

**Heritage Impact Assessment for the Proposed Landside Infrastructure Development at
Berth 203 to 205**

Port of Durban
Kwazulu-Natal
South Africa

ACHA

**AFRICAN CENTRE FOR
HERITAGE ACTIVITIES**

REVISED MARITIME AND UNDERWATER HERITAGE IMPACT ASSESSMENT FOR THE DEVELOPMENT OF A CONTAINER TERMINAL AT PIER 1, PHASE 2, PORT OF DURBAN, KWAZULU-NATAL, SOUTH AFRICA

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Declaration:

I, Vanessa Maitland, declare that I have no financial or personal interest in the proposed development, nor its developers or any of their subsidiaries, apart from the provision of heritage assessment and management services.



Vanessa Maitland
Maritime Archaeologist
16-02-2016

EXECUTIVE SUMMARY

Since the original terminal was constructed in the 1970s, vessel sizes have increased, Berth 203 to 205 cannot safely accommodate fully laden new generation container vessels due to the shallow water depth at these berths. Presently, these vessels enter and exit the Port partially laden, during the high tide window. These operating conditions are not safe and there is a risk that vessels could run aground. Transnet National Ports Authority (TNPA) has proposed the deepening, lengthening and widening of Berth 203 to 205 in order to improve the safety of the berths and to improve the efficiency of the Port." (<http://www.berth203to205expansionieia.co.za>)

Due to the above, authorised on 21 January 2015, Transnet Port Terminal (TPT) has recognised the need for new landside infrastructure and facilities to replace facilities that will be demolished on the existing quay walls.

The activities that could impact on the cultural heritage are the following:

- A new central mess and ablution facility at Berth 203;
- A new satellite facility at Berth 205;
- A new north substation located at Berth 205;
- A new east substation located south-east of Berth 203; and
- Associated infrastructure such as sewer, stormwater, high mast lighting, tunnels and Close Circuit Television (CCTV).

The aim of the survey was to attempt to locate, identify, evaluate and document potential cultural heritage sites within the designated area.

This report consists of two sections

1. Desktop study, consisting of a history of the area
2. Limited site survey (low resolution survey strategy designed to target the identification of archaeological sites in a delimited area), consisting visiting the site and a photographic record of the delimited sites.

Due to the nature of the archaeological record (i.e. normally being buried), while potential sites can be identified through the above process, it is probable that additional sites will be uncovered during development. Therefore, for the project to be completed, the following measures should be implemented:

- The management measures, Section 7, should be implemented during the work. Sites uncovered during the work to be dealt with on an *ad hoc* basis
- No impact on heritage sites will be allowed without the appropriate Amafa permit

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GLOSSARY OF TERMS AND ACRONYMS

TERMS

Amafa	Provincial Heritage Agency for KwaZulu-Natal
Impact Zone	Area within the Durban Container Terminal (Figure 1) that is to be developed

ACRONYMS

ASAPA	Association of Southern African Professional Archaeologists
EIA	Environmental Impact Assessment
HIA	Heritage Impact Assessment
NHRA	National Heritage Resources Act (No. 25 of 1999)
SAHRA	South African Heritage Resources Agency
TNPA	Transnet National Ports Authority

1. INTRODUCTION

Since the original terminal was constructed in the 1970s, vessel sizes have increased, Berth 203 to 205 cannot safely accommodate fully laden new generation container vessels due to the shallow water depth at these berths. Presently, these vessels enter and exit the Port partially laden, during the high tide window. These operating conditions are not safe and there is a risk that vessels could run aground. Transnet National Ports Authority (TNPA) has proposed the deepening, lengthening and widening of Berth 203 to 205 in order to improve the safety of the berths and to improve the efficiency of the Port.” (<http://www.berth203to205expansionieia.co.za>)

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- A new central mess and ablution facility at Berth 203;
- A new satellite facility at Berth 205;
- A new north substation located at Berth 205;
- A new east substation located south-east of Berth 203; and
- Associated infrastructure such as sewer, storm water, high mast lighting, tunnels and Close Circuit Television (CCTV).

The aim of the survey was to attempt to locate, identify, evaluate and document potential cultural heritage sites within the designated area.

The development of the infrastructure at Berths 203 – 5, in the Durban Harbour, could potentially uncover archaeological sites that have buried under the infill (c. 1948). In addition, for the first time since its development in the 1940s, Salisbury Island is to be developed further, this construction could well uncover sites.

