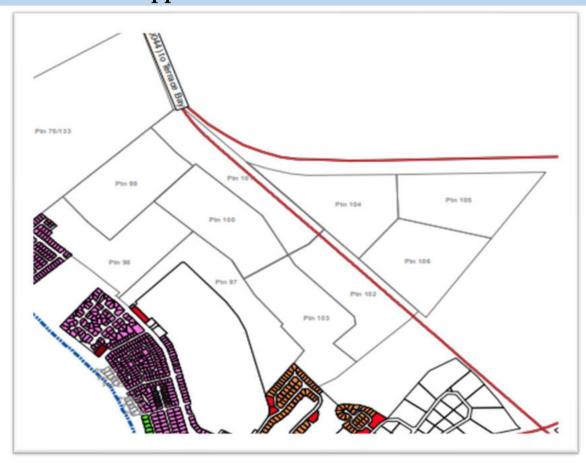
# ENVIRONMENTAL IMPACT ASSESSMENT REPORT FOR THE PROPOSED MIXED-LAND USE TOWNSHIP DEVELOPMENT; PORTION 100 OF HENTIES BAY TOWNLAND NO.133

## **FOR**

# KANDJUMBI CONSTRUCTION & PLUMBING CC P O Box 8270, Bachbrecht- Windhoek

## MEFT Application Reference #230917002119



April 2023

## PREPARED BY:

Erongo Consulting Group P.O Box 7143 Swakopmund, Namibia CLIENT NAME: KANDJUMBI CONSTRUCTION & PLUMBING CC, PO Box 8270,

Bachbrecht - 0000 Namibia

**ASSIGNMENT:** Conduct an Environmental Impact Assessment Study and Prepare an

EIA Study Report as required by the Environmental Management Act No 7 (2007) for the proposed Township development (mixed-land use)

o portion 100, Henties Bay Townland. No. 133

**REPORT TITLE:** Environmental Impact Assessment report for the proposed Township

development (mixed Land use) on portion 100 of Henties bay

Townland No. 133.

#### **EXPERT CERTIFICATION**

**Erongo Consulting Group cc**, a well-experienced registered EIA Lead expert company, primed this report. The report was prepared in accordance with Environmental Management Act, 2007 and the Environmental (Impact Assessment and Audit) Regulations, 2012 for submission to Ministry of Environment & Tourism, through the directorate of Environmental Affairs.

I certify that the report contains fair disclosure from the proponent, views of neighbours and recommendations to be undertaken by the proponent.

#### LEAD EXPERT

#### **ABRREVIATIONS**

	7. /	T = 1 = =
m -	IV	[etres

km - Kilometres

Ha - Hectare

TA - Trading as

bgl - below ground level

EIA - Environmental Impact Assessment

IEA - Initial Environmental Audit

**EMC** - Estate Management Company

EMP - Environmental Management Plan

BOD - Biochemical Oxygen Demand

COD - Chemical Oxygen Demand

IMCE-Inter-Ministerial Committee on Environment

KVA - Kilo Volts Amperes

LPG - Liquefied Petroleum Gas

**NEC-** National Environment Council

EMA - Environmental Management Act

NGOs-Non-Governmental Organizations

NPEP-National Poverty Eradication Plan

PEC - Poverty Eradication Commission

PPE - Personal Protective Equipment

EC - Environmental Commissioner

TOR - Terms of Reference

# **TABLE OF CONTENTS**

EXPERT CERTIFICATION	3
ABRREVIATIONS	4
EXECUTIVE SUMMARY	7
SECTION 1:	14
1.0 OBJECTIVES AND SCOPE OF THE EIA STUDY REPORT:	14
1.1 Screening to determine whether EIA is required:	14
1.2 Scoping:	14
1.3 The objectives (purpose and need) of the project:	14
SECTION 2:	15
2.0 POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK	15
2.1 General Overview	15
2.2 Policies	16
Environmental Assessment Practitioner (EAP)	18
SECTION 3:	19
3.0 PROJECT DESCRIPTION	19
3.1 The Proposed Project:	19
3.2 Project Design Considerations:	23
3.3 Site (Project) Activities during the Construction Phase:	24
3.4.1 Design of the Proposed Mixed-use development	39
3.4.2 Potential Negative Impacts and Mitigation Measures	39
3.5 Decommissioning of the project	43
3.6 Infrastructural Services: Sewerage Disposal:	44
SECTION 4:	49
4.0 ENVIRONMENTAL SETTING (Baseline information):	49
4.7 Waste Management and Pollution Prevention:	55
4.8 Air Resources:	56
4.9 Water Resources:	57
4.10 Topography:	57
4.10.1 Socio-Economic Environment:	57
4.10.2 Population and housing:	57
4.10.4 Transportation:	58

4.11 Health and safety:	59
5. PUBLIC PARTICIPATION:	59
5.1 Objectives from The Public participation Process	60
5.2 Announcing of The Opportunity to Participate	60
5.3 Stakeholder Briefing and Community Consultation	62
5.4 Raised Issues for Investigation by EIA Specialists	64
5.5Review of The Draft Scoping Report and Issues and R	
5.6 Final Scoping Report and Issues and Responses Report	64
5.7 Ongoing Progress Report	64
6	
	65

## **EXECUTIVE SUMMARY**

KANDJUMBI CONSTRUCTION AND PLUMBING CC is the proponent and developer that acquired a portion of land from the Henties bay municipality through sale by way of private treaty. The proponent has proposed to establish and develop a mixed-use township development project on the piece of land acquired. The project is on a 25 Hectares of Land, undeveloped, vacant and not operational. The project site area is situated at Henties bay townland no. 133 on the north Dune, situated about +- 2 kilometres North of Henties bay Central Business district.

Kandjumbi Construction and Plumbing Cc is a Namibian owned company which was registered in 2005 with the Ministry of Trade and Industry and other relevant bodies. The company operates various specifications and employs dedicated and responsible and qualified people. The company provides services to different customers depending on their needs. The project site is vacant, zoned undetermined and an application for alienation by private treaty was approved by the Henties Bay Municipality and was subsequently recommended for approval to the Minister of Urban & Rural development, who subsequently approved the land alienation /land sale to Kandjumbi Construction and Plumbing Cc. The development will use locally produced and manufactured materials that are environmentally sustainable in an effort to have a township that has a low carbon footprint as well as encouraging recycling and prudent waste management.

The proposed project is in line with the Government's Economic Growth Strategies Namely National Development Plan (NDP) and Harambee Prosperity Plan that focus mainly on wealth distribution, employment creation, improvement of agriculture activities and industry capitalization. It is also in line with the government's vision 2030, which envisages the creation of employment opportunities for the people of

Namibia through industrialization and infrastructure development. Furthermore, the

project targets to create employment opportunities of 100 Namibians during the

construction phase and up to 150 Namibians in operational phase.

Kandjumbi Construction and Plumbing Cc has appointed Erongo Consulting Group

who are Environmental Impact Assessment/Audit Experts registered by Ministry of

Trade & Industry, to carry out an Environmental Impact Assessment of the project

and prepare an EIA report in line with Environmental Management Act of 2007.

The proposed project falls under category 2 of projects to undergo EIA study as

specified in the second schedule of the Environmental Management Act (EMA), 2007.

The purpose of conducting an EIA is to identify potential positive and negative

externalities associated with the proposed project and provide recommendations on

how to take advantage of the positive impacts on one hand and how to mitigate the

negative environmental impacts on the other.

The EIA was carried out using a combination of methods notably ground surveys,

questionnaires and interviews with stakeholders. Existing literature on statutory and

other requirements was also reviewed.

The potential environmental impacts identified are categorized into the following:

Impacts on Air resources, water resources, ecological resources, biodiversity and

socio-economic environment. Mitigation measures have been developed in respect of

the significant negative environmental impacts which if taken will make the proposed

project viable. In addition, the EIA team has developed an environmental

management plan, which should be adopted in order to ensure that the mitigation

measures are successful implemented.

The Table 1: below is a summary of potential significant environmental impacts and

mitigation measures

Potential impact

Mitigation measure

Construction phase	
Dust	<ul> <li>Sprinkling water on the ground</li> <li>Regular water addition to unpaved roads to be used by trucks</li> <li>Controlling the speed and movement of construction vehicles</li> </ul>
Noise	<ul><li>Restrict construction activities to day time hours</li><li>Machines should be serviced to reduce noise</li></ul>
Destruction of the physical environment	<ul> <li>Landscaping and replanting that will blend with the environment</li> <li>Levelling of soils at the end of earth works.</li> <li>Proper disposal of the excavated soils</li> </ul>
Health and safety Hazards	<ul> <li>Document an emergency response procedure</li> <li>Use of suitable personal protective equipment (PPEs)</li> <li>Use of approved and tested stable ladders and climbing support structures.</li> <li>Training of construction workers on safety measures</li> <li>Fencing/covering of risky areas such as deep pits</li> <li>Putting safety signs before the project commencement.</li> </ul>
Contamination of Water Resources by sewage	<ul> <li>Provision of sanitary facilities for the construction staff</li> <li>Installation of adequate water supply</li> </ul>
Increase in traffic flow	<ul><li>Put up adequate road traffic signage</li><li>Temporary access from the Northern bypass</li></ul>
Fire hazards and accidents	<ul> <li>Installing of firefighting facilities during the construction and operation phases.</li> <li>Sensitize workers on fire safety during all project phases</li> <li>First aid box to be kept on site as well as training on its use</li> <li>Conduct fire drills to test preparedness of staff</li> </ul>
Operation phase	
Destruction of the physical environment	<ul> <li>Site landscaping and planting of tree belts to prevent soil erosion and to reduce wind velocity</li> </ul>
Haphazard disposal of solid waste	<ul> <li>Provision of adequate number of solid waste containers</li> <li>Contract a licensed solid waste transporter</li> </ul>
Disposal of liquid waste	Connecting to the sewerage system
Increase in traffic flow Storm water	<ul> <li>Put up adequate road traffic signage</li> <li>In consultation with other developers to provide adequate measures to channel storm waters to storm water drains</li> </ul>

## ENVIRONMENTAL IMPACT ASSESSMENT STUDY REPORT FOR:

The Proposed Township (mixed-use) development on portion 100 of Henties bay townland no. 133.

