



## **DEPOT MODERNISATION PROGRAMME – PRASA TECHNICAL**

**PROJECT DESCRIPTION: APPOINTMENT OF A CONTRACTOR TO PROVIDE  
BRAAMFONTEIN WAREHOUSE & STORAGE INTERIM  
MEASURES FOR THE NEW EMU'S IN COMPLIANCE WITH  
DFA & TSSSA REQUIREMENTS**

**END USER : ROLLING STOCK DEPOT MODERNISATION PROGRAMME -  
PRASA TECHNICAL**

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### **1. OBJECTIVE OF THE PROPOSED PROJECT**

The objective of the proposed project is to provide a capacity mitigation measure for storing large components, electronics, and chemicals of the new EMUs in the Braamfontein Depot in compliance with the Depot Facilities Agreement (DFA) and the Technical Support and Spares Supply Agreement (the TSSSA), in support of Naledi Rail Service resumption.

### **2. SCOPE OF WORK AND AREAS OF FOCUS**

Warehouse for large items storage and electronic storage are earmarked to be in the Component Repair Area, within the Lifting Shop building. The Braamfontein upgrade works will include the following:

- Warehouse including large items and electronic storage inside the Lifting Shop Building (Component Repair Area); and
- Supply, Deliver and Install of the Main Chemical Store (Container System).

#### **a. Details of the Preferred Solution**

The appointment of a Contractor to provide Braamfontein Warehouse & Storage Interim Measures for the New Trains in Compliance with DFA & TSSSA Requirements for a period of two (2) months.



**b. Scope of work for the Proposed Project**

**i. Warehouse for large items storage**

- The existing component repair area in the Lifting Shop need to be demarcated to accommodate large component warehouses (20m x 15m = 300 sqm)
- Interior fencing/barriers for demarcation of separate heavy-duty area (8m x 8m) within the warehouse will be required with separate access control measures, 5m sliding gate;
- Interior fencing/barriers (Painted Red colour) for demarcation of Quarantine Material area (3m x 3,5m) within the warehouse with access control door;
- Provision must be made for Material Racking, Inspection Area, Outgoing Area, Inspection Area, Quarantine area, Block & Storage, Receiving Area, taking into consideration of the proposed sunroof opening/ enclosure to prevent birds inside the Big Parts storage area;
- The existing component repair area in the Lifting Shop need to be reconfigured to accommodate large component warehouses areas using Wire Partitions System with the following specification:
  - Erection of Wire Partitions System covering an area of (15m (width) x 20 m (length) x 4m (height)) with panels flush with the floor, composed of heavy-duty hardware warehouse access: normal door/ emergency exit (1.4m - including fire escape locks/ push bar), Electric Sliding Gate (3.5m- length) for the warehouse and Electric Sliding Gate (5m - length) for big parts section. The design of all structural steelwork shall be such as to provide a robust and rigid structure requiring the
  - minimum of maintenance and providing a long service life;
  - Provide overhead door tracks with a horizontal sliding door mechanism above Big parts receiving area with a minimum opening of 5m (width) x 3m (length) to allow the overhead crane to drop of large components. A Heavy-duty roller shutter door (5m x 3m) to be operated manually is proposed for sunroof opening/ enclosure;
  - The large component warehouse must be fitted with Industrial Vertical Sliding Door (5m (width) x 5m (height)) for forklift easy access, runs on wheels and runners along the top of the aperture so there will be no runner/ rail on the floor; and
  - Wire Partitions System (PRASA to provide) for walls must be mounted securely on steel posts spaced no more than three (3) metres apart (reinforced



horizontally), wire mesh panels must be welded together at every wire juncture, and walls panels flush to the floor. PRASA to provide second hand Panels (3m width x 3m Height) and 100 x 75 x 6mm Angle Iron with 3000 mm x 50mm x 5mm. NB: Contractor to provide all fasteners (bolts and nuts) to make installation complete.

