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Development of Erf. 332, Pearly Beach

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#### 2.4.2 AESTHETICS

The Contractor shall take reasonable measures to ensure that the construction activities and all related operations do not have an unreasonable impact on the aesthetics of the area during construction.

### 2.5 HEALTH AND SAFETY

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The Contractor shall at all times observe the Occupational Health and Safety Act No. 85 of 1993 and ensure adequate safety precautions on the site.

Telephone numbers of emergency services, including the local fire fighting service, shall be displayed conspicuously in the Contractor's office near a telephone. No weapons (firearms, airguns, daggers etc.) are permitted on site.

### 2.6 PRE-CONSTRUCTION CONSIDERATIONS

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Please note that the following is not a complete list of activities required by the EMP but an easy reference of some of the important pre-construction considerations to facilitate pre-construction planning.

- DEA&DP to be notified of commencement of construction.
- Archaeological sampling to be carried out at sites described in the 2.19.4 of this EMP to be undertaken.
- Search and rescue for white form of *Brunsvigia orientalis* to be arranged in discussion with Pearly Beach Conservancy or an experienced botanist. This is time sensitive and must be done in the appropriate season.
- A general sweep will be carried out by the ECO for small fauna such as tortoises. Date to be provided to the ECO by the ER.
- ER to ensure all concerned have a copy of the approved EMP and that this is included in the bill of quantities.
- ECO to be appointed.
- Contractors method statements as listed in the EMP to be submitted to ECO and ER for approval.
- Site boundaries to be demarcated (southern and western boundaries fenced), ensuring that these fall behind the setback line as discussed in the Pearly Beach Erf. 332 Development Setback Line report included in the BAR (i.e. 70m from the high water mark).
- No-Go Fencing to be erected and construction foot print areas demarcated.
- No vegetation clearing is to take place outside of the building foot print i.e. the areas required for construction must not be cleared.
- Archeologist appointed to monitor bulk earth works and infrastructure trenching (laying of pipes etc.)
- Contractor to arrange for ECO to undertake first environmental induction with staff.

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## 2.7 METHOD STATEMENTS

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Method statements are written submissions by the Contractor/DEO to the ER (with input from the ECO) in response to the requirements of this EMP or to a request by the ER or ECO. Apart from the listed MS's below, the contractor will make allowances for the submission of least an additional five (5) MS's should these be requested.

The Contractor shall be required to prepare method statements for several specific construction activities and/or environmental management aspects as specified. Annexure 4 provides an example for a method statement template. **It is the Contractors responsibility to ensure that the required method statements are timeously submitted.**

The Contractor shall not commence the activity for which a method statement is required until the ER has approved the relevant method statement.

Method statements must be submitted at least seven (7) business days prior to the date on which approval is required (start of the activity). Should the method statement be rejected this will be done so with comment and/or recommendations. The seven day submission period will commence once again on re-submission of the MS. Should the MS be submitted and no response (acceptance or rejection) be obtained from the ER or ECO the MS will be considered as having been accepted and work can commenced in line with the submitted MS.

Failure to submit a method statement may result in suspension of the activity concerned until such time as a method statement has been submitted and approved.

An approved method statement shall not absolve the Contractor from any of his obligations or responsibilities in terms of the contract. However, any damage caused to the environment through activities undertaken without an approved method statement shall be rehabilitated at the contractor's cost and to the satisfaction the ECO and ER.

The method statements shall cover relevant details with regard to:

- Construction procedures and location of the construction site.
- Start date and duration of the procedure.
- Materials, equipment and labour to be used.
- How materials, equipment and labour would be moved to and from the site as well as on site during construction.
- Storage, removal and subsequent handling of all materials, excess materials and waste materials of the procedure.
- Emergency procedures in case of any reasonably potential accident / incident which could occur during the procedure.
- Compliance / non-compliance with the EMP Specification and motivation if non-compliant.

### ***Method statements required:***

Based on the specifications in this EMP, the following method statements are required as a minimum, more method statements may be requested as required. As stipulated above the contractor will allow for at least an additional five (5) MS's:

**MS1:** Site clearing

**MS2:** Site layout and establishment

**MS3:** Hazardous substances

**MS4:** Cement and concrete batching

- MS5: Traffic accommodation
- MS6: Solid waste control system
- MS7: Wastewater control system
- MS8: Soil erosion prevention and sedimentation control
- MS9: Emergency procedures (fires and hazardous material spills)
- MS10: Alien vegetation-clearing
- MS11: Landscaping/Rehabilitation

## 2.8 SITE ESTABLISHMENT

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### 2.8.1 DEMARCATION OF THE SITE

The "site" here refers to all areas required for construction purposes. The boundary of the site will be agreed with and approved by the ER.

The Contractor shall demarcate the boundaries of the site as well as construction/building footprints in order to restrict his construction activities to within the construction foot prints on site. The method of demarcating the boundaries and footprints shall be determined by the Contractor and agreed to by the ER prior to any work being undertaken. The use of danger tape for this purpose is discouraged and will be limited as far as possible.

The western and southern boundaries of the site will be fully fenced to the specification as set out in section 2.9.3 of this document.

The Contractor shall maintain the demarcations and ensure that materials used for construction on the site do not blow on or move outside the site and environs. The boundaries of the site shall be demarcated prior to any work commencing on the site. The site demarcations shall be removed when the site is decommissioned.

The Contractor shall ensure that all his plant, labour and materials remain within the boundaries of the site, unless otherwise agreed in writing with ER. It will be the responsibility of the Contractor to decide on an appropriate system of protective fencing for the site, if required.

### 2.8.2 SITE CLEARING

**MS1:** *The Contractor shall submit a site clearing method statement for all areas where the Contractor is required to, or intends to, clear vegetation within the development footprint. The method statement shall clearly indicate chainage or land references and shall detail all areas that need to be cordoned off prior to clearing, what is to be cleared and how this will be done, where and how cleared material would be stored or disposed of, etc.*

#### 2.8.2.1 Vegetation Clearing

No vegetation clearing shall take place without approval of the method statement by the ER and the search and rescue operation having being concluded. No vegetation clearing is to take place outside of the building foot print i.e. the areas required for construction. The remainder of the site must be left un-cleared.

Vegetation clearing operations must be inspected by a professional archaeologist.

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No vegetation clearing shall take place until the "No-Go" areas are fenced off. No-Go areas include the two private open space areas on the northern edge of the site as indicated in annexure 2 as well as any areas beyond the southern and western boundaries of the site.