South Africa’s heritage resources comprise a wide range of sites, features, objects and beliefs. According to Section 27(18) of the National Heritage Resources Act (No. 25 of 1999) (NHRA), no person may destroy, damage, deface, excavate, alter, remove from its original position, subdivide or change the planning status of any heritage or archaeological site without a permit issued by the heritage resources authority responsible for the protection of such site.

Therefore, in accordance with the NHRA, an independent archaeologist was appointed to conduct a Heritage Impact Assessment (HIA) to determine the potential sites, to assess their significance and to consider mitigation of negative impacts.

This HIA report is one section of the Environmental Impact Assessment (EIA) as required by the EIA Regulations in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and is intended for submission to SAHRA/Amafa.

2. TERMS OF REFERENCE

The aim of this HIA is to determine if any sites, features or objects of cultural heritage significance exist within the defined areas.

The scope of work consisted of the following:

- Desktop study, an assessment of the history of Salisbury Island as it pertains to potential heritage sites in the area ascertained through study of available written and oral resources
- Identify the potential for heritage sites

The objectives were to:

- Identify potential sites within the designated area
- Evaluate the potential impact of construction on land heritage resources
- Recommend measures to mitigate any negative impacts on sites in the designated area

3. HERITAGE RESOURCES

3.1. The Legislation

According to Section 32 (1) of the NHRA (No. 25 of 1999), heritage objects consist of:

“An object or collection of objects, or a type of object or list of objects, whether specific or generic, that is part of the national estate and the export of which SAHRA deems it necessary to control, may be declared a heritage object, including— (a) objects recovered from the soil or waters of South Africa, including archaeological and paleontological objects, meteorites and rare geological specimens.”

The Act further stipulates that the term “archaeological” includes:

“wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the Republic, as defined respectively in sections 3, 4 and 6 of the Maritime Zones Act, 1994 (Act No. 15 of 1994), and any cargo, debris or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation.”

Section 35 of the Act states:

“(1) Subject to the provisions of section 8, the protection of archaeological and palaeontological sites and material and meteorites is the responsibility of a provincial heritage resources authority: Provided that the protection of any wreck in the territorial waters and the maritime cultural zone shall be the responsibility of SAHRA.

(2) Subject to the provisions of subsection (8)(a), all archaeological objects, palaeontological material and meteorites are the property of the State. The responsible heritage authority must, on behalf of the State, at its discretion ensure that such objects are lodged with a museum or other public institution that has a collection policy acceptable to the heritage resources authority and may in so doing establish such terms and conditions as it sees fit for the conservation of such objects.

(3) Any person who discovers archaeological or palaeontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority, or to the nearest local authority offices or museum, which must immediately notify such heritage resources authority.

(4) No person may, without a permit issued by the responsible heritage resources authority—

(a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;

(b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;”

(c) trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or

(d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.”

Furthermore Section 38 of the Act states:

“(1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as—

(a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;

(b) the construction of a bridge or similar structure exceeding 50 m in length;

