
Transnet Port Terminals

an Operating Division **TRANSNET SOC LTD**

[Registration Number 1990/000900/30]

REQUEST FOR PROPOSAL (RFP)

FOR THE PROVISION OF TERMINAL LIGHTING AT THE PORT OF RICHARDS BAY, FOR TRANSNET SOC LTD (REG. NO. 1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS, (HEREINAFTER REFERRED TO AS "TPT").

RFP NUMBER	: ICLM RB 924/TPT
ISSUE DATE	: 29 NOVEMBER 2024
COMPULSORY BRIEFING	: 12 DECEMBER 2024 at 11:00am
CLOSING DATE	: 20 JANUARY 2025
CLOSING TIME	: 12h00pm
TENDER VALIDITY PERIOD	: 12 weeks from closing date

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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].

DESCRIPTION	Provision of terminal lighting at the Port of Richards Bay, for Transnet SOC LTD (reg. No. 1990/000900/30) operating as Transnet Port Terminals, (hereinafter referred to as "TPT").
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 AND SITE MEETING	<p>A Compulsory Tender Clarification and site Meeting will be conducted at HT Boardroom in the HT Workshop on Octopus Road, Transnet Port Terminals Richards Bay, KwaZulu Natal on the 12th of December 2024, at 11:00am [11 O'clock] for a period of ± 3 (three) hours. Thereafter, there will be a site walkabout in the terminal. [Tenderers to provide own transportation and accommodation].</p> <p>The Compulsory Tender Clarification Meeting will start punctually and information will not be repeated for the benefit of Tenderers arriving late.</p> <p>A Site visit/walk will take place, tenderers are to note:</p> <ul style="list-style-type: none"> • 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. • Tenderers are to ensure that they arrive early (before 11:00am) as they will need to undergo a compulsory induction at the permits office
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	<p>in order to be granted access to the Port for the clarification meeting/site visit.</p> <ul style="list-style-type: none"> The relevant persons attending the meeting must ensure that their identity documents, passports or drivers' licences are on them for inspection at the access control gates. <p>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.</p> <p>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.</p> <p>Tenderers failing to attend the compulsory tender briefing will be disqualified.</p>
CLOSING DATE	<p>12:00pm on 20 January 2025</p> <p>Tenderers must ensure that tenders are uploaded timeously onto the system. If a tender is late, it will not be accepted for consideration.</p>

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.

a) The Transnet e-Tender Submission Portal can be accessed as follows:

Log on to the Transnet eTenders management platform website (<https://transnetetenders.azurewebsites.net>);

- Click on "ADVERTISED TENDERS" to view advertised tenders;
- Click on "SIGN IN/REGISTER – for bidder to register their information (must fill in all mandatory information);
- Click on "SIGN IN/REGISTER" - to sign in if already registered;
- Toggle (click to switch) the "Log an Intent" button to submit a bid;
- Submit bid documents by uploading them into the system against each tender selected.
- **Tenderers are required to ensure that electronic bid submissions are done at least a day before the closing date to prevent issues which they may encounter**

due to their internet speed, bandwidth or the size of the number of uploads they are submitting. Transnet will not be held liable for any challenges experienced by bidders as a result of the technical challenges. Please do not wait for the last hour to submit. A Tenderer can upload 30mb per upload and multiple uploads are permitted.

- b) Each company must register its profile using its company details and use the corresponding registered profile to log an intent to bid as well as submitting any bid.
- c) 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.
- d) 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.
- e) The tender offers to this tender will be opened as soon as possible after the closing date and time. Transnet shall not, at the opening of tenders, disclose to any other company any confidential details pertaining to the Tender Offers / information received, i.e. pricing, delivery, etc. The names and locations of the Tenderers will be divulged to other Tenderers upon request.
- f) Submissions must not contain documents relating to any Tender other than that shown on the submission.

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 T2.23] [**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@tip-offs.com**

T1.2 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annex C of the CIDB Standard for Uniformity in Engineering and Construction Works Contracts. The Standard for Uniformity in Construction Procurement was first published in Board Notice 62 of 2004 in Government Gazette No 26427 of 9 June 2004. It was subsequently amended in Board Notice 67 of 2005 in Government Gazette No 28127 of 14 October 2005, Board Notice 93 of 2006 in Government Gazette No 29138 of 18 August 2006, Board Notice No 9 of 2008 in Government Gazette No 31823 of 30 January 2009, Board Notice 86 of 2010 in Government Gazette No 33239 of 28 May 2010, Board Notice 136 of 2015 in Government Gazette 38960 of 10 July 2015 and Board Notice 423 of 2019 in Government Gazette No 42622 of 8 August 2019.