Before clearing of vegetation, the Contractor shall ensure that all litter and non-organic material is removed from the area to be cleared.

Vegetation clearing of the site shall, as far as possible, take place in a phased manner in order to retain vegetation cover for as long as possible.

Indigenous plant material can be removed from cleared areas and may be stockpiled for mulching. Alien vegetation may be used for mulching if it is not in seed, this must be overseen by the ECO. All remaining vegetation shall be removed and disposed of at an approved landfill site.

Burning of stockpiled vegetation will not be considered as a suitable disposal method.

#### 2.8.2.2 Top Soil

Sufficient top soil must be striped for the rehabilitation purposes of disturbed areas on site after construction. Any top soil stripped from the site must be stockpiled separately from other materials on the site.

Stripped topsoil shall be stockpiled in areas agreed with the ER for later use in rehabilitation and shall be adequately protected. Topsoil is considered to be the natural soil covering, including all organic matter (the upper 150mm of the soil horizon).

Topsoil stockpiles shall be convex and no more than 2 m high. Stockpiles shall be shaped so that no surface water ponding can take place.

Topsoil stockpiles shall be protected from erosion by wind and rain by providing suitable stormwater and cut off drains and/or by establishing suitable temporary vegetation. Stockpiles shall not be covered with materials such as plastic that may cause it to compost or would kill the seed bank.

Topsoil stockpiles shall be monitored regularly to identify any alien plants, which shall be removed when they germinate to prevent contamination of the seed bank.

Any topsoil contaminated by hazardous substances shall not be used but shall be disposed of at a licensed hazardous landfill site, or at an approved hazardous waste disposal facility.

The Contractor shall be held responsible for the replacement, at his own cost, for any unnecessary loss of topsoil due to his failure to work according to the approved method statements and the requirements of this EMP. Lost top soil will be replaced with suitable similar soil enriched with composed organic matter that is clean and free from seed of invasive alien plants.

## 2.9 MANAGEMENT OF SITE FACILITIES

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The construction, layout and extent of the construction site and its components shall be planned, designed and managed in such a manner that environmental impacts are minimised. Temporary structures and facilities shall be decommissioned to the satisfaction of the ER and a clean up after construction shall be effectively undertaken.

### 2.9.1 SITE LAYOUT AND ESTABLISHMENT

The Contractor shall establish construction camps, offices, workshops, testing facilities, stockpiling areas, staff accommodation etc. in a manner that does not adversely affect the environment.

The construction area shall be kept to a minimum.

Site establishment shall not take place on steep slopes or at sites declared as "no-go" areas.

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The site layout shall take cognisance of access for deliveries and services. Likely disturbance to neighbours as well as security implications shall be considered. Haul routes and turning circles for construction vehicles must be clearly demarcated and controlled to prevent damage of the natural environment.

The location of suitable areas for maintenance and refuelling, mixing concrete, cement batching etc. must be identified by the ER in collaboration with or subject to final approval of the ECO. The ECO must be involved in the decision and must provide adequate guidance from an environmental perspective prior to commencement of the proposed action.

Before construction can begin, the Contractor shall submit to the ER for approval a method statement detailing:

**MS2: A layout plan and the method of establishment of the construction camp, i.e. all offices, accommodation facilities, testing facilities/laboratories, cement batching areas, storage & stockpiling areas as per section, workshops and all other areas/facilities required for the undertaking of activities required for completion of the project. The plan shall include the location and layout of waste storage and treatment facilities, ablution facilities, stockpiling and spoil areas. The decommissioning and removal of these facilities on completion of construction works shall also be detailed.**

The Contractor shall restrict all his activities, materials, equipment and personnel to within the area specified. The Contractor shall ensure that the approved construction area will be adequate to cover the project without further space adjustments being required at a later date.

Construction material (pipes and fittings) must be stored in areas designated by the site agent and in a neat and orderly manner and must not damage natural vegetation. Movement of equipment and construction materials from stored areas to the construction site must be carefully transported to the area of use to prevent any unnecessary damage to the natural vegetation.

### 2.9.2 "NO - GO" AREAS

Areas where construction activities (including traffic accommodation) are prohibited are referred to as no-go areas. Entry into these areas by any person, vehicle or equipment without the ER's written permission may result in a penalty or removal from the site.

No-Go areas include the two private open space areas on the northern edge of the site as indicated in annexure 2 as well as any areas beyond the southern and western boundaries of the site.

All declared no-go areas will be demarcated by temporary fencing (2.9.3) the position of which shall be agreed to by the ER and ECO, or with input from the relevant specialist.

All private property outside of the construction areas as set out in the site layout plan shall be considered no-go areas.

The ER may declare additional no-go areas at any time during the construction phase as deemed necessary and/or at the request of the ECO and/or specialist.

### 2.9.3 TEMPORARY FENCING

The Contractor shall erect temporary fencing along the perimeter of designated no-go areas.

Temporary fencing shall, as a minimum, consist of wooden or metal posts at 3m intervals, with two plain wire strands tensioned horizontally at heights of 300 mm and 900 mm above the ground. The posts should be painted red to identify these as no go areas. The use of danger tape should be restricted as it blows off and tears in the wind.

The Contractor shall maintain in good order all demarcation fencing and barriers for the duration of construction activities, or as otherwise instructed.

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#### 2.9.4 ABLUTION FACILITIES

The Contractor is responsible for the erection and maintenance of adequate ablution facilities and washing areas and for enforcing the use of these facilities.

The Contractor shall be responsible for ensuring that all ablution facilities are maintained in a clean and sanitary condition to the satisfaction of the ER. All temporary portable toilets shall be secured to the ground to prevent them toppling due to wind or any other cause.

Plumbed toilets must have no leaks or malfunctioning valves. No chemicals, oils or similar construction related materials are to be disposed of via the toilets on site.

Ablution facilities (chemical toilets, etc.) must be provided at all construction camp areas where there will be a concentration of labour. Toilet paper must be provided. Toilets supplied by the contractor for the workers shall occur at a maximum ratio of 1 toilet per 15 workers. The contractor shall ensure that chemical toilets are emptied before the builders' holidays and that no spillage occurs when they are emptied. All contents must be removed from the site. Under no circumstances may waste be discharged into the environment or be buried on site.

#### 2.9.5 EATING AREAS

If none is available, the Contractor shall provide adequate temporary shade within the construction areas to ensure that site personnel do not move off site to eat.