## INTRODUCTION

The project proponent is Kandjumbi Construction and Plumbing Cc, a close corporation company in Namibia registered under the companies act through the Ministry of Trade & Industry. The proponent proposes for a township development on seventy-six hectares of land (25 Hectares) equivalent to 250 000m². The Township will comprise of

- construction of (220) two hundred houses, middle & high class,
- x 3 General Residential zoned ervens with land scaping and parking spaces,
- Students accommodation and a shopping Convenient mall comprising of several compartments and ablution facilities and office.
- Institutional land use and Business properties
- The flats and the office blocks will have lifts to cater for the upper floors.
- Public open spaces and streets

**NB:** Kandjumbi Construction and Plumbing Cc is a close corporation company in the republic of Namibia. The primary function is to act an as investment conduit in the high growth markets in order to ensure maximum returns on investments for its shareholders in particular and community at large. The company is wholly owned, controlled and managed by indigenous and previously disadvantaged Namibians. The prime long-term objective of Kandjumbi Construction and Plumbing Cc is creation of wealth and contributing to the economic independence of Namibia. The founder is totally committed toward the achievement of the strategic objectives of the company, whilst subscribing to the principles of good corporate governance and sound ethical business practices.

The Company is experienced with construction & plumbing with the following business objectives: To deliver on schedule & within budget, to deliver Projects that are safe, secure and adhere to strict Quality control & Quality Assurance standards, a goal oriented and aim to meet project requirements and act social responsibly: The company's vision is to continuously create value and enhance the net-worth of the company over the long-term horizon. The company's mission is to achieve exceptional investment return from an optimally diversified portfolio of top performing high value and high growth business.

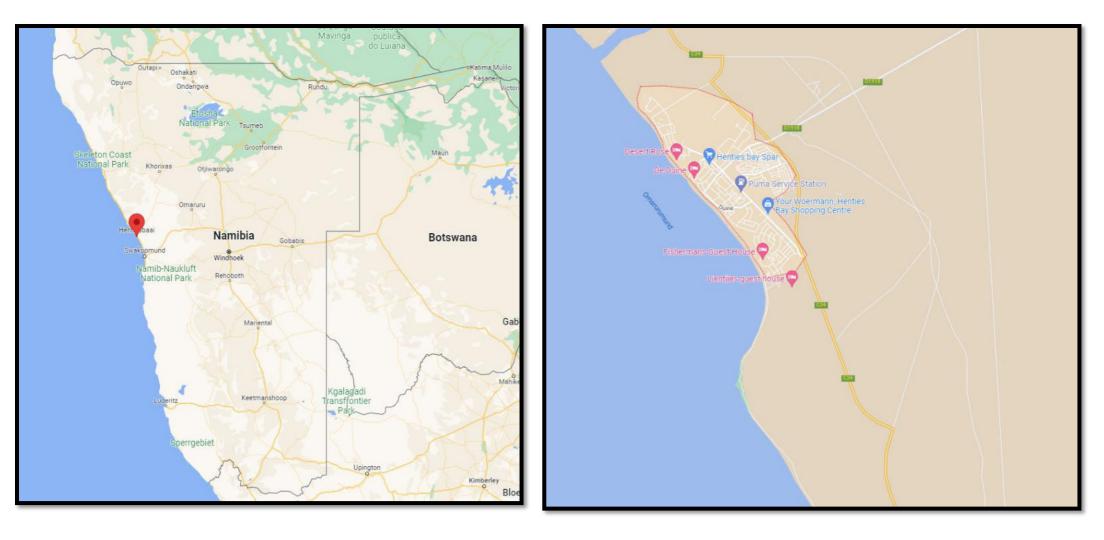


Figure 1 & 2: Henties Bay town in Erongo region of Namibia & site map

Nature of the proposed project

The proponent proposes a Township mixed-use development. The aim is to use the

available townland in an environmentally friendly and sustainable manner such that

existing inhabitants are undisturbed while preserving the natural green environment.

Legal Requirement

Pursuant to section 27 (2) of the Environmental Management Act (EMA) 2007 and

Regulation 2 of the Environmental Management Act), Regulations, 2012, legal notice

No. 4878 and EIA report is required for projects listed under the second schedule of

EMA 2007.

Purpose of the EIA Study

The most useful tool for identifying and managing the environmental impacts on a

particular site is thorough Environmental Impact Assessment (EIA). Through

scientific analysis and stakeholder involvement, the EIA process helps an organization

to identify the critical social and environmental issues associated with a project. The

main purpose is to take advantage of the positive externalities and mitigating the

negative impacts. An effective EIA process can enhance local community's

perspective about the whole project; improve rapport and or trust between the

organization and the local community, as well as enhancing the viability of the project.

It is cost effective to carry out an EIA prior to site development in order to identify

and resolve matters at an early stage, since the project involves a huge outlay of capital

funding.

Assessments and evaluations during operational phase are very crucial in order to

identify areas in dire need for improvement, and assess alternatives for rehabilitation.

"The purpose of conducting this EIA was to facilitate in-depth evaluation of potential impacts

associated with the proposed Township (mixed-use) development and to materialize harmony

with the relevant stakeholders". These studies also include the determination of issues or

concerns from the relevant authorities and interested and/or affected parties. The Environmental Management Plan will provide appropriate measures to ensure coexistence of the proposed development with other socio-economic activities in the area.

## **EIA Methodology**

The methodology adopted in carrying out the EIA study required physical observations, site visit, aerial photography, interviews with relevant stakeholders and review of existing legislation and literature pertinent to the development of Mixeduse development. The EIA study was carried-out in the following sequence:

- A preliminary meeting between representatives from Erongo Consulting Group and Kandjumbi Construction and Plumbing Cc Limited to deliberate on the proposed project.
- Site survey involving physical visit & observations within the projects area of influence and administration of the questionnaire to seek comments and views from the relevant stakeholders including government officials.
- Desk study and design layout of the township mixed-use development and reviewing of relevant literature and legislation.
- Preparation of the EIA report which will be submitted to Environmental Commissioner (EC) for review
- Development of the terms of reference that will be approved by EC
- In-depth evaluation of the potential significant impacts and mitigation measures.
- Stakeholder consultation.
- Preparation of the EIA study report as per the guidelines issued by EMA

## **SECTION 1:**

#### 1.0 OBJECTIVES AND SCOPE OF THE EIA STUDY REPORT:

#### 1.1 Screening to determine whether EIA is required:

The proponent (Kandjumbi Construction and Plumbing Cc) is proposing a mixed-use development Township on portion 100 of Henties bay Townland No. 133. The proposed project falls under categories 1 and 2 of projects specified in the second schedule of the Environmental Management Act (EMA), 2007.

The proponent is aware that it is an offence to implement a project likely to have a negative environmental impact, or for which an EIA is required by EMA or regulations issued under it, unless an EIA has been concluded and approved in accordance with the law. Kandjumbi Construction and Plumbing Cc has contracted Erongo Consulting Group o conduct an EIA study and prepare a comprehensive report for submission to Ministry of Environment (The Environmental Commissioner).

#### 1.2 Scoping:

The scoping process was carried-out with a view to identify significant concerns, reasonable and feasible project alternatives such that available resources will be channeled on the assessment of those issues and alternatives. The first step was to identify all interested parties relevant to the project. The second step was to gazette necessary information on the resource to be affected, potential concerns and proposed alternatives. The scoping process involved discussions with the proponent, verbal interviews with the neighborhood and on-site surveillance.

## 1.3 The objectives (purpose and need) of the project:

The main objective of the study was to carry out an Environmental Impact Assessment (EIA) of the proposed project in order to ensure that the developments take into

consideration appropriate measures to mitigate any adverse impacts to the environment.

The assessment identified existing and potential environmental impacts and possible concerns that the affected parties may have with the proposed development, as well as prevention and mitigation measures for the negative impacts. It is stipulated in the proposed Environmental Management Plan (EMP), the National Housing Policy for Namibia of 2003 that, "improvement of housing for the Namibian population is a major concern to the Government. This concern has been influenced by the fact that the improvement in housing stock is a strategically important social and economic investment.

In addition, well-planned housing and infrastructure of acceptable standards and affordable cost when combined with essential services affords dignity, security and privacy to the individual, the family and the community as a whole. Adequate shelter also prevents social unrest occasioned by depravity and frustrations of people living in slums and informal settlements. Besides this social function, housing is also an investment good contributing both directly and indirectly towards poverty reduction by employment generation, raising of incomes, improved health and increased productivity of the labor force (GoK 2004)."

### **SECTION 2:**

#### 2.0 POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

#### 2.1 General Overview

Namibia has a policy, legal and administrative framework for environmental management. Under the framework, the National Environment Management Authority (EMA) is responsible for ensuring that environmental impact assessments (EIAs) are carried out for new projects and environmental audits on existing facilities as per the environmental management Act 2007. EIAs are carried out in order to

identify potential positive and negative impacts associated with the proposed project with a view to taking advantage of the positive impacts and developing mitigation measures for the negative ones. The guidelines on EIAs are contained in Sections 27 to 35 of the Act. According to the Environmental Management Act (EMA) 2007, the Authority shall be responsible for carrying out environmental audits on all activities that are likely to have a significant effect on the environment. Environmental auditing (EA) is a tool for environmental conservation and has been identified as a key requirement for existing facilities to ensure sustainable operations with respect to environmental resources and socio-economic activities in the neighbourhood of the facilities

The government has established regulations to facilitate the process on EIAs and environmental audits. The regulations are contained in the Namibian Gazette No 28/2012. In the past, the government has established a number of National policies and legal statutes to enhance environmental conservation and sustainable development. *Kandjumbi Construction and Plumbing Cc will need to observe the provisions of the various statutes in order to maintain a clean and healthy environment.* Some of the policy and legal provisions are briefly presented in the following sub-Section.

#### 2.2 Policies

This section, in table format, describes the environmental framework of the project.

