Transnet National Ports Authority

an Operating Division **TRANSNET SOC LTD**

[Registration Number 1990/000900/30]

TENDER

FOR THE CONSTRUCTION OF OPERATIONAL FACILITIES FOR THE INFRASTRUCTURE MAINTENANCE DEPOT AT THE PORT OF SALDANHA FOR A PERIOD OF TWELVE (12) MONTHS

RFP NUMBER	**: TNPA/2026/07/0004/114622/RFP**
ISSUE DATE	**: 31 July 2026**
COMPULSORY BRIEFING	**: 13 August 2026**
CLOSING DATE	**: 28 August 2026**
CLOSING TIME	**: 16h00**
TENDER VALIDITY PERIOD	**: 12 weeks from closing date**

Contents

Number **Heading**

T1.1 TENDER NOTICE AND INVITATION TO TENDER

SECTION 1: NOTICE TO TENDERERS

1. INVITATION TO TENDER

Responses to this Tender [hereinafter referred to as a **Tender**] are requested from persons, companies, close corporations or enterprises [hereinafter referred to as a Tenderer].

Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, designation of **7CE /7GB or higher** class of construction work, are eligible to have their tenders evaluated.

The contractor shall achieve in the performance of the contract the Contract Skills Development Goals (CPG) established in the CIDB Standard for Developing skills through Infrastructure Contracts (published in GN 43495 of 3 July 2020).

The CIDB Standard for Indirect Targeting for Enterprise Development through Construction works contracts, published in Gazette Notice No. 36190 of 25 February 2013 is applicable for this project

DESCRIPTION	**FOR THE CONSTRUCTION OF OPERATIONAL FACILITIES FOR THE INFRASTRUCTURE MAINTENANCE DEPOT AT THE PORT OF SALDANHA FOR A PERIOD OF TWELVE (12) MONTHS**
TENDER DOWNLOADING	**This Tender may be downloaded directly from the National Treasury eTender Publication Portal at www.etenders.gov.za and the Transnet website at https://transnetetenders.azurewebsites.net (please use Google Chrome to access Transnet link) FREE OF CHARGE.**

COMPULSORY TENDER CLARIFICATION MEETING	A Compulsory Tender Clarification Meeting will be conducted at Bayvue Centre, Marine Drive, Port of Saldanha **on the 13 August 2026,** at **10:00 am [10 O'clock]** for a period of ± two (2) hours. [Tenderers to provide own transportation and accommodation]. The Compulsory Tender Clarification Meeting will start punctually and information will not be repeated for the benefit of Tenderers arriving late.

	A Site visit/walk will take place, tenderers are to note: • Tenderers are required to wear safety shoes, goggles, long-sleeve shirts, high-visibility vests, and hard hats. • Tenderers without the recommended PPE will not be allowed on the site walk. • Tenderers and their employees, visitors, clients and customers entering Transnet Offices, Depots, Workshops, and Stores will have to undergo breathalyser testing. • All forms of firearms are prohibited on Transnet properties and premises. • The relevant persons attending the meeting must ensure that their identity documents, passports or driver's licenses are on them for inspection at the access control gates. Certificate of Attendance in the form set out in the **Returnable Schedule T2.2-01** hereto must be completed and submitted with your Tender as proof of attendance is required for a **compulsory** site meeting and/or tender briefing. **Tenderers are required to bring this Returnable Schedule T2.2-01 to the Compulsory Tender Clarification Meeting to be signed by the *Employer's* Representative.** **Tenderers failing to attend the compulsory tender briefing will be disqualified.**
CLOSING DATE	**16:00 on (2026/08/21)** Tenderers must ensure that tenders are uploaded timeously onto the system. **If a tender is late, it will not be accepted for consideration**.

2. TENDER SUBMISSION

Transnet has implemented a new electronic tender submission system, the e-Tender Submission Portal, in line with the overall Transnet digitalization strategy where suppliers can view advertised tenders, register their information, log their intent to respond to bids and upload their bid proposals/responses on to the system.

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The Transnet Digital Procurement System (TDPS) Supplier Submission Portal can be accessed as follows:

a) Log on to the Transnet eSupplier website/Portal (https://esupplierportal.transnet.net/portal/)

b) Click on "SIGN IN/REGISTER –to register new bidder information and ensure that all (must fill in all mandatory information is completed) OR;

- to sign in if already registered;

c) Click on "ADVERTISED TENDERS" to view advertised tenders;

d) Toggle (click to switch) the "Log an Intent" button in order to be able to activate the submission of a bid;

e) Respondents are to submit bid documents by uploading them onto the system against each tender selected.

A Bidder can upload 30mb per upload and multiple uploads are permitted.

f) Bidders to note that all pricing must be completed in the eSupplier portal, electronic pricing. No paper pricing schedule should be accepted.

g) Bidders should ensure that electronic bid submissions are submitted at least a day before the closing date and bidders should not wait for the last hour before the deadline to submit. This is to enable them to timeously address issues which they may encounter due to internet speed, bandwidth or the size of the number of uploads being submitted. Transnet will not be held liable for any challenges experienced by bidders as a result of their own technical challenges.

h) No late submissions will be accepted.

i) Each company must register its own profile using its company details and use the corresponding registered profile to log an intent to bid as well as submitting any bid.

j) Transnet will not accept a bid or will disqualify a bidder who submits a bid in the Transnet e-tender submission through another bidders'/Company's profile. In other words, each bidder must register the intent to bid and submit its bid through its own profile under the same company name that will eventually bid for the tender. No company shall submit a bid on behalf of another company regardless of the company being a subsidiary or holding company.

k) In case of a Joint Venture, any of the parties/companies to the Joint Venture may use its registered profile to submit a bid on behalf of the Joint Venture.

l) A detailed bidder guide can be found on the Transnet Portal transnetetenders.azurewebsites.net

3. CONFIDENTIALITY

All information related to this RFP is to be treated with strict confidentiality. In this regard Tenderers are required to certify that they have acquainted themselves with the Non-Disclosure Agreement. All information related to a subsequent contract, both during and after completion thereof, will be treated with strict confidence. Should the need however arise to divulge any information gleaned from provision of the Works, which is either directly or indirectly related to Transnet's business, written approval to divulge such information must be obtained from Transnet.

4. DISCLAIMERS

Tenderers are hereby advised that Transnet is not committed to any course of action as a result of its issuance of this Tender and/or its receipt of a tender offer. In particular, please note that Transnet reserves the right to:

4.1. Award the business to the highest scoring Tenderer/s unless objective criteria justify the award to another tenderer.

4.2. Not necessarily accept the lowest priced tender or an alternative Tender;

4.3. Go to the open market if the quoted rates (for award of work) are deemed unreasonable;

4.4. Should the Tenderers be awarded business on strength of information furnished by the Tenderer, which after conclusion of the contract is proved to have been incorrect, Transnet reserves the right to terminate the contract;

4.5. Request audited financial statements or other documentation for the purposes of a due diligence exercise;

4.6. Not accept any changes or purported changes by the Tenderer to the tender rates after the closing date;

4.7. Verify any information supplied by a Tenderer by submitting a tender, the Tenderer/s hereby irrevocably grant the necessary consent to the Transnet to do so;

4.8. Conduct the evaluation process in parallel. The evaluation of Tenderers at any given stage must therefore not be interpreted to mean that Tenderers have necessarily passed any previous stage(s);

4.9. Unless otherwise expressly stated, each tender lodged in response to the invitation to tender shall be deemed to be an offer by the Tenderer. The Employer has the right in its sole and unfettered discretion not to accept any offer.

4.10. Not be held liable if tenderers do not provide the correct contact details during the clarification session and do not receive the latest information regarding this RFP with the possible consequence of being disadvantaged or disqualified as a result thereof.

4.11. Transnet reserves the right to exclude any Tenderers from the tender process who has been convicted of a serious breach of law during the preceding 5 [five] years including but not limited to breaches of the Competition Act 89 of 1998, as amended. Tenderers are required to indicate in tender returnable on T2.2-17], [**Breach of Law**] whether or not they have been found guilty of a serious breach of law during the past 5 [five] years.

4.12. Transnet reserves the right to perform a risk analysis on the preferred tenderer to ascertain if any of the following might present an unacceptable commercial risk to the employer*:*

- *unduly high or unduly low tendered rates or amounts in the tender offer;*
- *contract data of contract provided by the tenderer; or*
- *the contents of the tender returnables which are to be included in the contract.*

5. Transnet will not reimburse any Tenderer for any preparatory costs or other work performed in connection with this Tender, whether or not the Tenderer is awarded a contract.

6. NATIONAL TREASURY'S CENTRAL SUPPLIER DATABASE

Tenderer are required to self-register on National Treasury's Central Supplier Database (CSD) which has been established to centrally administer supplier information for all organs of state and facilitate the verification of certain key supplier information. The CSD can be accessed at https://secure.csd.gov.za/. Tenderer are required to provide the following to Transnet in order to enable it to verify information on the CSD:

Supplier Number…… and Unique registration reference number……(Tender Data)

Transnet urges its clients, suppliers and the general public to report any fraud or corruption to TIP-OFFS ANONYMOUS: 0800 003 056 OR Transnet.Reportit@outlook.com

T1.2 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annexure C of the CIDB Standard for Uniformity in Engineering and Construction Works Contracts. The Standard for Uniformity in Construction Procurement was published in Board Notice 423 of 2019 in Government Gazette No 42622 of 8 August 2019.

The contractor shall achieve in the performance of the contract the Contract Skills Development Goals (CPG) established in the CIDB Standard for Developing skills through Infrastructure Contracts (published in GN 43495 of 3 July 2020).

The CIDB Standard for Indirect Targeting for Enterprise Development through Construction works contracts, published in Gazette Notice No. 36190 of 25 February 2013 is applicable for this project.

The Standard Conditions of Tender make several references to Tender data for detail that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender.

Each item of data given below is cross-referenced in the left-hand column to the clause in the Standard Conditions of Tender to which it mainly applies.

Clause		Data
C.1.1	The *Employer* is	**Transnet SOC Ltd** **(Reg No. 1990/000900/30)**
C.1.2	The tender documents issued by the *Employer* comprise:	
	Part T: The Tender	
	Part T1: Tendering procedures	T1.1 Tender notice and invitation to tender T1.2 Tender data
	Part T2: Returnable documents	T2.1 List of returnable documents T2.2 Returnable schedules
	Part C: The contract	
	Part C1: Agreements and contract data	C1.1 Form of offer and acceptance C1.2 Contract data (Part 1 & 2) C1.3 Form of Securities

	Part C2: Pricing data	C2.1 Pricing instructions C2.2 Bill of Quantities
	Part C3: Scope of work	C3.1 Works Information
	Part C4: Site information	C4.1 Site information
C.1.4	The Employer's agent is:	Bhatisani Widzani
	Name:	
	Address:	Bayvue Centre, Marine Drive, Saldanha 7395
	Tel No.	
	E – mail	tnpatenderenquiries3@transnet.net

C.2.1 Only those tenderers who satisfy the following eligibility criteria are eligible to submit tenders:

1. Stage One

1.1 Eligibility with regards to attendance at the compulsory clarification meeting:

An authorised representative of the tendering entity or a representative of a tendering entity that intends to form a Joint Venture (JV) must attend the compulsory clarification meeting in terms C2.7

1.2 **Eligibility with regards to registration with Construction Industry Development Regulations (CIDB)**

Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, designation of **7CE /7GB or higher** class of construction work, are eligible to have their tenders evaluated.

1.3 Eligibility with regards to registration with Professional Registration

Tenderers are required to submit valid registration certificates with the relevant Built Environment Council for each of the resources stated below. Notwithstanding the certification submitted with the tender, compliance with this criterion will be determined by the actual status of registration of each resource on the relevant professional Council's webpage. If

registrations are not active/ valid at the time of evaluation – the tender will not be evaluated further.

Pre-Qualification Criteria	**Description**	**Criteria**
Key Personnel and Qualifications	Professional Project Manager	Valid Pr. CPM registration with SACPCMP. Alternatively Valid international certification such as PMI's Project Management Professional (PMP) or Certified associate in project management (CAPM) will be accepted as equivalent.
	Professional Construction Manager	Valid Pr.CM/ CPM registration with SACPCMP/
	Construction Health and Safety Officer	Valid CHSO registration with SACPCMP
	Electrical Engineer/Technologist	Valid Professionally registered with ECSA as a Professional Engineer (Pr.Eng.) / Professional Technologist (Pr.Tech.Eng.).
	Structural Engineer/Technologist	Valid Professionally registered with ECSA as a Professional Engineer (Pr.Eng.) / Professional Technologist (Pr.Tech.Eng.).

NB: Registrations in the "Candidate" category will not be accepted.

a) Joint Venture (JV)
Joint ventures are eligible to submit tenders subject to the following:
1. every member of the joint venture is registered with the CIDB;
2. the lead partner has a contractor grading designation of not lower than one level below the required class of construction works under consideration and possesses the required recognition status; and
3. the combined Contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a Contractor grading designation determined in accordance with the sum tendered for a **7CE/7GB** or higher class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations
4. The tenderer shall provide a certified copy of its signed joint venture agreement

Any tenderer that fails to meet the stipulated eligibility criteria will be regarded as an unacceptable tender.

2. Stage Three - Functionality:

Only those tenderers who obtain the minimum qualifying score for functionality will be evaluated further in terms of price and the applicable preference point system. The minimum qualifying for score for functionality is **60** points.

The evaluation criteria for measuring functionality and the points for each criteria and, if any, each sub-criterion are as stated in C.3.11.3 below.

C.2.7	The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender. **Tenderers must complete and sign the attendance register.** Addenda will be issued to, and tenders will only be received from those tendering entities including those entities that intends forming a joint venture appearing on the attendance register. Tenderers are also **required to bring their RFP document to the briefing session and have their returnable document T2.2-01 certificate of attendance** signed off by the Employer's authorised representative.
C.2.12	No alternative tender offers will be considered.
C.2.13.3	Each tender offer shall be in the **English Language.**
C.2.13.5 C2.15.1	The *Employer*'s details and identification details that are to be shown on each tender offer are as follows: Identification details: The tender documents must be uploaded with: ▪ Name of Tenderer: ▪ Contact person and details: ▪ The Tender Number: TNPA/2026/07/0004/114622/RFP ▪ The Tender Description: CONSTRUCTION OF OPERATIONAL FACILITIES FOR THE INFRASTRUCTURE MAINTENANCE DEPOT AT THE PORT OF SALDANHA FOR A PERIOD OF TWELVE (12) MONTHS Documents must be marked for the attention of: ***Employer*'s Agent:**

C.2.13.9	Telephonic, telegraphic, facsimile or e-mailed tender offers will not be accepted.
C.2.15	The closing time for submission of tender offers is: Time: **16:00** on **28 August 2026** Location: The Transnet e-Tender Submission Portal: (https://transnetetenders.azurewebsites.net); **NO LATE TENDERS WILL BE ACCEPTED**
C.2.16	The tender offer validity period is **12 weeks** after the closing date. Tenderers are to note that they may be requested to extend the validity period of their tender, on the same terms and conditions, if Transnet's internal evaluation and governance approval processes has not been finalised within the validity period.
C.2.23	The tenderer is required to submit with his tender: 1. A valid Tax Clearance Certificate issued by the South African Revenue Services. **Tenderers also to provide Transnet with a TCS PIN to verify Tenderers compliance status**. 2. A **valid B-BBEE Certificate** from a Verification Agency accredited by the South African Accreditation System [**SANAS**], or a **sworn affidavit** confirming annual turnover and level of black ownership in case of all EMEs and QSEs with 51% black ownership or more together with the tender; 3. A valid CIDB certificate in the correct designated grading; 4. Proof of registration on the Central Supplier Database; 5. Letter of Good Standing with the Workmen's Compensation Fund by the tendering entity or separate Letters of Good Standing from all members of a newly constituted JV. **Note:** Refer to Section T2.1 for List of Returnable Documents
C3.11	The minimum number of evaluation points for functionality is: **60** The procedure for the evaluation of responsive tenders is Functionality, Price and Preference: **Only those tenderers who attain the minimum number of evaluation points for Functionality will be eligible for further evaluation, failure to meet the minimum threshold will result in the tender being disqualified and removed from any further consideration.**

Functionality Criteria

The functionality criteria and maximum score in respect of each of the criteria are as follows:

Quality Criteria	Sub-Criteria	Sub-Criteria number of points	Maximum Number of Points
T2.2-04 Evaluation Schedule: **Previous Experience**	**Tenderers are required to demonstrate their experience in the delivery of similar works within the past 10 years, and indicate their previous experience:**		
	Reference letters or completion certificates must be provided. The letter should indicate the quality of the work performed. Each reference letter must be on the company's letterhead, include the contact details of the referee, and be signed and dated by the Client. The project must have been completed within the past 10 years.	**30**	**30**
T2.2-05 Evaluation Schedule: **Programme**	**Tenderer details the programme for evaluation and attaches a hard copy of the programme in Microsoft Projects or Primavera. The tenderer shall provide the proposed programme, at a minimum Level 4 showing but not limited to the following:**		
	1. Level 4 Primavera P6 or MS Projects (pdf copy is acceptable) detailed programme, compatible with Project Scope and the Bills of Quantities or price schedule. Submissions that do not meet the required level or are submitted in Excel, Word or similar will be disqualified. 2. The columns that should reflect per activity on the schedule as a minimum but not limited to: Activity No., Constraints, Activity Name, Start Date, Finish Date, Duration, Float, Predecessors, Successors, calendar (no additional points will be allocated for additional columns that are not indicated as the required minimum). 3. The schedule is to have no open-ended activities. All activities (including milestones) are to have	**6**	**6**

	predecessors and successors except the Start and Finish milestones. 4. The schedule is to have no hard constraints. 5. All activities to be practically and logically linked using critical path method (CPM), critical path is to be shown on schedule. 6. Schedule showing durations of activities using single unit of measure (days) 7. The calendar (reflected as a column) on the schedule should reflect South African public holidays, weekends, December / builders break and all other non-working periods. 8. The tenderer to clearly indicate the key milestones for all the activities not limited to the following examples: Project start date, Project Completion date, Site access date, Design/Document review and approval dates, Long Lead Material delivery date. 9. Schedule is to align with the construction method statements/approach papers. 10. Schedules are to cover all phases within the project scope namely: engineering (covering all engineering activities/deliverables), site mobilisation (pre-construction documents, permits, etc.) and site establishment, construction activities including but not limited to. 11. A Basis of Schedule to support the development of the schedule which indicates but not limited to project schedule narrative, schedule assumptions, schedule qualifications, resource loading and production rates applied to the schedule activities, schedule exclusions and schedule risks. 12. Allowances for critical Employer's reviews, Inspections and approval activities, the schedule is to also to make allowances for critical testing of		

	commodities and any other critical hold points required where applicable.		
T2.2-06 Evaluation Schedule: Project Organogram,	**Tenderers are to submit a Team Organogram showing Key Personnel and their respective experience within role & qualifications.**		
	The Organogram chart should indicate the following, as a minimum: 1 Key personnel 2 onsite and off-site management 3 Reporting lines 4 Subcontracted works 5 Number of labourers	**4**	**4**
T2.2-07 Evaluation Schedule: Management & CV's	**Tenderers shall submit copies of Valid Professional Registration certificates, degrees, and diplomas. All information must be certified by Commissioner of Oaths as a true copy: Qualification and experience of key Persons required but not limited to:**		**21**
	Project Manager	**3**	
	Construction Manager	**3**	
	Project Planner	**3**	
	Environmental Officer	**3**	
	Construction Health & Safety Officer	**3**	
	Structural Engineer/Technologist	**3**	
	Electrical Engineer/Technologist	**3**	
T2.2-08 Evaluation Schedule: Quality Management	**Due consideration must be given to the deliverables required to execute and complete the contract as per the:** • **TNPA-QUAL-REQ-14.1 _General Quality Requirements for Contractors and Suppliers** • **ISO 9001:2015 Quality Management Systems (QMS) requirements** **The Tenderer must submit the following documents:**		
	1. Project Quality Plan (PQP)	**2**	**9**
	2. Qualified Quality Officer with relevant experience	**3**	
	3. Quality Control Plan (QCP)	**4**	
T2.2-09 Evaluation Schedule:	**The Tenderer must review the following documents for context to meet the Health and Safety Requirements, namely:** • **Transnet National Ports Authority – Health & Safety Specification** • **Transnet National Ports Authority - Baseline Risk Assessment**		

Health and Safety Management	**The Tenderer must submit the following documents:**		
	1. Signed Health and Safety Plan	**2**	**9**
	2. Detailed activity-based project specific Risk Assessments (RA)	**3**	
	3. Signed and dated Health and Safety Policy	**2**	
	4. Contractor Health & Safety Questionnaire	**2**	
T2.2-10 Evaluation Schedule: **Environmental Management**	**The Tenderer must review the following documents for context to meet the environmental requirements, namely:** • **Transnet Integrated Management System (TIMS) Policy Commitment Statement** • **Transnet Standard Operating Procedure for Construction Environmental Management (SOP CEMP) 009-TCC-CLO-SUS-11386 Rev 1.0** • **Contractor Environmental and Sustainability Specification Guidelines (CESS) TRN-IMS-GRP-GDL-014.4 Rev 3.0** **The Tenderer must submit the following documents:**		
	1. Environmental Management Plan	**3**	**6**
	2. Environmental Policy	**3**	
T2.2-11 Evaluation Schedule: **Method Statement**	**Tenderers are to submit a project specific Method Statement highlighting the following components:**		
	1. Site Establishment, 2. Site clearing and ground preparation, 3. Procurement of material, highlight the long lead material. 4. Building works, 5. Civil works, (pavement, stormwater management, signage, etc.) 6. Electrical services and lighting, 7. Quality Management, 8. Reflect any foreseeable project risks, 9. Project assumption 10. Project limitation 11. Project constraints	**15**	**15**

	12. Health and safety Management, 13. Environment Management, 14. Traffic Management,		
Maximum possible score		**100**	**100**

Functionality shall be scored independently by not less than 3 (three) evaluators and averaged in accordance with the following schedules:

- T2.2-04 Previous experience
- T2.2-05 Programme Project
- T2.2-06 Organogram,
- T2.2-07 Management & CV's
- T2.2-08 Quality Management
- T2.2-09 Environmental Management
- T2.2-10 Health and Safety Management
- T2.2-11 Method Statement

Each evaluation criteria will be assessed in terms of scores of 0, 20, 40, 60, 80 or 100 (linear scale, more suitable for NEC3, ECC (construction-related procurement)).

The scores of each of the evaluators will be averaged, weighted, and then totalled to obtain the final score for functionality unless scored collectively. (See CIDB Inform Practice Note #9).

C.3.11. **Note: Any tender not complying with the above-mentioned requirements, will be regarded as non-responsive and will therefore <u>not</u> be considered for further evaluation. This note must be read in conjunction with Clause C.2.1.**

Only tenders that achieve the minimum qualifying score for functionality will be evaluated further in accordance with the 80/20 or the 90/10 preference points systems as described in the Preferential Procurement Regulations.

80 tender evaluation points for price will be allocated where the financial value of the lowest responsive tender received has a value equal to or below R50 million, inclusive of all applicable taxes,

90 tender evaluation points for price will be allocated where the financial value of the lowest responsive tender received has a value above R50 million, inclusive of all applicable taxes,

Up to 20 or 10 tender evaluation points will be awarded to tenderers who complete the preferencing schedule and who are found to be eligible for the preference claimed.

Note: Transnet reserves the right to carry out an independent audit of the tenderers' scorecard components at any stage from the date of close of the tenders until completion of the contract.

C.3.13 Tender offers will only be accepted if:

1. The tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;

2. the tenderer does not appear on Transnet's list for restricted tenderers and National Treasury's list of Tender Defaulters;

3. the tenderer has fully and properly completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the Employer or potentially compromise the tender process and persons in the employ of the state.

4. Transnet will award the tender to the highest scoring bidder/s unless objective criteria exist that justify the award to another bidder. Transnet may apply the objective criteria in this bid process as follows:

    - Bidder(s) is not in good standing with Transnet National Ports Authority due to a poor track record of past performance with Transnet SOC Ltd and or Transnet National Ports Authority;
    - There is clear, uncontrived, and/or overwhelming evidence and/or facts that the bidder has or continues to be in breach of any of the provisions contained in the Integrity Pact;
    - The Probity check undertaken by Transnet National Ports Authority establishes the existence of any unmitigated risks which would have a negative impact on the project;
    - Unless the appointment of the bidder would result in a negative impact on Transnet's Return on Investment;
    - It is necessary to rotate Suppliers to promote opportunities for other suppliers, in circumstances where the bidder has been awarded business previously and the award of the tender will result in inequitable allocation of business;
    - The tenderer or its members, directors, and partners:
    - Is under restrictions as contemplated in the Integrity Pact,
    - Is a subject of a process of restriction by Transnet or other state institution that Transnet may be aware of and there is clear, uncontrived, and/or overwhelming evidence and/or facts in relation

to the alleged wrongdoing on the basis of which the restriction process has been initiated;

- in relation to the proposed contract, a due diligence exercise to validate the bidder's proposal that demonstrates that it possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract;
- has no legal capacity to enter into the contract;
- is insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act, 2008, being wound up, has its affairs administered pursuant to a court order, has ceased or suspended their business activities, or is subject to legal proceedings in respect of any of the foregoing;
- does not comply with the legal requirements, if any, stated in the tender data; and
- is not able to perform the contract free of conflicts of interest.

C.3.17	The number of paper copies of the signed contract to be provided by the Employer is 1 (one).

SECTION 1: SBD1 FORM

PART A
INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS NATIONAL PORTS AUTHORITY, A DIVISION TRANSNET SOC LTD							
BID NUMBER:	TNPA/2026/07/0004/114622/RFP	ISSUE DATE:	31 July 2026	CLOSING DATE:	28 August 2026	CLOSING TIME:	16:00
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BID RESPONSE DOCUMENTS SUBMISSION INSTRUCTIONS

Transnet has implemented a new electronic tender submission system, the e-Tender Submission Portal, in line with the overall Transnet digitalization strategy where suppliers can view advertised tenders, register their information, log their intent to respond to bids and upload their bid proposals/responses on to the system.

The Transnet Digital Procurement System (TDPS) Supplier Submission Portal can be accessed as follows:

a) Log on to the Transnet eSupplier website/Portal (https://esupplierportal.transnet.net/portal/)

b) Click on "SIGN IN/REGISTER –to register new bidder information and ensure that all (must fill in all mandatory information is completed) OR;

- to sign in if already registered;

c) Click on "ADVERTISED TENDERS" to view advertised tenders;

d) Toggle (click to switch) the "Log an Intent" button in order to be able to activate the submission of a bid;

e) Respondents are to submit bid documents by uploading them onto the system against each tender selected. **A Bidder can upload 30mb per upload and multiple uploads are permitted.**

f) **Bidders to note that all pricing must be completed in the eSupplier portal, electronic pricing. No paper pricing schedule should be accepted.**

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h) No late submissions will be accepted.

h) Each company must register its own profile using its company details and use the corresponding registered profile to log an intent to bid as well as submitting any bid.

i) Transnet will not accept a bid or will disqualify a bidder who submits a bid in the Transnet e-tender submission through another bidders'/Company's profile. In other words, each bidder must register the intent to bid and submit its bid through its own profile under the same company name that will eventually bid for the tender. No company shall submit a bid on behalf of another company regardless of the company being a subsidiary or holding company.

j) In case of a Joint Venture, any of the parties/companies to the Joint Venture may use its registered profile to submit a bid on behalf of the Joint Venture.

k) A detailed bidder guide can be found on the Transnet Portal transnetetenders.azurewebsites.net

BIDDING PROCEDURE/TECHNICAL ENQUIRIES MAY BE DIRECTED TO:	
CONTACT PERSON	**Bhatisani Widzani**
TELEPHONE NUMBER	**N/A**
FACSIMILE NUMBER	**N/A**
E-MAIL ADDRESS	tnpatenderenquiries3@transnet.net

SUPPLIER INFORMATION: NB Contact details below will be used to make contact with the tenderer. Return of other contact details anywhere else in the tender document will NOT be used to contact the tenderer.				
NAME OF BIDDER				
POSTAL ADDRESS				
STREET ADDRESS				
TELEPHONE NUMBER	CODE		NUMBER	

CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
IT IS A CONDITION OF THIS BID THAT THE TAX MATTERS OF THE SUCCESSFUL RESPONDENTS BE IN ORDER, OR THAT SATISFACTORY ARRANGEMENTS HAVE BEEN MADE WITH SOUTH AFRICAN REVENUE SERVICE (SARS) TO MEET THE RESPONDENTS TAX OBLIGATIONS.					
	TCS PIN		OR	CSD No	
SUPPLIER COMPLIANCE STATUS	☐ Yes ☐ No		**BBEEE STATUS LEVEL SWORN AFFIDAVIT**		
If Yes, Who was the Certificate issued by?					
AN ACCOUNTING OFFICER AS CONTEMPLATED IN THE CLOSE CORPORATION ACT (CCA) AND NAME THE APPLICABLE IN THE TICK BOX	☐	AN ACCOUNTING OFFICER AS CONTEMPLATED IN THE CLOSE CORPORATION ACT (CCA)			
	☐	A VERIFICATION AGENCY ACCREDITED BY THE SOUTH AFRICAN ACCREDITATION SYSTEM (SANAS)			
	☐	A REGISTERED AUDITOR			
		NAME:			

[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT MUST BE SUBMITTED FOR PURPOSES OF COMPLIANCE WITH THE B-BBEE ACT]

1 ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	☐Yes ☐No [IF YES ENCLOSE PROOF]	**2** ARE YOU A FOREIGN BASED SUPPLIER FOR **THE GOODS /SERVICES /WORKS OFFERED?**	☐Yes ☐No [IF YES, ANSWER QUESTIONAIRE BELOW]
Signature of the Bidder	……	Date:	……

QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

IS THE BIDDER A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?	☐ YES ☐ NO
DOES THE BIDDER HAVE A BRANCH IN THE RSA?	☐ YES ☐ NO
DOES THE BIDDER HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	☐ YES ☐ NO
DOES THE BIDDER HAVE ANY SOURCE OF INCOME IN THE RSA?	☐ YES ☐ NO

IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 1.3 BELOW.

PART B
TERMS AND CONDITIONS FOR BIDDING

1.	**TAX COMPLIANCE REQUIREMENTS**
1.1	BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
1.2	BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
1.3	APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
1.4	BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
1.5	IN BIDS WHERE UNINCORPORATED CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
1.6	WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
1.7	RESPONDENTS ARE REQUIRED TO SELF-REGISTER ON NATIONAL TREASURY'S CENTRAL SUPPLIER DATABASE (CSD) WHICH HAS BEEN ESTABLISHED TO CENTRALLY ADMINISTER SUPPLIER INFORMATION FOR ALL ORGANS OF STATE AND FACILITATE THE VERIFICATION OF CERTAIN KEY SUPPLIER INFORMATION. ONLY FOREIGN SUPPLIERS WITH NO LOCAL REGISTERED ENTITY NEED NOT REGISTER ON THE CSD. THE CSD CAN BE ACCESSED AT HTTPS://SECURE.CSD.GOV.ZA/.

NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE TENDER INVALID.

SIGNATURE OF TENDERER: ……

CAPACITY UNDER WHICH THIS TENDER IS SIGNED: ……

(Proof of authority must be submitted e.g. company resolution)

DATE:_____

T2.1 List of Returnable Documents

2.1.1 These schedules are required for pre-qualification and eligibility purposes:

T2.2-01 **Stage One as per CIDB: Eligibility Criteria Schedule -** Certificate of attendance at ` Compulsory Tender Clarification Meeting

T2.2-02 **Stage Two as per CIDB: Eligibility Criteria Schedule -** CIDB Registration

T2.2-03 **Eligibility Criteria Schedule – Professional Registration**

2.1.2 Stage Three as per CIDB: these schedules will be utilised for evaluation purposes:

T2.2-04 **Evaluation Schedule:** Previous experience

T2.2-05 **Evaluation Schedule:** Programme Project

T2.2-06 **Evaluation Schedule:** Project Organogram

T2.2-07 **Evaluation Schedule:** Management & CV's

T2.2-08 **Evaluation Schedule :** Quality Management

T2.2-09 **Evaluation Schedule:** Health and Safety Management

T2.2-10 **Evaluation Schedule:** Environmental Management

T2.2-11 **Evaluation Schedule:** Method Statement

2.1.3 Returnable Schedules:

General:

T2.2-12 Authority to submit a tender

T2.2-13 Record of addenda to tender documents

T2.2-14 Letter of goods standing COIDA

T2.2-15 Schedule of proposed Subcontractors (if subcontract in terms of TPPP is not eligibility)

T2.2-16 Job Creation

Agreement and Commitment by Tenderer:

T2.2-17 CIDB SFU ANNEX G Compulsory Enterprise Questionnaire

T2.2-18 Non-Disclosure Agreement

T2.2-19 RFP Declaration Form

T2.2-20 RFP – Breach of Law

T2.2-21 Certificate of Acquaintance with Tender Document

T2.2-22 Service Provider Integrity Pact

T2.2-23 Supplier Code of Conduct

2.1.4 Bonds/Guarantees/Financial/Insurance:

T2.2-24 Insurance provided by the Contractor

T2.2-25 Form of Intent to Provide a Performance Guarantee

T2.2-26 Forecast Rate of Invoicing

T2.2-27 Three (3) years of audited financial statements

2.2 C1.1 Offer portion of Form of Offer & Acceptance

2.3 C1.2 Contract Data

2.4 C1.3 Forms of Securities

2.5 C2.1 Pricing Instructions (Bill of Quantities)

2.6 C2.2 Bill of Quantities

*Note 1: In the case of the **CIDB Standard for Skills Development there are NO returnable documents (except for pricing the relevant section of the Bill of Quantities)**. Following award of the contract to the successful bidder, the employer shall provide to the contractor the following documents which shall be completed by the contractor and submitted within the stipulated period.*

- *A1 – List of Recognized Skills Development Agencies (21 days after acceptance),*
- *A2 – Baseline Training Plan (21 days after acceptance),*
- *A3 – Project Interim Report (21 days after the end of each reporting period),*
- *A4 – Supervisor Agreement (21 days after acceptance), and*
- *A5 – Project Completion Report (21 days after Final Completion*

*Note 2: In respect of the CIDB **Standard for Indirect Targeting & Enterprise Development, there are NO returnable documents** (except for pricing the relevant section of the Bill of Quantities). Following award of the contract to the successful bidder, the employer shall provide to the contractor the following documents which shall be completed by the contractor and submitted within the stipulated period:*

- *The Needs Analysis (60 days after acceptance),*
- *The Project Interim Report (21 days after the end of each reporting period),*
- *The Project Completion Report (21 days after Final Completion), and*
- *The Declaration (21 days after acceptance).*

3 Scope of Services.

C4 Site Information

Drawings

T2.2-01: Eligibility Criteria Schedule:

Certificate of Attendance at Tender Clarification Meeting

This is to certify that

.....

(Company Name)

Represented by: .....

(Name and Surname)

Was represented at the compulsory tender clarification meeting

Held at:		
On (date)		Starting time:

Particulars of person(s) attending the meeting:

Name ..... Signature .....

Capacity .....

Attendance of the above company at the meeting was confirmed:

Name ..... Signature .....

For and on Behalf of the *Employers Agent.* .....

Date .....

T2.2-02: Eligibility Criteria Schedule - CIDB Grading Designation

Note to tenderers:

Tenderers are to indicate their CIDB Grading by filling in the table below. **Attach a copy of the CIDB Grading Designation or evidence of being capable of being so registered.**

CRS Number	Status	Grading	Expiry Date

1. Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for a **7 CE/7GB or higher** class of construction work, are eligible to have their tenders evaluated.

2. Joint Venture (JV)

Joint ventures are eligible to submit tenders subject to the following:

1. every member of the joint venture is registered with the CIDB;
2. the lead partner has a contractor grading designation of not lower than one level one level below the required grading designation in the class of construction works under consideration and possesses the required recognition status; and
3. the combined Contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a Contractor grading designation determined in accordance with the sum tendered for a **7 CE/ 7GB** class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations
4. the Contractor shall provide the employer with a copy of its signed joint venture agreement;
5. and in the event that the joint venture is an 'Incorporated Joint Venture' the Memorandum of Incorporation to be provided within 4 (four) weeks of the Contract Date.

T2.2-03: Eligibility Criteria Schedule – Professional Registration

Notes to tenderers:

The **Mandatory eligibility** criteria in respect of Professional Registration is set out in the table below.

Tenderers are required to submit valid registration certificates with the relevant Built Environment Council for each of the resources stated below.

Notwithstanding the certification submitted with the tender, compliance with this criterion will be determined by the actual status of registration of each resource on the relevant professional Council's webpage. If registrations are not active/ valid at the time of evaluation – the tender will not be evaluated further.

Pre-Qualification Criteria	**Description**	**Criteria**
Key Personnel and Qualifications	Professional Project Manager	Valid Pr. CPM registration with SACPCMP. Alternatively Valid international certification such as PMI's Project Management Professional (PMP) or Certified associate in project management (CAPM) will be accepted as equivalent.
	Professional Construction Manager	Valid Pr.CM/ CPM registration with SACPCMP/
	Construction Health and Safety Officer	Valid CHSO registration with SACPCMP
	Electrical Engineer/Technologist	Valid Professionally registered with ECSA as a Professional Engineer (Pr.Eng.) / Professional Technologist (Pr.Tech.Eng.).
	Structural Engineer/Technologist	Valid Professionally registered with ECSA as a Professional Engineer (Pr.Eng.) / Professional Technologist (Pr.Tech.Eng.).

NB: Registrations in the "Candidate" category will not be accepted.

T2.2-04: EVALUATION SCHEDULE: PREVIOUS EXPERIENCE

Tenderers are required to demonstrate their past experience in the delivery of similar projects, areas, conditions and circumstances in relation to the scope of work in the last 10 years, indicating their previous experience of the similar projects.

A reference letter or a completion certificate of similar nature:

It should detail the Construction of similar works as detailed in the Works Information. The letter or completion certificate shall contain the minimum following information:

- In the client letter head with Name of the Client/company
- Scope of Work
- Contract duration (start date and end date)
- Client contact details & email
- signed and dated by the client

Confirmation of Quality Service Rendered

Reference letters or completion certificates must be provided. The letter should indicate the quality of the work performed. Each reference letter must be on the company's letterhead, include the contact details of the referee, and be signed and dated by the Client. The project must have been completed within the past 10 years.

Referring persons may be contacted to verify the work.

Index of documentation attached to this schedule
……
……
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……
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The scoring of the list of projects of similar nature will be as follows:

Points Available	**30**
Score	**Reference Letters/ completion Certificate - Confirmation of Quality Service Rendered.**
Score 0	Not submitted / No previous similar projects submitted
Score 20	One (1) to three (3) previous similar projects
Score 40	Four (4) to five (5) previous similar projects
Score 60	Six (6) previous similar projects
Score 80	Seven (7) previous similar projects
Score 100	Eight (8) or more similar projects

T2.2-05: Evaluation Schedule: Programme

Note to tenderers:

Programme

The tenderer must provide a Programme which provides the detail that indicate the order and timing of activities to carry out the construction works in terms of the Employer's requirements and within the stipulated timeframes. The tenderer shall produce a level 4 schedule according to the Employer's objectives as per requirements listed in the **NEC3 ECC clause 31.**

The tenderer shall provide the proposed programme, at a minimum Level 4 showing but not limited to the following:

1. Level 4 Primavera P6 or MS Projects (pdf copy is acceptable) detailed programme, compatible with Project Scope and the Bills of Quantities or price schedule. Submissions that do not meet the required level or are submitted in Excel, Word or similar will be disqualified.
2. The columns that should reflect per activity on the schedule as a minimum but not limited to: Activity No., Constraints, Activity Name, Start Date, Finish Date, Duration, Float, Predecessors, Successors, calendar (no additional points will be allocated for additional columns that are not indicated as the required minimum).
3. The schedule is to have no open-ended activities. All activities (including milestones) are to have predecessors and successors except the Start and Finish milestones.
4. The schedule is to have no hard constraints.
5. All activities to be practically and logically linked using critical path method (CPM), critical path is to be shown on schedule.
6. Schedule showing durations of activities using single unit of measure (days)
7. The calendar (reflected as a column) on the schedule should reflect South African public holidays, weekends, December / builders break and all other non-working periods.
8. The tenderer to clearly indicate the key milestones for all the activities not limited to the following examples: Project start date, Project Completion date, Site access date, Design/Document review and approval dates, Long Lead Material delivery date.

9. Schedule is to align with the construction method statements/approach papers.

10. Schedules are to cover all phases within the project scope namely: engineering (covering all engineering activities/deliverables), site mobilisation (pre-construction documents, permits, etc.) and site establishment, construction activities including but not limited to:

    10.1. main contractors work,

    10.2. subcontracted works,

    10.3. procurement:

    10.4. ordering of subcontractors,

    10.5. ordering of long lead items,

    10.6. SHERQ requirements, permits and or applications,

    10.7. time risk allowance (TRA),

    10.8. project close out and de-establishment activities.

11. A Basis of Schedule to support the development of the schedule which indicates but not limited to project schedule narrative, schedule assumptions, schedule qualifications, resource loading and production rates applied to the schedule activities, schedule exclusions and schedule risks.

12. Allowances for critical Employer's reviews, Inspections and approval activities, the schedule is to also to make allowances for critical testing of commodities and any other critical hold points required where applicable.

The scoring of the programme components will be as follows:

Points Available	**6**
Score	**Project Programme**
Score 0	Tenderer has not submitted the required information. Submitted information cannot be rated. e.g., excel or word document, insufficient level of detail (below Level 4).
Score 20	Tenderer has demonstrated unsatisfactory knowledge of the schedule development, less the 25% of all points one (1) to twelve (12) have been covered.
Score 40	Tenderer has demonstrated knowledge of the schedule development, more than or equal to 25% but less than 50% of all points one (1) to twelve (12) have been covered.
Score 60	Tenderer has demonstrated reasonable knowledge of schedule development, more than or equal to 50% but less than 75% of all points one (1) to twelve (12) have been covered.
Score 80	Tenderer has demonstrated knowledge of the schedule development, more than or equal to 75% but less than 100% of all points one (1) to twelve (12) have been covered.
Score 100	Tenderers have demonstrated knowledge of the schedule development, 100% of all points one (1) to twelve (12) have been covered.

T2.2-0:6 EVALUATION SCHEDULE: PROJECT ORGANOGRAM

The tender must describe the management arrangements for the Works to be performed/Services to be provided. The tender must be able to demonstrate that the project personnel have sufficient knowledge, experience and qualifications to provide the required services.

Submit the following information with your tender document:

A project specific organisational chart needs to be provided. Information should be provided in the form of an organisational chart or organogram. No other format will be accepted. Organizational structure to include a clear indication of roles and responsibilities and specific function of each team member.

The Organogram chart should indicate the following, as a minimum:

- Key personnel
- onsite management
- offsite management
- Reporting lines
- Subcontracted works/ outsource services
- Number of labourers

The scoring of the Project Organogram will be as follows:

Points Available	**4**
Score	**Organogram**
Score 0	No organogram submitted.
Score 20	Organogram submitted; Tenderer has addressed one (1) of the requirements in the organisation chart. submitted the organogram, inadequate information to determine a score.
Score 40	Organogram submitted; Tenderer has addressed two (2) of the requirements in the organisation chart.
Score 60	Organogram submitted; Tenderer has addressed three (3) to four (4) of the requirements in the organisation chart
Score 80	Organogram submitted; Tenderer has addressed five (5) of the requirements in the organisation chart.

