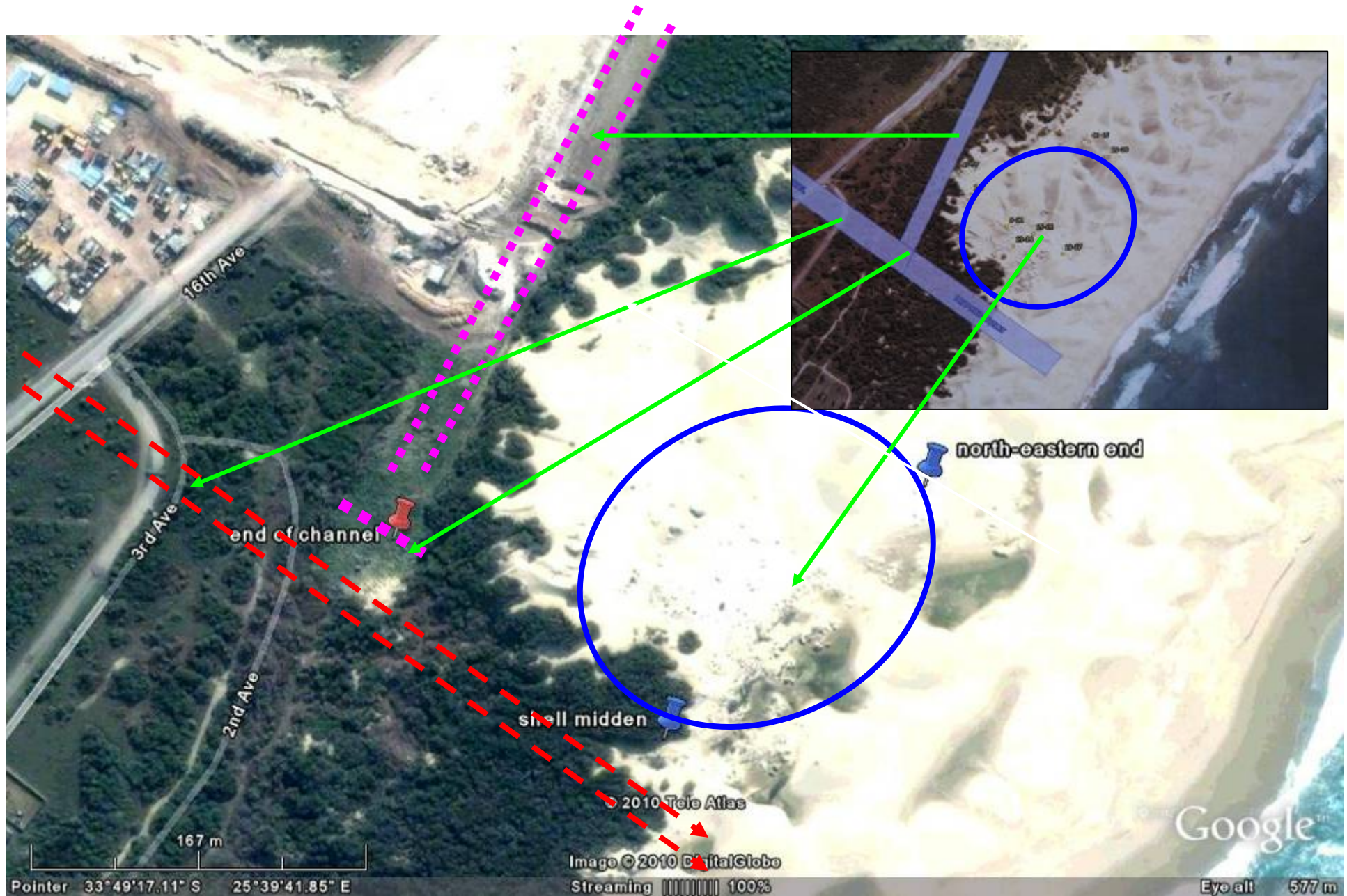
These are easy to identify and include foundations of buildings or other construction features and items from domestic and military activities.



Map 1. 1:50 000 Maps indicating the location of the proposed development.



Map 2. Aerial photographs indicating the location of the proposed development. The blue dot and circle mark the shell midden complex.



Map 3. Aerial photographs of the location of the proposed development. The red pin marks the GPS point of the end of the current channel and the blue pins and circle the shell midden complex (insert map courtesy Coega Industrial Development Corporation).