(c) any development or other activity which will change the character of a site—

(i) exceeding 5 000 m² in extent; or

(ii) involving three or more existing erven or subdivisions thereof; or

- (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
 - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
 - (d) the re-zoning of a site exceeding 10 000 m² in extent; or
 - (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.
- (2) The responsible heritage resources authority must, within 14 days of receipt of a notification in terms of subsection (1)—
- (a) if there is reason to believe that heritage resources will be affected by such development, notify the person who intends to undertake the development to submit an impact assessment report. Such report must be compiled at the cost of the person proposing the development, by a person or persons approved by the responsible heritage resources authority with relevant qualifications and experience and professional standing in heritage resources management; or
 - (b) notify the person concerned that this section does not apply.
- (3) The responsible heritage resources authority must specify the information to be provided in a report required in terms of subsection (2)(a): provided that the following must be included:
- (a) The identification and mapping of all heritage resources in the area affected;
 - (b) an assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 6(2) or prescribed under section 7;
 - (c) an assessment of the impact of the development on such heritage resources;
 - (d) an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development;
 - (e) the results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources;
 - (f) if heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and
 - (g) plans for mitigation of any adverse effects during and after the completion of the proposed development.
- (4) The report must be considered timeously by the responsible heritage resources authority which must, after consultation with the person proposing the development, decide—
- (a) whether or not the development may proceed;
 - (b) any limitations or conditions to be applied to the development;
 - (c) what general protections in terms of this Act apply, and what formal protections may be applied, to such heritage resources;
 - (d) whether compensatory action is required in respect of any heritage resources damaged or destroyed as a result of the development; and
 - (e) whether the appointment of specialists is required as a condition of approval of the proposal.
- (5) A provincial heritage resources authority shall not make any decision under subsection (4) with respect to any development which impacts on a heritage resource protected at national level unless it has consulted SAHRA.
- (6) The applicant may appeal against the decision of the provincial heritage resources authority to the MEC, who—
- (a) must consider the views of both parties; and
 - (b) may at his or her discretion—
 - (i) appoint a committee to undertake an independent review of the impact assessment report and the decision of the responsible heritage authority; and
 - (ii) consult SAHRA; and
 - (c) must uphold, amend or overturn such decision.
- (7) The provisions of this section do not apply to a development described in subsection (1) affecting any heritage resource formally protected by SAHRA unless the authority concerned decides otherwise.
- (8) The provisions of this section do not apply to a development as described in subsection (1) if an evaluation of the impact of such development on heritage resources is required in terms of the Environment Conservation Act, 1989 (Act No. 73 of 1989), or the integrated environmental management guidelines issued by the Department of Environment Affairs and Tourism, or the Minerals Act, 1991 (Act No. 50 of 1991), or any other legislation: Provided that the consenting authority must ensure that the evaluation fulfils the requirements of the relevant heritage resources authority in terms of

subsection (3), and any comments and recommendations of the relevant heritage resources authority with regard to such development have been taken into account prior to the granting of the consent.

(9) The provincial heritage resources authority, with the approval of the MEC, may, by notice in the *Provincial Gazette*, exempt from the requirements of this section any place specified in the notice.

(10) Any person who has complied with the decision of a provincial heritage resources authority in subsection (4) or of the MEC in terms of subsection (6) or other requirements referred to in subsection (8), must be exempted from compliance with all other protections in terms of this Part, but any existing heritage agreements made in terms of section 42 must continue to apply.”

3.2. Conclusion – The legislation in terms of the project

There is extensive national legislation covering heritage and archaeological sites. Within the scope of this project, Section 38 of the NHRA (25 of 1999), states that an assessment of potential heritage resources in the development area needs to be done. This is the purpose of the desktop study and the limited site survey. These processes identify potential sites. If a potential site is uncovered during the work, an archaeologist needs to be contacted to assess the find. Thereafter, in conjunction with Amafa, a decision will be made regarding the significance of the site. If it is deemed to be culturally significant, the contractor can apply to the provincial heritage authority for a permit for removal, excavation or destruction in terms of Section 35 of the NHRA.

4. STUDY APPROACH AND METHODOLOGY

4.1. Extent of the Assessment

This survey and impact assessment is concerned with archaeological sites and covers the area as described in Section 5.

4.2. Methodology

4.2.1. Desktop Survey

With regard to the history of Salisbury Island, the report highlights the potential for heritage sites and informs as to the type of potential sites that may be uncovered.

Limitations

- The history is a research tool that is constantly evolving as information is uncovered and added. In respect of archaeological sites, the nature of the archaeological record is that the sites are buried and therefore the report can only serve as a guide.

4.2.2. Limited Site Survey

The impact zone was visited. The areas were examined for potential archaeological sites. Photographs of the three areas were taken.

Limitations

- It is a built environment with extensive paved areas, in the form of the quayside.
- The entire area was reclaimed from the sea and raised up a further three metres above sea level when the berths were built in the 1970s, resulting in potential archaeological sites being covered by an overburden of landfill. This landfill, may itself, contain out of context archaeological material.

5. DESCRIPTION OF THE AFFECTED ENVIRONMENT

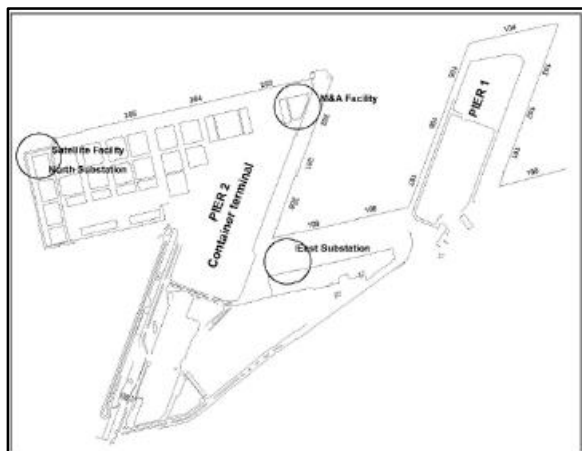


Figure 1: Berth 203 – 205: Impact Areas (Nemai 2016)