The Contractor shall provide adequate refuse bins with lids at all eating areas to the satisfaction of the ER. The bins must be emptied on a daily basis and temporarily stored inside the contractor's camp in a facility that is weatherproof and scavenger proof and approved by the ER.

If deemed necessary by the ER, the Contractor shall demarcate designated eating areas.

No feeding of wild animals shall be permitted. Food and food products are to be stored in such away so as not to attract scavenging animals.

### 2.10 WATER PROVISION

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The Contractor shall make available safe drinking water fit for human consumption at the site offices and all other working areas.

All drinking water must be from a legal source and comply with recognised standards for potable use. The Contractor shall comply with the provisions of the National Water Act and its Regulations for taking water from rivers or streams and the use thereof.

If water is stored on site, drinking water and multi-purposed water storage facilities shall be clearly distinguished and demarcated.

No water is to be wasted on site. All leaks are to be reported and repaired immediately.

### 2.11 TEMPORARY SITE CLOSURE

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In the event of a temporary site closure such as the builder's holidays, temporary suspension of works or any period of inactivity longer than 7 working days the Contractor is to notify the ECO. The Contractor / DEO shall check the site according to the checklist provided in Annexure 5, and ensure that all items are addressed. The Contractor / DEO will provide a brief written report on compliance to the ER and ECO prior to the temporary shutdown date.

## **2.12 CONTROL OF CONSTRUCTION ACTIVITIES**

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### **2.12.1 WORKSHOP AND EQUIPMENT**

All vehicles and equipment shall be kept in good working order to maximise efficiency and minimise pollution. Any leaks or similar mechanical problems are to be reported and repaired immediately.

All maintenance and refuelling of plant on site shall take place at designated locations approved by the ER. Drip trays will be used for all refuelling and similar activities. This is to prevent any spillage contaminating the environment.

The Contractor shall ensure that no contamination of soil, vegetation or stormwater occurs around workshops and plant maintenance facilities. Where practical, all maintenance of plant and equipment on site shall be performed in the workshop or preferably off site. If it is necessary to do maintenance outside of the workshop area, the contractor shall obtain the approval of the ER prior to commencing these activities.

All machinery servicing areas/workshop shall be in a designated area and have an impermeable surface, which is bunded and sloped towards an oil trap to contain any spillages. It is however preferable that any servicing etc. be undertaken off site.

Drip trays shall be used to collect used oil, lubricants, etc. during maintenance. Drip trays shall be provided for all stationary plant, generators, pumps and compressors. Drip trays shall be inspected and emptied daily and closely monitored during rain events to ensure that they do not overflow. All waste material in bunds and drip trays are to be managed as hazardous waste unless treated with a hydrocarbon spill remediation product. All static plant (stationary > 6 months) shall be located within a bunded area with an impermeable surface.

Washing of vehicles and plant shall be restricted to urgent maintenance requirements only. Adequate wastewater collection facilities shall be provided. The use of detergents for washing shall be restricted to low phosphate and nitrate concentration as well as being a low sudsing type detergent.

### **2.12.2 GENERAL AESTHETICS**

The Contractor shall not deface, paint, damage or mark any natural feature (e.g. rocks, etc.) situated on or around the site for survey or any other purposes unless agreed beforehand with the ER. Any features affected by the Contractor in contravention of this clause shall be restored/rehabilitated to the satisfaction of the ER.

All construction areas must be kept neat and tidy at all times. Different materials and equipment must be kept in designated areas and storing/stockpiling shall be kept orderly.

### **2.12.3 MATERIALS HANDLING, USE AND STORAGE**

The potential environmental impact of the handling, use, storage and disposal of materials used during construction shall be minimised.

#### **2.12.3.1 General**

Environmental considerations shall be taken into account in the siting of any material storage areas. All manufactured and/or imported material shall be stored within the Contractor's Camp as far as possible and if required out of the rain. All lay down areas outside of the Contractor's Camp must be approved by the ECO and ER.

#### **2.12.3.2 Transportation**

The Contractor/DEO shall ensure that all suppliers and their delivery drivers are aware of procedures and restrictions (e.g. "No-Go" areas) in terms of this EMP. The Contractor shall ensure that delivery personnel are supervised during offloading by someone with an adequate understanding of the requirements of the specifications.

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Materials shall be appropriately secured to ensure safe passage between destinations during transportation. Loads shall have appropriate cover to prevent them spilling from the vehicle during transit. The Contractor shall be responsible for any clean-up resulting from the failure by his employees or suppliers to properly secure transported materials.

The contractor is responsible for ensuring that all vehicles are road worthy, drivers are qualified and are made aware of the potential safety issues and enforcement of strict speed limits.

Drivers must adhere to speed limits. In this regard vehicles can be fitted with recorders to record when vehicles exceed the speed limit. Drivers who exceed the speed limit should be fined or dismissed by the contractor.

#### 2.12.3.3 Stockpiling

Should temporary stockpiling become necessary, the areas for the stockpiling of excavated and imported material shall be indicated and demarcated on the site plan submitted in writing to the ER for his approval together with the Contractor's proposed measures for prevention, containment and rehabilitation against environmental damage. This information should be submitted as part of MS2.

Stockpiles shall be positioned and sloped to create the least visual impact. No stockpiling of materials that could leach out and cause pollution may occur. Stock pile areas are to be approved by the ER. No foreign material generated/deposited during construction shall remain on site. Areas affected by stockpiling shall be reinstated to the satisfaction of the ER.

As dealt with under the dust control section of this document stock piles may be required to be covered as a dust control measure.

#### 2.12.3.4 Hazardous Substances

All hazardous material / substances (e.g. petrochemicals, oils, etc.) shall be stored on site only under controlled conditions. All hazardous material/substances shall be stored in a secured, appointed area that is fenced and/or has restricted entry. All storage shall take place using suitable containers to the approval of the ER. Hazard signs/data sheets indicating the nature of the stored materials shall be displayed on the storage facility or containment structure. Symbolic safety signs depicting "No Smoking", "No Naked Lights" and "Danger" are to be provided, and are to conform to the requirements of SABS 1186.

