

**SUPPLY OF ALTERNATIVE WATER
RETICULATION INFRASTRUCTURE (TO
SUPPLY WATER TO ABLUTION BLOCKS
AS BACKUP, TO MITIGATE EFFECTS OF
MUNICIPAL WATER SUPPLY OUTAGES)
AT THE WENTWORTH DIESEL DEPOT,
MASONS MILL DEPOTS AND BAYHEAD
WAGONS DEPOT.**

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Table of Contents

Content	Page no
1. INTRODUCTION/ SCOPE OF WORK	4
2. SITE INSPECTION	4
3. INFORMATION REQUIRED	4
4. TECHNICAL REQUIREMENTS	5
5. SPECIFIC REQUIREMENTS	5 - 18

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1. INTRODUCTION / SCOPE of Work

This specification is for the:

#	TASK	REQUIRED
1	Design	
2	Manufacture	
3	Supply	✓
4	Installation	
5	Documentation	
6	Testing	
7	Training	
18	Commissioning	

of the specified:

#	ITEM	REQUIRED
	Supply of alternative water reticulation infrastructure (to supply water to ablution blocks as backup, to mitigate effects of municipal water supply outages) at the Wentworth Diesel Depot, Masons Mill Depots and Bayhead Wagons Depot.	✓

This specification states the minimum requirements relating to the work and in no way absolves the contractor from responsibility for sound engineering/ethical practice.

Any omissions or sub-standard requirements of this specification must be brought to the attention of Transnet Engineering at a tender stage and optional prices for addressing such omissions must be provided.

2. SITE INSPECTION

- 2.1 All prospective contractors shall be required to undertake a compulsory site inspection to fully acquaint themselves with all aspects involved.
- 2.2 Arrangements to visit the site and confirmation of the date and time of the site inspection shall be made with Transnet Engineering Contract Manager.
- 2.3 The site inspection certificate shall be completed and countersigned by the Contract Manager on the day of the visit and must be submitted with the tender documents.

3. INFORMATION REQUIRED

- 3.1 Offers will not be considered unless full particulars and sufficient literature are provided at the tendering stage to enable Transnet Engineering Technical Officers the opportunity to assess each technical offer properly.

- 3.2 Prospective Contractors will complete the relevant questionnaire in full and must indicate whether their offer complies with each item of the specification
- 3.3 Should there be insufficient space for furnishing full details; contractors shall provide the additional details in their covering letter. The additional details shall be numbered in accordance with the applicable clause specified in the specification.
- 3.4 As prospective contractors are considered to be experts in their field, they are obliged to identify any shortcomings, such as omissions or sub-standard requirements, to the completeness of this specification. These must be brought to the attention of Transnet Engineering at tender stage with alternatives to address these shortcomings. However, each offer shall be quoted for separately.

4. TECHNICAL REQUIREMENTS

- 4.1 Except where otherwise provided for in the specification, all equipment offered will comply with the requirements of the relevant standard specifications of the SABS, if published, otherwise with the relevant standard of the British Standards Institution in force at the time of tendering.
- 4.2 Where equipment offered complies with the recognized standards of the country of manufacture and not specifically with the standards required by this specification, such equipment will be considered at the discretion of Management. In this case, tenders shall state fully all respects in which the equipment departs from the standard laid down in this specification.
- 4.3 The successful tender will at the conclusion of the installation provide a document along the lines “that the installation complies with national/international requirements and that all selected /designed items are compliant with Act 85 of 1993 and SABS practices applicable to the installation. The equipment has been commissioned/ calibrated, and employees as specified have been trained and found competent to operate the plant.”

The work shall be done in accordance with the following legislation, regulations and standards:

- SANS 10142-1 The wiring of premises Part 1: Low-voltage installations.
- Occupational Health and Safety Act and Regulations 85 of 1993.

5. SPECIFIC REQUIREMENTS

Any person with the intention of tendering shall ensure that the information below is complied with.

- 5.1 Environment
 - The industrial environment.

5.2.1 Scope of work

The service provider is required to deliver the requested materials in Wentworth Diesel Depot in Durban where they will be distributed by the PEMM team.

The purpose of this tender is for the supplier to deliver the materials which will enable the PEMM team to install the water tanks with pumps thus ensuring that the alternative supply of water to the ablutions is achieved in case of the municipality water outage.

