



**CLIENT BASELINE RISK ASSESSMENT
FOR
REACTIVE AND PROACTIVE PLANNED
MAINTENANCE FOR TECHNICAL
SERVICES IN THE COEGA SEZ.**

Report N^o

CDC-SBU-BRA-067-24

Classification: Public

15 July 2024

DOCUMENT CONTROL SHEET

SIGNING OF THE ORIGINAL DOCUMENT

We, the undersigned, accept this document as a stable work product to be placed under formal change control as described by the Procedure for Control of Documented Information. This Risk Assessment is based and applicable to the requirements of the Construction Regulations 2014 and any other applicable regulations depending on the site scope of works. The Principal Contractor must therefore be mindful to ensure that these regulations are integrated to the baseline risk assessments.

ORIGINAL	Prepared by	Reviewed by	Approved by
Date: 15/07/2024	Name: T. Langa Signature:	Name: P. Hoza Signature:	Name: S. Silwana Signature:
Digitally Signed by: Tabo Langa <i>SHE Project Manager</i> 1cba8dac-80fa-4881-8f0c-114fbce045e2 IP Address: 10.0.57.46 Date: 2024/07/17 4:12:58 PM		Digitally Signed by: Phumela Hoza <i>SHE Project Manager</i> bb80cfac-b4af-4aa8-9d40-c949a2328 IP Address: 41.114.202.14 Date: 2024/07/17 4:19:28 PM	
Digitally Signed by: Simphiwe Silwana <i>Sustainability Manager: HSE & Social Impact</i> d94c9186-b4f3-4805-8512-de16421e38bc IP Address: 10.0.57.112 Date: 2024/07/17 4:33:32 PM			
Distribution:	CDC		

REVISION CHART

REVISION 1	Name:	Name:	Name:
Date:	Signature:	Signature:	Signature:

CLIENT CONSTRUCTION HEALTH AND SAFETY BASELINE RISK ASSESSMENT

The intended scope of works is entailed in the RFP document, mainly focusing on the intended construction work for Reactive and Proactive planned maintenance for technical services in the Coega SEZ. The scope will include the following activities but not limited to –

CIDB GRADE REQUIRED	CONTRACT NUMBER	CONTRACT DESCRIPTION	SCOPE OF WORK
4EB or higher	CDC/104/24	Low Voltage Reticulations Maintenance	Carry out reactive and preventative planned maintenance service on low voltage reticulations
4EB or higher	CDC/105/24	Medium Voltage Reticulations Maintenance	Carry out reactive and preventative planned maintenance service on medium voltage reticulation
2SN or higher	CDC/106/24	Roofing Maintenance	Carry out reactive and preventative planned maintenance service on various roofing systems
4CE or higher	CDC/107/24	Specialized Bulk Water Infrastructure Systems	Carry out reactive and preventative planned maintenance service on Specialized Bulk Water Infrastructure reticulation
2SO or higher	CDC/108/24	Plumbing Maintenance Service	Carry out reactive and preventative planned maintenance service on plumbing systems
3SF or higher	CDC/109/24	Fire Extinguishing Equipment and Detection Systems Maintenance	Carry out reactive and preventative planned maintenance service on Fire protection and detection equipment and systems
3SF or higher	CDC/110/24	Fire Automated Sprinkler Installations Maintenance	Carry out reactive and preventative planned maintenance service on Fire Automated Sprinkler Installations
2SG or higher	CDC/111/24	Aluminum Doors and Windows Maintenance Service	Carry out reactive and preventative planned maintenance service on aluminum doors and windows
4ME or higher	CDC/112/24	Sewer Pumpstations Maintenance	Carry out both reactive and preventative planned maintenance service on sewer pumps stations, develop and issue technical reports, provide professional advise, guidance, propose best practices and carry out installations of various apparatus
N/A	CDC/113/24	Utilities Maintenance and Management Services	Carry out technical assessments on utilities (water and electricity), develop and issue technical reports, provide professional advise, guidance, propose best practices and carry out installations of various apparatus
Built Engineering Accreditation	CDC/114/24	Structural Engineering Services	Carry out technical assessments on top structures, develop and issue technical reports, provide professional advise, guidance and remedial actions
Mechanical Engineering Accreditation	CDC/115/24	Fire Engineering Services	Carry out technical assessments on fire systems, develop and issue technical reports, provide professional advise, guidance and remedial actions
2GB or higher	CDC/147/24	General Building Service & Maintenance	General repairs, renovations, alterations, and replacements

