



3 May 2017  
509310/42A

South African Heritage Resources Agency  
Via SAHRIS website

## Attention: Lesa la Grange

Dear Lesa

### Hermanus Fishing Harbour: Notification of Intent to Develop

The Coega Development Corporation (CDC), acting as implementing agent on behalf of the National Department of Public Works (NDPW), have appointed PRDW Consulting Port and Coastal Engineers (PRDW) as consultants to manage the repair, maintenance and upgrades of marine infrastructure at the Hermanus fishing harbour.

PRDW have appointed SRK Consulting (SRK) to identify and undertake the environmental approval and permitting processes required for the proposed works, which will be undertaken as part of the Operation Phakisa initiative.

The purpose of this letter is to:

- Provide a description of the proposed works at Hermanus Fishing Harbour;
- Confirm the need for an application in terms of Section 34 of the National Heritage Resources Act 25 of 1999 (NHRA) for repairs to structures older than 60 years;
- Confirm the need for an application in terms of Section 38 (2) of the NHRA; and
- Provide supporting information.

### 1. Proposed works at Hermanus Fishing Harbour

The proposed works at Hermanus fishing harbour include:

- Concrete repair and maintenance of existing marine structures;
- Maintenance and repair of quay furniture (bollards, fenders and tyres);
- Repair and maintenance of the harbour slipways including rails, cradles and winches;
- Removal of an abandoned vessel on the slipway side slip; and

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- Breakwater concrete cap repairs, and placement of additional concrete armour units at the end of the breakwater.

Additional details regarding each of these activities are provided in the Project Description attached as **Appendix A**. These works have not yet commenced.

## 2. Application in terms of Section 34 of NHRA

The proposed works include repairs to the *main breakwater, main quay, lead in jetty and breakwater jetty*, all of which are older than 60 years. As such, SRK believes a permit for repairs to these structures will be required, and will submit relevant information in support of such a permit application on the SAHRIS website. **Appendix B** provides additional information and photographs of the structures older than 60 years.

It is further proposed that a sunken fishing vessel be removed from the harbour. Information regarding the proposed fishing vessel (and confirmation that it is not older than 60 years) was previously submitted to your Department. A response was received on 25 November 2016 confirming that no application would be required for the removal of sunken fishing vessels at Hermanus harbour.

## 3. Application in terms of Section 38 of NHRA

The proposed repairs at Hermanus fishing harbour will not include any linear developments exceeding 300 m in length and will not require the rezoning or subdivision of any property, nor will an area exceeding 5 000m<sup>2</sup> in size be affected. The proposed works will all take place within the existing footprint of harbour infrastructure. Therefore, SRK does not anticipate that an application in terms of Section 38 of the NHRA will be required.

Should you have any queries or require any further information, please do not hesitate to contact the undersigned. Could you please ensure that all correspondence with regard to this application is addressed or copied to Sharon Jones at sjones@srk.co.za.

Yours faithfully,

**SRK Consulting (South Africa) (Pty) Ltd**

SRK Consulting - Certified Electronic Signature

The logo for SRK Consulting (South Africa) (Pty) Ltd, featuring the company name in a sans-serif font and a stylized signature in black ink.

509310/42856/Letter

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Sharon Jones, Pr.Sci.Nat, CEAPSA

Principal Environmental Scientist and Associated Partner

cc. Gus Hojem PRDW  
Maxwell Denga CDC

**Appendix A:**  
**Project Description**

## Professional Consultancy Services for Coastal Engineering Infrastructure Activities – Proclaimed Fishing Harbours Western Cape

### Project Descriptions

Hermanus Harbour

REV.02

03 February 2017



## Professional Consultancy Services for Coastal Engineering Infrastructure Activities – Proclaimed Fishing Harbours Western Cape

### Project Descriptions

Hermanus Harbour

S2042-1-TN-EN-004

03 February 2017

REV.	TYPE	DATE	EXECUTED	CHECK	APPROVED	CLIENT	DESCRIPTION / COMMENTS
00	A	04/10/2016	MGT	GPH			
01	C	2/11/2016	GPH				Updated work figures
02	C	18/11/2016	MGT	GPH			Update project description
03	C	03/02/2017	MGT	GPH			Update project description