Temporary fuel storage is permitted on site provided that the contractor ensures full compliance with the requirements of local By-laws relating to community fire safety – section 39 as amended (Provincial Gazette 5832, February 2002) and as amended (Provincial Gazette 6447, June 2007) which includes inter alia, :

- The storage tank capacity may not exceed 9000 ℓ
- The storage tank may not be on the premises for a period exceeding six months (unless the local authority provides an extension in writing)
- A written application together with a plan must be forwarded to the controlling authority (Fire Department) at least 14 days prior to the erection of the tank and prior written permission must be obtained from the controlling authority for the erection of the tank.
- A permanent or temporary tank must be erected at least 3,5 metres from boundaries, buildings and other flammable substances or combustible materials.
- A permanent or temporary tank must have a bund wall with 110% capacity of the tanks total storage capacity.

Fuel shall be stored in a steel tank maintained by the fuel suppliers and/or Contractor. The tank shall be located in a secure, demarcated area and an adequate bund wall (110% of volume as required above)

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shall be provided. The floor and wall of the bund area shall be impervious to prevent infiltration of any spilled / leaked fuel into the soil. The floor of the bund shall be sloped towards an oil trap or sump to enable any spilled fuel to be removed. The sump must have a lock off valve that can only be opened in an emergency.

Should a mini-mobile type trailer tank be used the tank will be maintained by the fuel suppliers and/or Contractor and is to be kept clean and leak free. The trailer is to be kept on site with a drip tray at all times and is to be removed from site at the end of every day unless kept in a bund area of 110 % of the tank volume.

A bioremediation product approved by the ECO must be stored on site and near the fuel stores for any emergencies. Once a purpose manufactured hydrocarbon spill remediation product has been used or has been used to treat contaminated materials (soil, rubble etc.) it can be disposed of as per general waste provided this is not in excessive quantities.

Areas for storage of fuels and other flammable materials shall comply with standard fire safety regulations and may require the approval of a fire prevention officer. The contractor must ensure that there is adequate fire fighting equipment at the fuel stores and that persons are adequately trained to use this equipment.

Only empty and externally clean drums may be stored on the bare ground. All empty and externally dirty drums shall be sealed and stored in the bunded area. If fuel is dispensed from 200l drums, the proper dispensing equipment shall be used, and the drum shall not be tipped in order to dispense fuel. The dispensing mechanism of the fuel storage tank shall be stored in a waterproof container or within the bund area when not in use.

The location of suitable areas for maintenance and refuelling must be identified by the ER in collaboration with or subject to the final approval of the ECO. The ECO must be involved in the decision and must provide guidance from an environmental perspective prior to commencement of the proposed action.

***MS3: The Contractor shall provide a method statement detailing the hazardous substances / material that are to be used during construction, as well as the storage, handling, and disposal procedures for each substance as well as materials such as rubble soil and water contaminated with hazardous substances. The details of the disposal service providers (if required), supplier and suitable DEAT approved disposal sites that will be used by the contractor are to be included.***

#### 2.12.3.5 Cement / Concrete Batching

Concrete mixing directly on the ground shall not be allowed and shall take place on impermeable surfaces to the satisfaction of the ER.

The large volume concrete batching activities shall be located in an area of low environmental sensitivity to be identified and approved by the ER in collaboration with or subject to the final approval of the ECO. The ECO must be involved in the decision and must provide guidance from an environmental perspective prior to commencement of the proposed action. Cement is a strong alkali and will seriously affect the natural vegetation on the site should contamination of the soils take place. Such residues are to be removed from the site at the end of the contract period.

All runoff from batching areas shall be strictly controlled, and cement-contaminated water shall be collected, stored and disposed of at a site approved by the ER. Settling tanks or sumps may also be used provided these do not leak and are impermeable. Once settling has occurred the top two thirds of the contaminated water can be drained into a sewer line. The remaining material can be stockpiled and removed with general rubble and waste from site.

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Cement contaminated water may also be collected and recycled for reuse in batching activities.

Contaminated water storage facilities shall not be allowed to overflow and appropriate protection from rain and flooding shall be implemented.

Small volume batching is permitted provided mortar boards, 250 micron DPC plastic sheeting or similar impervious material is used to prevent contamination with the ground and soil.

Unused cement bags shall be stored out of the rain where runoff won't affect it.

Used (empty) cement bags shall be collected and stored in weatherproof containers to prevent windblown cement dust and water contamination. Used cement bags shall not be used for any other purpose and shall be disposed of on a weekly basis via the solid waste management system.

All excess concrete shall be removed from site on completion of concrete works and disposed of.

All excess aggregate shall also be removed.

**MS4: The Contractor shall submit a method statement detailing cement storage, concrete batching areas and methods, method of transport of cement and concrete, storage and disposal of used cement bags, etc.**

## 2.13 TRAFFIC ACCOMMODATION

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The Contractor shall be required to ensure that traffic along public roads is accommodated at all times and construction activities and deliveries do not interfere with the public road system. Should there be a need to undertake such work that may impact traffic the contractor will ensure that all the required permissions have been obtained from the traffic authorities in writing. All the required signage and hazard warnings are to be put in place.

Access points to and from site as well as road ways in front of the site are to be kept clean and free from stone, sand and grit. These areas must be swept regularly.

All construction vehicles, when on site, will not exceed the speed of 30km per hour.

Damage to the surface of gravel (dirt) roads resulting from construction vehicles or construction activities must be repaired at the cost of the contractor. Repairs will be done to the satisfaction of the ER.

Turning circles for construction vehicles must be clearly demarcated and controlled to prevent damage of the natural environment.

Access to the site must be gained at the designated areas. The creation of short-cut paths or temporary vehicular tracks is to be strictly prevented. Construction workers are forbidden access to any private property unless approval has been granted by the ER.

**MS5: The Contractor shall submit a method statement for approval, detailing how traffic is to be accommodated within the development during construction. Cognisance must be taken of no-go areas within the development.**

## 2.14 WASTE MANAGEMENT

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Waste management on site shall be strictly controlled and monitored. Only approved waste disposal methods shall be allowed.

The Contractor shall ensure that all site personnel are instructed in the proper disposal of all waste. The site must be subject to a litter clean up at least once per week or as often as required by the ECO or ER.

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### 2.14.1 SOLID WASTE MANAGEMENT

The Contractor shall ensure that all facilities are maintained in a neat and tidy condition and the site shall be kept free of litter. Measures shall be taken to reduce the potential for litter and negligent behaviour with regard to the disposal of all refuse. At all places of work the Contractor shall provide litterbins, containers and refuse collection facilities for later disposal.