Score 100	Organogram submitted; Tenderer has addressed six (6) of the requirements in the organisation chart

T2.2-07: Evaluation Schedule - MANAGEMENT & CVS OF KEY PERSONS

The tender must be able to demonstrate that the project personnel have sufficient knowledge, relevant experience, and qualifications to provide the required service.

Submit the following documents with your tender document:

1. The experience of assigned key persons in relation to the scope of work will be evaluated from different points of view, namely:
    a. Key personnel should include the following resources:
        - Project Manager.
        - Construction Manager/Supervisor
        - Environmental Officer
        - Construction Health & Safety Officer/Manager
        - Project Planner
        - Electrical Engineer/Technologist
        - Structural Engineer/Technologist

No.	Key Persons	Name and surname	CV attached (Yes/No)
1	Project Manager National Diploma in Project Management or equivalent (NQF Level 6 or higher) *Professional registration with SACPCMP (as a Professional Construction Project Manager) is required* *Alternatively, international certification such as PMI's Project Management Professional (PMP) or Certified associate in project management (CAPM) will be accepted as equivalent, provided experience aligns with local regulations*		
2	Construction Manager/Supervisor *National Diploma in Building Environment or equivalent or higher SACPCMP Registered*		
3	Environmental Officer *Diploma /Degree in Natural Science / Environmental studies.*		
4	Construction Health & Safety Officer/ Manager		

	National Diploma in Safety Management *SACPCMP Registered as CHSO/CHSM*		
5	Project Planner *National Diploma/ Degree in Building Environment, PMI as a Scheduling professional (SP) or as a Planning and Scheduling Professional (PSP).*		
6	Electrical Engineer/Technologist *B.Tech (NQF Level 7) or B.Eng/BSc.Eng (NQF Level 8) or higher qualification in Electrical Engineering.* *Professionally registered with ECSA as a Professional Engineer (Pr.Eng.) / Professional Technologist (Pr.Tech.Eng.).*		
7	Structural Engineer/Technologist *B.Tech (NQF Level 7) or B.Eng/BSc.Eng (NQF Level 8) or higher qualification in Electrical Engineering.* *Professionally registered with ECSA as a Professional Engineer (Pr.Eng.) / Professional Technologist (Pr.Tech.Eng.).*		

b. Experience with the Contract Option chosen for this Contract. (If experience of these matters is limited, an indication of relevant training that they have attended should be submitted).

c. General experience relevant to the nature of the Work to be carried out in relation to the specific discipline.

d. Adequacy for the assignment.

e. Extensive knowledge of issues pertinent to the Scope, e.g. local conditions, affected communities, legislation, techniques, etc.

f. The education, training and skills of the assigned staff in the specific sector, field, subject, etc., which is directly linked to the Works to be performed/Services to be provided. Proof of Comprehensive CVs should be attached to this schedule and as a minimum each CV should address the following, but not limited to:

- Personal particulars:
  - Name.
  - Place(s) of tertiary education and dates associated therewith.
- Professional awards.
- Qualifications (degrees, diplomas, grades of membership of professional societies and professional registrations).
- Name of current employer and position in enterprise.
- Overview of postgraduate experience (year, organisation and position).
- Outline of recent assignments/experience that has a bearing on the Works/Services.

Note: CV's and profiles should show relevant experience, background and track record in similar types of projects

Attached submissions to this schedule:
.....
.....
.....
.....

The table below will be used as guidelines for scoring / evaluating the management and CV's of key persons submitted by the Tenderer:

	Project Manager	Construction Manager/Supervisor	Environmental Officer	Construction Health & Safety Officer/ Manager		Project Planner	Electrical Engineer/ Technologist	Structural Engineer/ Technologist
				Registration & Qualification	Experience			
Scores	**3**	**3**	**3**	**2**	**1**	**3**	**3**	**3**
Score 0	The Tenderer has either submitted no information or information that is not relevant. A score cannot be determined.	The Tenderer has either submitted no information or information that is not relevant. A score cannot be determined.	The Tenderer has either submitted no information or information that is not relevant. A score cannot be determined.	No submission, No proof of valid SACPCMP registration or submission not as per requirements	No submission / information not available to determine experience or not as per requirements.	The Tenderer has either submitted no information or information that is not relevant. A score cannot be determined.	The Tenderer has either submitted no information, information that does not meet the minimum requirements, or information that is not relevant. A score cannot be determined.	The Tenderer has either submitted no information, information that does not meet the minimum requirements, or information that is not relevant. A score cannot be determined.
Score20	National Diploma in Project Management or equivalent or higher SACPCMP/PMP (Registered). Key staff has between one (1) to two (2) years' experience post registration.	National Diploma in Building Environment or equivalent or higher SACPCMP Registered. Key staff have very limited levels of relevant experience, skills and knowledge of issues pertinent to the project: Site Agent/Supervisor has < one (1) year experience post registration.	Diploma or Degree in Natural Science / Environmental studies. Key staff have very limited levels of relevant experience, skills and knowledge of issues pertinent to the project: Environmental Officer/Manager/Specialist has < one (1) year experience.	Valid proof of registration with SACPCMP, Health & Safety Short Courses (NQF Level 4) or any short course related to health and safety.	Three (3) years or less of health and safety working experience in the construction environment.	National Diploma/ Degree in Building Environment, PMI as a Scheduling professional (SP) or as a Planning and Scheduling Professional (PSP). Key staff have very limited levels of relevant experience, skills and knowledge	B.Tech (NQF Level 7) or B.Eng/BSc.Eng (NQF Level 8) or higher qualification in Electrical Engineering. Professionally registered with ECSA as a Professional Engineer (Pr.Eng.) /	B.Tech (NQF Level 7) or B.Eng/BSc.Eng (NQF Level 8) or higher qualification in Structural Engineering. Professionally registered with ECSA as a Professional Engineer (Pr.Eng.) /

	Project Manager	Construction Manager/Supervisor	Environmental Officer	Construction Health & Safety Officer/ Manager		Project Planner	Electrical Engineer/ Technologist	Structural Engineer/ Technologist
				Registration & Qualification	Experience			
						of issues pertinent to the project: Project Planner has < one (1) year experience.	Professional Technologist (Pr.Tech.Eng.). < 1 year relevant experience post registration.	Professional Technologist (Pr.Tech.Eng.). < 1 year relevant experience post registration.
Score 40	National Diploma in Project Management or equivalent or higher SACPCMP/PMP(Registered).Key staff has between three (3) to four (4) years' relevant experience post registration.	National Diploma in Building Environment or equivalent or higher SACPCMP Registered. Key staff have limited levels of relevant experience, skills and knowledge of issues pertinent to the project: Site Agent/Supervisor has ≥ One (1) but < three (3) years' experience post registration.	Diploma/Degree in Natural Science / Environmental studies. Key staff have limited levels of relevant experience, skills and knowledge of issues pertinent to the project: Environmental Officer/Manager/Specialist has ≥ one (1) but < three (3) years' experience.	Valid proof of registration with SACPCMP and SAMTRAC/NEBOSH certificate (NQF Level 5).	More than three (3) years but less than five (5) years of health and safety working experience in the construction environment.	National Diploma/ Degree in Building Environment, PMI as a Scheduling professional (SP) or as a Planning and Scheduling Professional (PSP). Key staff have limited levels of relevant experience, skills and knowledge of issues pertinent to the project: Project Planner has ≥ one (1) but < three (3) years' experience.	B.Tech (NQF Level 7) or B.Eng/BSc.Eng (NQF Level 8) or higher qualification in Electrical Engineering. Professionally registered with ECSA as a Professional Engineer (Pr.Eng.) / Professional Technologist (Pr.Tech.Eng.). ≥ 1 year but < 3 years relevant experience post registration.	B.Tech (NQF Level 7) or B.Eng/BSc.Eng (NQF Level 8) or higher qualification in Structural Engineering. Professionally registered with ECSA as a Professional Engineer (Pr.Eng.) / Professional Technologist (Pr.Tech.Eng.). ≥ 1 year but < 3 years relevant experience post registration

	Project Manager	Construction Manager/Supervisor	Environmental Officer	Construction Health & Safety Officer/ Manager		Project Planner	Electrical Engineer/ Technologist	Structural Engineer/ Technologist
				Registration & Qualification	Experience			
Score 60	National Diploma in Project Management or equivalent or higher SACPCMP/PMP (Registered). Keystaff hasacceptable levels of relevant experience from five (5) to six (6) years 'experience post registration.	National Diploma in Building Environment or equivalent or higher SACPCMP Registered. Key staff have reasonable and acceptable levels of relevant experience, skills and knowledge of issues pertinent to the project: Site Agent/Supervisor has ≥ three (3) but < five (5) years' experience post registration.	Diploma or Degree in Natural Science / Environmental studies. Key staff have reasonable and acceptable levels of relevant experience, skills and knowledge of issues pertinent to the project: Environmental Officer/Manager/Speci a list has ≥ three (3) but < five (5) years' experience	Valid proof of registration with SACPCMP and National Diploma in Safety Management, Environment al Health or other equivalent qualification (NQF Level 6).	Five (5) years' health and safety working experience in the constructio n environmet.	National Diploma/ Degree in Building Environment, PMI as a Scheduling professional (SP) or as a Planning and Scheduling Professional (PSP). Key staff have reasonable and acceptable levels of relevant experience, skills and knowledge of issues pertinent to the project: Project Planner has ≥ three (3) but < five (5) years'experience	B.Tech (NQF Level 7) or B.Eng/BSc.Eng (NQF Level 8) or higher qualification in Electrical Engineering. Professionally registered with ECSA as a Professional Engineer (Pr.Eng.) / Professional Technologist (Pr.Tech.Eng.). ≥ 3 years but < 5 years relevant experience post registration.	B.Tech (NQF Level 7) or B.Eng/BSc.Eng (NQF Level 8) or higher qualification in Electrical Engineering. Professionally registered with ECSA as a Professional Engineer (Pr.Eng.) / Professional Technologist (Pr.Tech.Eng.). ≥ 3 years but < 5 years relevant experience post registration.

	Project Manager	Construction Manager/Supervisor	Environmental Officer	Construction Health & Safety Officer/ Manager		Project Planner	Electrical Engineer/ Technologist	Structural Engineer/ Technologist
				Registration & Qualification	Experience			
Score 80	National Diploma in Project Management or equivalent or higher SACPCMP/PMP (Registered). Keystaff have acceptable levels of relevant experience from seven (7) to eight (8) years' experience post registration.	National Diploma in Building Environment or equivalent or higher SACPCMP Registered. Key staff have extensive levels of relevant experience, skills and knowledge of issues pertinent to the project: Site Agent/Supervisor has ≥ five (5) but < ten (10) years' experience post registration.	Diploma/Degree in Natural Science / Environmental studies. Key staff have extensive levels of relevant experience, skills and knowledge of issues pertinent to the project: Environmental Officer/Manager/Specialist has ≥five (5) but < ten (10) years' experience.	Valid proof of registration with SACPCMP and Bachelor of Technology/Advanced Diploma in Safety Management, Environmental Health or other equivalent qualification (NQF Level 7).	Over five (5) years but less than seven (7) years' experience of health and safety working experience in the construction environment.	National Diploma/ Degree in Building Environment, PMI as a Scheduling professional (SP) or as a Planning and Scheduling Professional (PSP). Key staff have extensive levels of relevant experience, skills and knowledge of issues pertinent to the project: Project Planner has ≥ five (5) but < ten (10) years' experience.	B.Tech (NQF Level 7) or B.Eng/BSc.Eng (NQF Level 8) or higher qualification in Electrical Engineering. Professionally registered with ECSA as a Professional Engineer (Pr.Eng.) / Professional Technologist (Pr.Tech.Eng.). ≥ 5 years but < 10 years relevant experience. post registration.	B.Tech (NQF Level 7) or B.Eng/BSc.Eng (NQF Level 8) or higher qualification in Structural Engineering. Professionally registered with ECSA as a Professional Engineer (Pr.Eng.) / Professional Technologist (Pr.Tech.Eng.). ≥ 5 years but < 10 years relevant experience. post registration.

	Project Manager	Construction Manager/Supervisor	Environmental Officer	Construction Health & Safety Officer/ Manager		Project Planner	Electrical Engineer/ Technologist	Structural Engineer/ Technologist
				Registration & Qualification	Experience			
Score 100	National Diploma in Project Management or equivalent or higher SACPCMP/PMP (Registered).Key staff havehighly acceptable levels ofrelevant experience from nine (9) ormore years' experience post registration.	National Diploma in Building Environment or equivalent or higher SACPCMP Registered. Key staff have outstanding levels of relevant experience, skills and knowledge of issues pertinent to the project: Site Agent/Supervisor has ≥ ten (10) years' experience post registration.	Diploma/Degree in Natural Science / Environmental studies. Key staff have outstanding levels of relevant experience, skills and knowledge of issues pertinent to the project: Environmental Officer/Manager/Speci a list has ≥ ten (10) years' experience.	Valid proof of registration with SACPCMP and Bachelor of Technology/Adva nced Diploma in Safety Management, Environmental Health or other equivalent qualification (NQF Level 7) and SAMTRAC/NEBOS H Certificate (NQF Level 5).	More than seven (7) years' health and safety working experience in the constructio n environmen t.	National Diploma/ Degree in Building Environment, PMI as a Scheduling professional (SP) or as a Planning and Scheduling Professional (PSP). Key staff have outstanding levels of relevant experience, skills and knowledge of issues pertinent to the project: Project Planner has ≥ ten (10) years' experience	B.Tech (NQF Level 7) or B.Eng/BSc.Eng (NQF Level 8) or higher qualification in Electrical Engineering. Professionally registered with ECSA as a Professional Engineer (Pr.Eng.) / Professional Technologist (Pr.Tech.Eng.). post registration. ≥ 10 years relevant experience post registration.	B.Tech (NQF Level 7) or B.Eng/BSc.Eng (NQF Level 8) or higher qualification in Structural Engineering. Professionally registered with ECSA as a Professional Engineer (Pr.Eng.) / Professional Technologist (Pr.Tech.Eng.). post registration. ≥ 10 years relevant experience post registration.

T2.2-08: Evaluation Schedule - Quality Management

Due consideration must be given to the deliverables required to execute and complete the rehabilitation of the Ship Repair Facility project as per the General Quality Requirements for Contractors and Suppliers - TNPA-QUAL-REQ-14.1 (**Annexure L** of the Scope of Work), ISO 9001:2015 QMS requirements and should include:

1. **Project Quality Plan** (PQP) detailing at least ***three*** requirements of how the Contractor's Quality System will be applied to successfully execute the Scope of Work and be aligned to **Section 4.5, 4.6 & 5** of the General Quality Requirements for Contractors and Suppliers - **TNPA-QUAL-REQ-14.1** (**Annexure L** of the Scope of Work).
2. **Experience of Quality Officer** - The Quality Officer MUST have a minimum of ***three*** years' quality experience in Electrical construction projects submitted in a Curriculum Vitae. The CV must detail the duties carried out on the Quality Officer role.
3. **Qualifications of Quality Officer**– a minimum Programme in Quality **OR** Diploma in Quality **OR** Technical Diploma. In addition to the minimum qualification submitted, a tenderer must submit a 5-days ISO 9001:2015 Quality Management System (QMS) training certificates (QMS Implementation **AND/OR** QMS Auditing). Proof of these qualifications and certificates must be attached.
4. **Quality Control Plans-** A minimum of ***three*** (QCPs) shall be in line with the scope of works detailing the Engineering works (i.e., Civil, structural, electrical, etc.). These QCP's shall identify all inspections as detailed in the scope of works together with other tests and verifications required to demonstrate that the works comply with the scope of works, specifications, and drawings

The scoring will be as follows:

	Project Quality Plan (PQP) for the project detailing at least three of the following: 1. Scope of works 2. Control of documented information 3. Resources 4. Audits 5. Control of non-conforming outputs	**Quality Assurance Officer**		**Quality Control Plan**	
		Experience	**Qualifications** 1. Programme in Quality or Diploma in Quality or Technical Diploma 2. ISO 9001:2015 QMS Implementation 3. ISO 9001:2015 QMS Auditing	**Quality Control Plan (QCP) in line with the scope of works detailing at least 3 of the following:** 1.Sequence of activities 2.Procedure/code specifications 3.Intervention points 4.Field inspection checklist 5.Relevant signatories	**Minimum Quality Control Plans in line with the scope of works must be of the following disciplines:** 1. Civil works (trenching) 2. Compaction and backfilling 3. Construction of manholes 4. Termination of MV feeder cables 5. Installation of MV switchgears
Total (9) points	**2**	**1**	**2**	**2**	**2**
Score 0	No PQP submitted.	No submission of CV/ Submitted CV with no quality experience / irrelevant experience submitted	No submission / Submitted qualifications **NOT** relating to Quality/Technical	No QCP requirements met.	No submission **OR** Submitted QCPs (**Civil, Structural, Electrical**) is not relevant to the current scope of works. i.e. for a different type of a project.

Score 20	Project Quality Plan contains one (1) of the five (5) PQP requirements.	Less than one (1) years' Quality experience in construction projects	Submitted ISO certificates **NOT** relating to ISO 9001:2015 QMS Implementation and Auditing	Quality Control Plan contains one (1) of the five (5) QCP requirements.	One (1) of five (5) required QCPs in line with the scope of work was submitted.
Score 40	Project Quality Plan contains two (2) of the five (5) PQP requirements.	One (1) - two (2) years Quality experience in construction projects	Submitted ISO 9001:2015 QMS Implementation **AND /OR** ISO 9001:2015 QMS Auditing Certificate is for less than 5 days training period.	Quality Control Plan contains two (2) of the five (5) QCP requirements.	Two (2) of five (5) required QCPs in line with the scope of work were submitted.
Score 60	Project Quality Plan contains three (3) of the five (5) PQP requirements.	Three (3) years Quality experience in construction projects	Programme in Quality **OR** Diploma in Quality **OR** Technical Diploma was submitted.	Quality Control Plan contains three (3) of the five (5) QCP requirements.	Three (3) of five (5) required QCPs in line with the scope of work were submitted.
Score 80	Project Quality Plan contains four (4)of the five (5) PQP requirements.	Four (4) – ten (10) years Quality experience in construction projects	Programme in Quality **OR** Diploma in Quality **OR** Technical Diploma **with** ISO 9001:2015 QMS certificate (Implementation of QMS) were submitted.	Quality Control Plan contains four (4) of the five (5) QCP requirements.	Four (4) of five (5) required QCPs in line with the scope of work were submitted.
Score 100	Project Quality Plan contains all five (5) of the PQP requirements.	More than ten (10) years Quality experience in construction projects	Programme in Quality **OR** Diploma in Quality **OR** Technical Diploma **with both** ISO 9001:2015 QMS and Auditing certificates were submitted.	Quality Control Plan contains all five (5) of the QCP requirements.	Five (5) of five (5) required QCPs in line with the scope of work were submitted.

Attached submissions to this schedule:

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The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Signed …… Date ……

Name …… Position ……

Tenderer ……

T2.2-09: Evaluation Schedule: Health and Safety Requirements

Submit the following documents as a minimum with your tender:

1. Signed Health and Safety Plan as per scope of work in line with TNPA Health & Safety Specification and the tenderer must include these minimum requirements:
    1. Project Scope
    2. Health and Safety Policy
    3. Hazard Identification and Risk Assessment
    4. Legal & Other requirements
    5. Accountability and Responsibilities
    6. Competence, training and awareness
    7. Occupational Health and Hygiene
    8. Working at Heights
    9. Incident Reporting and Investigation
    10. Audits and Inspections

2. Detailed activity-based project specific Risk Assessment (RA), aligned to scope of work and TNPA Baseline Risk Assessment.
    1. Site Establishment
    2. Installation of Portal Frame Structure.
    3. Installation of Rainwater Harvest Tank.
    4. Earthworks and Concrete Works.
    5. Working on Heights.
3. Safety, Health & Environmental Policy signed and dated by the Top Management. List of the five elements -
    1. Commitment to Safety and prevention of pollution,
    2. Continual improvement,
    3. Compliance with legal requirements, appropriate to the nature of contractor's activities,
    4. Hold management accountable for development of the safety systems
    5. Include objectives and targets.

4. Complete and return with tender documentation the Contractor Health & Safety Questionnaire included as a returnable, attach all required supporting documents.

    1. Valid Letter of Good Standing
    2. Safety Induction/ orientation booklet or similar
    3. Incident Management Procedure
    4. Previous H&S Recognition Certificate
    5. Contractor Health and Safety Questionnaire

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The scoring of the Tenderer's Health and safety requirements will be as follows:

Points (9)	**2**	**3**	**2**	**2**
	Signed Health and Safety Plan as per scope of work in line with TNPA H&S specification. 1. Project Scope 2. Health and Safety Policy 3. Hazard Identification and Risk Assessment 4. Legal & Other requirements 5. Accountability and Responsibilities 6. Competence, training and awareness 7. Occupational Health and Hygiene 8. Working at Heights	Detailed activity-based project specific Risk Assessments (RA), aligned to scope of work, TNPA baseline risk assessment, and 1. Site Establishment 2. Installation of Portal Frame Structure. 3. Installation of Rainwater Harvest Tank. 4. Earthworks and Concrete Works. 5. Working on Heights.	Signed and dated Health and Safety Policy: Commitment to Safety, 1. Commitment to Safety and prevention of pollution, 2. Continual improvement, 3. Compliance with legal requirements, appropriate to the nature of contractor's activities, 4. Hold management accountable for development of the safety systems 5. Include objectives and targets.	Complete and return with tender documentation the Contractor Health & Safety Questionnaire included as a returnable, attach all required supporting documents. 1. Valid Letter of Good Standing 2. Safety Induction/ orientation booklet or similar 3. Incident Management Procedure 4. Previous H&S Recognition Certificate 5. Contractor Health and Safety Questionnaire

Points (9)	**2**	**3**	**2**	**2**
	9. Incident Reporting and Investigation 10. Audits and Inspections			
Score 0	No response – Generic document submitted or irrelevant to the project.	No response - Risk assessment methodology is provided but not aligned to project scope and Risk Assessment not signed.	No response - The Tenderer has submitted no information or Health & Safety Policy not signed and dated.	No response - Health and Safety questionnaire is not fully completed and no supporting documents attached.
Score 20	The tender has submitted project specific H&S Plan including two (2)-three (3) stated employer's requirements	Risk assessment methodology is provided with risk assessment. One (1) major activity is provided in task-based risk assessment and is aligned to the project.	Safety, Health & Environmental Policy signed and dated by the Chief Executive Officer including one (1) key element.	The tender has submitted one (1) document, either Contractor Safety Questionnaire or supporting documents.
Score 40	The tenderer has submitted project specific H&S Plan including four (4)-five (5) stated employer's requirements	Risk assessment methodology is provided with risk assessment. Two (2) major activities are provided in task-based risk assessment and are aligned to the project.	Safety, Health & Environmental Policy signed and dated by the Chief Executive Officer including two (2) key elements.	The tender has submitted two (2) documents, either Contractor Safety Questionnaire or supporting documents.

Points (9)	**2**	**3**	**2**	**2**
Score 60	The tenderer has submitted project specific H&S Plan including six (6)-seven (7) stated employer's requirements	Risk assessment methodology is provided with risk assessment. Three (3) major activities are provided in task-based risk assessment and are aligned to the project.	Safety, Health & Environmental Policy signed and dated by the Chief Executive Officer including three (3) key elements.	The tender has submitted three (3) documents, either Contractor Safety Questionnaire or supporting documents.
Score 80	The tenderer has submitted project specific H&S Plan including eight (8)-nine (9) stated employer's requirements	Risk assessment methodology is provided with risk assessment. Four (4) major activities are provided in task-based risk assessment and are aligned to the project.	Safety, Health & Environmental Policy signed and dated by the Chief Executive Officer including four (4) key elements.	The tender has submitted four (4) documents, either Contractor Safety Questionnaire or supporting documents.
Score 100	The tenderer has submitted project specific H&S Plan including ten (10) stated employer's requirements	Risk assessment methodology is provided with risk assessment. Five (5) major activities are provided in task-based risk assessment and are aligned to the project.	Safety, Health & Environmental Policy signed and dated by the Chief Executive Officer including all five (5) key elements.	The tender has submitted all five (5) documents.

T2.2-10: Evaluation Schedule: Environmental Management

The Tenderer must review the following documents in preparation to meeting the environmental requirements, namely:

A) Transnet Integrated Management System (TIMS) Policy Commitment Statement.

B) Transnet Standard Operating Procedure for Construction Environmental Management (SOP CEMP) 009-TCC-CLO-SUS-11386 Rev 1.0

C) Transnet Contractor Environmental and Sustainability Specification Guidelines (CESS) TRN-IMS-GRP-GDL-014.4 Rev 3.0

1. The tenderer must provide a project specific Environmental Management Plan. This plan must be clear on the following:
    a. Identify activities, products or services with associated environmental aspects & impacts that need to be avoided, managed, and mitigated, describe how those impacts will be avoided, managed, and mitigated (impact management actions) based on the scope of work.
    b. The method and frequency of monitoring the implementation of identified environmental aspects & impact, and associated management actions.
    c. Environmental Compliance Obligations (Legislative Requirements) aligned with environmental aspects and impacts.
    d. An Environmental Emergency Preparedness & Response Plan (incl. Potential Environmental Incident Register) describing how the identified environmental emergency, and incidents will be managed on site.
    e. An indication of the environmental management roles and responsibilities in the implementation of the management actions to the identified environmental aspects and impact.
    f. Environmental Records associated with the project to be kept.
    g. How non-conformance/non-compliance will be reported, analysis root cause, establish, implement, and monitor corrective and preventative action.
    h. Environmental Performance Monitoring and Continual Improvement
2. The tenderer must provide an **environmental policy** signed and dated by Top Management that displays the following key components, namely:

a. Is appropriate given the purpose and context of the tenderer's business, including environmental impacts of its activities, products, and services.

b. Commitment to comply with all applicable environmental compliance (legal) obligations (laws, regulations, and standards).

c. Commitment to the protection of the environment, including prevention of pollution relevant to the context of the tenderer's business.
d. Provides framework for setting environmental objectives.
e. Emphasize the organisation's commitment to continual improvement of their Environmental Management System (EMS) to enhance environmental performance; and
f. Address the sustainable use of resources/ resource conservation.
g. How will the policy be communicated to all employees working for or on behalf of the Contractor and be made available to interested parties.

Attached submissions to this schedule:

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By signing this Tender Schedule, the tenderer confirms that they will comply with the above requirements and in particular Transnet policy statements and environmental specifications.

Signed ..... Date .....

Name ..... Position .....

Tenderer .....

The scoring of the Tenderer's Environmental Submission will be as follows:

	Environmental Management Plan	**Environmental Policy**
Points (6)	**3**	**3**
Score 0	The Tenderer has submitted no information to determine a score or the information submitted is irrelevant.	The Tenderer has submitted no information to determine a score or information submitted is irrelevant.
Score 20	EMP only responds to one (1) – four (4) of the items listed under 1 above.	Policy addresses one (1) – three (3) of the required elements listed under 2 above
Score 40	EMP only responds to five (5) of the items listed under 1 above.	Policy addresses four (4) of the required elements listed under 2 above
Score 60	EMP only responds to six (6) of the items listed under 1 above.	Policy addresses five (5) of the required elements listed under 2 above and is possibly able to meet the Employer's requirements
Score 80	EMP only responds to seven (7) of the items listed under 1 above.	Policy addresses six (6) of the required elements listed under 2 above and is likely to ensure compliance with the stated Employer's requirements
Score 100	EMP responds to all the items listed under 1 above.	Policy addresses all the required elements listed under 2 above

T2.2-11: Evaluation Schedule: Method Statement

NOTE TO TENDERERS:

Method statement - The tenderers are required to demonstrate their understanding of the project scope (Works Information) by submitting a detailed method statement that outlines how the work is going to be executed from start to finish. The method statement will need to cover key focus areas within the execution process of the project.

The method statement must be specifically tailored to address each of the following fourteen (14) components. A separate and clearly defined heading must be provided for every component. The total word count of the method statement must be exactly 5,000 words — neither more nor less of this requirement. Generic method statements that fail to adequately address the fourteen (14) specified components will not be considered for evaluation.:

The method statement should cover the following fourteen (14) components:

1) Site Establishment,
2) Site clearing and ground preparation,
3) Procurement of material, highlight the long lead material.
4) Building works,
5) Civil works, (pavement, stormwater management, signage, etc.)
6) Electrical services and lighting,
7) Quality Management,
8) Reflect any foreseeable project risks,
9) Project assumption
10) Project limitation
11) Project constraints
12) Health and safety Management,
13) Environment Management,
14) Traffic Management,

The table below will be used as guidelines for scoring / evaluating the method statement submitted bythe Tenderer:

Points	**15**
Score 0	The tenderer has submitted no information or inadequate information to determinea score.
Score 20	The methodology approach deals with one (1) to three (3) construction elements stated.
Score 40	The methodology approach deals with four (4) to six (6) construction elements stated.
Score 60	The methodology approach deals with seven (7) to ten (10) construction elements stated.
Score 80	The methodology approach deals with eleven (11) to thirteen (13) construction elements stated.
Score 100	The methodology approach deals with ALL fourteen (14) critical elements of the project.

T2.2-12: Authority to submit a Tender

Indicate the status of the tenderer by ticking the appropriate box hereunder. The tenderer must complete the certificate set out below for his category of the organisation or alternatively attach a certified copy of a company/organisation document that provides the same information for the relevant category as requested here.

A - COMPANY	B - PARTNERSHIP	C - JOINT VENTURE	D - SOLE PROPRIETOR

A. Certificate for Company

I, _____ chairperson of the board of directors _____ _____, hereby confirm that by resolution of the board taken on _____ (date), Mr/Ms _____, acting in the capacity of _____, was authorised to sign all documents in connection with this tender offer and any contract resulting from it on behalf of the company.

Signed		Date	
Name		Position	Chairman of the Board of Directors

B. Certificate for Partnership

We, the undersigned, being the **key partners** in the business trading as _____ _____ hereby authorise Mr/Ms _____ acting in the capacity of _____, to sign all documents in connection with the tender offer for Contract _____ and any contract resulting from it on our behalf.

Name	Address	Signature	Date

NOTE: This certificate is to be completed and signed by the full number of Partners necessary to commit the Partnership. Attach additional pages if more space is required.

C. Certificate for Joint Venture

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorise Mr/Ms _____, an authorised signatory of the company _____, acting in the capacity of lead partner, to sign all documents in connection with the tender offer for Contract _____ _____ and any contract resulting from it on our behalf.

This authorisation is evidenced by the attached power of attorney signed by legally authorised signatories of all the partners to the Joint Venture.

Furthermore we attach to this Schedule a copy of the joint venture agreement which incorporates a statement that all partners are liable jointly and severally for the execution of the contract and that the lead partner is authorised to incur liabilities, receive instructions and payments and be responsible for the entire execution of the contract for and on behalf of any and all the partners.

Name of firm	**Address**	**Authorising signature, name (in caps) and capacity**

D. Certificate for Sole Proprietor

I, _____, hereby confirm that I am the sole owner of the business trading as _____.

Signed		Date	
Name		Position	Sole Proprietor

T2.2-13: Record of Addenda to Tender Documents

This schedule as submitted confirms that the following communications received from the *Employer* before the submission of this tender offer, amending the tender documents, have been taken into account in this specific tender offer:

	Date	**Title or Details**
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		

Signed ..... Date .....

Name ..... Position .....

Tenderer .....

T2.2-14 Letter/s of Good Standing with the Compensation for Injuries and Occupation Diseases Act (COIDA)

Valid Company Registration Certificate in terms of the Compensation for Injuries and Occupation Diseases Act (COIDA) - Letters of Good Standing from all members of a newly formed JV.

Attached to this schedule is the Letter/s of Good Standing.

1.

2.

3.

4.

Name of Company/Members of Joint Venture:

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T2.2-15: Schedule of Proposed Subcontractors

The tenderer is required to provide details of all the sub-contractors that will be utilised in the execution of the *works.*

Tenderer to note that after award, any deviations from this list of proposed sub-contractors will be subject to acceptance by the *Project Manager* in terms of the NEC 3 ECC Conditions of Contract.

Provide information of the Sub-contractors below:

Name of Proposed Subcontractor			Address		Nature of work		Amount of Worked	Percentage of work
% Black Owned	**EME**	**QSE**	**Youth**	**Women**	**Disabilities**	**Rural/ Underdeveloped areas/ Townships**		**Military Veterans**
	☐	☐	☐	☐	☐	☐		☐

Name of Proposed Subcontractor			Address		Nature of work		Amount of Worked	Percentage of work
% Black Owned	**EME**	**QSE**	**Youth**	**Women**	**Disabilities**	**Rural/ Underdeveloped areas/ Townships**		**Military Veterans**
	☐	☐	☐	☐	☐	☐		☐

Name of Proposed Subcontractor	Address	Nature of work	Amount of Worked	Percentage of work

% Black Owned	**EME**	**QSE**	**Youth**	**Women**	**Disabilities**	**Rural/ Underdeveloped areas/ Townships**	**Military Veterans**
	☐	☐	☐	☐	☐	☐	☐

Name of Proposed Subcontractor	**Address**	**Nature of work**	**Amount of Worked**	**Percentage of work**

% Black Owned	**EME**	**QSE**	**Youth**	**Women**	**Disabilities**	**Rural/ Underdeveloped areas/ Townships**	**Military Veterans**
	☐	☐	☐	☐	☐	☐	☐

Signed ..... Date .....

Name ..... Position .....

Tenderer .....

T2.2-16: Job-Creation Schedule

To give effect to Transnet's job-creation objectives, bidders must be required to provide an undertaking as to the number of new jobs that will be created (either by them or their subcontractor/s) should they be awarded the tender. This undertaking should be submitted as part of their bid submissions and should be broken down into the following categories:
Total number of skilled, semi-skilled and unskilled jobs; and number of new jobs for black people, in the following categories:

a) Black men;

b) Black women;

c) Black youth;

d) Black people with disabilities; and

e) Black people living in rural or underdeveloped areas or townships.

Please indicate the total number of new jobs that will be created over the term of the contract:

Total number and value of new jobs created	**Total number of new jobs**	**Total rand value of new jobs created**

Of the total number of new jobs created, please indicate the number and value of new jobs to be created for the following designated groups:

	Total number of new jobs	**Total rand value of new jobs**
Black men		
Black women		
Black Youth		
Black people living in rural or underdeveloped areas or townships		
Black People with Disabilities		

Of the total number of new jobs created, please indicate the number of skilled, semi-skilled and unskilled new jobs that will be created over the term of the contract:

	Total number of Skilled jobs	**Total number of Semi-skilled jobs**	**Total number of Unskilled jobs**
Black men			
Black women			
Black Youth			
Black people living in rural or underdeveloped areas or townships			
Black People with Disabilities			

Signed ..... Date .....

Name ..... Position .....

Tenderer .....

T2.2-17: ANNEX G Compulsory Enterprise Questionnaire

The following particulars hereunder must be furnished.

In the case of a Joint Venture, separate enterprise questionnaires in respect of each partner/member must be completed and submitted.

Section 1: Name of enterprise: _____

Section 2: VAT registration number, if any: _____

Section 3: CIDB registration number, if any: _____

Section 4: CSD number: _____

Section 5: Particulars of sole proprietors and partners in partnerships

Name	Identity number	Personal income tax number

* Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

Section 6: Particulars of companies and close corporations

Company registration number _____

Close corporation number _____

Tax reference number: _____

Section 7: The attached SBD4 must be completed for each tender and be attached as a tender requirement.
Section 8: The attached specific goals must be completed for each tender and be attached as a requirement.

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise:

i) authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;

ii) confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;

iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;

iv) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and

v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed _____ Date .....

Name _____ Position .....

Enterprise name .....

SPECIFIC GOALS POINTS CLAIM FORM - SBD6.1

This preference form must form part of all bids invited. It contains general information and serves as a claim for preference points for specific goals Contribution. Transnet will award preference points to companies who provide valid proof of evidence of as per the table below.

NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF SPECIFIC GOALS, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT REGULATIONS – 2022.

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to all bids:

- the 80/20 system for requirements with a Rand value of up to or equal to R50 000 000 (all applicable taxes included);
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 The lowest acceptable tender will determine whether the 80/20 or 90/10 preference point system will apply.

1.3 Preference points for this bid shall be awarded for:

(a) Price;

(b) B-BBEE Status Level of Contribution; and

(c) Any other specific goal determined in Transnet preferential procurement policy.

1.4 The maximum points for this bid are allocated as follows:

Specific Goals	**Number of points (80/20 system)**	**Number of points (90/10 system)**
B-BBEE Status Level of Contributor 1 or 2	**6.00**	**3.00**
30% Black Women Owned Entities	**4.00**	**2.00**
The promotion of supplier development through subcontracting of a minimum of 30% of the value of a contract to South African companies which are: I EMEs and/or QSEs 51% black owned	**10.00**	**5.00**
Non-Compliant and/or B-BBEE Level 3-8 contributors	**00**	**00**

1.5 Failure on the part of a bidder to submit proof of evidence for any of the specific goals together with the bid will be interpreted to mean that preference points are not claimed.

1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

2. DEFINITIONS

(a) **"all applicable taxes"** includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;

(b) **"B-BBEE"** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;

(c) "**B-BBEE status level of contributor"** means the B-BBEE status received by a measured entity based on its overall performance using the relevant scorecard contained in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;

(d) **"Ownership"** means 51% black ownership

(e) **"bid"** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of services, works or goods, through price quotations, advertised competitive bidding processes or proposals;

(f) **"Broad-Based Black Economic Empowerment Act"** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);

(g) **"EME"** means an Exempted Micro Enterprise as defines by Codes of Good Practice under section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);

(h) **"functionality"** means the ability of a bidder to provide goods or services in accordance with specification as set out in the bid documents

(i) **"Price"** includes all applicable taxes less all unconditional discounts.

(j) **"Proof of B-BBEE Status Level of Contributor"**

i) the B-BBBEE status level certificate issued by an authorised body or person;

ii) a sworn affidavit as prescribed by the B-BBEE Codes of Good Practice; or

iii) any other requirement prescribed in terms of the B-BBEE Act.

(k) **"QSE"** means a Qualifying Small Enterprise as defines by Codes of Good Practice under section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);

(l) **"rand value"** means the total estimated value of a contract in South African currency, calculated at the time of bid invitations, and includes all applicable taxes and excise duties.

(m)**"Specific goals"** means targeted advancement areas or categories of persons or groups either previously disadvantaged or falling within the scope of the

Reconstruction and Development Programme identified by Transnet to be given preference in allocation of procurement contracts in line with section 2(1) of the PPPFA.

3. POINTS AWARDED FOR PRICE

3.1 THE 80/20 or 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80/90 points is allocated for price on the following basis:

80/20 90/10

$$PS = 80\left(1 - \frac{Pt - Pmin}{Pmin}\right) \text{ OR } PS = 90\left(1 - \frac{Pt - Pmin}{Pmin}\right)$$

Where

Ps = Points scored for comparative price of bid under consideration

Pt = Comparative price of bid under consideration

Pmin = Comparative price of lowest acceptable bid

In terms of Transnet Preferential Procurement Policy (TPPP) and Procurement Manuals, the points are set out in the table in 1.4

4. EVIDENCE REQUIRED FOR CLAIMING SPECIFIC GOALS

4.1 In terms of Transnet Preferential Procurement Policy (TPPP) and Procurement Manuals, preference points must be awarded to a bidder for providing evidence in accordance with the table below:

Specific Goals	Acceptable Evidence
B-BBEE Status Level of Contributor 1 or 2	A valid B-BBEE Certificate / Sworn - Affidavit / CIPC B-BBEE Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guidelines
30% Black Women Owned Entities	Certified copy of ID Documents of the Owners
The promotion of supplier development through subcontracting of a minimum of 30% of the value of a contract to South African companies which are: I. EMEs and/or QSEs 51% black owned	• Sub-contracting agreement(s) • Subcontractors valid B-BBEE Certificate / Sworn - Affidavit / CIPC B-BBEE Certificate as per DTIC guidelines.

4.2 The table below indicates the required proof of B-BBEE status depending on the category of enterprises:

Enterprise	B-BBEE Certificate & Sworn Affidavit
Large	Certificate issued by SANAS accredited verification agency
QSE	Certificate issued by SANAS accredited verification agency Sworn Affidavit signed by the authorised QSE representative and attested by a Commissioner of Oaths confirming annual turnover and black ownership (only black-owned QSEs - 51% to 100% Black owned) [Sworn affidavits must substantially comply with the format that can be obtained on the DTI's website at www.dti.gov.za/economic_empowerment/bee_codes.jsp.]
EME[1]	Sworn Affidavit signed by the authorised EME representative and attested by a Commissioner of Oaths confirming annual turnover and black ownership Certificate issued by CIPC (formerly CIPRO) confirming annual turnover and black ownership Certificate issued by SANAS accredited verification agency only if the EME is being measured on the QSE scorecard

4.3 A trust, consortium or joint venture (including unincorporated consortia and joint ventures) must submit a consolidated B-BBEE Status Level verification certificate for every separate bid.

4.4 Tertiary Institutions and Public Entities will be required to submit their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.

4.5 A person will not be awarded points for B-BBEE status level if it is indicated in the bid documents that such a bidder intends sub-contracting more than 25% of the value of the contract to any other enterprise that does not qualify for at least the points that such a bidder qualifies for, unless the intended sub-contractor is an EME that has the capability and ability to execute the sub-contract.

4.6 A person awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is sub-contracted to an EME that has the capability and ability to execute the sub-contract.

4.7 Bidders are to note that the rules pertaining to B-BBEE verification and other B-BBEE requirements may be changed from time to time by Transnet or regulatory bodies such as National Treasury or the DTI. It is the Bidder's responsibility to ensure that

his/her bid complies fully with all B-BBEE requirements at the time of the submission of the bid.

5. BID DECLARATION

5.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

6. B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 6.1

6.1 B-BBEE Status Level of Contribution: . = ……(maximum of 20/10 points)

(Points claimed in respect of paragraph 6.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

7. SUB-CONTRACTING

7.1 Will any portion of the contract be sub-contracted?

(***Tick applicable box***)

YES		NO	

7.1.1 If yes, indicate:

i) What percentage of the contract will be subcontracted.....%
ii) The name of the sub-contractor.....
iii) The B-BBEE status level of the sub-contractor.....
iv) Whether the sub-contractor is an EME or QSE.
(Tick applicable box)

YES		NO	

v) Specify, by ticking the appropriate box, if subcontracting with any of the following enterprises:

	Designated Group: An EME or QSE which is at last 51% owned by:	EME √	QSE √
	Black people		
	Black people who are youth		
	Black people who are women		
	Black people with disabilities		
	Black people living in rural or underdeveloped areas or townships		
	Cooperative owned by black people		
	Black people who are military veterans		
	OR		
	Any EME		
	Any QSE		

8. DECLARATION WITH REGARD TO COMPANY/FIRM

8.1 Name of company/firm:.....

8.2 VAT registration number:.....

8.3 Company registration number:.....

8.4 TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One person business/sole propriety
- ☐ Close corporation
- ☐ Company
- ☐ (Pty) Limited

[TICK APPLICABLE BOX]

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....
.....
.....

8.6 COMPANY CLASSIFICATION

- ☐ Manufacturer
- ☐ Supplier
- ☐ Professional Service provider
- ☐ Other Service providers, e.g. transporter, etc.