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COEGA DEVELOPMENT CORPORATION  
South Africa



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## 1. INTRODUCTION

### 1.1 Project Background

The National Department of Public Works (NDPW) has appointed the Coega Development Corporation (CDC) as the implementing agents for the repair, maintenance and upgrade of the 13 proclaimed Western Cape fishing harbours. The 13 fishing harbours have been split into four separate work packages. PRDW have been appointed by CDC for the professional consulting services required to repair, maintain and upgrade the marine infrastructure for Work Package 1 and 2, which includes Hout Bay, Kalk Bay, Gordons Bay, Hermanus (Work Package 1), and Saldanha Bay and Pepper Bay (Work Package 2).

The following project description focuses on the work required for Hermanus Harbour as shown in Figure 1-1.



**Figure 1-1: Hermanus Harbour**

### 1.2 Scope of Work

PRDW have carried out a condition assessment of all marine infrastructure within the Hermanus harbour. The scope of work includes the following:

- Concrete repair and maintenance of existing marine structures;
- Maintenance and repair of quay furniture (bollards, fenders and access ladders);
- Repair and maintenance of the harbour slipway including rails, cradle and winch;
- Removal of an abandoned vessel on the slipway side slip; and
- Reduce the flow of water through the breakwater by filling holes with mass concrete.





## 2. HERMANUS HARBOUR SCOPE OF WORKS

### 2.1 Harbour Description

The Hermanus harbour is situated on the southern coast approximately 100km south east of Cape Town. The anchor tenant used to be Lusitania Seafood, however this fish factory has closed and there are currently very few fishing vessels using the harbour. Three whale watching vessels operate out of the harbour during the whale season. Two commercial diving schools operate in the harbour and use the breakwater jetty. Trot moorings are available along the breakwater within the harbour basin. Figure 2-1 shows the Hermanus Harbour and the different marine structures associated with it.



**Figure 2-1: Hermanus Harbour Marine Structures**





A summary of the work required in Hermanus is shown in Figure 2-2.







**Figure 2-2:** Work required in Hermanus Harbour



## 2.2 Concrete repairs

Table 2-1 shows the typical concrete repair work required.

**Table 2-1: Concrete repair of infrastructure**

<p><u>Breakwater jetty</u> The two end raker piles of the breakwater jetty are cracked due to overloading and need to be repaired.</p>	
<p><u>Main quay</u> Cast a new concrete paving slabs behind the main quay.</p>	
<p><u>Lead-in jetty</u> Concrete repairs are required on the underside of jetties where the reinforcing steel is corroding and the concrete is spalling – typical of the breakwater and lead-in jetty.</p>	
<p><u>Lead-in jetty</u> As above</p>	





## 2.3 Bollards and Fenders

The bollards and fenders in Hermanus harbour are in need of repair and maintenance work. Table 2-2 illustrates the work that is required.

**Table 2-2: Existing quay furniture of Hermanus**





<p><u>Main quay</u> Fender fixings along the quay have corroded and need to be replacement. Damaged and missing tyres need to be replaced.</p>	
<p><u>Breakwater jetty</u> As above</p>	
<p><u>Lead-in jetty</u> Bollards need to be cleaned and painted. Corroded bollard holding down bolts must be replaced.</p>	



## 2.4 Slipway

Table 2-3 shows the work required on the slipway.

**Table 2-3: Slipway work required**


<p><u>Slipway cradle</u> Dismantle, clean and apply corrosion protection to the cradle structural steel.</p>	
<p><u>Bogie wheels</u> Some of the bogie wheels are worn and corroded and tend to jam during operation. All bogie wheels need to be removed, serviced and re-installed. Badly damaged bogie wheels will be replaced.</p>	
<p><u>Hydraulic supporting arms</u> Service the hydraulic arms and power pack.</p>	
<p><u>Slipway rails</u> Replace sacrificial anodes and damaged fixings.</p>	



## 2.5 Abandoned vessel

There is an abandoned vessel on the slipway side slip and it needs to be removed. Refer to Table 2-4.