2CE or higher	CDC/148/24	Roads & Civil Works Service & Maintenance	General repairs, servicing, renovations, alterations, and replacements
---------------	------------	---	--

The risk profile is identifying the key areas of risk exposure that the Implementing Agent is highlighting to be considered by the respective Contractors as part of the construction and operations of the units: The item on the risk profile are linked and a legal framework for compliance to such have been identified in the controls and SHE specification but not limited to

- Consideration of the environmental authorization to be prioritize
- Protection of species to be implemented e.g., flora, fauna etc
- Inclement weather conditions
- Exposure to moving equipment and interaction with other contractors
- Earth works and excavations
- Exposure to hot sources
- Dust, noise, vibration exposure
- Manual handling & related ergonomic stressors
- Working at heights, structural frame erections and roof sheeting
- Lifting and lowering operations
- Grinding and cutting operations
- Electrical and mechanical installation
- Handling and storage of chemicals
- Ventilation limitations
- Illumination limitations
- Heat and Fire exposure
- Stacking and racking exposure
- Waste exposure and handling
- Safe walks and drive ways onsite
- Commissioning risk exposures

The risks identified in this assessment relates to the IA's duties, the Contractors appointed on these projects will be required to develop a detailed baseline risk assessment on the risk exposures experienced on site and relevant to the project scope of works

No	Processes	Potential Hazards	Risk
1.	Lack of SHE planning and implementation	Not prioritizing SHE requirements at the appropriate stage of the project by internal and external teams	Negative impact on the client, possible cost implication for the identification of changes as required from an SHE compliance requirement. Project delays and legal liability
2.		Late of H&S representatives for the project	Legal liability as a result of the risk not being adequately identified, managed and controlled on the project
3.		No pre-construction SHE management approvals conducted	Legal non-conformances and project delays resulting into cost implication
4.	Known/unknown services for water, electricity and sewer	Electrocution, sewer/water leaks	Disruptions to the project, shock, burns, death,
5.	Lack of geotechnical soil information knowledge	Excavations collapse and incorrect design rational used	Injuries, fatal, structural faults and property damages
6.	Poor management of social -economic risks	Exposure to unrest, crime on site	Injuries, damages and theft
7.	Access and transport on and to site	Unsafe transportation, lack of adequate traffic control and road worthiness of vehicles.	Motor vehicle accident and fatalities. Personal injuries of non-construction workers due easy unauthorized access.
8.	Site camp erection & dismantling	Rigging – off loading- placement of containers and machinery	Falling objects - Sliding objects Cuts and lacerations – crush injuries
9.	Off-loading equipment, machinery, materials	Manual rigging and crane operations- rigging- movement of equipment	Falling and moving objects or machinery Ergonomic strain, crush, death
10.	Stacking & Storage	Moving storage or stacks (pipes, bricks)- picking off stacks	Falling objects or machinery- crush injuries

No	Processes	Potential Hazards	Risk
11.	Bush Clearing	Moving machinery, dust, and noise nuisance, snakes etc	Accidents, dust inhalation and NIHL, bites
12.	Protected flora and fauna	Illegal hunting of species or removal of red listed, as per the environmental legislations	Environmental non-conformance
13.	Grubbing and aggregate placement	Mobile plant and truck movement dust	Crush accidents- dust inhalation
14.	Layer earth works	Transportation, traffic control	Motor vehicle accident and fatalities
15.		Use of compaction plant	Crush injuries- noise - vibration
16.	Dust exposure	Construction activities generating dust	Respiratory irritation- silica induced illness, poor visibility on site
17.	Noise exposure	Construction activities generating noise	Noise induce hearing loss
18.	Whole Body and hand vibration	Mobile plant operations, using vibrating electrical or mechanical equipment	Whole body Vibration back and muscular strain
19.	Exposure to radioactive source	Exposure and use to radioactive source	Acute radiation
20.	Excavation works.	Working inside unsafe excavations, no barricading to prevent employees from falling into excavation, signage displayed – lack of warning indicator	Falling into excavation, deaths, serious injuries. Excavation collapse
21.	Pipe laying and road works	Unsafe lifting and lowering into excavations, mobile plant operations, dust, open excavations	Falling loads, falling into excavations, dust inhalation
22.	Waste management	Waste accumulation, risk of fire, pollution, unauthorized dumping within the districts	Construction rubble polluting the environment, illegal dumping

