SCOPE OF WORKS FOR DESIGN AND CONSTRUCT OF THE FOUNDATION FOR THE SHOTBLAST BOOTH WITHIN THE UITENHAGE EASTERN CAPE REGION.

UITENHAGE, WORKSHOP 12.

REFERENCE NO.: OPS_WAG_UIT_158

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EXECUTIVE OVERVIEW

Transnet Engineering is an engineering division of Transnet SOC Ltd, comprising of a group of product focused businesses in manufacture, upgrading, conversion, repair, and maintenance of railway rolling stock as well as spares and associated transport equipment.

The Shotblast Booth was relocated from De Aar to Uitenhage Plant, the Uitenhage depot has no foundation for the shotblast booth to operate. The area has been identified for the installation of the booth at shotblast workshop 12.

Transnet Engineering has proposed to install the shotblast booth inside the identified workshop. This work will be split into two phases (**Phase 1** – design and construct of the shotblast booth foundation, **Phase** 2 – installation & commissioning of the shotblast booth)

EMPLOYER'S OBJECTIVE

The purpose of the project is to design and construct of the shotblast booth foundation (civil works).

Once the foundation (civil works) is completed, the end user will install and commission the shotblast booth.

DESCRIPTION OF SERVICES

Complete design, and construction of the shotblast booth foundation including drainage water system.

PART A: TECHNICAL REQUIREMENTS

1. **The main deliverables would be as per the scope of works, in summary, to be carried out is as follows and to be read in conjunction with part C3 of the scope of works:**

Item no.	REQUIREMENTS	Details of Offer Comply (Yes) Does not Comply (No)
A	**INVESTIGATION/ASSESSMENT PHASE**	
1	Detailed site investigation and data gathering to establish the full project requirements	
2	The design will need to take into consideration a wide range of technical, social, legal, economic, spatial, and environmental issues, which should be integrated to provides a recommended solution.	
3	Preliminary investigations which will undertake all engineering surveys, civil, structural, tests, & geotechnical investigations.	
4	Consultation with the client authorized representatives	
5	Control the design, planning and quality of material to meet time and budgetary requirements.	
6	Designing a plan which outlines the key variables and what needs to be considered prior to the construction process.	
7	Developing a detailed design as per Transnet Engineering requirements	
8	Collation of available information about the existing services and As-built drawings	
9	Compilation and submission of the inception report to the employer	
B	**DESIGNS AND DOCUMENTATION PHASE**	
10	Design the required shotblast booth foundation in terms of Transnet Engineering requirements and present all designs & plans to the Transnet Engineering.	
11	Producing site studies, securing planning approvals and perform a variety of other pre-design	
12	Submission of preliminary designs and final designs to all parties.	
13	Ensuring all design information and investigation required are addressed and documented.	
14	Prepare quality and risk management plans.	
15	Preparation of AFC (Approved for Construction) drawings.	
16	Municipal approval if required and other relevant stakeholders.	

17	Overall responsibility for environmental issues and approvals related to the project	
18	Notification and approval to all relevant authorities. (Consents and approvals by other stakeholder groups)	
19	Ensure that the Occupational Health and Safety requirements (In accordance with OHSA 85 of 1993) are included in the design of all the work categories and the respective specifications.	
20	All designs to be done and approved by a registered Professional Engineer.	
21	Ensuring all design information and investigation required are addressed and documented.	
C	**DIMENSIONAL PARAMETERS**	
22	The foundation is ± 115.23m2 estimated (Inside workshop) and ± 15m2 for concrete plinths/slab	
23	**Shotblast foundation area** – Area 1= (1m x 6m) = 6m2 – Area 2= (15.57m x 6m) =93.42m2 – Area 3= (1.5m x 1.2m) = 1.8m2 – Area 4= (2.11m x 1.51m) = 3.19m2 – Area 5= (5.55m x 1.95m) =10.82m2 **Concrete plinths outside the workshop/near** – Area 6= (5m x 3m) = 15m2	
D	**BULK EXCAVATION AND EARTHWORKS**	
24	Break down and blasting the existing concrete floor for the required area including working allowance/space.	
E	**SITE CLEARANCE**	
25	Before the earth work is started the area coming under cutting and filling shall be cleared of all obstruction.	
F	**SETTING OUT AND MAKING PROFILES**	
26	Masonry or concrete pillars will be erected at suitable points in the area to serve as benchmarks for the execution of the work. These benchmarks shall be connected with G.T.S. or any other permanent benchmark approved by the Engineer-in-charge. Necessary profiles with pegs, bamboos and strings or Burjis shall be made to show the correct formation levels before the work is started.	
G	**EXCAVATION**	
27	The contractor shall notify the Engineer-in-charge before starting excavation and before the ground is disturbed, to enable him to take existing level for the purpose of measurements.	
28	The ground levels shall be taken at 5 to 10 metres intervals in uniformly sloping ground and at closer distance where local mounds, pits, or undulations are met with, as directed by the Engineer-in-charge.	
29	The ground levels shall be recorded in field books and plotted on plans, which shall be signed by the Contractor and the Engineer-in-charge, before the earthwork is actually started.	

