REMOVAL OF DAMAGED FENCE AND RUBBLE, INSTALLATION OF CONCRETE PRE-CAST PALISADE FENCE AT TRANSNET ENGINEERING.

ROTATING MACHINES DEPOT AND ELECTRICAL LOCOMOTIVES DEPOT, 150-152 EEL ROAD, UMBILO.

REFERENCE No: FAI_DBN_SOW_096

Revision 0

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Table of Contents

DOCUMENT AUTHORITIES

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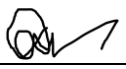
Signature & Date	 11/11/2025
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Signature of Bidder/s: _____ Date: _____

1. INTRODUCTION

This specification document is for the:

#	TASK	REQUIRED
1	Demolish the damaged palisade fence	✓
2	Removal of rubble	✓
3	Supply	✓
4	Refurbishment	✓
5	delivery	✓
6	Installation	✓
7	Documentation	✓
8	Testing	✓
9	Training	✓
10	Commissioning	✓
11	Structural Investigation	

Of the specified:

#	ITEM	REQUIRED
1	Removal of damaged fence and rubble, installation of concrete pre-cast palisade fence at Transnet Engineering.	✓
2	Submission of project completion documents.	✓

2. SITE INSPECTION

a) All prospective tenderers shall be required to undertake a compulsory site inspection to fully acquaint themselves with all aspects involved.

b) Arrangements to visit the site and confirmation of the date and time of the site inspection shall be made with the Transnet Engineering Project Manager.

c) The site inspection certificate shall be completed and countersigned by the Project Manager on the day of the visit and must be submitted with the tender documents.

3. INFORMATION REQUIRED

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

b) Prospective Tenderers will complete the relevant questionnaire in full and must indicate whether their offer complies with each item of the specification.

c) Should there be insufficient space for furnishing full details; Tenderers 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.

Signature of Bidder/s: _____ Date: _____

d) As prospective Tenderers 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.

e) Alternative offers shall be clearly indicated by the Tenderers why it shall be considered superior and / or more beneficial to Transnet Engineering than that specified.

4. TECHNICAL REQUIREMENTS

The following regulation and codes must be complied with: -

- **The Occupational Health and Safety Act – Act 85 of 1993.**

5. SPECIFIC REQUIREMENTS

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

5.1 Scope of works

Item no.	REQUIRED
5.1.1	Read this scope of work with document number, Annexure 1 (Transnet contractor safety, health and environmental management specification guidelines TRN-IMS-GRP-GDL-014. 2).
5.1.2	The service provider is required to submit a SHE Contractor Compliance file at their own cost (Index to be provided to the successful service provider); - This file shall be submitted after the Purchase Order has been issued, not at tender stage.
5.1.3	• The appointed contractor shall supply and deliver all required materials. • The successful contractor has the responsibility to provide labour, transport, tools and all other items required to start and complete this project.
5.1.4	The damaged / old materials shall be removed from Transnet Engineering site and dumped at the approved dumping site. The certificate of dumping shall be submitted to the project manager, on completion.
5.1.5	**Performance Requirements (Strength): Pre- cast posts, cross bars, and pales** The required concrete compressive strength in all prefabricated pre-stressed elements shall be a minimum of 40 Mpa at 28 days, determined in accordance with SABS method 863. The test certificate to be provided to support this requirement.
5.1.6	All steel used for reinforcements in prefabricated elements shall be high yield steel with a minimum characteristic strength of 410 MPa and shall in general comply with SABS 920 and SABS 4482. The material certificate to be provided to support this requirement.
5.1.7	The works (workmanship and materials) shall have a warranty period of 24 months.
5.1.8	The successful contractor shall submit the samples of materials to the project manager before any work can commence on site(s).