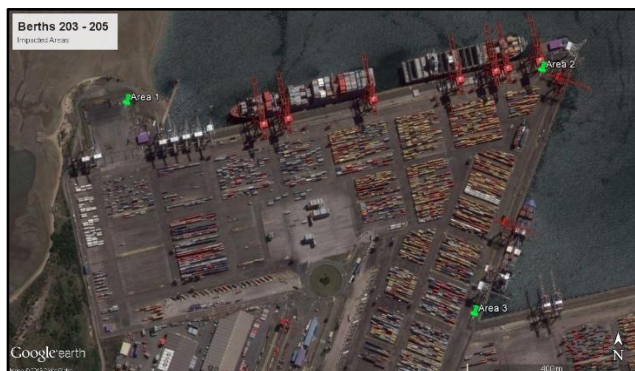


Figure 2: Berths 203 – 205 Google Earth Image of Impact Areas 1 – 3 (2016)

According to Nemai's (2016) brief to the heritage consultants, the above 3 areas are the only areas that will be affected by the infrastructure development.

6. DESKTOP SURVEY

Berths 203 – 205 were constructed in the 1970s (<http://www.berth203to205expansionieia.co.za>) and as such are a maximum of 45 years old. As such, these structures are not protected under the heritage laws and do not form a part of the HIA, however the areas still form a part of the limited site survey, in the interests of thoroughness.

Lieutenant King records between seven and nine islands in the bay (Figure 3). The two that are of interest to us here are Salisbury Island and Farewell Island. These were the two largest islands and King initially named the first island after himself and the second after Francis Farewell. King Island was later changed to Salisbury Island after the brig. The *Salisbury* was the vessel that King captained when he mapped the bay in 1823 (Pearson 1995).

Historically, Salisbury Island had dense mangrove swamps to the west and tidal mud flats to the south. This explains why activities on the Island were focused in the north and east, exactly in the vicinity of Area 3 (Figure 2). Historically, Farewell Island seems only to have been used for recreational purposes. One possible reason for this state of affairs may be the thick mangroves on the island as can be seen in Figure 8.

As can be seen from Figures 3 – 6, Area 3 (Figure 2), falls on the north-west edge of the historic Salisbury Island. Therefore, the history of the island needs to be considered in this HIA. In addition, the geo-rectified overlay places Farewell Island at a 90° angle to Salisbury Island and apparently nowhere near Pier 2. However, Figures 7 – 8 show that some of Farewell Island actually runs under what is Pier 2 and the Container Terminal today.

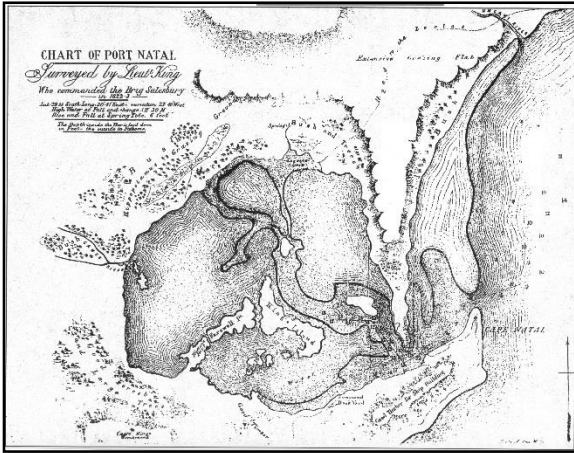


Figure 3: Lieutenant King's 1823 chart of the Bay (in Pearson 1995)

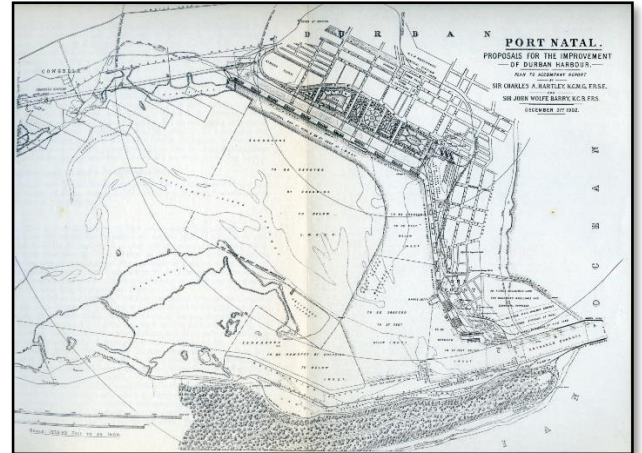


Figure 4: 1902 Map of Durban Harbour showing the undeveloped Salisbury Island (in Pearson 1995)

