

ENVIRONMENTAL MANAGEMENT PLAN

FOR THE CREATION OF A STREET AND FOR CONSTRUCTION AND OTHER ACTIVITIES WITHIN A WATERCOURSE FLOOD LINE, ON THE REMAINDER OF ERF 3526, EXTENSION 7, KATIMA MULILO

PROPONENT:

JOE'S CONSTRUCTION CC P O BOX 744 KATIMA MULILO NAMIBIA

SUBMISSION TO:

MINISTRY OF ENVIRONMENT, FORESTRY AND TOURISM PRIVATE BAG 13306 **WINDHOEK** NAMIBIA



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1 INTRODUCTION

Joe's Construction CC is planning to establish a new residential development, which will result in the creation of 24 new residential, general residential, and business plots, in Katima Mulilo. The overall aim of this development is to provide serviced land for a range of uses in the Katima Mulilo. Managing the environmental implications of such a project from construction to operation requires a set of management measures laid out in the form of an Environmental Management Plan (EMP) to guide the development to be sustainably.



An EMP is an essential product of an Environmental Assessment (EA) process. An EMP synthesises all recommended mitigation and monitoring measures laid out according to the various stages of a project life cycle, with clearly defined follow-up actions and responsibility assigned to specific actors. This EMP has been drafted in accordance with the Namibian Environmental Management Act (No. 7 of 2007) and it's Environmental Impact Assessment Regulations (2012). This plan describes the mitigation and monitoring measures to be implemented during the following phases of the development:

- Planning and Design;
- Construction and
- Operation

2 **RESPONSIBILITIES**

Implementation of the EMP is ultimately the responsibility of the Employer, Joe's Construction and the administrator of the development after construction, the Katima Mulilo Town Council. Due to the magnitude of the project, it may be necessary to outsource certain functions pertaining to managing all aspects of the actual development process. When implementing the EMP, the following roles and responsibilities apply.

Each role player's responsibilities are described below.

EMPLOYERS REPRESENTATIVE (ER)

The ER is appointed by the Developer (Joe's Construction) to manage all contracts for work/services that are outsourced during the construction phase. Any competent employee or third party organisation which possesses the appropriate experience may fill this position. Any official communication regarding work agreements is delivered through this person/organisation.

The ER shall assist the Environmental Control Officer (ECO) where necessary and will have the following responsibilities regarding the implementation of this EMP:

- Ensuring that the necessary legal authorisations and permits have been obtained by the Contractor;
- · Assisting the Contractor in finding environmentally responsible solutions to problems with input from the ECO where appropriate;
- · Warning and ordering the removal of individuals and/or equipment not complying with the EMP;
- · Issuing fines for the transgression of site rules and penalties for contravention of the EMP; and
- Providing input into the ECO's ongoing internal review of the EMP. This review report should be submitted on a monthly basis to the Developer.

ENVIRONMENTAL CONTROL OFFICER (ECO)

The ECO should be a competent person appointed by the ER. If the ECO has no training in occupational safety and health on a construction site, they should be sent for such training. The ECO is the ER's onsite representative primarily responsible for the monitoring and review of on-site environmental management and implementation of the EMP by the Contractor(s). If no ECO is appointed the duties of the ECO fall upon the ER. The Katima Mulilo Town Council should, with the commencement of the project monitor the implementation of the EMP on-site on an ad hoc basis.