[*TICK APPLICABLE BOX*]

8.7 Total number of years the company/firm has been in business:.....

8.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contribution indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

i) The information furnished is true and correct;

ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;

iii) In the event of a contract being awarded as a result of points claimed as shown in paragraph 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;

iv) If a bidder submitted false information regarding its B-BBEE status level of contributor or any other matter required in terms of the Preferential Procurement Regulations, 2022 which will affect or has affected the evaluation of a bid the purchaser may, in addition to any other remedy it may have

(a) disqualify the person from the bidding process;

(b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;

(c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;

(d) if the successful bidder subcontracted a portion of the bid to another person without disclosing it, Transnet reserves the right to penalise the bidder up to 10 percent of the value of the contract;

(e) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and

(f) forward the matter for criminal prosecution.

WITNESSES 1. …….. 2. …….	…… SIGNATURE(S) OF BIDDERS(S) DATE: ……..

T2.2-18 NON-DISCLOSURE AGREEMENT

[JUNE 2026]

Note to tenderers: This Non-Disclosure Agreement is to be completed and signed by an authorised signatory:

THIS AGREEMENT is made effective as of ..... day of ..... 20..... by and between:

TRANSNET SOC LTD

(Registration No. 1990/000900/30), a company incorporated and existing under the laws of South Africa, having its principal place of business at Transnet Corporate Centre 138 Eloff Street , Braamfontein , Johannesburg 2000

and

.....
.....
.....

(Registration No. .....),a private company incorporated and existing under the laws of South Africa having its principal place of business at

.....
.....
.....
.....

WHEREAS

Transnet and the Company wish to exchange Information [as defined below] and it is envisaged that each party may from time to time receive Information relating to the other in respect thereof. In consideration of each party making available to the other such Information, the parties jointly agree that any dealings between them shall be subject to the terms and conditions of this Agreement which themselves will be subject to the parameters of the Tender Document.

IT IS HEREBY AGREED

1. INTERPRETATION

In this Agreement:

1.1 **Agents** mean directors, officers, employees, agents, professional advisers, contractors or sub-contractors, or any Group member;

1.2 **Bid** or **Bid Document** (hereinafter Tender) means Transnet's Request for Information [**RFI**] Request for Proposal [**RFP**] or Request for Quotation [**RFQ**], as the case may be;

1.3 **Confidential Information** means any information or other data relating to one party [the **Disclosing Party**] and/or the business carried on or proposed or intended to be carried on by that party and which is made available for the purposes of the Bid to the other party [the **Receiving Party**] or its Agents by the Disclosing Party or its Agents or recorded in agreed minutes following oral disclosure and any other information otherwise made available by the Disclosing Party or its Agents to the Receiving Party or its Agents, whether before, on or after the date of this Agreement, and whether in writing or otherwise, including any information, analysis or specifications derived from, containing or reflecting such information but excluding information which:

1.3.1 is publicly available at the time of its disclosure or becomes publicly available [other than as a result of disclosure by the Receiving Party or any of its Agents contrary to the terms of this Agreement]; or

1.3.2 was lawfully in the possession of the Receiving Party or its Agents [as can be demonstrated by its written records or other reasonable evidence] free of any restriction as to its use or disclosure prior to its being so disclosed; or

1.3.3 following such disclosure, becomes available to the Receiving Party or its Agents [as can be demonstrated by its written records or other reasonable evidence] from a source other than the Disclosing Party or its Agents, which source is not bound by any duty of confidentiality owed, directly or indirectly, to the Disclosing Party in relation to such information;

1.4 **Group** means any subsidiary, any holding company and any subsidiary of any holding company of either party; and

1.5 **Information** means all information in whatever form including, without limitation, any information relating to systems, operations, plans, intentions, market opportunities, know-how, trade secrets and business affairs whether in writing, conveyed orally or by machine-readable medium.

2. CONFIDENTIAL INFORMATION

2.1 All Confidential Information given by one party to this Agreement [the **Disclosing Party**] to the other party [the **Receiving Party**] will be treated by the Receiving Party as secret and confidential and will not, without the Disclosing Party's written consent, directly or indirectly communicate or disclose [whether in writing or orally or in any other manner] Confidential Information to any other person other than in accordance with the terms of this Agreement.

2.2 The Receiving Party will only use the Confidential Information for the sole purpose of technical and commercial discussions between the parties in relation to the Tender or for the subsequent performance of any contract between the parties in relation to the Tender.

2.3 Notwithstanding clause 2.1 above, the Receiving Party may disclose Confidential Information:

2.3.1 to those of its Agents who strictly need to know the Confidential Information for the sole purpose set out in clause 2.2 above, provided that the Receiving Party shall ensure that such Agents are made aware prior to the disclosure of any part of the Confidential Information that the same is confidential and that they owe a duty of confidence to the Disclosing Party. The Receiving Party shall at all times remain liable for any actions of such Agents that would constitute a breach of this Agreement; or

2.3.2 to the extent required by law or the rules of any applicable regulatory authority, subject to clause 2.4 below.

2.4 In the event that the Receiving Party is required to disclose any Confidential Information in accordance with clause 2.3.2 above, it shall promptly notify the Disclosing Party and cooperate with the Disclosing Party regarding the form, nature, content and purpose of such disclosure or any action which the Disclosing Party may reasonably take to challenge the validity of such requirement.

2.5 In the event that any Confidential Information shall be copied, disclosed or used otherwise than as permitted under this Agreement then, upon becoming aware of the same, without prejudice to any rights or remedies of the Disclosing Party, the Receiving Party shall as soon as practicable notify the Disclosing Party of such event and if requested take such steps [including the institution of legal proceedings] as shall be necessary to remedy [if capable of remedy] the default and/or to prevent further unauthorised copying, disclosure or use.

2.6 All Confidential Information shall remain the property of the Disclosing Party and its disclosure shall not confer on the Receiving Party any rights, including intellectual property rights over the Confidential Information whatsoever, beyond those contained in this Agreement.

3. RECORDS AND RETURN OF INFORMATION

3.1 The Receiving Party agrees to ensure proper and secure storage of all Information and any copies thereof.

3.2 The Receiving Party shall keep a written record, to be supplied to the Disclosing Party upon request, of the Confidential Information provided and any copies made thereof and, so far as is reasonably practicable, of the location of such Confidential Information and any copies thereof.

3.3 The Company shall, within 7 [seven] days of receipt of a written demand from Transnet:

3.3.1 return all written Confidential Information [including all copies]; and

3.3.2 expunge or destroy any Confidential Information from any computer, word processor or other device whatsoever into which it was copied, read or programmed by the Company or on its behalf.

3.4 The Company shall on request supply a certificate signed by a director as to its full compliance with the requirements of clause 3.3.2 above.

4. ANNOUNCEMENTS

4.1 Neither party will make or permit to be made any announcement or disclosure of its prospective interest in the Tender without the prior written consent of the other party.

4.2 Neither party shall make use of the other party's name or any information acquired through its dealings with the other party for publicity or marketing purposes without the prior written consent of the other party.

5. DURATION

The obligations of each party and its Agents under this Agreement shall survive the termination of any discussions or negotiations between the parties regarding the Tender and continue thereafter for a period of 5 [five] years.

6. PRINCIPAL

Each party confirms that it is acting as principal and not as nominee, agent or broker for any other person and that it will be responsible for any costs incurred by it or its advisers in considering or pursuing the Tender and in complying with the terms of this Agreement.

7. ADEQUACY OF DAMAGES

Nothing contained in this Agreement shall be construed as prohibiting the Disclosing Party from pursuing any other remedies available to it, either at law or in equity, for any such threatened or actual breach of this Agreement, including specific performance, recovery of damages or otherwise.

8. PRIVACY AND DATA PROTECTION

8.1 The Receiving Party undertakes to comply with South Africa's general privacy protection in terms Section 14 of the Bill of Rights in connection with this Tender and shall procure that its personnel shall observe the provisions of such Act [as applicable] or any amendments and re-enactments thereof and any regulations made pursuant thereto.

8.2 The Receiving Party warrants that it and its Agents have the appropriate technical and organisational measures in place against unauthorised or unlawful processing of data relating to the Tender and against accidental loss or destruction of, or damage to such data held or processed by them.

9. GENERAL

9.1 Neither party may assign the benefit of this Agreement, or any interest hereunder, except with the prior written consent of the other, save that Transnet may assign this Agreement at any time to any member of the Transnet Group.

9.2 No failure or delay in exercising any right, power or privilege under this Agreement will operate as a waiver of it, nor will any single or partial exercise of it preclude any further exercise or the exercise of any right, power or privilege under this Agreement or otherwise.

9.3 The provisions of this Agreement shall be severable in the event that any of its provisions are held by a court of competent jurisdiction or other applicable authority to be invalid, void or otherwise unenforceable, and the remaining provisions shall remain enforceable to the fullest extent permitted by law.

9.4 This Agreement may only be modified by a written agreement duly signed by persons authorised on behalf of each party.

9.5 Nothing in this Agreement shall constitute the creation of a partnership, joint venture or agency between the parties.

9.6 This Agreement will be governed by and construed in accordance with South African law and the parties irrevocably submit to the exclusive jurisdiction of the South African courts.

Signed ..... Date .....

Name ..... Position .....

Tenderer .....

T2.2-19: TENDER DECLARATION FORM

NAME OF COMPANY: _____

We _____ do hereby certify that:

1. Transnet has supplied and we have received appropriate tender offers to any/all questions (as applicable) which were submitted by ourselves for tender clarification purposes;
2. we have received all information we deemed necessary for the completion of this Tender;
3. at no stage have we received additional information relating to the subject matter of this tender from Transnet sources, other than information formally received from the designated Transnet contact(s) as nominated in the tender documents;
4. we are satisfied, insofar as our company is concerned, that the processes and procedures adopted by Transnet in issuing this TENDER and the requirements requested from tenderers in responding to this TENDER have been conducted in a fair and transparent manner; and
5. furthermore, we acknowledge that a direct relationship exists between a family member and/or an owner / member / director / partner / shareholder (unlisted companies) of our company and an employee or board member of the Transnet Group as indicated below: *[Respondent to indicate if this section is not applicable]*

   FULL NAME OF OWNER/MEMBER/DIRECTOR/
   PARTNER/SHAREHOLDER: ADDRESS:

   _____

   _____

   _____

   Indicate nature of relationship with Transnet:

   _____

   _____

   _____

   _____

[Failure to furnish complete and accurate information in this regard may lead to the disqualification of your response and may preclude a Respondent from doing future business with Transnet]

We declare, to the extent that we are aware or become aware of any relationship between ourselves and Transnet (other than any existing and appropriate business relationship with Transnet) which could unfairly advantage our company in the forthcoming adjudication process, we shall notify Transnet immediately in writing of such circumstances.

6. We accept that any dispute pertaining to this tender will be resolved through Transnet Supply Chain Management (SCM) Complaints and Allegations Office process and will be subject to the Terms of Reference of SCM Complaints and Allegations Office. Transnet Supply Chain SCM Complaints and Allegations Office process must first be exhausted before judicial review of a decision is sought. (Refer "Important Notice to respondents" below).

7. We further accept that Transnet reserves the right to reverse a tender award or decision based on the recommendations of SCM Complaints and Allegations Office without having to follow a formal court process to have such award or decision set aside.

For and on behalf of …… duly authorised thereto
Name:
Signature:
Date:

IMPORTANT NOTICE TO TENDERERS

- Transnet established the SCM Complaints and Allegations Office to investigate any material complaint in respect of any tenders regardless of the value. Should a Tenderer have any material concern regarding a tender process, a complaint may be lodged with Transnet SCM Complaints and Allegations Office for further investigation.

- It is incumbent on the Tenderer to familiarise himself/herself with the Terms of Reference for the Transnet SCM Complaints and Allegations Office, details of which are available for review at Transnet's website www.transnet.net.

- An official complaint form which will be shared upon receipt of a complaint should be completed and submitted, together with any supporting documentation, to groupscmcomplaints@transnet.net

- All Tenderers should note that a complaint must be made in good faith. If a complaint is made in bad faith, Transnet reserves the right to place such a bidder on its List of Excluded Tenderers.

T2.2-20: Request for Proposal – Breach Of Law

NAME OF COMPANY:

_____

I / We _____ do hereby certify that ***I/we have/have not been*** found guilty during the preceding 5 (five) years of a serious breach of law, including but not limited to a breach of the Competition Act, 89 of 1998, by a court of law, tribunal or other administrative body. The type of breach that the Tenderer is required to disclose excludes relatively minor offences or misdemeanours, e.g. traffic offences.

Where found guilty of such a serious breach, please disclose:

NATURE OF BREACH:

_____

_____

_____

DATE OF BREACH:

_____

Furthermore, I/we acknowledge that Transnet SOC Ltd reserves the right to exclude any Tenderer from the tendering process, should that person or company have been found guilty of a serious breach of law, tribunal or regulatory obligation.

Signed on this _____ day of _____ 20____

_____

SIGNATURE OF TENDER

T2.2-21 Certificate of Acquaintance with Tender Documents

NAME OF TENDERING ENTITY:

_____

1. By signing this certificate I/we acknowledge that I/we have made myself/ourselves thoroughly familiar with, and agree with all the conditions governing this RFP. This includes those terms and conditions of the Contract, the Supplier Integrity Pact, Non-Disclosure Agreement etc. contained in any printed form stated to form part of the documents thereof, but not limited to those listed in this clause.

2. I/we furthermore agree that Transnet SOC Ltd shall recognise no claim from me/us for relief based on an allegation that I/we overlooked any tender/contract condition or failed to take it into account for the purpose of calculating my/our offered prices or otherwise.

3. I/we understand that the accompanying Tender will be disqualified if this Certificate is found not to be true and complete in every respect.

4. For the purposes of this Certificate and the accompanying Tender, I/we understand that the word "competitor" shall include any individual or organisation, other than the Tenderer, whether or not affiliated with the Tenderer, who:

   a) has been requested to submit a Tender in response to this Tender invitation;

   b) could potentially submit a Tender in response to this Tender invitation, based on their qualifications, abilities or experience; and

   c) provides the same Services as the Tenderer and/or is in the same line of business as the Tenderer

5. The Tenderer has arrived at the accompanying Tender independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium will not be construed as collusive Tendering.

6. In particular, without limiting the generality of paragraph 5 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

   a) prices;

b) geographical area where Services will be rendered [market allocation]

c) methods, factors or formulas used to calculate prices;

d) the intention or decision to submit or not to submit, a Tender;

e) the submission of a tender which does not meet the specifications and conditions of the tender; or

f) Tendering with the intention not winning the tender.

7. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the Services to which this tender relates.

8. The terms of the accompanying tender have not been, and will not be, disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening or of the awarding of the contract.

9. I/We am/are aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to tenders and contracts, tenders that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and/or may be reported to the National Prosecuting Authority [NPA] for criminal investigation. In addition, Tenderers that submit suspicious tenders may be restricted from conducting business with the public sector for a period not exceeding 10 [ten] years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

Signed on this _____ day of _____20___

_____

SIGNATURE OF TENDERER

T2.2-22 Service Provider Integrity Pact

Important Note: All potential tenderers must read this document and certify in the RFP Declaration Form that that have acquainted themselves with, and agree with the content.

The contract with the successful tenderer will automatically incorporate this Integrity Pact and shall be deemed as part of the final concluded contract.

INTEGRITY PACT

Between

TRANSNET SOC LTD

Registration Number: 1990/000900/30

("Transnet")

and

The Contractor (hereinafter referred to as the "Tenderer/Service Providers/Contractor")

PREAMBLE

Transnet values full compliance with all relevant laws and regulations, ethical standards and the principles of economical use of resources, fairness and transparency in its relations with its Tenderers/Service Providers/Contractors.

In order to achieve these goals, Transnet and the Tenderer/Service Provider/Contractor hereby enter into this agreement hereinafter referred to as the "Integrity Pact" which will form part of the Tenderer's/Service Provider's/Contractor's application for registration with Transnet as a vendor.

The general purpose of this Integrity Pact is to agree on avoiding all forms of dishonesty, fraud and corruption by following a system that is fair, transparent and free from any undue influence prior to, during and subsequent to the currency of any procurement and/or reverse logistics event and any further contract to be entered into between the Parties, relating to such event.

All Tenderers/Service Providers/Contractor's will be required to sign and comply with undertakings contained in this Integrity Pact, should they want to be registered as a Transnet vendor.

1 OBJECTIVES

1.1 Transnet and the Tenderer/Service Provider/Contractor agree to enter into this Integrity Pact, to avoid all forms of dishonesty, fraud and corruption including practices that are anti-competitive in nature, negotiations made in bad faith and under-pricing by following a system that is fair, transparent and free from any influence/unprejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:

a) Enable Transnet to obtain the desired contract at a reasonable and competitive price in conformity to the defined specifications of the works, goods and services; and

b) Enable Tenderers/Service Providers/Contractors to abstain from bribing or participating in any corrupt practice in order to secure the contract.

2 COMMITMENTS OF TRANSNET

Transnet commits to take all measures necessary to prevent dishonesty, fraud and corruption and to observe the following principles:

2.1 Transnet hereby undertakes that no employee of Transnet connected directly or indirectly with the sourcing event and ensuing contract, will demand, take a promise for or accept directly or through intermediaries any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage

from the Tenderer, either for themselves or for any person, organisation or third party related to the contract in exchange for an advantage in the tendering process, Tender evaluation, contracting or implementation process related to any contract.

2.2 Transnet will, during the registration and tendering process treat all Tenderers/ Service Providers/Contractor with equity, transparency and fairness. Transnet will in particular, before and during the registration process, provide to all Tenderers/ Service Providers/Contractors the same information and will not provide to any Tenderers/Service Providers/Contractors confidential/additional information through which the Tenderers/Service Providers/Contractors could obtain an advantage in relation to any tendering process.

2.3 Transnet further confirms that its employees will not favour any prospective Tenderers/Service Providers/Contractors in any form that could afford an undue advantage to a particular Tenderer during the tendering stage, and will further treat all Tenderers/Service Providers/Contractors participating in the tendering process in a fair manner.

2.4 Transnet will exclude from the tender process such employees who have any personal interest in the Tenderers/Service Providers/Contractors participating in the tendering process.

3 OBLIGATIONS OF THE TENDERER / SERVICE PROVIDER

3.1 Transnet has a '**Zero Gifts**' Policy. No employee is allowed to accept gifts, favours or benefits.

a) Transnet officials and employees **shall not** solicit, give or accept, or from agreeing to solicit, give, accept or receive directly or indirectly, any gift, gratuity, favour, entertainment, loan, or anything of monetary value, from any person or juridical entities in the course of official duties or in connection with any operation being managed by, or any transaction which may be affected by the functions of their office.

b) Transnet officials and employees **shall not** solicit or accept gifts of any kind, from vendors, suppliers, customers, potential employees, potential vendors, and suppliers, or any other individual or organisation irrespective of the value.

c) Under **no circumstances** should gifts, business courtesies or hospitality packages be accepted from or given to prospective suppliers participating in a tender process at the respective employee's Operating Division, regardless of retail value.

d) Gratuities, bribes or kickbacks of any kind must never be solicited, accepted or offered, either directly or indirectly. This includes money, loans, equity, special

privileges, personal favours, benefit or services. Such favours will be considered to constitute corruption.

3.2 The Tenderer/Service Provider/Contractor commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its Tender or during any ensuing contract stage in order to secure the contract or in furtherance to secure it and in particular the Tenderer/Service Provider/Contractor commits to the following:

a) The Tenderer/Service Provider/Contractor will not, directly or through any other person or firm, offer, promise or give to Transnet or to any of Transnet's employees involved in the tendering process or to any third person any material or other benefit or payment, in order to obtain in exchange an advantage during the tendering process; and

b) The Tenderer/Service Provider/Contractor will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any employee of Transnet, connected directly or indirectly with the tendering process, or to any person, organisation or third party related to the contract in exchange for any advantage in the tendering, evaluation, contracting and implementation of the contract.

3.3 The Tenderer/Service Provider/Contractor will not collude with other parties interested in the contract to preclude a competitive Tender price, impair the transparency, fairness and progress of the tendering process, Tender evaluation, contracting and implementation of the contract. The Tenderer / Service Provider further commits itself to delivering against all agreed upon conditions as stipulated within the contract.

3.4 The Tenderer/Service Provider/Contractor will not enter into any illegal or dishonest agreement or understanding, whether formal or informal with other Tenderers/Service Providers/Contractors. This applies in particular to certifications, submissions or non-submission of documents or actions that are restrictive or to introduce cartels into the tendering process.

3.5 The Tenderer/Service Provider/Contractor will not commit any criminal offence under the relevant anti-corruption laws of South Africa or any other country. Furthermore, the Tenderer/Service Provider/Contractor will not use for illegitimate purposes or for restrictive purposes or personal gain, or pass on to others, any information provided by Transnet as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

3.6 A Tenderer/Service Provider/Contractor of foreign origin shall disclose the name and address of its agents or representatives in South Africa, if any, involved directly or indirectly in the registration or tendering process. Similarly, the Tenderer / Service Provider / Contractor of South African nationality shall furnish the name and address of the foreign principals, if any, involved directly or indirectly in the registration or tendering process.

3.7 The Tenderer/Service Provider/Contractor will not misrepresent facts or furnish false or forged documents or information in order to influence the tendering process to the advantage of the Tenderer/Service Provider/Contractor or detriment of Transnet or other competitors.

3.8 Transnet may require the Tenderer/Service Provider/Contractor to furnish Transnet with a copy of its code of conduct. Such code of conduct must address the compliance programme for the implementation of the code of conduct and reject the use of bribes and other dishonest and unethical conduct.

3.9 The Tenderer/Service Provider/Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.

3.10 The Tenderer/Service Provider/Contractor confirms that they will uphold the ten principles of the United Nations Global Compact (UNGC) in the fields of Human Rights, Labour, Anti-Corruption and the Environment when undertaking business with Transnet as follows:

a) Human Rights

- Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and
- Principle 2: make sure that they are not complicit in human rights abuses.

b) Labour

- Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- Principle 4: the elimination of all forms of forced and compulsory labour;
- Principle 5: the effective abolition of child labour; and
- Principle 6: the elimination of discrimination in respect of employment and occupation.

c) Environment

- Principle 7: Businesses should support a precautionary approach to environmental challenges;

- Principle 8: undertake initiatives to promote greater environmental responsibility; and

- Principle 9: encourage the development and diffusion of environmentally friendly technologies.

d) Anti-Corruption

- Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

4 INDEPENDENT TENDERING

4.1 For the purposes of that Certificate in relation to any submitted Tender, the Tenderer declares to fully understand that the word "competitor" shall include any individual or organisation, other than the Tenderer, whether or not affiliated with the Tenderer, who:

a) has been requested to submit a Tender in response to this Tender invitation;
b) could potentially submit a Tender in response to this Tender invitation, based on their qualifications, abilities or experience; and
c) provides the same Goods and Services as the Tenderer and/or is in the same line of business as the Tenderer.

4.2 The Tenderer has arrived at his submitted Tender independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium will not be construed as collusive tendering.

4.3 In particular, without limiting the generality of paragraph 5 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

a) prices;
b) geographical area where Goods or Services will be rendered [market allocation];
c) methods, factors or formulas used to calculate prices;
d) the intention or decision to submit or not to submit, a Tender;
e) the submission of a Tender which does not meet the specifications and conditions of the RFP; or
f) tendering with the intention of not winning the Tender.

4.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the Goods or Services to which his/her tender relates.

4.5 The terms of the Tender as submitted have not been, and will not be, disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official Tender opening or of the awarding of the contract.

4.6 Tenderers are aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to Tenders and contracts, Tenders that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and/or may be reported to the National Prosecuting Authority [**NPA**] for criminal investigation and/or may be restricted from conducting business with the public sector for a period not exceeding 10 [ten] years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

4.7 Should the Tenderer find any terms or conditions stipulated in any of the relevant documents quoted in the Tender unacceptable, it should indicate which conditions are unacceptable and offer alternatives by written submission on its company letterhead, attached to its submitted Tender. Any such submission shall be subject to review by Transnet's Legal Counsel who shall determine whether the proposed alternative(s) are acceptable or otherwise, as the case may be.

5 DISQUALIFICATION FROM TENDERING PROCESS

5.1 If the Tenderer/Service Provider/Contractor has committed a transgression through a violation of section 3 of this Integrity Pact or in any other form such as to put its reliability or credibility as a Tenderer/Service Provider/Contractor into question, Transnet may reject the Tenderer's / Service Provider's / Contractor's application from the registration or tendering process and remove the Tenderer/Service Provider/Contractor from its database, if already registered.

5.2 If the Tenderer/Service Provider/Contractor has committed a transgression through a violation of section 3, or any material violation, such as to put its reliability or credibility into question. Transnet may after following due procedures and at its own discretion also exclude the Tenderer/Service Provider /Contractor from future tendering processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, which will include amongst

others the number of transgressions, the position of the transgressors within the company hierarchy of the Tenderer/Service Provider/Contractor and the amount of the damage. The exclusion will be imposed for up to a maximum of 10 (ten) years. However, Transnet reserves the right to impose a longer period of exclusion, depending on the gravity of the misconduct.

5.3 If the Tenderer/Service Provider/Contractor can prove that it has restored the damage caused by it and has installed a suitable corruption prevention system, or taken other remedial measures as the circumstances of the case may require, Transnet may at its own discretion revoke the exclusion or suspend the imposed penalty.

6 TRANSNET'S LIST OF EXCLUDED TENDERERS (BLACKLIST)

6.1 The process of restriction is used to exclude a company/person from conducting future business with Transnet and other organs of state for a specified period. No Tender shall be awarded to a Tenderer whose name (or any of its members, directors, partners or trustees) appear on the Register of Tender Defaulters kept by National Treasury, or who have been placed on National Treasury's List of Restricted Suppliers. Transnet reserves the right to withdraw an award, or cancel a contract concluded with a Tenderer should it be established, at any time, that a tenderer has been restricted with National Treasury by another government institution.

6.2 All the stipulations on Transnet's restriction process as laid down in Transnet's Supply Chain Policy and Procurement Procedures Manual (CPM included) are included herein by way of reference. Below follows a condensed summary of this restriction procedure.

6.3 On completion of the restriction procedure, Transnet will submit the restricted entity's details (including the identity number of the individuals and registration number of the entity) to National Treasury for placement on National Treasury's Database of Restricted Suppliers for the specified period of exclusion. National Treasury will make the final decision on whether to restrict an entity from doing business with any organ of state for a period not exceeding 10 years and place the entity concerned on the Database of Restricted Suppliers published on its official website.

6.4 The decision to restrict is based on one of the grounds for restriction. The standard of proof to commence the restriction process is whether a "*prima facie*" (i.e. on the face of it) case has been established.

6.5 Depending on the seriousness of the misconduct and the strategic importance of the Goods/Services, in addition to restricting a company/person from future

business, Transnet may decide to terminate some or all existing contracts with the company/person as well.

6.6 A Service Provider or Contractor to Transnet may not subcontract any portion of the contract to a blacklisted company.

6.7 Grounds for blacklisting include: If any person/Enterprise which has submitted a Tender, concluded a contract, or, in the capacity of agent or subcontractor, has been associated with such Tender or contract:

a) Has, in bad faith, withdrawn such Tender after the advertised closing date and time for the receipt of Tenders;
b) has, after being notified of the acceptance of his Tender, failed or refused to sign a contract when called upon to do so in terms of any condition forming part of the Tender documents;
c) has carried out any contract resulting from such Tender in an unsatisfactory manner or has breached any condition of the contract;
d) has offered, promised or given a bribe in relation to the obtaining or execution of the contract;
e) has acted in a fraudulent or improper manner or in bad faith towards Transnet or any Government Department or towards any public body, Enterprise or person;
f) has made any incorrect statement in a certificate or other communication with regard to the Local Content of his Goods or his B-BBEE status and is unable to prove to the satisfaction of Transnet that:

(i) he made the statement in good faith honestly believing it to be correct; and

(ii) before making such statement he took all reasonable steps to satisfy himself of its correctness;

g) caused Transnet damage, or to incur costs in order to meet the contractor's requirements and which could not be recovered from the contractor;
h) has litigated against Transnet in bad faith.

6.8 Grounds for blacklisting include a company/person recorded as being a company or person prohibited from doing business with the public sector on National

Treasury's database of Restricted Service Providers or Register of Tender Defaulters.

6.9 Companies associated with the person/s guilty of misconduct (i.e. entities owned, controlled or managed by such persons), any companies subsequently formed by the person(s) guilty of the misconduct and/or an existing company where such person(s) acquires a controlling stake may be considered for blacklisting. The decision to extend the blacklist to associated companies will be at the sole discretion of Transnet.

7 PREVIOUS TRANSGRESSIONS

7.1 The Tenderer/Service Provider/Contractor hereby declares that no previous transgressions resulting in a serious breach of any law, including but not limited to, corruption, fraud, theft, extortion and contraventions of the Competition Act 89 of 1998, which occurred in the last 5 (five) years with any other public sector undertaking, government department or private sector company that could justify its exclusion from its registration on the Tenderer's/Service Provider's/Contractor's database or any tendering process.

7.2 If it is found to be that the Tenderer/Service Provider/Contractor made an incorrect statement on this subject, the Tenderer/Service Provider/Contractor can be rejected from the registration process or removed from the Tenderer/ Service Provider/Contractor database, if already registered, for such reason (refer to the Breach of Law Returnable Form contained in the document.)

8 SANCTIONS FOR VIOLATIONS

8.1 Transnet shall also take all or any one of the following actions, wherever required to:

a) Immediately exclude the Tenderer/Service Provider/Contractor from the tendering process or call off the pre-contract negotiations without giving any compensation the Tenderer/Service Provider/Contractor. However, the proceedings with the other Tenderer/ Service Provider/Contractor may continue;
b) Immediately cancel the contract, if already awarded or signed, without giving any compensation to the Tenderer/Service Provider/Contractor;
c) Recover all sums already paid by Transnet;
d) Encash the advance bank guarantee and performance bond or warranty bond, if furnished by the Tenderer/Service Provider/Contractor, in order to recover the payments, already made by Transnet, along with interest;
e) Cancel all or any other contracts with the Tenderer/Service Provider/Contractor; and

f) Exclude the Tenderer/ Service Provider/Contractor from entering into any Tender with Transnet in future.

9 CONFLICTS OF INTEREST

9.1 A conflict of interest includes, inter alia, a situation in which:

a) A Transnet employee has a personal financial interest in a tendering / supplying entity; and

b) A Transnet employee has private interests or personal considerations or has an affiliation or a relationship which affects, or may affect, or may be perceived to affect his / her judgment in action in the best interest of Transnet, or could affect the employee's motivations for acting in a particular manner, or which could result in, or be perceived as favouritism or nepotism.

9.2 A Transnet employee uses his / her position, or privileges or information obtained while acting in the capacity as an employee for:

a) Private gain or advancement; or

b) The expectation of private gain, or advancement, or any other advantage accruing to the employee must be declared in a prescribed form.

Thus, conflicts of interest of any Tender committee member or any person involved in the sourcing process must be declared in a prescribed form.

9.3 If a Tenderer/Service Provider/Contractor has or becomes aware of a conflict of interest i.e. a family, business and / or social relationship between its owner(s)/ member(s)/director(s)/partner(s)/shareholder(s) and a Transnet employee/ member of Transnet's Board of Directors in respect of a Tender which will be considered for the Tender process, the Tenderer/Service Provider/ Contractor:

a) must disclose the interest and its general nature, in the Request for Proposal ("RFX") declaration form; or

b) must notify Transnet immediately in writing once the circumstances has arisen.

9.4 The Tenderer/Service Provider/Contractor shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any committee member or any person involved in the sourcing process, where this is done, Transnet shall be entitled forthwith to rescind the contract and all other contracts with the Tenderer/Service Provider/Contractor.

10 DISPUTE RESOLUTION

10.1 Transnet recognises that trust and good faith are pivotal to its relationship with its Tenderer / Service Provider / Contractor. When a dispute arises between Transnet and its Tenderer / Service Provider / Contractor, the parties should use their best endeavours to resolve the dispute in an amicable manner, whenever possible. Litigation in bad faith negates the principles of trust and good faith on

which commercial relationships are based. Accordingly, following a blacklisting process as mentioned in paragraph 6 above, Transnet will not do business with a company that litigates against it in bad faith or is involved in any action that reflects bad faith on its part. Litigation in bad faith includes, but is not limited to the following instances:

a) **Vexatious proceedings**: these are frivolous proceedings which have been instituted without proper grounds;
b) **Perjury:** where a Tenderer / Service Provider / Contractor make a false statement either in giving evidence or on an affidavit;
c) **Scurrilous allegations:** where a Tenderer / Service Provider / Contractor makes allegations regarding a senior Transnet employee which are without proper foundation, scandalous, abusive or defamatory; and
d) **Abuse of court process:** when a Tenderer / Service Provider / Contractor abuses the court process in order to gain a competitive advantage during a Tender process.

11 GENERAL

11.1 This Integrity Pact is governed by and interpreted in accordance with the laws of the Republic of South Africa.

11.2 The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the law relating to any civil or criminal proceedings.

11.3 The validity of this Integrity Pact shall cover all the tendering processes and will be valid for an indefinite period unless cancelled by either Party.

11.4 Should one or several provisions of this Integrity Pact turn out to be invalid the remainder of this Integrity Pact remains valid.

11.5 Should a Tenderer/Service Provider/Contractor be confronted with dishonest, fraudulent or corruptive behaviour of one or more Transnet employees, Transnet expects its Tenderer/Service Provider/Contractor to report this behaviour directly to a senior Transnet official/employee or alternatively by using Transnet's "Tip-Off Anonymous" hotline number 0800 003 056, whereby your confidentiality is guaranteed.

The Parties hereby declare that each of them has read and understood the clauses of this Integrity Pact and shall abide by it. To the best of the Parties' knowledge and belief, the information provided in this Integrity Pact is true and correct.

I …….. duly authorised by the tendering entity, hereby certify that the tendering entity are **fully acquainted** with the contents of the Integrity Pact and further **agree to abide by it** in full.

Signature ……

Date ……..

T2.2-23 : Supplier Code of Conduct

Transnet SOC Limited aims to achieve the best value for money when buying or selling goods and obtaining services. This however must be done in an open and fair manner that supports and drives a competitive economy. Underpinning our process are several acts and policies that any supplier dealing with Transnet must understand and support. These are:

- The Transnet Procurement Policy – A guide for Tenderers.
- Section 217 of the Constitution - the five pillars of Public PSCM (Procurement and Supply Chain Management): fair, equitable, transparent, competitive and cost effective;
- The Public Finance Management Act (PFMA);
- The Broad Based Black Economic Empowerment Act (BBBEE)
- The Prevention and Combating of Corrupt Activities Act (PRECCA); and
- The Construction Industry Development Board Act (CIDB Act).

This code of conduct has been included in this contract to formally appraise Transnet Suppliers of Transnet's expectations regarding behaviour and conduct of its Suppliers.

Prohibition of Bribes, Kickbacks, Unlawful Payments, and Other Corrupt Practices

Transnet is in the process of transforming itself into a self-sustaining State Owned Enterprise, actively competing in the logistics industry. Our aim is to become a world class, profitable, logistics organisation. As such, our transformation is focused on adopting a performance culture and to adopt behaviours that will enable this transformation.

1. Transnet SOC Limited will not participate in corrupt practices. Therefore, it expects its suppliers to act in a similar manner.

- Transnet and its employees will follow the laws of this country and keep accurate business records that reflect actual transactions with, and payments to, our suppliers.
- Employees must not accept or request money or anything of value, directly or indirectly, from suppliers.
- Employees may not receive anything that is calculated to:

- Illegally influence their judgement or conduct or to ensure the desired outcome of a sourcing activity;
- Win or retain business or to influence any act or decision of any person involved in sourcing decisions; or
- Gain an improper advantage.

- There may be times when a supplier is confronted with fraudulent or corrupt behaviour of Transnet employees. We expect our Suppliers to use our "Tip-offs Anonymous" Hot line to report these acts. (0800 003 056).

2. *Transnet SOC Limited is firmly committed to the ideas of free and competitive enterprise.*

- Suppliers are expected to comply with all applicable laws and regulations regarding fair competition and antitrust practices.
- Transnet does not engage with non-value adding agents or representatives solely for the purpose of increasing BBBEE spend (fronting).

3. Transnet's relationship with suppliers requires us to clearly define requirements, to exchange information and share mutual benefits.

- Generally, suppliers have their own business standards and regulations. Although Transnet cannot control the actions of our suppliers, we will not tolerate any illegal activities. These include, but are not limited to:
  - Misrepresentation of their product (origin of manufacture, specifications, intellectual property rights, etc);
  - Collusion;
  - Failure to disclose accurate information required during the sourcing activity (ownership, financial situation, BBBEE status, etc.);
  - Corrupt activities listed above; and
  - Harassment, intimidation or other aggressive actions towards Transnet employees.

- Suppliers must be evaluated and approved before any materials, components, products or services are purchased from them. Rigorous due diligence is conducted and the supplier is expected to participate in an honest and straight forward manner.
- Suppliers must record and report facts accurately, honestly and objectively. Financial records must be accurate in all material respects.

Conflicts of Interest

A conflict of interest arises when personal interests or activities influence (or appear to influence) the ability to act in the best interests of Transnet SOC Limited.

- Doing business with family members.
- Having a financial interest in another company in our industry

Where possible, contracts will be negotiated to include the above in the terms of such contracts. To the extent such terms are not included in contractual obligations and any of the above code is breached, then Transnet reserves its right to review doing business with these suppliers.

I, _____ of _____

(insert name of Director or as per Authority Resolution from Board of Directors)

(insert name of Company)

hereby acknowledge having read, understood and agree to the terms and conditions set out in the "Transnet Supplier Code of Conduct."

Signed this on day _____ at _____

_____

Signature

T2.2-24: Insurance provided by the *Contractor*

Clause 84.1 in NEC3 Engineering & Construction Contract (June 2005)(amended June 2006 and April 2013) requires that the *Contractor* provides the insurance stated in the insurance table except any insurance which the *Employer* is to provide as stated in the Contract Data.

Please provide the following details for insurance which the *Contractor* is still to provide. Notwithstanding this information, all costs related to insurance are deemed included in the tenderer's rates and prices.

Insurance against (See clause 84.2 of the ECC)	**Name of Insurance Company**	**Cover**	**Premium**
Liability for death of or bodily injury to employees of the *Contractor* arising out of and in the course of their employment in connection with this contract			
Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger and Unauthorised Passenger Liability indemnity with a minimum indemnity limit of R5 000 000.			
Insurance in respect of loss of or damage to own property and equipment.			

T2.2-25: Form of Intent to Provide a Performance Guarantee

It is hereby agreed by the Tenderer that a Performance Guarantee drafted **exactly** as provided in the tender documents will be provided by the Guarantor named below, which is a **bank or insurer registered in South Africa**:

Name of Guarantor (Bank/Insurer) .....

Address .....

The Performance Guarantee shall be provided within **2** (**Two**) weeks after the Contract Date defined in the contract unless otherwise agreed to by the parties.

Signed .....

Name .....

Capacity .....

On behalf of (name of tenderer) .....

.....

Date .....

Confirmed by Guarantor's Authorised Representative

Signature(s) .....

Name (print) .....

Capacity .....

On behalf of Guarantor (Bank/insurer) .....

Date .....

T2.2-26: Forecast Rate of Invoicing

Tenderer to submit the forecast rate of invoicing (cash-flow) based on the Tender Price and Tender Programme.

Index of documentation attached to this schedule:

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T2.2-27: Three (3) years audited financial statements.

Attached to this schedule is the last three (3) years audited financial statements of the single tenderer/members of the Joint Venture.

NAME OF COMPANY/IES and INDEX OF ATTACHMENTS:

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PART 2: PRICING DATA

Document reference	Title	No of pages
C2.1	Pricing instructions: Option B	6
C2.2	The *bill of quantities*	7

C2.1 Pricing instructions: Option B

1. The *conditions of contract*

1.1. How the contract prices work and assesses it for progress payments

Clause 11 in NEC3 Engineering and Construction Contract, June 2005 and 2013 (ECC) Option B states:

Identified and defined terms	11	
	11.2	(21) The Bill of Quantities is the *bill of quantities* as changed in accordance with this contract to accommodate implemented compensation events and for accepted quotations for acceleration. (22) Defined Cost is the cost of the components in the Shorter Schedule of Cost Components whether work is subcontracted or not excluding the cost of preparing quotations for compensation events. (28) The Price for Work Done to Date is the total of • the quantity of the work which the *Contractor* has completed for each item in the Bill of Quantities multiplied by the rate and • a proportion of each lump sum which is the proportion of the work covered by the item which the *Contractor* has completed. Completed work is work without Defects which would either delay or be covered by immediately following work. (31) The Prices are the lump sums and the amounts obtained by multiplying the rates by the quantities for the items in the Bill of Quantities.

This confirms that Option B is a re-measurement contract and the bill comprises only items measured using quantities and rates or stated as lump sums. Value related items are not used. Time related items are items measured using rates where the rate is a unit of time.

1.2. Function of the Bill of Quantities

Clause 55.1 in Option B states, "Information in the Bill of Quantities is not Works Information or Site Information". This confirms that instructions to do work or how it is to be done are not included in the Bill, but in the Works Information. This is further confirmed by Clause 20.1 which states, "The *Contractor* Provides the Works in accordance with the Works Information". Hence the *Contractor* does **not** Provide the Works in accordance with the Bill of Quantities. The Bill of Quantities is only a pricing document.

1.3. Guidance before pricing and measuring

Employers preparing tenders or contract documents, and tendering contractors are advised to consult the sections dealing with the bill of quantities in the NEC3 Engineering and Construction Contract (June 2005) Guidance Notes before preparing the *bill of quantities* or before entering rates and lump sums into the *bill*.

Historically bill of quantities based contracts in South Africa have been influenced by the different approaches of the civil engineering and building sectors of the industry through their respective discipline based standard forms of contract and methods of measurement. This is particularly apparent in the approach to the Preliminary and General bill. On the other hand, because ECC caters for a number of disciplines in the same contract, including electrical works, a different approach not currently found in local methods of measurement to the Preliminary & General bill items may have been used.

The NEC approach to the P & G bill assumes use will be made of method related charges for Equipment applied to Providing the Works based on durations shown in the Accepted Programme, fixed charges for the use of Equipment that is required throughout the construction phase, time related charges for people working in a supervisory capacity for the period required, and lump sum charges for other facilities or services not directly related to performing work items typically included in other parts of the bill.

2. Measurement and payment

2.1. Symbols

The units of measurement described in the Bill of Quantities are metric units abbreviated as follows:

Abbreviation	Unit
%	percent
h	hour
ha	hectare
kg	kilogram
kl	kilolitre
km	kilometre
km-pass	kilometre-pass
kPa	kilopascal
kW	kilowatt
l	litre
m	metre
mm	millimetre
m^2	square metre
m^2-pass	square metre pass
m^3	cubic metre
m^3-km	cubic metre-kilometre
MN	meganewton
MN.m	meganewton-metre

MPa	megapascal
No.	number
Prov sum[1]	provisional sum
PC-sum	prime cost sum
R/only	Rate only
sum	Lump sum
t	ton (1000kg)
W/day	Work day

2.2. General assumptions

2.2.1. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made in the quantities for waste.

2.2.2. The Prices and rates stated for each item in the Bill of Quantities shall be treated as being fully inclusive of all work, risks, liabilities, obligations, overheads, profit and everything necessary as incurred or required by the *Contractor* in carrying out or providing that item.

2.2.3. Clause 63.13 in Option B provides that these rates and Prices may be used as a basis for assessment of compensation events instead of Defined Cost.

2.2.4. Where this contract requires detailed drawings, designs or other information to be provided, and no rates or prices are included in the *bill* specifically for such matters, then the *Contractor* is deemed to have allowed for all costs associated with such requirements within the tendered rates and Prices in the Bill of Quantities.

2.2.5. An item against which no Price is entered will be treated as covered by other Prices or rates in the *bill of quantities*. If a number of items are grouped together for pricing purposes, this will be treated as a single lump sum.