LEGISLATION/GUIDELIN E/POLICY	APPLICABLE CLAUSE/POLICY	COMMENTS
Namibia 's Environmental	List of activities that require	Tourism facilities need to be
Assessment policy (1995)	EA.	assessed in terms of the
·		impact on the natural and
		social environmental and
		resources.
Urban and Regional Planning	Consolidate the laws relating	To establish the urban and
Act, 2018.	to urban and regional	regional planning board; to
	planning; to provide for a	decentralise certain matters
	legal framework for spatial	relating to spatial planning
	planning in Namibia; to	
	provide for principles and	
	standards of spatial planning	

Environmental Management Act No. 7 of 2007	Section 2 outlines the objectives of the Act and means to achieve that.  Section 3 details the	The development should be informed by the EMA
	principles of environmental management	
EIA regulations GN 28,29 and 30 of EMA (2012)	GR 29 identifies and lists certain activities that cannot be undertaken without the environmental clearance certificate GR 30 provides the regulations governing the environmental assessment (EA) process	Activity 10.1 (a) The construction of oil, water, gas and petrochemicals and other bulk supply pipelines  Activity 10.1 (b) the construction of public roads  Activity 10.2 (a) the route determination of roads and design of associated physical infrastructures where it is a public road
Convention on biological diversity (1992)	Article 1 lists the conservation of biological diversity amongst the objectives of the convention	The project should consider the impact it will have on the biodiversity of the area
Draft procedures and Guidelines for conducting EIAs and compiling EMPs (2008)	Part 1, stage 8 of the guidelines states that if a proposal is likely to affect people, certain guidelines should be considered by the proponent in the scoping process.	The EA process should incorporate the aspects outlined in the guidelines
Namibia Vision 2030		Care should be taken that the development does not lead to the degradation of the natural beauty of the area
Water act no. 54 of 1956	Section 23 (1) deals with the prohibition of pollution of underground and surface water bodies	The pollution of water resources should be avoided during construction and operation of the development
Henties bay Zoning Scheme 2021	Provides for the clear description of land uses within Walvis Bay local authority together with restrictions of use	Statutory document serving as a strategic guide tool to control land use and ensure/enforce compliance

Local Authorities Act No. 23 of 1992	The Local Authorities Act prescribes the manner in which a town or municipality should be managed by the town or municipal council Section 34-47 makes provision for the aspects of water and sewerage	The development has to comply with the provisions of the Local Authority Act
Labour Act no. 11 of 2007	Chapter 2 details the fundamental rights and protection. Chapter 3 deals with the basic conditions of employment	Given the employment opportunities presented by the government, compliance with the labour law is essential
Public Health Act no 36 of 1919	Section 119 prohibits persons from causing nuisance	Contractors and residents of the proposed township are to comply with these legal requirements
Nature conservation ordinance no 4 of 1975	Chapter 6 provides for legislation regarding the protection of indigenous plants	Indigenous and protected plants have to be managed within the legal confines
Atmospheric pollution prevention ordinance no 11 of 1976	The ordinance objective is to provide for the prevention of the pollution of the atmosphere and for matters incidental therefore	All activities on the site will have to take due consideration of the provisions of this legislation
Roads ordinance 17 of 1972	This ordinance consolidates the laws relating to roads	The provisions of this legislation have to be taken into consideration in as far as access to the development site is concerned
Roads Authorities Act, 1999	Section 16 (5) of this act places a duty on the road authority to ensure a safe road system	Some functions of the roads ordinance 17 of 1972 have been assigned to the roads authority

## **Environmental Assessment Practitioner (EAP)**

Erongo Consulting Group is an EAP who conducted the Environmental Impact Assessment. The following sectional details of the project which need to be considered as the input to the EIA process in the subsequent sections of the report.

## **SECTION 3:**

### 3.0 PROJECT DESCRIPTION

### 3.1 The Proposed Project:

The project proponent is Kandjumbi Construction & Plumbing Cc, a close corporation company in Namibia registered under the companies act through the Ministry of Trade & Industry. The proponent proposes for a township development on 25 hectares of land (25 Hectares) equivalent to 250 000m². The Township will comprise



of approximately construction of (220) two hundred houses, General residential, single residential erven, General business erven, Students accommodation, Public open spaces & streets. The Township will leave at least few erven for institutional

development which are mostly donated for development to none-profitable organizations such as public schools and/or churches. Surface public parking will also be provided and be established on commercial business erven inline with the Henties bay Zoning Scheme of 2020.

Figure 3: Project site locality area

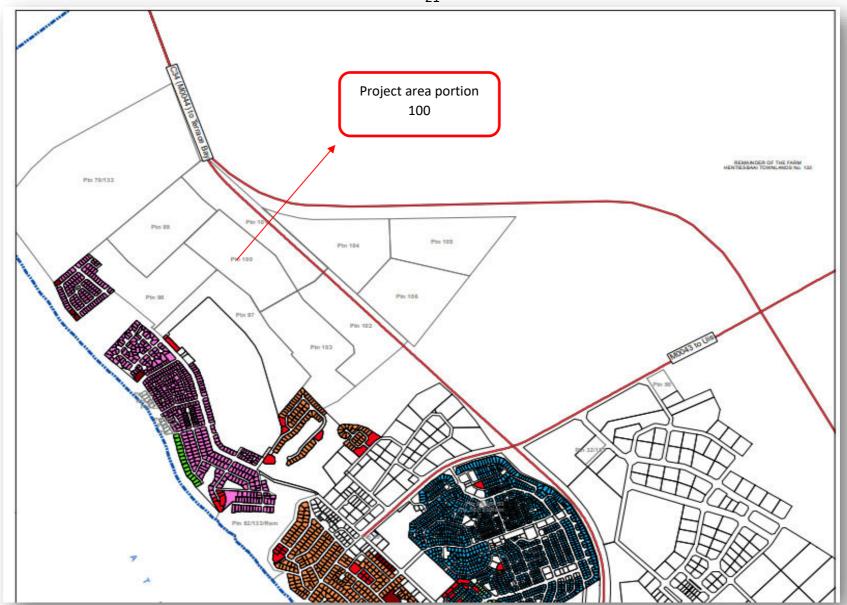
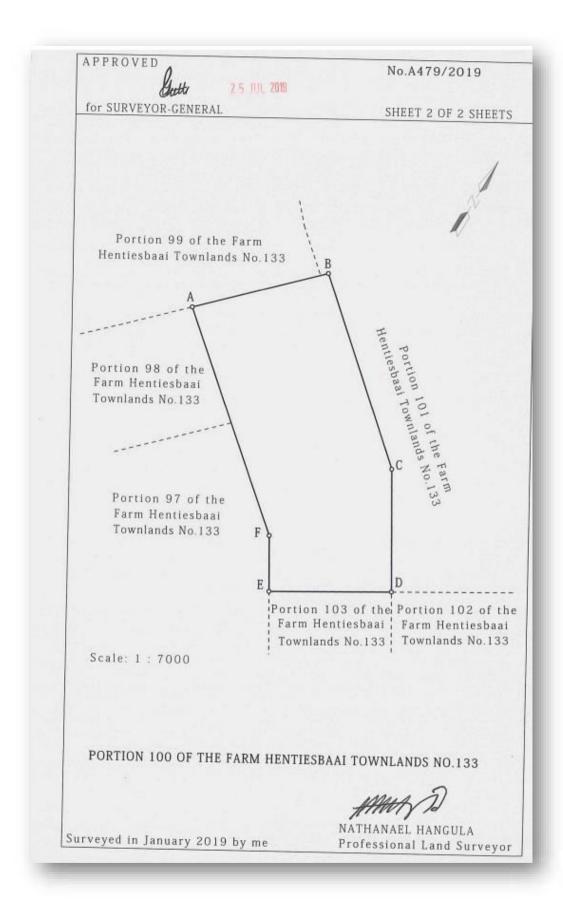


Figure 4: Portion x (also to be number as portion 100) Kandjumbi Construction and Plumbing Cc. 25 Hectares
ENVIRONMENTAL IMPACT ASSESSMENT STUDY REPORT FOR:
The Proposed Township (mixed-use) development on portion 100 of Henties Bay Townland no. 133, Henties Bay, Namibia



**Figure 5:** 25 Hectares approved survey diagram (Kandjumbi Construction and Plumbing Cc) township development

The proposed utilities are

- A gravitational sewage substation
- Solid waste management system
- Power supply and Paved roads
- Internal sewage to the proposed plant
- Clean drinking water and Storm water management

#### 3.2 Project Design Considerations:

#### (a) General Considerations:

The design considerations for the mixed-use development incorporate aspects of modern architecture and the current Local Authority by-laws:

- **Lighting:** The design caters for various types of luminaries including fluorescent lamps.
- **Sanitary Accommodation:** The number of toilets and wash hand basins has been selected according to guidelines.
- **Plumbing and drainage** Sewage to be drained into the waste water plant on site using Upvc piping to BS 4514 and BS 4660 and water supply and reticulation from the Henties bay water and Sewerage plant.
- Sustainable resource use: The development has been planned with sound environmental designs and will use materials that are environmentally sound in an effort to have a commercial development that has a low carbon footprint as well as encouraging recycling and prudent waste management. This is part of the Leadership in Energy and Environmental Design certification initiative undertaken by the proponent.
- **Fire Safety:** Adequate number of firefighting equipment shall be provided including hose reel system, sprinkler system, portable fire extinguishers and an associated fire alarm system.

#### 3.3 Site (Project) Activities during the Construction Phase:

### (a) Subdivision & rezoning of the Townland no.1328

As per the Urban & Regional Planning Act of 2018, a registered Town Planner was appointed to carry out the rezoning and Town land no.1328 (which is currently zoned undetermined in the Henties bay Zoning Scheme) with intent to subdivide the land into small erven. Town Planning Consultant has and/or will submit to Council a lay-out plan of the township to be established for its approval and upon approval by Council of the lay-out plan the Town Planning Consultant submit the lay-out plan to the Urban & Regional Planning Board for the Need and desirability to establish a new township. The draft subdivision layout for the proposed Township development (see *annexure*)