The ECO's duties include the following:

- Assisting the ER in ensuring that the necessary legal authorisations have been obtained;
- Maintaining open and direct lines of communication between the ER, Developer, Contractor, and Interested and Affected Parties (I&APs) with regard to this EMP and matters incidental thereto;
- Monthly site inspection of all construction areas with regard to compliance with this EMP;
- Monitor and verify adherence to the EMP (audit the implementation of the EMP) and verify that environmental impacts are kept to a minimum;
- Taking appropriate action if the specifications for the EMP are not adhered to;
- Assisting the Contractor in finding environmentally responsible solutions to problems;
- Training of all construction personnel with regard to the construction and operation mitigation measures of this EMP and continually promoting awareness of these;
- Ensure that all contractors shall provide for adequate environmental awareness training (see Plan Component 5) of senior site personnel by the ECO and that all construction workers and newcomers receive an induction presentation on the importance and implications of this EMP. The presentation shall be conducted, as far as is possible, in the employees' language of choice;
- Monthly inspection to verify if new personnel have received appropriate environmental, health and safety training and training those who have not;
- Advising on the removal of person(s) and/or equipment not complying with the specifications of the EMP in consultation with the ER;
- Recommending the issuing of fines for transgressions of site rules and penalties for contraventions of the EMP; and

• Undertaking a 3-month review of the EMP and recommending additions and/or changes to the document.

CONTRACTOR

The Contractor is responsible for the implementation, on-site monitoring and evaluation of the EMP. In order to ensure sound environmental management, the relevant sections of this EMP should be included in all contracts of work outsourced, thus legally binding all appointed contractors.

The Contractor must keep records of all environmental training sessions, including names, dates and the information presented for inspection and reporting by the ER and ECO at all times necessary.

3 RELEVANT LEGISLATION AND PERMIT REQUIREMENTS

The following table provides the legislative framework within which the applicant should be viewed:

Table 1: Relevant Legislation and Permit Requirements

| STATUTE | PROVISIONS | PROJECT IMPLICATIONS | |
|--|--|---|--|
| The Constitution of the Republic of Namibia, 1990: | The state shall actively promote and maintain the welfare of the people by adopting, inter-alia, policies aimed at the following: (I) management of ecosystems, essential ecological processes and biological diversity of Namibia and utilisation of living natural resources on a sustainable basis for the benefit of all. | Ensure that the ecological integrity of the ecosystems of the area is protected. | |
| Environmental Management: | Environmental Management Act No.7 of 2007: EIA Regulation (EIAR) GN 57/2007 (GG 3212): In terms of Section 10.1(b), 10.2(a), for environmental clearance for the construction of a public road, In terms of Section 8.8, 8.10 and 8.11, for construction and other activities in watercourses within flood lines, the reclamation of land from below or above the high-water and the alteration of natural wetlands are listed activities. Prescribes the procedures to be followed for authorisation of the project (i.e. Environmental clearance certificate). | Evaluate if the alignment of the street will impact on the social and natural environment. Determine if the risk of flooding of the erven is at acceptable levels. Determine if proposed limited infill would impact the function of the watercourse or cause flooding elsewhere. | |

| WATER AND RESOURCES | The Water Act No. 54 of 1956 and | Assess the potential risk that the | |
|-----------------------------|---|--|--|
| MANAGEMENT: | Water Resources and Management | planned activities may have on both | |
| | Act No.27 of 2007 Section 92: | the watercourses and floodplains on | |
| | Section 92 (1), A person may not | the one hand, and future occupants of | |
| | engage in any construction work or | the land on the other. | |
| | other activity that causes, or is likely to | | |
| | cause, the natural flow conditions of | | |
| | water in to or from a watercourse to be | | |
| | modified , unless the Minister has | | |
| | granted prior written approval for the | | |
| | work or activity to be carried out. | | |
| | Section 100 (e) consult with the | | |
| | regional council or local authority in | | |
| | determining the geographic extent of | | |
| | flood plain areas in its region or local | | |
| | authority, as the case may be, and | | |
| | assist any such councils in regulating | | |
| | the development and use of land within | | |
| | floodplain areas | | |
| | Section 100 (f) prescribe measures for | | |
| | control and management of storm and | | |
| | flood risk within local authority areas. | | |
| | Section 101 (b) development on the | | |
| | banks of any wetland or dam; and | | |
| | Section 101 (c) the removal of rocks, | | |
| | sand or gravel or any other material | | |
| | from a watercourse. | | |
| | The Dublic Health Act 26 of 1010 | Prevent activities which can have an | |
| AND SAFETY RECULATIONS | as amended and the Health and | impact on the health and safety of the | |
| AND SAFETT REGULATIONS. | as amenueu anu the meanth anu | nublic | |
| | Salety Regulations. | public. | |
| | These acts control the existence | | |
| | nuisances such as litter that can cause | | |
| | a threat to the environment and public | | |
| | health. | | |
| POLLUTION CONTROL AND WASTE | Pollution Control and Waste | Asses the intervention causing the | |
| MANAGEMENT BILL: | Management Bill: | discharge of pollution into the | |
| | This bill aims to promote sustainable | environment. | |
| | development and to prevent and | | |