[1] Provisional Sums should not be used unless absolutely unavoidable. Rather include specifications and associated bill items for the most likely scope of work, and then change later using the compensation event procedure if necessary. This is because tenderers cannot programme effectively for unknown scopes of work

2.2.6. The quantities contained in the Bill of Quantities may not be final and do not necessarily represent the actual amount of work to be done. The quantities of work assessed and certified for payment by the *Project Manager* at each assessment date will be used for determining payments due and not the quantities given in the Bill of Quantities.

2.2.7. The short descriptions of the items of payment given in the *bill of quantities* are only for the purposes of identifying the items. More detail regarding the extent of the work entailed under each item is provided in the Works Information.

2.3. Departures from the *method of measurement*

2.4. Amplification of or assumptions about measurement items

For the avoidance of doubt the following is provided to assist in the interpretation of descriptions given in the *method of measurement*. In the event of any ambiguity or inconsistency between the statements in the *method of measurement* and this section, the interpretation given in this section shall be used.

C2.2 The *bill of quantities*

Please refer to the table below for the Bill of Quantities.

C2.2 Bill of Quantities

	FINAL SUMMARY	
	SECTION 1 (PRELIMINARIES & GENERAL)	**AMOUNT**
1	BILL NO.1: PRELIMINARIES & GENERAL	
SECTION 1 TOTAL		
	SECTION 2 (BUILDING WORKS)	**AMOUNT**
2	BILL NO.2: EARTHWORKS	
3	BILL NO.3: CONCRETE, FORMWORK AND REINFORCEMENT	
4	BILL NO.4: MASONRY	
5	BILL N0.5: WATERPROOF	
6	BILL NO.6: ROOF COVERINGS	
7	BILL NO.7: CAPENTRY AND JOINERY	
8	BILL NO.8: FLOOR COVERING	
9	BILL NO.9: IRONMONGERY	
10	BILL NO. 10: STRUCTURAL STEELWORK	
11	BILL NO.11: METALWORK	
12	BILL NO.12: PLASTERING	
13	BILL NO. 13: RAINWATER DISPOSAL	
14	BILL NO. 14: PAINTWORK	
15	BILL NO. 15: EXTERNAL WORKS	
16	BILL NO. 16: ELECTRICAL WORKS	
SECTION 2 TOTAL		
SUB-TOTAL 1		
	CIDB FEES Allow the Sum of 0.2% of Sub total 1 for the CIDB BUILD Fee:	
SUB TOTAL 2 CARRIED TO FORM OF OFFER AND ACCEPTANCE		

Refers To	Item No.	Description	Unit	Quantity	Rate	Amount
		SECTION NO. 1 : PRELIMINARIES				
		BILL NO. 1				
		SCHEDULED ESTABLISHMENT, OVERHEADS & INCIDENTAL COSTS				
SANS 1200A		**Preliminaries & General**				
		PRICING INSTRUCTIONS TO TENDERS: The rates and prices for completing an item scheduled in this section for establishment, overheads and incidental costs include everything to cover the Contractor's direct costs, overheads, profit and expenses required for all risks, liabilities and obligations in terms of this contract.				
		All the items scheduled in this section must be priced. In the absence of a price against any item, no claim for additional costs or charges for provision of any of the duties, services, facilities or obligations required in respect of that item will be considered.				
A 8.2.3		**FIXED CHARGE ITEMS**				
		Contractual requirements				
A 8.3.1		Contractual requirements	sum	1		
A 8.3.2 & A 8.3.2.3		**Establishment of Facilities on the Site**				
A 8.3.2.1		**Facilities for Engineer**				
		a) Furnished Offices	sum	1		
		b) Nameboards	sum	1		
A 8.3.2.2		**Facilities for Contractor**				
		a) Office and storage sheds	sum	1		
		d) Living accommodation	sum	1		
		e) Ablution and latrine facilities	sum	1		
		f) Tools and equipment	sum	1		
		g) Water supplies, electric power and communications	sum	1		
		i) Site access and access control	sum	1		
		j) Plant	sum	1		
		Site establishment to complete site facilities	sum	1		
A 8.3.3		**Other Fixed-charge Obligations**				
		Setting out of works and surveys	sum	1		
		Preparation of As- built drawings	sum	1		
		Health and Safety Compliance	sum	1		
		Environmental Compliance	sum	1		
		Other fixed construction obligations as may deemed necessary by the contractor	sum	1		
		Removal of site establishment				
A 8.3.4		Removal of site establishment on completion of the work	sum	1		
		TIME RELATED ITEMS				
		Contractual requirements				
A 8.4.2.1		Facilities for Engineer				
		a) Furnished Offices	Month	12		
		c) Nameboards	Month	12		
		Total carried forward				

		Total brought forward				
A 8.4.2.2		Facilities for Contractor				
		a) Office and storage sheds	Month	12		
		d) Living accommodation	Month	12		
		e) Ablution and latrine facilities	Month	12		
		f) Tools and equipment	Month	12		
		g) Water supplies, electric power and communications	Month	12		
		j) Plant	Month	12		
		Supervision for Duration of Construction				
A 8.4.3		Supervision	Month	12		
		Company and Head office Overhead Cost				
A 8.4.4		Company and Head office Overhead Cost for the duration of the contract.	Month	12		
A 8.4.5		Other Time-related Obligations				
		Health and Safety Compliance	Month	12		
		Environmental Compliance	Month	12		
A 8.8		**TEMPORARY WORKS**				
A 8.8.2		Dealing with traffic (Accommodation of traffic)	Months	12		
A.8.8.3		Protection of existing structures until construction in vicinity is complete	Months	12		
A 8.8.4		Existing services				
		a) Supply or hire of specialist equipment for the detection of existing services.	Item	1		
		b) The use of equipment referred to in item (a) above.	Item	1		
		c) Excavation by hand in soft material to expose existing services.	item	1		
		d) Allow for temporary protection, as required in terms of the project specification of existing services.	Item	1		
		Total carried forward to summary				

Item No.	Description	Unit	Quantity	Rate	Amount
	SECTION NO 2: BUILDING WORK **BILL NO. 2: EARTHWORKS (PROVISIONAL)** **PREAMBLES** The Contractor is Referred to the relevant Clauses in the separate document Model Preambles for Trades (2017 Edition) and to the Supplementary Preambles which are incorporated in this Bill **SUPPLEMENTARY PREAMBLES** **View site** Before submitting his tender the contractor shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained General **Carting away of excavated material** Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site **Nature of ground** The nature of the ground is assumed to be gravel/Sandy, therefore "earth", but possibly interspersed with "soft rock" or "hard rock" **Filling** Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material Site clearance Site clearance work involves clearing waste or rubbish, unwanted surplus material or machinery or equipment on a site	m²	853,08		
1	**EXCAVATION**				
1,1	**Excavation in earth not exceeding 2m deep**				
1.1.1	In trench	m³	373,3		
	Total carried forward				

	Total brought forward				
1,2	**Extra over excavations in earth for excavations in:**				
1.2.1	Soft Rock	m³	37,33		
1.2.2	Hard Rock	m³	56,00		
2	**Risk of collapse of excavations**				
2,1	Sides of trench not exceeding 1,5m deep	m²	1798,8		
3	**CARTING AWAY**				
3,1	Extra over all excavations for loading, carting and dumping surplus excavated material to a dumping site to be located by the contractor	m³	234		
4	**Keeping excavations free of water**				
4,1	Keeping excavations free of all water other than subterranean water	No.	25		
5	**FILLING ETC OTHER**				
	Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 93% Mod AASHTO density				
5,1	Backfilling to trenches, holes, etc	m³	87,00		
6	**Earth filling supplied by the contractor**				
6,1	G5 compacted to 95% MOD AASHTO density	m³	218		
6,2	Coarse river sand filling supplied by the contractor	m³	30		
7	**Compaction of surfaces**				
7,1	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m²	727,00		
8	**Prescribed density tests on filling**				
8,1	"Troxler Density" test from a SANS accredited soil test laboratory including a report indicating the MOD AASHTO of the clean sand backfill before casting surface bed slabs. Refer to drawings	no	4		
9	**SOIL POISONING**				
9,1	To bottoms and sides of trenches etc	m²	727,00		
	Total carried forward to summary				

Item No.	Description	Unit	Quantity	Rate	Amount
	SECTION NO 2 : BUILDING WORK **BILL NO.3: CONCRETE, FORMWORK AND REINFORCEMENT** **PREAMBLES** The Contractor is Referred to the relevant Clauses in the separate document Model Preambles for Trades (2017 Edition) and to the Supplementary Preambles which are incorporated in this Bill **SUPPLEMENTARY PREAMBLES** **Cost of tests** The costs of making, storing and testing of concrete test cubes as required under clause 7 'Tests' of SANS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Engineer. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Engineer (Test cubes are measured separately) **Formwork** Descriptions of formwork shall be deemed to include use and waste only (except where described as left in or permanent), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use Formwork to sides of bases, pile caps, ground beams, etc., have been measured provisionally and will only be paid for where it is specifically prescribed by the Project Manager for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in Earthworks				
1,1	**UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES:** **30Mpa/10mm concrete**				
1.1.1	Surface blinding under footing	m³	16,94		
1,2	**REINFORCED CONCRETE CASTED AGAINST EXCAVATED SURFACES:** **30MPa/19mm concrete**				
1.2.1	Strip footings	m³	84,72		
1.2.2	Bases in foundations (Provisional)	m³	11,06		
1.2.3	Stub columns in foundations (Provisional)	m³	5,76		
1.2.4	200mm Concrete plinth	m³	4,88		
1,3	**30MPa/20mm concrete**				
1.3.1	Concrete Ramps	m³	18,98		
	Total carried forward				

	Total brought forward				
1,4	**30MPa/20mm concrete**				
1.4.1	Surface slab	m³	98,45		
1.4.2	Slab (For water tank)	m³	5,69		
1.4.3	Column	m³	21,07		
1.4.4	Slab including beams and inverted beams	m³	27,00		
2	**CONCRETE SUNDRIES**				
	Finishing top surfaces of concrete smooth Power float				
2,1	Surface beds, slabs, etc	m²	727,00		
3	**TEST CUBES**				
3,1	Making and testing 150 x 150 x 150mm concrete strength test cubes (Provisional). One set of test cubes generally consists of one concrete test cube tested at 7 days and three cubes tested at 28 days. The cube results are to be forwarded to the engineer immediately after testing.	No	55		
4	**ROUGH FORMWORK (DEGREE OF ACCURACY III)**				
4,1	**Rough formwork to sides**				
4.1.1	Bases and footings in foundations (Provisional)	m²	36,23		
4.1.2	Strip footings in foundations (Provisional)	m²	201,94		
4.1.3	Rectangular stub columns not exceeding 3.5m high in foundations (Provisional)	m²	44,48		
4,2	**SMOOTH FORMWORK (DEGREE OF ACCURACY II**				
	Smooth formwork to sides				
4.2.1	Concrete plinth not exceeding 250mm thick	m²	7,2		
4.2.2	Slabs not exceeding 250mm thick propped off stepped surfaces exceeding 1.5m and not exceeding 3.5m high	m²	85		
5	**REINFORCEMENT (PROVISIONAL)**				
	Mild / High steel reinforcement to structural concrete work				
5,1	Allow for all sizes of rebar	t	26,45		
	Fabric reinforcement				
5,2	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m²	558,75		
6	**MOVEMENT JOINTS ETC.**				
6,1	**Saw cut joints**				
6.1.1	20mm Deep saw-cut joint with 10 x 10mm sealing groove filled with polyurethane joint sealant	m	670		
6,2	**Isolation Joints**				
6.2.1	10 x 10mm wide isolation joint with jointex and sealed with polyurethane sealant	m	456		
7	**Expansion joints with 10mm softboard**				
7,1	Exceeding 300mm high	m	389		
	Total carried forward to summary				

Item No.	Description	Unit	Quantity	Rate	Amount
	SECTION NO 2 : BUILDING WORK				
	BILL NO.4: MASONRY				
	For preambles see "Preambles for trades (2017 Edition)" and applicable Supplementary Preambles as specified in the Trades. The said Model and Supplementary Preambles apply to all work described in this document. Tenderers are therefore referred to these documents for the full meaning and intention of all descriptions and no claims of any kind whatsoever will be entertained in this regard.				
	The Contractor is referred to the architects and engineers drawings and specifications				
	SUPPLEMENTARY PREAMBLES **Sizes in descriptions**				
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick				
	Hollow walls etc				
	Descriptions of hollow walls shall be deemed to include leaving weep holes at 690mm centre-to-centre at the bottom course of the external skin.				
	Bricks shall be ordered timeously to obtain uniformity in size and colour				
1	**FOUNDATIONS: (PROVISIONAL)**				
1,1	**Brickwork of NFX bricks (14 MPa nominal compressive strength) in class II mortar**				
1.1.1	280mm Cavity wall with 25MPa mass concrete infill	m²	364,5		
2	**SUPERSTRUCTURE:**				
2,1	**Brickwork of NFP (14 MPa nominal compressive strength) bricks in class II mortar**				
2.1.1	280mm Cavity walls of two half brick skins and 25MPa mass concrete infill	m²	665,58		
3	**BRICKWORK SUNDRIES**				
3,1	**Airbricks**				
3.1.1	220 x 150 x 50mm Thick air brick (Colour TBC)	No	40		
4	**Cement mortar triangular fillet 50 mm wide and one course high in cavity wall to receive stepped damp proof course.**				
4,1	50mm Cement Triangular fillets.	m	140		
5	**Brickwork reinforcement**				
5,1	230mm wide reinforcement built in horizontally.	m	1760		
6	**Precast concrete copings etc.**				
6,1	**Concrete prestressed fabricated lintels including necessary temporary support**				
6.1.1	150 x 75mm Lintels in lengths	m	87		
	Total carried forward to summary				

Item No.	Description	Unit	Quantity	Rate	Amount
	SECTION NO 2 : BUILDING WORK				
	BILL NO.05: - WATERPROOFING				
	PREAMBLES				
	The Contractor is referred to the architects and engineers drawings and specifications				
	SUPPLEMENTARY PREAMBLES				
	Waterproofing				
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs				
1	**DAMPPROOFING OF WALLS AND FLOORS**				
1,1	**One layer of 250 micron heavy-duty, bright orange plastic sheeting for waterproofing and damp-proofing or equivalent waterproof sheeting sealed at laps with high-adhesion tapes**				
1.1.1	Under surface beds	m²	727,00		
2	**One layer of Indexthene "self adhesive" damp proof course. Refer to the architects waterproofing specification**				
2,1	In walls	m²	150		
3	**SEALING STRIPS AND JOINT SEALANTS, ETC**				
3,1	Prepare and apply Polyurethane joint sealant including backing chord.	m	120		
3,2	10mm sealant including backing cord horizontally between brickwork and concrete structure	m	76		
	Total carried forward to summary				

Item No.	Description	Unit	Quantity	Rate	Amount
	SECTION NO 2 : BUILDING WORK **BILL NO.6: ROOF COVERINGS** **PREAMBLES** The Contractor is referred to the architects and engineers drawings and specifications Descriptions of all roof coverings are deemed to include for all straight cutting **SUPPLEMENTARY PREAMBLES** Note: Wherever a trade name for any product has been described in the Priced Document attention is drawn to the fact that any other product of equivalent quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders. If prior written approval for an alternative product is not obtained, the product described shall be deemed to have been tendered for. Both sides fixed as per engineer's specifications all in accordance with manufacturer's recommendations. Flashings (Aluminium) The paint finish shall be epoxy primer of 4-6 microns with a top coat 'Classic oat Polyester' of at least 22 microns and a half coat 'Classic oat Grey' to the reverse side (Colour to be approved by Architect) Flashing finish must match and be the same as the roof sheeting it follows. Flashing thickness must be the same or greater than that of the roof sheeting it follows, based on available thickness options. Guarantee The manufacturer shall comply with ISO9002 Quality Management System. Sheeting shall be laid in strict accordance with the manufacturer's specifications by an approved contractor. Erection, handling and storage Every precaution shall be taken to prevent damage to roof sheets during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, shall be replaced				

	The contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity. The contractor shall ensure that all materials used on site for cladding, etc are transported, handled and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction. <u>Cleaning, etc.</u> All debris, swarf, etc. arising from the fixing of the cladding shall be removed from the sheeting as the fixing progresses. In addition, off-cuts of insulation, surplus fasteners and sealants, mandrels from pop rivets, off-cuts of flashings and sheeting, surplus flashing, food packaging, cartons, bottles, cans, etc shall not be left on the roof or in the gutters. Care shall be taken to ensure that no such material enters, blocks or partially impedes the flow of water into the outlets, down pipes, etc.				
1,1	**<u>RIBBED METAL SHEETING AND ACCESSORIES</u>**				
1.1.1	Roof covering with pitch not exceeding 30 degrees	m²	1370,00		
1.1.2	Side cladding	m²	1317,00		
1,2	**<u>Standard flashings to match the ribbed metal sheeting. All installed in accordance with the manufacturer's instructions.</u>**				
1.2.1	Ridge cap	m	75,00		
1.2.2	Apex Flashing	m	88,00		
1.2.3	Barge Flashing	m	83,00		
1.2.4	Head Wall flashing	m	83,00		
1.2.5	Side Wall	m	130,00		
1.2.6	External corner	m	54,00		
1.2.7	Drip flashing approximately 231mm girth	m	255,00		
	Total carried forward to summary				

Item No.	Description	Unit	Quantity	Rate	Amount
	SECTION NO 2 : BUILDING WORK				
	BILL NO.7: CAPENTRY AND JOINERY				
	PREAMBLES The Contractor is referred to the architects and engineers drawings and specifications				
	SUPPLEMENTARY PREAMBLES				
	Note:				
	All door leaf sizes to be verified on site				
	Joinery:				
	Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc				
	Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes				
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete				
	Decorative laminate finish:				
	Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent equivalent finish				
1	**DOORS, ETC**				
1,1	**40mm Horizontal Solid Meranti Hardwood, suitable for painting. All as per Architect's specification**				
1.1.1	Single door size 930 x 2032mm high. Refer to the architects drawings (Door type D0)	No	7		
2	**FRAMED FRAMES, ETC**				
2,1	**Galvanized pressed steel**				
2.1.1	Single rebated frame plugged	No	7		
3	**SKIRTINGS, NOSINGS, ETC**				
3,1	Wrought skirting				
3.1.1	140 x 21mm timber skirting, plugged to walls	m	445		
4	**SHELVES**				
	All Shelves must meet Industrial Strength requirements:				
4,1	**Supply and Delivery:**				
	Electrical store and Red tag area - Store:				
4.1.1	4m Length x 1.5m width x 2m hight Shelves with adjustable shelves height stored on the ground.	no	1		
	Total carried forward				

	Total brought forward				
4.1.2	4.5m Length x 0.5m width x 2m hight Shelves with adjustable shelves height for Critical Spare List Shelve .	no	1		
4.1.3	2.5m Length x 0.5m width x 2m hight Shelves with adjustable shelves height for Additional storage space.	no	2		
	Material store:				
4.1.4	7m Length x 1m width x 0.40m hight Stored on shelves against the wall.	no	5		
4.1.5	3m Length x 1.5m width x 1.8m hight three Shelves per Shelves with adjustable shelves height.	no	2		
	Material Delivery store:				
4.1.6	9.5m Length x 1m width x 0.6m hight three Shelves per Shelves for Large heavier material.	no	1		
4.1.7	4m Length x 1m width x 0.6m hight three Shelves per Shelves for Large heavier material.	no	1		
4.1.8	4m Length x 0.5m width x 1.8m hight Shelves with adjustable shelves height for Small and/ or lighter material .	no	2		
4.1.9	4m Length x 1m width x 1.8m hight Shelves with adjustable shelves height for Small and/ or lighter material .	no	1		
	Portal frame store :				
4.1.10	6m Length x 2m width x 0.6m hight three Shelves per Shelves for Spare parts material.	no	1		
4.1.11	4.5m Length x 2m width x 0.6m hight three Shelves per Shelves for Spare parts material.	no	1		
4.1.12	4.5m Length x 0.5m width x 1.8m hight Shelves with adjustable shelves height for Spare parts material.	no	3		
	General store :				
4.1.13	3.5m Length x 0.5m width x 1.8m hight Shelves with adjustable shelves height for general items.	no	1		
4,2	**Installation:**				
	Electrical store and Red tag area - Store:				
4.2.1	4m Length x 1.5m width x 2m hight Shelves with adjustable shelves height stored on the ground.	no	1		
4.2.2	4.5m Length x 0.5m width x 2m hight Shelves with adjustable shelves height for Critical Spare List Shelve .	no	1		
4.2.3	2.5m Length x 0.5m width x 2m hight Shelves with adjustable shelves height for Additional storage space.	no	2		
	Total carried forward				

	Total brought forward				
	Material store:				
4.2.4	7m Length x 1m width x 0.40m hight Stored on shelves against the wall.	no	5		
4.2.5	3m Length x 1.5m width x 1.8m hight three Shelves per Shelves with adjustable shelves height.	no	2		
	Material Delivery store:				
4.2.6	9.5m Length x 1m width x 0.6m hight three Shelves per Shelves for Large heavier material.	no	1		
4.2.7	4m Length x 1m width x 0.6m hight three Shelves per Shelves for Large heavier material.	no	1		
4.2.8	4m Length x 0.5m width x 1.8m hight Shelves with adjustable shelves height for Small and/ or lighter material .	no	2		
4.2.9	4m Length x 1m width x 1.8m hight Shelves with adjustable shelves height for Small and/ or lighter material .	no	1		
	Portal frame store :				
4.2.10	6m Length x 2m width x 0.6m hight three Shelves per Shelves for Spare parts material.	no	1		
4.2.11	4.5m Length x 2m width x 0.6m hight three Shelves per Shelves for Spare parts material.	no	1		
4.2.12	4.5m Length x 0.5m width x 1.8m hight Shelves with adjustable shelves height for Spare parts material.	no	3		
	General store :				
4.2.13	3.5m Length x 0.5m width x 1.8m hight Shelves with adjustable shelves height for general items.	no	1		
	Total carried forward to summary				

Item No.	Description	Unit	Quantity	Rate	Amount
	SECTION NO 2 : BUILDING WORK				
	BILL NO.8: FLOOR COVERING				
	PREAMBLES				
	The Contractor is referred to the Model Preambles (2017), Floor coverings				
	The Contractor is referred to the architects and engineers drawings and specifications				
	SUPPLEMENTARY PREAMBLES				
	Fixing:				
	Floor coverings, wall linings, etc shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings, etc				
	The screeded surface must be structurally sound, clean and dry and free from all surface laitance and contamination. New concrete or screeds must be at least 28 days old. Prime using a concentrated, solvent-free, synthetic resin primer designed to improve the bond between porous substrates and cement-based underlayments, adhesives, or toppings (as recommended by vinyl flooring specialist or equivalent.				
	Adhesives used for the vinyl flooring must not have a TVOC content of more than 100 g/litre of product (for wood flooring and laminate adhesives).				
	FLOOR COVERINGS				
1	Timber floor covering				
1,1	On mezzanine floor	m2	75		
2	**Grano/Epoxy look flooring installed complete in accordance with the manufacturers instructions**				
2,1	On screeded floors	m²	652		
3	**METAL DIVIDING STRIPS, ETC**				
3,1	10mm high aluminium formable straight edge trim	m	45		
	Total carried forward to summary				

Item No.	Description	Unit	Quantity	Rate	Amount
	SECTION NO 2 : BUILDING WORK				
	BILL NO.9: IRONMONGERY				
	PREAMBLES				
	The Contractor is referred to the Model Preambles (2017), Floor coverings				
	The Contractor is referred to the architects and engineers drawings and specifications				
	SUPPLEMENTARY PREAMBLES				
	Finishes to ironmongery				
	Where applicable finishes to ironmongery are indicated by suffixes in accordance				
1,1	**HINGES, BOLTS, ETC**				
1.1.1	Heavy duty galvanized steel hinges as supplied by with metal frames	Pairs	5		
1.1.2	Heavy duty silver colour solid stainless steel and aluminium	Pairs	2		
2	**LOCKS**				
	SABS or equal industry approved				
2.1.1	D036S cylinder sash lock	No	5		
2.1.2	DDC 10660 1 MK cylinder	No	2		
3	**ESCUTCHEONS AND PLATES**				
3,1	**SABS or equal industry approved**				
3.1.1	Escutcheon profile	Pair	7		
3.1.2	Kickplate profile	No	7		
3.1.3	Push plate profile	No	7		
4	**DOOR STOPS, DOOR CLOSERS, ETC.**				
4,1	**SABS or equal industry approved**				
4.1.1	Industrial quality	No	7		
5	**SIGNAGE**				
5,1	Supply and install the following signage items complete.				
5.1.1	Electric shock sign	No	1		
	Total carried forward to summary				

Item No.	Description	Unit	Quantity	Rate	Amount
	SECTION NO 2 : BUILDING WORK				
	BILL NO 10: STRUCTURAL STEELWORK				
	PREAMBLES				
	Descriptions of bolts shall be deemed to include nuts and washers.				
	Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete.				
	Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete.				
	Where anchor bolts are described as embedded in sides or soffits of concrete it shall be deemed to include holes through				
1	**STEEL COLUMNS AND BEAMS**				
1,1	IPE 100	t	0,1		
1,2	IPE 160	t	5,62		
1,3	L60X60X4	t	0,23		
1,4	LC75X50X20X2.0	t	0,46		
1,5	LC125X50X20X3.0	t	1,72		
1,6	IPE 200	t	1,81		
1,7	L60X60X6	t	0,23		
1,8	Circular Hollow Sections (Cold): CHS114.3X3.0	t	0,15		
1,9	Lipped Channels (Cold): LC175X75X20X3.0	t	0,68		
1,10	Lipped Channels (Cold): LC200X75X20X3.5	t	0,79		
1,11	Equal Angle: L50X50X6	t	0,6		
1,12	Equal Angle: L80X80X8	t	1,7		
1,13	UB-Universal Beams: UB254X146X37	t	3,1		
1,14	UC-Universal Columns: UC203X203X52	t	0,4		
1,15	Square Hollow Sections (Cold)-Column: SHS100X100X3.0	t	0,3		
1,16	Square Hollow Sections (Cold)-Column: SHS200X200X6.0	t	0,12		
1,17	UB-Universal Beams-Column: UB203X133X30	t	1,65		
2	**PLATES**				
2,1	Supply and install base plate, connecting plates, bolts, nuts and washers	sum	1		
3	**STAIR CASES**				
3,1	Supply, deliver and install staircase complete	sum	1		
	Total carried forward to summary				

Item No.	Description	Unit	Quantity	Rate	Amount
	SECTION NO 2 : BUILDING WORK **BILL NO.11 - METALWORK**				
	PREAMBLES				
	The Contractor is referred to the Model Preambles (2017), Metalwork				
	The Contractor is referred to the architects and engineers drawings and specifications				
	SUPPLEMENTARY PREAMBLES				
	Descriptions of bolts shall be deemed to include nuts and washers				
	Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete				
	Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described				
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres				
	STEEL HANDRAILS, BALUSTRADES, ETC.				
1,1	stainless steel balustrade pipe handrails.	sum	1		
2	**GATES**				
2,1	Roll-up door size 4500x 2380mm with solid slatted aluminium-solid with powder coated 1.0mm thick for opening. To be operated by a motor and include emergency chain operation in the event of power failure. Key switches can be added if required.(RS-)	No	7		
2,2	Custom made galvanized folding gate 75x50 rectangular tubing, cladded with prepainted aluminium cladding match with roof, wall cladding and supplied with high quality slide latch with padlock holes and reversible handles as standard with back view of drop bar, lugs to be used to attach to gate post with heavy duty weld on bullet hinges fitting in the gate with drop bolts and barrel bolts	No	1		
2,3	Roll-up door size 3000x 2380mm with solid slatted aluminium-solid with powder coated 1.0mm thick for opening. To be operated by a motor and include emergency chain operation in the event of power failure. Key switches can be added if required.	No	1		
2,4	Custom made sliding gate 76x50x3mm square tube frames with prepainted aluminium cladding and supply the gate with wheel housing welded to frame, guide post, track, guide bracket, catch bracket, portal bracket, stopper bracket, security pin and the palisade fitting in the frame, looking mechanisms as well as brass and iron padlock for everyday	No	4		
	Total carried forward				

	Total brought forward				
2,5	Custom made galvanized folding gate size 7500x2380 rectangular tubing, cladded with prepainted aluminium cladding match with roof, wall cladding and supplied with high quality slide latch with padlock holes and reversible handles as standard with back view of drop bar, lugs to be used to attach to gate post with heavy duty weld on bullet hinges fitting in the gate with drop bolts and barrel bolts	No	1		
2,6	Roll-up door size 2500x 2380mm with solid slatted aluminium-solid with powder coated 1.0mm thick for opening. To be operated by a motor and include emergency chain operation in the event of power failure. Key switches can be added if required.(RS-material delivery store)	No	1		
2,7	Roll-up door size 4500x 4420mm with solid slatted aluminium-solid with powder coated 1.0mm thick for opening. To be operated by a motor and include emergency chain operation in the event of power failure. Key switches can be added if required.(RS-)	No	1		
	Total carried forward to summary				

Item No.	Description	Unit	Quantity	Rate	Amount
	SECTION NO 2: BUILDING WORK				
	BILL NO.12 PLASTERING				
	PREAMBLES				
	The Contractor is referred to the Model Preambles (2017), Plastering				
	The Contractor is referred to the architects and engineers drawings and specifications				
	SUPPLEMENTARY PREAMBLES				
	Curing, seasoning and protection				
	Protection shall be provided against too rapid drying whilst hardening by means of covering with wet sacks or other material. The screed shall also be protected from damage and discolouration during the progress of the remaining work.				
	General				
	Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary The contractor will be held solely liable for the protection of all windows and doors where projection plaster is rendered on the external facade.				
1	**SCREEDS**				
1,1	**3:1 Sand/Cement screeds wood floated, on concrete, including a synthetic resin polymer liquid used as a mortar and screed improver or equivalent cement mortar admixture to replace 1 third of the water component in the mix. Refer to the architects**				
1.1.1	30mm Thick screed on floors and landings	m²	652		
1.1.2	50mm Thick screed (average thickness) on concrete roofs to falls	m²	75		
2	**Apply 2 - 3mm "Floorworks" SLCP self levelling screed or similar approved to achieve a level, smooth and hard surface at acceptable moisture content to receive a vinyl finish**				
2,1	On Floors	m²	652		
3	**INTERNAL PLASTER**				
3,1	**Cement plaster on brickwork**				
3.1.1	On internal walls	m²	797		
3.1.2	On narrow widths	m²	30		
4	**EXTERNAL PLASTER**				
4,1	**Cement plaster on brickwork**				
4.1.1	On external walls	m²	640		
	Total carried forward to summary				

Item No.	Description	Unit	Quantity	Rate	Amount
	SECTION NO 2: BUILDING WORK				
	BILL NO 13: RAINWATER DISPOSAL				
	PREAMBLES				
	The Contractor is referred to the Model Preambles (2017), Plumbing and Drainage				
	The Contractor is referred to the architects and engineers drawings and specifications				
	SUPPLEMENTARY PREAMBLES				
	Flush pans				
	Flush pans shall have straight or side outlets and "P" or S traps as necessary				
	Stainless steel basins, sinks, wash troughs, urinals, etc				
	Waste unions				
	Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings				
1	**RAINWATER DISPOSAL**				
1,1	**Square aluminium domestic OG type gutter, including all aluminium alloy fixing brackets, fixed as per approved patent and 50 x 75mm seamless type fluted aluminium downpipe including holderbats and accessories necessary for fixing gutters to steel roof structure and downpipes to brick, cladding or reinforced concrete walls, all in accordance with the manufacturers instructions. Gutters and downpipes to have a powder epoxy type finish**				
1.1.1	Aluminium gutter	m	240		
1.1.2	110mm diameter rainwater downpipe	m	180		
1.1.3	Extra over gutter for outlet for 100mm diameter	No	20		
1.1.4	Extra over rainwater pipe for swan-neck	No	20		
1.1.5	Extra over rainwater pipe for shoe	No	20		
	Total carried forward to summary				

Item	Description	Unit	Quantity	Rate	Amount
	SECTION NO 2: BUILDING WORK				
	BILL NO.14: PAINTWORK				
1	**Prepare and apply plaster primer, 1 undercoat and 2 coats paint suitable for extreme weather conditions (or similar SABS approved)**				
1,1	On external plastered walls	m²	640		
2	**Prepare and apply plaster primer, 1 undercoat and 2 coats high quality washable sheen paint as per manufacturer's specifications. Allow for deep colours to be selected.**				
2,1	On internal plastered walls	m²	797		
3	**Prepare, prime and apply 1 undercoat and 2 coats of oil base enamel paint**				
3,1	On doors	m²	28		
3,2	On door frames	m²	5		
4	**Bitumen waterproofing paint**				
4,1	On internal skin walls.	m²	407		
	Total carried forward to summary				

Item	Description	Unit	Quantity	Rate	Amount
	SECTION NO 2: BUILDING WORK				
	BILL NO.15 - EXTERNAL WORKS				
	CIVILS:				
	SUPPLEMENTARY PREAMBLES				
1	**Removal of existing paving**				
1,1	Ripping and removal of existing block pavers and related edge beams, kerbs and channels in the perimeter of the site.	m2	3273		
2	**Cable markers**				
2,1	Concrete Marker with engraved anodised aluminium ID plates. Cable Marker to be flush with Block Pavers	no	20		
3	**WATER TANKS**				
3,1	Supply, deliver and install 1900L water tanks	no	8		
4	**Carport**				
4,1	Design, supply and Install carport complete	sum	1		
5	**STORMWATER**				
5,1	Allow for Trenching and Bedding provision for stormwater 300dia concrete pipes (42m run)	Sum	1		
5,2	300dia Class 100D Concrete Pipes	m	42		
5,3	Allow for construction of stormwater Inlet Manholes and Grating complete (0.60m, 0.77m and 0.87m depths)	no	3		
5,4	Allow for construction of stormwater sump with pump and valve chamber complete (1.2m provisional depth)	no	1		
5,5	Allow for V-drain complete. The V-drain Grade 35/19 concrete.180mm depth by 900mm wide, 224m long V-channel with mesh	m	224		
5,6	Allow for design and construction of Temporary Stormwater Swale to store stormwater at exit pipe	sum	1		
6	**Paving**				
6,1	**Excavations**				
6.1.1	Excavate in earth material for paving	m3	1000		
6,2	**Caring away**				
6.2.1	Extra over all excavations for loading, carting and dumping surplus excavated material to a dumping site to be located by the contractor	m3	1000		
	Total carried forward				

	Total brought forward				
6,3	**Filling etc.**				
6.3.1	30mm Sand bedding (river sand)	m3	78,8		
6.3.2	150mm in Situ G6 (existing) compacted to 93% MOD AASHTO	m3	394		
6.3.3	200mm C3 (Cement stabilized locally sourced G5 graded crushed stone) compacted to 97% MOD AASHTO	m3	526		
6.3.4	Chemical Stabilizing Agent (Cement CEM II A-V 32.5 (2.5%))	t	15		
6,4	**Block paving**				
6.4.1	80mm S-A Block Paving	m2	2628		
7	**Kerbs**				
7,1	FIG.12 kerbs	m	224		
7,2	Concrete foundation	m3	5,38		
7,3	20mm mortar (3:1 sand cement)	m3	0,34		
7,4	Concrete wedge	m3	2,24		
8	**Road marking**				
8,1	Permanent road marking	sum	1		
	Total carried forward to summary				

Item No.	Description	Unit	Quantity	Rate	Amount
	SECTION NO 2: BUILDING WORK				
	BILL NO 16: ELECTRICAL WORKS				
	Notes:				
	This bill shall be read in conjunction with the technical specifications, drawings, works information and any other associated contract documentation to price for the provision of a complete installation, i.e. the design (where applicable), supply, installation, testing and commissioning.				
1	**Main Warehouse Facility**				
1,1	**Main Distribution Board**				
1.1.1	Modifications to existing 400A, 400V 36kV main distribution board as per drawing number XSDE0015-000-E-SL-0001-01-.1 (supply, deliver and install 1 x 32 A and 5 x 16A circuit breakers).				
	i) Supply	No	6		
	ii) Install	No	6		
1.1.2	Termination of 2 X 2 core 16mm2 ECC and 4 x 2 core 6mm2 ECC low voltage cables onto existing Main Distribution board as drawing number XSDE0015-000-E-SL-0001-01-.1				
	i) Install	No	6		
1,2	**EXTERIOR LIGHTING**				
1.2.1	Decommissioning of 400W high pressure sodium light fittings per drawing number XSDE0015-000-E-LA-0002-01-.1 and handed over to TNPA.				
	i) Removal	No	7		
1.2.2	Supply, deliver and install 103W IP66 LED Floodlights and connect to existing lighting circuit.				
	i) Supply	No	8		
	ii) Install	No	8		
1.2.3	Supply, deliver and install 30W, LED Bulkheads as per drawing number XSDE0015-000-E-LA-0002-01-.1 and must be connected to existing lighting circuit (including cabling)., and the positions to be determined on-site.				
	i) Supply	No	4		
	ii) Install	No	4		
1,3	**Testing and Commissioning**				
1.3.1	Complete testing and commissioning of the entire of the installation as required. Note: Suitably qualified and experienced personnel only to test and commission the relevant equipment / installations (entire installation).	sum	1		
1.3.2	Provision of any Certificate of Compliance Test Certificate for the electrical system.	sum	1		
	Total carried forward				

	Total brought forward				
2	**Electrical and Red Tag Store**				
2,1	**Sub distribution Board**				
2.1.1	Supply, deliver and Install a complete 100A, 25kA 1s, sub distribution board as per drawing number XSDE0015-000-E-SL-0001-01-.1 for the electrical and red tag store, inclusive of all switchgear, earth leakage surge protection, wiring and labelling.				
	i) Supply	No	1		
	ii) Install	No	1		
2,2	**Light fittings**				
2.2.1	Supply, deliver and install, standard version 2x36W.				
	i) Supply	No	3		
	ii) Install	No	3		
2.2.2	Supply, deliver and install two way, one lever switch				
	i) Supply	No	2		
	ii) Install	No	2		
2,3	**Socket Outlets/Plugs**				
2.3.1	Supply, deliver and instal 16A single socket outlet.				
	i) Supply	No	1		
	ii) Install	No	1		
2.3.2	Supply, deliver and install 16A double socket outlet.				
	i) Supply	No	2		
	ii) Install	No	2		
2.3.2	Supply, deliver and install 5A unswitched socket				
	i) Supply	No	3		
	ii) Install	No	3		
2,4	**Low Voltage cables**				
2.4.1	2.5mm2, 2 core, Cu ECC low voltage cable.				
	i) Supply	m	35		
	ii) Install	m	35		
2.4.2	6mm2, 2 core, Cu, ECC low voltage cable including glands as per drawing number: XSDE0015-000-E-LA-0003-01-.1.				
	i) Supply	m	60		
	ii) Install	m	60		
	Total carried forward				

	Total brought forward				
2,5	**Cable Management**				
2.5.1	20mm galvanized steel conduit including all bends, fastenings, tees and other required accessories.				
	i) Supply	m	50		
	ii) Install	m	50		
3	**Generator Room**				
3,1	**Sub distribution Board**				
3.1.1	Supply, deliver and Install a complete 100A, 25kA 1s, sub distribution board as per drawing number XSDE0015-000-E-SL-0001-01-.1 for the electrical and red tag store, inclusive of all switchgear, earth leakage surge protection, wiring and labelling.				
	i) Supply	No	1		
	ii) Install	No	1		
3,2	**Light fittings**				
3.2.1	Supply, deliver and install standard version 2x36W per drawing number XSDE0015-000-E-LA-0001-01-.1				
	i) Supply	No	2		
	ii) Install	No	2		
3.2.2	Supply, deliver and install two way, one lever switch as per drawing number XSDE0015-000-E-LA-0001-01-.1				
	i) Supply	No	1		
	ii) Install	No	1		
3,3	**Socket Outlets/Plugs**				
3.3.1	Supply, deliver and install 16A double socket outlet per drawing number XSDE0015-000-E-LA-0001-01-.1				
	i) Supply	No	1		
	ii) Install	No	1		
3,4	**Low Voltage cables**				
3.4.1	2.5mm2, 2 core, Cu ECC				
	i) Supply	m	25		
	ii) Install	m	25		
3.4.2	6mm2, 2 core, Cu, ECC low voltage cable including glands as per drawing number: XSDE0015-000-E-LA-0003-01-.1				
	i) Supply	m	24		
	ii) Install	m	25		
	Total carried forward				

	Total brought forward				
3,5	**Earthing and Lightning Protection Systems**				
3.5.1	Design, supply, deliver and installation of earthing and lighting protection system (including down conductor, earth spikes, test points etc inline with concept drawing number : XSDE0015-000-E-LA-0004-01-.1 Note: The design shall comply with TPD-004-EARTHINGSPEC. The lightning protection scheme shall only be installed should a qualified lightning engineer deem the risk factors sufficient.				
	i) Supply	No	1		
	ii) Install	No	1		
3,6	**Testing and Commissioning**				
3.6.1	Complete testing and commissioning of the entire of the installation as required. Note: Suitably qualified and experienced personnel only to test and commission the relevant equipment / installations (entire installation).	sum	1		
3.6.2	Testing of the entire Earthing and Lightning protection system	sum	1		
3.6.3	Provision of all test Certificates for the electrical system	sum	1		
4	**Material Storage and Sandblasting**				
4,1	**Sub distribution Board**				
4.1.1	Supply, deliver and Install a complete 100A, 25kA 1s, sub distribution board as per drawing number XSDE0015-000-E-SL-0001-01-.1 for the electrical and red tag store, inclusive of all switchgear, earth leakage surge protection, wiring and labelling				
	i) Supply	No	1		
	ii) Install	No	1		
4,2	**Light fittings**				
4.2.1	Supply, deliver and install standard version 2x36W per drawing number XSDE0015-000-E-LA-0001-01-.1				
	i) Supply	No	6		
	ii) Install	No	6		
4.2.2	Supply, deliver and install two way, one lever switch as per drawing number XSDE0015-000-E-LA-0001-01-.1				
	i) Supply	No	2		
	ii) Install	No	2		
4,3	**Socket Outlets/Plugs**				
4.3.1	Supply, deliver and install 16A single socket outlet per drawing number XSDE0015-000-E-LA-0001-01-.1				
	i) Supply	No	2		
	ii) Install	No	2		
	Total carried forward				

	Total brought forward				
4.3.2	Supply, deliver and install 16A double socket outlet per drawing number XSDE0015-000-E-LA-0001-01-.1				
	i) Supply	No	1		
	ii) Install	No	1		
4,4	**Low voltage Cables**				
4.4.1	2.5mm2, 2 core, Cu ECC				
	i) Supply	m	40		
	ii) Install	m	40		
4.4.2	16mm2, 2 core, Cu, ECC low voltage cable including glands as per drawing number: XSDE0015-000-E-LA-0003-01-.1				
	i) Supply	m	60		
	ii) Install	m	60		
4,5	**Earthing and Lightning Protection Systems**				
4.5.1	Design, supply, deliver and installation of earthing and lighting protection system (including down conductor, earth spikes, test points etc inline with concept drawing number : XSDE0015-000-E-LA-0004-01-.1 *Note: The design shall comply with TPD-004-EARTHINGSPEC. The lightning protection scheme shall only be installed should a qualified lightning engineer deem the risk factors sufficient.*				
	i) Supply	No	1		
	ii) Install	No	1		
4,6	**Testing and Commissioning**				
4.6.1	Complete testing and commissioning of the entire of the installation as required. Note: Suitably qualified and experienced personnel only to test and commission the relevant equipment / installations (entire installation)	sum	1		
4.6.2	Testing of the entire Earthing and Lightning protection system	sum	1		
4.6.3	Provision of all test Certificates for the electrical system	sum	1		
5	**Equipment Store**				
5,1	**Sub distribution Board**				
5.1.1	Supply, deliver and Install a complete 100A, 25kA 1s, sub distribution board as per drawing number XSDE0015-000-E-SL-0001-01-.1 for the electrical and red tag store, inclusive of all switchgear, earth leakage surge protection, wiring and labelling.				
	i) Supply	No	1		
	ii) Install	No	1		
	Total carried forward				