**Figure 6:** Project area situated 500 meters from the Sea









**Figure 7:** Existing neighbouring land uses

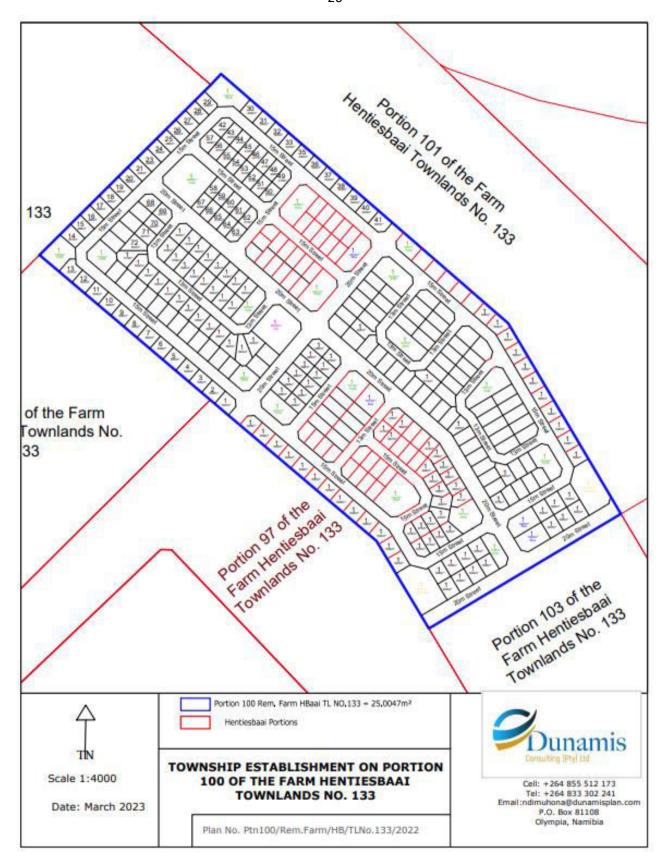
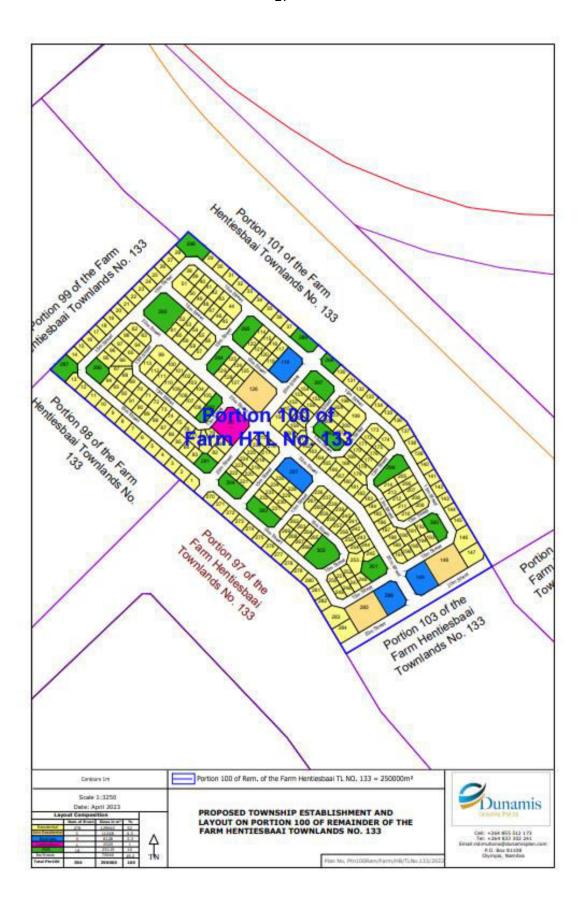


Figure 8: Proposed township layout design





	ERF	LIST OF PORT	TION 100 (	OF REMAIN	IDER OF TH	E FARM HE	NTIESBAA	I TOWNLAN	IDS NO. 1	33		
Erf No	Size (m²)	Zoning	Erf No	Size (m²)	Zoning	Erf No	Size (m²)	Zoning	Erf No	Size (m²)	Zoning	
1	507	Residential	33	500	Residential	65	437	Residential	97	473	Residential	
2	500	Residential	34	500	Residential	66	502	Residential	98	453	Residential	
3	500	Residential	35	500	Residential	67	510	Residential	99	939	Residential	
4	500	Residential	36	500	Residential	68	504	Residential	100	458	Residential	
5	500	Residential	37	500	Residential	69	450	Residential	101	458	Residential	
6	500	Residential	38	435	Residential	70	450	Residential	102	458	Residential	
7	500	Residential	39	410	Residential	71	450	Residential	103	458	Residential	
8	500	Residential	40	410	Residential	72	450	Residential	104	458	Residential	
9	500	Residential	41	410	Residential	73	450	Residential	105	459	Residential	
10	500	Residential	42	410	Residential	74	450	Residential	106	494	Residential	
11	500	Residential	43	410	Residential	75	450	Residential	107	498	Residential	
12	500	Residential	44	826	Residential	76	450	Residential	108	501	Residential	
13	531	Residential	45	416	Residential	77	505	Residential	109	504	Residential	
14	515	Residential	46	410	Residential	78	630	Residential	110	507	Residential	
15	486	Residential	47	410	Residential	79	522	Residential	111	510	Residential	
16	486	Residential	48	410	Residential	80	2520	Institutional	112	511	Residential	
17	486	Residential	49	410	Residential	81	500	Residential	113	543	Residential	
18	486	Residential	50	410	Residential	82	500	Residential	114	410	Residential	
19	486	Residential	51	909	Residential	83	420	Residential	115	410	Residential	
20	486	Residential	52	408	Residential	84	420	Residential	116	410	Residential	
21	486	Residential	53	410	Residential	85	420	Residential	117	410	Residential	
22	486	Residential	54	410	Residential	86	420	Residential	118	2004	Business	
23	486	Residential	55	410	Residential	87	420	Residential	119	410	Residential	
24	486	Residential	56	415	Residential	88	420	Residential	120	410	Residential	
25	486	Residential	57	414	Residential	89	420	Residential	121	410	Residential	
26	486	Residential	58	410	Residential	90	420	Residential	122	410	Residential	
27	486	Residential	59	410	Residential	91	420	Residential	123	410	Residential	
28	482	Residential	60	410	Residential	92	420	Residential	124	410	Residential	
29	494	Residential	61	408	Residential	93	420	Residential	125	505	Residential	
30	500	Residential	62	449	Residential	94	420	Residential	126	3098	Gen. Res	
31	500	Residential	63	441	Residential	95	513	Residential	127	505	Residential	
32	500	Residential	64	431	Residential	96	494	Residential	128	410	Residential	

Figure 10: Proposed Subdivision Zoning & Erf sizes

## (b) Surveying of the proposed township

The surveying of land in Namibia is governed by the Namibian Land Survey Act. Act no 33 of 1993, which requires the survey of land in the jurisdiction of the local authority for registration purposes with the Surveyor General and deed registry. As per the procedures stipulated in the said act, the external boundaries of portion 100 was already carried-out by a registered land surveyor. However, an internal subdivision and survey of the internal portion will be required to be undertaken once the township layout is approved by the Urban & Regional Planning Board of Namibia.

### (c) Geo-technical site investigation

The geotechnical site investigation forms part of the township establishment whereby quotations were obtained to acquire service providers to investigate

	Table 1: Bill of Quant	ities			
	Item	Quantity	Unit	Rate	Price
1	Field Work and Project Initiation: Professional time				
1.1	Engineering Geologist	63	Hrs	750.00	47 250.00
1.2	Casual Labourer (2 x 5 days)	10	Day	350.00	3 500.00
					50 750.00
2	External Disbursements				
2.1	LDV 1 Ton Vehicle	3000	km	6.00	18 000.00
2.2	Accommodation	7	Nights	1 800.00	12 600.00
2.3	Meals	7	Days	350.00	2 450.00
					33 050.00
3	Field Work				
3.1	Excavation & Closing of Test Pits by TLB (Min. 9hrs rental by TLB				
	hiring company per day for 4 days)	36	Hrs	650.00	23 400.00
3.2	DCP (0-2m in soft to intermediate material)	46	No	220.00	10 120.00
10020	02-12 = 00 1998/9900				33 520.00
4	Laboratory Work				
4.1		16	No	400.00	6 400.00
	In Situ Moisture Content	16	No	50.00	800.00
4.3	CBR	16	No	400.00	6 400.00
4.4		15	No	600.00	9 000.00
4.5	Road Indicators	16	No	400.00	6 400.00
	pH of Soil	10	No	220.00	2 200.00
	Electrical Conducticity Test	10	No	220.00	2 200.00
4.8	Oedometer Test (Optional)	3	No	3 000.00	9 000.00
-	P				42 400.00
5	Report: Professional Time	197	99	2	
5.1	Geotechnical Engineer	4	Hrs	850.00	3 400.00
5.2	Engineering Geologist	18	Hrs	750.00	13 500.00
5.3	Senior Technician	2	Hrs	650.00	1 300.00
				Subtotal	18 200.00 177 920.00

the project site to determine different ground aspects of soil and water suitability and levels. The results are not yet available from the appointed consultants as they site await the approval of the township layout from the Namibian Urban & Regional planning Board: The site investigation as per the attached quotation will focus on establishing the viability of developing different sites on the project area

## (d) Staff Amenities:

#### Site Office

The proposed development will also construct a modest site office for commercial administrative purposes. The building material will be locally produced material of approved brick, cement and asbestos and/or iron sheets will be used as roof material whereas the ceiling board will be constructed using soft board on timber framing.

#### **Toilets:**

General customer visitors, workers and office staff will use well-constructed ablution facilities within the project design, designed to cater for both men and women for usage during construction and operational phase. A Water fountain will be provided for hygienic purposes.

#### (e) Material Storage and Handling:

All materials to be used shall conform to the Namibia Standards Institute requirements for quality or equal and approved.

#### **Non-Hazardous Materials**

The store for non-hazardous materials will be accommodated within the site office. Materials to be stored in this store shall include samples for review by consultants.

**Hazardous Materials** 

Hazardous materials shall include paints, oil, grease, vehicle fuel and bitumen.

The store for these materials shall have iron sheet walling and roof and a

waterproof concrete floor to contain spills. Storage and handling of all

Hazardous chemicals shall be in accordance with manufacturer's instructions

as outlined on the material safety data sheets.

**Bulk Construction Materials** 

The bulk materials to be stored on site include: sand, ballast, stones, cement,

quarry chips and timber. The project proponent intends to have materials

delivered in small quantities in order to avoid any form of deposit which will

impede site activities, induce safety hazards and create a nuisance to the

neighbourhood.

Sand:

This will be obtained from approved and registered and mining companies in

a Henties bay. Sand is a bulky material requiring huge space for storage. The

strategy is to bring sand in instalments to match the rate of consumption and

avoid undue accumulation.

**Stones** 

Building stones shall be sourced from existing stone crushing companies

around the Henties bay and/or Swakopmund area.

Cement

A special store will be constructed for storing cement and other building

equipment's. Since it is easily available in Namibia (Henties bay in particular)

a reasonable quantity will be delivered to the site as appropriate.