| | regulate the discharge of pollutants into | | |
|-----------------------------|--|--|--|
| | regulate the discharge of pollutarits into | | |
| | the environment. | | |
| LABOUR: | Labour Act. 11 of 2007: | Ensure the protection of workers' rights | |
| | This bill aims to protect workers and | and safety in Namibia. | |
| | their environment which they work in | | |
| | their environment which they work in: | | |
| NORTHERN REGION. FLOOD RISK | Northern Region. Flood Risk | Asses to what extent the proposed | |
| MANAGEMENT PLAN: | Management Plan: Flood Risk | intervention complies with the | |
| | Management Plan of 2011 | provision of the plan. | |
| | | | |
| | The Management Plan provides control | | |
| | measures for future planning within | | |
| | the northern regions. | | |
| | | | |
| Forestry: | Forest Act. 12 of 2001 | Ensure that existing trees are | |
| | Protected tree species and any | protected. | |
| | vegetation within 100m from a | | |
| | watercourse may not be removed | | |
| | without a permit from the Ministry of | | |
| | Agriculture, Water and Forestry. | | |

4 PLANNING AND DESIGN PHASE

Table 2: Management Requirements for the Planning and Design Phase

| ASPECT | MANAGEMENT REQUIREMENTS | |
|------------------------------|--|--|
| Natural Building Material | All building material (sand and gravel) must be sourced from a local registered borrow pit only. Road building material, (G4, G5, etc. material) must be sourced in collaboration with the Katima Mulilo Town Council from approved borrow pits within Katima Mulilo. If suitable material can only be sourced from untouched land to create a new borrow pit, then that is legally subject to an EIA as well by the Katima Mulilo Town Council. | |
| EMP Implementation | Relevant sections of this EMP should be included in the tender documents for all development so that tenderers can make provision for implementation of the EMP. | |
| Financial Provisions | Financial provision for the facilitation of an induction programme for senior, temporary construction personnel as well as subcontractors and associated personnel should be included as a cost item within tenders concerning the construction and/or operation and maintenance of the proposed development. Financial provision for the compilation of a Tree Management Plan should be included as a cost item within construction tender documents. | |
| Recruitment | Provisions designed to maximise the use of local labour should be included within tenders concerning the construction of bulk and reticulation services. A provision stating that all unskilled labour should be sourced locally should be included in tenders concerning the construction of all services of the development. Specific recruitment procedures ensuring local firms enjoy preference during tender adjudication should be included in tenders concerning the construction of the development's bulk services. Provisions promoting gender equality pertaining to recruitment should be included in tenders concerning the construction of the township services. Women should be given preference for certain jobs (e.g. those jobs that require relatively less physical strength). | |

5 CONSTRUCTION MITIGATION DETAILS

Table 3 provides a scale overview of all the major environmental management themes pertaining to both generic and site-specific construction mitigation details. This table serves a quick reference for the detailed mitigation details that follow subsequently for each theme. This is done to simplify the implementation of the construction component of this EMP.