- Supply and install Steel Racking and shelving (See Annexure 2& 3) with the following Specification:
  - Warehouse Back-to-Back Steel racking (Light to medium duty) – 1 x (15m (L) x 1,5m (W));
  - Warehouse Back-to-Back Steel racking (Light to medium duty) – 2 X (15m (L) x 1,5m (W));
  - Big parts Steel racking (heavy duty) – 2 X (6m (L) x 1,5m (W));
  - Warehouse Quarantine Material Area steel racking; and
  - Chemicals & Electronics Storage shelving.
- Provide led warehouse lighting (2 x double led lights per rafter and 10 in total);
- Non-flammable insulation layer under Warehouse Corrugated roofing; and
- Floor surface must be sealed, dry, non-slippery and painted as per Warehouse Layout plan.

**ii. Supply, Deliver and Install of the Kitchen (7.2sqm) – Container System with electrical:**

A standard 3m (10ft) Container System (prefabricated) is proposed to be used as a Kitchen Areas inside the Component Repair Area with the following features:

- Electrical: distribution board, earth leakage, 2 x 15 amp plug points, 2 x double fluorescent lights, 1 x dedicated air conditioner plug point;
- Aircon: 1 x 12000 BTU heating and cooling air-conditioner;
- Door: 1 x external steel door (790 x 1980);
- Windows: 1 x large steel windows (950 x 1022) with steel burglar guards;
- Wall Insulation: 40mm polystyrene insulation with cladding internally;
- Ceiling Insulation: 40mm white insulated ceiling panels;
- Flooring: industrial flooring/ safety flooring systems; and
- Painting: Wire brushed, treated for rust, painted outside (grey).



**iii. Supply, Deliver and Install of the Electronics Light Duty Storage (7.2sqm) – Container System with electrical:**

A standard 3m (10ft) Container System (prefabricated) is proposed to be used as Electronics Light Duty Storage inside the Large Storage area with the following features:

- Electrical: distribution board, earth leakage, 2 x 15 amp plug points, 2 x double fluorescent lights, 1 x dedicated air conditioner plug point;
- Aircon: 1 x 12000 BTU heating and cooling air-conditioner;
- Wall Insulation: 40mm polystyrene insulation with cladding internally;
- Ceiling Insulation: 40mm white insulated ceiling panels;
- Flooring: industrial flooring/ safety flooring systems; and
- Painting: Wire brushed, treated for rust, painted outside (grey).

**iv. Supply, Deliver and Install of the Main Chemical Store (Container System)**

- Two (2) x standard 20-foot container (6.058 m (L) x 2.4m (W) x 2.591m (H)) are proposed to be mounted back-to-back outside of the Component Repair Area;
- Supply, Deliver and Install Modular/mobile chemical store for storing a wide range of chemical drums and containers (including highly flammable chemicals) with walk-in fully bunded areas including forklift access;
- Provide electric power to the Main Chemical Store (Container System) from the lifting shop (approximately 50m).
- As per floor Plan, provide lighting and single-phase electric power to mobile chemical store location including commissioning of any installation.
- Storage height for racking and shelving should be designed such that it allows storage with walk-in fully bunded areas that provide safe and secure storage and work areas; and
- Chemical Store details are contained in the attached Drawings (Annexure 4).

**v. Demolitions and Stripping of old fence and structures**

- Contractor to select and strip second hand panels, Angle Irons, and cover plates to be used for erecting both internal and external fencing/barriers for the warehouse;



- All unused and scattered facilities inside the Component Repair Area must be demolished after approval by PRASA;
- Small facilities that can be relocated or consolidated into other facilities must also be demolished after approval by PRASA;
- Export the waste material/rubble to a designated and approved dumping area (with proof to be provided to PRASA Project Manager);
- All assets in the buildings to be demolished must be handed to PRASA. All scrap metal removed from the demolitions is to be disposed to a suitable and compliant disposal site and any income generated from such to be paid to PRASA. This will be done in liaison with PRASA Project manager.

**vi. To be provided by PRASA**

- Electricity - free of charge
- Overhead Crane inside the lifting shop to the warehouse space
- Second-hand ClearVu fencing Panels (3.2m width x 2.m Height) and Iron 100 x 75 x 6mm Angle Iron for mounting fencing Panels.