Signature of Bidder/s: _____ Date: _____

Item no.	REQUIRED
5.1.9	**Foundations** Each post shall be supported by a 0,8m depth x 0,40m wide x 0,40m long concrete foundation. The concrete mixture shall be cement, river sand and stones. The foundation shall have a minimum strength of 15 MPa after 14 days. The strength tests for foundation concrete shall be conducted. The contractor shall submit the test certificates to Transnet Engineering. Only SANAS accredited laboratory may conduct the tests and issue tests certificates.
5.1.10	**Posts** The posts shall be 3.0m long and slotted to receive the horizontal load-bearing rails/ cross bars. The back piece is 150mm wide and tapers to 80mm in the front. The post's thickness shall be 220mm. In a concrete foundation, posts must be spaced at 2.0m intervals.
5.1.11	**Pales** The pales shall be 2.3 meters long and include two 10mm holes for 8mm carriage bolts. The pales must have a 70mm thickness. A total of 9 pales shall be installed per 2-meter segment, spaced at 90mm.
5.1.12	**Cross Bars or Rails** The cross bars shall be 1.98 meters long and have nine x 10mm holes for carriage 8mm bolts. The rails shall be 150mm in width and 75mm in thickness. The rails shall slide into the posts and grouted with a 2 to 1 sand/cement mixture.
5.1.13	Each cross bar shall be made of four high-yield carbon steel bars measuring 4mm by 1900mm in length.
5.1.14	**Nuts, bolts and washers** The electro galvanised (zinc and chrome) mild steel nuts, bolts, and washers to be used to erect the fence. Fill all bolt with cement mortar, Sand/cement mix shall use as grout.
5.1.15	**Concertina coil:** Drill posts, install the galvanised steel brackets posts and install the concertina coil. Material: Hot dipped galvanized wire, galvanized steel wire to fasten. Coil Type: Concertina. Out Diameter: 450mm. Core Wire Diameter: 2.5mm. Core Wire Type Galvanized (275 gms m^2), High tensile wire (1600 MPa). Blade Thickness: 0.3mm. Spiral Turns per Coil: 55. Use straight galvanized wire to fasten the concertina wire.

Signature of Bidder/s: _____ Date: _____

5.1.16	**ELD and RM Perimeter fence** (i) Repair 260m long perimeter precast palisade heavy duty fence, each post must be 2.4m high above the ground and supported by 0,8m deep foundations. (ii) Repair 355m long perimeter precast palisade heavy duty fence, each post must be 2.4m high above the ground and supported by 0,8m deep foundations. (iii) Re-instate 12m gate rail track, replace 3gate wheels and 4 rollers, clean up the area, remove rust and paint the gate. (iv) Repair 11palisade heavy duty post. (v) Repair 15 palisade heavy duty poles.

Signature of Bidder/s: _____ Date: _____

Item no.	REQUIRED
5.1.17	**Entrance gates and gates. See page 8 for guideline for the required gates.** Supply and install 4 off sliding gates and repair 1 off sliding gate. The gates shall be built with mild steel, then after it shall be galvanized. Hot dip galvanize the gates and all other steel materials in accordance with SANS 121. The gate shall be complete with gate guide, lock sets and hinges and gate wheel kits. Rails to me made with angle bars. **a)** Gate 1 (RM Depot) dimensions: 8m (l) x 2.5m (h) mild steel, hollow. 12m rail automated gate. **b)** Gate 2 (RM Depot) dimensions: 9m (l) x 2.5m (h) mild steel, hollow. 24m rail automated gate. **c)** Gate 4 (ELD) Depot dimensions: 6m (l) x 2.5m (h) mild steel, hollow. 8m rail shall be de-rusted, galvanized, painted, re-installed and automated. **d)** The gate between ELD and RM shall be de-rusted, galvanized, painted re-install and automated. **e)** Gate 5 between RM and Electronic workshop shall be heavy duty dimensions:6m (l)x 2,5m(h) mild steel hollow and automated(galvanized). **f)** Gate 6 between Prefab and Rm stores shall be heavy duty dimension 4,5m(l) x 2,5m(h) mild steel, hollow and automated(galvanized). **g)** Gate 7 between Compressor workshop and Ac test bay shall be heavy duty dimension 4,5m(l) x 2,5m(h)(galvanized).