No	Processes	Potential Hazards	Risk
23.	Plant repair and maintenance of plant and machinery	Mechanical risks: mobile parts, gravity energy, hydraulic or coil energy, nip points	Severe to fatal injuries
24.	Exposure to elements and environment	Sun, wind, temperature, emissions	Skin cancer, heat exhaustion, lung cancer etc
25.	Temporary Flammable Stores	Inadequate temporary flammable store,	Fire risk resulting into property damage and injury to people
26.	Hauling of vegetation and soil material	Unauthorized clearing of vegetations and soil material, illegal dumping without approval by Agent and the CDC.	Pollution into the environment, illegal dumping
27.	Building Works		
28.	Mobile plant operations	Mobile plant and truck movement	Accidents/Incidents
29.	Concrete works	Handling cement, concrete, heavy objects	Skin, eye chemical insult, ergonomic strain
30.	General construction work, brick laying, carpentry etc	Hand tools- small portable electrical tools- manual handling- sharp articles –electricity	Hand-, eye injuries, crush injuries, noise exposure, dust exposure –ergonomic strain – electrical shock -fire
31.	Temporary work operations.	Collapse, incorrect temporary works erections Wind affecting the temporary work structures	Serious injuries- multiple persons- fatality
32.	Construction in operation	Hazardous activities and construction vehicle exposures, open trenches	Injuries to members of the public or community and users
33.	Structural steel erection	Ergonomic hazards Collapse Wind risk during erection affecting the material handling & temporary work structures Fall risks, drop risks	Strains Serious injuries- multiple persons- death

No	Processes	Potential Hazards	Risk
34.	Installation of Roofing, Ceiling	Ergonomic hazards Collapse of structure Wind risk affecting the material handling of roof- and cladding sheets Fall risks, drop risks	Strains Serious injuries- multiple persons- death
35.	Public Health and Safety, constructing at an operational area	Construction to be separated from the members of the public, construction material falling from heights, obstructing path and walk ways, unsafe site conditions	Scratches, fractures, skin, eye, respiratory impact, falls,
36.	Working at heights, placement of windows and air vents	Ergonomic hazards Collapse Wind risk affecting material handling of roof- and cladding sheets	Strains Serious injuries- multiple persons- fatality
37.	Electrical work.	Unsafe electrical exposure	Electrocution, Fatality, damage to property due to fire
38.	Mechanical works	Unsafe mechanical exposure	Entanglement, serious injuries
39.	Use of ladder	Collapsing –fall -drop	Severe injury- fatality
40.	Use of chemical substances	Cement-dust, diesel, Paint	HCS-specific illness
41.	Demolition work. If required due to inadequate building quality	Exposure to unknown hazardous sources, structural collapse	Severe injury and fatality
42.	Community unrest	Unforeseen unrest from community members	Property damage, project delays

No	Processes	Potential Hazards	Risk
43.	Road usage and cleaning	Unsafe constructive vehicle operations,	Injuries to pedestrians and members of the public.
44.	Laydown areas	Delivery of construction material and equipment to site, incorrect storage of equipment's and material	Obstruction for operations and damaged to existing infrastructure
45.	Painting	Usage of paint and painting at heights	Fume inhalation, falling from heights

Annexure B

Acknowledgement:

I, _____ representing

_____ Principal Contractor have satisfied myself with the content of the
Baseline Risk Assessment (BRA) and shall ensure that the personnel and other people visiting site comply with all relevant
obligations in respect thereof.

Signature of Principal Contractor

Date

Signature of Agent

Date