Solid waste may be temporarily stored on site in a designated area approved by the ER prior to collection and disposal. The minimum requirement for this area is; four ready fence panels covered with shade cloth, one panel to be movable for access and emptying. The structure will have a roof (plastic covered ready fence panel or similar). The floor is to be lined with DPC plastic to prevent ground contamination from leachate such as cement powder residue. If a waste skip is to be used for this purpose it must be kept covered with shade cloth.

Solid waste must be removed as often as required or as instructed by the ER to a licensed waste disposal site. Recyclable waste should be recycled if at all possible.

Waste storage containers and litterbins shall be covered, tip-proof, weatherproof and scavenger proof.

No burning, on-site burying or dumping of waste shall occur. Used (empty) cement bags shall be collected and stored in weatherproof containers to prevent windblown cement dust and water contamination. Used cement bags shall not be used for any other purpose and shall be disposed of on a weekly basis via the solid waste management system

All solid waste shall be disposed of offsite at an approved landfill site. The Contractor shall supply the ER with certificates of disposal.

**MS6: *The Contractor shall submit a method statement detailing a solid waste control system (storage, provision of bins, site clean-up schedule, bin clean-out schedule, etc.) to the ER for approval.***

#### 2.14.1.1 Domestic Waste

The Contractor shall provide metal refuse bins to BS 792 or equivalent plastic refuse bins, all with lids, for all buildings. Refuse shall be collected and removed from all facilities at least twice per week. Domestic waste shall be transported to the approved refuse disposal site in covered containers or trucks.

#### 2.14.1.2 Construction Rubble / Waste

Inert construction rubble shall be disposed of at a site approved by the ER. Rubble stockpiles will be kept consolidated and at a reasonable size. Rubble will be removed regularly and/or at the request of the ECO.

#### 2.14.1.3 Scrap Metal

Options for the recycling of scrap metal must be investigated. Scrap metal shall be disposed of off site.

#### 2.14.1.4 Hazardous Waste

All hazardous waste (including bitumen, etc.) shall be disposed of at a Department of Environmental Affairs approved hazardous landfill site. The Contractor shall provide disposal certificates to the ER.

Used oil and grease shall be removed from site to a suitable facility or sold to an approved used oil recycling company.

Under no circumstances shall the spoiling of tar or bituminous products on the site, over embankments, or any burying, be allowed.

Unused or rejected tar or bituminous products shall be returned to the supplier's production plant.

Used oil, lubricants, cleaning materials, etc. from the maintenance of vehicles and machinery shall be collected in holding tanks and sent back to the supplier or removed from site by a specialist oil recycling company for disposal at a DEA approved hazardous waste site.

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Once a purpose manufactured hydrocarbon spill remediation product has been used or has been used to treat contaminated materials (soil, rubble etc.) the resulting waste can be disposed of as per general waste provided this is not in excessive quantities.

#### 2.14.1.5 Wastewater

The list below provides some environmentally responsible options in which waste water can be addressed by the contractor on site. This list is not exhaustive;

- Waste water from activities such as washing tools batching and similar will be collected in a drum or conservancy tank. This water will then be re-used for batching or for wetting and compacting sub-base material during road and parking surfacing.
- An impermeable sump lined with thick DPC plastic will be constructed by the contractor. Waste water from batching and tool washing will be collected in the sump. The sump will be open to allow the water to evaporate. Care must be taken to ensure that input does not exceed the evaporation rate and that no overflow from the sump occurs, this is of particular importance during the rain season. Once the sump is dry the remaining material at the bottom of the sump will be disposed of with the general waste and rubble.
- Small volume waste water collected from washing and other small volume cement work activities will be disposed of on top of the general rubble pile where it will be absorbed. This will be done in such a way as to ensure that there is no run-off from the rubble pile to surrounding areas. The waste water shall not be of such volume that it will saturate the entire body of rubble or will soak through the rubble pile.

Runoff from fuel depots / workshops / machinery washing areas and water contaminated with petrochemicals and hydro-carbons shall be addressed as indicated in the hazardous waste section of this document.

Water from kitchens, showers, sinks and toilets etc. shall be discharged into a temporary conservancy tank for removal.

The ER's approval must be obtained by the contractor prior to the discharge of any contaminated water into sewer systems.

***MS7: The Contractor shall submit a method statement to the ER detailing how wastewater would be collected from all wastewater generating areas, as well as storage and disposal methods. If the Contractor intends to carry out any on-site wastewater treatment, this should also be included.***

## 2.15 NOISE CONTROL

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The Contractor shall endeavour to keep noise generating activities to a minimum. Please also refer to section 2.17.

The Contractor shall endeavour to, as far as possible, warn any local communities and/or residents that could be disturbed by noise generating activities such as blasting or piling well in advance and shall keep such activities to a minimum.

The Contractor shall be responsible for compliance with the relevant legislation with respect to noise. Construction processes and machinery/vehicles with the lowest noise emission values available must be utilised. A well planned and co-ordinated "fast track" procedure must be implemented to complete the total construction process in the shortest possible time.

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All plant, equipment and vehicles are to have effective silencers/mufflers fitted that would otherwise cause a noise level exceeding 85 dB. Exhaust systems are to be in good repair with no holes in the piping.

All noise and sounds generated by plant or machinery must adhere to the SABS 0103 specifications for the maximum permissible noise levels for residential areas.

No sound amplification equipment (hooters, loud music speakers, sirens etc.) is to be used on site except in emergencies.

Excessively noisy plant or plant requiring repairs are to be removed from site.

## 2.16 DUST CONTROL

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The Contractor shall ensure that the generation of dust and windblown sand is minimised and shall implement a dust control programme to maintain a safe working environment, minimise nuisance for surrounding residential areas/dwellings and protect damage to natural vegetation, crops, etc.

Construction vehicles shall comply with speed limits and haul distances shall be minimised. Material loads shall be suitably covered and secured during transportation.

During high wind conditions, the ER will evaluate the situation and make recommendations as to whether dust-damping measures are adequate, or weather working will cease altogether until the wind speed drops to an acceptable level.

Exposed soil and material stockpiles shall be protected against wind erosion and the location of stockpiles shall take into consideration the prevailing wind directions and locations of sensitive receptors.