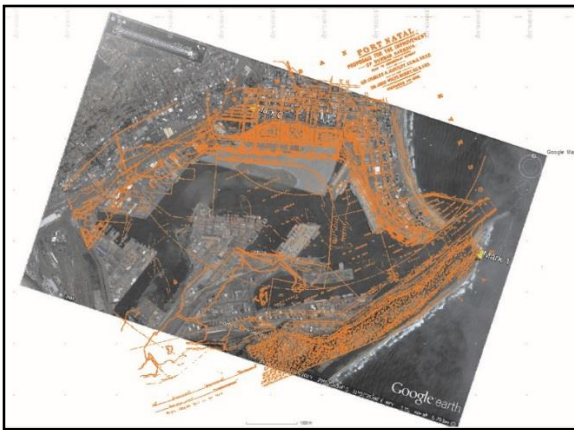


Figure 5: Overlay of the 1902 map onto a Google Earth image



Figure 6: Salisbury Island shape on Google Earth image.



Figure 7: Harbour Engineer's Drawing of 1967 (In: Pearson 1995)



Figure 8: A photograph from 1946, after the completion of the Naval Base. The causeway and Farewell Island can be seen in the background (In Pearson 1995)

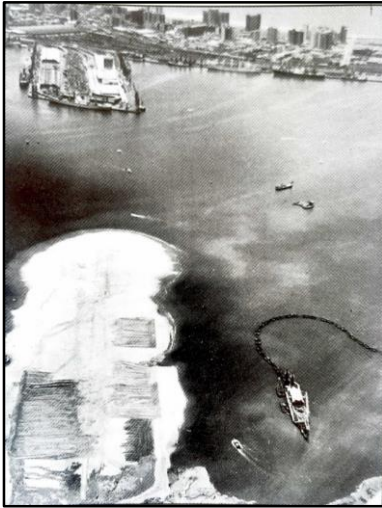


Figure 9: The beginning of the reclamation work for Pier 1, before the quay wall caissons had been placed (In: Pearson 1995)



Figure 10: Dated 1974, this photograph shows the beginning of reclamation work on Pier 2 (Local History Museum. In: Pearson 1995)

Table 1: Timeline of use of the islands

Salisbury Island			
1861 onwards	<ul style="list-style-type: none"> Indian immigrants used the area for fishing; cleaning, drying and smoking fish here. These were sugar workers that fished at night to supplement their wages Indian immigration quarantine station established Indian fishermen build their 'banana' boats on the shore of the Island 	Eastern end	
The 1865	<ul style="list-style-type: none"> Some Indian immigrants may have settled here on a permanent basis and fished 		
1870	<ul style="list-style-type: none"> Salisbury Island becomes the headquarters for the first commercial fishing industry by the Indian seine-netters 		
1900	<ul style="list-style-type: none"> After a lengthy battle between the colonial authorities and the fisherman, the Indian fishing industry is completely removed from the Island 		
Early 1900's	<ul style="list-style-type: none"> Slipway- 200 ton lifting capacity 	Eastern end	Construction of hardwood piles
	<ul style="list-style-type: none"> Jetty 		Wood
	<ul style="list-style-type: none"> Sandpiper dredged a channel – Spoil dumped on Island to fill low lying areas 		
1918 – late 1940s	<ul style="list-style-type: none"> Quarantine station re-established on the Island for the Spanish flu victims from the ship <i>SS Dongola</i> and an outbreak of bubonic plague 		
1800's – 1960	<ul style="list-style-type: none"> Picnickers, swimmers 		
	<ul style="list-style-type: none"> Holiday homes for the city's wealthy 		On piles – wooden structure?
1930's	<ul style="list-style-type: none"> Imperial Airways moored flying boats to buoys close to the Island. There was also a ramp leading to a large hanger to which the planes were towed for maintenance 	North side	12 Flying boat moorings
1941 - 1947	<ul style="list-style-type: none"> British Royal Navy takes over control of the Island. Construction of causeway to Island from Fynnlands, including railway lines The level of the Island was raised by three metres Naval base construction started with wharves, workshops, etc. 		