Table 3: Generic and site-specific Environmental Management Actions for the Construction Phase

| THEME | OBJECTIVE | MITIGATION DETAIL | |
|---|---|---------------------|-------------------|
| | | GENERIC | SITE- SPECIFIC |
| WASTE MANAGEMENT: | Minimise and avoid all waste pollution associated with construction. | PLAN COMPONENT 1 | YES |
| HEALTH AND SAFETY: | Focusing on the wellbeing of the labourers on and the community near the site. | PLAN COMPONENT 2 | YES |
| NOISE AND DUST: | Minimise and avoid all noise and dust associated with construction. | PLAN COMPONENT 3 | YES |
| TRAFFIC: | Minimise traffic impact. | PLAN COMPONENT 4 | YES |
| ENVIRONMENTAL TRAINING AND AWARENESS: | Awareness creation regarding the provisions of the EMP as well as the importance of safeguarding environmental resources. | PLAN COMPONENT 5 | YES |
| ENVIRONMENTAL CONSERVATION: | Minimise the effect of the construction and protect the natural environment in which it is happening. | PLAN COMPONENT 6 | YES |
| EMPLOYMENT/ RECRUITMENT: | Minimise conflict through legal and fair recruitment practices. | PLAN COMPONENT 7 | YES |
| STAKEHOLDER COMMUNICATION: | Provide a platform for stakeholders to raise grievances and receive feedback and hence, minimise negative conflict. | PLAN COMPONENT 8 | YES |
| SOCIO-ECONOMIC AND MISCELLANEOUS: | Protecting cultural and general wellbeing of the affected. | PLAN COMPONENT 9 | N.A |

Table 4: Project Phases

Table 5: Mitigation Measures for the Prevention of Environmental Impacts

5.1 PLAN COMPONENT 1: WASTE MANAGEMENT

At the construction site, Erf Re/3526 Katima Mulilo Extension 7, high importance shall be placed on waste management, and need to be performed on a daily basis. Solid waste is the expected major source of waste at the construction site, and therefore, a *Waste Management Plan* must be compiled. The Waste Management plan must address measures for the uses and the disposal of general waste and hazardous waste at the site, as indicated below:

5.1.1 CONSTRUCTION PHASE WASTE MANAGEMENT:

5.1.1.1 General Waste

- The construction site should be kept tidy at all times. All general construction waste produced should be cleaned and contained daily.
- No waste may be buried or burned.
- No waste may be dumped in any watercourse in and around the project area.
- A sufficient number of separate waste containers (bins) for hazardous and domestic/general waste must be provided on site. These should be clearly marked as such.
- Construction labourers should be sensitised to dispose of waste in a responsible manner and not to litter.

5.1.1.2 Hazardous Waste

- All heavy construction vehicles and large fuel-powered equipment on the site should be provided with a drip tray.
 - If the vehicle used is suspected of having an oil leakage, drip trays are to be transported with vehicles wherever they go on site.
 - Drip trays should be cleaned daily, and spillage handled, stored, and disposed of as hazardous waste.
- Spilled concrete (wet) should be treated as waste and disposed of by the end of each day in the appropriate waste containers.
- Unbound cement (dry) in its raw state and cement infused water from mixers are classified as hazardous waste, due to its high alkalinity content. Treatment would be the same as for hazardous waste and disposal of such should take place in the appropriate labelled hazardous waste containers.

- A hazardous waste spill clean-up kit should be kept onsite, and its stock replenished as needed. The kit will consist of the following items (with the numbers of each item is up to the discretion of the ER):
 - Medium sized shovels, strong plastic bags, drip trays, dust masks, heavy-duty gloves, and a biodegradable hand wash (degreasing) agent.
- A storage location must be provided for the use of all hazardous substances (e.g. fuel etc.) or chemicals. The storage area must be of an impermeable surface; this is bonded awaiting use and disposal afterwards.

The timeframe of the above-mentioned construction phase ends at the operational phase, and the Contractor is responsible for the implementation of the EMP, on-site monitoring and evaluation of the EMP.

5.1.2 OPERATIONAL PHASE WASTE MANAGEMENT:

5.1.2.1 General Waste

- The household waste needs to be collected by the Katima Mulilo Town Council or services provider.
- Sewerage needs to be pumped through a closed system pipeline to the Katima Mulilo Town oxidation ponds to the east of the town.