Timber

Timber will be used mainly for roofing, formwork, ceiling, joinery and other

carpentry needs. All joinery works will be done on site. Formwork timber will

be fixed at the site. Consideration will be given to the working area and

material storage requirements to ensure there is no conflict with the movement

of the workers.

(f) Construction Activities:

The Construction activities will include:

Fencing

The proposed project site shall be enclosed with 3-metre-high iron sheets,

which will help to control access to the site for purposes of security and safety.

The fence will also serve to reduce the amount of dust and other solid waste

that have a potential of getting into and out of the site especially if the climate

becomes windy.

**Site Clearing** 

Clearance of the site for construction will be controlled.

**Excavations** 

This process will be using earth-moving equipment to dig the foundations for

the office block, residential and retail centre.

**Backfilling of the Excavated Area:** 

This will be carried out using marram and quarry chips which will be

compacted in layers to achieve firm bases for the buildings, driveways and

parking.

**Mixing of Concrete** 

The construction process will involve some amount of concrete mixing using

diesel driven concrete mixers. The process will generate some noise, smoke and

dust especially from the cement. The main contractor will need to provide

workers with appropriate personal protective equipment and sensitize them

on their usage and management of air pollution from construction machinery.

**Erection of Roofing Structure and Formwork for the Works** 

The project proponent proposes to use steel re-usable formwork where possible. This is intended to preserve timber for only critical usage where alternative materials are not user friendly or not affordable. However, timber will be used for ceiling structure. The contractor will be required to use scaffolding and safety harnesses at high levels to ensure safety of the workers on site.

## (g) Potential Impacts during the Construction Phase

The construction phase has the potential for generating negative environmental and social impacts. The most important of these impacts are described below.

#### (i) Traffic

In the construction phase, the transport of material for building usually generates environmental and social impacts. Some of the negative impacts of traffic during this phase are direct impacts of the project (e.g. noise generation, health and safety risks), while others are secondary impacts (e.g. nuisance to local communities' due to noise).

Many of the impacts also have the potential to combine with impacts from other activities that affect the same resources to cause cumulative effects (e.g. the clearing of vegetation can lead to cumulative fragmentation of habitats if other activities have similar impacts). The principle negative impacts of transporting construction materials by road during the construction phase of the proposed project will be:

- Vehicle emissions which have a potential of contributing to climate change
- Potential soil contamination from leakage or spillage of vehicle fuels, oil, and other hazardous materials;
- Potential health and safety risk due to increase in traffic and access to the construction site through access road (if not adequately controlled);
- Potential health impacts and nuisance factors due to noise, dust and vibrations

 Traffic congestion as a result of the increase in slow moving trucks and trucks turning

## Mitigation measures

The above negative impacts associated with transportation of materials to the site are envisaged to be that significant due to the size of the project being large enough to warrant the need for a large number of vehicles. However, the impacts can be managed by implementing the following measures:

- Gaining temporary access to the site directly from the northern Henties bay- Uis road to avoid trucks using the smaller feeder roads onto the township development during construction
- Traffic flow study to assess the impact of the development on the roads in the area
- Using appropriate signage to control the flow of traffic to and from the site.
- Ensuring drivers abide by traffic rules and defined speed limits.
- Implementing a regular maintenance programme on vehicles to reduce emissions and noise
- Supervised driver working hours to prevent accidents due to fatigue and
- Road safety training for drivers

### ii) Waste management

Waste produced during the construction phase is primarily solid waste resulting from mechanical and electrical installation operations including metal and plastic off cuts and wrapping materials. However, other waste include sewage and used oil from construction equipment and vehicles. Potential impacts associated with waste management practices include:

- Aesthetic degradation due to site accumulation
- Contamination of surface and underground water resources by used oil and/or sewage and

Contamination of soil resources

## **Mitigation Measures**

The negative impacts of waste from the construction phase can be addressed by implementation of the following measures:

- Segregating waste by separating hazardous waste from non-hazardous waste for appropriate disposal
- Providing adequate number of suitable solid waste containers
- Containers or package for storing hazardous waste including used oil to be securely bonded and labelled as provided for by Regulation under the Environmental Management Act (Waste Management) Regulations, 2007
- Contracting a EMA licensed waste transporter to collect solid waste from the site for dumping at an approved site
- Contracting a EMA licensed waste oil recycler for collecting used oil from the site for recycling (if any)
- Accumulating scrap metals in a safe place and contracting a scrap metal dealer with a valid license from EMA for appropriate disposal
- Providing adequate number of sanitary facilities for the workers and visitors to the site
- Minimizing waste generated by adopting cleaner production methods such as conserving raw materials, enabling the recovery and re-use of the waste product where possible (e.g. Reuse of quarry chips as base material for driveways and car park construction).

## iii) Transitory population increases

The potential for employment and access to new services may draw people to the area around a new project such as this. On the positive side, there will be an increase in economic activity and employment for the local community, local skills development, and the possibility of increased funding for public infrastructure due to population increase. Potential negative social and socio-

economic effects may include an influx of strangers into local communities, disrupting social systems and community structures and affecting community values, family values and religion; increased demand on local services and infrastructure (e.g. by bringing in illness and disease); negative effects on community members if the increase in living standards due to job creation is not sustainable (e.g. where job opportunities cease after completion of the construction phase); and an increase in crime and deviant behaviour (e.g. drug abuse, prostitution).

#### Mitigation measures

The negative impacts of temporary population increase during the construction phase may be managed by:

- Employing construction workers from the immediate neighbourhood of the proposed site
- Avoiding building permanent infrastructure which will not be used after construction;
- Enhancing corporate social responsibility by providing new amenities like clean drinking water to the community and creation of awareness on HIV/AIDs among the construction workers e.g. through appropriate posters

#### (iv) Health and safety

The construction phase may generate safety hazards in relation to increases in traffic and access to the construction site (if not adequately controlled), and potential health impacts and nuisance factors due to noise, dust, vibrations and gaseous emissions.

#### Mitigation measures

The main contractor should take the necessary measures to avoid / minimize the negative health and safety impacts by, among others:

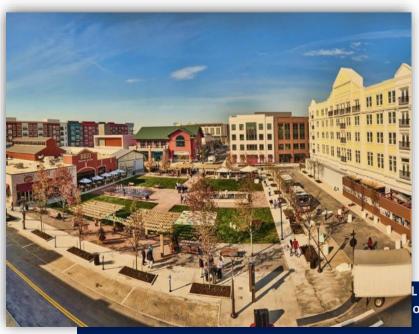
- Creating awareness on Environment, Health & Safety among the office staff and workers prior to commencing work
- Maintaining a standard first aid kit at the site office
- Providing staff with appropriate Personal Protective Equipment including gloves, helmets, coveralls, safety boots, safety goggles, ear muffs and respirators
- Maintaining a complaint register on site
- Documenting and displaying on site emergency procedures
- Using appropriate signage to direct and control flow of traffic
- Ensuring machine operators and drivers abide by traffic rules and defined speed limits.
- Maintaining and servicing all construction machinery in accordance with the Manufacturers specifications

#### **Construction Cost:**

The estimated cost of undertaking the proposed project is in Namibian Dollars Fifty Million dollars (35 000 000 million)

#### 3.4 Site (Project) Activities during the Operation Phase:

The activity during this phase will be accommodation for those who take up residency in the houses, flats, those who take up office space and those that visit the retail centre.



**Figure 11:** Proposed visual 3D township development Portion 100 Henties Bay Townland

L IMPACT ASSESSMENT STUDY REPORT FOR: on portion 100 of Henties Bay Townland no. 133, Henties Bay, Namibia

#### 3.4.1 Design of the Proposed Mixed-use development

Standards for mixed land use development and townships are approved by the Urban & Regional Planning board and the certified council of architectures of Namibia.



**Figure 12:** Proposed design of the Mixed land used development complex on portion 100.

#### 3.4.2 Potential Negative Impacts and Mitigation Measures

The operations phase of the mixed-use development can be very long and often lasting upwards of 99 years. There is potential for both positive and negative impacts on environmental, as well as local and regional socio-economic systems, including some cumulative effects. The potential negative environmental impacts and their mitigation measures are outlined below:

#### (I) Social impacts

Potential negative social impacts associated with the mixed-use development include:

Increase in the pressure on infrastructure due to hotel, private hospital
and offices that will result in larger numbers of people on the plot that
at the current moment.

#### **Proposed Mitigation Measures**

Potential negative social impacts can be mitigated through the following:

• Ensuring that the infrastructure is expanded to accommodate the extra populous in the area

#### (ii) Occupational health and safety

Employee well-being requires consideration of the occupational health and safety of workers and contractors, workplace conditions (e.g. wages, benefits, security, rights and growth opportunities), as well as job satisfaction and pride. The health and safety risks in the workplace during operations are however minimal.

#### **Proposed Mitigation Measures**

In order to avoid, minimize and mitigate the negative health and safety impacts of the operations appropriate measures will include:

- Compliance to all international and national health and safety standards that may exist;
- Providing staff with appropriate personal protective equipment
- Training of all personnel in the use of protective equipment;
- Training of all personnel in fire prevention
- Regular fire drills
- Adequate signage for the fire exits

#### (iii) Air emissions

An air emission is an air pollutant with potentially harmful or nuisance effects on human beings, animals, plants, their biological communities and habitats, and the soil. Different raw material exploitation and preparation procedures create different sources of emissions in any form of production, such as the

quarrying and preparation of raw material, coal grinding, combustion processes, cement milling, packaging, and the storage, blending, transport and loading of dry material.

Dust emissions: There are no dust emissions in the process herein upon completion of the construction phase.

#### (iv) Global warming

The mixed-use development once complete is not envisaged as being able to contribute to global warming.

#### (v) Noise and vibration

The noise that can be associated with this project is minimal provided the development, in particular the private hospital, hotel and the retail outlets are not used as noisy social centres such a night club.

#### (vi) Waste Management / Storm water.

Solid waste management will be crucial as the development will generate a considerable amount of domestic waste per month. There is a possibility of adverse effects by storm water from the building surfaces. This is as a result of the increased surface area of concrete and paved avenues.