**Table 2-4:** Abandoned fishing vessels

<p><u>Abandoned vessel on the side slip</u> This vessel needs to be removed. Details are as follows:</p> <ul style="list-style-type: none"><li>• Length = 15m</li><li>• Breadth = 5m</li><li>• Timber hull (abandoned since 2012)</li></ul> <p>*measurements are approximate.</p>	
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## 2.6 Breakwater Repairs

The Hermanus breakwater is generally in good condition, with minor repair work required. Refer to Table 2-5 for breakwater repairs.

**Table 2-5: Breakwater repair and maintenance work**

<p><u>Breakwater end</u> Additional Toskane concrete armour units are required at the end of the breakwater.</p>	
<p><u>Navigational light</u> The door of the breakwater navigational light needs to be replaced.</p>	
<p><u>Holes within breakwater</u> There is a significant flow of water through holes within the breakwater. These holes are to be grouted up with the use of underwater grout, grout bags and a dop pump. This repair work will not increase the footprint of the breakwater</p>	

## **Appendix B:**

### **Proposed works on structures older than 60 years**

## **Professional Consultancy Services for Coastal Engineering Infrastructure Activities – Proclaimed Fishing Harbours Western Cape**

### **Project Descriptions: Repairs and upgrades to structures older than 60 years**

Hermanus Harbour

REV.00

26 April 2017



COEGA DEVELOPMENT CORPORATION  
South Africa



## Professional Consultancy Services for Coastal Engineering Infrastructure Activities – Proclaimed Fishing Harbours Western Cape

### Project Descriptions: Repairs and upgrades to structures older than 60 years

Hermanus Harbour

S2042-1-TN-EN-204

26 April 2017

REV.	TYPE	DATE	EXECUTED	CHECK	APPROVED	CLIENT	DESCRIPTION / COMMENTS
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TYPE OF ISSUE: (A) Draft (B) To bid or proposal (C) For Approval (D) Approved (E) Void

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## 1. INTRODUCTION

### 1.1 Project Background

The National Department of Public Works (NDPW) has appointed the Coega Development Corporation (CDC) as the implementing agents for the repair, maintenance and upgrade of the 13 proclaimed Western Cape fishing harbours. The 13 fishing harbours have been split into four separate work packages. PRDW have been appointed by CDC for the professional consulting services required to repair, maintain and upgrade the marine infrastructure for Work Package 1 and 2, which includes Hout Bay, Kalk Bay, Gordons Bay, Hermanus (Work Package 1), and Saldanha Bay and Pepper Bay (Work Package 2).

The following project description focuses on the work required for Hermanus Harbour as shown in Figure 1-1.



**Figure 1-1: Hermanus Harbour**

### 1.2 Project General Scope of Work

PRDW have carried out a condition assessment of all marine infrastructure within the Hermanus harbour. The scope of work includes the following:

- Concrete repair and maintenance of existing marine structures;
- Maintenance and repair of quay furniture (bollards, fenders and access ladders);
- Repair and maintenance of the harbour slipway including rails, cradle and winch;
- Removal of an abandoned vessel on the slipway side slip;
- Maintenance dredging in the harbour basin if and where required; and
- Reduce the flow of water through the breakwater by filling holes with mass concrete.



## 2. HERMANUS HARBOUR SCOPE OF WORKS

### 2.1 Harbour Description

The Hermanus harbour is situated on the southern coast approximately 100km south east of Cape Town. The anchor tenant used to be Lusitania Seafood, however this fish factory has closed and there are currently very few fishing vessels using the harbour. Figure 2-2 Shows the Hermanus Harbour and the different marine structures associated with it.



**Figure 2-1: Hermanus Harbour Marine Structure**





The Hermanus harbour is primarily used by three whale watching vessels operate out of the harbour during the whale season. Two commercial diving schools operate in the harbour and use the breakwater jetty. Trot moorings are available along the breakwater within the harbour basin.

A summary of the repair and maintenance work required in Hermanus is shown in **Error! Reference source not found.**



**Figure 2-2: Work required in the Hermanus Harbour**



## 2.2 Structures older than 60 years

The following structures within the Hermanus Harbour are older than 60 years and are listed in Table 2-1.

**Table 2-1: Structures older than 60 years**

Hermanus Harbour	Length (m)	Built	Age	Source of information	Repaired
Breakwater	290	1940's	77	Hermanus History Society, Hermanus new harbour	2007 New armour units and new concrete cap.
Main Quay	140	1951	66		
Lead in jetty	57	1951	66		
Breakwater jetty	50	1951	66		

The proposed works on each of the above structures are provided below.