	<ul style="list-style-type: none"> Floating dock and floating crane installed 		
1948	<ul style="list-style-type: none"> SA Navy takes over the base as its first permanent home 		
1957	<ul style="list-style-type: none"> SA Navy moves its headquarters from the Island to Simonstown 		
1960's	<ul style="list-style-type: none"> Reclamation of area between Fynnlands Beach and Salisbury Island 		
1969	<ul style="list-style-type: none"> Pier No 1 completed – Construction was commenced by situating large concrete caissons as the quaysides and filling the space with dredged sand spoil. All recreational use of the Island ends 		
Farewell Island			
Up to 1960s	<ul style="list-style-type: none"> Popular picnic spot and meeting point for water sport enthusiasts. 		
1959	<ul style="list-style-type: none"> 330 acres to the west of the Salisbury Island causeway are reclaimed 		
1974 – 1977	<ul style="list-style-type: none"> Construction of Pier 2 on Farewell Island; the two piers are connected by a crossberth. 		

Developers dumped spoil and fill material onto the islands, raising their level by three metres.

Therefore, it is unlikely that the 21st century developers will find contextually significant artefacts within the first two to three metres of the Island's soil strata. However, historical records are notoriously inaccurate and the developers will need to be acutely aware that the islands, particularly Salisbury Island has a rich history, often utilised by those on the 'fringes' of society and the developers may well come across heritage sites. In particular, if the development goes below two to three meters, there is a high chance of finding heritage sites and if this occurs, development needs to be halted and an archaeologist called to evaluate the finds.

7. LIMITED SITE SURVEY

On 12 February 2016, I conducted a limited site survey of the three areas identified by Nemaï (Figure 2)

7.1. Photographic Record

7.1.1. Area 1



Figure 11: Area 1, facing north (Maitland: 2016)



Figure 12: Area 1, facing west (Maitland: 2016)



Figure 13: Area 1, facing south (Maitland: 2016)



Figure 14: Area 1, facing east (Maitland: 2016)

There are no heritage sites above the present-day surface level. However, according to Nema (2016), this area has been selected for the development of the satellite staff facility and the north substation.

- The construction of the satellite staff facility is described as "... a two storey ... a concrete framed structure incorporating non load bearing brickwork as cladding and partitions. It comprises of a reinforced concrete first floor slab and a roof supported on a concrete ring beam".

There is no mention of foundations, therefore if it is to be built directly on the present-day surface. If foundations are to be dug, then the **Recommended Management Measures** apply.

- The construction of the north substation is described as "...a three storey facility ... will be a concrete framed structure with face brick infill and an aluminium sheeted roof. ...The transformers are placed on concrete plinths. ...A typical section of the North Substation is provided below" The section drawing shows piles into the substrate, below the present ground level. Due to this as well as the associated infrastructure, such as sewers, grey water systems, water piping and communication cables, that require excavation, developers are to follow the **Recommended Management Measures**.

7.1.2. Area 2



Figure 15: Area 2, facing west (Maitland 2016)



Figure 16: Area 2, facing south (Maitland 2016)



Figure 17: Area 2, facing east (Maitland 2016)

There are no heritage structures or features above the present-day surface level. However, according to Nemaï (2016), this area has been selected for the development of the mess and ablution facility. This is described as a “...five storey facility due to the limited site space... Due to the geotechnical conditions and high column loads, the facility will have piled foundations”.

Due to this piling, the **Recommended Management Measures** apply.

7.1.3. Area 3

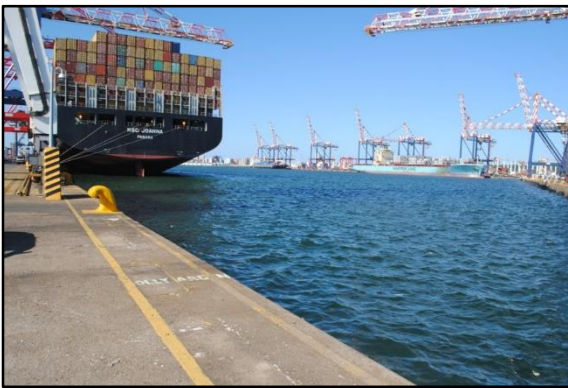


Figure 18: Area 3, facing north (Maitland 2016)



Figure 19: Area 3, facing west (Maitland 2016)