This edition incorporates the amendments made in Board Notice 423 of 2019 in Government Gazette 42622 of 8 August 2019. (see www.cidb.org.za).

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 <i>Employer</i> is Transnet SOC Ltd (Reg No. 1990/000900/30)
C.1.2	The tender documents issued by the <i>Employer</i> comprise: Part T: The Tender Part T1: Tendering procedures Part T2 : Returnable documents Part C: The contract Part C1: Agreements and contract data Part C2: Pricing data
	T1.1 Tender notice and invitation to tender T1.2 Tender data T2.1 List of returnable documents T2.2 Returnable schedules C1.1 Form of offer and acceptance C1.2 Contract data (Part 1 & 2) C1.3 Form of Securities 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:	Procurement Officer
	Name:	Buhle Cetywa
	Address:	Gordon's Road, uMhlathuze Building, Richard's Bay, 3900
	Tel No.	035 905 3160
	E – mail	Buhle.cetywa@transnet.net

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

1. Stage One - 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

2. Stage Two - Eligibility in terms of the Construction Industry Development Board:

a) 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 **8EP or higher** class of construction work, are eligible to have their tenders evaluated.

b) 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 8EP 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
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.

3. Stage Three – technical prequalification

- The Electrical, Civil / Structural and design Engineers must be professionally registered (Pr. Tech. Eng. or Pr. Eng.), for final sign off and provision of relevant compliance certifications (Attach ECSA registration certificate).
- Corrosion protection guarantee/ warrantee on high mast poles lights > or = 7 years (Attach guarantee/ warrantee certificate or brochure from the manufacture).

4. Stage Four - 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 70 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.

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

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 The *Employer's* details and identification details that are to be shown on each tender offer are as follows:
C2.15.1

Identification details: The tender documents must be uploaded with:

- Name of Tenderer:
- Contact person and details:
- The Tender Number: ICLM RB 924/TPT
- The Tender Description: provision of terminal lighting at the Port of Richards Bay, for Transnet soc ltd (reg. No. 1990/000900/30) operating as Transnet port terminals, (hereinafter referred to as "TPT")

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: **12:00pm** on the **20 January 2025**
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: **70**

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:

(Please see CIDB Compiler guidance note T1.2 – Tender Data).

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

- T2.2-04 Quality Management
- T2.2-05 Programme
- T2.2-06 Previous Experience
- T2.2-07 Method Statement
- T2.2-08 Management & CVs of Key Persons
- T2.2-09 Health and Safety Requirements

Each evaluation criteria will be assessed in terms of scores of 0, 20, 40, 60, 80 or 100. 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).

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

Eligibility criteria	Sub-criteria	Sub-criteria weight	Number of points Scored
<p>These Criteria must be read in conjunction with returnable T2.2-04. The tenderer shall indicate compliance by indicating YES/NO and attach evidence.</p> <p>Tenderers are to list in this schedule compliance to the Eligibility Criteria for the High Mast Poles Lights. For Evidence tenderer's are to submit proof in the form of either qualifications, specifications, drawings, data books, brochures, certificates, etc. Proof to be attached as part of this returnable. Failure to comply with eligibility criteria i.e., a "No" answer / response and No attachment will lead to disqualification.</p>			
Functionality criteria	Sub-criteria	Sub-criteria weight	Number of points Scored
<p>This Criteria must be read in conjunction with returnable T2.2-05. Tenderers should submit a complete and comprehensive Quality Plan that demonstrates the following:</p> <p style="text-align: center;"><i>Score</i></p> <p><i>Points = 100 x Weight</i></p>			
T2.2.04 Quality Management	Score	Weight	
	Project Quality Plan (PQP) based on quality assurance requirements specification (EAM-Q-009 Quality Management System). Project Quality Plan which satisfies the technical and quality requirements of the works, identifying all procedures, reviews, audits, controls, and records used to control and verify compliance with the Works Information.	6	
	• No PQP submitted = 0		
	• PQP is too general with no project Specifics = 20		
	• PQP is project specific but inadequate to cover project scope = 40		
	• PQP shows adequate understanding of project quality requirements = 60		
	• PQP shows above average understanding of the project quality requirements = 80		
	• Project Quality Plan covers all and above the project quality requirements of the project scope = 100		
	Valid ISO 9001 certificate		
• No ISO 9001 certificate or certificate has expired = 0	4		
• ISO 9001 certificate submitted and valid = 100			
Sub Total for Quality Management			10
<p>This Criteria must be read in conjunction with returnable T2.2-06. The tenderer shall provide the proposed programme (Primavera or Ms. Project), at a minimum Level 3.</p> <p style="text-align: center;"><i>Score</i></p> <p><i>Points = 100 x Weight</i></p>			
T2.2-05 Programme	Score	Weight	
	Ability to execute the works in terms of the Employer's requirements and within the required timeframe indicating, in a logical sequence, the order and timing of the construction that will take place in order to Provide the Works clearly indicating the capacity & capability to achieve the dates stated in the Contract Data.		
	• The tenderer has submitted no information = 0		