30	The Contractor shall perform excavation in all types of soils, murrum, soft and hard rock, boulders etc. in foundation, over areas and in trenches to widths, lines, levels, grades, and curves as shown in the engineer's drawing or lesser widths, lines, levels, grades, and levels as directed by the Engineer-in-charge	
H	**CLASSIFICATION OF EARTH WORK**	
31	The earthwork shall be classified under the following main categories and measured separately for each category. All types of soil, murrum, boulders, soft rock, Hard rock	
I	**ALL TYPES OF SOILS, MURRUM, BOULDERS**	
32	This includes earth, murrum, top deposits of agricultural soil, reclaimed soil, clay, sand or any combination thereof ad soft and hard murrum, shingle etc. which is loose enough to be removed with spadies, shovel and pickaxes. Boulders not more than 0.03 cum. in volume found during the course of excavation shall also fall under this classification.	
J	**EXCAVATION IN SOFT ROCK**	
33	This shall include all materials which are rock or hard conglomerate, all decomposed weathered rock, highly fissured rock, old masonry, boulders bigger than 0.03 cum, in volume but not bigger than 0.5 cum. and other varieties of soft rock which can be removed only with pick axes, crow bars, wedges and hammers with some difficulty. The mere fact that the contractor resorts to blasting and / or wedging and chiseling of reasons of his own, shall not mean the rock is classifiable as hard rock	
K	**EXCAVATION IN HARD ROCK**	
34	Hard rock excavation shall be excavation in material (including boulders exceeding 0.15 cubic metres in individual volume) that cannot be efficiently removed without blasting or without wedging and splitting or be in material, which cannot be excavated by a loader/backhoe or by a scraper without prior ripping	
L	**EXCAVATION IN HARD ROCK BY CHISELING AND WEDGING**	
35	Where blasting is not permitted and if the Engineer-in-charge so desires, the excavation shall be done by chiseling and wedging or any other agreed method.	
36	**Note:** All the excavated hard rock obtained shall be stacked properly and neatly within the specified lead by the contractor as directed by the Engineer-in-charge	
M	**EXCAVATION**	
37	The excavation under all classifications in areas in trenches or in pits shall be carried out systematically. Cutting shall be done from top to bottom and not under pining or under cutting will be allowed. The bottom and sides of excavation shall be dressed to proper level, slopes, steps, camber etc. by removing high spots and ramming thoroughly as directed by the Engineerin-charge.	
38	All the excavation shall be carried out strictly to the dimensions given in the drawing. The width shall generally be of the width of mudmat concrete and depth as shown in drawing or as directed by the Engineer-in-charge, according to availability of the desired bearing capacity of soil below.	