	Total brought forward				
5,2	**Light fittings and Switches**				
5.2.1	Supply, deliver and install standard version 2x36W per drawing number XSDE0015-000-E-LA-0001-01-.1				
	i) Supply	No	6		
	ii) Install	No	6		
5.2.2	Supply, deliver and install two way, one lever switch as per drawing number XSDE0015-000-E-LA-0001-01-.1				
	i) Supply	No	1		
	ii) Install	No	1		
5,3	**Socket Outlets/Plugs**				
5.3.1	Supply, deliver and install Equal or similar approved to Legrand 16A double socket outlet per drawing number XSDE0015-000-E-LA-0001-01-.1				
	i) Supply	No	3		
	ii) Install	No	3		
5,4	**Low voltage Cables**				
5.4.1	2.5mm2, 2 core, Cu ECC				
	i) Supply	m	50		
	ii) Install	m	50		
5.4.2	16mm2, 2 core, Cu, ECC low voltage cable including glands as per drawing number: XSDE0015-000-E-LA-0003-01-.1				
	i) Supply	m	80		
	ii) Install	m	80		
5,5	**Earthing and Lightning Protection Systems**				
5.5.1	Design, supply, deliver and installation of earthing and lighting protection system (including down conductor, earth spikes, test points etc inline with concept drawing number : XSDE0015-000-E-LA-0004-01-.1 *Note: The design shall comply with TPD-004-EARTHINGSPEC. The lightning protection scheme shall only be installed should a qualified lightning engineer deem the risk factors sufficient.*				
	i) Supply	No	1		
	ii) Install	No	1		
5,6	**Testing and Commissioning**				
5.6.1	Complete testing and commissioning of the entire of the installation as required. Note: Suitably qualified and experienced personnel only to test and commission the relevant equipment / installations (entire installation).	sum	1		
5.6.2	Testing of the entire Earthing and Lightning protection system.	sum	1		
5.2.3	Provision of all test Certificates for the electrical system.	sum	1		
	Total carried forward				

	Total brought forward				
6	**Portal Frame**				
6,1	**Sub distribution Board**				
6.1.1	Supply, deliver and Install a complete 100A, 25kA 1s, sub distribution board as per drawing number XSDE0015-000-E-SL-0001-01-.1 for the electrical and red tag store, inclusive of all switchgear, earth leakage surge protection, wiring and labelling.				
	i) Supply	No	1		
	ii) Install	No	1		
6,2	**Light fittings**				
6.2.1	Supply, deliver and install standard version 2x36W.				
	i) Supply	No	6		
	ii) Install	No	6		
6.2.2	Supply, deliver and install standard version 2x58W.				
	i) Supply	No	4		
	ii) Install	No	4		
6.2.3	Supply, deliver and install 192 LED, 125W.				
	i) Supply	No	2		
	ii) Install	No	2		
6.2.4	Supply, deliver and install one way, one lever switch.				
	i) Supply	No	1		
	ii) Install	No	1		
6.2.5	Supply, deliver and install two way, one lever switch.				
	i) Supply	No	4		
	ii) Install	No	4		
6,3	**Socket Outlets/Plugs**				
6.3.1	Supply, deliver and install 16A single socket outlet.				
	i) Supply	No	6		
	ii) Install	No	6		
6.3.2	Supply, deliver and install 16A double socket outlet.				
	i) Supply	No	5		
	ii) Install	No	5		
	Total carried forward				

	Total brought forward				
6,4	**Low Voltage cables**				
6.4.1	2.5mm2, 2 core, Cu ECC				
	i) Supply	m	120		
	ii) Install	m	120		
6.4.2	16mm2, 2 core, Cu, ECC low voltage cable including glands as per drawing number: XSDE0015-000-E-LA-0003-01-.1				
	i) Supply	m	110		
	ii) Install	m	110		
6,5	**Earthing and Lightning Protection Systems**				
6.5.1	Design, supply, deliver and installation of earthing and lighting protection system (including down conductor, earth spikes, test points etc inline with concept drawing number : XSDE0015-000-E-LA-0004-01-.1 Note: The design shall comply with TPD-004-EARTHINGSPEC. The lightning protection scheme shall only be installed should a qualified lightning engineer deem the risk factors sufficient.				
	i) Supply	No	1		
	ii) Install	No	1		
6,6	**Testing and Commissioning**				
6.6.1	Complete testing and commissioning of the entire of the installation as required. Note: Suitably qualified and experienced personnel only to test and commission the relevant equipment / installations (entire installation).	sum	1		
6.6.2	Testing of the entire Earthing and Lightning protection system	sum	1		
6.6.3	Provision of all test Certificates for the electrical system	sum	1		
7	**Equipment Store**				
7,1	**Sub Distribution Board**				
7.1.1	Supply, deliver and Install a complete 100A, 25kA 1s, sub distribution board as per drawing number XSDE0015-000-E-SL-0001-01-.1 for the electrical and red tag store, inclusive of all switchgear, earth leakage surge protection, wiring and labelling.				
	i) Supply	No	1		
	ii) Install	No	1		
7,2	**Light fittings and Switches**				
7.2.1	Supply, deliver and install standard version 2x36W per drawing number XSDE0015-000-E-LA-0001-01-.1				
	i) Supply	No	4		
	ii) Install	No	4		
7.2.2	Supply, deliver and install two way, one lever switch as per drawing number XSDE0015-000-E-LA-0001-01-.1				
	i) Supply	No	1		
	ii) Install	No	1		
	Total carried forward				

	Total brought forward				
7,3	**Socket Outlets/Plugs**				
7.3.1	Supply, deliver and install 16A double socket outlet per drawing number XSDE0015-000-E-LA-0001-01-.1				
	i) Supply	No	2		
	ii) Install	No	2		
7,4	**Low voltage Cables**				
7.4.1	2.5mm2, 2 core, Cu ECC				
	i) Supply	m	50		
	ii) Install	m	50		
7.4.2	16mm2, 2 core, Cu, ECC low voltage cable including glands as per drawing number: XSDE0015-000-E-LA-0003-01-.1				
	i) Supply	m	145		
	ii) Install	m	145		
7,5	**Earthing and Lightning Protection Systems**				
7.5.1	Design, supply, deliver and installation of earthing and lighting protection system (including down conductor, earth spikes, test points etc inline with concept drawing number : XSDE0015-000-E-LA-0004-01-.1 Note: The design shall comply with TPD-004-EARTHINGSPEC. The lightning protection scheme shall only be installed should a qualified lightning engineer deem the risk factors sufficient.				
	i) Supply	No	1		
	ii) Install	No	1		
7,6	**Testing and Commissioning**				
7.6.1	Complete testing and commissioning of the entire of the installation as required. Note: Suitably qualified and experienced personnel only to test and commission the relevant equipment / installations (entire installation).	sum	1		
7.6.2	Testing of the entire Earthing and Lightning protection system.	sum	1		
7.6.3	Provision of all test Certificates for the electrical system.	sum	1		
8	**General Stores**				
8,1	**Sub distribution Board**				
8.1.1	Supply, deliver and Install a complete 100A, 25kA 1s, sub distribution board as per drawing number XSDE0015-000-E-SL-0001-01-.1 for the electrical and red tag store, inclusive of all switchgear, earth leakage surge protection, wiring and labelling.				
	i) Supply	No	1		
	ii) Install	No	1		
	Total carried forward				

	Total brought forward				
8,2	**Light fittings and Switches**				
8.2.1	Supply, deliver and install, 2x36W per drawing number XSDE0015-000-E-LA-0001-01-.1				
	i) Supply	No	6		
	ii) Install	No	6		
8.2.2	Supply, deliver and install, two way, one lever switch as per drawing number XSDE0015-000-E-LA-0001-01-.1				
	i) Supply	No	1		
	ii) Install	No	1		
8,3	**Socket Outlets/Plugs**				
8.3.1	Supply, deliver and install 16A double socket outlet per drawing number XSDE0015-000-E-LA-0001-01-.1				
	i) Supply	No	3		
	ii) Install	No	3		
8,4	**Low voltage Cables**				
8.4.1	2.5mm2, 2 core, Cu ECC				
	i) Supply	m	50		
	ii) Install	m	50		
8.4.2	6mm2, 2 core, Cu, ECC low voltage cable including glands as per drawing number: XSDE0015-000-E-LA-0003-01-.1				
	i) Supply	m	100		
	ii) Install	m	100		
8,5	**Earthing and Lightning Protection Systems**				
8.5.1	Design, supply, deliver and installation of earthing and lighting protection system (including down conductor, earth spikes, test points etc inline with concept drawing number : XSDE0015-000-E-LA-0004-01-.1 *Note:* The design shall comply with TPD-004-EARTHINGSPEC. The lightning protection scheme shall only be installed should a qualified lightning engineer deem the risk factors sufficient.				
	i) Supply	No	1		
	ii) Install	No	1		
8,6	**Testing and Commissioning**				
8.6.1	Complete testing and commissioning of the entire of the installation as required. Note: Suitably qualified and experienced personnel only to test and commission the relevant equipment / installations (entire installation)	sum	1		
8.6.2	Testing of the entire Earthing and Lightning protection system.	sum	1		
8.6.3	Provision of all test Certificates for the electrical system.	sum	1		
	Total carried forward				

	Total brought forward				
9	**Carport Structure**				
9,1	**Light fittings**				
9.1.1	Supply, deliver and install LEDs per drawing number XSDE0015-000-E-LA-0002-01-.1 must be connected to circuit L2 in General / Material Store (including all accessories)).				
	i) Supply	No	6		
	ii) Install	No	6		
9,2	**Low voltage Cables**				
9.2.1	4mm2, 2 core, Cu ECC including glands and other accessories				
	i) Supply	m	20		
	ii) Install	m	20		
9,3	**Testing and Commissioning**				
9.3.1	Complete testing and commissioning of the entire lighting circuitry as required. Note: Suitably qualified and experienced personnel only to test and commission the relevant equipment / installations	sum	1		
9.3.2	Testing of the entire Lighting system	sum	1		
9.3.3	Provision of all test Certificates for the lighting system including illuminance test reports.	sum	1		
	Total carried forward to summary				

C1.1: Form of Offer & Acceptance

Offer

The Employer, identified in the Acceptance signature block, has solicited offers to enter a contract for the procurement of:

Construction of Operational Facilities for the Infrastructure Maintenance Depot at the Port of Saldanha.

The tenderer, identified in the Offer signature block, has examined the documents listed in the Tender Data and addenda thereto as listed in the Returnable Schedules, and by submitting this Offer has accepted the Conditions of Tender.

By the representative of the tenderer, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance the tenderer offers to perform all of the obligations and liabilities of the *Contractor* under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the *conditions of contract* identified in the Contract Data.

The offered total of the Prices exclusive of VAT is	**R**
Value Added Tax @ 15% is	**R**
The offered total of the Prices inclusive of VAT is	**R**
(in words)	

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document including the Schedule of Deviations (if any) to the tenderer before the end of the period of validity stated in the Tender Data, or other period as agreed, whereupon the tenderer becomes the party named as the *Contractor* in the *conditions of contract* identified in the Contract Data.

Signature(s) .....

Name(s) .....

Capacity .....

For the tenderer: .....

(Insert name and address of organisation)

Name & signature of witness ..... Date .....

Tenderer's CIDB registration number:

Acceptance

By signing this part of this Form of Offer and Acceptance, the *Employer* identified below accepts the tenderer's Offer. In consideration thereof, the *Employer* shall pay the *Contractor* the amount due in accordance with the *conditions of contract* identified in the Contract Data. Acceptance of the tenderer's Offer shall form an agreement between the *Employer* and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

Part C1 Agreements and Contract Data	(which includes this Form of Offer and Acceptance)
Part C2	Pricing Data
Part C3	Scope of Work: Works Information
Part C4	Site Information

and drawings and documents (or parts thereof), which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Returnable Schedules as well as any changes to the terms of the Offer agreed by the tenderer and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

The tenderer shall within two weeks of receiving a completed copy of this agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the *conditions of contract* identified in the Contract Data at, or just after, the date this agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any).

Unless the tenderer (now *Contractor*) within five working days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the Parties.

Signature(s)			
Name(s)			
Capacity			
for the Employer	Transnet SOC Ltd		
	(Insert name and address of organisation)		
Name & signature of witness		Date	

Schedule of Deviations

Note:

1. To be completed by the Employer prior to award of contract. This part of the Offer & Acceptance would not be required if the contract has been developed by negotiation between the Parties and is not the result of a process of competitive tendering.
2. The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender.
3. A tenderer's covering letter must not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid be the subject of agreement reached during the process of Offer and Acceptance, the outcome of such agreement shall be recorded here and the final draft of the contract documents shall be revised to incorporate the effect of it.

No.	Subject	Details
1		
2		
3		
4		
5		

By the duly authorised representatives signing this Schedule of Deviations below, the Employer and the tenderer agree to and accept this Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules, as well as any confirmation, clarification or changes to the terms of the Offer agreed by the tenderer and the Employer during this process of Offer and Acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the tenderer of a completed signed copy of this Form shall have any meaning or effect in the contract between the parties arising from this Agreement.

	For the tenderer:	**For the Employer**
Signature		
Name		
Capacity		
On behalf of	*(Insert name and address of organisation)*	Transnet SOC Ltd
Name & signature of witness		
Date		

C1.2 Contract Data

Part one - Data provided by the *Employer*

Clause	Statement	Data
1	**General**	
	The *conditions of contract* are the core clauses and the clauses for main Option	
		B: Priced contract with bill of quantities
	dispute resolution Option	**W1: Dispute resolution procedure**
	and secondary Options	
		X2 Changes in the law
		X7: Delay damages
		X13: Performance Bond
		X16: Retention
		X18: Limitation of liability
		Z: *Additional conditions of contract*
	of the NEC3 Engineering and Construction Contract June 2005 (amended June 2006 and April 2013)	
10.1	The *Employer* is:	**Transnet SOC Ltd (Registration No. 1990/000900/30)**

	Address	Registered address: **Transnet Corporate Centre** **138 Eloff Street** **Braamfontein** **Johannesburg** **2000**
	Having elected its Contractual Address for the purposes of this contract as:	**Transnet National Ports Authority** Port of Saldanha Bayvue Centre Marine Drive Saldanha 7395
10.1	The *Project Manager* is: (Name)	**TBA**
	Address	**Port of Saldanha** **Bayvue Centre** **Marine Drive** **Saldanha** **7395**
	Tel	
	e-mail	tnpatenderenquiries3@transnet.net
10.1	The *Supervisor* is: (Name)	**TBA**
	Address	**Port of Saldanha** **Bayvue Centre** **Marine Drive** **Saldanha** **7395**
	Tel No.	
	e-mail	tnpatenderenquiries3@transnet.net
11.2(13)	The *works* are	**Construction of Operational Facilities for the Infrastructure Maintenance Depot at the Port of Saldanha for a period of twelve (12) months**

11.2(14)	The following matters will be included in the Risk Register	**1. Damage to existing underground services** **2. Construction activities might encroach into operational space** **3. Construction works will occur in close proximity to boundary wall.**
11.2(15)	The *boundaries of the site* are	**Bayvue Precinct**
11.2(16)	The Site Information is in	**Part C4**
11.2(19)	The Works Information is in	**Part C3**
12.2	The *law of the contract* is the law of	**the Republic of South Africa subject to the jurisdiction of the Courts of South Africa.**
13.1	The *language of this contract* is	**English**
13.3	The *period for reply* is	**2 weeks**
2	**The *Contractor*'s main responsibilities**	**No additional data is required for this section of the *conditions of contract*.**
3	**Time**	
11.2(3)	The *completion date* for the whole of the *works* is	**12 Months from contract signing**
31.1	The *Contractor* is to submit a first programme for acceptance within	**2 weeks of the Contract Date.**
31.2	The *starting date* is	**TBA**
32.2	The *Contractor* submits revised programmes at intervals no longer than	**2 weeks.**
35.1	The *Employer* is not willing to take over the *work* before the:	**Completion Date.**
4	**Testing and Defects**	
42.2	The *defects date* is	**52 (fifty-two) weeks after Completion of the whole of the *works*.**
43.2	The *defect correction period* is	**2 weeks**
5 2	**Payment**	
50.1	The *assessment interval* is monthly on the	**15th (fifteenth) day of each successive month.**

51.1	The *currency of this contract* is the	**South African Rand.**
51.2	The period within which payments are made is	**Payment will be effected on or before the last day of the month following the month during which a valid Tax Invoice and Statement were received.**
51.4	The *interest rate* is	**the prime lending rate of Rand Merchant Bank of South Africa.**
6	**Compensation events**	
60.1(13)	The *weather measurements* to be recorded for each calendar month are,	**the cumulative rainfall (mm)** • **within a calendar month,** • **before the Completion Date for the whole of the works and,** • **at the place stated in the Contract Data** **The value of which, by comparison with the weather data, is shown to occur on average less frequently than once in ten years.** **Only the difference between the weather measurement and the weather which the weather data show to occur on average less frequently than once in ten years is taken into account in assessing a compensation event.** **The number of days with minimum air temperature less than 0 degrees Celsius** **The number of days with snow lying at 08:00 hours South African Time**
	The place where weather is to be recorded (on the Site) is:	**Port of Saldanha**
	The *weather data* are the records of past *weather measurements* for each calendar month which were recorded at:	**the cumulative rainfall (mm)**

	and which are available from:	**South African Weather Service 012 367 6023 or info3@weathersa.co.za.**
7	**Title**	**No additional data is required for this section of the *conditions of contract*.**
8	**Risks and insurance**	
80.1	These are additional *Employer*'s risks	**1. No additional risks are accepted by the *Employer* other than those which are provided for in the contract.**
84.1	The *Employer* provides these insurances from the Insurance Table	
	1 Insurance against:	**Loss of or damage to the *works*, Plant and Materials is as stated in the Insurance policy for Contract Works/ Public Liability.**
	Cover / indemnity:	**to the extent as stated in the insurance policy for Contract Works / Public Liability**
	The deductibles are:	**as stated in the insurance policy for Contract Works / Public Liability**
	2 Insurance against:	**Loss of or damage to property (except the *works*, Plant and Materials & Equipment) and liability for bodily injury to or death of a person (not an employee of the *Contractor)* arising out of or in connection with the performance of the Contract as stated in the insurance policy for Contract Works / Public Liability**
	Cover / indemnity	**Is to the extent as stated in the insurance policy for Contract Works / Public Liability**
	The deductibles are	**as stated in the insurance policy for Contract Works / Public Liability**
	3 Insurance against:	**Loss of or damage to Equipment (Temporary Works only) as stated in the insurance policy for contract Works and Public Liability**

		Cover / indemnity	**Is to the extent as stated in the insurance policy for Contract Works / Public Liability**
		The deductibles are:	**As stated in the insurance policy for Contract Works / Public Liability**
	4	Insurance against:	**Contract Works SASRIA insurance subject to the terms, exceptions and conditions of the SASRIA coupon**
		Cover / indemnity	**Cover / indemnity is to the extent provided by the SASRIA coupon**
		The deductibles are	**The deductibles are, in respect of each and every theft claim, 0,1% of the contract value subject to a minimum of R2,500 and a maximum of R25,000.**
		Note:	**The deductibles for the insurance as stated above are listed in the document titled "Certificate of Insurance: Transnet (SOC) Limited Principal Controlled Insurance."**
84.1		The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the *Contractor* arising out of and in the course of their employment in connection with this contract for any one event is	**The *Contractor* must comply at a minimum with the provisions of the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 as amended.**
		The *Contractor* provides these additional Insurances	**1 Where the contract requires that the design of any part of the *works* shall be provided by the *Contractor* the *Contractor* shall satisfy the *Employer* that professional indemnity insurance cover in connection therewith has been affected**

2 **Where the contract involves manufacture, and/or fabrication of Plant & Materials, components or other goods to be incorporated into the *works* at premises other than the site, the *Contractor* shall satisfy the *Employer* that such plant & materials, components or other goods for incorporation in the *works* are adequately insured during manufacture and/or fabrication and transportation to the site.**

3 **Should the *Employer* have an insurable interest in such items during manufacture, and/or fabrication, such interest shall be noted by endorsement to the *Contractor's* policies of insurance as well as those of any sub-contractor**

4 **Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger and Unauthorised Passenger Liability indemnity with a minimum indemnity limit of R 5 000 000**

5 **The insurance coverage referred to in 1, 2, 3, 4, above shall be obtained from an insurer(s) in terms of an insurance policy approved by the *Employer*. The *Contractor* shall arrange with the insurer to submit to the *Project Manager* the original and the duplicate original of the policy or policies of insurance and the receipts for payment of current premiums, together with a certificate from the insurer or insurance broker concerned, confirming that the policy or policies provide the full coverage as required. The original policy will be returned to the *Contractor.***

84.2	The minimum limit of indemnity for insurance in respect of loss of or damage to property (except the works, Plant, Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the *Contractor*) caused by activity in connection with this contract for any one event is	**Whatever the *Contractor* requires in addition to the amount of insurance taken out by the *Employer* for the same risk.**
84.2	The insurance against loss of or damage to the works, Plant and Materials as stated in the insurance policy for contract works and public liability selected from:	**Principal Controlled Insurance policy for Contract**
9	**Termination**	**There is no additional Contract Data required for this section of the *conditions of contract*.**
10	**Data for main Option clause**	
B	**Priced contract with Bill of Quantities**	**No additional data is required for this Option.**
60.6	The *method of measurement* is	**The Bill of Quantities have been measured in accordance with SANS 1200 unless indicated otherwise.**
11	**Data for Option W1**	
W1.1	The *Adjudicator* is	**Both parties will agree as and when a dispute arises. If the parties cannot reach an agreement on the *Adjudicator*, the Chairman of the Association of Arbitrators will appoint an *Adjudicator*.**
W1.2(3)	The *Adjudicator nominating body* is:	**The Chairman of the Association of Arbitrators (South Africa)**
	If no *Adjudicator nominating body* is entered, it is:	**the Association of Arbitrators (South Africa)**
W1.4(2)	The *tribunal* is:	**Arbitration**

W1.4(5)	The *arbitration procedure* is	**The Rules for the Conduct of Arbitrations of the Association of Arbitrators (Southern Africa)**
	The place where arbitration is to be held is	**Cape Town, South Africa**
	The person or organisation who will choose an arbitrator - if the Parties cannot agree a choice or - if the arbitration procedure does not state who selects an arbitrator, is	**The Chairman of the Association of Arbitrators (South Africa)**
12	**Data for secondary Option clauses**	

X2	**Changes in the law**	**No additional data is required for this Option**
X7	**Delay damages**	
X7.1	Delay damages for Completion of the whole of the *works* are	**R5 965,14 per day**
X13	**Performance bond**	
X13.1	The amount of the performance bond is	**5% of the total of the Prices**
X16	**Retention**	
X16.1	The retention free amount is	**Nil**
	The retention percentage is	**10% on all payments certified.**

X18	**Limitation of liability**	
X18.1	The *Contractor*'s liability to the *Employer* for indirect or consequential loss is limited to:	**Total of the Prices**
X18.2	For any one event, the *Contractor's* liability to the *Employer* for loss of or damage to the *Employer's* property is limited to:	**The deductible of the relevant insurance policy**
X18.3	The *Contractor's* liability for Defects due to his design which are not listed on the Defects Certificate is limited to:	**The cost of correcting the Defect**
X18.4	The *Contractor's* total liability to the *Employer* for all matters arising under or in connection with this contract, other than excluded matters, is limited to:	**The Total of the Prices**
X18.5	The *end of liability date* is	**3 years after Completion of the whole of the *works***

Z1	**Obligations in respect of Job Creation**	
Z1.1		**It will be a material term of this contract that the *Contractor* must contribute to the *Employer's* job-creation objectives as set out in Returnable Schedule T2.2 -20.**
Z1.2		**The *Contractor's* undertaking as to the number of new jobs created due to the award of this contract as set out in Returnable Schedule T2.2-20 will constitute a binding agreement throughout the duration of the contract until Completion, if not, it will be deemed that the *Contractor* has failed in full to meet this specific material term of the contract, which may constitute a reason for termination.**
Z1.3		**The *Contractor* shall provide to the *Employer*, on a monthly basis or upon receiving an instruction to do so by the *Project Manager*, any documentation and/or evidence required by the *Employer*, which in the *Employer*'s opinion would be necessary to verify whether the *Contractor* has maintained the job-creation undertaking as stipulated in Returnable Schedule T2.2-20. The *Contractor* shall provide the said documentation and/or evidence within the period stated or as instructed. The provision of the documentation and/or evidence shall not constitute a compensation event.**

Z2	**Additional clause relating to Performance Bonds and/or Guarantees**	
Z2.1		**The Performance Guarantee under X13 above shall be an irrevocable, on-demand performance guarantee, to be issued exactly in the form of the Pro Forma documents provided for this purpose under C1.3 (Forms of Securities), in favour of the *Employer* by a financial institution reasonably acceptable to the *Employer.***
Z4	**Subcontracting Clauses**	**The Contractor's Subcontracting percentage as detailed in the tender submission Returnable T2.2-18 will constitute a binding agreement throughout the duration of the contract until Completion, if not, it will be deemed that the Contractor has failed in full to meet the material term of the contract, which may constitute a reason for termination.** **The Contractor shall report to the Employer on a monthly basis during the term of the Contract, the amounts spent on each sub-contractor.** **i.** **Insert addition to Clause 26.2. The Contractor may not replace any sub-contractor without acceptance of the Project Manager.**

		The Project Manager shall before acceptance of a replacement by the Contractor of any sub-contractor as detailed in the tender submission Returnable T2.2-18, obtain representations or input from the initial sub-contractor to make an informed decision as to the proposed replacement. **The sub-contracting arrangement/contract remains between the Contractor and sub-contractor.** **The Contractor shall provide the said documentation and/or evidence within the period stated in the instruction. The provision of the documentation and/or evidence shall not constitute a compensation event**
Z4.1		**The following will be included under core clause 91.1:** **In the second main bullet, after the word 'partnership' add 'joint venture whether incorporate or otherwise (including any constituent of the joint venture)' and** **Under the second main bullet, insert the following additional bullets after the last sub-bullet:** • **commenced business rescue proceedings (R22)** • **repudiated this Contract (R23)**
Z4.2	**Termination Table**	**The following will be included under core clause 90.2 Termination Table as follows:** **Amend "A reason other than R1 – R21" to "A reason other than R1 – R23"**
Z4.3		**Amend "R1 – R15 or R18" to "R1 – R15, R18, R22 or R23."**

Z5	**Right Reserved by the *Employer* to Conduct Vetting through SSA**	
Z5.1		**The *Employer* reserves the right to conduct vetting through State Security Agency (SSA) for security clearances of any *Contractor* who has access to National Key Points for the following without limitations:** **1. Confidential – this clearance is based on any information which may be used by malicious, opposing or hostile elements to harm the objectives and functions of an organ of state.** **2. Secret – clearance is based on any information which may be used by malicious, opposing or hostile elements to disrupt the objectives and functions of an organ of state.** **3. Top Secret – this clearance is based on information which may be used by malicious, opposing or hostile elements to neutralise the objectives and functions of an organ of state.**
Z6	**Additional Clause Relating to Collusion in the Construction Industry**	
Z6.1		**The contract award is made without prejudice to any rights the *Employer* may have to take appropriate action later with regard to any declared tender rigging including blacklisting.**

Z7	**Protection of Personal Information Act**	
Z7.1		**The *Employer* and the *Contractor* are required to process information obtained for the duration of the Agreement in a manner that is aligned to the Protection of Personal Information Act.**
Z10	**CIDB Build Standard Contract Skills Development Goal (CSDG) & Contract Participation Goals (CPG)**	
Z10.1		**The Contractor shall achieve in the performance of the contract the Contract Skills development Goal (CSDG) established in the CIDB Standard for Developing Skills through Infrastructure Contracts, published in Gazette Notice No.43495 of July 2020. The CSDG stipulated for the contract is 0.25%**
Z10.2		**The Contractor shall achieve in the performance of the contract the Contract Participation Goal (CPG) relating to the engagement of targeted enterprises as established in the CIDB Standard for Indirect Targeting for Enterprise Development through Construction works Contracts Gazette Notice No. 36190 of 25 February 2013. The CPG stipulated for this contract is 30%**

C1.2 Contract Data

Part two - Data provided by the *Contractor*

The tendering *Contractor* is advised to read both the NEC3 Engineering and Construction Contract - June 2005 (with amendments June 2006 and April 2013) and the relevant parts of its Guidance Notes (ECC3-GN) in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on pages 156 to 158 of the ECC3 Guidance Notes.

Completion of the data in full, according to Options chosen, is essential to create a complete contract.

Clause	Statement	Data
10.1	The *Contractor* is (Name):	
	Address	
	Tel No.	
	Fax No.	
11.2(8)	The *direct fee percentage* is	**%**
	The *subcontracted fee percentage* is	**%**
11.2(18)	The *working areas* are the Site and	
24.1	The *Contractor's* key persons are:	
	1 Name:	
	Job:	
	Responsibilities:	
	Qualifications:	
	Experience:	
	2 Name:	
	Job	
	Responsibilities:	
	Qualifications:	
	Experience:	

		CV's (and further key persons data including CVs) are appended to Tender Schedule entitled T2.2-06.
11.2(14)	The following matters will be included in the Risk Register	
31.1	The programme identified in the Contract Data is	
B	**Priced contract with bill of quantities**	
11.2(21)	The *bill of quantities* is in	
11.2(31)	The tendered total of the Prices is	(in figures) (in words), excluding VAT
	Data for Schedules of Cost Components	*Note "SCC" means Schedule of Cost Components starting on page 60 of ECC, and "SSCC" means Shorter Schedule of Cost Components starting on page 63 of ECC.*

B	**Priced contract with bill of quantities**	**Data for the Shorter Schedule of Cost Components**		
41 in SSCC	The percentage for people overheads is:	**%**		
21 in SSCC	The published list of Equipment is the last edition of the list published by			
	The percentage for adjustment for Equipment in the published list is	**%** (state plus or minus)		
22 in SSCC	The rates of other Equipment are:	**Equipment**	**Size or capacity**	**Rate**

61 in SSCC	The hourly rates for Defined Cost of design outside the Working Areas are	**Category of employee**	**Hourly rate**
62 in SSCC	The percentage for design overheads is	**%**	
63 in SSCC	The categories of design employees whose travelling expenses to and from the Working Areas are included in Defined Cost are:		

PART 3: WORKS INFORMATION

Document reference	Title	No of pages
C3.1	Works Information	44

C3: Works Information

Table of Contents

1. DESCRIPTION OF THE WORKS

1.1. Background

a) The Infrastructure Maintenance was relocated to the current premises behind the Bayvue Centre Administration Block (TNPA offices) in 2013. Figure 1 shows the locality map of the current location of the Infrastructure Maintenance Depot. The Infrastructure Maintenance Depot was previously located in the Main Port area, occupying prime Port land. The growing demand in Port facilities necessitated the Infrastructure Maintenance Depot to relocate. In operating the new facility, it was noticed that not all the equipment and material have dedicated storage areas and are standing outside. The operational life of the equipment is reduced because they are stored outside.

b) This project was therefore identified to provide additional storage facilities around the Infrastructure Maintenance Depot for the material and equipment that is currently standing outside in the harsh environmental conditions the area experiences. These facilities will help to prevent the effects that the harsh environmental conditions have on the material and equipment and help to ensure that the material and equipment remain functional for their intended life span. The facilities would also provide the Port with the ability to store all the critical spare material that the Depot requires to respond quickly and efficiently to a breakdown in the Port. This would be an improvement for the Port, as currently the Depot does not have sufficient space to store all the critical spare materials.

Figure1: Locality Map for the location of the Infrastructure Maintenance Depot

1.2. Employer's Objective and Scope of the Works

a) The Employer seeks to acquire the services of a suitably qualified and resourced Multidisciplinary Engineering Contractor to undertake project execution work and all engineering related activities, procure all material and equipment and execute all the works associated with the construction of Operational Facilities for Infrastructure Maintenance Depot project. The Works must include the following:

I. The Civil, Architectural, and Structural engineering scope:

a) Setting out of the site and site preparation works including site clearance and exposing and protection of existing services.

b) Bulk excavation, earthworks and construction or rework of layer works as per design requirements. Including vehicle access routes, laying of kerbing, fillets, manhole covers, concrete bases, concrete plinths and concrete channels where required.

c) All structures to be masonry structures. Portal frame structure with roller shutter doors, roof structures and covered carport.

d) Permanent road markings.

e) Bulk services infrastructure:

- Electrical service reticulation infrastructure, including service sleeves and manholes.
- Stormwater drainage infrastructure, including concrete conduits, inlet structures and manholes.

f) The installation of rainwater harvesting tanks.

II. The electrical engineering scope:

a) Installation of new electrical service cabling, distribution boards and associated equipment for the servicing of the new operational facilities.

b) Installation of exterior and internal luminaires as per design requirements.

c) Design, supply and installation of earthing and lighting protection system.

d) Testing, certification of compliance and commissioning of the entire new installation.

2. DESIGN AND ENGINEERING

2.1. Employer's Design

2.1.1. Electrical

The designs by the Employer which illustrates the overall design methodology is detailed and shown in the drawings and specifications accompanying this document. The Contractor shall read this document in conjunction with all the drawings, and the specifications mentioned in this document:

a) The Employer's Specifications for Electrical Works is described in the following document:

- **ANNEXURE B**: Detailed Electrical Scope of Works, Standards and Specification.

b) The Employer's design for the electrical part of the works is described in the following drawings:

Table 1. Employer's Electrical Design Drawings

Drawing Number	Drawing Title	Revision
SBH07R0003-001-00	Single Line Diagram: Main Distribution Board for Infrastructure Maintenance Depot	01
XSDE0015-000-E-LA-0001-01-.1	Small Power and Lighting Layout: Operational Facilities for Infrastructure Maintenance Depot	01
XSDE0015-000-E-LA-0002-01-.1	Exterior Lighting Layout: Operational Facilities for Infrastructure Maintenance Depot	01

XSDE0015-000-E-LA-0003-01-1 01-.1	Supply Cable Route Layout: Operational Facilities for Infrastructure Maintenance Depot	01
XSDE0015-000-E-SL-0001-01-.1	Single Line Diagram: Operational Facilities for Infrastructure Maintenance Depot	01
XSDE0015-000-E-LA-0004-01-.1	Earthing and Lightning Protection: Operational Facilities for Infrastructure Maintenance Depot	01

2.1.2. Architectural Design and Engineering

The architectural design involves the construction of new storage facilities, associated facilities, and External Works. Architectural layout plans, sections, elevations, construction details and specifications are prepared for the above-mentioned works.

The proposed upgrade will provide the Maintenance Depot with facilities to operate from and enable them to effectively perform their daily activities. The existing building is owned by TNPA and is fully occupied. There is an existing boundary wall, pavements, and bulk services.
The Depot is strategically located away from the general port activities but close enough for operational efficiency.

a) The Employer's Detailed Design for architectural design part of the works is described in the following drawings:

Table 2. Employer's Architectural Design Drawings

Drawing Number	Drawing Title	Revision
XSD-E-0015-1-015-A-LA-0001-00-A-TD	Site Plan	A
XSD-E-0015-1-015-A-LA-0001-01-A-TD	Portal Frame Store	A
XSD-E-0015-1-015-A-LA-0001-03-A-TD	Waste Skip (Refuse) Area	A
XSD-E-0015-1-015-A-LA-0002-00-A-TD	Equipment Store	A
XSD-E-0015-1-015-A-LA-0003-00-A-TD	Materials Store	A
XSD-E-0015-1-015-A-LA-0004-00-A-TD	Material Deliveries Store and Bulk Materials	A
XSD-E-0015-1-015-A-LA-0005-00-A-TD	Electrical, Red Tag and Cable Camp	A

XSD-E-0015-1-015-A-LA-0006-00-A-TD	Generator Room	A
XSD-E-0015-1-015-A-LA-0008-00-A-TD	General Storeroom	A

b) The Employer's detailed Architectural Works Information is described in the following documents:

- **ANNEXURE C**: Detailed Architectural Scope of Works, Standards and Specification.

2.1.3. Civil Design and Engineering

The civil design involves the removal of the existing block pavement structure which shall be replaced and made-good to provide adequate stormwater management of the site. The new pavement surface shall be constructed with a V-drain, draining into 3 stormwater manholes that daylight into new stormwater sump located south of the boundary wall. Civil layout plans, sections, construction details and specifications are prepared for the above-mentioned works.

a) The Employer's Detailed Design for civil design part of the works is described in the following drawings:

Table 3. Employer's Civil Design Drawings, Standards and Specification

Drawing Number	Drawing Title	Revision
SBH07A1004-002-03	Civil Layout: General Arrangement	03
SBH07T1003-001-03	Bulk Services Layout: Stormwater and Electrical	03
SBH07A1004-001-03	Setting Out Details: Bulk Earthworks	03

b) The Employer's Detailed Civil Works Information is described in the following section:

- **ANNEXURE D:** Detailed Civil Scope of Works, Standards and Specification.

2.1.4. Structural Engineering Works

a) This section covers the construction of all new structural works for the Saldanha Operations Facilities project, as directed by the Engineer**.** Refer to Annexure A.

b) The Employer's Detailed Design for the structural works is described in the following drawings:

Table 4. Employer's Structural Design Drawings

Drawing Number	Drawing Title	Revision
XSD.E.0015-1-015-S-LA-1001-1-OB-AH	Portal Frame Store: Layouts, Elevations, Sections and Details.	OB
XSD.E.0015-1-015-S-LA-1002-1-OB-AH	Portal Frame Store: 3D and Details	OB
XSD.E.0015-1-015-S-LA-2001-1-OB-AH	Electrical and Red Tag Store: Layouts, Elevations, Sections and Details.	OB
XSD.E.0015-1-015-S-LA-2002-1-OB-AH	Electrical and Red Tag Store: 3D and Details	OB
XSD.E.0015-1-015-S-LA-3001-1-OB-AH	Infra Main Depot: Material Deliveries and Bulk Store: Layout, Sections and Details.	OB
XSD.E.0015-1-015-S-LA-3002-1-OB-AH	Infra Main Depot: Material Deliveries and Bulk Store: Elevations and Details.	OB
XSD.E.0015-1-015-S-LA-4001-1-OB-AH	Infra Main Depot: Material Deliveries Store and Storage: Layout, Sections and Details.	OB
XSD.E.0015-1-015-S-LA-4002-1-OB-AH	Infra Main Depot: Material Deliveries Store and Storage: Elevations and Details	OB
XSD.E.0015-1-015-S-LA-5001-1-OB-AH	Infra Main Depot: Equipment Room: Layout, Sections and Details.	OB
XSD.E.0015-1-015-S-LA-5002-1-OB-AH	Infra Main Depot: Equipment Room: Elevations and Details.	OB
XSD.E.0015-1-015-S-LA-6001-1-OB-AH	Infra Main Depot: Generator Room: Layouts, Sections, Elevations and Details	OB
XSD.E.0015-1-015-S-LA-7001-1-OB-AH	Infra Main Depot: General Store Room: Layouts, Sections, Elevations and Details	OB
XSD.E.0015-1-015-S-LA-8001-1-OB-AH	Infra Main Depot: Refuse Area: Layouts, Sections, and Details	OB

a) The Contractor shall be required to execute the works in accordance with the following:

- **ANNEXURE A**: Detailed Structural Scope of Works, Standards and Specification

2.2. Contractor's Design

2.2.1. Electrical

The contractor shall perform detailed design, supply, and installation of a suitable earthing and lightning protection scheme for the new storage facilities as per drawing number XSDE0015-000-E-LA-0004-01-.1, which indicates the typical earthing and lightning protection design. The detailed design shall comply with TPD-004-EARTHINGSPEC. The earthing and lightning protection scheme

shall only be supplied and installed after a lightning and earthing protection specialist to be appointed by the contractor deem the risk factors sufficient, and the designs completed and approved by the specialist are accepted by the Employer. The specialist shall also be responsible for final inspection of the earthing and lightning protection installation to confirm quality and compliance with the approved designs.

2.2.2. Structural

The Contractor shall be responsible for the structural design, supply, and installation of the car parking structure. All structural designs shall be completed, reviewed, and approved by a registered Structural Engineer and shall be submitted for acceptance by the Employer prior to fabrication and installation.

The Contractor shall refer to Civil Drawing SBH07A1004-002-03, which illustrates the required location of the parking area, and shall ensure that all works are carried out in accordance with the drawing and the project specifications.

2.2.3. General

a) The Contractor shall read this document in conjunction with all the drawings and the specifications mentioned in this document.
b) The Contractor shall be responsible for any temporary works designs (where applicable), which shall be submitted to the Employer for acceptance.
c) The Contractor shall be responsible for vendor drawings for acceptance by the Employer prior to manufacturing.
d) The Contractor shall be responsible for coordinating and leading factory acceptance testing, ensuring the Employer's representatives are present for acceptance and equipment release prior to delivering to site.
e) In cases where specific duties and/or performance criteria are provided, the Contractor shall use such duties and performance criteria for tender purposes only. The final duties and performance criteria shall be the determination of the Contractor.

2.3. Contractor's Design Documents

2.3.1. General Requirements

a) This section refers to the requirements relating to the information and drawings to be submitted by the Contractor for acceptance and/or approval by the Employer prior to purchase and manufacture of any plant or equipment.

b) One hard copies and soft (PDF) copy of any document for acceptance and/or approval by the Employer shall be always submitted.

c) A register of all documents submitted for acceptance and/or approval shall be kept up to date and provided with each submission,

d) All drawings shall be to scale and prepared according to the latest issue of SANS 10111, or equivalent.

e) All Layout and General Arrangement drawings shall be to A1

f) Lists contemplated in e) above shall have descriptions that include full identification data such as:

- Material of construction
- Quantity
- Brand Name
- Manufacturer's
- Identification/Reference Number
- Size, Rating or Duty.

b) Each submission of the Contractor's documentation shall be accompanied by a Contractor's Notice stating such readiness for review.

c) All submissions for acceptance and/or approval shall be signed by the Contractor' competent person to indicate approval from his side.

d) The Contractor shall submit all his design documentation to the Project Manager for review and acceptance. The Employer undertakes to review and accept the design documentation within a period of 2 (two) weeks.