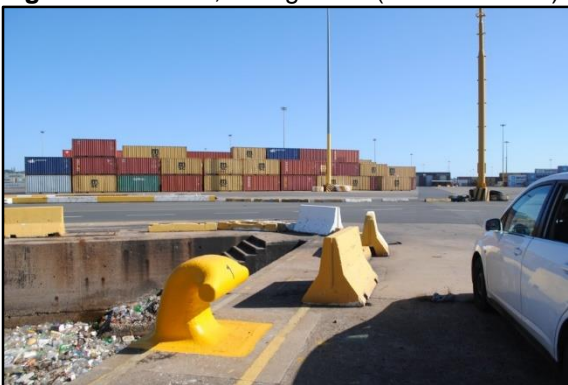


Figure 20: Area 3, facing south (Maitland 2016)

There are no heritage sites above the present-day surface level. However, below the present-day level is part of the historic Salisbury Island. According to Nemaï (2016), this area has been selected for the development of the east substation. This is described the same as the north substation, as “...a three storey facility ... will be a concrete framed structure with face brick infill and an aluminium sheeted roof. ...The transformers are placed on concrete plinths. ...A typical section of the North Substation is provided below” The section drawing shows piles into the substrate, below the present ground level. Due to this as well as the associated infrastructure, such as sewers, grey

water systems, water piping and communication cables, that require excavation, developers are to follow the **Recommended Management Measures**.

Conclusion

During a limited site survey in a built environment, archaeologists search for the following evidence:

- Earthworks (an earthen feature in the landscape that results from human activity e.g. embankments, etc.), older than the surrounding structures
- Features (non-movable artefacts or traces of past human activity, e.g. hearths, walls, foundations or storage pits), older than the surrounding structures and features
- Artefacts (ceramics, glass, stone tools, iron objects and other cultural objects, older than 60 years); these may either present in a widespread scatter or as part of a midden zone.
- Graves (these maybe indicated by a sunken area within the broader landscape or have pioneer plants on them – pioneer plants take root in disturbed soil and benefit from increased soil nutrition)

Due to the limitations stated above (Section 4.2.2), I found no overt evidence of archaeological sites within the impact zone. In addition, according to the historiography of the area as stated in Section 6, it is unlikely that the developers will find any archaeologically significant sites until development excavations begin.

THEREFORE

If the development goes below two to three meters, there is a high chance of finding heritage sites and if this occurs, development needs to be halted and an archaeologist called to evaluate the finds.

8. SITE SIGNIFICANCE AND ASSESSMENT

8.1. Heritage Assessment Criteria and Grading

According to the NHRA, No. 25 of 1999, Section 2(vi), the *significance* of heritage sites and artefacts is determined by its aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technical value in relation to the uniqueness, condition of preservation and research potential.

The NHRA stipulates the assessment criteria and grading of archaeological sites. The following categories are distinguished in Section 7 of the Act:

- **Grade I:** Heritage resources with qualities so exceptional that they are of special national significance;
- **Grade II:** Heritage resources which, although forming part of the national estate, can be considered to have special qualities which make them significant within the context of a province or a region; and
- **Grade III:** Other heritage resources worthy of conservation, on a local authority level.

The occurrence of sites with a Grade I significance will demand that the development activities be drastically altered in order to retain these sites in their original state. For Grade II and Grade III sites, the application of mitigation measures would allow the development activities to continue.

A matrix was developed whereby the above criteria, as set out in Sections 3(3) and 7 of the NHRA, No. 25 of 1999, were applied for each identified site (see Appendix D). This allowed some form of control over the application of similar values for similar sites.

9. RECOMMENDED MANAGEMENT MEASURES

Heritage sites are fixed features in the environment, occurring within specific spatial confines. Any impact upon them is permanent and non-reversible. Those resources that cannot be avoided and that are directly impacted by the proposed development can be excavated / recorded and a management plan can be developed for future action. Those sites that are not impacted on can be written into the management plan, whence they can be avoided or cared for in the future.

9.1. Objectives

- Protection of heritage sites within the project boundary against vandalism, destruction and theft.
- The preservation and appropriate management of new discoveries in accordance with the NHRA, should these be discovered during development activities.

The following shall apply:

- The Environmental Control Officer should be given a short induction, by the heritage practitioners, on archaeological site and artefact recognition.
- The contractors and workers should be notified that archaeological sites might be exposed during the construction activities.
- Should any heritage artefacts be exposed during excavation, work on the area where the artefacts were discovered, shall cease immediately and the Environmental Control Officer shall be notified as soon as possible;
- All discoveries shall be reported immediately to a heritage practitioner so that an investigation and evaluation of the finds can be made. Acting upon advice from these specialists, the Environmental Control Officer will advise the necessary actions to be taken;
- Under no circumstances shall any artefacts be removed, destroyed or interfered with by anyone on the site; and
- Contractors and workers shall be advised of the penalties associated with the unlawful removal of cultural, historical, archaeological or palaeontological artefacts, as set out in the NHRA (Act No. 25 of 1999), Section 51. (1).