	<ul style="list-style-type: none"> • The programme is poor, and it will not satisfy project objectives or requirements. The tenderer has misunderstood the scope of Works and does not deal with the critical aspects of the overall programme = 20 • The programme is generic, not practical, and unrealistic, therefore is unlikely to satisfy project objectives or Employer's requirements. The tenderer has misunderstood certain aspects of the scope of the Works and does not deal with the critical aspects of the project. = 40 • The programme is project specific, practical, and realistic, therefore is likely to satisfy project objectives or Employer's requirements. The tenderer has understood certain aspects of the scope of the Works and is dealing with the critical aspects of the project. = 60. • The programme addresses certain specific project objectives but does not adequately deal with all the critical characteristics of the project. • The programme is complete and decomposed, as demonstrated in the project WBS which fully demonstrates the Provision of the Works and the Scope of Works and is in accordance with the Works Information. • The programme is predictive in that it contains minor errors or omissions in critical path. • The programme contains minor errors and omissions in logic (i.e., horizontal, and vertical traceability) • The programme demonstrates the sequence, methodology and underlying approach to Provision of the Works and the Scope of Works, in line with the requirements of the Contract, as such adequately deals with some but not all the critical characteristics of overall project. = 80. • The programme adequately addresses specific project objectives and critical aspects. • The programme is complete and adequately decomposed, as demonstrated in the project WBS which fully demonstrates the Provision of the Works and the Scope of Works and is in accordance with the Works Information and /or encompasses project scope as detailed but not limited to the Scope of Works. • The programme is adequately predictive in that it provides meaningful critical path(s) and forms an accurate/realistic model of project risk, the latter as demonstrated in activity duration estimates. • The programme contains logic that is horizontally, vertically traceable as supported by realistic duration estimates. • The programme adequately demonstrates the sequence, methodology, and underlying approach to Provision of the Works and the Scope of Works, in line with the requirements of the Works information as such adequately deals with the critical characteristics of overall project. = 100. 	3	
<p>Dates when the Contractor will need access to any part of the Site, submission & approval process & timing for Health & Safety Files, inclusive of construction work permit, Environmental Files and Quality Files. In</p>			

	<p>addition, the Programme must clearly demonstrate the procurement process for all long lead items if applicable. Moreover, the Programme must clearly demonstrate adequate provision for the process and timeframes associated with undertaking inductions, permits and medicals.</p>		
	<ul style="list-style-type: none"> • The tenderer has submitted no information = 0 • The tenderer poorly addressed critical access requirements. • The tenderer has not allowed timing for undertaking deliverables as stipulated within the Works Information. • The tenderer has not allowed approval process and timing for Health & Safety, Environmental and Quality pre-requisites/requirements. • The tenderer has not demonstrated provision for the process and timeframes associated with undertaking procurement processes, inductions, permits and medicals. = 20 		
	<ul style="list-style-type: none"> • The tenderer has addressed some critical but not all access requirements. • The tenderer has made an adequate allowance in timing for undertaking deliverables as stipulated within the Works Information. • The tenderer has not made an adequate allowance for the approval process and timing for Health & Safety, Environmental and Quality pre-requisites/requirements. • The tenderer has not adequately demonstrated provision for the process and timeframes associated with undertaking procurement processes, inductions. = 40 	3	
	<ul style="list-style-type: none"> • The tenderer has addressed all access requirements. • The tenderer has made an allowance in timing and scope for undertaking deliverables as stipulated within the Works Information and Employer's Scope of Works. • The tenderer has made an allowance for the approval process, timing and scope for Health & Safety, Environmental and Quality pre-requisites/requirements. • The tenderer has not demonstrated provision for the process and timeframes associated with undertaking procurement processes, inductions, permits and medicals. = 60 		
	<ul style="list-style-type: none"> • The tenderer has addressed all access requirements. • The tenderer has made an allowance in timing and scope for undertaking deliverables as stipulated within the Works Information and Employer's Scope of Works. • The tenderer has made an allowance for the approval process, timing and scope for Health & Safety, Environmental and Quality pre-requisite/requirements. • The tenderer has demonstrated provision for the process and timeframes associated with undertaking procurement processes, inductions, permits and medicals i.e., all items considered, and adequate timeframes allowed. = 80 		