2.3.2. Contractor's Documents Required Before Site Execution

a) The Contractor shall, no later than 2 (two) weeks of project kick-off, submit the following execution plans for review and acceptance by the Employer:

Table 5. Contractor's Documents Required Before Site Establishment

Item No	Description of Contractor's Document
1	**Procurement Plan**
1.1	• Procurement plan showing major events such as critical OEM equipment and any other long lead items. The plan shall show for each event the following: o Date of Order Placement, o Site delivery schedules showing date of arrival on site
2	**Construction Works Permit**
2.1	• No construction works will be carried out before the construction work permit has been issued
3	**Fabrication Quality Data Pack**
3.1	• Fabrication quality files for fabricated item including: o Piping, o Steelwork, and o Concrete formwork and Bracing
3.2	• Each fabrication quality data pack shall include: o Fabrication Methodology o Quality Policy o Fabrication Procedures o Welding procedure qualifications o Welder's qualifications
4	**Construction Method Statement**
4.1	• Construction method statement detailing and including the following: o Site layout and traffic control o Material handling and control o Construction schedule on an approved scheduling software (Microsoft Projects or Primavera) o Concrete demolition method statement if applicable The Contractor performs the works and all construction activities within the Site and Working Areas having due regard to the normal operations of the depot which will be operational throughout the construction duration.
4.2	• As an appendix to the method statement a construction quality pack shall be provided that includes: o Construction Quality Plan o Quality Policy o Work Procedures addressing construction method statement o Welding procedure qualifications o Welder's qualifications

	○ Non-Destructive Testing Procedures and Tools complete with calibration certificates ○ Quality control plans (QCP's) identifying hold (H), witness (W), review (R) and surveillance (S) points. ○ Non-Conformance Procedures ○ Concrete Testing Procedures.
5	**Construction Safety File**
5.1	• Complete Construction Safety File in accordance with the requirements of the health and safety Specifications and any additional requirements advised by the Employer's Safety Agent. • No work on site is permitted until the CHSMP is approved.
6	**Environmental Management File**
6.1	Complete Environmental Management File in accordance with the requirements stipulated in the Minimum Environmental Standards for Construction and any additional requirements advised by the Employer's environmental officer or Project Manager
7.	**Commissioning /Energisation Plan**
	Commissioning plan detailing and including the following: ○ Commissioning methodology and sequencing of work ○ Outage planning and switching programme to minimise downtime and impact to Port operations at Infrastructure Maintenance Building ○ Pre-commissioning inspections and testing requirements ○ Energisation and load transfer procedures ○ Roles and responsibilities of all parties ○ Risk assessments and emergency/rollback procedures ○ Commissioning schedule aligned with the project programme ○ Documentation, test results, and handover requirements

2.3.3. Contractor's Documents Required Before Site Hand Over

b) The Contractor shall, within 2 weeks of the completion, and prior to handover furnish the Employer with the following documentation for review and acceptance and / or approval:

Table 6. Contractor's Required Documentation Before Hand Over

Item No	Description of Contractor's Document
1	As Built Documentation
2	**Operation and Maintenance Manuals**

2.1	Lists of Operation and Maintenance Manuals if applicable reference data, such as serial numbers, shall be submitted in both hard copy and soft, editable copy.
3	**Priced List of Spares**
3.1	Lists of priced operational and critical spares, complete with supplier details and reference data, such as serial numbers, shall be submitted in both hard copy and soft, editable copy.

3. FABRICATION MANAGEMENT

3.1. Approved for Fabrication Documentation

a) All fabrication shall be in accordance with the Contractor's approved and accepted shop detail drawings.

3.2. Fabrication Facilities

a) All fabrication shall take place off site.
b) All costs associated with the upkeep of the facilities for the duration of the contract shall be to the Contractor's account.
c) The Contractor shall make the facilities available for inspection by the Employer on request, at any reasonable time for the duration of the Contract.

3.3. Procurement of Raw Materials

a) All raw material shall be sourced from reputable suppliers in accordance with Transnet supplier development (SD) and local content requirements, at Contractor's cost.
b) All materials shall be accompanied by material certificates traceable to source and shall be made available to the Employer for inspection on request.

3.4. Fabrication Quality Assurance and Control

3.4.1. Required Documentation

a) The accepted fabrication quality data pack shall be submitted 2 (two) weeks before commencement of any fabrication.

3.4.2. Inspection & Testing of Raw Materials

a) The Contractor shall inspect all raw materials for conformance to the supplier's material certificates. The Contractor shall thereon after taking full responsibility and liability for the performance of said material.

b) All defective materials shall be controlled and segregated to prevent inadvertent use. A nonconformance report shall be generated to form part of the fabrication quality data pack.

3.4.3. Fabrication

a) All fabrication shall be conducted in accordance with the approved and accepted fabrication methodologies and procedures as required in Section 2.2.

3.4.4. Inspection & Testing of Fabrication Works

a) The Contractor shall at all reasonable and agreeable times make the fabrication works available to the Employer for Inspection and testing in accordance with the approved QCP's.

b) At completion of the fabrication works, in stages or in total, the Employer shall issue the Contractor with an inspection release report or waiver of inspection. The issuance of which does not relieve the Contractor of his obligations under the Contract.

c) Any non-conformance picked up during inspection shall trigger the initiation of an approved non-conformance procedure as approved in the fabrication quality plan.

3.4.5. Quality Records

a) The Contractor shall maintain quality records necessary to provide objective evidence that demonstrates and verifies achievement of the QA/QC requirements associated with the Fabrication Quality Plan.

b) All records shall be compiled into the Fabrication Quality Data Pack. The data pack shall be submitted to the Employer for acceptance and approval before issuance of an inspection release report.

3.5. Delivery to Site

3.5.1. Release for Delivery

a) Fabricated material shall be inspected for release by the Employer, one (1) week before scheduled delivery. The Employer should be notified one (1) week in advance of any

inspections that needs to be done. No material shall be accepted on site without a valid release certificate and delivery note.

3.5.2. Municipal and Employer's Permits

a) It is expected that the Contractor shall use local municipal roads to deliver fabricated works to site. As such, the Contractor shall be responsible for obtaining all required municipal permits and the cost thereof shall be to the Contractor's account.

b) Upon entering the Port premises, the traffic authority belongs to the Port. As such, permits for using the roads and any traffic management systems shall be sought from the Port through the Project Manager.

3.5.3. Laydown Area

a) A suitable laydown area shall be identified by the Employer and made available to the Contractor for storage of all material. The security of the laydown area shall be the responsibility of the Contractor.

3.5.4. Delivery Costs

a) All costs associated with the delivery shall be to the Contractor's account.

4. INSTALLATION AND CONSTRUCTION MANAGEMENT

4.1.Required Documentation

a) All documentation as contemplated in Table 5 shall be in place and approved by the Employer prior to commencement of any site works.

4.2. Inspection & Testing of Site Works

a) The Contractor shall at all reasonable and agreeable times make the construction works available to the Employer for Inspection and testing in accordance with the approved QCP's.

b) At completion of the construction works, in stages or in total, the Employer shall issue the Contractor with an inspection release report or waiver of inspection. The issuance of which does not relieve the Contractor of his obligations under the Contract.

c) Any non-conformance picked up during inspection shall trigger the initiation of an approved nonconformance procedure as approved in the fabrication quality plan.

4.3. Quality Records

a) The Contractor shall maintain quality records necessary to provide objective evidence that demonstrates and verifies achievement of the QA/QC requirements associated with the Construction Quality Plan.

b) All records shall be compiled into the Construction Quality Data Pack. The data pack shall be submitted to the Employer for acceptance and approval before issuance of an inspection release report.

4.4.Permits Obtainable from the Employer Prior to Any Site Works

4.4.1. Site Inductions

a) The Contractor shall follow the entry requirements stipulated by the Employer. They shall attend the designated Port Safety Inductions and must comply with the requirements of the TNPA SHE Specifications.

4.4.2. Access to Site Security and Site Regulations

a) The Contractor's workforce shall be issued with project specific site access permits on completion of induction. The following items must be furnished with each application for an identity card:

- A letter on the Contractor's company letter head stating the applicant's full names, ID number, reason for requesting the ID card, area in TNPA that he/she shall be working, a summary of the work to be done and the start and end date of the contract;
- A letter of confirmation on a Managing Contractor's letterhead signed by the MC's manager overseeing the contract with the Contractor / contracting company;
- A letter signed by the TNPA Security Manager (or delegated person) after perusing the above documentation, confirming the request for an ID card.
- A completed application form (available from TNPA Customer Services); and ○ Positive identification of the applicant (green bar-coded RSA ID, new smart ID document or driver's license).
- All Foreign National are subjected to Immigration security checks.

b) Temporary Access Permits for specialised visits, valid on the day of issue only, are obtainable from the TNPA Permit Office. The following items must be furnished to the Project Manager with each application for a Temporary Access Permit:
    - A letter on the Contractor's company letter head stating the applicant's full names, ID number, and reason for requesting the ID card and area in TNPA that he/she shall be working;
    - A letter of confirmation on an MC letterhead signed by the MC Manager overseeing the contract with the Contractor / contracting company;
    - Positive identification of the applicant (green bar-coded RSA ID or drivers license or new smart ID document or driver's license); and ○ Identification document copies shall be original copies certified (by SAPS) ID copies.

4.4.3. Permit to Work

a) The Contractor must apply for a construction work permit in writing thirty (30) days before construction work is to be carried out.
b) In addition to statutory requirements, the Contractor must be in possession of a Site Access Certificate, as issued by TNPA, before commencing any activities on Site.
c) Permits shall be issued and cleared on conditions as below:
    - Valid construction work permit
    - Safety File vetted and approved by Safety Agent; and ○ TNPA Safety Inductions completed.
d) Permit Requirements include the following, but not limited to ○ Method Statement (each Task Scope of work) aligned to the approved method statement;
    - Risk Assessment (each Task Risk Assessment) aligned to the approved method statement;
    - Lock-Out Systems are in place; ○ Comply with confined space procedures; ○ Contingencies as required;
    - All work to be screened and authorized before permit to work is issued; ○ Additional precautions by Hot work Inspector;
    - Permit validity is for 5 days maximum for general hot work;

4.4.4. Port Rules 154 Hot Work Permit Requirements

a) The Contractor must be in possession of a hot work permit for any and all hot works:
   - A hot work permit application currently costs R420.77 subject to increase each year, the permit is valid for 1 day and obtainable from the TNPA Fire department;
   - The foreman and the competent fire watcher are to be in attendance ensuring compliance throughout all hot work activities;
   - Fire Watcher shall be in place and remain on standby 30 minutes after the completion of hot work for the day to ensure that all hot spots are eliminated or extinguished;
   - Fire extinguishers and a charged water line to be placed at strategic points and to be in a state of readiness;
   - Ensure that all ignition sources feeds/ supply (generators; gas cylinders) are kept and stored outside the perimeters of the hazard zone;
   - Work is only to commence once the appropriate permit and risk assessment has been completed and signed off. NO PERMIT- NO WORK;
   - Positive ventilation cocoons complete with wet fire blankets are to be constructed to contain sparks from the hot works. The cocoon shall be inspected and signed off by the supervisor prior to use:
   - All work must stop immediately when emergency evacuation alarm is sounded – evacuate the area to assembly point; and
   - Emergency Evacuation Procedures to displayed and communicated to all personnel.

b) Please note: The above precautions is not limited and additional precautions or requirements may be mandatory, subjected to the Risk Assessment of the task/activity.

4.5. Site Facilities

4.5.1. Contactor's Site Establishment

a) For the duration of the Contract, the Project Manager will identify an area, free of charge, for the Contractor to establish his offices, lay down areas, stores, workshops, and other Contractor's Equipment. The locations of the potential lay down areas will be pointed out at the site clarification meeting. The Contractor may establish a site camp anywhere within the boundary of this area. The Contractor shall ensure that the area used has a suitable continuous security fence and the necessary access gates.

b) The Employer and the Contractor shall undertake a mandatory inspection of the site prior to handover, to provide a recorded benchmark condition of the site prior to the Works.

c) The Contractor shall provide, for the Employer's approval, a site establishment plan for all facilities as he may require for the successful completion of the work, this includes:
   - Site Offices, complete with boardroom seating at least 10 persons with access to power, air conditioning and internet. ○ Mess Area
   - Ablutions, separate for male and female ○ Stores for all consumables ○ Workshops for any site fabrications ○ Eating area for the employees ○ Waste Storage Area
   - Cordoning off of equipment and material lay down area and provision of an approved materials control system.

d) Unless expressly stated as a responsibility of the Employer, Site services and facilities, all residual requirements for the provision of facilities and all items of Equipment necessary for the Contractor to provide the Works remains the responsibility of the Contractor.

e) On completion of the Works, or when not required any longer, the Contractor shall remove the facilities and clear site to benchmark conditions.

4.5.2. Power Water and Other Services

a) Metered 3-phase power supply is available at Contractor's cost for the use of small tools and lighting.
b) Metered non-potable water supply is available at Contractor cost for use only for construction purposes.
c) Potable water supply for the use of drinking and site office requirements is available.
d) While TNPA will provide water connection points, it remains the Contractor's responsibility to provide water and electricity in case of municipal restrictions.
e) The Contractor shall use the water and electricity conservatively and if not, this privilege shall be removed and the utilities shall be metered, and the cost of which shall be charged to the Contractor.

The Project Manager will provide the following connections to services within the Site and lay down area for Contractor's use:

- A supply point for Potable Water. The closest supply point is at the Infrastructure Maintenance Depot and will be indicated during site establishment.

- A supply point for Power. The closest supply point for Power will be communicated to the Contractor before site establishment in the kick-off meeting.

4.5.3. Security

a) The Contractor shall comply with all security requirements applicable to the site. No direct payment for security measures shall be made and the Contractor shall make adequate provision in his tendered rates for all security measures that are deemed necessary by him to protect and safeguard his staff, plant, materials and equipment.
b) Security access permits in accordance with rule 141 of the Port Rules will be issued to the Contractor's after a site access certificate from SHEQ has been issued.
c) Permits are not transferable.
d) No extension of permits for contractors will be made without written communication from the Project Manager.
e) Contractors are responsible for the protection of their own equipment on site.

4.6. Site Regulations

4.6.1. Restrictions to access on site, roads, walkways and barricades

a) General public safety is a matter of priority for the project and its stakeholders. The Contractor is therefore required to implement traffic management procedures to accommodate all traffic that shall be impacted by the construction activities for the duration of the project.

4.6.2. Drugs Firearms and Alcohol

a) Drugs, firearms and alcohol are prohibited at all times and may not be carried or used within the confines of the Port.
b) All personnel entering the Port may be subject to Breathalyzer tests. Only those persons whose test result is negative shall be allowed to pass the entrance gate. Breathalyzer tests are also conducted at other control points within the Port boundary.

4.6.3. People restrictions on Site; hours of work, conduct and records

a) The Contractor must control and keep daily records of his people engaged on the Site and Working Areas (including Subcontractors) with access to such daily records available for inspection by the Project Manager or Supervisor at all reasonable times.

b) No person shall be allowed on site without having undergone the required safety inductions and without wearing the appropriate PPE.

c) The main Contractor shall be held accountable for all sub-contractors' compliance with the site rules and regulation.

4.6.4. Health and Safety

a) The Contractor shall ensure that he/she is fully conversant with the latest edition of the Occupational Health and Safety Act. The Transnet SHE specifications documents have been included in this tender document.

b) The Contractor shall appoint a suitable qualified and SACPCMP registered Safety Officer for the duration of the contract. At minimum, there shall be one (1) safety officer for every fifty (50) persons on site.

c) The project Safety Agent shall at reasonable and agreeable times undertake monthly safety audits of the Contractor's works.

4.6.5. Cooperating with and obtaining acceptance of others

a) The Contactor shall take all precautions necessary to align with the existing Port operations and shall allow for compliance with all restrictions, obligations and protocols required by the Port Authority including obtaining all Permits, licenses, permissions and authorities required for his operations.

4.6.6. The Contractor performs the works and co-operates with:

a) Where services have to be removed or relocated or protected the Project Manager shall, at the request of the Contractor, notify or negotiate with the owner or authorities controlling those services and, based on the outcome of the negotiation, instruct the contractor on how to proceed.

4.6.7. Publicity

a) The Contractor does not advertise the contract or the project to any third party, nor communicate directly with the media (in any jurisdiction) whatsoever without the express written notification and consent of the Project Manager.

4.6.8. The Contractor provides a notice board

a) The Contractor shall provide and erect a project name board that must first be approved by the Project Manager. The signboard must contain details of the following:
   - Client
   - Health and Safety Agent ○ Environmental Service Provider ○ Main Contractor
   - Construction work permit number

b) The sign board must be placed at a position pointed out by the Project Manager and remain in place for the duration of the full contract period.

c) The name board shall be of sound weather-proof construction, painted by an approved sign writer. No other name board shall be permitted on or adjacent to the Works with the exception of Safety Boards located at the main entrance to the sites and where required.

d) Contractor's sub-contractors are to display one name board of less than 2m² at the Contractor's site office at their own cost. The name boards shall be removed at the end of defects liability period.

4.6.9. Contractor's Equipment

a) The Contractor keeps daily records of his Equipment used on Site and the Working Areas (distinguishing between owned and hired Equipment) with access to such daily records available for inspection by the Project Manager at all reasonable times.

b) The Contractor shall ensure that the equipment provided, be it owned or rented, shall be in good working order and complies with all maintenance, licencing, safety and environmental requirements related to the specific equipment and the OHS Act and its regulations.

4.6.10. Control of noise, dust, water and waste

a) The Contractor is to take appropriate measures to minimise the generation of noise and dust as a result of construction works, to the satisfaction of the Project Manager, or the person approved by the Project Manager.

b) Unless otherwise stipulated by the Project Manager, the Contractor shall develop methodologies or mitigating actions in line with the requirements of the TNPA Approved Contractor Environmental and Sustainability Specification Guidelines

4.6.11. Control of Work and Quality Assurance

a) The quality control and assurance for the Contractor's works shall fall under the direct control of the Contractor.

b) Should the Contractor have a specialist sub-contractor, special arrangements shall be required in terms of their contractual arrangement to ensure that the above control can be realised. Such arrangements are to the Contractor's discretion, but he must demonstrate that the arrangement is functional and workable to the entire satisfaction of the Project Manager.

The quality assurance program, approved by the Project Manager, shall include use of quality control plans (QCP's) that shall detail all hold points, recording of data, etc. The QCP shall be aligned with the requirements of the contract.

d) The Quality Control on site shall be structured, and the Quality Control Manager of such a position as to have a veto on the progress of the works. Attention to detail shall be of prime importance.

e) The Employer's Supervisor shall be the sole arbitrator as to the sufficiency of the standard achieved. Where the Employer's Supervisor deems the work unsatisfactory, the particular section of the works shall stop and remedial action instituted immediately.

f) The Contractor shall keep up to date and make available on completion of the project a Quality Data Pack.

4.7.Completion, Testing, Commissioning and Correction of Defects

4.7.1. The work to be done by the Completion Date

a) On or before the agreed and accepted Completion Date, the Contractor shall have completed all works stipulated in the Works Information to the required standard and without defects.

4.7.2. Commissioning

a) The Contractor shall successfully demonstrate the following to the Project Manager prior to the commissioning of the Works:

- Construction complete certificates signed by the Employer's representative. ○ All other relevant certificating e.g., Certificate of Competency.
- Approved installation certificates signed by relevant Original Equipment Manufacturers.

4.7.3. Access given by the Employer for correction of Defects

a) The Employer shall notify the Contractor of any defects which are to be remedied within the Correction Defect Period. All areas on the construction site shall be made available to the Contractor, however this shall yet again have to be done around the operations of the Depot.

b) All areas that are given to the Contractor for the correction of defects shall be properly cordoned off by the Contractor. Proper safety measures, as required by the Employer, must be adhered to at all times for the full duration of the defect correction undertaking.

5. MANAGEMENT AND START UP

5.1. Management Meetings

a) The Contractor shall attend site/contract management meetings at the Project Manager's request at a specified venue. It is envisaged that the meetings shall be scheduled as follows: ○ The Contractor shall attend a kick off meeting at the start of the contract. ○ Progress meetings shall be held monthly. ○ Safety Meetings shall be held once a month.
   - ○ The contractor shall attend a close out meeting at the end of the contract.
   - ○ Ad hock meetings such as technical and risk reduction meetings as may be requested by the Employer at reasonable and agreeable times.

b) The Contractor shall be required to present all relevant information including early warnings of compensation events, quality plans, schedules, subcontractor management, and health, environmental, risk and safety issues at such meetings.

c) All meetings are to be recorded using voice, minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register are not to be used for the purpose of confirming actions or instructions under the contract as these are to be done separately by the person/s identified in the conditions of contract to carry out such actions or instructions.

5.2. Documentation Control

a) All contract correspondence shall be issued through Project Manager. All hardcopy communication will be delivered to the Project Manager's office. In the event of urgent communication, electronic communication can be transmitted to the Project Manager.

b) The Contractor shall submit all documentation complying with the Employer's standards and requirements. The Employer shall issue all relevant documentation and drawings, including revisions, to the Contractor, but control, maintenance and handling of these documents shall be

the Contractor's sole responsibility and at its expense, and managed with a suitable document control system.

5.3. Health and Safety Management

5.3.1. The employer has a strict Health and Safety policy.

Under the policy, the following apply:

a) The Contractor's attention is directed to the TNPA Health & Safety Specification for Construction, and in particular to his Health & Safety Management Plan, which must be submitted with his tender, as well as the requirements of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended and Regulations issued in terms thereof or un-repealed regulations issued in terms of the former Act no. 6 of 1983, in their entirety.
b) The Contractor makes available and ensures compliance to the TNPA Health & Safety Specification for Construction by its employees and Subcontractors in the language of this contract.
c) The Contractor employs his own health and safety coordinator to ensure compliance with both TNPA Health & Safety Specification for Construction and the Occupational Health & Safety Act and its latest regulations.
d) The Contractor shall provide a Health & Safety Management Plan addressing the requirements in the TNPA Health & Safety Specification and a Baseline Risk Assessment addressing the construction activities. The Project Manager has the right to request additional specific work method statements should, in his opinion, this be required.

The compliance with all applicable legislation, regulations issued in terms hereof, and TNPA safety rules, shall be entirely at the Contractor's cost, and shall be deemed to be allowed for in the tendered prices.

a) Without derogating from the Act or any un-repealed regulations issued in terms of legislation, or without purporting to limit the Contractor's responsibilities, the following are brought to the Contractor's attention:

    - The Contractor shall appoint a Health and Safety coordinator to liaise at least fortnightly with the Project Manager or Supervisor on matters pertaining to occupational health and safety.

- The Contractor shall advise the Project Manager of any hazardous, or potentially hazardous situation, which may arise from work being performed either by the Contractor or Sub-Contractor.
- A letter of good standing in terms of Section 80 (Employer to register with the Compensation Commissioner) of the Compensation for Occupational Injuries and Deceases Act 1993 (Act 130 of 1993) must also be furnished.
- All clauses in this contract pertaining to health and safety form an integral part of this contract, and any non-compliance therewith may be construed as breach of contract entitling the Employer to the appropriate remedies.
- The Contractor and his staff shall attend a compulsory induction course to be arranged by the Project Manager on or before the date when the site is made available to the Contractor.

b) The Contractor's appointed Site Representative and the Project Manager shall finalise a sitespecific HIRA Hazard Identification and Risk Assessment) document, on the day of site handover to the Contractor. This site-specific HIRA document, based on a continuous HIRA, must cover site- specific hazards and the safe management of these hazards. The HIRA document must be signed by the above-mentioned representatives as well as the Supervisor, and be approved by the Project Manager, before any construction work can commence.

c) The OHS Act 85 of 1993 clearly states in the Safety Regulations Clause No. 2A:

"INTOXICATION" An employer or user shall not permit any person who appears to be under the influence of intoxicating liquor or drugs, to enter or remain at a workplace". The Employer enforces this legislation by means of its Substance Abuse Policy, and therefore reserves the right to do substance abuse testing on anyone who enters his premises.

d) The Contractor shall ensure that a suitably qualified safety representative is appointed, and monthly safety meetings are held. Written minutes of these safety meetings shall be forwarded to the Project Manager. All costs related to the safety aspects required under this contract will be carried by the Contractor and therefore be covered under the rates tendered.

5.4. Site Supervision

The Contractor shall comply with OH&S Act – Section 8, 9, 13 and 16 and the Construction Regulations 2014.

The Contractor must nominate and appoint a responsible person on site to whom the Project Manager may refer in connection with the Works. Persons are nominated for all shifts worked or whilst any activity relating to the Contract is being performed on site and must have the authority to bind the Contractor with respect to the Contract. (OH&S Act - 16 Sections (2)).

The Contractor must ensure that the performance of all specified Works is supervised throughout by a sufficient number of qualified and competent appointed representatives of the Contractor, who have experience in the type of work specified. (OH&S Act – Construction Reg. 8 (1) and 8 (2.) The supervisor must have legal liability training, HIRA, and construction safety training e.g., IRCON.

Note: No work may commence and or continue without supervisory Appointees present on site. The Contractor's Site Supervisor must be equipped with a mobile telephone with message bank and/or pager or an equivalent communication device so that communication throughout the Contract can be always maintained.

The Contractor's Site Supervisor must provide a list of names and contact telephone numbers of all Contractors and Sub-Contractor's contact persons on Site. This list is updated as a new Contractor or Sub-Contractor employee commences on Site.

The Contractor's Site Supervisor must keep a record of all employees, including date of induction, relevant skills and licenses, and be able to produce this list at the request of the Supervisor.

The Contractor's Site Supervisor must complete manning sheets describing the day's activities, labour numbers and classifications and issue these to the Supervisor prior to 9.00 am on a daily basis.

The Project Manager's Site Safety Representative is notified of any new starter with evidence of induction and site-specific induction prior to commencement of work.

5.5.Contractor's Safety Officer

The Contractor must appoint a full-time Health and Safety Officer for the duration of the contract that is registered with the SACPCMP (The South African Council for Project Construction Management Professions). If more than 100 employees are deployed on the project site(s) (directly or through sub-contractors), at least two full-time Health and Safety Officers must be appointed, with an additional Health and Safety Officer appointed for every 100 additional employees thereafter.

The Health and Safety Officer must be on site when work commences at the start of the day and must remain on site until all activities for that day (including the activities of sub-contractors) have been completed. A Health and Safety Officer must be present during all shifts, so if work is carried

out over more than one shift per day, the Contractor must make provision for an additional Health and Safety Officer.

Each Contractor Health and Safety Officer shall be responsible for:

- Reviewing all applicable legal and project health and safety requirements and providing guidance to Contractor and sub-contractor personnel (particularly the Contractor's Project Manager) to help always ensure compliance.
- Assisting with the implementation of effective hazard identification and risk management processes for all work to be carried out by the Contractor.
- Participating in the Baseline Risk Assessment for the Contractor's scope of work (prior to site establishment) and ensuring that identified control measures are implemented.
- Participating in all Task-Based Risk Assessments conducted for the work to be carried out by the Contractor and ensuring that identified control measures are implemented.
- Conducting Contractor health and safety induction training for all Contractor and sub-contractor personnel.
- Compiling and maintaining all health and safety related documents and records required of the Contractor.
- Communicating relevant health and safety information to Contractor and sub-contractor personnel (e.g., incidents and lessons learnt, leading practices, hazards, risks, and control measures, etc.).
- Evaluating (daily) the content of the Daily Safe Task Instructions (DSTI's) conducted by the contractor's appointed supervisors and attending at least one DSTI each day.
- Attending monthly Contractor and Site Health and Safety Meetings.
- Assisting with the implementation of the contractor's Health and Safety Management Plan and associated Safe Work Procedures.
- Carrying out Planned Task Observations on an ad hoc basis.
- Assisting with the implementation, testing and maintenance of an effective Emergency Response Plan for all Contractor and sub-contractor activities.
- Responding to workplace incidents (as appropriate).
- Participating in incident investigations.
- Maintaining accurate health and safety statistics (for the Contractor and all sub-contractors), and compiling health and safety performance reports as required.

- Auditing the health and safety management system and workplace activities of the Contractor and each sub-contractor on a monthly basis to assess compliance with the project health and safety requirements; and
- Tracking and reporting on the implementation of corrective actions (arising from incident investigations, audits, inspections, etc.).
- The Contractor must ensure that they have made adequate provision of safety officers as per the works information works packages i.e. (construction of mechanical and electrical works) Health and Safety Officer is adequately equipped to enable him to perform his duties effectively. Each Health and Safety Officer must be provided with the following: ○ A computer with

access to all necessary systems, including access to e-mail and the internet. ○ A mobile

telephone on contract or with adequate pre-paid airtime; and

- A vehicle where required or instructed by a nominated project management representative (depending on the size and location of the project site(s)).
- A Health and Safety Officer must be computer literate, fluent in English, and must have the following minimum qualifications, training, and experience:
- At least 5 years' experience as a Health and Safety Officer on construction projects.
- SAMTRAC or an equivalent training course as a minimum qualification.
- Experience and appropriate training regarding to implementing and maintaining a health and safety management system compliant with national legislation or an international standard.
- Experience and appropriate training regarding to construction related hazard identification and risk management processes.
- Competence, experience, and relevant training with regard to incident investigation procedures and causation analysis.
- Health and safety auditing experience and training.
- A valid First Aid certificate of competency. ○ Fire prevention and protection training; and ○ A valid Driving License (light motor vehicle).

Registered as a Health and Safety Officer with SACPCMP depending on the size of the project and on the risk.

Before placing a Health and Safety Officer on the project site(s), the Contractor must forward a copy of the person's CV and proof of registration with SACPCMP to the nominated project management representative for review and acceptance. A proposed candidate may be rejected should he not meet the experience and/or qualification requirements, or due to poor work performance on previous projects.

5.6. Contractor's Safety File

The Contractor must provide a hard copy of its safety file, policies, and procedures to the Project Manager for acceptance prior to the commencement of any site work. The Contractor must ensure that his personnel, at all times, strictly observe and comply with the procedures set out therein. The Project Manager or the Project Manager's nominated Representative may from time-to-time request safety procedures applicable to the area of operations. The Contractor must forward to the Project Manager any updates or revisions to its safety file, policies or procedures as soon as practicable following revision or update.

The Project Manager may require the Contractor from time to time to supplement its safety file, policies, and procedures with guidelines and/or operating standards provided to the Contractor by the Project Manager. The Contractor must comply with such requests where the request is consistent with the requirements of the Contract. The Contractor must give prompt written notice to the Project Manager of any objection to the requested supplement, including the reasons for objection. The Project Manager's rights under this Clause are not intended, and must not be construed, to relieve the Contractor from any obligations to ensure compliance with all provisions of this Contract.

5.7. Performance Measurement and Reporting

a) Health and Safety Statistics

The Contractor and each of its Sub-contractors must complete and submit Health and Safety statistics to the Project Manager or the Project Manager's nominated representative, or as amended by the Project Manager, before mid-day on the Friday of each week. The Contractor must submit monthly Health & Safety Statistics before mid-day on the last day of each month to the Project Manager's H&S nominated representative.

b) Safety Management Records

The Contractor must submit to the Project Manager for acceptance a schedule of the specific Health and Safety records it intends to maintain for the Contract. As a minimum, such records are as specified by applicable legislation. Copies are provided to the Project Manager or the Project Manager's nominated Representative if requested.

c) Field Technical/Safety Audit by the Project Manager

The Project Manager or the Project Manager's nominated Representative has the right to conduct audits/inspections of the Consultant, Professional Service Provider (PSP) and Contractor Safety Management Plan implementation, operations, equipment, emergency procedures, etc., at any time, and the Contractor must fully cooperate with the Project Manager or the Project Manager's nominated Representative during such audits/inspections. The Project Manager's rights under this clause does not, must not and will not relieve the Consultant, Professional Service Provider (PSP) and Contractor of its own obligations to conduct audits and reviews of its own Health and Safety performance.

Where such audits/inspections reveal deficiencies in the Contractor procedures, drills, training or equipment, or non-conformities with the Contractor accepted project Safety Management Plan, minor nature, the Contractor must investigate the cause of the nonconformity and initiate corrective and preventive action to rectify such deficiencies and non-conformities and prevent recurrence as soon as practicable.

Where such audits/inspections reveal deficiencies of a major nature ~~(Risk rating of 7 or greater),~~ the Contractor must stop work on the operation/activity concerned, immediately investigate the cause of the nonconformity, and initiate corrective actions to rectify such deficiencies and nonconformities and to prevent recurrence. These corrective action plans are submitted to the Project Manager for review and comment within 24 hours of the audit finding.

Where such deficiencies include an unsafe practice or a breach of the statutory or the Contract's requirements, the Project Manager or the Project Manager's nominated Representative may in accordance with the General Conditions of Contract suspend the work associated with the unsafe practice or breach until the deficiency is rectified.

The Project Manager or the Project Manager's nominated Representative will establish a schedule of regular field safety audits which will be based on an audit tool aligned to the legislative requirements. The Contractor audit conformance will be assessed as a percentage and where conformance is better than 80% it will be considered satisfactory and the Contractor must develop and implement an action plan within 4 weeks, to be reviewed at the next regular audit. Where the Contractor level of conformance is between 70 – 79%, a corrective action plan will be required to be developed and implemented within 2 weeks, and a follow up audit will be carried out. Where the Contractor conformance is less than 69% the Contractor must stop work until an investigation of the cause/s has been completed and corrective actions have been developed and implemented by the Contractor.

The Contractor must provide to the Project Manager or the Project Manager's nominated Representative, at a time to be agreed, but not to exceed monthly intervals, a regular status report on all outstanding corrective actions until they are successfully closed out.

d) Unsafe Act/Condition Auditing

The Contractor must implement a system to recognize, correct, and report unsafe acts/conditions (Unsafe Act/Condition Auditing) associated with all Site activities.

All such observations must be recorded and delivered to the TNPA Project Health and Safety Agent.

5.8. Involvement, Communication and Motivation

The Contractor and subcontractor's workforce must, through their supervision, safety notice boards, toolbox meetings and daily pre-start meetings be kept aware of safety related matters. a) Safety Meetings

The Contractor must implement and comply with OH&S Act, Section 19

The Contractor must conduct weekly safety meetings with his employees to foster safety awareness. Copies of minutes and action items arising from such Toolbox meetings is submitted or otherwise made available for review by the Project Manager or the Project Manager's nominated Representative.

Such meetings should at least address:

- Accident / safety incidents
- Hazardous conditions
- Hazardous materials / substances
- Work procedures
- Protective clothing / equipment
- Housekeeping
- General safety topics
- Job or work look-ahead issues
- Safety statistics
- Incident Review

The Contractor must conduct at least one formal safety meeting per month and must maintain appropriate records of attendance and meeting content. Such records are made available to the Project Manager's Representative. In addition to Daily Safe Task Instructions, the Contractor must

conduct at least weekly "toolbox" meetings to discuss safety issues and procedures. b) Pre-Start Safety Briefings

The Contractor must hold documented Daily Safe Task Instructions with each work team before the start of each shift. Attendance records and brief topic notes is kept for auditing and record purposes.

c) Safety Review Meetings

The Contractor Site Manager and a Site Safety Representative must take part in monthly safety review meetings between the Contractor and the Project Manager or the Project Manager's nominated Representative.

The Contractor must attend all project safety meetings as outlined in the Project Safety Management Plan.

d) Site Safety Review Committee

The Contractor complies with the requirements of the SSRC with respect to his own activities and others on the Site and Working Areas.

5.9. Roles and Responsibilities

The roles and responsibilities of the various personnel acting on behalf of the Project Manager with respect to the SMP and health and safety issues are as stated in the paragraphs following: a) Construction Manager

The CM is responsible for health and safety on the Site and Working Areas and reports to the Project Manager the CM must be registered with SACPCMP as a Pr.CM.

The CM specific tasks are:

- Implement the safety management system.
- Monitor compliance to the established safety management system.
- Ensure risk is at an acceptable level.
- Ensure Consultant Construction Management Team are competent.
- Provide for:
  - Planning, organization, leadership, and control
  - Technical competencies for critical work

- Supervision and control on each shift
- Regular monitoring and assessment
- Workplace inspections.

5.10. Commissioning Safety Plan

The Project Manager, through his Construction Management Team, will facilitate and coordinate a formal Commissioning Safety Plan and ensure that required procedures are prepared prior to the commencement of the commissioning phase.

The Commissioning Safety Plan will provide a final checkpoint for the completed work and is part of the process for ensuring that all necessary actions have been completed. The elements to be considered include:

- Mechanical and electrical integrity systems are in place (e.g., equipment tests and inspections of critical equipment, quality control procedures, etc.) which will confirm that construction, equipment, and materials are in accordance with design specifications.
- Formal hazard analyses for pre-commissioning and commissioning activities have been completed, appropriately documented, and communicated, and are available to all personnel.
- Punch-list work has been sufficiently completed so that installations are safe to apply hazardous energy.
- Documentation relevant to any modifications has been created/updated. ○ Safe operating, maintenance and emergency procedures are in place.
- Operating and maintenance manuals are available, and training of commissioning employees has been completed.
- Red Line drawings are available.
- A Commissioning Permit (to apply hazardous energy) is developed and implemented.
- The Project Manager will ensure that after commissioning there is a formal documented hand over to operations and maintenance personnel and others who will be impacted by hazards that have been identified during project activities. This will involve communication of any changes to the process hazards, procedures, and operating philosophy. Safe systems of work will be established and updated throughout the Project. Safe systems of work will be subject to on-going review to ensure their effectiveness.

5.11. Document Control

All safety documents shall comply with the Project Document Control Procedures.

5.12.Environmental Constraints and Management

a) All work is to be conducted in accordance with the principles of the National Environmental Management Act, 1998 (Act no 107 of 1998) as well as all other applicable legislation, regulations and accepted environmental good practice.

b) The Transnet Construction Environmental Management Standard Operating Procedure (CEM SOP) and Minimum Environmental Standard for Construction (MESC) must be implemented for the project.

c) The CEM SOP and MESC provide an integrated approach to environmental management. This approach is designed to guide the appropriate allocation of human resources, assign responsibilities, develop procedures and ensure project compliance with regulatory and best practice requirements. The CEMP and SES outline the minimum acceptable standard for the Project that shall be complied with at all times. The requirements of these documents shall be applicable to the main Contractor and all appointed service providers.

d) The Contractor must sign the declaration of understanding as a commitment to abide with the CEM SOP, MESC and the Employer's Environmental Governance Framework. Sufficient environmental budget must be allocated to meet all the project environmental requirements for the duration of the contract.

e) The Contractor must appoint a suitably qualified Environmental Officer with a relevant environmental qualification and a minimum of 3 years relevant construction environmental management experience.

f) The roles and responsibilities of the Contractor's EO are clearly outlined in the CEMP. The appointed EO is required to be on site daily.

g) The Contractor will be required to submit an environmental file to the Project Manager post award of tender. Particular requirements of the Employer will be made known on award of the contract. A Site

h) access certificate shall not be granted until the environmental file has been approved by the Employer.

i) The Contractor shall be responsible for rehabilitation/reinstatement and cleaning of all areas (where required), to the satisfaction of the Employer's Project Environmental Manager or Environmental Officer as detailed in the CEM SOP and MESC, upon completion of the works.

5.13. Quality Control Requirements

a. The Contractor shall have, maintain and demonstrate its use to the Project Manager (and/or the Supervisor to satisfy the requirements of Works Information as appropriate) the documented Quality Management System to be used in the performance of the works.

b. The Contractor's Quality Management System shall conform to International Standard ISO 9001 (or an equivalent standard acceptable to the Project Manager) and as a minimum to the requirement of specification TNPA-QUAL-REQ-14.1, General Quality requirements for Suppliers and Contractors as contained in the ANNEXURE **L** to this Work Information.

c. The Contractor submits his Quality Management System documents to the Project Manager as part of his programme under ECC Clause 31.2 to include details of:
   - Project Quality Plan (PQP) for the contract ○ Quality Control Plans (QCP) ○ Quality Policy
   - Index of Procedures to be used; and
   - A schedule of internal and external audits during the contract

d. The Contractor's PQP includes or references to the quality plan of his Sub- Contractors and Supplier.

e. The Contractor develops and maintains a comprehensive register of documents that will be generated throughout the contract including all quality related documents as part of its Quality Plan.

f. The Project Manager indicates those documents required to be submitted for either information, review or acceptance and the Contractor indicates such requirements within his register of documents. The register shall indicate the dates of issue of the documents with the Project

g. Manager responding to documents submitted by the Contractor for review or acceptance within the period for reply prior to such documents being used by the Contractor.

h. The Quality Plan means the Contractor's statement, which outlines strategy, methodology, resources allocation, QA and Quality Control co-ordination activities to ensure that the works meet the standards stated in the Works Information. Site Access will not be granted unless the PQP has been accepted by the Employer.

i. The Quality Control plans shall identify al inspection, test and verification requirements to meet Contractual obligation, specifications, drawings and related details including destructive, nondestructive testing, witness and hod points. The Contractor shall not commence fabrication or manufacture prior to review and acceptance of the applicable QCP's by the Employer.

j. The Index of Procedures means the Contractor's system for management:

- Document Control
- Design Control
- Procurement
- The Inspection and testing mean:
- Quality Control Plans
- Inspection Points
- Schedule of Inspection
- Field Inspection Checklist
- Inspection Notification
- Inspection and testing
- Special processes
- Welding Procedures
- Material traceability and certification

5.14. Programming Constraints

a) As identified in the Contract Data Part 2, the contractor shall submit as part of the bid a proposed activity programme with the requirements as indicated in the Works Information and with specific reference to 31.2 of the NEC3 Engineering Construction Contract.

b) Within two weeks of the contract award, the contractor shall be required to submit a detailed and final construction programme in the form of a Microsoft Projects or Primavera Gantt chart, setting out the intended progress of the works.

c) Once the Project Manager has approved the programme, it shall be adhered to by the Contractor, unless the approval of the Project Manager is obtained for any amendment that may be necessary.

d) The Contractor shows on each programme he submits the construction schedule with time allotted per activity with milestones and incorporates weather, operational requirements and when materials or equipment shall be delivered to site.

e) The Contractor shall be required to submit a cash flow forecast with each programme submitted, including the programme submitted with the tender. The cash flow shall be in the form of an Scurve and shall be a cumulative representation of the monthly cost progression for the remaining duration of the contract. The cash flow forecast must align with the programme.

f) The Contractor shows on his Accepted Programme and all subsequently revised programmes schedules showing the critical path or paths and all necessary logic diagrams demonstrating sequence of operations.

g) The Contractor's programme shows duration of all operations, based on normal working hours per day and working days per week. It should specify normal working hours per day/shift. The activity/operation durations shall be realistic, based on applied resources. If the Contractor requires this to be revised, approval must first be obtained from the Project Manager.

h) The Contractor shows on each revised programme he submits to the Project Manager a resource histogram showing planned progress versus actual, forecast completion date, deviations from the Accepted Programme and any remedial actions proposed by the Contractor.

i) The Contractor submits programme report information to the Project Manager at monthly intervals in addition to the intervals for submission of revised programmes stated under Contract Data Part One.

j) The revised programme, in the form of a month look-ahead, shall show two (2) separate bars for each activity as per bullet points below so as to enable a comparison of the actual progress with the first program;

- the first programme activity bar, and
- the revised activity bar identifying the currently forecast start and finish dates of the activity, and the status (% complete for each activity)

k) Deviations of the "current" activity schedule from the "baseline" activity schedule shall form the basis for assessing progress and performance.

l) The Contractor shall provide a monthly written status report or as may be required by the Project Manager from time-to-time. The report shall summarise progress and problems encountered during that month in respect of all parts of the work under the Contract. As a minimum the report shall include:

- progress against the Accepted Programme; ○ list of milestones achieved during the period; ○ status of design, procurement, and off-site works;
- deviations from the Accepted Programme and in particular, the forecast completion dates of activities which have or should have commenced;
- actual or anticipated problems with corresponding action plans to minimise the impact; ○ summary of works planned for the following period, and ○ cash flow status versus the original forecast.

5.15. Payment, Invoicing and Cash flow

The Contractor shall invoice on a monthly basis in accordance to the project progress and against the agreed project schedule and cash flow. All invoices shall be submitted on or before the 20th of each month for payment after 30 days of acceptance.

5.16. Services and other things provided by the Employer

The Employer shall endeavour to provide the appointed Contractor with all available information that may facilitate the progress of the project. However, in cases where such information is not available, the Contractor shall point out to the Employer for advice on steps to be taken.