#### **Mitigation Measures**

The negative impacts of waste from the operation phase can be addressed by implementation of the following measures:

- Providing adequate number of suitable solid waste containers
- Liaise with the other developer in the area, so as to find a way of
  ensuring storm water is directed into an appropriate storm water drain
  and does not accumulate in fields and or run onto the roads that can
  have the effect of reducing the lifespan of the road.
- Separate waste before disposal
- Contracting a waste transporter with a valid license from NEMA to collect solid waste from the site for dumping at an approved site

#### (vii) Traffic

The possible impacts are:

- Increase on volume of vehicles on the feeder roads
- Vehicle emissions which have a potential of contributing to climate change
- Potential soil contamination from leakage or spillage of vehicle fuels,
   oil, and other hazardous materials;
- Potential health and safety risk due to increase in traffic and access to the construction site through access road (if not adequately controlled);
- Potential health impacts and nuisance factors due to noise, dust and vibration

#### **Mitigation Measures**

The impacts will be managed by implementing the following measures:

- Using appropriate signage to control the flow of traffic to and from the site.
- Ensuring drivers abide by traffic rules and defined speed limits.
- Implementing a regular maintenance programme on vehicles to reduce emissions and noise
- Road safety training for drivers

#### **Potential Positive Impacts**

The potential positive impacts associated with the implementation of the proposed development include:

- Increased supply of office space, residential & retail commercial provision particularly that outside of the main Henties bay CBD.
- The presence of a retail centre will enable the residents of the area to access quality shopping without the need to travel to main CBD especially for the convenience items that are consumed on a daily basis.

 The project has a potential of contributing towards the economic growth of town, region and the nation as the proponent/landlord is expected to pay tax to the Namibian Revenue Authority

#### 3.5 Decommissioning of the project

Decommissioning of the proposed project will become necessary when the project completes its life cycle or when there is change of use. In a situation where the buildings complete their lifecycle, decommissioning process will typically involve demolition of the buildings, clearing of the site and reclaiming or restoring the affected land into a natural condition.

Change of use situation in a situation where there is a change of use, decommissioning process may entail building alterations and relocation of the buildings in the development. Upon demolition of some buildings, the affected land will need to be reclaimed or restored into a natural condition through landscaping and planting of vegetation.

#### End of life Situation

In a situation where the buildings have completed their useful life decommissioning process will entail removal of the development. Site clearing of the site and reclaiming or restoring the affected land into a natural condition will then follow.

Restoration of the affected land may involve the filling in of the open pits and grading the land to its natural contours, then planting appropriate tree species and under cover vegetation to hold the soil in place and to prevent flooding. Planting of trees however, may not be necessary if the site is immediately taken over for another development.

During decommissioning, the debris resulting from the demolition will either be transported by a licensed waste transporter for dumping at an approved site or used as base material for new construction work. The demolition process will entail removal of roofing materials using crowbars and hammers, breaking of walling and reinforced slabs using sledge hammers and/or jack hammers, which utilize compressed air and lowering of materials from high to low levels.

The exercise will therefore entail working at high level and all the necessary health and safety measures will need to be implemented including provision of personal protective equipment such as, safety harnesses, helmets, gloves, respirators, safety shoes, coveralls, goggles and ear protectors.

The proponent will need to follow the safety guidelines issued in the Namibian gazette supplement No. 28 of 2012, during the demolition process.

#### 3.6 Infrastructural Services: Sewerage Disposal:

Waste water is to be directed to the existing Henties bay sewerage treatment plant that will be connected to the project development. The proposed sewerage treatment substation shall have the quality of the treated effluent requirement to complies with the requirements of and the following characteristics, whichever is the more stringent

Table 2: Expected output from the sewerage treatment plant

	Item of Analysis	Units in Milligram per litre or otherwise
		stated
1	pH value	6-8.5
2	BOD (5 day at 20°C)	Less than 5
3	COD	Less than 30
4	Total Suspended Solids	Less than 5
5	Grease and Oil	Nil
6	Phosphate (PO4)	Less than 1
7	Total Nitrogen	Less than 10
8	E-coli	Nil

The sewage effluent from the Sewage Treatment Plant shall be suitably treated and treated sewage effluent water recovered shall be used for watering the grounds.

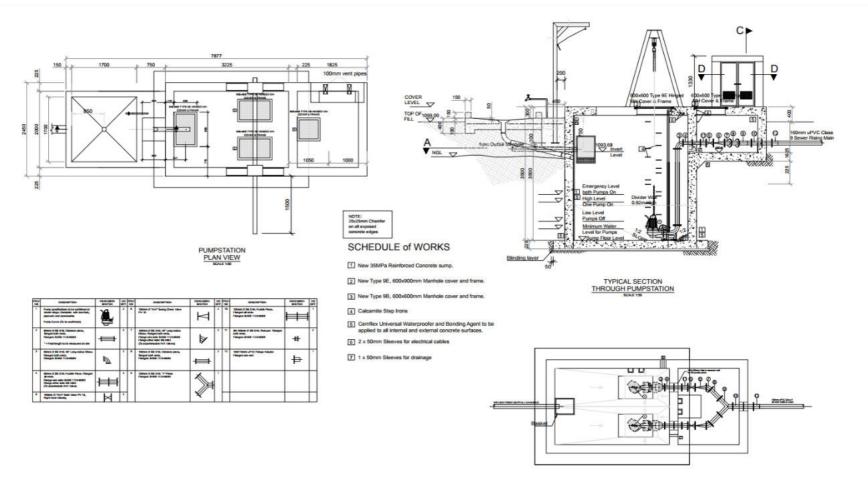


Figure 13: Proposed Septic tank layout design

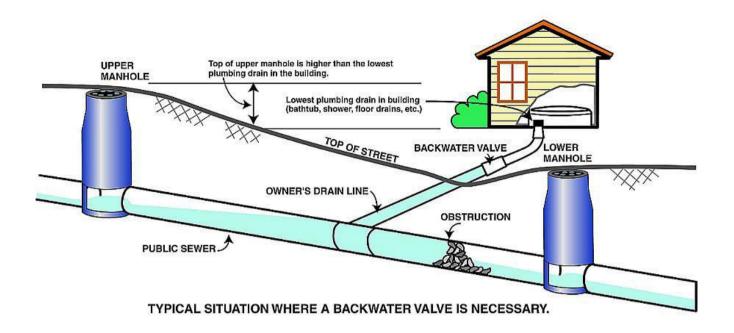


Figure 14: Sanitation & pumpstation connection & flow system

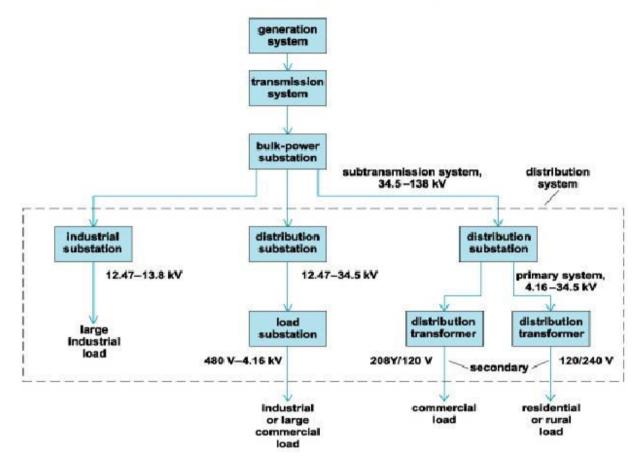
#### Water Supply:

The proponent will/ shall acquire permission to connect to the water supply from the existing Henties bay Water and Sewerage facility during construction and thereafter. As the water supply from the water company (Namwater) is erratic, the proponent will source two 1000 litre water tanks connected to the site as a supplementary back up water supply. Water usage is envisaged to be in the region of 150 cubic meters per day.

#### **Power Supply:**

The area will be supplied with 3-phase electricity by the Erongored and Lighting Company and the project will get power from the same Company.

## Distribution system layout



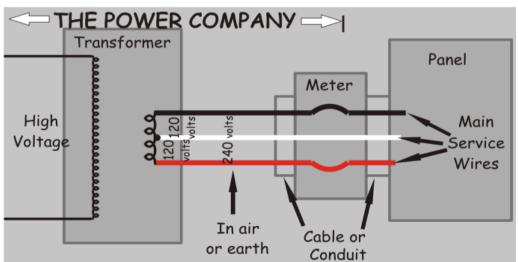


Figure 15: Proposed electrical power flow distribution

#### **SECTION 4:**

#### 4.0 ENVIRONMENTAL SETTING (Baseline information):

This Section describes the existing air, water and geological characteristics, biological, socioeconomic environment, aesthetics and cultural resources at the proposed site and its neighbourhood. The description provides the baseline against

#### 4.1 Climate

Henties Bay has a desert climate. There is virtually no rainfall all year long. The average annual temperature is 17.4 °C. About 0 to 40 mm of rainfall annually (Mandelson et al, 2009).

#### 4.2 Geology

The Erongo Region consists of old crystalline rocks that form the basement of the Permo-Triassic Karoo Sequence and the young deposits of the Namib Desert. About 130 million years ago, several large and scattered magmatic complexes, now deeply eroded, were emplaced in central Namibia in a broad zone extending from coastal area of the Erongo Region in a north-easterly direction.

#### 4.3 Soils

According to the Ministry of Agriculture, Water and Rural Development (MAWRD), Henties Bay soil is extensive physical weathering, as well as erosion because of arid desert conditions. Mostly of the surface area is classified as highly susceptible to erosion making soil development very difficult in general. Leptosols, Acrisols, Ferrasols, Vertisols and Gypsisols form the soil structures in that region.



**Figure 16:** Project area Soil texture type & texture

L IMPACT ASSESSMENT STUDY REPORT FOR: on portion 100 of Henties Bay Townland no. 133, Henties Bay, Namibia

#### 4.4 Hydrology

Ground water is classified by hydrogeological rock type and in Henties Bay a combination of different rock formation exists namely; hard rock terrain and aquitard or aquiclude. The many sources of water for Henties Bay community comes from the Omdel aquifer situated east of Henties Town.

#### 4.5 Fauna & Flora

According to Elongo Chris (2019), the proposed site is within an area known to have less than 10 plant species. However other parts of Henties bay have plant species such as; Pencilbush (Arthraerualeubnitzia), dollar bush (Zygophyllumstapfii), lichens, shepherd's tree (Bosciaalbitrunca), welwitschia (Welwitschia mirabilis). Pencil bush (Arthraerualeubnitzia) is dominant in that area (see picture below).