### 2.2.1 Breakwater

The breakwater is 290 m long and has been constructed as a thick insitu concrete cap on top of randomly placed concrete blocks as shown below. Toskane concrete armour units were placed along the seaward face in 2006/2007 for extra protection. Although the breakwater is generally in good condition there is a significant flow of water through the breakwater. This is a result of the very porous randomly packed blocks. This porosity adds to the high wave energy that is experienced in the harbour and is problematic for vessels moored in the harbour. Figure 2-2 Shows the main breakwater structure in the Hermanus Harbour. The following repair work is required:



**Figure 2-3: Main Breakwater Structure**

The Hermanus breakwater is generally in good condition, with minor repair work required. Refer to Table 2-2 for breakwater repairs.



**Table 2-2: Breakwater Repair Work**

<p><u>Breakwater end</u></p> <p>Additional Toskane concrete armour units are required at the end of the breakwater.</p>	
<p><u>Navigational light</u></p> <p>The door of the breakwater navigational light needs to be replaced.</p>	
<p><u>Holes within the route of the breakwater</u></p> <p>Grout holes along the route of the breakwater. This will involve the use of underwater grout, grout bags and a dop pump to pump the grout into the holes within the breakwater. The repair work will not increase the foot print of the breakwater.</p>	





## 2.2.2 Main Quay

The main quay is a 140 m long mass concrete blockwork gravity wall. The following repair work is required:

- Minor concrete repairs along the cope edge and capping;
- Replace badly corroded bollards;
- Replace corroded and missing fender fixings;
- Replace damaged and missing fenders; and
- Replace derrick quay crane.

Figure 2-4 shows the main quay structure in the Hermanus Harbour.







**Figure 2-4: Main Quay Structure**



Table 2-3 shows the typical concrete repair works required on the main quay, as well as the quay furniture which need repair and maintenance work.

Refer to Annexure B for additional figures of the Main Quay

**Table 2-3: Main Quay Repair Work**

<p><u>Concrete Repair</u> Concrete repairs along the concrete capping of the main quay (excessive cracking).</p>	
<p><u>Fenders and Fender Fixings</u> Fender fixings along the quay have corroded and need to be replaced. Damaged and missing tyres need to be replaced.</p>	
<p><u>Bollards</u> Bollards are in a state of disrepair and need to be replaced</p>	
<p><u>Derrick Quay Crane</u> The derrick crane has badly corroded and is not operable. The crane will be replaced with a similar derrick crane with a 7.5 tonne capacity.</p>	



### 2.2.3 Lead in jetty

The lead-in jetty is a 57 m long reinforced concrete deck-on-pile structure used for both whale watching vessels and as a lead-in for the slipway. The required repair work includes:

- Minor concrete repairs along the cope edge (end section);
- Concrete repairs on the underside of the jetty;
- Repair, clean and paint bollards;
- Replace corroded and missing fender fixings; and
- Replace damaged and missing fenders.





Figure 2-5 shows the lead in jetty structure in the Hermanus Harbour, whereas Table 2-4 shows the typical repair work required.



**Figure 2-5: Lead in Jetty Structure**



**Table 2-4: Lead-in Jetty Repair Work**

<p><u>Concrete repair to the underside of the jetty</u> Concrete repairs are required on the underside of jetty where the reinforcing steel is corroding and the concrete is spalling.</p>	
<p><u>Concrete repair to the underside of the jetty</u> As above</p>	
<p><u>Bollards</u> Bollards are in a state of disrepair and need to be replaced</p>	
<p><u>Fenders and Fender Fixings</u> Fender fixings along the jetty have corroded and need to be replaced. Damaged and missing tyres need to be replaced.</p>	

Refer to Annexure C for additional figures of the Lead-in Jetty.



## 2.2.4 Breakwater Jetty

The breakwater jetty is a 50 m long reinforced concrete deck-on-precaster pile structure and is currently being used by commercial diving schools. The required repair work includes:

- Repair of the cracks in the two end raker piles. These have been overstressed and have cracked along the top section of the pile;
- Concrete repairs on the underside of the jetty;
- The gap in the jetty deck expansion joint is widening. It is approximately 50mm wide. Further movement should be restrained by providing fixity across this joint;
- Replace corroded bollards;
- Replace corroded and missing fender fixings; and
- Replace damaged and missing fenders.