39	After the excavation is completed, the contractor shall notify the Engineer-in-charge to that effect and no further work shall be taken up until the Engineer-in-charge has approved the depth and dimensions an also the nature of foundation materials, levels and measurements shall also be recorded prior to taking up any further work.	
N	**SHORING**	
40	Unless separately provided for in the schedule of quantities, the quoted rate for excavation shall include excavation of slopes to prevent falling in soil by providing and / or fixing, maintaining, and removing of shorting, bracing etc.	
41	The contractor would be responsible for the design of shoring for proper retaining of sides of trenches, pits etc. with consideration to the traffic, superimposed loads etc. shoring shall be of sufficient strength to resist the pressure and ensure safety from slips and to prevent damage to work and property and injury to persons.	
42	It shall be removed as directed after items for which It is required are completed should the slips occur; the slipped materials shall be removed, and slope dressed to a modified stable slope.	
O	**DEWATERING**	
43	Unless specifically provided for as a separate item in the schedule of quantities, rate shall also include bailing or pumping out all water which may accumulate in the excavation during the progress of further works such as mud mat concrete, R.C. footings, shuttering etc. either due to seepage, springs, rain or any other cause and diverting surface flow by bunds or other means.	
44	Care shall be taken to ensure that the water discharged sufficiently away from the foundations keep it free from nuisance to other works in the neighbourhood.	
P	**DISPOSAL OF EXCAVATED MATERIALS: ANTIQUITIES**	
45	Any finds of archeological interest such as relics of antiquity, coins, fossils or other articles of value shall be delivered to the Engineer-in-charge and shall be the property of the Transnet.	
Q	**USEFUL MATERIALS**	
46	Any material obtained from the excavation which in the opinion of the Engineer-in charge is useful, shall be stacked separately in regular stacks as directed by the Engineer-in charge and shall be the property of the Transnet.	
47	No material excavated from foundation trenches of whatever kind they may be are to be placed even temporarily nearer than about 3m from the outer edge of excavation. Discretion of the Engineer-in-charge in such cases is final.	
48	All materials excavated will remain the property of Transnet. Rate for excavation includes sorting out of the useful materials and stacking them separately as directed within the specific lead.	
49	Material suitable and useful for backfilling or their use shall be stacked in convenient place but not in such a way as to obstruct free movement of materials, workers and vehicles or encroach on the area required for constructional purposes.	

50	It shall be used to the extent required to completely backfill the structure to original ground level or other elevation shown on the plan or as directed by the Engineer-in-charge	
51	Materials not useful in anyway shall be disposed of, levelled, and compacted as directed by the Engineer-in-charge within a specified lead.	
52	The site shall be left clan of all debris and levelled on completion	
R	**BACKFILLING IN SIDES OF FOUNDATIONS, PLINTH, UNDER FLOOR ETC**	
53	The backfilling shall be done after the concrete or masonry has fully set and shall be done in such a way as not to cause under-thrust on any part of the structure.	
54	Where suitable excavated material is to be used for backfilling, it shall be brought from the place where it was temporarily deposited and shall be used in backfilling.	
55	The scope of work for backfilling/ filling in foundation, plinth, under floors etc. shall include filling for all the buildings covered under the contract. Surplus earth available from one building, if required, shall be used for backfilling filling for other buildings also within the specified lead mentioned in the item.	
56	All timber shoring and form work left in the trenches, pits, floors etc. shall be removed after their necessity ceases and trash of any sort shall be cleared out from the excavation.	
57	All the space between foundation masonry or concrete and the sides of excavation shall be backfilled to the original surface with approved materials in layers not exceeding 150mm, in thickness, watered and well consolidated by means of rammers to at least 90% of the consolidation.	
58	Areas inaccessible to mechanical equipment such as areas adjacent to walls and columns etc. shall be tamped by hand rammer or by handheld power rammers to the required density.	
59	The backfill shall be uniform in character and free from large lumps, stones. shingle or boulder not larger than 75mm. in any direction, salt, clods, organic or other foreign materials which might rot. The backfilling in plinth and under floor shall be well consolidated by means of mechanical or hand operated rammers as specified to achieve the required density.	
S	**CONCRETE FLOOR SLAB CONSTRUCTION PROCESS**	
60	1. Assemble and Erect Formwork 2. Prepare and Place Reinforcement 3. Pour, Compact and Finish Concrete 4. Curing Concrete and Remove Formwork	
T	**ASSEMBLE AND ERECT FORMWORK FOR SLAB**	
61	The formwork shall be designed to withstand construction loads such as fresh concrete pressure and weight of workers and operators	
U	**PREPARE AND PLACE REINFORCEMENT FOR SLAB**	
62	Prior to the placement of reinforcement for concrete floor slab construction, inspect and check forms to confirm that the dimensions and the location of the concrete members conform to the structural plans. Added to that, the forms shall be professionally cleaned and oiled but not in such amount as to run onto bars or concrete construction joints.	