9.2. Control

In order to achieve the above, the following should be in place:

- A person or entity, e.g. the Environmental Control Officer, should be tasked to take responsibility for any heritage sites that may be uncovered and should be held accountable for any damage. This person must take responsibility to contact the heritage practitioner to assess any sites uncovered during the project.

10. CONCLUSIONS

The aim of the survey was to locate, identify, evaluate and document archaeological sites found within the impact zone in which it is proposed to develop, in order to increase the capacity and efficiency of the Port of Durban.

The archaeological sites may exist are under meters of overburden. It is often only during the construction phase that these sites are revealed. The heritage resources legislation associated with cultural heritage grades the significance of the site after it has been uncovered as outlined in Section 8, and thus sites will have to be evaluated on an *ad hoc* basis.

This impact assessment focuses on designated sections of the South African Naval Base.

Based on the study, it is our conclusion that:

- Although there were no overt archaeological sites visible during the limited site survey, there may be an unknown number of archaeological sites, under the overburden, on the land that was previously Salisbury and Farewell Islands.
- From a heritage point of view, work can continue as long as the mitigation measures are implemented.
- No impact on heritage sites, features or objects can be allowed without a valid permit from Amafa.

REFERENCES:**Legal Sources:**

National Environmental Management Act, 1998 (Act No. 107 of 1998)
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APPENDIX I: CONVENTIONS USED TO ASSESS THE IMPACT OF PROJECTS ON HERITAGE RESOURCES**Significance**

According to the NHRA, Section 2(vi) the **significance** of heritage sites and artefacts is determined by its aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technical value in relation to the uniqueness, condition of preservation and research potential. It must be kept in mind that the various aspects are not mutually exclusive, and that the evaluation of any site is done with reference to any number of these.

Matrix used for assessing the significance of each identified site/feature

1. Historic value

- Is it important in the community, or pattern of history
- Does it have strong or special association with the life or work of a person, group or organisation of importance in history
- Does it have significance relating to the history of slavery

2. Aesthetic value

- Is it important in exhibiting particular aesthetic characteristics valued by a community or cultural group

3. Scientific value

- Does it have potential to yield information that will contribute to an understanding of natural or cultural heritage
- Is it important in demonstrating a high degree of creative or technical achievement at a particular period

4. Social value

- Does it have strong or special association with a particular community or cultural group for social, cultural or spiritual reasons

5. Rarity

- Does it possess uncommon, rare or endangered aspects of natural or cultural heritage

6. Representivity

- Is it important in demonstrating the principal characteristics of a particular class of natural or cultural places or objects
- Importance in demonstrating the principal characteristics of a range of landscapes or environments, the attributes of which identify it as being characteristic of its class
- Importance in demonstrating the principal characteristics of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province, region or locality.

7. Sphere of Significance	High	Medium	Low
International			
National			
Provincial			
Regional			
Local			
Specific community			

8. Significance rating of feature

1. Low
2. Medium
3. High

Significance of impact:

- low: where the impact will not have an influence on or require to be significantly accommodated in the project design
- medium: where the impact could have an influence which will require modification of the project design or alternative mitigation
- high: where it would have a "no-go" implication on the project regardless of any mitigation

Certainty of prediction:

- Definite: More than 90% sure of a particular fact. Substantial supportive data to verify assessment
- Probable: More than 70% sure of a particular fact, or of the likelihood of that impact occurring
- Possible: Only more than 40% sure of a particular fact, or of the likelihood of an impact occurring
- Unsure: Less than 40% sure of a particular fact, or the likelihood of an impact occurring

Recommended management action:

For each impact, the recommended practically attainable mitigation actions which would result in a measurable reduction of the impact, must be identified. This is expressed according to the following:

- 1 = no further investigation/action necessary
- 2 = controlled sampling and/or mapping of the site necessary
- 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary
- 4 = preserve site at all costs
- 5 = retain graves

Legal requirements:

Identify and list the specific legislation and permit requirements which potentially could be infringed upon by the proposed project, if mitigation is necessary.