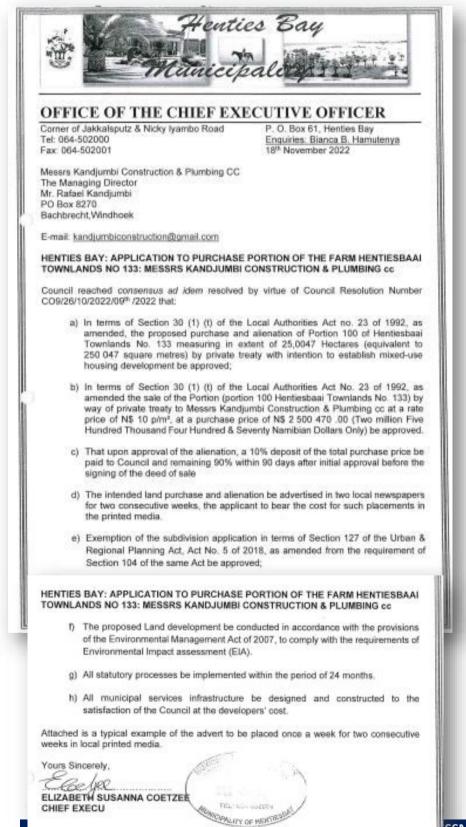


Figure 17: Pencil bush (Arthraerualeubnitzia)

#### 4.6 Land use & Site location

The proposed study area is situated approximately 500 m south of Henties Bay Town on the outskirts of Town within the townland. The land was allocated through alienation to the client (Kandjumbi Construction and Plumbing Cc) who acquired it

from the Municipality. The area is already disturbed, as there are existing developments within the project site surrounding area. See ministerial approval authorizing the proposed sale of land and proposed development



SSMENT STUDY REPORT FOR:



#### Ministry of Urban and Rural Development

Enquiries: J. Ishila (Mr.) Tel: (+264+61) 297-5192 Fax: (+264+61) 297-5096 Government Office Park Luther Street Private Bag 13289 Windhoek, Namibia

Our Ref.: 14/17/H1 Your Ref. 7/6/2

Ms. Elizabeth. S. Coetzee Chief Executive Officer Municipality of Henties Bay P O Box 61 HENTIES BAY

Dear Ms. Coetzee,

SUBJECT:

MINISTERIAL APPROVAL: TO PURCHASE PORTION 100 OF HENTIESBAAI TOWNLANDS NO.133 IN EXTENT 25, 0047 HA FOR PURPOSES OF ESTABLISHING MIXED USE (HOUSING DEVELOPMENT) MESSRS KANDJUMBI CONSTRUCTION & PLUMBING CC

Your letters dated 13 January 2023 has reference.

The Honorable Minister has in term of Section 30(1) (t) read together with Section 63 (3) (b) of the Local Authorities Act, 1992 (Act No. 23 of 1992) as amended, granted approval to the Council to sell the immovable property indicated in the table below by way of private treaty, subject to the Council Resolution Number C09/26/10/2022/09th/2022.

Applicant name	Erf No	Size/m²	Zoning	Township	Land Use	Price/ M <sup>2</sup> (N\$)	Purchase price (N\$)
Messrs Kandjumbi Constructi on & Plumbing cc	Portion 100 Farm Hentiesbaa i Townlands No. 133	25, 0047	Undeter mined	Hentiesbaai Townlands No. 133	Mix Developm ent (Housing Developm ent)	10.00	2 500 470.00

Yours Sincerely,

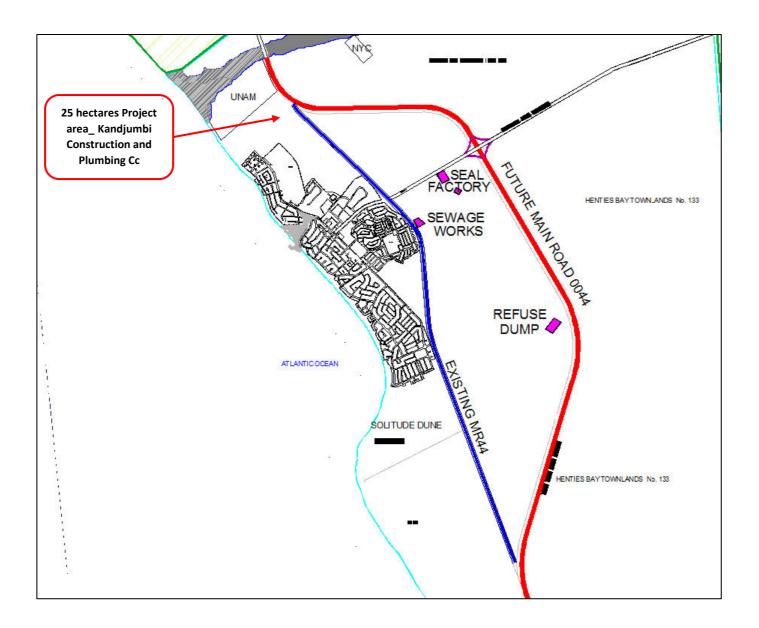
NGHIDINUA DANIEL
EXECUTIVE DIRECTOR

cc: The Hon. Minister, MURD

All official correspondence must be addressed to the Executive Director

2 2 FEB 2023

Figure 18: Insert Council & Ministerial approval



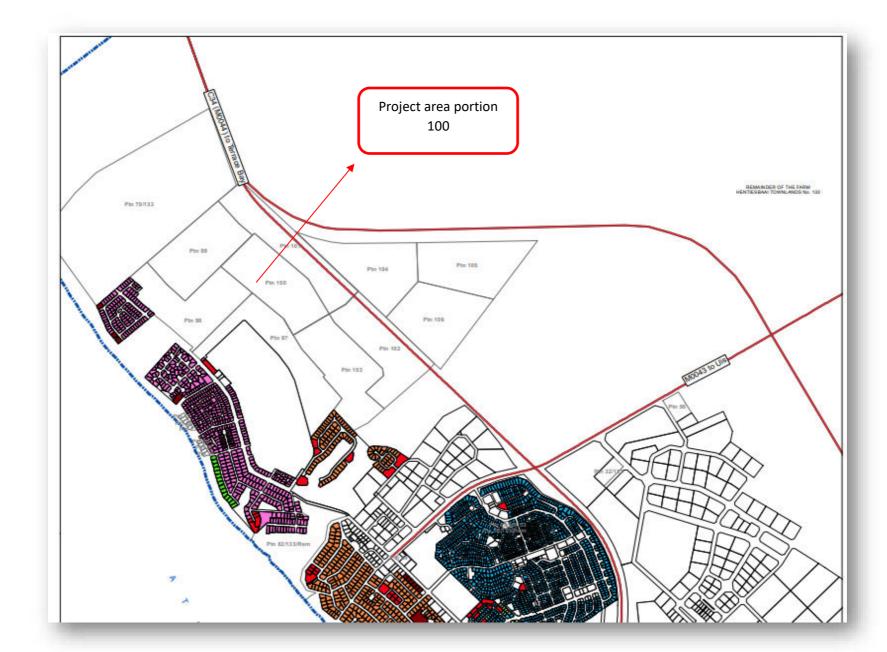


Figure 19: Project Area Locality

4.7 Waste Management and Pollution Prevention:

To ensure a clean and healthy environment, waste should be managed properly.

Proper waste management enhances improved sanitary conditions that are associated

with a reduction of disease incidences. The existing waste management practices in

the neighbourhood of the proposed project site and within the Henties bay in general

include:

Sewage, Wastewater & Trade Effluent:

Wastewater and trade effluent are a potential source of heavy metals and other

inorganic and organic wastes. The presence of these wastes in an aquatic system

would adversely affects its physic-chemical characteristics and the capacity to support

aquatic life. In cases where it is not feasible to connect the discharges to an existing

sewage system the same should be released into a septic tank and emptying program

established. The proponent will be setting up a waste water treatment substation to process

waste waters on site to handle the waste water. (See above)

Solid waste:

The Environmental Management Act (Waste Management) Regulations, provides that

all solid waste should be dumped at Environmental management designated

approved dumping sites. In line with this requirement, during the operation phase,

the proponent will be required to segregate waste at source and contract a licensed

waste transporter to collect and transport solid waste for dumping at approved sites.

The size of the project will generate considerable waste from the flats, retail and

residential (depending on the occupancy levels) and thus the proponent will ensure

that an external garbage collector is appointed to manage the said waste. The

proponent has proposed to have waste separation by placing clearly marked waste

bins in all areas so that the residents and visitors of the project separate their waste.

#### 4.8 Air Resources:

Air resources may be described by the dynamic behaviour of the lower atmosphere (e.g. wind) and by variations in the concentrations of various gases and suspended matter. All life on earth depends on the atmosphere for respiration and for protection from harmful radiation from the sun. The layer of the atmosphere closest to the earth's surface is called the troposphere and it is this layer, which contains oxygen that supports life and in which all of the earth's weather occurs. The layer above the troposphere is called the stratosphere, which contains ozone that shields the earth from much of the sun's ultraviolet radiation. Human activities involving transportation vehicles, combustion processes for heat generation and chemical processes emit pollutants that may have harmful consequences. Three of the greatest problems caused by atmospheric pollution are:

- Greenhouse effect
- Acid rain
- Ground level ozone

#### **Greenhouse effect:**

The proposed project herein is not envisaged to have any effect on greenhouse gases save for that that will be occasioned from the emissions of the Lorries transporting the materials to the site. Post construction the users of the mixed-use development may contribute to the greenhouse gases through their vehicles. The overall effect is however minimal.

#### Acid rain:

Acid rain results from combining of nitrogen and sulphur oxides (NOX and SOX) with atmospheric water vapour. These pollutants originate from coal burning electricity generating stations, metal smelting, vehicles and other fuel burning activities. NOX and SOX when combined with water vapour, form nitric and sulphuric acids that return to the earth as acid rain, snow or fog that leads to acidification of lakes and other surface waters. Acid rain threatens fish populations, forestry, and agriculture and also causes damage to buildings and monuments. No activities from the project will contribute to acid rain.

#### 4.9 Water Resources:

Surface water resources: Surface water is fresh water on earth's surface in streams, rivers, lakes, ponds, reservoirs and wetlands. Surface waters are replenished by the runoff of precipitation from land and are therefore considered a renewable resource although finite in nature. The project is not sited near an aquatic body.

#### 4.10 Topography:

The topography of the plot is generally flat though gently sloping to the north. There is therefore no threat of mass movements or any geological instability as a result of this project. The construction works also do not involve blasting and hence no risk of other buildings being affected.