The ER and Contractor shall ensure the required dust suppression measures be instituted which could include, *inter alia*:

- Clearing construction area in a phased manner to keep vegetation in place for as long as possible.
- Stopping or reducing vehicular traffic during windy conditions.
- Cessation of specific or all works during high wind conditions. Changing areas of activity to positions that would reduce dust issues.
- Covering of material stockpiles with shade cloth or plastic (Top soil stock piles are not to be covered with plastic or shade cloth but hessian or similar to prevent composting occurring).
- Chemical soil binders
- Shade cloth erected on fencing or similar solid barriers
- Straw stabilizing and bale windrows
- Brush pack windrows
- Mulching
- Water spray vehicles, irrigation and other damping methods

**MS8: The Contractor shall submit a method statement to the ER detailing how potential dust and windblown sand will be monitored and addressed on site. The contractor will consider the recommendations above while bearing in mind that these are not the only available solutions.**

The ER and contractor shall ensure that sufficient funds are available to institute the required measures.

## 2.17 SOIL EROSION AND SEDIMENTATION CONTROL

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### 2.17.1 DURING CONSTRUCTION

The Contractor shall, as an ongoing exercise, implement erosion and sedimentation control measures to the satisfaction of the ER.

During construction, the Contractor shall protect all areas susceptible to erosion by installing necessary temporary and permanent drainage works as soon as possible and by taking any other measures necessary to prevent stormwater from concentrating in streams and scouring slopes, banks, etc.

The use of water on the site (especially at concrete batching plants and access road construction where large water bowsers are used) must be carefully monitored to ensure that the start of erosion on steep slope do not take hold.

Any runnels or erosion channels developed during the construction or maintenance period shall be backfilled and compacted and the areas restored to a proper condition.

The necessary compaction of the replaced sand/soil over trenches must be undertaken. The brushwood removed from the excavation site should be replaced over the disturbed area to prevent wind and water erosion and facilitate the rehabilitation process.

Stabilisation of cleared areas to prevent and control erosion and/or sedimentation shall be actively managed. The method of stabilisation shall be determined in consultation with the ER. Consideration and provision shall be made for the following methods (or combination thereof): brushcut packing, mulch or chip cover, straw stabilising, watering, planting/sodding, soil binders and anti-erosion compounds, mechanical cover or packing structures (including the use of geofabric, log/pole fencing, etc.).

Traffic and movement over stabilised areas shall be restricted and controlled, and damage to stabilised areas shall be repaired and maintained to the satisfaction of the ER.

In areas where construction activities have been completed and where no further disturbance would take place, rehabilitation and re-vegetation should commence as soon as possible.

**MS8: *The Contractor shall submit a method statement to the ER detailing how soil erosion and sedimentation control will be implemented, methods to be used and rehabilitation of disturbed areas.***

### 2.17.2 STORMWATER CONTROL

The contractor shall take reasonable measures to control the erosive effects of storm water runoff. The contractor shall use silt screens to prevent overland flowing water from causing erosion.

Point source discharge of storm water must be prevented on slopes as this will lead to erosion of the unstable slope with loss of vegetation and resultant deep donga erosion. The proposed storm water outlet (into the canal on the sites northern boundary) must be constructed in such a manner as to ensure no soil or bank erosion takes place.

The use of straw/korog bales as filters, which are placed across the flow of overland stormwater flows, shall be used as an erosion protection measures. The ploughing-in of straw offers limited protection against storm water runoff-induced erosion and shall be used as an erosion protection measure. The Contractor shall be liable for any damage to downstream property caused by the diversion of overland storm water flows.

Drip trays shall be used for all pumps, generators, etc. in order to prevent water contamination as a result of fuel spills or leaks.

## 2.18 WORK HOURS

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Hours of work on the site shall be limited to that accepted by the local authority

Should construction be required outside of these times written permission is to be obtained from the local municipality.

## 2.19 PROTECTION OF NATURAL FEATURES AND SYSTEMS

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### 2.19.1 VISUAL CONSIDERATIONS

The visual impact of the property will be respected by means of architectural guidelines and adherence to a pre-determined setback line as per the EIR.

### 2.19.2 PROTECTION OF NATURAL VEGETATION

The Contractor shall be responsible for informing all employees about the need to prevent any harmful effects on natural vegetation on or around the construction site as a result of their activities.

Clearing of natural vegetation shall be kept to a minimum. The removal, damage and disturbance of natural vegetation without the written approval of the ER is prohibited. It is illegal to harvest or collect plants or vegetation from any areas on or surrounding the site for any reason what so ever in accordance with the Western Cape Nature Conservation Laws Amendment Act, 2000 chapter 6 section 63 (1)(c).

All "No – Go" areas must be clearly fenced off with temporary fencing prior to any machinery moving onto site. Machinery operators and contractors should be briefed about the constraints before commencing work on site.

There is a possibility of the presence of the white form of *Brunsvigia orientalis*. A search and rescue on the site should be conducted (the Pearly Beach Conservancy can be approached in this regard since they are present locally or alternatively a suitably experience horticulturist/botanist should be appointed) to mark these plants and conduct a Search & Rescue for these plants. Consideration must be given to appropriate seasonal timing. These bulbs should be transplanted to similar habitat that would not be in danger of development or disturbance. Plants can be relocated to the POS area on site or to the properties set back area.

All milkwood trees (protected by the Forest Act 1998, Act No. 84 of 1998, as amended) must be identified prior to site clearing and must be carefully protected from any damage or removal from the area of the intended development. A permit must be applied for should any pruning need to take place.

It is strongly recommended that board-walks be constructed from the development precinct to the beach to prevent the making of ad hoc pathways through the dune thicket.

### 2.19.3 PROTECTION OF FAUNA

The Contractor shall ensure that no hunting, trapping, shooting, poisoning or otherwise disturbance of any fauna takes place.

A general sweep will be carried out by the ECO for small fauna such as tortoises. The will be carried out prior to commencement of activities on site.

The feeding of any wild animals is prohibited. No food or food products will be stored in such away so as to attract scavengers.

The use of pesticides is prohibited unless approved by the ER.

No domestic pets are permitted on site.

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Drainage structures (e.g. gutters, drains, sumps, ditches) must be designed as far, as possible, so that they do not act as pitfall traps for small creatures i.e. they should either have gently sloping edges or be adequately covered to prevent creatures from falling into them.