**vii. To be provided by the contractor**

- Engineers drawing for the warehouse Steel Structure Design (15m x 20m x 4m) and completion certificate of the project after Steel Structure Erection on site;
- Steel Structure (15m x 20m x 4m) Fabrication including steelwork components, Bolt Lists, base plates, bolts/ HD Bolts to the Engineer's specifications, wedge anchors and welding spots (Complete and per assembly), to form a complete frame.
- Second-hand cover plates 3000 mm x 50mm x 5mm and fastening to mount fencing Panels.
- Two (2) Second-hand container for the Main Chemical Store (Container System); and
- One (1) Container for the Electronics & Kitchen (Container System).
- Electricity connections to the site(s)
- Site instructions - Contract Instructions issued on site are to be recorded in triplicate in a site instruction book which is to be maintained on site by the contractor;
- The contractor shall comply with all the requirements set out in the Construction Regulations, 2014 issued under the Occupational Health and Safety Act, 1993 (Act no.85 Of 1993)



**c. Other related projects in the vicinity**

- Depot Fencing Upgrade by PRASA TECH/ DMP.
- Refurbishments And Upgrades to Braamfontein Depot (Gibela Building, Perway and Maintenance Shed/ Lifting Shop) by PRASA CRES.

**d. List of Annexures to the Scope of Work**

- Annexure A - Bills Of Quantities (BOQ);
- Annexure 1 - Braamfontein Warehouse Concept Drawings;
- Annexure 2 - Warehouse Racking & Shelving Requirements;
- Annexure 3 - Chemicals & Electronics Storage Requirements; and
- Annexure 4 - Chemical Store Drawings & Specification.

**e. Measurements and Payment**

- Payments will only be made against completed milestone as per the appointed contractor's schedule of works and payment schedule. Payments will be based on completed physical milestones to be achieved on site.
- The PRASA Project Manager will certify payments to the appointed contractor.
- Where variations may become applicable, the contractor must demonstrate market related rates and full breakdowns of all costs that will be incurred, and time extensions required must be priced.

**3. TECHNICAL SPECIFICATIONS RELATED TO THIS PROJECT**

- SANS 10131: Above-ground storage tanks for petroleum products;
- SANS 0400 - Application of the National Building Regulations;
- SANS 10142-1 - Code of Practice for the Wiring of Premises – Part 1;
- E4E - Safety Arrangements and Procedural Compliance with the Occupational Health and Safety Act, 1993 (Act 85 of 1993) including applicable regulations;
- SANS 1019 - Standard voltages, currents and insulation levels for electricity supply;
- SANS 10142 - The wiring of premises (all Parts);
- SANS 10162 - The structural use of steel; and
- SANS 50025 - Hot rolled products of structural steels.

**4. TIME FRAMES / PROGRAMS**

- The planned duration for this project is expected to last for a period of two (2) months.



## 5. BILL OF QUANTITIES (BOQ)

- Attached Annexure A

## 6. REQUIREMENTS

- CIDB Registration:** Supply us with CIDB Grading certificate: Structural steelwork fabrication and erection – Class 3 SL (or Higher);
- Organisational Experience Projects:** Manufacture/ fabrication and erection of structural steelwork project experience of more than R1 Million each – a minimum of five (5) projects and types of structures include: workshops, metal sheds, Industrial Buildings, Warehouses, Retail Spaces, commercial and agricultural buildings. Supply us with referral letters from clients for completed works listed in the table below.
- Project Schedule:** Provide a project schedule that meets the client's scope of work and show key Milestones.

Suppliers must state particulars of the works successfully carried out

CLIENT	TEL. NUMBER	NATURE OF WORKS	VALUE OF WORKS	CONTRACT/ PROJECT PERIOD



## 7. EVALUATION MATRIX: Technical requirements

Technical requirements	Yes	No	Scoring/ Comments by PRASA OFFICE
1) CIDB Grading: Class 3 SL (or Higher) – 25 %			
2) Organisational Experience Projects: 5 projects of similar type and scale – 50 %			
3) Project Schedule – 25 %			