63	Design drawings provides necessary reinforcement details, so it only needs understanding to use designated bar size, cutting required length, and make necessary hooks and bents. After preparation is completed, steel bars are placed into their positions with the provision of specified spacings and concrete cover.	
64	The concrete cover and spacing for floor slabs can be maintained by introducing spacers and bars supporters. Wires are used to tie main reinforcement and shrinkage and temperature reinforcement (distribution reinforcement)	
65	**Note:** It should be known that incorrect reinforcing steel placement can lead to serious concrete structural failures. Improper concrete cover exposes reinforcement bars to danger and jeopardize concrete-steel bond.	
V	**POUR, COMPACT AND FINISHING CONCRETE FLOOR SLAB**	
66	Mixing, transporting, and handling of concrete shall be properly coordinated with placing and finishing works. In floor slab, begin concrete placing along the perimeter at one end of the work with each batch placed against previously dispatched concrete.	
67	Concrete should be deposited at, or as close as possible to, its final position to prevent segregation.	
68	Concrete placement in large and separate piles, then moving them horizontally into final position shall be prevented. Moreover, site engineer shall monitor concreting properly, and look for signs of problems. For example, loss of grout is the indication of improper sealing and movement of joints.	
69	Added to that, cracking, excessive deflection, level and plumb, and any movement shall be checked and tackled to prevent further problems. Furthermore, fresh concrete should be compacted adequately to mold it within the forms and around embedded items and reinforcement and to eliminate stone pockets, honeycomb, and entrapped air. Vibration, either internal or external, is the most widely used method for consolidating concrete.	
W	**CURING CONCRETE AND REMOVE FORMWORK**	
70	After finishing ended, suitable technique shall be used to cure the concrete adequately. Slab curing methods such as water cure; concrete is flooded; ponded; or mist sprayed.	
71	In addition to water retaining method in which coverings such as sand; canvas; burlap; or straw used to kept slab surface wet continuously, chemical Membranes, and waterproof paper or plastic film seal	
X	**FLOOR SLAB CONCRETE FOUNDATION WITH SELF LEVELLING SCREED SYSTEM COMPRISING A RESIN & ACTIVATOR BLENDED**	
72	The suitable membrane type and thickness of the product shall be confirmed by the Civil Engineer upon assessment/design of the foundation and requirement needed	
73	Scrape off excess and loose material from footings.	
74	Troxler density tests are to be performed	

75	Safety requires that shortblast foundation be smooth and level to accommodate the operation and every part thereof shall be of suitable design and construction, of suitable and sound material and of sufficient strength	
76	The bidders shall attach the catalogue / literature for the proposed self-levelling screed.	
Y	**UNDERGROUND WATER DRAINAGE**	
77	The proposed location of all subsurface drains shall be clearly indicated on the Drawings, including the nominal depth and width of the trench, and the location with respect to the line of the kerb/gutter or edge of foundation. The location of outlets and cleanouts shall be indicated on the Drawings.	
78	**The following shall be noted for groundwater apart:** • Installing a watertight barrier and designing the foundation walls and slab to support the full design water pressure. • Installing a groundwater relief/dewatering system to drawdown the groundwater levels (e.g., dewatering wells either interior or exterior to the building). • Installing a sub-slab drainage system. • Drainage mats (blankets)	
79	**Design Roles and Responsibilities for the groundwater proposed system.** The design of a sub-slab drainage system can be complex and requires a variety of multidisciplinary considerations to achieve a successful design. Below, we describe the following general roles and responsibilities by discipline	
80	**GEOTECHNICAL:** A geotechnical engineer evaluates the existing subsurface and groundwater conditions at the site. The selection of the design high groundwater conditions is critical and may require deep hole test pits, groundwater observation wells, or other methods. Assessment of groundwater fluctuations due to perched groundwater or surface flooding is essential. Soil testing may include grain size testing or performing laboratory permeability or field pumping tests for use in estimating permeability of the soils and tests to identify the risk of iron ochreii clogging. From this data, the geotechnical EOR may perform analytical analyses to determine the flow rate, spacing of pipes, and the size and number of pumps and sump pits for the sub-slab drainage system. The pipe layout and the number of pumps and sump pits will vary significantly based on the subsurface conditions at the site. In addition, the geotechnical engineer determines if the natural soils may migrate (known as soil piping) into the drainage stone used for trenches and drainage blankets due to the water flow of water. The geotechnical EOR may implement design enhancements, including increasing the factor of safety on flow capacity, among other things, to address iron ochre or sedimentation buildup in the pipe.	
81	**CIVIL:** The civil engineer analyses the existing site topography and stormwater runoff at the site. This includes minimizing surface ponding adjacent to the buildings and evaluating where and how to legally discharge and treat (if applicable) the water from the below-grade space	