5.17. Contractor's management, supervision and key people

The Contractor provides Organogram and Curriculum Vitae's of all his Key personnel (both as required by the Employer and as independently stated by the Contractor under Contract Data Part Two) and shows how such Key personnel communicate with the Project Manager, the Supervisor and their delegates.

5.18. Contract Change Management

Change Management shall be implemented in line with the NEC ECC processes.
In general, no scope or design changes are to be actioned until approved in writing at the appropriate level. Once a change or potential change has been identified, a decision will be taken by the Project Manager as to whether work in the area concerned is to be stopped or continued on the previously agreed scope – until such time as the change is approved. Only the Project Manager's instruction (PMI) shall be used as method to confirm and verify approved scope or design changes.

Once a Compensation Event (CE) is notified, the Project Manager along with technical support personnel and the NEC Supervisor will evaluate the CE. If the CE is accepted a Project Change Notice will be applied and the CE will be paid. Should the CE be rejected, the contractor will be informed accordingly, with reasons, and the CE will not be paid.

6. ANNEXURES

ANNEXURE A	Detailed Structural Scope of Works, Standards and Specification
ANNEXURE B	Detailed Electrical Scope of Works, Standards and Specification
ANNEXURE C	Detailed Architectural Scope of Works, Standards and Specification
ANNEXURE D	Detailed Civil Scope of Works, Standards and Specification
ANNEXURE E	AFT Structural Drawings
ANNEXURE F	Detailed Electrical Drawings
ANNEXURE G	Detailed Architectural Drawings
ANNEXURE H	Detailed Civil Drawings (Stormwater, Pavement etc)
ANNEXURE I	TNPA Health & Safety Specifications
ANNEXURE J	Baseline Risk Assessment
ANNEXURE K	Construction Environmental Management SOP
ANNEXURE L	TNPA-QUAL-REQ-14.1 General Quality Requirements for Contractors and Suppliers
ANNEXURE M	Minimum Environmental Standard for Construction

DOCUMENTATION DISTRIBUTION, REVISION AND APPROVAL HISTORY

REVISION NUMBER	DATE	DISTRIBUTION/ REVISION	PREPARED BY	REVIEWED BY	APPROVED BY
00	31/08/2023	Internal Review by Port	Engineering & Design Team	J. Matthee	David Kuhn
01	16/11/2023	Gate Review	Phakama Mbarane	Gate Review Panel	
02	14/07/2026	BSC Comments	Project Team	L Mokwele	Christian Truter

SIGNATORIES:

Prepared by: _____ _____
L. Du Plessis — Date
Senior Architect

Prepared by: _____ _____
M. Teffo — Date
Civil Engineer

Prepared by: _____ _____
B. Ntshangase — Date
Senior Electrical Engineer

Prepared by: _____ _____
N. Ngandane — Date
Structural Engineer

PART 4: SITE INFORMATION

Core clause 11.2(16) states "Site Information is information which

- describes the Site and its surroundings and
- is in the documents which the Contract Data states it is in."

In Contract Data, reference has been made to this Part 4 of the contract for the location of Site Information.

1. Description of the Site and its surroundings

1.1. General description

1.1.1. Site Location

The site is located within the Port of Saldanha, Western Cape, South Africa in the Bayvue precinct behind the Bayvue Centre Administration Block (TNPA

Figure1: Locality Map for the location of the Infrastructure Maintenance Depot

1.1.2. Working Hours

Normal working hours are between 08:00 and 16:30 Mondays to Fridays. The *Contractor* must obtain written permission to work outside the stated normal working hours at least 24 hours

before such work is to be undertaken. The *Employer* will not unreasonably withhold permission.

1.1.3. Access Permit

The *Contractor* will be required to apply for a Port access permit from the Port Security Department. No person will be allowed on site without a valid permit. Please note that turnaround times for verification of foreign employees' documents can take some time.

1.1.2. Working inside the Port

The site is in an operational area and the Contractor should take note that operations take preference. Information relating to planned operations will be shared with the Contractor and the execution of the works should be planned accordingly. The Contractor shall adhere to the restrictions in place when working next to port infrastructure and the limitations caused by other operations happening on site.

1.1.3. Parking

Parking will be provided for contractor's vehicles in designated to be communicated during project kick-off meeting. Any alternative parking must be arranged with the Project Manager.

1.1.4. Health and Safety

Transnet National Ports Authority has a strict health and safety policy in place. No persons may enter the site and undertake work on the site until undergoing the mandatory induction. The induction will be arranged by the Port staff at no cost to the *Contractor*. No work may start without a Site Access Certificate, and approved SHE file.

The *Contractor* need not to rely on the First Aid and Emergency facilities operated by TNPA within the Port. The *Contractor* shall be responsible for providing own first aid facilities as per the Health and Safety Specifications on Site. In all other respects the *Contractor* complies with the requirements stated within the *Employer's* Health and Safety Standard issued with this Works Information.

1.1.5. Restrictions on use of Hazardous Materials

No use of hazardous materials may take place without proper precaution. Any use of hazardous material must first be communicated with the *Project Manager.*

1.1.6. Pollution, ecological and Environmental Aspects

The *Contractor* shall appoint a responsible person to ensure that no accident shall occur on site that could cause pollution. Where the *Contractor* was negligent and caused any form of pollution the damage shall be rectified at the *Contractor's* cost.

1.1.7. Site Cleanliness

The *Contractor* shall provide for the cleaning up of any spill of chemicals, material or debris of whatever kind, generated from work, throughout the duration of the contract. Housekeeping should be done by close of business daily. The cleanliness of roads around the site, must be maintained at all times.

1.1.8. Control of Site Personnel

The *Contractor's* employees will be issued with temporary permit slips for the duration of the project and access to site requirements.

1.1.9. Security and Protection of Site

The *Contractor* is to provide their own security for the protection of the Works. If the *Contractor* elects not to do so, it is at their own risk.

1.1.10. Security and Identification of People

The *Contractor* must provide the list of employees that will be entering the site and apply for permits for their employees that will be working on site. Employees must provide identification when entering the site or when requested to do so by *Transnet National Ports Authority* employees or appointed security officials.

1.1.11. Deliveries

Deliveries made to site should be declared to the security personnel on duty by means of a material list and this must be facilitated via the *TNPA's Project Manager*.

1.2. Existing buildings, structures, and plant & machinery on the Site

1.2.1. Description of Existing Facilities

The Maintenance Depot building is always occupied specifically during the day. Therefore, the *Contractor* shall exercise caution not to disturb the employees of TNPA.

1.3. Access to the Works

Access to the Port will be via the Bayvue Port Entrances. The *Contractor's* employees shall produce their identification cards at the main entrance gate. All vehicles, persons and goods

may be subject to a search. Admission to the port is subject to random breathalyser testing. No alcohol is permitted on site and on Transnet Property.

1.3.1. Access Information

Access will be subject to the Employer's security and SHERQ requirements and regulations, which is described but not limited to requirements below:

a. Visitors must sign in at the main entrance gate to gain access to the Port.
b. All personnel entering general and operational areas under the jurisdiction of the *Employer* in the Port must undergo safety induction, which will be arranged.
c. Induction permits are mandatory and is also included as part of the safety file.
d. The *Contractor* must obtain a permit for vehicles entering the Port with equipment from the *TNPA* Security Office for the duration of the work.
e. The *Contractor* shall provide all personnel with the required PPE. The minimum safety requirements for working are as stipulated during the SHE file process and included hard toe boots, reflective vest, hard hat etc. Additional equipment including but not limited to ear, hand and face-protecting PPE as well as electrical specific insulating PPE that may be required for the Works.
f. The Contractor shall comply with the safety rules as indicated during the safety induction and as indicated on signage on any privately operated site entered.

1.4. Drawings

The drawings below must be studied prior to commencing any works on site.

Drawing Number	Description
XSD-E-0015-1-015-A-LA-0001-00-ATD	Site Plan

1.5. Underground Services

All known services will be indicated on site by the Client. It remains the responsibility of the Contractor to detect and protect the existing services. The Contractor shall liaise with the Project Manager in this regard before commencing any excavations.

Any damages to existing Port services due to negligence or recklessness of Contractor will be for the Contractor's account.

ANNEXURE A: DETAILED STRUCTURAL SCOPE OF WORKS, STANDARDS AND SPECIFICATION

Annexure A1: CONCRETE, FORMWORK and REINFORCEMENT

- **Particular specifications**

The following specifications shall apply:

- SANS 2001: CC1 Construction Works: Concrete Works (Structural)
- SANS 2001: CC2 Construction Works: Concrete Works (minor works)
- SANS 1083: 2018 Aggregates from natural sources
- SANS 10100-2:2014 The Structural use of concrete – Part 2: Materials and execution of work.
- SANS 50197-1:2013 Cement – composition, specifications, and conformity criteria. Part 1: Common cements.

NB: All in situ concrete work (mass and reinforced) shall comply with the relevant SANS specifications supplemented by the clauses in this section. Where SANS Specifications and the clauses in this section are in conflict the clauses in this section shall take precedence.

Where the term “plain concrete” appears in a SANS specification, it shall be read as “mass concrete”.

- **Cement**

  Common cements, complying with SANS 50197-1 shall be used for all concrete work. On no account shall masonry cements be used for concrete work, even if the strength designations are the same as for common cements.

  The Supervisor for test purposes may require samples of cement from any one, or from every consignment. Cement in any consignment from which a sample may have been taken for testing shall not be used until it has been approved. Allowance must be made for possible delay in that tests may take 10 days to carry out.

  Bags of cement shall be stacked in a waterproof, solidly constructed shed with a central door and a floor rendered damp-proof with a tarpaulin. The bags of cement shall be closely stacked (but not against walls) in order to reduce air circulation in such a manner that the cement is used in the order in which it was received, i.e. first in first out.

- **Alkali reactive concrete**

  Alkali Reactive Aggregates shall not be used in this project. The equivalent Na_2O content of the concrete shall not exceed 2, 0 kg/m^3 where % Na_2O equivalent = % Na_2O + (0,658 x %K_2O).

- **Aggregates**

  Fine and coarse aggregate shall comply with the relevant clauses of SANS 1083.

  Where aggregates have constituents, which in the opinion of the *Project Manager*, may give rise to damage due to alkali-aggregate reactions, the provisions of 6.3.3.3 shall be applicable.

Evidence of compliance of the aggregates with the requirements of 6.3.3.1 & 6.3.3.2 shall be furnished as early as practical. No aggregate shall be delivered for use in the works until approval is given.

Sand (fine aggregate):

The fine aggregates shall comply with the requirements of SANS Specification 1083. Other aggregates may be approved if they have a satisfactory history and / or test results.

No aggregate may be used until it has been approved. Samples having a mass of 25kg (16.5 litres) of the proposed aggregate to be used may be required by the Supervisor for test purposes. Samples having a mass of 25kg shall be forwarded every 3 months during concreting work and also if the source of supply is changed. Allowance must be made for possible delay in that the tests may take 14 days to carry out.

- **Admixtures**

  Admixtures containing chlorides will not be permitted in reinforced concrete.

- **Cover blocks**

  Cover blocks used to ensure the cover to reinforcement shall be made of cement mortar.

  Cover blocks shall be dense and have a minimum 28 day crushing strength of 30 MPa and shall be cured in water for at least 14 days before being used.

  Cover/spacer blocks made of plastic will also be permitted.

- **Concrete quality**

  Prior to the start of any concrete work on site, the *Contractor* shall submit a quality assurance plan which will ensure compliance with specification and provide acceptable documentary evidence that all specified operations have been carried out satisfactorily.

  Where the minimum dimension to be placed during a single pour is larger than 600mm, and the cement content of the reinforced concrete exceeds the following:

  Cement Types I and II/ * S : 400 kg/m^3

  Cement Types II/B-V and II/B-W : 450 kg/m^3

  The *Project Manager* may require that measures be instituted to reduce heat development in the concrete.

- **Unreinforced concrete**
  Class A Concrete:
  Filling to cavity of hollow walls.

- **Unreinforced concrete cast against excavated surfaces**
  15 Mpa/19mm Concrete
  Surface blinding under concrete foundations.

- **Reinforced concrete**

30 MPa/19mm Concrete:

- Foundations
- Surface bed slabs
- Columns
- Beams

- **Batching**

  All cementitious binders shall be batched by full sack or by mass batching with approved precision weighing equipment.

  All aggregates shall be precisely measured by mass using approved precision weigh-batching equipment, unless otherwise permitted by the *Project Manager*.

  Should any variation in the composition of the aggregate become apparent, the *Project Manager* shall be notified and a further sample of aggregate submitted immediately for his approval.

- **Concrete placing**

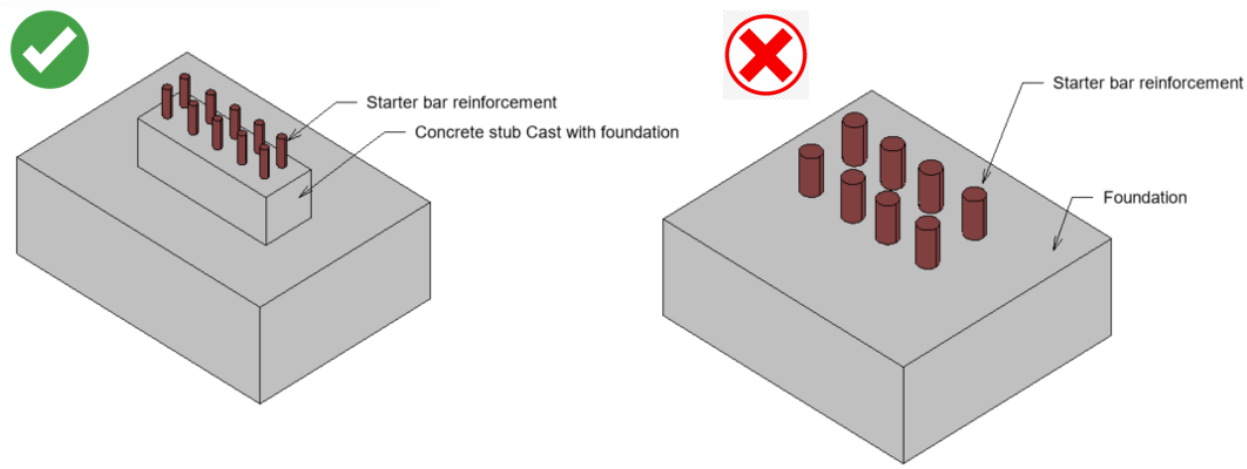
  The size, shape and depth of any excavation shall be approved by the *Project Manager* before concrete is placed.

  Unless otherwise permitted by the *Project Manager*, no concrete shall be placed until the fixed reinforcement has been accepted by him and confirmed in writing by way of a release certificate.

- **Construction joints**

  Unless otherwise shown on the drawings, the exact position of horizontal construction joints shall be marked on the formwork by means of grout checks in order to obtain truly horizontal joints.

  Stub columns, stub walls and stays on footings shall be cast integrally with the footing and not afterwards, even where another class of concrete is being used. See image below:



Joint lines shall be arranged such that they coincide with features of the finished work.

Where new concrete is to be cast against a hardened concrete surface, neat cement slurry mixed to a creamy consistency shall be brushed onto the cleaned concrete surface.

Contraction joints shall be smooth and shall have one coat of limewash or PVA applied to the older surface prior to casting the fresher concrete.

- **Slip Joints between Concrete and Brickwork**

Slip joints shall be provided between brickwork and concrete slabs and beams by levelling up and towelling smooth the bearing surfaces of brickwork with 3:1 cement mortar and covering the bearings before the concrete is baste, with two layers of one side smooth tempered hardboard, with the smooth sides in contact.

The ends and sides of beams and edges of concrete slabs shall be separated from the brickwork with 13mm thick bitumen impregnated soft board or expanded polyethylene strips placed vertically against the brickwork before the concrete is cast.

Similar slip joints shall be provided between brickwork and concrete lintels cast In situ, but without soft board or expanded polyethylene strips at ends.

- **Movement Joints**

All movement joints are to be filled in with approved bitumen impregnated soft board or expanded polyethylene strip unless otherwise specified or detailed on drawings. Descriptions (prices) of movement joints shall be deemed to include formwork.

- **Grouting**

25 MPa non-shrink cementitious grout.
Bedding approximately 25mm thick under base plate including chamfered edges all round.

- **Curing compound**

Unless otherwise directed by the *Project Manager*, the curing compound shall be:

An approved trafficable, resin-based, white pigmented, membrane forming for slopes flatter than 1:1.

An approved clear, aesthetically acceptable, membrane forming for all other concrete surfaces, including beam and slab soffits.

The curing compound shall comply with specification ASTM C309, except that the maximum permissible water loss in the test shall be 0, 40 kg/m^2.

Alternatively, the curing compound shall be acceptable if the treated concrete retains 90% or more of its mixing water when subject to the test set out in BS 8110 Part 1 – Chapter 6.6.

- **Curing compound application**

  The total application rate of the curing compound shall be the greater of the supplier's specification or 0.90 l/m^2. On textured concrete surfaces, the total application rate shall be 0.90 l/m^2.

  In cases of concrete surfaces with run-off problems, it may be necessary to apply more than one coat of membrane forming curing compound to obtain the specified total or cumulative application rate.

  Curing in accordance with SANS 10100-2 clause 10.8 shall commence on all concrete surfaces as soon as it is practical in the opinion of the Technical Officer.

  On unformed surfaces the curing compound shall be applied after finishing and as soon as the free water on the surface has disappeared and no water sheen is visible, but no so late that the liquid curing compound will be absorbed into the concrete.

  On formed surfaces, the exposed concrete shall be wet with water immediately after the forms are removed and kept moist until the curing compound is applied.

  Application of the curing compound shall begin once the concrete has reached a uniformly damp appearance with no free water on the surface.

  Application of the compound may be done by hand or power spray.

  The compound shall be applied at a uniform rate with two applications at right angles to each other to ensure complete coverage.

  Pigmented compounds, without a thixotropic agent, shall be adequately stirred to assure even distribution of the pigment during application.

  Unless otherwise directed by the *Project Manager*, the initial 24 hour curing of concrete surfaces not covered by formwork shall be carried out by ponding, covering with constantly wetted sand or mats, or continuous spraying in accordance with SANS 10100-2 when the following climatic conditions occur:

  Wind velocity greater than 5 m/s

  and/or

  Ambient temperature is above 25 °C

  and/or

  The relative humidity is below 60 %

  If plastic shrinkage occurs, the concrete, while still plastic, shall be re-vibrated, floated and re-coated with curing compound as if no curing has previously taken place.

- **Curing period**

  The curing period for concrete containing only CEM 1 shall be 7 days.

  The curing period for concrete containing CEM 1 plus cement extenders (MGBS, FA) shall be 10 days.

  The curing period will start on completion of the concrete pour and for formed surfaces shall included the time for which forms are still in place after the pour.

- **Concrete records**

  The *Contractor* shall maintain the following daily records for every part of the concrete structure and shall always make these available during the progress of the work for inspection by the *Project Manager*.

  - The date and time during which concrete was placed.
  - Identification of the part of the structure in which the concrete was placed.
  - The mixed proportions and specified strength.
  - The type and brand of cement.
  - The slump of the concrete.
  - The identifying marks of test cubes made.
  - Curing procedure applied to concrete placed.
  - The times when shuttering was stripped and props removed.
  - The date of despatch of the cubes to the testing laboratory.
  - The test results.
  - The records shall be delivered to the *Project Manager* each week except in the case of sub-standard concrete, when the *Project Manager* shall be informed immediately.

- **Tolerances**

  Deviations shall be within the limits listed in table 11 of SANS 2001-CC1 for degree of accuracy II unless otherwise specified.

- **Testing and monitoring**

  Frequency of sampling and testing shall be as specified in SANS 10100-2.

- **Cost of tests**

The costs of making, storing and testing of concrete test cubes shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Project Manager. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Project Manager (Test cubes are measured separately).

If the quantity of concrete from which samples were taken exceeds 40 m^3, it shall be subject to the testing of a minimum of 3 sets of samples per day from each grade of concrete placed in each independent structure.

If the quantity of concrete from which samples were taken is less than 40 m^3, it shall be subject to the testing of a minimum of 2 sets of samples per day from each grade of concrete placed in each independent structure.

If the *Contractor* disputes the results of the tests on concrete cubes, the concrete represented by the cubes will be considered acceptable if the *Contractor*, at his own cost, proves to the satisfaction of the *Project Manager* that the estimated actual strength of cores taken from the structure, determined in accordance with SANS 5865, is not less than the specified strength.

If the strength of the concrete fails to meet the acceptance criteria stipulated, the *Project Manager* may in his sole discretion and in addition to the options listed in SANS 10100-2:

accept the concrete subject to approved remedial measures being undertaken by the *Contractor*; or

permit the concrete to remain subject to the payment of a penalty

The penalty referred to will be determined as follows:

Penalty = V x R x F

Where

V = Volume (in the opinion of the *Project Manager*) of concrete of unsatisfactory strength represented by the test result.

R = Relevant scheduled rate

F = $$1 - \sqrt{\frac{Average\ strength\ of\ unsatisfactory\ concrete}{Specified\ strength\ +\ 6\ MPa}}$$

Where the relevant scheduled rate (R) includes the cost of formwork or

F = $$1 - \frac{Average\ strength\ of\ unsatisfactory\ concrete}{Specified\ strength\ +\ 6\ MPa}$$

Where the relevant scheduled rate (R) excludes the cost of formwork or where no formwork was involved.

- **Formwork**

Descriptions of formwork shall be deemed to include use and waste only (except where described as left in or permanent), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use.

Formwork to sides of bases, strip footings, etc. have been measured provisionally and will only be paid for where it is specifically prescribed by the Engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in Earthworks

- **Rough formwork (degree of accuracy ii)**

Rough Formwork to Sides:
Strip footings.
Bases.
Walls in foundations.
Outer face of walls flushes with perimeter of concrete structure.

Rectangular columns in foundations.
Edges not exceeding 300mm high.
Rough Formwork to Circular Columns.

- **Smooth formwork (degree of accuracy ii)**

Smooth Formwork to sides:
Inner face of shaft walls.
Edges not exceeding 300mm high.

- **Movement joints etc**

Expansion joints with soft board between vertical concrete surfaces:
12mm Joints not exceeding 300mm high.

- **Saw cut joints**

3.2 x 50mm And 6.4 x 20mm saw cut joints in two operations in top of concrete.
Seal Sikaflex-11FC or similar approved on backing chord to manufacturer's specification.
Horizontal toggle construction joints through concrete including thick cement slurry to one face.
Surface beds not exceeding 300mmm thick.

- **Reinforcement**

High tensile steel reinforcement to structural concrete work:
In various diameters and lengths
Mild steel reinforcement to structural concrete work
In various diameters and lengths
High tensile steel reinforcement to structural concrete work
Fabric reinforcement:
Fabric reinforcement type as specified on structural drawings.

- **Forming key to concrete for plaster, mosaic tiles and other finishes**

Where rough formwork has been used, surfaces of concrete to receive plaster, mosaic tiles and other finishes, shall, immediately after the formwork has been removed, be well wetted and wire brushed whilst the concrete is still green and then shushed over with 2:1 cement grout to form a key for the finish, all to the approval of the Supervisor. The shushing is to be allowed to set hard before the finish is applied.

Where smooth formwork is used, surfaces of the concrete to receive plaster, mosaic tiles and other finishes shall be hacked, on the distinct understanding that hacking of concrete shall be at no extra cost to the employer.

Surfaces of concrete receiving plaster or other finishes shall not be plastered or finished until the Supervisor has signified his opinion in writing that the surfaces are suitable to receive plaster or other finishes.

- **Sleeve Pieces and Ties**

Where it is necessary to leave plugs or holes in beams, slabs or any other reinforced concrete, all such plugs or holes must be situated in positions approved by the Supervisor before concreting. Where it is

necessary to carry pipes, bolts, wires or any other fittings through reinforced concrete members, approved pipe sleeves must be provided and placed in position before concreting.

Where waste, ventilation water, heating or other pipes under 100mm diameter pass through concrete slabs and beams, galvanised mild steel sleeve pieces or diameters shown or required shall be cast into such concrete slabs and beams.

Chases shall be formed in edges of slabs or slots shall be formed in the slabs, or sizes required, where two or more pipes pass through together.

All necessary bolts, plugs, brackets, cramps, etc. shall be cast into the concrete as the work proceeds.

Where brickwork abuts against concrete, the brickwork is to be tied to the concrete with galvanized hoop-iron ties 1.6m thick by 32mm wide and approximately 600mm long to every third course of brickwork with one end of each tie cast approximately 150mm deep into the concrete. Where such fixing is impossible, i.e. where steel formwork is used, the ties are to be gun-nailed against concrete with steel nails to less than 38mm long.

- **Bagged Finish to Concrete**

Concrete surfaces to receive bagged finish shall be prepared by removing sharp projections and making good defects with 3:1 cement mortar. Finish by rubbing over the whole area with wet rough sacking and cement grout to obtain an even surface.

- **Power Floated Finish**

Power floated finish to floors etc. means that surfaces shall be floated c\mechanically to a smooth and even finish before the concrete has set. Small areas inaccessible to the machine are to be floated by hand. Under no circumstances is cement mortar to be added while floating the concrete.

- **“No Fines” Concrete**

“No-fines” concrete, for grading flat concrete roofs and the like to falls, shall be in the proportion of 12 parts 19 iron cubical stone to 1 part cement mixed with 20 litres water per bag of cement and be laid to falls of not less than 15mm per linear metre for mastic asphalt and not less than 20mm per linear metre for sheet roof covering. For heavy load applications special mix designs may be required.

1) Fillets against up stands:

   Form triangular fillets, size 100 x 100mm, in corners with walls, kerbs, etc. neatly mitred at angles, stopped where necessary and finished smooth ready to receive waterproofing.

2) To raised floor, bases, etc:

   No-fines” concrete for raised floors, bases, etc. shall be in the proportions specified. Finished smooth with 3:1 sand/ cement screed to receive waterproofing.

- **Precast Concrete**

Materials

Cement, water, aggregates and reinforcement shall be as described under: **CONCRETE, FORMWORK AND REINFORCEMENT.**

Concrete

Concrete shall be as described under: **CONCRETE, FORMWORK AND REINFORCEMENT** and, unless otherwise specified. Class E concrete shall be used but with coarse aggregate of an appropriate size.

Smooth Finish

Where described as “finished smooth from the mould” such surfaces shall have a layer of fine stuff composed of 1:4 (1 part cement and 4 parts clean fine sand by volume) packed against the faces of the mould before placing the concrete backing. The concrete backing shall be disposed into the moulds in a wet state (not dry pressed) whiles the facing is still wet.
Projections shall be rubbed off the faces shall be of even colour and free from blemishes, cracks and other imperfections. Salient angles shall be arras rounded.

ANNEXURE A2: STEEL WORK

Governing Codes and Standards:

ANSI/AWS D1.1:	Structural Welding Code - Steel
BS-EN 287 Part 1:	Approval testing of welders/fusion welding
BS-EN 288 Part 3:	Specification and approval of welding procedures for metallic materials
BS 5135:	Metal arc welding of carbon and carbon manganese steels
BS 4360/SANS 50025:	Weldable structural steel
BS 2573 Part 1:	Classification, stress calculations and design of structures
BS 3923:	Methods for ultrasonic examination of welds
BS 2600:	Radiographic examination of fusion welded butt joints in steel
DIN 1026	Metric channels
ISO R657	Angles
SANS 10094	The use of high strength friction grip bolts and nuts
SANS 1700	Fasteners

- **Structural Steelwork**

  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.

  In the design of steel structures, due cognisance shall be taken of environmental and wind load conditions as specified in the main specification.

  Due to the highly corrosive conditions experienced in South African Ports, the permissible stresses shall not exceed those set out in British Standard No. 2573. The minimum thickness for any structural steel member/component shall not be less than 6mm.

  The design of mobile structures shall be such that the induced von Mises stress (effective stress in triaxial loading) will not exceed 90% of the elastic limit strength of the steel when the equipment is travelling at maximum speed and colliding with either other stationary equipment or fixed stop blocks. In calculating von Mises stresses, due cognisance must be taken of stress concentrations. If the elastic limit strength of the steel is not known, it will be determined by using a 0.5% strain offset on the stress-strain curve of the material.

  Where applicable, the design may be in bolted, riveted or welded box construction except that no site welding will be permitted in the final erection at the port except with the approval of TNPA.

Alternatively, a welded hollow section lattice type structure will be acceptable, subject to the following requirements:

- The members must be structural sections made from BS 4360/SANS 50025 grade S355JR / 43C weldable structural steel - welded for sizes up to and including 110mm outside diameter (BS 1775 HFW) - seamless for sizes over 110mm outside diameter (BS 1775 HFS).
- Tube wall thickness must not be less than 6mm.
- All joints must be completely seal welded in accordance with BS 5135. Special care must be taken to prevent the ingress of moisture into hollow section members by ensuring that each member is airtight.
- Bolted or screwed attachments which require drilled holes through a hollow section will not be permitted.
- Non-hollow structural sections and plate used on the structure, in conjunction with the hollow section framework, must comply with the relevant requirements of this specification.

- All steel sections shall be manufactured in accordance with the following standards :-

Weldable structural steel:	BS 4360/SANS 50025
I and H sections:	BS 4 Part 1
Metric channels:	DIN 1026
Structural steel, hot rolled sections:	BS 4 Part 1
Angles: I	SO - R657
Hot finished hollow sections:	BS 4848 Part 2
Cold formed sections:	BS 6363
Forgings:	BS 29
Steel castings:	BS 3100
Cast iron:	BS 1452

All steel plates and rolled steel sections used in the construction of the structures shall be of steel made by the open hearth process (acid or basic) and shall comply in every respect with BS 4360, "A" quality Structural Steel for Bridges and General Building Construction, Grade 43A or Grade 50B or SANS 50025 grade S355JR, where sections sizes allow. That is, the percentage of phosphorous and sulphur shall not exceed 0,06.

The above is laid down as a standard, but tenders will also be considered for rolled steel not conforming strictly to the above standard. Full particulars of the guaranteed properties of the steel tendered for should in this case be furnished, i.e. chemical composition, tensile strength, yield point, reduction in area, bend tests, etc.

Forgings and drop forgings shall be free from flaws and surface defects of any kind and be accurately finished to the prescribed dimensions.

Steel castings shall be sound, clean and free from all defects and distortion of any kind and should, except where otherwise specified, conform with the conditions and tests specified in B.S. No. 3100/Latest Edition, for grades A, B and C according to requirements. They shall be thoroughly annealed and all working parts and bearing surfaces shall be machined and turned accurately with correct finish.

Cast iron used throughout must be close grained, tough and free from all defects, and shall conform to the conditions and tests specified in B.S. 1452/Latest Edition, for grades 12 to 14 according to requirements.

This applies to functional components only. A lower grade is acceptable for portal and machinery house ballast. Tenderers to state grade of cast iron proposed.

The dimensional and out-of-square tolerance as specified in the above Standards shall also apply to built-up components. Edge preparations, welding techniques, straight beds and material fit-up shall be considered when welded joints are designed.

The shape of all members and connections must allow easy accessibility for maintenance painting of all surfaces. No members shall comprise a double member which cannot be painted and maintained.

Structural details must be so designed as to eliminate or seal off any cavities or pockets where water or condensation could collect and promote corrosion. Horizontal members with upstanding flanges require special drainage.

All hollow sections shall be completely closed and airtight, and all welding is to be of such size and quality as to ensure complete airtightness. No tapping or drilling of holes into sealed sections will be permitted.

- **Welding**

All the provisions of BS 5135 shall be complied with as far as applicable.

Design of weld joints shall be such that crevices, overlaps, pockets, arc strikes and dead ends do not exist.

All joints shall be completely seal welded in accordance with BS 5135. Special care must be taken to prevent the ingress of moisture into the tubular members by ensuring that each such tubular member is airtight. “Stitch” welding will not be permitted. Only continuous welding will be accepted.

Weld cracks, undercut, or pock marks will not be accepted.

All welds on the load bearing frame structure, containers, piping, pipe line flanges, etc., shall be continuous and shall be visually inspected for cracks and other discontinuities.

Welds on the main chords must be tested ultrasonically in accordance with BS 3923 or X-rayed in accordance with BS 2600 and those on minor joints by the dye-penetrant method. The equipment required for these tests must be supplied by the Contractor and the testing done at his cost.

Steel, except in minor details, which has been partially heated, shall be properly annealed. (Electrically welded structural members excepted.)

All brackets, clamps, lugs, straps, suspenders, etc. required for attaching mechanical and electrical equipment must be welded on prior to erection and special precautions must be taken not to damage welds or puncture tubes during erection.

The welding of all rails shall be done by an approved method.

Welding shall only be carried out by a coded welder according to SANS 10044, BS-EN 287 Part 1 and BS-EN 288 Part 3 or ANSI/AWS D1.1.

All parts to be welded shall be thoroughly cleaned and dried before welding. The welding will only be done in dry surroundings and all steps taken to prevent hydrogen embrittlement.

Where materials of different compositions are joined by welding, especially carbon steel to chrome steel, the filler welding method and post welding treatment shall be such that embrittlement and other degradation of both steel and filler is prevented.

It must be ensured that welded joints are ductile.

- **Fasteners**

All friction grip fasteners shall be hot dip galvanised, including high tensile bolts (and their nuts and washers), structural rivets and Huck bolts.

All holding down bolts and nuts and brackets, as well as all fixing bolts, studs, nuts and washers shall be of stainless steel. Fixing rivets shall be of either stainless steel or brass.

Bolts and set screws shall be locked in an approved manner and shall not be stressed in tightening to beyond the recommended loads.

The quality of friction grip bolts, nuts and washers, bolt lengths, sizes of holes, tightening standards, surface condition of clamped components, shop and site assembling and acceptance inspection of friction grip joints shall comply with the latest edition of SANS 10094. Certificates shall be supplied for all bolts of grade 8.8 and 10.9.

All bolt and rivet holes must be accurate to size and location, the centres of holes shall not be placed nearer the edge of a plate than 1,5 diameters with an extra allowance of 3mm for sheared edges. All holes in the structural work shall be drilled or otherwise punched to a diameter not exceeding 1,5mm less than the diameter of the finished hole on the die side, and afterward reamed out to the exact size.

Where possible the adjoining parts forming a connection shall be drilled or reamed together, with holes not exceeding 1,5 mm diameter the rivet or bolt for which it is made. No rough or broken edge shall be left around any of the holes.

For turned and fitted bolts, the holes shall be accurately drilled or reamed; the diameter of the hole shall not exceed the finished diameter of the bolt by more than 0,25mm.

The holes, after assembly of the parts, shall be true throughout the thickness of all the parts and perpendicular to the axis of the member.

Rivets shall be cup-headed or countersunk as required, unless otherwise specified. No rivet head shall contain less metal than does a length of the rivet equal to 1,25 times its diameter. All loose and defective rivets shall be cut and replaced by sound ones; also others when required for the purpose of examining the work. Rivets shall be driven with pressure tools whenever possible and pneumatic hammers shall be used in preference to hand driving.

All field rivets must be supplied with shanks of suitable length for pneumatic riveting.

Bolts shall be of such a length as to accommodate a full nut when tightening up, and project at least two thread pitches beyond the nut. Excessive projection of threads beyond the nuts should be avoided.

All bolts having countersunk heads shall have strong feathers forged on the neck and head to prevent turning and the bolt holes shall be cut to receive same. All nuts and bolts (excluding countersunk bolts) shall be furnished with circular washers of sufficient thickness, the outside diameter being at least twice the nominal diameter of the bolt, and washers fitted correctly.

Where bolt heads or nuts are seated on bevelled surfaces of beams or channel flanges, bevelled washers must be inserted.

- **Joints and Mating Surfaces of Members**

Mating surfaces of members to be joined by high tensile steel bolts in friction grip shall be cleaned and primed as specified for the rest of the steelwork. Mating surfaces shall lay flat against each other to eliminate gaps which may allow ingress of water. After joining, the edges shall be sealed with an approved brand of Butyl/ Rubber sealing compound by means of a suitable caulking gun, or shall be seal welded.

Other joints shall be formed by one of the following methods:

The mating surfaces of members shall be blast cleaned, primed and protected prior to sub-assembly by the liberal application of caulking compound. While the compound is still wet, the members shall be bolted together and caulking compound which is squeezed out shall be completely removed.

The mating surfaces shall be protected with the full corrosion protection system as specified, the surfaces joined together and the joint so formed shall be sealed with butyl rubber sealer.

After being cleaned and primed the surface shall be joined together and the joint so formed shall be seal welded.

The primer coating on mating surfaces must be applied not more than 4 hours after cleaning and the edges must be sealed within 3 weeks of assembly of the part.

- **Fabricated Parts**

All fabricated parts shall be properly fitted during assembly to result in properly aligned equipment having a neat appearance. Fabrications of load bearing members shall have no abrupt changes in cross section and regions of severe stress concentration. All sharp corners accessible by personnel during erection or operation shall be ground, rounded, or removed by other methods. Burrs, welding spatter and stubs of welding wire shall be removed.

ANNEXURE A3: CORROSION PROTECTION

- **Scope**

  Structural steelwork in coastal area (within 10km from coast):
  Structural steelwork is to be protected against corrosion as follows:

This specification covers requirements for protective coating of iron and steel structures, electrical motors, gear boxes etc. against corrosion and must be read in conjunction with the main specification as well as the following (latest editions):-

SANS 10064	"Preparation of steel surfaces for coating"
SANS 121	"Hot-dip (galvanized) zinc coatings"
SANS 1091	"National colour standards for paint"
BS 5493	"Code of practice for protective coating of iron and steel Structures against corrosion"

- **Types of Corrosion Protection to BE USED**
  - The coatings specified in this specification are chosen according to BS 5439, Table 3, part 9, to ensure that the condition of the surface will be at least RE2 on the European scale of degree of rust, after 10 years in an environment of frequent salt spray, chemicals and polluted coastal atmosphere. During the 10 years, the normal maintenance painting will be done.
  - The paint manufacturer shall guarantee the paint for at least 10 years.
  - Should a tenderer wish to offer coating systems other than those specified, as an alternative, he shall submit full technical details and a list comparing all appropriate details of the alternatives proposed, with the original specified.
  - Tenderers must ensure that the different coats they offer in their tenders are compatible with each other.
  - The coating of proprietary items must be done according to Clause 3.
  - All galvanized components including bolts and nuts but excluding walkway gratings, must be painted with the specified system, unless otherwise approved.
  - The following coating systems must be used unless otherwise specified in the main specification:-

Substrate	Coat No	Generic Description	Dry Film Thickness (μm)
3CR12 steel	1	Surface tolerant epoxy primer	65-75

	2	Two component recoatable, polyurethane finish (Gloss)	65-75
Galvanized Steel	1	Surface tolerant epoxy primer	65-75
	2	Two component recoatable, polyurethane finish (Gloss)	65-75

Substrate	Coat No	Generic Description	Dry Film Thickness (μm)
Mild steel	1	Two component self curing inorganic zinc ethyl silicate OR two component zinc rich polyamide cured epoxy primer	65-75
	2	Flexible recoatable high build polyamide cured MIO epoxy	125-150
	3	Two component recoatable, polyurethane finish (Gloss)	65-75

- The paint manufacturer's recommendations for the application of the different coating systems, curing time before handling or application of subsequent coats, health and safety recommendations etc. must be carefully adhered to.
- Paint contractors must have a quality management system which must be submitted to the Engineer for approval before commencement of the work.
- Galvanizing shall be done to SANS 121 heavy duty hot dip galvanizing to a thickness of at least 85μm. Electroplated components in zinc or cadmium are not acceptable.
- All mounting bolts, nuts, washers and brackets as well as all fixing bolts, studs nuts and washers shall be of stainless steel. Fixing rivets shall be of either stainless steel or brass.
- High tensile bolts for friction grip joints must be hot dip galvanized and painted. High tensile bolts must be certificated after galvanizing.

- The full paint system shall be applied to all surfaces which are to be covered with wear pads, linings etc.

- For steelwork which will be transported over long distances and erected on site the two pack epoxy primers is preferred.

- **Surface Preparation**

    - All steel surfaces shall be detergent washed and fresh water rinsed to remove all oil, grease and surface contaminates before shot blasting.

    - Sharp edges shall be radiused and major roughness of welds shall be removed by grinding. Welding spatter and flux shall be removed.

    - Components manufactured from hot rolled steel sections and steel plate shall be blast cleaned to base metal in accordance with SANS 10064 grade SA2½ - very thorough blast cleaning, to remove all mill scale, rust, weld spatter etc.

        - "Sharp" chilled iron shot, chilled iron grit, or granular abrasive slag is to be used to produce a proper degree of surface roughness.

        - Blast profile shall be determined by micrometre profile gauge, Keane-Tator surface profile comparator or Testex press-o-film.

        - The profile height shall be between 40 and 50μm at any point.

    - Good quality blast cleaning and spray painting equipment shall be used. Air used for spraying and blast cleaning shall be free from all traces of oil, water and salinity. Water and oil traps must be fitted to all equipment.

    - Wheel abrading equipment shall not be used unless an angular profile the same as clause 4.3.3 is achieved.

    - When wet blasting is done the primer shall be applied before oxidization starts or surface contamination occurs.

    - Components manufactured from 3CR12 steel shall be lightly abraded. The components shall then be passivized by using a mixture of 10 - 15% nitric acid in water which is rinsed off after 10 - 15 minutes. The surface shall be neutralized to pH 7 before it is coated.

    - Hot-dip galvanized components, galvanized bolts and nuts etc. shall be lightly abraded with a galvanizing pre-cleaner. The components shall then be washed with detergent and water and washed down with clean water until a water break free surface is achieved. Allow to dry thoroughly.

- **Joints and Mating Surfaces of Members**

    - Mating (faying) surfaces of members which have to be joined by high tensile steel bolts in friction grip shall be cleaned according to Clause 4 and painted with primer only.

    - After being assembled joints so formed shall be seal welded and painted or after the intermediate coat was applied the edges shall be sealed with an approved brand of paintable flexible sealant or mastic (e.g. Butyl rubber, polyurethane sealer or two component epoxy), by means of a suitable caulking gun.

- All rivets, bolts, welds, sharp edges etc. must be covered with a "stripe coat" of the primer or intermediate coat specified to ensure the correct dry film thickness on sharp edges, as well as sealing of bolt threads to head etc.

- All other mating surfaces must be sealed with an approved brand of flexible Butyl rubber, paintable Silicone, polyurethane sealer or two component epoxy sealer, and joined while still wet. All excess compounds must be completely removed.

PAINTING PROCEDURES

- Directly before the application of paint, the area to be painted shall be degreased with a suitable degreaser and left to dry.

- Paint shall only be applied under the following conditions:-

    - There is adequate light.

    - The steel temperature is between 5 and 50°C and at least 3°C above the dew point of the air.

    - The relative humidity of the air is between the limits specified by the paint supplier.

    - Wind does not interfere with the method used and sand and dust cannot be blown onto wet paint.

- Steelwork shall be supported on trestles, at least 900 mm off the ground for painting purposes.

- An adequate number of test readings shall be taken per square meter in order to determine the dry film thickness.

    - The paintwork shall be acceptable if the average of the test readings taken falls within or exceeds the ranges given.

    - Paintwork shall not be acceptable if any single test reading is less than the specified minimum thickness.

- An ultrasonic or electronic magnetic flux thickness measurement gauge shall be used, but in case of dispute, destructive testing shall be applied. he painted steelwork shall present a clean, neat appearance of uniform colour and gloss as applicable to the paint used. Each coat of paint shall be applied as a continuous, even film of uniform thickness. More than one application of paint may be required to achieve the dry film thicknesses specified or to obliterate the colour of the previous coating.