The service provider shall supply the following with the requested quantity as indicated below:

- 1.1kW centrifugal booster pump with controller of the quantity of nine
- 2400l Vertical Water Tanks – Green of the quantity of five
- 1000l Slimline Water Storage Tanks of the quantity of four
- Tank pump cover winter grass – 54cm of the quantity of nine
- Water tank float valve kit of the quantity of nine
- Advanced Valve Non-Return 22 mm CXC of the quantity of fifteen
- PVC Check Valve Double Union – Threaded of quantity of ten
- Brass Compression Coupler C/C 22mm
- Brassman Compression Elbow 22mm CXC
- Builders Compression Tee Equal CXCXC 22 mm
- Gio Bella Lever-Type Ball Valve 22mm
- 22mm Copper Pipe – Class 2 (5.5 m length)
- Tape Polytetrafluoroethylene
- Pipe HDPE 20mm x 100m
- Compression Elbow 20mm
- Compression Tee 20mm
- Compression Male Adaptor 20 x 20mm
- Compression PP Coupler X 20mm
- Gland Compression No.2 PVC of quantity of
- Raw bolts M8 of quantity of sixty
- HYDROBOIL WHITE EPOXY 5 LITRE of quantity 4

- Exact specifications of the major equipment are as given below:
- 1.1kW centrifugal booster pump

PUMP SPECIFICATIONS		FLOW CONTROL SWITCH	
Pump model	CPM170	Model SKD-2	Model SKD-2
Motor power	1.1kW	Input voltage	220V
Max. flow	120 lt/min	Frequency	50 Hz
Max. pressure	4.4 bar	Current	10 A
Max. fluid temperature	40 °C	Max. power	1500W
Max. ambient temperature	40 °C Max.	Protection	IP 44
suction lift	7m		

2400l Vertical Water Tanks – Green and 1000l Slimline Water Storage Tanks

The Tanks shall have the following benefits:

- 10-year warranty
- Made with the best quality virgin LLDPE
- UV-stabilised outer layer withstands the harsh African climate
- BPA-free, food-grade layer prevents leaching of harmful chemicals and protects the quality of the water stored
- Black inner layer prevents algae growth
- Greater thickness of polymer at the bottom of the tank provides the required strength to withstand the pressure from the liquid stored
- Closely spaced ribs at the bottom of the tank provides added strength
- No vertical joints or weak points in the layers for added strength
- Our colour pigments have the best weather- and light fastness properties for extended outdoor use without fading
- Lids are secured with spring-loaded e-clips as an additional safety measure in the event that the tank overflows

Pump covers

The pump covers shall have the following benefits:

- 3-year warranty
- Extends the lifespan of your Booster Pump
- Ideal for use with all tanks Booster Pumps
- Made with the best quality LLDPE
- Durable
- UV-resistant
- Corrosion-resistant
- Reduces noise
- Available in a wide range of colours to match the colour of your tank or home

Water Tank Float Valve Kit

The water tank float valve kit shall have the following accessories:

1. 20mm male hose connector
2. 2x 40/20mm reducers
3. 50/40mm full thread reducer
4. Float valve which includes the valve, threaded rod, and float ball

The benefits for the water float valve kit shall include the following:

- all accessories included for seamless integration
- Easy DIY installation
- Allows for effortless filling of a water tank
- Automatically shuts off when the tank is full
- Suitable for use with our vertical, low profile and slimline water tanks

[illegible]

6. PENALTY CLAUSES

Due to the criticality of this project, penalties will be levied for late deliveries.

7. OTHER INFORMATION RELATED TO THE SCOPE

This specification states the minimum requirements relating to the work and in no way absolves the contractor from responsibility for sound engineering practice. Any omissions or sub-standard requirements of this specification must be brought to the attention of Transnet Engineering at tender stage and optional prices for addressing such omissions must be provided.

- 7.1 Any matter relating to this work, which requires a decision from Transnet Engineering shall be presented to the Project Manager in charge.
- 7.2 All offers shall be completed in every respect with this specification. Only completed tenders shall be considered.
The Technical Officer reserves the right to have the proposal checked independently by a third party.

Tenders must allow for monthly progress and clarification meetings on site initially and after commissioning for defect meetings when required. A meeting will be held after issuing of the tender to establish the exact scope and magnitude of the contract. No tender will be considered unless it has this certificate signed by the Engineer or his representative.

project. A safety file and associated documents will be required from a successful tenderer and such will be communicated by the Risk department. The cost of medicals and related factors shall be allowed for in the tender.