82	**ENVIRONMENTAL:** The environmental engineer will provide recommendations for mitigating contamination movement or treating groundwater, if any limitations exist	
83	**STRUCTURAL:** The structural engineer designs the building slab, footings, foundation walls, and superstructure based on the design water pressures provided by the geotechnical engineer, including evaluating the impact of hydrostatic uplift on the structure. Failure of the sub-slab drainage system and the resulting water pressures on the structure should be considered, particularly, if there is no cutoff wall below the structure	
84	**MECHANICAL/ELECTRICAL/PLUMBING(M/E/P):** Although it varies, an M/E/P engineer or licensed plumber, typically determines the size and layout of the interior piping and cleanouts following the relevant building codes using the flow rates determined by the geotechnical engineer. The M/E/P engineer selects the sump pits, primary and secondary pump sizes, on/off sequencing and elevations of primary and secondary pumps, the type of water level sensors, and the control panel. The M/E/P engineer or licensed electrician assesses the electrical demands for the sump pumps following the relevant building codes	
85	The contractor shall submit the plans to the local authority and follow up until the plans are approved if required	
Z	**ELECTRICAL INSTALLATION**	
86	In case submersible pumps are used, the contractor shall submit all documentation and user manuals including drawings etc.	
87	Electrical contractor shall do the electrical installation and connection to the nearest power mains, test and issue a COC in accordance with SANS10142-1.	
AA	**COMMISSIONING**	
88	A performance test to the satisfaction of the stakeholders shall be conducted by the contractor.	
89	The contractor shall undertake to repair all faults due to bad workmanship and/or faulty materials during a period of twelve calendar months, calculated from the date that the project is accepted by Transnet Engineering.	
90	Any defects that become apparent during the guarantee period shall be rectified to the satisfaction of Transnet Engineering at the cost of the supplier.	
91	Bidders to quote for the concrete slab that is required for the steel shaving or storage tanks that will be 10tons in weight capacity for the area of - Area 6= (5m x 3m) = 15m2	

2. CONSTRUCTION INDUSTRY DEVELOPMENT BOARD (CIDB) REGISTRATION

The contractor to be appointed under this contract must be registered with the CIDB. To this end, Transnet Engineering does not award contracts to any company without proof of this registration. Only contractors with a minimum of **2CE or Higher** CIDB rating may submit the bids.

PART B: TECHNICAL AND FUNCTIONALITY CRITERIA

Functionality Criteria/ Sub Criteria		Maximum Points Score
Tenderers Experience		15
Proposed Organogram and Staffing		10
Experience of Key Resources in executing work of similar nature	Geotechnical Engineer	10
	Structural Engineer	10
	Environmental Specialist	10
	Mechanical/Electrical/Plumbing	05
	Civil Engineer	15
Preliminary Program		05
Approach and Methodology		10
Compliance to TE scope of works		10
Maximum score for functionality (Ms)		**100**
Total Weighting:		**100%**
Qualifying score required:		**80%**

*Evaluation criteria will be adjudicated according to submissions made in accordance with the following schedule which is found in **Part T2.2:** Returnable Schedules:*

Functionality Scoring	Returnable Schedules
Tenderers Experience	• Experience of a Tenderer
Proposed Organogram and Staffing	• Proposed Organogram and Staffing
Experience of Key Resources in executing work of a similar nature	• Key Personnel • CVs with Experience of Key Personnel
Preliminary Programme	• Preliminary Programme
Approach and Methodology	• Approach • Methodology and Quality Control • Schedule of Proposed Sub-Contractors • Design approach and method. • Execution plan

Unless otherwise stated, evaluation criteria will be adjudicated with respect to the contract specific Scope of Work as specified in **Part C3.** In this regard, the following definitions apply to the evaluation criteria prompt for judgement:

3. TENDERER'S EXPERIENCE

The experience of the tendering entity or joint venture partners in the case of an incorporated joint venture or consortium, as opposed to the key staff members/ experts, in similar projects completed over the last five years will be evaluated.
Tenderers should very briefly describe their experience in this regard and attach this to this schedule. Proof of participation/ case studies and contact details of clients of the relevant projects must also be provided.
The description should be put in tabular form with the following headings:

Employers, contact person and telephone number, where applicable	**Description of Event**	**Detail of work undertaken nature of work & nature**	**Date undertaken**

The scoring of the tenderer's experience will be as follows:

Pts	**Criterion: Tenderers Experience**
0	No information provided, or submission of no substance/ irrelevant information provided
05	To have successfully completed 0 to 1 projects of a similar nature within the past 5 years
07	To have successfully completed 1 to 3 projects of a similar nature within the past 5years
10	To have successfully completed 3 to 5 projects of a similar nature within the past 5 years
15	To have successfully completed 5+ projects of a similar nature within the past 5years

NB: *All reference letters shall be on the letterhead of the previous clients, signed and contain contact people and their contact details.*

4. PROPOSED ORGANOGRAM AND STAFFING

Pts	**Criterion: Proposed Organogram and Staffing**
0	No submission or submission of no substance/ irrelevant information is provided
01	The organisation chart is sketchy, the staffing plan is weak in important areas. There is no clarity in the allocation of tasks and responsibilities. Very few key staff are locally based
05	The organisation chart is complete and detailed, and the technical level and composition of the staffing arrangements are adequate. Some of the key staff are locally based
07	Besides meeting the satisfactory rating, staff are well balanced i.e., they show good co-ordination, complementary skills, clear and defined duties and responsibilities, some members of the project team have worked together before on limited occasions. Key staff are generally locally based
10	Besides meeting the good rating, the proposed team is well integrated, and several members have worked together extensively in the past. Key staff is almost entirely locally based

5. KEY PERSONNEL

	Criterion: Experience of Key Resources in executing work of similar nature							
Job Title	**Minimum Qualification Required**	**Professional Registration Required**	**Numbers of Years Relevant Experience on projects of a similar nature**					**Total Points**
			0 pts	01 pts	05 pts	07 pts	10 pts	15 pts	
Geohydrologist / Geotechnical Engineer	B Tech Eng or B Eng	Pr. Eng, Or Pr Tech Eng.	No submission	≤ 3	< 3 ≤ 7	< 7≤ 10	> 10	n/a	10
Structural Engineer	B Tech Eng or B Eng or Advanced Diploma or Bsc degree.	Pr. Eng, Or Pr Tech Eng.	No submission	≤ 3	< 3 ≤ 4	< 4 ≤ 10	> 10	n/a	10
Environmental Specialist	B Tech Eng Environmental or BSc Environmental Engineering	EAP or Candidate EAP Candidate Natural Scientist or Professional Natural Scientist or Certificated Natural Scientist	No submission	≤ 3	< 3 ≤ 4	< 4 ≤ 10	> 10	n/a	10
Mechanical/Electrical /Plumbing	N. Dip Mech, N. Dip Elec, or N. Dip in Plumbing	Pr. Eng, Or Pr Tech Eng or Trade test	No submission	≤ 3	< 3 ≤ 10	n/a	n/a	n/a	05
Civil Engineer	B Tech Eng or B Eng or Advanced Diploma or Bsc degree.	Pr. Eng, Or Pr Tech Eng.	No submission	≤ 3	< 2 ≤ 4	< 4 ≤ 10	> 10	< 10 ≤ 15	15
	Note 1: "experience" implies experience on projects of a similar nature with respect to the scope. Note 2: "accredited degree/ diploma" implies a minimum 3-year qualification with the built environment from a registered University or Institute of Technology.								