The timeframe of the actions mentioned above are continuous, and the responsibility and monitoring lie with the Katima Mulilo Town Council who will be responsible for the maintenance of the sewerage pipelines after construction and the solid waste removal. However, body corporate within sectional titles will have the responsibility to manage general waste within the scheme and provide access to waste removal operators.

5.2 PLAN COMPONENT 2: HEALTH AND SAFETY

The health and safety aspect of the workspace is something that cannot be understated; considering that unexpected severe events can occur at any given moment. Therefore, careful planning and prevention measures are necessary to reduce the risk of serious injuries while on duty.

5.2.1 CONSTRUCTION HEALTH AND SAFETY MANAGEMENT:

The construction industry is fraught with hazards; therefore, careful planning and prevention measures are necessary to reduce the risk of serious injuries while on duty.

5.2.1.1 HIV/AIDS and TB Training

The contractor should approach the Ministry of Health and Social Services to appoint a health officer to facilitate HIV/AIDS and TB education programmes periodically on site during the construction phase.

5.2.1.2 Road Safety

- Vehicles contents/consignments should be adequately secured to avoid items falling off the vehicle.
- All trucks carrying sand or fine material loads should be covered with a shade net cover to prevent these materials from being blown off onto approaching vehicles from both directions.
- No construction vehicle may be used to transport personnel to and from the construction site. This is an offence and punishable by law due to the extreme safety risk involved.

5.2.1.3 Safety around Excavated and Work Areas

- A meeting with the neighbouring community will be held, and the safety precautions of the construction area explained.
- Excavations should be left open for an absolute minimum time only.
- Excavate short lengths of trenches and box areas for services or foundations in such a way that the trench will not be left unattended for more than 24 hours.
- Demarcate the following areas with danger tape or orange demarcation netting:
 - All excavation works;
 - Soil and other building material stockpiles; and
 - Temporary waste stockpiles.
- Provide additional warning signage in areas of movement and in "no person allowed" areas where workers are not active.
- Work areas must be set out and isolated with danger tape on a daily basis.
- All building materials and equipment are to be stored only within set out and demarcated work areas.

- Only construction personnel will be allowed within these demarcated work areas.
- Two dry chemical powder fire extinguishers should be available at fuel storage areas and the workshop area, as well as the site office.

5.2.1.4 Ablutions

- Separate ablutions (toilet) should be available for men and women and should clearly be indicated as such.
- Portable toilets (i.e. easily transportable) should be available at every construction site:
 - 1 toilet for every 25 females.
 - 1 toilet for every 50 males.
- Sewage waste needs to be removed on a regular basis to an approved (municipal) sewage disposal site. Alternatively, pump it into sealable containers and store it until it can be removed.
- Workers responsible for cleaning the toilets should be provided with latex gloves and masks.

5.2.1.5 Emergency Contact Numbers in Katima Mulilo

• Police: (066) 251 225

(As well as in the event or occurrence where material or substance is discharged, deposited or released or leaks or escapes into a water resource).

- Fire Brigade: (066) 251 225, after hours 081 379 4559 / 081 467 2169, and
- Hospital: (066) 251 400.

The timeframe of the health and safety management during the construction phase ends at the start of the operational phase, and the ER should compile a checklist of all health and safety aspects contained in this section and once a month a compliance assessment should be one. The findings should be discussed at monthly management meetings, and all recommendations for improvements proposed to be implemented with immediate effect.

5.2.2 OPERATIONAL PHASE HEALTH AND SAFETY MANAGEMENT:

The importance of the health and safety aspect of the residents living in the new residential neighbourhood, which is located next to an area which is known for flooding, cannot be overstated understated. Therefore, careful planning and prevention measures are necessary to reduce the risk of impacts related to floods.