Figure 2-6 shows the breakwater jetty structure in the Hermanus Harbour, whereas Table 2-5 shows the typical concrete repair work required for the breakwater jetty.



**Figure 2-6: Breakwater Jetty Structure**

**Table 2-5: Breakwater Jetty Repair Work**

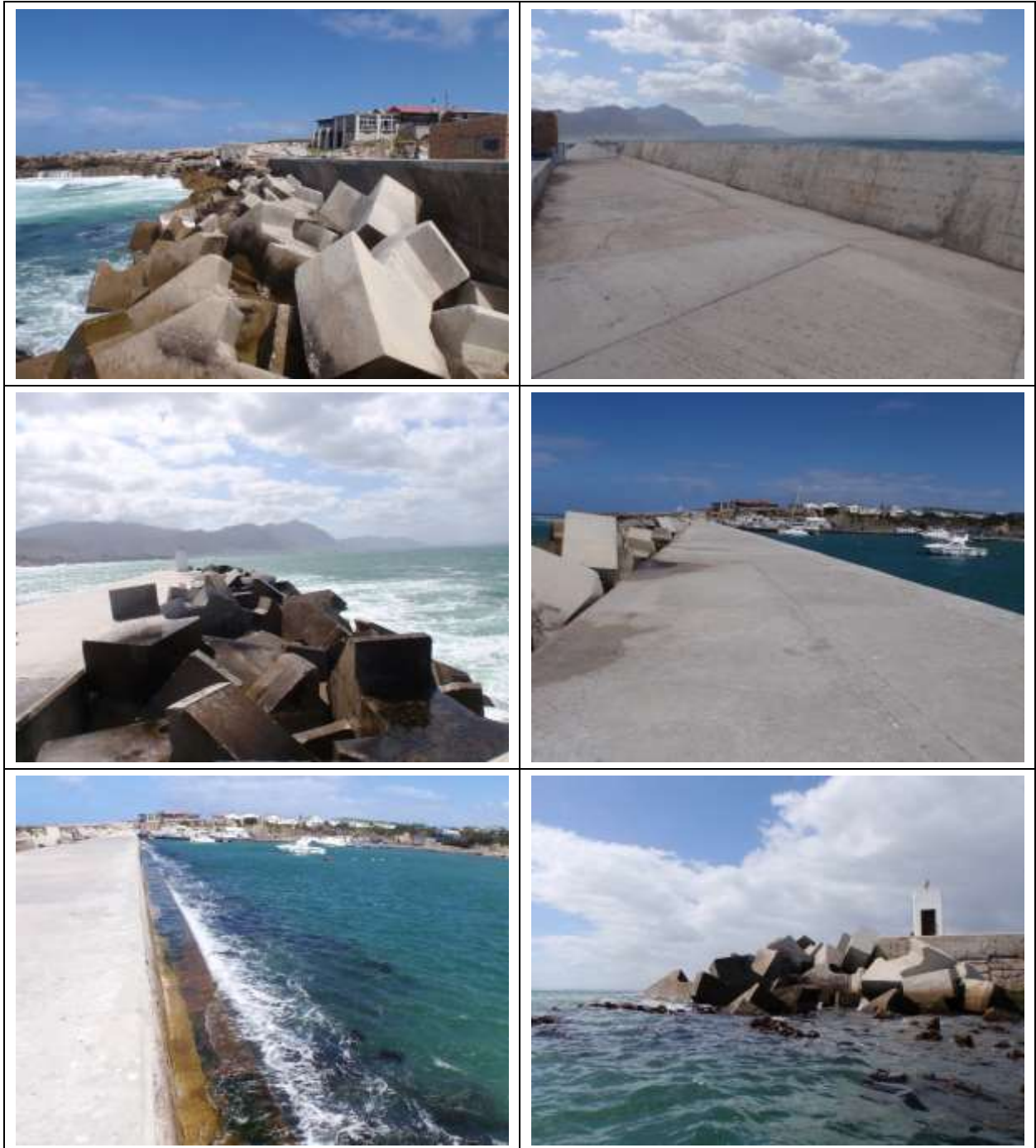
<p><u>End Raker Piles</u></p> <p>The two end raker piles of the breakwater jetty are cracked due to overloading and need to be repaired.</p>	
<p><u>Expansion Joint</u></p> <p>The expansion joint is separating and requires fixity along the joint.</p>	

Refer to Annexure D for additional figure of the Breakwater Jetty.