#### 2.19.4 PROTECTION OF HERITAGE AND CULTURAL FEATURES

The archaeological sites (332/4 and 332/5 as listed in the archaeological assessment in the Basic Assessment Report alongside Arcadia Street must be sampled by a professional archaeologist before development activities commence. These are as follows:

- Archaeological plot 332/4 (Location S34 39.802 - E19 29.505) - Scatter of shellfish fragment on vegetated dune. Also 2 small pieces of undecorated pottery. Shellfish includes Turbo sarmaticus, Operculum, Limpet species, Haliotis, Diloma sinensis, Donax serra and whelk. Also some burnt shell and burnt fragments of limestone.
- Archaeological plot 332/5 (Location S34 39.801 - E19 29.513) - North of 332/4. Thin scatter of shellfish fragments on vegetated dune alongside Charlie van Breda St. Mainly turbo sarmaticus, Haliotis and Operculum. 8 quartzite flakes and chunks, inc. one upper grindstone/hammerstone and 2 pieces of undecorated pottery. Tortoise bone.

Vegetation clearing operations must be inspected by a professional archaeologist.

Bulk earthworks (including excavations for services excluding trenching for house foundations etc.) must be inspected/monitored by a professional archaeologist. Should any archaeological deposits be intersected or exposed during earthmoving activities these may need to be sampled by a professional archaeologist, under a permit issued by Heritage Western Cape. Mitigation is at the cost of the developer.

Should any human remains/burial or archaeological material be disturbed, exposed or uncovered during construction, these should immediately be reported to the South African Heritage Resources Agency (021 462 4502) and Mr Nic Wiltshire of Heritage Western Cape (021 483 9685). The ECO and ER are also to be informed. An archaeologist will be required to remove the remains at the expense of the developer.

The Contractor may not, without a permit issued by the relevant heritage resources authority, destroy, damage, excavate, alter, deface or otherwise disturb archaeological material.

## 2.20 EMERGENCY PROCEDURES

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### 2.20.1 FIRE CONTROL/PREVENTION

The Contractor shall take all reasonable steps to avoid increasing the risk of fire through activities on site.

The Contractor shall ensure that basic fire-fighting equipment is available at all construction areas and facilities.

Smoking shall not be permitted in those areas where it is a fire hazard. Such areas shall include the workshop and fuel storage areas and any areas where the vegetation or other material is such as to make liable the rapid spread of an initial flame. A fire extinguisher of the appropriate type must be present when welding or other "hot" activities are undertaken.

In terms of the Atmospheric Pollution Act, burning is not permitted as a disposal method.

The Contractor shall appoint a fire officer who shall be responsible for ensuring immediate and appropriate action in the event of a fire. The Contractor shall ensure that all site personnel are aware of the procedure to be followed in the event of a fire.

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Any work that requires the use of fire or open flame may only take place at a designated area approved by the ER and must be supervised at all times. Serviced fire-fighting equipment shall be available.

It is recommended that, if cooking is to take place on site, purpose made gas cookers be considered before the use of cooking fires.

No fires are to be made on site, unless situated in a designated and demarcated area approved by the ER away from high risk areas and in a contained fire place (not on the bare ground). Fire extinguisher will be in this area at all times. Under no circumstances is the fire to be left unattended or will there be more than one fire on site at any time. The contractor will also consider the prevailing weather conditions.

Wood and branches will not be harvested from site as fuel.

## 2.20.2 FUEL, CHEMICAL, HARMFUL AND HAZARDOUS MATERIALS

The contractor shall ensure that his employees are aware of the procedure to be followed for dealing with spills and leaks, which shall include notifying the engineer, ER and ECO. The Contractor shall ensure that the necessary materials (e.g. chemcap, spill-sorb, drizzat pads, enretech and peat moss) and equipment for dealing with spills and leaks are available on site at all times. The source of the spillage shall be isolated. The Contractor shall contain the spillage using sand berms, sandbags, pre-made booms, sawdust or absorbent materials. Treatment and remediation of the spill areas shall be undertaken to the reasonable satisfaction of the Engineer and ECO.

The Contractor shall submit his emergency procedure (to be detailed in MS9) to the ER prior to bringing on site any such substances.

All spills or accidents involving such materials are to be recorded by the contractor/DEO. The Contractor/DEO is responsible to ensure that these records are submitted to the ECO. The cleanup of spills and any damage caused by the spill shall be for the Contractor's account.

**MS9:** *The Contractor shall submit to the ER for approval an emergency procedures plan that will detail responses to both fire emergencies as well as emergencies relating to hazardous substances as set out by this EMP. This method statement shall in no way override, replace, void or offer any exemption from any relevant legislation nor the requirements of the Occupational Health and Safety Act. The MS will include details regarding pre-determined, safe escape routes from the site as well as pre-arranged safe assembly as well as all relevant emergency numbers.*

## 2.21 SITE CLEAN UP AND REHABILITATION

### 2.21.1 SITE CLEAN UP

The Contractor shall ensure that all temporary structures, equipment, materials, waste and facilities used for construction activities are decommissioned and removed upon completion of the project. The Contractor shall clear and clean the construction site to the satisfaction of the ER upon completion of the project.

### 2.21.2 REHABILITATION

The contractor will undertake all rehabilitation of areas disturbed (not to be landscaped) as a result of activities on site to the satisfaction of ER. Expenses incurred in rehabilitating the site shall be for the Contractor's account. The estimated cost of rehabilitation will be provided to the Contractor prior to the work commencing.

The Contractor will be responsible for any costs resulting from rehabilitation required due to non-compliance with this EMP.

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It may be necessary to obtain specialist (Botanical, Horticultural etc.) input prior to undertaking the required rehabilitation.

## 2.22 ALIEN VEGETATION CLEARING

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Initial clearing of alien vegetation will be required to be undertaken by the contractor or a subcontractor approved by the ER. Longer term alien vegetation management and follow up clearing will be addressed in Section 3 of this document as part of the ongoing Operational Management.

Initial alien vegetation clearing must be undertaken and carried out in line with current best accepted practise methodology i.e. as per DWAF alien clearing guidelines.

Bulldozing or using plant to removed alien vegetation may only be undertaken in areas that will form part of the construction foot print.

### 2.22.1 GENERAL REQUIREMENTS

***MS10: The appointed Contractor shall refer to DWAF's Working for Water guidelines in compiling and implementing an initial alien vegetation clearing method statement, which shall indicate eradication areas, cleared species, methods of eradication and an order of priority for all the actions to be undertaken. The MS shall be submitted to the ER and ECO for approval.***

The Contractor shall ensure that cognisance is taken of the possibility of increased fire risk due to cleared alien vegetation and spread of alien vegetation seeds released when mature vegetation is chopped down.

The MS should also include the safe, effective disposal of removed vegetation. This is particularly important in terms of stormwater management.

