

TRANSNET



SCOPE OF WORK: REQUEST FOR INFORMATION (RFI) TO ASCERTAIN THE VARIOUS SMART FENCE TECHNICAL SOLUTIONS WITH INTRUSION DETECTION AT UITENHAGE

SWARTKOPS

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1. Scope of work

Item no.	<u>REQUEST FOR INFORMATION (RFI) TO ASCERTAIN THE VARIOUS SMART FENCE TECHNICAL SOLUTIONS WITH INTRUSION DETECTION AT UITENHAGE</u>
1.1	<p>The purpose of this RFI is to gather information from industry experts on available smart fencing solutions i.e. a technologically advanced perimeter security system preferable Anti climb type or similar recommended designed to enhance traditional fencing with modern capabilities which shall include:</p> <ul style="list-style-type: none"> • Assorted options that will include several types of fencing. • Intrusion detection (CCTV integration, alarm systems, electric barrier, etc) • Advantages and Disadvantage of each proposed solution for considerationRecommendations • Technical specification • Bill of quantities/Pricing Activity Schedule • Preliminary designs and drawings for illustration purposes • Maintenance • Warranties and guarantees. • Lifespan • Availability of spares/parts which might be required.
1.2	<p>This scope of works states the minimum requirements relating to Transnet Engineering requirements and in no way absolves the service providers from responsibility for sound engineering practice. Below requirement are to be considered:</p> <p>The boundry fence will be approximately 2.6 km in length with swing gates (Total number of swing gates is 12 and 1 sliding gate) required as per the attached site layout.</p>
1.3	<p>Sensor Integration: Smart fences must come with a range of sensors including motion detectors, infrared sensors, vibration sensors, and sometimes even cameras. These sensors have the ability to identify various kinds of intrusions or disruptions along the perimeter of the fence.</p>
1.4	<p>Real-time Monitoring: Because of their real-time monitoring capabilities, security staff can be notified as soon as there are breaches or activity.</p>
1.5	<p>Remote Access and Control: Have remote access features that let security staff use computers or mobile devices to monitor and control the fence system from a central location (Existing Guardhouse).</p>
1.6	<p>Integration with Security Systems: To create a complete security network, they can be integrated with other security systems including alarm, access control, and CCTV cameras.</p>

1.7	Analytics and Data Processing: In order to provide proactive security management, fence activity should be examined for patterns, trends, and anomalies using analytics and data processing skills.
1.8	Automation: A smart fence solution may include automation capabilities that reduce the need for rapid human interaction in some circumstances, such as automated reactions to breaches or warnings.
1.9	Durability and Weather Resistance: The robust and weather-resistant design of smart fences allows them to operate dependably under a range of environmental circumstances (at least fifteen to twenty five year lifespan) Compliance and Standards: Smart fences must ensure they satisfy the necessary performance and dependability criteria by adhering to certain security standards and regulations (SANS, SABS, ISO etc.). Overall, the smart fence solutions must provide enhanced security, improved situational awareness, and faster response times compared to conventional fencing methods
2	Bidders to submit information on available options that will address the above scope of works as Transnet Engineering minimum requirements
3	A detailed report shall be submitted to Transnet Engineering, it shall contain various option/s, recommendations, scope of work, interface requirement, design requirement and technical specification of the recommended solution.
4	The report shall also include the cost associated to all options and solution.

5. OTHER INFORMATION RELATED TOT THE SCOPE

- 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.
- 2 Any matter relating to this work, which requires a decision from Transnet Engineering shall be presented to the Project Manager in charge.
- 3 All offers shall be completed in every respect with this specification. Only completed tenders shall be considered.
- 4 The technical officer reserves the right to have the proposal checked independently by third party.
- 5 Tenders must allow for monthly progress and clarification meeting 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.

6. HEALTH AND SAFETY REQUIREMENTS

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

7. SHE SPECIFICATION

- Prior to commencement of contract, the contractor shall be issued with a SHE specification 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 the contractor's personnel directly involved with this contract, including those of sub-contractors, attend a **safety induction course.**
- 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 onsite whether on a full time or ad hoc 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. **As part of the legislative and TE SHE requirement.**
- 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 Risk department.

8. RAIL SAFETY REGULATOR (RSR) REQUIREMENTS

- The contractor must just confirm with the record of his outstanding medicals surveillance for his employees in order for Denver to sign off, his HSE File.
- Upon the sign off of the HSE File, site access, induction training and site establishment can be arranged. The outstanding documentation for the Railway Safety Regulator (RSR) must be attended too, during two Phases which have not been approved. Project will be stopped during the Commissioning and Maintenance Phases if the documentation has not been approved by the Regulator.

9. SPECIALIST SUB-CONTRACTORS

- Only specialist sub-contractors who have previously successfully completed work 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 lists include addresses as well as contact person who may be visited for inspection of equipment/facilities during the adjudication period.
- The tender shall submit a complete list of proposed sub-contractors and suppliers of major components with his tender.
- 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.
- 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.
- Contractors shall do the installation simultaneously with other contractors onsite busy with their work and shall plan work that it integrates with other work performed.

10. MATERIAL AND WORKMANSHIP

- The material or equipment shall be offered completed in all respects.
- 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. Tenders shall supply a list of the entire main components (mechanical, electrical etc.)
- All parts and components shall be adequately protected against damage and corrosion during shipping, transport, and storage. Should any of the items called or be standard equipment, then the words "Standard Equipment" shall appear against

11. GENERAL REQUIREMENTS

- The successful tenderer will be subjected to a workshop inspection by Transnet Engineering, to ensure that the facilities are to be satisfaction of Transnet Engineering in terms of the quality control and equipment capabilities for manufacturing such type of equipment.
- The tenderers shall guarantee that the rating and size etc. of the equipment offered, is adequate to perform the duties required.

12. SITE ESTABLISHMENT

- The contractor shall be solely responsible for safety of his staff and for providing



security to safeguard his works and material onsite, until such a time.

- The contractor shall be required to attend site meetings when convened by the Project manager controlling the contract.
- The contractor will be responsible for any damages caused by his staff to the building and civil works onsite.