6. APPROACH PAPER/ METHODOLOGY/ PROGRAMME

The approach paper must respond to the scope of work and outline the proposed approach/ methodology including proposals for outsourcing (including details of the companies to be used), leading to the delivery of the design and construction monitoring deliverables listed in the scope of the works. The approach paper should articulate what value add the tenderer will provide in achieving the stated objectives for the project.
The tenderer must explain their understanding of the objectives of the assignment and the Employer's stated and implies requirements, highlight the issues of importance, and explain the technical approach they would adopt to address them. The approach should explain the methodologies to be adopted and should also include a project plan and programme which outlines processes, procedures, and associated resources indicating how risks will be managed and identifying what contribution can be made regarding value management.
Tenderers must attach their approach paper to this page. The approach paper should not be longer than 6 pages.
The scoring will be as follows:

Pts	Criterion: Approach, Methodology and Quality Control
0	No information provided, or submission of no substance/ irrelevant information provided
01	The technical approach and/ or methodology is poor/ is unlikely to satisfy project objectives or requirements. The Tenderer has misunderstood certain aspects.
05	The technical approach is tailored to address the specific project objectives and methodology. The approach does adequately deal with the critical characteristics of the project. The project plan and way risk is to be managed etc is tailored to the key aspects of the programme
07	The approach is tailored to address the specific project objectives and methodology and is sufficiently flexible to accommodate changes that may occur during execution. The project plan and approach to managing risk etc is tailored to the critical characteristics of the project. The programme is good and has allowed for all critical aspects.
10	Besides meeting the good rating, the important issues are approached in an innovative and efficient way, indicating that the tenderer has excellent knowledge of working state of the art approaches. The programme is well throughout and makes allowance for all key issues

7. PRELIMINARY PROGRAM

Pts	Criterion: Preliminary Program
0	No information provided, or submission of no substance/ irrelevant information provided
02	The tenderer has misunderstood certain aspects of the Scope of Work and does not deal with the critical aspects of the project
05	The programme does not adequately deal with the critical characteristics of the project or the plan and way risk is to be managed.
07	The programme covers all the applicable individual activities which are in an acceptable sequence, with appropriate durations, and is in accordance with generally accepted construction practice, and is in line with Clause 1.1.8.7 of the conditions of the Contract (time for Completion).The program must show the critical path
10	In addition to the requirements of level 3, the programme covers all activities, meetings, and requirements and is sufficiency flexible to accommodate changes that may be required during execution within project completion time.

8. COMPLIANCE TO SPECIFICATION

The tenderer is to acknowledge the specification by completing yes on each block on clause of the specification, and all pages of the specification must be signed or stamped by bidder.
The scoring of the Compliance to Specification:

Criteria	Scoring Methodology (Based on Weight)	Evidence
Compliance to specification:	Fully Compliant = **10 points**	Complete and mark Yes in all provided box under 'Compliance to Scope of Works' Part A
	Non-compliant = **0 points**	If one or more pages are not signed or stamped and if any block on **clause 1 to 90 or A to AA** of the specification does not have a yes, the bidder will not score any points.

9. HEALTH AND SAFETY REQUIREMENTS

9.1 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.

9.2 The contractor shall hold monthly safety meetings with staff and records of minutes. shall be kept on file on site.

9.3 The contractor shall be available for monthly meetings with Transnet Management. A schedule for these meetings may be agreed upon.

10. 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 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.

11. 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 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.

12. REQUIREMENTS FOR PREVENTION OF COVID-19

12.1 COVID-19 Safety Plan.
12.2 Daily Screening questionnaire.
12.3 Return to work induction register- Induction Presentation/TE will also conduct. the COVID-19 induction.
12.4 COVID-19 Employee questionnaire checklist.
12.5 Fitness Certificates.
12.6 Risk Assessments register.
12.7 COVID-19 PPE issue register/sanitizer.

13. ACTIVITY SCHEDULES

All prices **exclude Vat** and additional items listed (with prices) shall be clearly labelled as optional or essential.

Item	**Qty**	**Price per item**	**Total Price**
Provision of Health & Safety	Sum		
Engineering Surveys: Geotechnical, Environmental etc	Sum		
Professional Services: Inception	Sum		
Professional Services: Concept and Viability	Sum		
Professional Services: Design Development	Sum		
Professional Services: Final Designs	Sum		
Professional Services: Council Submission for Approval (If required)	Sum		
Professional Services: Documentation and Construction Drawings	Sum		
Execution: Construction, Test & Commission	Sum		
P n G's	Sum		
Total (Excl. VAT) to tender form			**R**

Tenderer: _____ Date: _____

Witness 1: _____ Date: _____

Witness 2: _____ Date: _____