	<ul style="list-style-type: none"> • The tenderer has adequately addressed all access requirements. • The tenderer has made an adequate allowance in timing and scope for undertaking deliverables as stipulated within the Works Information and Employer’s Scope of Works. • The tenderer has made an adequate allowance for the approval process, timing and scope for Health & Safety, Environmental and Quality pre-requisite/requirements. • The tenderer has adequately demonstrated provision for the process and timeframes associated with undertaking procurement processes, inductions, permits and medicals i.e., all items considered, and adequate timeframes allowed. = 100 		
	<p>The Contractor indicates how he plans in achieving the following dates and clearly demonstrates them on the schedule - Starting Date, Planned Completion, Sectional Completion Dates & Completion Date. In addition, the Programme clearly demonstrates adequate provisions for Time Risk Allowance (TRA). Time Risk Allowances are not float, are owned by the Tenderer, can be included in the activity duration and illustrated in the schedule in a code field or as an attachment.</p>		
	<ul style="list-style-type: none"> • The tenderer has submitted no information = 0 		
	<ul style="list-style-type: none"> • The tenderer has poorly addressed some but not all date requirements and submission contain critical logic and sequencing errors which renders it unrealistic / unachievable. • The tenderer has poorly demonstrated Time Risk Allowance (TRA). = 20 		
	<ul style="list-style-type: none"> • The tenderer has addressed some but not all date requirements and submission contain critical logic and sequencing errors which renders it unrealistic / unachievable. • The tenderer has demonstrated Time Risk Allowance (TRA). = 40 	3	
	<ul style="list-style-type: none"> • The tenderer has addressed most date requirements correctly and submission contains logic and sequencing which is accurate and renders the submission realistic and achievable. • The tenderer has demonstrated inadequate provision for Time Risk Allowance (TRA) i.e. TRA inadequate quantities, and not assigned to specific activities and/or critical components of the scope which are known to be subject to uncertainty. = 60 		
	<ul style="list-style-type: none"> • The tenderer has addressed all date requirements correctly and submission contains logic and sequencing which is accurate and renders the submission realistic and achievable. • The tenderer has demonstrated provision for Time Risk Allowance (TRA) i.e. TRA quantities, correctly assigned to specific activities and/or critical components of the scope which are known to be subject to uncertainty = 80 		

	<ul style="list-style-type: none"> The tenderer has adequately addressed all date requirements correctly and submission contains logic and sequencing which is accurate and renders the submission realistic and achievable. The tenderer has demonstrated adequately provision for Time Risk Allowance (TRA) i.e. TRA adequate quantities, correctly assigned to specific activities and/or critical components of the scope which are known to be subject to uncertainty = 100 		
	<p>The Programme shall be aligned to the C3: Works Information and detailed at an appropriate level of decomposition to support the scope and associated duration estimates.</p>		
	<ul style="list-style-type: none"> The tenderer has submitted no information = 0 		
	<ul style="list-style-type: none"> Poor alignment between programme and the Works Information. = 20 		
	<ul style="list-style-type: none"> Programme and some Works Information are relatively aligned but the level of decomposition of the programme is not appropriate to support the scope and associated duration estimates for the phase in question and the project overall. = 40 	3	
	<ul style="list-style-type: none"> Programme and most Works Information are relatively aligned but the level of decomposition of the programme is appropriate to support the scope and associated duration estimates for the phase in question and the project overall. = 60 		
	<ul style="list-style-type: none"> Programme and all Works Information are aligned and the level of decomposition of the programme is appropriate to support the scope and associated duration estimates for the phase in question and the project overall. = 80 		
	<ul style="list-style-type: none"> Programme and all Works Information are adequately aligned and the level of decomposition of the programme is appropriate to support the scope and associated duration estimates for the phase in question and the project overall. = 100 		
	<p>The Programme must clearly support and demonstrate alignment to the method statement as contained in T2.2-08 Returnable. In addition, the programme needs to have a basis of a schedule not limited to assumptions, constraints, and approach to providing the Works and construction monitoring as detailed in the programme.</p>		
	<ul style="list-style-type: none"> The tenderer has submitted no information = 0 		
	<ul style="list-style-type: none"> Poor alignment between programme and method statement. 		
	<ul style="list-style-type: none"> The Basis of the Schedule document contains poor detail, critical errors and omissions. As such it does not support the programme model. 		
	<ul style="list-style-type: none"> Poor alignment between Basis of Schedule documentation and the programme model. = 20 		
	<ul style="list-style-type: none"> Some critical errors and or omissions in alignment between programme and method statement. 		