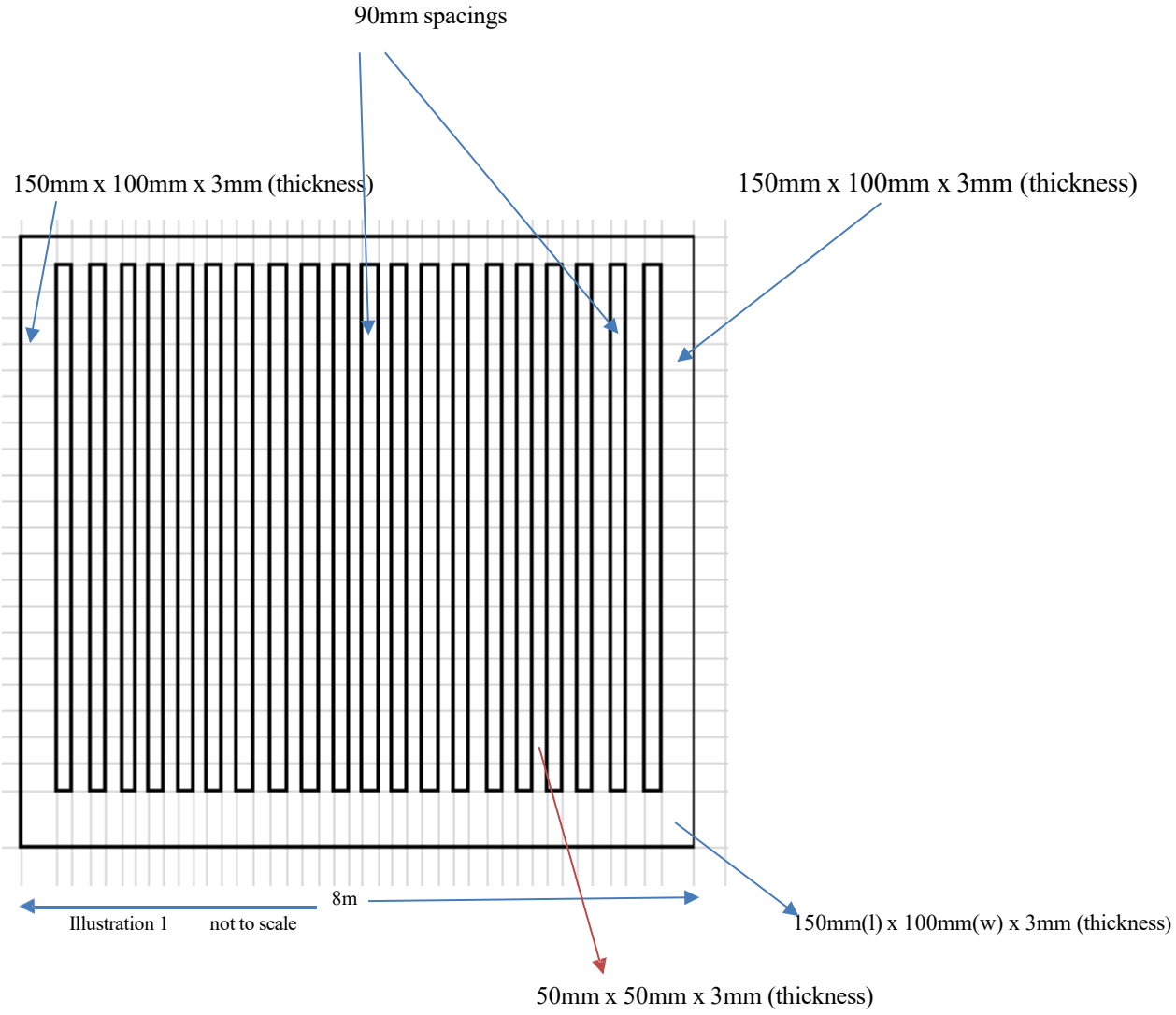
5.2 Safety Features

- The minimum safety features shall be according to statutory and industry rules.

5.3 Services

- The tenderer to state the services required for this project.

Signature of Bidder/s: _____ Date: _____



The above illustration is the guideline for manufacture of gates.

- **A testing period of 1 month (744 hours for 24/7 shifts and 248 hours for 8-hour shifts) this shall depend on what shift the business requiring the removal of the specified equipment.**
- **No completion of work will be accepted by Transnet without the satisfaction of the conditions above.**

5.4 Warranty

- **The warranty period shall be 2 years.**
- Specify when the system becomes fully operational and when the warranty period takes effect.

Signature of Bidder/s: _____ Date: _____

5.5 After-Sales Service

- The successful tenderer shall provide Transnet Engineering with acceptable proof that spares can be easily and speedily procured for the equipment within 7 working days through agents locally.

Note: All work to be completed in each respect by suitably qualified person.

6. OTHER INFORMATION RELATED TO THE SCOPE

6.1 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.

6.2 Any matter relating to this work, which requires a decision from Transnet Engineering shall be presented to the Project Manager in charge.

6.3 All offers shall be completed in every respect with this specification. Only completed tenders shall be considered.

6.4 The Technical Officer reserves the right to have the proposal checked independently by a third party.

6.5 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 the certificate signed by the Engineer or project manager or his representative.