5.2.2.1 Flood Risk Impact Preventions:

- All services (power and sewer lines) need to be placed in the evaluated road reserve, to prevent it from being influenced during flood periods.
- The sewerage network needs to link up with the nearby sewer line which runs through the area.

The system will be incorporated with the Choto and Butterfly Settlement's sewerage network, which flows to the oxidation ponds located east of the town. A closed gravity system needs to be used to prevent any future pollution in the area during flood periods.

- The residents or contractor need to inform the Katima Mulilo Town Council's sewer or electrical department if they have problems with the sewer or electrical network.
- The culverts and the bridge need to be maintained.
- A flood warning systems need to be in place. The Katima Mulilo Town Council needs to "improve the flood warning systems" and emergency evacuation plan, giving people more time to take action during flooding.
- The body corporate of the general residential erven needs to include a flood warning system and evacuation plan, which is in line with the Katima Mulilo flood warning system and evacuation plan.
- No buildings are allowed to be constructed lower than the 941m contour level.
- No existing trees or soil are allowed to be removed below or higher than the 941m contour, within the development after construction.

The timeframe of the actions mentioned above are continuous, and the responsibility and monitoring lie with the Katima Mulilo Town Council, the owner or body corporate of the new erven.

5.3 PLAN COMPONENT 3: NOISE AND DUST

The construction site, Erf Rem/3526 Katima Mulilo Extension 7 is situated within the built area of Katima Mulilo. Therefore, high priority will be placed on mitigation measures at the construction site to manage dust and noise. The following measures are provided below to minimise noise and dust:

5.3.1 NOISE

- Work hours should be restricted to between 07:00 and 18:00, where construction involving the use of heavy equipment, and the movement of heavy vehicles is less than 500m from residential areas.
- In the event that work is necessary outside the designated working hours, all receptors (residents or businesses within 500 m from the work areas) will need to be notified at least 2 days in advance.

5.3.2 DUST

A watering truck should be used on gravel roads with the most vehicle movement, especially during dry and windy conditions. However, due consideration should be given to water restrictions during times of drought and applicable seasons.

- Stockpiles of building material and earth material need to be kept moist, or the surfaces need to be kept stabilised. A nylon mesh cover which reduces dust lift with ± 50% can be an alternative option.
- Limit the size of stockpiles of large quantities of soil, topsoil and other fine material.
- Dust protection masks should be issued to all workers exposed to dust on the site.
- Improve awareness of ambient air quality and consideration regarding wind speed and direction when undertaking dust generating activities

5.4 PLAN COMPONENT 4: TRAFFIC

Increase in Traffic: During the construction phase, motorist in Katima Mulilo may experience an increase in traffic on the B8. The following measures are providing below to minimise traffic:

TRAFFIC

- Construction vehicles should be restricted during peak hours, between 07:00-08:30 and 16:00-17:30.
- Appropriate advance road warning signage needs to be used.

5.5 PLAN COMPONENT 5: ENVIRONMENTAL TRAINING AND AWARENESS

All construction workers at the development site are to undergo environmental training and awareness programs. The following aspects should be included:

- Explanation of the importance of complying with the EMP.
- Discussion of the potential environmental impacts of construction activities.
- Employees' roles and responsibilities, including emergency preparedness.
- Explanation of the mitigation measures that must be implemented when particular workgroups carry out their respective activities.
- Explanation of the specific mitigation measures within this EMP, especially unfamiliar provisions.

During the training sessions, an attendance register should be completed, including the names, positions designations and signatures of everyone who attended the training and kept on file for auditing purposes. Thereby, all the training sessions prior to it being conducted must be approved by the ECO.