Cleared plant material must be removed from site and appropriately disposed of at a suitable licensed waste or landfill facility.

### 2.22.2 GENERAL ERADICATION GUIDELINES

Alien vegetation within the development phase under construction shall be cleared. If any alien vegetation clearing is required within no-go areas, this shall not take place without the written approval of the ER and shall be undertaken under supervision of the ECO. Special care shall be taken to protect indigenous vegetation in no-go areas from trampling, herbicide drift, etc.

The use of herbicides is encouraged. Cutting without the use of herbicide treatment may stimulate re-growth. Vehicle driven brush cutting, grading and bulldozing will not be permitted for alien clearing except within the development foot print.

All trees and saplings need to be cut down at ankle height or lower where possible and herbicides with appropriate dye agent applied immediately after cutting.

Eradication must start in the least infested areas and from highest lying areas.

Herbicides shall not be applied when conditions are windy, so as to avoid spray drift. No herbicides should be applied when rain is forecast within two days.

Protective clothing and masks must be worn at all times during application of herbicides.

Colour dyes must be used with the herbicides to clearly mark areas that have been treated.

Herbicide drift onto other plants must be avoided and care must be taken not to trample indigenous vegetation or stack alien vegetation on top of it. Unused herbicides and empty herbicide containers shall not be disposed of on site.

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## 2.23 VEGETATION REHABILITATION/LANDSCAPING

The ER will ensure that an experienced landscape architect/horticulturist is appointed to compile a master landscape plan for each development phase.

**MS11** *The appointed landscape architect/horticulturist will submit the approved landscaping plan to the ECO prior to the commencement of landscaping taking place on site. This plan must include, inter alia, details relating to soil preparation, planting methods, irrigation and a full list of plant species to be used.*

### 2.23.1 GENERAL

All areas disturbed by construction activities, storage and stockpiling areas, etc. shall be rehabilitated and/or landscaped to the satisfaction of the ER and in accordance with the approved landscape plans and associated documents.

As far as is possible landscaping should be carried out with water wise indigenous vegetation.

No Kikuyu grass (*Pennisetum clandestinum*) will be permitted within the development. Buffalo grass (*Stenotaphrum secundatum*) or *Cynodon dactylon* may be considered as alternatives if the use of grass cannot be avoided.

Re-vegetation of construction areas shall take place as soon as possible after completion of construction works. The timing of re-vegetation shall take cognisance of maintenance requirements and provision shall be made for any irrigation requirements.

No construction equipment, vehicles or unauthorised personnel shall be allowed onto areas that have been re-vegetated.

The need for vegetation rehabilitation, resulting from the contractor's non-compliance with the EMP, will be for the contractors account and will be carried out to the satisfaction of the ER.

### 2.23.2 MULCH

Mulch shall be used in all areas where re-vegetation has to take place. Mulch may be obtained from all areas where vegetation is cleared.

Mulch shall be free of alien seed.

Where possible indigenous plant material cleared from the site shall be reduced by either mechanical means (chipper) or by hand-axing to pieces no longer than 100mm.

No harvesting of mulch vegetation outside of construction areas shall be allowed.

Every effort shall be taken to ensure the retention of as much seed as possible in mulch made from indigenous vegetation and mulches shall be collected in such a manner that the loss of seed is restricted.

Bush-cut mulch shall be stored for as short a time-period as possible, and seed released from stockpiles shall be collected for use in re-vegetation.

Compost from an organic source may be used as mulch during re-vegetation, but must be approved by the ER. Compost shall be well decayed, friable and free from weed seeds.

Weed free, half-composted material, such as mulled-bark, may be used as an additive to extend indigenous mulch. As far as possible, no more than 50% compost shall be used under these circumstances.

Wood chips (including bark), which are half composted and have not been treated with preservatives can also be used as mulch during re-vegetation. Chips shall be no longer than 50 mm in length or breadth and the ER shall approve the source of the chips.

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### 2.23.3 FERTILIZER

The use, storage and handling of fertiliser shall be strictly controlled. There must be a minimum use of fertiliser on the site. Only organic fertilisers and sprays shall be used on site. (e.g. Bio grow products)

Fertilisers shall be suitably stored in sealed containers in areas approved by the ER.

Care shall be taken when using fertilisers near no-go areas, watercourses, dams and other sensitive natural areas.

Soil shall be well watered and moist before any fertiliser is applied.

### 2.23.4 LANDSCAPING GROUND SURFACE PREPARATION

The ER will ensure during the planning phase that all landscaping will be done in accordance with the Environmental Approval and will be indigenous and water wise. The Council approved landscaping plans are to be implemented accordingly.

Prior to re-vegetation, the Contractor shall ensure that the area is clear of any building materials, residues and other foreign debris.

All visible weeds shall be removed from the area before replacing topsoil where required.

Compacted soil shall be ripped along the contour and hand-trimmed. Topsoil shall then be spread evenly over the surface if required.

The final prepared ground surface shall be furrowed to follow the natural contours of the land and not smooth.

### 2.23.5 HYDRO-SEEDING / HYDRO-MULCHING

The hydro-seeder shall be capable of pumping the specified seed mix, fertiliser, soil stabiliser, etc. at the specified rates over the areas to be seeded, according to the approved method statement.

The hydro-seeder shall have an agitation system, which shall be sufficient to agitate, suspend and homogeneously mix the specified slurry.

The slurry distribution lines shall be large enough to prevent stoppage. The discharge line shall be equipped with hydraulic spray nozzles suitable for the even distribution of the slurry on the various slopes to be seeded.

### 2.23.6 PLANTS/TREES

The handling, maintenance and planting of plants / trees shall be undertaken under supervision of the appointed landscape architect / horticulturist.

The Contractor shall ensure that each plant / tree is handled and packed in the approved manner for that species or variety, and that all necessary precautions are taken to ensure that the plants arrive on site in a proper condition for successful growth.

Plants shall be protected from wind during transportation.

No plants or plants with exposed roots shall be subjected to prolonged exposure to drying winds and sun, or subjected to water logging or force-feeding at any time after purchase.

The Contractor shall ensure that the plants are in a good condition and free from plant diseases and pests. The Contractor shall immediately remove plants containing any diseases and/ or pests from site.

All plants supplied by the Contractor shall be healthy, well formed, and well rooted. Roots shall not show any evidence of having been restricted or deformed at any time. The potting materials used shall be weed free.

There shall be sufficient topsoil around each plant to prevent desiccation of the root system.