#### 4.10.1 Socio-Economic Environment:

This section outlines the general socio-economic status of the Town in relation to the proposed project. Henties Bay economy is dominated by three main activities, Tourism, Fishing and Mining. Majority of residents are in informal employment.

There are about two schools, a State School and a Private School in Henties Bay but there is no exiting township with the proposed land uses such as General businesses and General residential to support student accommodation development apart from one old known hotel (De Duine Hotel) and a small private doctor consulting room.

#### 4.10.2 Population and housing:

The town of Henties bay currently has a population of 16 000 people (Census 2011).



#### 4.10.3 The neighbouring community:

The neighbouring land uses comprise of formally proclaimed township Henties bay Extension 14, the satellite University Campus of Namibia & other future planned townships as depicted on the map). Portion 100 is un-serviced but was subdivided and surveyed for future mixed-use developments. The proponent Kandjumbi Construction and Plumbing Cc was allocated the portion through sale by private treaty.

#### 4.10.4 Transportation:

The transportation system provides access to movement of people and trade. The systems that offer access to movement and trade in within the projects' area of influence include the road networks. The proposed project site which is located on the municipal townland have access through the existing Uis gravel road. The road is an existing road network usually maintained by the Henties bay Municipality.



Figure 20: Access salt road: maintained by Henties Bay Municipality

#### 4.11 Health and safety:

The main contractor shall take care of Health and safety of workers and visitors to the site by implementing the following measures:

- Human movement to be directed away from the excavated areas using appropriate signage.
- Signage to be used to direct flow of traffic to minimize potential for accidents.
- Bulk building materials such as sand, ballast, steel, timber shall be deposited in designated areas away from human traffic.
- Suitable solid waste containers shall be provided and workers encouraged to use them
- A standard first aid kit will be provided and placed at site office for easy access by the workers in case of an Accident.
- Personal protective equipment such as, safety harnesses, helmets, gloves, respirators, safety shoes, coveralls, goggles and ear protectors shall be provided.
- All workers shall be drilled on first aid techniques.
- Idling at the site shall be discouraged using appropriate notice
- Appropriate firefighting equipment shall be provided for use during fire incidents
- Workers shall be trained on the use of the fire equipment
- Site office and stores will be constructed closer to the entrance to prevent site visitors from passing through the work areas.

#### 5. PUBLIC PARTICIPATION:

The principle of the Environmental Management Act of 2007 and along with the EIA Regulations of 6 February 2012, is to provide for sufficient and transparent process to

share information regarding a proposed project and to allow the Interested and Affected Parties to comment and ensure that all concerns are identified and included throughout the decision-making process.

#### 5.1 Objectives from The Public participation Process

The public participation process is designed to offer enough, accessible and fair platform to share or to include the affected and interested parties to information about the project. The process must allow that issues of concerns are benefits both parties and addressed fairly throughout the process. It also should verify that these issues have been captured. All issues should be verified by the technical investigations. Comments and issues raised must be included in the EIA report.

#### 5.2 Announcing of The Opportunity to Participate

The opportunity for stakeholders to participate in the EIA was announced as follows:

- A3 posters were placed on noticeboard at the following places; project site, Henties Bay Municipality, Spar Super Market Shop, Woermann brock shopping center.
- Background information document (BID) were distributed to stakeholders.
- Newspaper advertisements in the Villager / Confidante of 18 and 25 August, 2023.



## **PUBLIC NOTICE**

# ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED MIXED-USE TOWNSHIP DEVELOPMENT ON PORTION 100 OF HENTIES BAY TOWNLAND NO. 133, ERONGO REGION, NAMIBIA

Notice is hereby given to all Interested and Affected Parties (I&APs) that an application will be made to the Environmental Commissioner in terms of the Environmental Management Act (No. 7 of 2007) and its Regulations (2012) for the following intended activity:

- Project Name: Mixed-Use Township Development
- Project Location: Portion 100, Henties Bay Townland no. 133, Erongo Region, Namibia
- Proponent: Kandjumbi Construction & Plumbing Cc
- **Project Description:** The Proposed project entails the proposed mixed-use township development, on 25 hectares.
- Environmental Assessment Practitioner: Erongo Consulting Group (Pty) Ltd

All Interested and Affected Parties (I & APs) are encouraged to register and raise concerns or provide comments and opinions on or before **8**<sup>th</sup> **September 2023**. Background Information Document (BID) will be provided upon indication as an I&AP.

Public Consultation meeting date: 8 September, 2023

Venue: UNAM Hall, Henties Bay, @ 10h00-12h00

(A public meeting will be held only if there is sufficient public interest & attendance).

Should you wish to register as an I&AP, please contact the EAP:

Call / SMS / WhatsApp: +264818786676 Email: erongoconsulting@gmail.com

Figure 21: advert poster

#### 5.3 Stakeholder Briefing and Community Consultation

The BID and Draft Scoping Report were shared to registered I&Aps. Meeting advertisements were laced in x2 newspapers and on local notice boards at certain designated places around Henties bay.



17

### 543\_The Villager 25 Au...







CONTINUES ON PG 17

Villager

Friday, 25 August 2023

UNCONVENTIONAL THOUGHTS 17

EPL, and set up a fund to ensure once I find the minerals, you can buy equity in my mine as seed capital.

Also, I am mad because my old leaders sold Erindi and I will never afford a farm in this country. It highlights that our leaders have no idea what youth want or need. As I speak, I want a farm between Okahandja and Windhoek to do what needs to be done, not this annoying daily commute from Hakahana to Klein Windhoek.

I need fishing quotas, and access to a fishing trawler. I believe I can do it and I have a whole team of young souls who are ready to innovate forward.

And lastly, I need an extra 15% of our diamonds to be polished here by Namibian youth; Namdia will buy them and sell them on our behalf.

Before I let go of this keyboard, our leaders and policymakers need to respect art, music, and sport, and stop forcing us to go and study nursing and teaching. We have amazing talents that can be commodified.

And we should be allowed to take seats at the big tables and take part in policy- and decision-making. Having a seat at the table means that, at every stage of the decision-making process, you have one or two youth representatives who are specialists in that field. Having us there brings a different narrative, a different perspective.

It is clear you do not know what we need. We don't want charities and speeches; we need capital, a conducive environment, deeds, EPL, fishing guotas, and better education.

Just for the record, I don't want to join political parties so I can be carrying flags everywhere and be a yes man. I am a thinker and innovator, just take me as such. Also colleagues, I have a certificate, diploma, and degree so please stop forcing me to get a licence and to be a nice person to people in better positions.

And since when did licences and connections become the new qualifications? No disrespect to my drivers out there, but I think we might have enough taxis in Windhoek.

Anyway, come sit down with me and my fellow souls, bring kapana so we sit down, but please do not come with your cameras, bring a pen and paper and a budget for the youth. Email: gerastus16@ amail.com





#### **PUBLIC NOTICE**

ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED MIXED-USE TOWNSHIP DEVELOPMENT ON PORTION 100 OF HENTIES BAY TOWNLAND NO. 133 ERONGO REGION, NAMIBIA

tice is hereby given to all Interested and Affected Parties (ISAPs) that an application will be made to the Environmental Commissioner in terms of the Environmental Management Act (No. 7 of 2007) and its Regulations (2012) for the following intended activity:

- Project Name: Nixed-Use Township Development Project Location: Portion 100, Henties Bay Townland no. 133, Erongo Region, Namibia
- Proponent: Kandjumbi Construction & Plumbing Co.
- Project Description: The Proposed project entails the proposed mixed-use township development, or 25 hectares.
- Environmental Assessment Practitioner: Erongo Consulting Group

All Interested and Affected Parties (I & APs) are encouraged to register and raise concerns or provide comments and opinions on or before 8th September 2023. Background Information Document (BID) will be provided upon indication as an ISAP

Public Consultation meeting date: 8 September 2023 Venue: UNAN Hall, Henties Bay, @ 30H00-12H00 (A public meeting will be held only if there is sufficient public

Should you wish to register as IBAP, please contact the EAP. Cell: +264818786676 | erungocomulating (igmail.com

Villager | Friday, 25 August 2023

OPINION

RON Keens Rene Pate Inchanged STUDY REPORT FOR: The Proposed Township (mixed-use) development on portion 100 of Henties Bay Townland no.

133, Henties Bay, Namibia

5.4 Raised Issues for Investigation by EIA Specialists

Stakeholders had the opportunity to raise issues either in writing, by telephone or

email. To date, no issues have been received (No summary of issues).

5.5 Review of The Draft Scoping Report and Issues and Responses

Stakeholders were given two weeks period to comment on the scoping report and

their inputs shall be included in the final Scoping Report. Stakeholders had the

opportunity to verify information in the first draft and raise further issues and

comments on any aspects of their concerns.

Announcement for report availability

The availability of the draft report was announced by way of:

• All initial contact and at public consultative meeting with stakeholders.

• All initial calls for register as Interested and affected parties in

newspaper advertisements.

Distribution of draft report

The report was distributed for comment as follows:

Online systems such as email.

• A copy was issued to the Town Planning Office, Henties Bay

Municipality.

5.6 Final Scoping Report and Issues and Responses Report

The final Scoping Report was prepared at the end of the comment period.

**5.7 Ongoing Progress Report** 

#### 6. REFERENCE

- DEAT (2002) Impact Significant, integrated Environmental Management, Information Series 5, Department of Environmental Affairs and Tourism (DEAT), Pretoria.
- DEAT (2006) Guideline 5: Assessment of Alternatives and Impact in support of the Environmental Impact Assessment Regulations, 2006. Integrated Environmental Management Guideline Series, Department of Environmental Affairs and Tourism (DEAT), Pretoria.
- Environmental Management Act of 2007, Namibia.
- Environmental Impact Assessment Regulations, GN 6 February 2012. Namibia.
- National Planning Commission (2003) Population and Income and Housing Census. Central Bureau of Statistics, Windhoek

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#### **Erongo Consulting Group**

Environmental Assessment Practitioner and Management Consultant

#### **ANNEXURES**

- 1. EIA practitioner company profile
- 2. Advertisement notices
- 3. Invitation letter to a public meeting
- 4. Stakeholder attendance register
- 5. Attendance register
- 6. MC & Council Minutes & Ministerial approval
- 7. Public consultation minutes