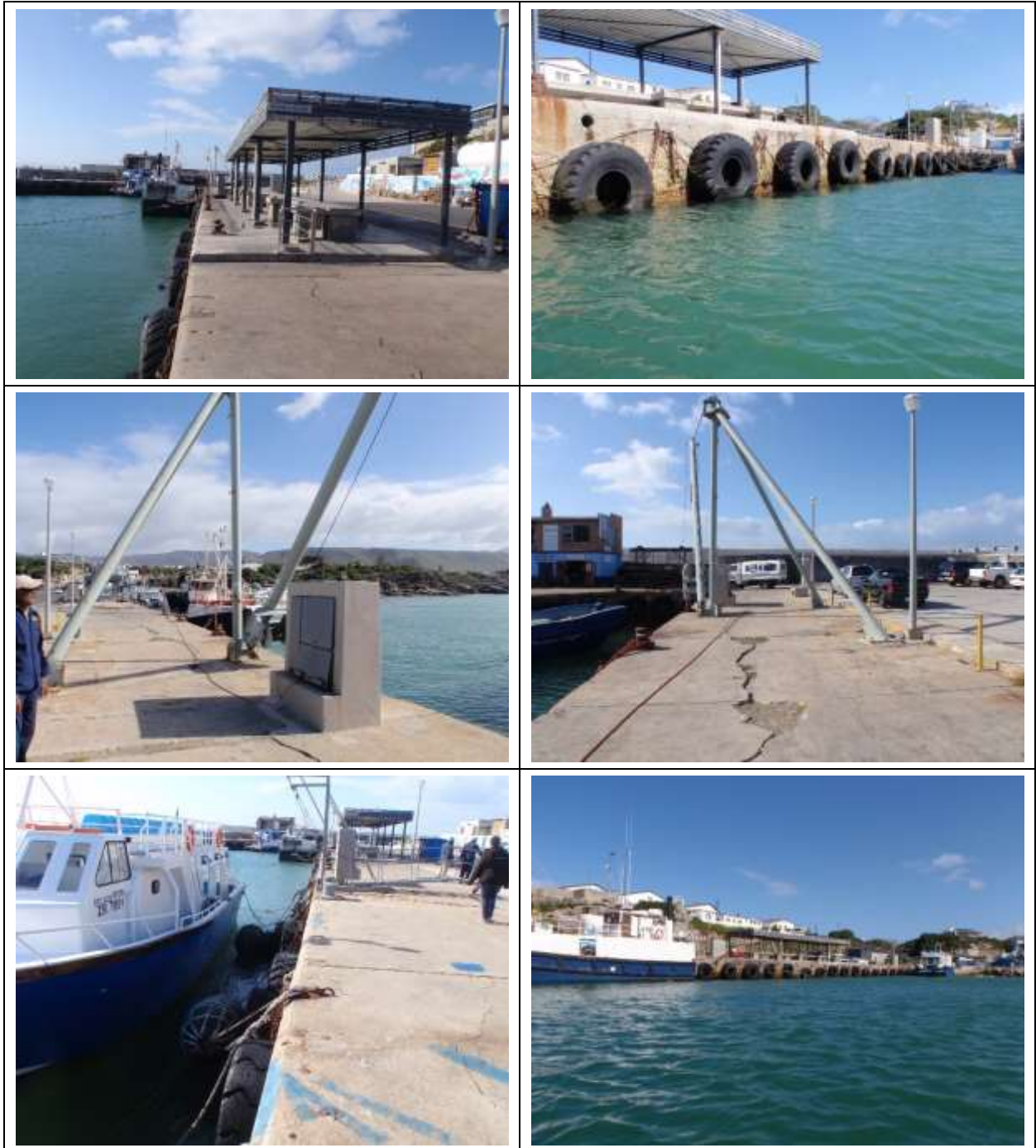
## ANNEXURE A | BREAKWATER – ADDITIONAL FIGURES