- The use of thinners or solvents at any stage of the work is prohibited, unless specified by the paint manufacturer.

- Precautions shall be taken to prevent coatings from being applied to equipment nameplates, instrument glasses, signs etc.

- **Colour Codes**

  Machinery and equipment shall be painted in the following final colours:-

	Area	Colour	Code No. [SANS 1091 and International No's]
	Mobile equipment (cranes, loaders etc.) a) Structure, machinery and electrical houses, operator's cabins, chutes, hoppers etc. b) Undercarriage, travel bogies, rubber tyred rims	 Transnet White Transnet dark grey	 RAL 9016 RAL 7024 (Graphitgrau) SANS 1091 GO4 (Bluegrey) BS 381C-633
	Industrial buildings, conveyor structures		
	a) Roofs and canopies	Pantone cool grey 10	RAL 7037 (Staubgrau)
	b) Painted walls	Pantone cool grey 3	RAL 7035 (Lightgrau) or SANS 1091 G62 (Pale grey)
	c) Steel columns, rafters, trusses	Pantone cool grey 5	RAL 7004 (Signalgrau)
	General		
	a) Guards	Golden yellow	SANS 1091-B49 RAL 1003
	b) Sheaves	Orange	RAL 2008
	c) Cable reels (Stainless steel	Orange	RAL 2008
	Machine buffers and parts of machine which could constitute a serious hazard	Golden Yellow (High Gloss) with Luminous green stripes in chevron pattern	SANS B49 and Luminous green

	Area	Colour	Code No. [SANS 1091 and International No's]
	e) Any exposed rotating part of machinery, electrical Switch-gear (other than starting and stopping	Light Orange (High Gloss)	SANS 1091 B26 BS 381C-557

	devices and emergency stop control), electrical services e.g. conduit and allied fittings		
	f) Low voltage switchgear panels where orange is not aesthetically acceptable	Light grey	SANS 1091-G29 BS 381C-631
	g) Medium voltage cable trays, switchgear and motors (3,3 kV and up)	Oxford Blue	SANS FO2 BS 381C-105 RAL5003
	h) Starting devices, low voltage cable trays and switchgear	Mid Brunswick green (high gloss)	BS 381C-228 SANS1091-EO4 RAL6005
	i) Parts of stationary machinery (Electrical, motors, gearboxes, brakes, transformers, etc.])	Light Grey	SANS G29 BS 381C-631
	j) Hand levers, hand wheels, oiling points, handrails on walkways, ladders	Golden Yellow (High Gloss)	SANS 1091 B49 BS 381C-356
	k) Stopping devices, grease points , motor fan covers and danger signs (not symbolic safety signs for which see SANS 1186)	Signal red (High Gloss)	SANS 1091 A11 BS 381C-537 RAL3001
	l) Walkways (non slip surfaces) (galvanized gratings not to be painted)	Shop floor green	
	m) Informatory signs and notices (not symbolic safety signs for which see SANS 1186)	White on Emerald Green (High Gloss)	White on SANS 1091 E14 BS 381C- 228

	Area	Colour	Code No. [SANS 1091 and International No's]
	Pipe lines		
	a) Reclaim water piping	Aluminium	
	b) Slurry pipe lines	Dark admiralty grey	SANS 1091-G12
	c) Fire protection piping	Signal red	SANS 1091-A11
	d) Washwater drain pipes	Light grey	SANS 1091-G29
	e) Instrument air	White with Strong blue band	White and SANS 1091-F11
	f) Plant air	White with Flag blue band	White and SANS 1091-FO4
	g) Potable water	Grass green	SANS 1091-D14

Colour bands for pipes shall be 75 mm wide for pipe sizes up to 150 mm diameter and 100 mm wide for 150 mm and above. The colour bands shall be applied to the pipe flanges, valves, junctions, walls or structures etc. in such a manner that the pipe may be easily identifiable. On straight sections the maximum spacing shall be 100 x the pipe diameter.

- **Field Touch-up Painting**

  - Damaged and unpainted areas, fasteners, welds, etc. shall be cleaned by wire brushing with hand tool or power tool in a manner which will minimize damage to sound paint. Grinding will not be allowed. Rust spots shall be cleaned to bright metal. Thick edges of old paint abutting on bare metal surfaces shall be feathered by scraping and sanding.

    - Where welding is required on areas already coated with the coating system, the coat should be stepped back for ± 30mm around the weld area.

  - The paint shall be applied to match the original coats in accordance with the manufacturer's recommendations for the specific paint system.

Note: Inorganic zinc primers shall not be re-covered with an inorganic primer, but only with an organic zinc primer.

- Areas of damaged galvanizing shall be repaired with an approved cold galvanizing product or metal sprayed by the wire spraying process with Zinc, and then touched up with the specific paint system.

- **General**

  - All walkways, floors, maintenance platforms etc. must be painted with a durable, non skid coating of the appropriate colour.

  - Exposed machined surfaces must be coated with a strippable corrosion inhibitor (e.g. Tectyl).

- Where different materials will be in contact with each other and galvanic corrosion can occur the contact areas of the materials must be isolated from each other or the joints made water proof to prevent ingress of moisture.

- All components must be designed with corrosion prevention in mind and specifically the following:-

    - No entrapment of dirt, product, moisture etc.

    - No areas must be inaccessible for maintenance such as too narrow gaps etc.

    - Large flat areas rather than complicated shapes and profiles.

    - No sharp corners and discontinuous welds.

- Parts of equipment which are exposed to high temperatures must be coated with the following system: -

	Coat No	Generic Description	Dry Film Thickness (μm)
	1	Two component self curing inorganic zinc ethyl silicate	65-75
	2	Single component high temperature moisture curing silicone with aluminium flakes	40

ANNEXURE B: Detailed Electrical Scope of Works, Standards and Specification

The purpose of this document is to detail the works to be undertaken by the *Contractor* in relation to the construction and execution of the new Operations Facilities for Infrastructure Maintenance Depot in the Port of Saldanha. Within this document, the works detailed, to be undertaken by the *Contractor* includes but not limited to:

- Supply, delivery, and installation of LV cables.
- Supply, delivery, and installation of exterior building mounted luminaires.
- Supply, delivery, and installation of interior luminaires for all storage areas.
- Supply, delivery and installation of building cabling, distribution boards, wire ways and associated equipment.
- Design, supply, and installation of earthing and lightning protection system.
- Commission and testing of the entire installation and hand over to the *Employer*.

1.1 List of Abbreviations

Abbreviation	Description
℃	Degree Celsius
A	Ampere
AC	Alternating Current
ACB	Air Circuit Breaker
CCTV	Closed Circuit Television
DB	Distribution Board
ECC	Earth Continuity Conductor
FAT	Factory Acceptance Test
FEL	Front End Loading
Hz	Hertz
HDG	Hot Deep Galvanised
HML	High Mast Lighting
IEC	International Electrotechnical Commission
IP	Ingress Protection
kA	kilo-Amps
kV	kilovolts
LED	Light Emitting Diode
LV	Low Voltage

m	Metres
mm^2	Squared millimetres
MCB	Miniature Circuit Breaker
MCCB	Moulded Case Circuit Breaker
OEM	Original Equipment Manufacture
PAS	Public Address System
PVC	Polyvinyl chloride
RMU	Ring Main Unit
SAT	Site Acceptance Test
SWA	Steel Wire Armouring
SANS	South African National Standards
TNPA	Transnet National Ports Authority
UPS	Uninterrupted Power Supply
V	Volt/ Voltage
VCB	Vacuum Circuit Breaker
W	Watts
XLPE	Crossed Linked Polyethylene

2 Employer's responsible Personnel

The following is the list of the *Employer's* responsible personnel with respect to the works to be carried out as detailed in this document.

Details of Personnel	**Responsibility undertaken**	**Contact details**
Siyabonga Maseko	Electrical Technician	061 466 5208
Bonga Ntshangase	Senior Electrical Enginee	078 861 6686
Shirley Ngwenya	NEC Supervisor	022 703 5437
Shirley Ngwenya	Construction Manager	022 703 5437
Sakhile Dlamini	Engineering Manager	021 449 2334 / (066) 494 9892
Phakama Mbarane	Project Manager	022 703 5495/ (066) 016 0613

3 Governing Codes, Standards and Specifications

3.1 SANS Standards

All *Design's* undertaken, *Plant's* and *Materials* supplied, *Equipment's* to be used by the *Contractor,* in agreement with the *Employer,* with the intention to execute the works detailed in this document, shall comply as a minimum, to the requirements of the SANS/IEC standards listed in the table below. Where reference is made to a standard, the reference shall be taken to mean the latest edition of the standard, supplements, and revisions thereto.

Table 3-1: SANS Codes

Standard No.	Description
SANS 32/SANS121	Hot Dip Zinc (galvanised) Coatings
SANS 156	Moulded-case circuit-breakers
SANS 767 - 1	Fixed earth leakage protection circuit-breakers
SANS 780	Distribution Transformers
SANS 950	Unplasticized chloride rigid conduit and fittings for use in electrical installations
SANS 1063	Earth rods, couplers, and connections
SANS 1085	Wall outlet boxes for the enclosure of electrical accessories
SANS 1091	National colour standards for paint
SANS 1213	Mechanical cable glands
SANS 1279	Floodlight Luminaires
SANS 1433 - 1	Electrical terminals and connectors Part 1 terminal blocks having screw and screw less terminals
SANS 1433 - 2	Electrical terminals and connectors Part 2: Flat push-on connector
SANS 1507 (part 1 – 4)	Electric cables with extruded solid dielectric insulation for fixed installations (300/500 V to 1900/3300V) Part 1 - 4
SANS 1777	Photoelectric control units for lighting (PECUs)
SANS 10199	The design and installation of earth electrodes
SANS 60137	Insulating Bushings for Alternating Voltages above 1000V
SANS 60439 - 2	Low-voltage switchgear and control gear assemblies Part 2: Requirements for bus bar trunking systems (busways)
SANS 60669 - 2 - 1	Switches for household and similar fixed electrical installations Part 2-1: Requirements - Electronic switches
SANS 60669 - 2 - 4	Switches for household and similar fixed electrical installations Part 2-4: Requirements - Isolating switches
SANS 60947 - 7 - 1	Low Voltage Switchgear and Control gear Part 7 – 1: Ancillary equipment – Terminal blocks for copper conductors
IEC 60998 - 2 -1	Connecting devices for low-voltage circuits for household and similar purposes Part 2-1: Requirements for connecting devices as separate entities with screw-type clamping units.

IEC 61643 - 1	Low-voltage surge protective devices Part 1: Surge protective devices connected to low-voltage power distribution systems - Requirements and tests

3.2 Codes of Practice

All *Design's*, *Construction* works (i.e., excavation), *installation* works to be undertaken by the *Contractor*, in agreement with the *Employer,* with the intention to execute the works detailed in this document, and shall adhere to as a minimum, the requirements of the *Codes of Practice* listed in the table below. Where reference is made to a *Code of Practice*, the reference shall be taken to mean the latest edition of the *Code of Practice*, including latest amendments, supplements, and revisions thereto.

Table 3-2: List of Codes of Practice

Standard No.	Description
OHS Act 1993	Occupational Health and Safety Act (Electrical Installation regulations)
SANS 10142-1	Code of Practice for the Wiring of Premises Part 1 Low Voltage Installations
SANS 10389-1	Exterior lighting Part 1: Artificial lighting of exterior areas for work and safety
SANS 10389-2	Exterior lighting Part 2: Exterior security lighting
SANS 10389-3	Exterior lighting Part 3: Guide on the limitation of the effects of obtrusive light from outdoor lighting installations
SANS 10114-1	Interior Lighting Part 1 The artificial lighting of Interiors
SANS 10114-2	Interior Lighting Part 2
SANS 10313	Code of Practice for protection of buildings against lightning.

3.3 Transnet Specifications

All *Design's* undertaken, *Plant's* and *Materials* supplied by the *Contractor* in agreement with the *Employer*, with the intention to execute the works detailed in this document, shall comply in general with all associated Transnet Specifications listed below. It is understood that Transnet Specification requirements are more stringent than the SANS requirements, the *Contractor* is required to fully comply with the Transnet Specifications. In the case where SANS is stringent than Transnet Standard, the *Contractor* shall comply with SANS.

Table 3-3: List of Applicable Transnet Standards

Specification No.	Description
TPD-001-EL&PSPEC	Technical specification for electrical installations to building other than dwelling houses
TPD-002-DBSPEC	Technical specification for low voltage distribution boards
TPD-003-CABLESPEC	Technical specification for the installation of medium and low voltage cables
TPD-004-EARTHINGSPEC	Technical specification for earthing and the protection of buildings and structures against lightning.

4 Plant Service Condition

4.1 Ambient/Environmental Conditions

All *Plant* and associates to be supplied by the *Contractor* shall be designed and rated for continuous operation under the following conditions:

Table 4-4: Site Conditions

Condition	Site Values
Type of Environment	Coastal
Altitude	0-250m
Ambient Temperature	-3°C to +40°C
Relative Humidity	As high as 90%
Lightning Conditions	Severe, with a maximum lighting ground flash density of 0.3 flashes per km^2 per annum
Air Pollution	Atmosphere will be of a highly saline and dust laden nature containing iron ore dust.

4.2 Electrical Conditions

The Low Voltage system of supply will be three phases, 4 – wire system, 50Hz alternating current (AC) at a nominal voltage of 400V.
The voltage may vary within the range of 95% to 105% of the nominal and all equipment installed shall be suitably rated.

5 Electrical Scope of Work to be carried out by the *Contractor*

This works information shall be read in conjunction with the drawings listed in Table 5.1, SANS listed in section 5, codes of practice listed in Table 3.2 section 3 and Transnet specifications listed in Table 3.3 section 3 herein this document.
All works to be carried out shall be performed with full adherence to safe practice of electrical installations as stipulated in SANS 10142-1, SANS 10142-2 and OHS Act 85 of 1993 (Electrical Installation Regulations). The Employer's basic Design for any electrical part of the works is described in the following drawings:

Table 5-1. Employer's Electrical Design Drawings

Drawing Number	Drawing Title	Revision
SBH07R0003-001-00	Single Line Diagram: Main Distribution Board for Infrastructure Maintenance Depot	01
XSDE0015-000-E-LA-0001-01-.1	Small Power and Lighting Layout: Operational Facilities for Infrastructure Maintenance Depot	01
XSDE0015-000-E-LA-0002-01-.1	Supply Cable Route Layout: Operational Facilities for Infrastructure Maintenance Depot	01
XSDE0015-000-E-LA-0003-01-.1	Earthing and Lightning Protection: Operational Facilities for Infrastructure Maintenance Depot	01
XSDE0015-000-E-SL-0001-01-.1	Single Line Diagram: Operational Facilities for Infrastructure Maintenance Depot	01
XSDE0015-000-E-LA-0004-01-.1	Exterior Lighting Layout: Operational Facilities for Infrastructure Maintenance Depot	01

5.1 Small Power: Modifications to Existing Main Distribution Board

The contractor shall install 6 new circuit breakers as per drawing (XSDE0015-000-E-SL-0001-01-.1) within the existing main distribution board. The circuit breakers shall be compatible with the existing switchgear. The contractor shall provide a minimum 2 week notice for the works to be performed. The contractor shall provide a detailed method statement inclusive of anticipated durations for the activity.

5.2 Small Power: Low Voltage Reticulation

The contractor shall supply and install low voltage cabling from the existing main distribution board to the following sub-distribution boards:

- SDB-Electrical and Red tag
- SDB-Generator Room
- SDB General Store
- SDB-Materials Delivery and Sand Blasting
- SDB-Equipment Store
- SDB-Portal Frame
- SDB-Materials Delivery and Bulk Storage

The cables shall be installed in the allocated conduits, cable ways and trenches as shown in drawing (XSDE0015-000-E-LA-0003-01-.1). All cable installation shall comply with TPD-003-CABLESPEC. The cables shall enter all new buildings via conduits that shall be allowed for by the civil contractor. The

contractor shall ensure that all conduits are suitably sealed afterwards to prevent the ingress of dirt, moisture and vermin.

5.3 Distribution Boards

The contractor shall supply and install the following distribution boards.

- Sub Distribution Board – Electrical and Red Tag (SDB – Elec)
- Sub Distribution Board – Generator (SDB – Gen)
- Sub Distribution Board – General Store (SDB – Gens)
- Sub Distribution Board – Materials Delivery and Sand Blasting (SDB – MD&SB)
- Sub Distribution Board – Equipment Store (SDB – Equip)
- Sub Distribution Board - Materials Delivery and Bulk Store (SDB – MD&BS)
- Sub Distribution Board – Portal Frame (SDB – Porf)

All distribution boards shall be single phase, surface mounted with a lockable door. The contractor shall ensure that all distribution boards are securely mounted at the correct heights as indicated on the drawings.

5.4 Interior Lighting

The contractor shall supply, deliver, offload, and install luminaires as per drawing number (XSDE0015-000-E-LA-0001-01-.1). The contractor shall ensure that all luminaires are mounted at the indicated height. The contractor shall supply, deliver, offload, and install lighting switches as per drawing (XSDE0015-000-E-LA-0001-01-.1). All lighting cables shall be routed through PVC conduits that have been chased into the walls where available. In the event that PVC conduits are not available the contractor shall supply, deliver, offload, and install 20mm galvanised conduits including all bends, accessories, and mounting equipment. The design and routing of the conduits shall be performed by the contractor and shared with the project manager for approval prior to installation. The contractor shall install 5A unswitched sockets for all luminaires, the socket shall be secured to the structure and all connections between the plug and luminaires shall be installed in a secure and tidy manner.

5.6 Switched Socket Outlets

The contractor shall supply, deliver, offload, and install socket outlets as per drawing (XSDE0015-000-E-LA-0001-01-.1). The socket outlets shall be securely mounted to the structure at the specified height. The installation shall comply with SANS 10142-1 and

5.7 Cable and Cable Way System

The contractor shall install all cabling supplying small power and lighting. The cabling shall be run in PVC conduits chased into the brickwork wherever possible. In situations where chased PVC conduit is not available the contractor shall design and supply a galvanized steel conduit system that shall be surface mounted to the structure in question. The proposed conduit system shall be sent to the project manager for approval prior to installation. All cables shall be installed in compliance with SANS 10142-1 and TPD-003 – CABLESPEC. All galvanized steel conduits shall be securely bonded to earth

5.8 Building Exterior Lighting and Parking Area

The contractor shall supply, deliver, offload, and install LED floodlights to replace the existing floodlights mounted on the maintenance depot building as per drawing number XSDE0015-000-E-LA-0002-01-.1. The contractor shall supply, deliver, offload and install lights in the parking area in front of maintenance

depot building. The lights shall be controlled with the existing photocell. The contractor shall test all cabling prior to the installation of the new luminiaries. The Contractor shall ensure all mounting accessories are catered for. The existing floodlights shall be removed and returned to the TNPA maintenance depot.

5.9 Earthing and Lightning Protection

The contractor shall design, supply, and install a suitable earthing and lightning protection scheme for the new storage facilities as per drawing number XSDE0015-000-E-SL-0001-01-.1. The design shall comply with TPD-004-EARTHINGSPEC. The lightning protection scheme shall only be installed should a qualified lightning engineer deem the risk factors sufficient.

5.10 Testing and Commissioning the Entire Installation

The *Contractor* shall test the entire installation, including but not limited to the LV installation and the lighting installation as per SANS 10142-1 and hand over all relevant test certificates to the *Employer's Project Manager* for acceptance. The *Contractor* shall hand over the LV certificate of compliance as per the OHS Act of 85 and SANS 10142-1 for the installation.

The *Contractor* shall test the entire Earthing and Lightning protection system as per Transnet Specification TPD-004-EARTHINGSPEC and SANS 10142-1 in the presence of the *Employer's Engineer*. The *Contractor* shall handover all test certificates to the *Employer's Project Manager* for acceptance by the *Employer's Engineer*.

ANNEXURE C: Detailed Architectural Scope of Works, Standards and Specification

1. SECTION 1

1.1. Description of the works

***Read in Conjunction with Architects Drawings**

The project consists out of the following 12 facilities:

New Buildings / Facilities:

- Electrical store and red tag area
- Material store
- Equipment store
- Material delivery store
- Portal frame store
- Generator room
- Cable camp
- Sand blasting area
- Bulk Material stores
- General storeroom
- Waste skip area
- Covered carport

These facilities are in some instances paired together (refer to Annexure A – Architectural Drawings)

- Electrical and Red Tag Store & Cable Camp = 64m²
(Drawing XSD-E-0015-1-015-A-LA-0005-00-A-TD)
    - Concrete footings as per structural design
    - Concrete surface bed with cement screed as per structural design
    - Masonry cavity walls, plastered and painted to match main building; allow for air bricks and weep holes
    - 2 roller shutter doors (4,500 X 2,380)
    - 1 solid meranti door with kick plates
    - Steel trusses, concealed fixed roof sheeting with matching side cladding
    - Concrete ring beam as per structural engineer's design
    - Concrete ramps into the building
    - No roof over cable camp
    - Double swing gate at cable camp (4,000 x 2,380)
    - 1 x 1900 litre rainwater tank; provide concrete stand for tank

- Material Store & Sand Blasting Area = 90m²
(Drawing XSD-E-0015-1-015-A-LA-0003-00-A-TD)
    - Concrete footings as per structural design

- Concrete surface bed with cement screed as per structural design
- Masonry cavity walls, plastered and painted to match main building; allow for air bricks and weep holes
- 1 roller shutter door (4,500 X 2,380)
- 1 solid meranti door with kick plates
- Steel trusses, concealed fixed roof sheeting with matching side cladding
- Concrete ring beam as per structural engineer's design
- Concrete ramp into the building
- No roof over sand blasting area
- Double swing gate at sand blasting area (4,000 x 2,380)
- 1 x 1900 litre rainwater tank; provide concrete stand for tank

- Equipment Store = 96m²
  (Drawing XSD-E-0015-1-015-A-LA-0002-01-A-TD)
  - Concrete footings as per structural design
  - Concrete surface bed with cement screed as per structural design
  - Masonry cavity walls, plastered and painted to match main building; allow for air bricks and weep holes
  - 3 roller shutter doors (4,500 X 2,380)
  - 1 solid meranti door with kick plates
  - Steel trusses, concealed fixed roof sheeting with matching side cladding
  - Concrete ring beam as per structural engineer's design
  - Concrete ramps into the building
  - 1 x 1900 litre rainwater tank; provide concrete stand for tank

- Material Delivery Store & Bulk Material area = 108m²
  (Drawing XSD-E-0015-1-015-A-LA-0004-01-A-TD)
  - Concrete footings as per structural design
  - Concrete surface bed with cement screed as per structural design
  - Masonry cavity walls, plastered and painted to match main building; allow for air bricks and weep holes
  - 1 Roller shutter door (4,500 X 2,380)
  - 1 solid meranti door with kick plates
  - Steel trusses, concealed fixed roof sheeting with matching side cladding
  - Concrete ring beam as per structural engineer's design
  - Concrete ramps into the building
  - No roof over bulk materials area
  - 3 x Double swing gates at bulk material area (3,140 x 2,380)
  - 2 x 1900 litre rainwater tank; provide concrete stand for tank

- Portal Frame Store = 207m²
  (Drawing XSD-E-0015-1-015-A-LA-0001-01-A-TD)
  - Concrete footings as per structural design
  - Concrete columns as per structural design
  - Concrete surface bed with cement screed as per structural design

- Masonry cavity walls, plastered and painted to match main building; allow for air bricks and weep holes
- 1 Roller shutter door (4,500 X 4,420)
- 1 solid meranti door with kick plates
- Steel trusses, concealed fixed roof sheeting with matching side cladding
- Concrete ring beam as per structural engineer's design
- Steel staircase (as per structural engineer's design)
- Steel mezzanine floor (as per structural engineer's design)
- Concrete ramps into the building
- 3 x 1900 litre rainwater tank; provide concrete stand for tank

- Generator Room = 21m²
  (Drawing XSD-E-0015-1-015-A-LA-0006-01-A-TD)
  - Concrete footings as per structural design
  - Concrete surface bed with cement screed as per structural design
  - Masonry cavity walls, plastered and painted to match main building; allow for air bricks and weep holes
  - 1 Roller shutter doors (3,000 X 2,380)
  - 2 x Ventilation louvres (as per mechanical engineer's design)
  - Exhaust / extraction as per mechanical engineer's design
  - 1 solid meranti door with kick plates
  - Steel trusses, concealed fixed roof sheeting with matching side cladding
  - Concrete ring beam as per structural engineer's design
  - Concrete ramp into the building

- General Storeroom = 16m²
  (Drawing XSD-E-0015-1-015-A-LA-0008-01-A-TD)
  - Concrete footings as per structural design
  - Concrete surface bed with cement screed as per structural design
  - Masonry cavity walls, plastered and painted to match main building; allow for air bricks and weep holes
  - 1 Roller shutter doors (2,500 X 2,380)
  - 1 solid meranti door with kick plates
  - Steel trusses, concealed fixed roof sheeting with matching side cladding
  - Concrete ring beam as per structural engineer's design
  - Concrete ramp into the building

- Waste Skip Area = 50m²
  (Drawing XSD-E-0015-1-015-A-LA-0008-01-A-TD)
  - Concrete footings as per structural design
  - Concrete surface bed with cement screed as per structural design
  - Masonry cavity walls, plastered and painted to match main building; allow for air bricks and weep holes
  - Concrete ramp into the structure
  - No roof over bulk materials area
  - Double folding gates at waste skip area (7,500 x 2,380)

- Carports (12 bays) = 150m²

Refer to structural Engineer's designs

The total square area of new buildings / facilities is 802m²

External Works:
External work includes but not limited to:

- Demolition and repair / replacement of boundary wall
- New paving (refer to civil engineering)
- Carports
- Waste Skip Area

1.2. Employer's objectives

The additional storage facilities at the TNPA Maintenance Depot in the Port of Saldanha will enhance operational efficiencies, longevity of materials and also improve safety to the working conditions in the Depot.

2. SECTION 2

2.1.Construction requirements

The contractor should be aware of all the engineering services installations that will be installed in the buildings and facilities and be familiar with the sequencing of the installations thereof. Further to this the contractor must be familiar with all the relevant SANS codes and all relevant Transnet requirements.
Further to this the contractor should be aware that the building is not vacant and that operations will continue during construction.

1. The Model Preamble for Trades as published by the Association of South African Quantity Surveyors. Model Preamble for Trades 2008 shall be applicable to all the building Works associated with this contract. The following interpretations and meanings shall apply:
2. In case of any conflict in interpretation, ambiguity or discrepancy between any Model Preamble for Trades 2008 (whether standard or written as a particular project specification) contained in the Works Information and the conditions of contract, the conditions of contract shall take precedence within the ECC3 Contract.
3. In case of any conflict in interpretation, ambiguity or discrepancy between any Model Preamble for Trades 2008 (whether standard or written as a particular project specification) contained in this paragraph of the Employer's Works Information and specific statements contained elsewhere in Employer's Works Information, the specific statements contained elsewhere shall prevail, without prejudice to the Project Manager's express duty to resolve any ambiguity or inconsistency in the Works Information.
4. Within the Model Preambles for Trades 2008, the following amendments and interpretations shall apply:
   - Where the word or expression "Principal Agent" is used, read "Project Manager" or "Supervisor" as the context requires.
   - Where the word or expression "Contractor" is used, read "Contractor".

- Where the word or expression “Engineer” is used, read “Project Manager” or “Supervisor” as the context requires.
- Where the Model Preambles for Trades 2008 mention “rates” for measured work and any contractual statements relating to payment, all such statements shall be discounted, with the ECC3 conditions of contract taking precedence.

5. Within the Model Preambles for Trades 2008, A. GENERAL, the following amendments and interpretations shall apply:
   Where the word or expression “bills of quantities” is used, this shall be discounted for the purposes of the Works Information. The ECC3 Contract Data Part One states the main option to apply within the ECC3 Contract between the Parties.
6. Within the Model Preambles for Trades 2008, B. ALTERATIONS, B.2 MATERIALS FROM THE ALTERATIONS, CREDIT, ETC and C. EARTHWORKS, C1.4 Materials from demolitions shall not apply. Employer’s Works Information paragraph 3.1.6 states details of the Contractor’s title (if any) to Materials arising from excavations and/or demolitions and how such Materials are either to be disposed of or re-used in the works.
7. Within the Model Preamble for Trades 2008 Q. PLUMBING AND DRAINAGE, Q.24 TESTS shall be deemed to be included within paragraph 3.2.1 of C3.1 Employer’s Works Information.
8. Within the Model Preamble for Trades 2008 U. EXTERNAL WORKS, U.3.8 Process control tests shall be deemed to be included within paragraph 3.2.1 of C3.1 Employer’s Works Information.
9. The principles, meanings and interpretation stated and established within paragraphs 1 to 8 with respect to the Model Preambles for Trades 2008 equally apply to the other Model Preambles for Trades 2008 references used within this paragraph 8.2 of C3.1 Employer’s Works Information.
10. Specifications provided by the Employer
    - Manufacturer’s instructions and specifications
      All materials and products shall be used and installed in strict accordance with the manufacturer’s instructions and specifications.
      In circumstances where the manufacturer offers any form of guarantee the contractor is to ensure the products are installed in such a manner as to cover the installation specifications of the guarantee.
      Where trade names are specified in the construction works equal or approved products could be considered by the project team. The appropriate product manuals or data sheets would need to be submitted for approval.
    - Use of locally manufactured materials and products
      Materials and products manufactured in South Africa shall be used in carrying out the work to which this specification refers, unless an imported product is prescribed specifically, or when no suitable locally manufactured product for the specific use is available.
      In circumstances where the manufacturer offers any form site supervision or routine quality audit for the installation and use of products to ensure the guarantee of their product the contractor is to ensure these products are used in preference to any other manufacturer in lieu of the guarantee.
    - Samples
      The Contractor shall furnish without delay, such samples and/ or certificates as called for or may be called for by the Supervisor / Project manager. Materials and/or workmanship not corresponding with approved samples may be rejected. Samples for approval shall be required for paint colours, wall finishes, ceiling finishes and floor finishes. These approved samples shall remain on site for the duration of the Works. The samples are to be labeled or marked with the following minimum information thereon. Project name and number. Supplier’s name and phone

number. Product information eg. Size, guarantee, colour codes, thickness, material, finish etc. Any other information to assist in the approval process.

- Roof to comply with PART L OF SANS 10400:
  0,9mm Aluminium A7 profile roof sheeting.
  Sheeting shall have a minimum 20 year guarantee for harsh coastal environment. Colour to be factory coated PVDF finish. Adequate fixings shall be provided to ensure extreme wind conditions.
  Approved neoprene polyclosures shall be procured for use at all apex and eaves junctions.
  All roofing installations to be in accordance with manufacturer's specification.
- Waterproofing of roofing, slabs and walls
  The Contractor shall furnish the Employer with a written guarantee covering materials and workmanship for all waterproofing specified or offered for new work and repairs to existing. This guarantee shall be signed by the Contractor and countersigned by the supplier of the materials used, and underwritten by a recognised insurance company. The guarantee shall be valid for a 10 year period.
  Should any maintenance be required during the guarantee period, the Contractor shall allow for the cost of such in his tender price as the Contractor shall be held solely responsible for any leaks that occur during the guarantee period.

- Steel Roof Trusses
  Should any repairs or additional bracings to existing roof trusses be required, shop drawings shall be required for Project Manager's approval for steel roof structures.
  Contractor shall provide certificate of structural stability for the design.

- Doors
  All doors to have SABS certification.
  Contractor to ensure the certification thereof shall be provided.
  Fire Rated Door to be in strict accordance with the manufacturer's instructions and in compliance with SANS 1253:2004 and carrying the relevant SANS mark for 120 min fire rating.
  Frame to be minimum 1.6mm gauge red oxide primed galvanized steel frame to suit thickness of wall.

- Brickwork and Mortar joints (cavity walls)
  All brickwork is to conform with the standards and guidelines as stipulated in the
  - National Home Builders Registration Council Standards and Guidelines www.nhbrc.org
  - Cement & Concrete Institute Publications on concrete, mortar, plaster and construction detailing www.cnci.org.za
  - Clay Brick Association - Building contractors pocket handbook www.claybrick.org

  Prior to bricklaying, proper setting out of brickwork shall be undertaken by the Contractor's bricklayer for variances in brick dimensions.
  The Contractor shall construct a sample cavity wall of 10 courses high and 8 courses wide to gain the approval for the quality of the workmanship including but not limited to straignt lines in horizontal brick courses; vertical alignment of perps; wall ties (butterflies); brick seal; etc. A similar cavity wall is to be constructed and plastered to gain the approval for the quality of the plastering and workmanship.
  The wall shall remain constructed on site from the commencement of the project to the completion of the project.

Mortar joints generally shall be 10mm in thickness with level bedding joints, vertical perp ends.
Setting out of brick gauge shall be determined on site as average sizes of bricks may vary.
Weather struck joint profile shall be well rubbed with a standard jointing tool of suitable size to ensure that the entire exposed surface on the joint presents a smooth and polished appearance.
The use of DPC shall be provided and installed as per SANS 10021, to provide barrier against rising damp, water penetration from above and horizontal water penetration

SABS 248-1973: Bituminous damp proof course.
SABS 298-1975: Mastic asphalt for damp proofing courses and tanking are further references to adhere to.

Wall ties are to comply with SABS 28-1986: Metal ties for cavity walls.
Facebrick to have a FBX finish and have a zone classification of 2, for harsh coastal climate.
Facebrick coursing to be 230 X 115 and 85 high.
External skin of all internal walls to be bitumen painted.
Brickwork to be re-inforced in solid cement mortar joints with brickforce as per engineers detail.
GMS butterfly wire wall ties at 450mm maximum vertical centers and 600mm horizontal centers for cavity walls.

- Painting
  Paint to be used on all surfaces are to carry a minimum guarantee period of 14 years.
  Manufacturer of the paint shall provide regular inspection to ensure the surface preparation and application of the products are in accordance with the manufacturer's instruction.
  Regular moisture tests are to be carried out to ensure the surfaces are thoroughly dry - no more than 12% moisture content is recommended.
  All products must be applied in strict accordance with the Manufacturers specification and product technical data sheet.

  On completion of painting, the contractor is to ensure the paint manufacturer provides the adequate documentation for the paint guarantee.

- Plaster & Painted Area Procedures
  Ensure that surfaces are sound and free from dust, oil, grease, dirt, and debris. Surfaces must be thoroughly dry - no more than 12% moisture content.
  Prior to painting, establish and repair all causes of moisture in the structure such as rising/lateral dampness; water ingress from balconies etc. All to be done in strict accordance with approved damp proofing methods.
  All products must be applied in strict accordance with the Manufacturer Specification and Product Technical Data Sheet.

  The first finishing coat be tinted from a base 9 to a colour corresponding to the colour of the topcoat.
  This will reduce the number of topcoats required for full hiding. Inter-coat washing is essential for all coastal projects. When in close proximity to the ocean, it is important to ensure surfaces are free of contaminants, specifically salt deposits, before painting can commence. For surfaces exhibiting excessive chalkiness, a full coat of primer is necessary to aid adhesion. Prior to painting, establish and repair all causes of moisture in the structure such as rising/lateral

dampness; water ingress from balconies etc. All to be done in strict accordance with approved damp proofing methods.

- Application:
  Ensure surfaces are sound, clean and thoroughly dry - moisture content should not exceed 12%.
  Apply approved Trade Alkali Resistant Primer at 9m² per litre, as a primer to bare and chalky surfaces.
  Allow overnight drying. Fill minor plaster deficiencies with a Pre-Paint Multi-Purpose Ready Mix Crack Filler and allow to dry and sand smooth. For textured walls surface drag a dry paint brush through the still wet filler to best recreate the existing wall texture. Spot prime wit approved Pre-Paint Multi-Purpose Ready Mix Crack Filler repaired areas with primer and allow drying. Finish the walls with 2 coats of Wallguard at 8-10m² per litre per coat with 4 hours drying time between coats.

- Steel painting procedures
  Directly before the application of paint, the area to be painted shall be degreased with a suitable degreaser and left to dry.
  Paint shall only be applied under the following conditions:-
  - There is adequate light.
  - The steel temperature is between 5 and 50°C and at least 3°C above the dew point of the air.
  - The relative humidity of the air is between the limits specified by the paint supplier.
  - Wind does not interfere with the method used and sand and dust cannot be blown onto wet paint.

  Steelwork shall be supported on trestles, at least 900 mm off the ground for painting purposes.
  An adequate number of test readings shall be taken per square meter in order to determine the dry film thickness.

  The paintwork shall be acceptable if the average of the test readings taken falls within or exceeds the ranges given.
  Paintwork shall not be acceptable if any single test reading is less than the specified minimum thickness.

  An ultrasonic or electronic magnetic flux thickness measurement gauge shall be used, but in case of dispute, destructive testing shall be applied. The painted steelwork shall present a clean, neat appearance of uniform colour and gloss as applicable to the paint used. Each coat of paint shall be applied as a continuous, even film of uniform thickness. More than one application of paint may be required to achieve the dry film thicknesses specified or to obliterate the colour of the previous coating.
  The use of thinners or solvents at any stage of the work is prohibited, unless specified by the paint manufacturer.
  Precautions shall be taken to prevent coatings from being applied to equipment nameplates, instrument glasses, signs etc.

- For Map cracking vertical walls
  Before painting can commence, every problem must be repaired in strict accordance with best painting practice standards.

High Pressure water clean the walls at 180-220 KPA operating pressure utilising a rotating nozzle, remove defective paint and or paint system back to a sound paint layer or bare plaster as well as exposing any friable plaster. Reinstate friable plaster with a suitable mortar mix and allow to dry out with a moisture content of 12% or below. Use a paint scraper to remove any loose edges of paint.
Use P80 sandpaper to feather the edges of the tightly adhering paint.

- Application:
  Ensure surfaces are sound, clean and thoroughly dry - moisture content should not exceed 12%.
  Apply a full coat of Trade Alkali Resistant Primer at 9m² per as a primer to bare and chalky surfaces. Allow overnight drying. Fill minor plaster deficiencies with Pre-Paint Multi-Purpose ready
  Mix Crack Filler and allow to dry and sand smooth. For textured walls surface drag a dry paint brush through the till wet filler to best recreate the existing wall texture. Spot prime with Pre-Paint Multi-Purpose Ready Mix Crack Filler repaired areas with Trade Alkali Resistant Primer and allow drying.
  Apply 2 coats of Rainshield at 3-4m² per litre with a medium pile roller, to achieve a minimum total DFT of 300 microns. Apply as a full round coat, bridging repaired cracks. This coating should be applied from corner to corner – it will smooth over uneven surfaces, such as chipped valleys caused by layers of old peeling paint, and poor patching. Finish the walls with 2 coats of Wallguard at 8-10m² per litre with 4 hours drying time between coats

- Aluminium
  Aluminium extrusions shall be of 6063-T6 alloy and temper.
  Aluminium sheet and strips shall be of 1200-H4 alloy and temper. Joints in all aluminium members shall be formed in an approved manner so that the joints are practically invisible.

  Screw heads, pins, rivets, etc shall be concealed as far as possible. 300 Series stainless steel screws and bolts shall be used for jointing and fixing aluminium work. The surfaces of all aluminium which are in contact with other materials when fixed shall be suitably insulated with a non-absorbent insulating material to prevent corrosion. All aluminium work shall be suitably protected against damage, deterioration or discolouration caused by mortar droppings, paint, etc by taping with removable tape, covering with temporary casings or by covering with motor oil

- Anodizing of aluminium
  Aluminium described as “anodized” shall be treated with Grade 25 coating thickness for exterior use or Grade 15 for interior use as specified, to the required finish. All alloys to be anodized shall be suited to anodizing.

- Protection of works
  The Contractor shall provide all necessary dust sheets, hoarding, etc. and shall exercise all necessary care to prevent marking surfaces, walls, floors, glass, electrical fittings, etc. and shall keep all parts of the works perfectly clean and free at all times from spotting, accumulation of rubbish, debris of dirt arising from the operations. Any surface disfigured or otherwise damaged shall be completely renovated or replaced as necessary by the Contractor at his own expense

to the Supervisor's approval. The premises shall be left clean and fit for occupation at completion of the work.

Annexure D: Detailed Civil Engineering Scope Standards and Specification

The purpose of this document is to detail the works to be undertaken by the Contractor in relation to the construction and execution of the new Operations Facilities for Infrastructure Maintenance Depot in the Port of Saldanha. Within this document, the works detailed, to be undertaken by the Contractor includes but not limited to:

- Clearing of site where required.
- Exposing of existing services where required.
- Ripping and removal of existing block pavers and related edge beams, kerb and channels in the perimeter of the site.
- Bulk excavation and treatment of in-situ material (including dewatering).
- Construction/rework of G6 natural gravel subbase (from commercial sources where deficits must be made up).
- Construction/rework of G5 natural gravel to C3 cemented base (from commercial sources).
- Placing and compacting of sand bedding (commercially sourced).
- Placement of 80mm S-A block paving.
- Construction of kerbs, fillets, and channels.
- Permanent road markings.
- And any other work arising out of or incidental to the above or required of the Contractor for the proper completion of the works.

"*Site clearance, earthworks and layerworks*", shall be read in conjunction with the following SANS, Transnet standard specifications and other relevant specification:

SANS Specifications	
SANS 1200 A	General
SANS 1200 C	Site Clearance
SANS 1200 D	Earthworks
SANS 1200 DM	Earthworks (roads, sub grade)
SANS 1200 GM	Concrete (small works)
SANS 1200 M	Roads (General)
SANS 1200 ME	Subbase
SANS 1200 MF	Base
SANS 1200 MF	Asphalt base and surfacing
SANS 1200 MJ	Segmented paving
SANS 1200 MK	Kerbing

SANS 1200 MM	Ancillary roadworks
SANS 10400	Series, A, C, D, F, G, P

Bulk Services (Electrical reticulation, Stormwater drainage): the works for the electrical reticulation, and stormwater drainage include the following:

- Excavate, supply, bed and lay concrete stormwater conduits.
- Excavate, supply, bed and lay electrical and comms conduits.
- Construction of stormwater grid inlet and kerb inlet manholes.
- Construction of electrical manhole(s) - Type E1 HD.
- And any other work arising out of or incidental to the above or required of the Contractor for the proper completion of the works.

“Sewer and stormwater drainage”, shall be read in conjunction with the following SANS standard specifications:

SANS Specifications	
SANS 1200 DB	Earthworks (Pipe trenches)
SANS 1200 LB	Bedding (Pipes)
SANS 1200 LD	Sewers
SANS 1200 LE	Stormwater Drainage

Concrete works: the works for the concrete include the following:

- Encasing of pipes where required.
- Concrete V-drain channel and fillet.
- Manhole covers and bases.
- Concrete plinth around the fence perimeter.
- Pedestrian scoop.
- Any other work Concrete Works arising out of or incidental to the above or required by the Contractor for the proper completion of the works in accordance with the true meaning and intent of the contract documents.

“*Concrete works*”, must be read in conjunction with the following specifications:

SANS Specifications	
SANS 1200 G	Concrete
SANS 1083:1994	Aggregates from natural sources
SANS 10100-2:1992	The Structural use of concrete – Part 2: Materials and execution of work
SANS 50197-1	Cement – composition, specifications, and conformity criteria. Part 1: Common cement

SANS 1491-1	Portland cement extenders – Part 1 Ground granulated blast furnace slag
SANS 1491-2	Portland cement extenders – Part 2 Fly ash.
SANS 1491-3	Portland cement extenders – Part 3 Condensed Silica Fume
TRANSNET S420	Specification for Concrete Work

Other works: the works for the miscellaneous items include the following:

- Installation of rainwater harvesting tanks.