	<ul style="list-style-type: none"> The Basis of the Schedule document contains inadequate detail, and critical errors exist. As such the Basis of Schedule does not fully support the programme model. Some critical errors in alignment between Basis of Schedule documentation and the programme model. = 40 	3	
	<ul style="list-style-type: none"> No critical errors and or omissions in alignment between programme and method statement. The Basis of Schedule document contains adequate detail, however critical aspects of the programme model are substantiated. No errors and or omissions exist in alignment of the Basis of Schedule document and the programme model. = 60 		
	<ul style="list-style-type: none"> Programme and method statement are aligned, and submission contains no critical errors or omissions. The Basis of the Schedule document contains adequate detail, no critical errors or omissions and as such fully supports the programme model. Basis of Schedule document and programme model are aligned. = 80 		
	<ul style="list-style-type: none"> Programme and method statement are adequately aligned, and submission contains no errors or omissions. The Basis of the Schedule document contains adequate details, no errors or omissions and as such fully supports the programme model. Basis of Schedule document and programme model are adequately aligned. = 100 		
	Sub Total for Programme		15
<p>This Criteria must be read in conjunction with returnable T2.2-07. Tenderers are required to demonstrate their experience, in the delivery of similar projects executed in the past seven (7) years with a list indicating each project value and contact details of client reference.</p> <p style="text-align: center;"><i>Score</i></p> <p><i>Points = 100 x Weight</i></p>			
T2.2-06 Previous Experience	Score	Weight	
	Previous Experience of High Mast Poles Lights (refer to guidelines and definitions as Part C3) installation conducted by tenderer, in the last seven (7) years. References to provide letter of reference, to be traceable and contactable to allow verification of track record provided. Adequate references to substantiate experience indicated (Client name and contact details, project description, duration, and contract value).		
	<ul style="list-style-type: none"> No letter with client name, contact details, project description, minimum duration and 10 million minimum project value = 0 	25	
	<ul style="list-style-type: none"> 1 reference letter submitted with client names, contact details, project description, minimum duration and 10 million minimum project value = 20 		
	<ul style="list-style-type: none"> 2 reference letters submitted with client names, contact details, project description, minimum duration and 10 million minimum project value= 40 		
	<ul style="list-style-type: none"> 3 reference letters submitted with client names, contact details, project description, minimum duration and 10 million minimum project value = 60 		