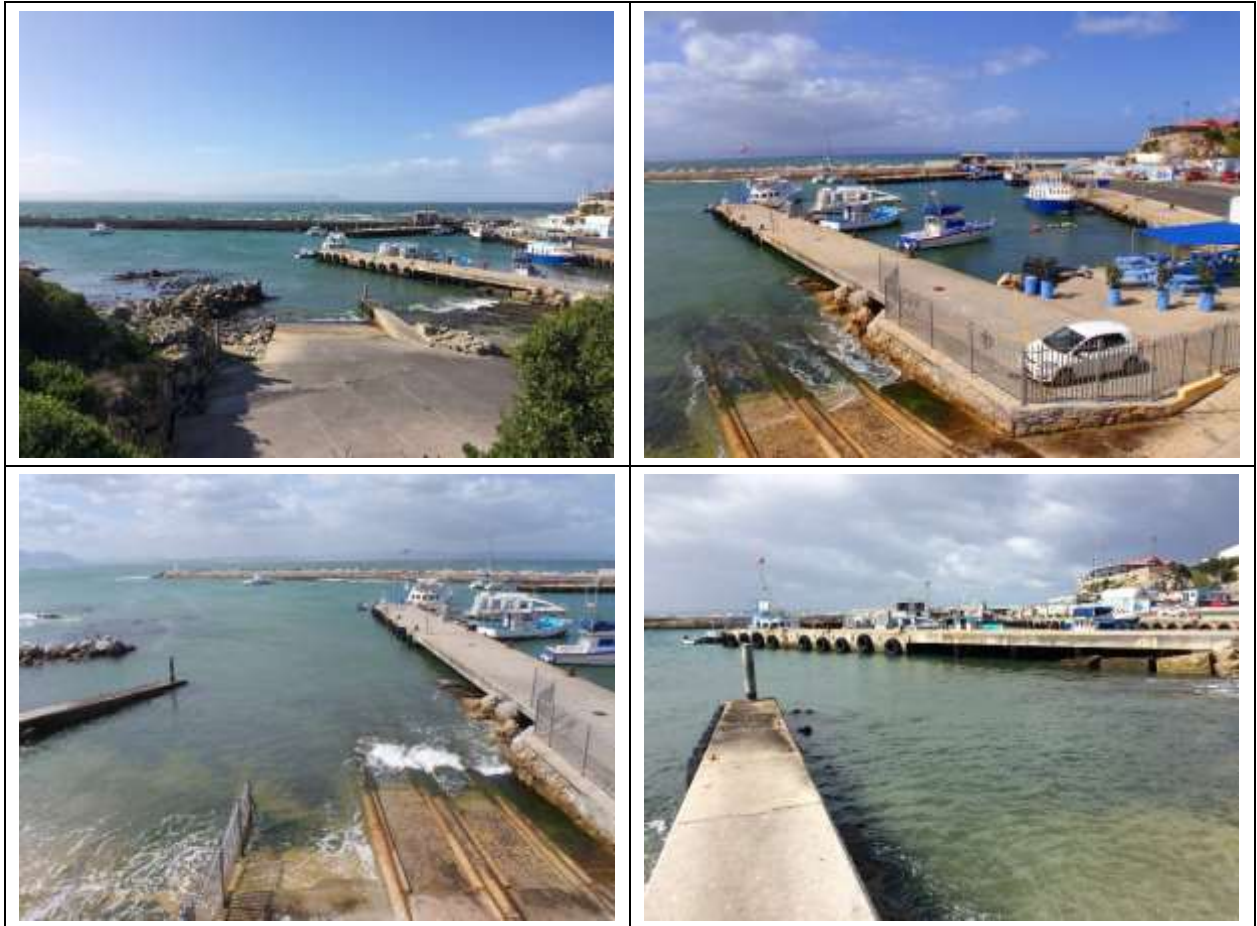
## ANNEXURE B | MAIN QUAY – ADDITIONAL FIGURES







## ANNEXURE C | LEAD IN JETTY – ADDITIONAL FIGURES







## ANNEXURE D | BREAKWATER JETTY – ADDITIONAL FIGURES