5.6 PLAN COMPONENT 6: ENVIRONMENTAL CONSERVATION

The specialist report for the EIA indicated that as many larger trees as possible should remain intact during development. As a general principle, the developer wishes to keep all large trees. In an attempt to keep the trees, the proposed street was carefully planned. In connection with the environmental conservation aspect on the site, the following conservation measures should be included:

5.6.1 CONSERVATION OF VEGETATION

Any post-construction layout and building design submitted for constructing a building on any erf within the development should incorporate existing large indigenous trees. Refer to the planning and design phase specifications in this EMP for more details. Thereby the contractor should compile a *Tree Management Plan*, which should include the following as content at the minimum level:

- As an initiative, trees with a trunk size of 50mm and bigger should be surveyed, marked with paint and taken into consideration in the design of the servitudes and roads;
- Trees with a trunk size of 50mm and bigger, which are impossible to conserve, need to be identified and their location recorded on a map.
- All trees, which are to be retained, are to be clearly indicated on a site plan and demarcated.
- Each tree that is removed needs to be replaced after construction in an appropriate position.
- Trees can be obtained at the Katima Mulilo forestry office or at a commercial nursery. The forestry officers can also direct to nearby nurseries where additional trees may be bought.

5.6.2 CONSERVATION OF WATER SOURCES

Building designs submitted for the construction of a building on any erf within the development will stay clear of the existing flood lines. The business erven partly falls 30cm below the 100-year flood line and therefore as a precaution will be filled up. The low lying area will be filled with two layers of 15cm soil, compacted to 95% MOD Aashto.

5.6.3 MATERIALS CAMP AND LAY-DOWN AREAS

A suitable location for the **materials camp and lay-down** areas should be identified with the assistance of the ER, and the following should be considered in selecting these sites:

- The areas designated for the proposed services infrastructure should be used as far as possible.
- The second choice should be degraded land.
- Sensitive areas should be avoided (e.g. watercourses).

5.7 PLAN COMPONENT 7: EMPLOYMENT/RECRUITMENT

The formal recruitment process should be compiled and shall include the following minimum provisions:

5.7.1 RECRUITMENT

- A recruitment process whereby local residents shall be given preference shall be designed by the ER and the contractor.
- Ensure that all sub-contractors are aware of recommended recruitment procedures and discourage any recruitment of labour outside the agreed-upon process.
- Contractors should give preference in terms of recruitment of sub-contractors and individual labourers to those from the project area and only then look to surrounding towns.
- Clearly explain to all job-seekers the terms and conditions of their respective employment contract (e.g. period of employment, etc.) make use of interpreters when required.

5.7.2 LEGISLATION

The contractor needs to adhere to the legal provisions in the Labour Act for the recruitment of labour (target percentages for gender balance, optimal use of local labour and SME's, etc.) in the contract.

5.8 PLAN COMPONENT 8: STAKEHOLDER COMMUNICATION

Within the construction phase, the developer should draft a *Communication Plan*. Thereby the ER in collaboration with the developer must appoint an ECO to liaise between the contractor, stakeholders, developer, and consultants. The appointed contractor shall appoint a person from the construction team to take responsibility for the implementation for all provisions of this EMP.

5.8.1 COMMUNICATION PLAN

In addition, the plan shall specify:

- How stakeholders, who require ongoing communication for the duration of the construction period, will be identified and recorded and who will manage and update these records;
- How these stakeholders will be consulted on an ongoing basis;
- How grievances shall be handled i.e. how concerns can/ will be lodged/ recorded and how feedback will be delivered as well as further steps of arbitration in the event that feedback is deemed unsatisfactory.

5.8.2 GENERAL COMMUNICATION

- The Contractor shall at every site meeting report on the status of the implementation of all provisions of the EMP.
- The ECO must list the stakeholders of the project and their contact details with whom ongoing communication would be required for the duration of the contract. This list, together with the *Communication Plan*, must be agreed upon and given to the ER before construction commences.
- The Communication Plan, once agreed upon by the developer, shall be binding.
- All communication with the stakeholders must take place through the ECO.
- A copy of the EMP must be available at the site office and should be accessible to all stakeholders.
- The Contractor should liaise with the developer regarding all issues related to community consultation and negotiation before construction commences.
- A procedure should be put in place to ensure that concerns raised have been followed-up and addressed.
- All people on the stakeholder's list should be informed about the availability of the complaints register in writing by the ER prior to the commencement of construction activities.