7. HEALTH AND SAFETY REQUIREMENTS

7.1 All equipment and installation whether detailed in this specification or not shall comply with the requirements of the Occupational Health and Safety Act 85 of 1993 as amended and all other applicable legislation including specific set of regulations and local authority bylaws where applicable.

7.2 All the necessary safety equipment such as guards over rotating equipment shall be supplied and the equipment shall comply fully with all the requirements of the South African Occupational Health and Safety Act, Act 85 of 1993 and all other applicable legislation including specific set of regulations and local authority bylaws where applicable. At all times during the manufacture, assembly, and testing of the equipment the contractor will be responsible for the safety of all persons on site and the equipment.

7.3 SHE SPECIFICATION

Prior to commencement of contract, the contractor shall be issued with a SHE specification in order to compile a SHE files in line with TE requirements.
Prior to establishing on site, it is an explicit requirement of this contract that all of the Contractor's. personnel directly involved with this contract, including those of sub-contractors, attend a **Safety. induction course**.

Signature of Bidder/s: _____ Date: _____

Transnet will provide the course free of charge and attendance is compulsory for all personnel under the control of the Contractor who, during the duration of the contract, will be present on site whether on a full time or adhoc basis.

The contractor must allow for all additional charges because of these requirements as no claims for extras will be accepted in connection with the foregoing.

7.4 As **part of the legislative and TE SHE requirements.**

The successful contractor is required to conduct a Risk assessment to ascertain all potential risks associated with this project. The completed risk assessment is to be formally submitted to the Risk department via the project manager at least two weeks prior to the commencement of the actual project. A safety file and associated documents will be required from a successful tenderer, and such will be communicated by the Risk. department.

8. SPECIALIST SUB-CONTRACTORS

8.1 Only specialist sub-contractors who have previously successfully completed work of the type and extent specified in this document should be engaged. The tenderer shall provide the technical officer with sufficient proof of having suitable experience regarding the design and manufacturing of similar equipment.

To this end, complete and detailed reference list shall be submitted with the tender. Reference list shall include addresses as well as contact person who may be visited for inspection of the equipment during the adjudication period.

8.2 The tender shall submit a complete list of proposed sub-contractors and suppliers of major components with his tender.

8.3 The tenderer shall be prepared to commit themselves in writing to the technical officer with an adequate, experienced, and stable project team for the duration of the contract.

8.4 Transnet Engineering will not consider any Tenderer's offer that, in the sole opinion of Transnet Engineering, does not have adequate experience in the design and manufacture of such equipment / product.

9. MATERIAL AND WORKMANSHIP

9.1 The equipment shall be offered complete in all respects, including all standard accessories normally offered by manufactures, all of which shall be specified in detail.

9.2 The equipment, as made and supplied, shall be complete in every respect, of modern design, using the most advanced proven technology extensively supported by reputable local companies, and be built to good engineering practices.

9.3 All equipment shall be adequately protected against damage and contamination during shipping, transport and storage.

10. GENERAL REQUIREMENTS

Operation will be in the following conditions:

Signature of Bidder/s: _____ Date: _____

Altitude	Sea level
Ambient temperature	0˚C to 45˚C
Relative humidity	50% to 100%
Atmosphere	Heavy saline

10.1 Tenderers shall indicate clause-by-clause either that they comply in every respect with the specific requirements, or if not, exactly how it differs.

11. DEFINITIONS AND ABBERVIATIONS

CLIENT	Transnet Engineering Durban
TECHNICAL OFFICER	Project Manager, Transnet Engineering Durban
CONTRACTOR	Contractor appointed under this specification document
SABS	South African Bureau of Standards
SANS	South African National Standard
ISO	International Organisation for Standardisation

12. GENERAL

12.1 The successful tenderer will be subjected to a workshop inspection by Transnet Engineering, to ensure that the facilities are to the satisfaction of the Transnet Engineering in terms of the quality control and equipment capabilities for manufacturing such type of equipment.

13. SITE ESTABLISHMENT

13.1 The contractor shall be solely responsible for the safety of his staff and for providing security to safeguard his works and material on site, until such a time.

13.2 The contractor shall be required to attend site meetings when convened by the Project Leader controlling the contract.

13.3 The contractor will be responsible for any damages caused by his staff to the building and civil works on site.

14. PENALTY CLAUSES

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

Signature of Bidder/s: _____ Date: _____