Table 6: Public Consultation Process

| THE PROCESS: | DESCRIPTION OF THE PROCESS: | |
|--------------------------------------|--|--|
| PLANNING PHASE | | |
| I&APS IDENTIFICATION: | Key Interested and Affected Parties (I&APs) were identified and included in a list of I&APs (Appendix E.2). | |
| NEWSPAPER NOTICES: | Notices were placed, for two consecutive weeks in two widely circulated newspapers, briefly describing the developments and their locality, inviting the public to register as I&APs (Appendix E.1). Urban Dynamics received two responses from the public (Appendix E.4). | |
| NOTICE BOARD AND POSTER AT THE SITE: | A notice board was placed close to the proposed site informing the local community of the proposed development. A poster was put up on at the site informing people of the proposed development. | |
| INFORMATION PROVISION: | A Background Information Document (BID) was compiled that contained essential information about the project (Appendix E.3). | |
| MEETINGS: | Urban Dynamics did advertise and requested that the public register as I&APs for a public meeting. There was no public response for a meeting. The area currently accommodates no community, which is one of the reasons why no meeting was held at the site. Information was provided to stakeholders (of which one was the Katima Mulilo Town Council). (Appendix A) | |
| PUBLIC COMMENTS PERIOD: | The public comments period was from 11 September to 2 October 2017. | |
| THE CONSTRUCTION PHASE: | | |
| COMMUNICATION PLAN : | The Contractor shall at every site meeting report on the status of the implementation of all provisions of the EMP. The ECO must list the stakeholders of the project and their contact details with whom ongoing communication would be required for the duration of the contract. This list, together with the Communication Plan, must be agreed upon and given to the ER before construction commences. | |

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| The Communication Plan, once agreed upon by the developer, shall be binding. |
|--|
| All communication with the stakeholders must take place through the ECO. |
| A copy of the EMP must be available at the site office and should be accessible to all stakeholders. |
| The Contractor should liaise with the developer regarding all issues related to community consultation and negotiation before construction commences. |
| A procedure should be put in place to ensure that concerns raised have been followed-up and addressed. |
| All people on the stakeholder's list should be informed about the availability of the complaints register in writing by the ER prior to the commencement of construction activities. |
| |

5.9 PLAN COMPONENT 9: SOCIO-ECONOMIC AND MISCELLANEOUS

No heritage or archaeological sites were found in the area. However, the EMP's standard procedures for heritage or archaeological sites are still included in this plan. No formal survey for archaeological remains was conducted during the field studies of the site, therefore the possibility of it containing some or the other form of remnants cannot be ruled out, especially when excavations are done.

Heritage or Archaeological Sites

In the case where a heritage or archaeological site is uncovered or discovered during the construction phase of the development, a 'chance find' procedure should be applied as follows:

- If operating machinery or equipment to stop work immediately;
- Demarcate the site with danger tape;
- Determine GPS position if possible;
- Report findings to foreman;
- Cease any works in the immediate vicinity;
- Visit the site and determine whether the work can proceed without damage to the findings;
- Determine and demarcate exclusion boundary;
- Inspect site and confirm the exact location.
- Advise the National Heritage Council (NHC) and request written permission to remove findings from the work area; and
- Recovery, packaging and labelling of findings for transfer to National Museum.

Should human remains be found, the following actions will be required:

- Apply the 'chance find' procedure as formerly described;
- Schedule a field inspection with an archaeologist to confirm that the remains are human;
- Advise and liaise with the NHC and Police; and
- Remains will be recovered and removed either to the National Museum or the National Forensic Laboratory.

If it is found that the construction site is on a heritage site or an archaeological site, the developer will need to apply for a permit from the National Heritage Council in order to carry out works in a protected place as indicated in the National Heritage Act 27 of 2004.