	<ul style="list-style-type: none"> 4 reference letters submitted with client names, contact details, project description, minimum duration and 10 million minimum project value = 80 5 reference letters submitted with client names, contact details, project description, minimum duration and 10 million minimum project value = 100 		
	Sub Total for Previous Experience		25
<p>This Criteria must be read in conjunction with returnable T2.2-08. The Tenderer must sufficiently demonstrate methodology that he/she will employ to cover the scope of the project in a method statement.</p> <p style="text-align: center;"><u>Score</u></p> <p><i>Points = 100 x Weight</i></p>			
T2.2.07 Method Statement	Score	Weight	
	Demolition Work, High Mast Poles Installation Work, Maintaining Security i.e. No section can be left open overnight, Control of Debris from the holes, House Keeping and keeping material safe and secured, Traffic Control and, Communication (All site requirements to be communicated the Project Manager)		
	<ul style="list-style-type: none"> The tenderer has submitted no information or inadequate information to determine a score. = 0 The methodology/approach and work alignment to project schedule is poorly presented, generic and not tailored to address the specific project objectives and methodology. = 20 The methodology/approach is generic and not tailored to address the specific project objectives and methodology. The methodology approach does not adequately deal with the critical characteristics of the project. = 40 Satisfactory response/solution to the aspect of the requirement and evidence given that the stated employer's requirements will be met. = 60 The methodology/approach is specifically tailored to address the specific project objectives and methodology and is sufficiently flexible to accommodate changes that may occur during execution. The methodology/ approach to manage activities is specifically tailored to the critical characteristics of the project. = 80 Besides meeting the "80" rating, the important issues are approached in an innovative and efficient way, indicating that the tenderer has outstanding knowledge of state-of-the-art approaches. The methodology approach details ways to improve the project outcomes and the quality of the outputs. = 100 	22,5	
	Sub Total for Method Statement		22,5
<p>This Criteria must be read in conjunction with returnable T2.2-09. The tender must be able to demonstrate that the project personnel have sufficient knowledge, experience, and qualifications to provide the required services.</p> <p style="text-align: center;"><u>Score</u></p> <p><i>Points = 100 x Weight</i></p>			
	Score	Weight	

T2.2.08 Management of CV's	CV with qualifications (ND and above in Project management/Engineering) and experience for the Project Manager	2,5	
	General experience (total duration of construction activity) and positions held of each discipline specific team member.		
	• No CVs and qualifications submitted = 0		
	• Key staff do not have suitable levels of relevant experience and qualifications. He/she has 1 or more years' experience. No clear indication of roles and responsibilities. = 20		
	• Key staff has limited recommended levels of relevant experience and qualifications. He/she has 2 or more years' experience. Inadequate indication of roles and responsibilities and specific function. = 40		
	• Key staff have acceptable levels of relevant experience and qualifications. He/she has more than 3 or more years' experience. Reasonable indication of roles and responsibilities and specific function. = 60		
	• Key staff have acceptable levels of relevant experience and qualifications. He/she has 4 or more years' experience. Adequate indication of roles and responsibilities and specific function. = 80		
	• Key staff have acceptable levels of relevant experience and qualifications with 5 or more years' experience. Adequate indication of roles and responsibilities and specific function. = 100		
	CV with qualifications (NTC 3/Grade 12 and above) and experience for the Site Supervisor	2,5	
	General experience (total duration of construction activity) and positions held of each discipline specific team member.		
• No CVs and qualifications submitted = 0			
• Key staff do not have suitable levels of relevant experience and qualifications. He/she has 1 or more years' experience. No clear indication of roles and responsibilities. = 20			
• Key staff has limited recommended levels of relevant experience and qualifications. He/she has 2 or more years' experience. Inadequate indication of roles and responsibilities and specific function. = 40			
• Key staff have acceptable levels of relevant experience and qualifications. He/she has more than 3 or more years' experience. Reasonable indication of roles and responsibilities and specific function. = 60			
• Key staff have acceptable levels of relevant experience and qualifications. He/she has 4 or more years' experience. Adequate indication of roles and responsibilities and specific function. = 80			
• Key staff have acceptable levels of relevant experience and qualifications with 5 or more years' experience. Adequate indication of roles and responsibilities and specific function. = 100			
CV with qualifications (Electrical Trade and above) and experience for the Installation Electrical (Low and Medium Voltage)			

	<p>General experience (total duration of construction activity) and positions held of each discipline specific team member.</p> <ul style="list-style-type: none"> No CVs and qualifications submitted = 0 Key staff do not have suitable levels of relevant experience and qualifications. He/she has 1 or more years' experience. No clear indication of roles and responsibilities. = 20 Key staff has limited recommended levels of relevant experience and qualifications. He/she has 3 or more years' experience. Inadequate indication of roles and responsibilities and specific function. = 40 Key staff have acceptable levels of relevant experience and qualifications. He/she has more than 5 or more years' experience. Reasonable indication of roles and responsibilities and specific function. = 60 Key staff have acceptable levels of relevant experience and qualifications. He/she has 7 or more years' experience and qualifications. Adequate indication of roles and responsibilities and specific function. = 80 Key staff have acceptable levels of relevant experience and qualifications with 10 or more years' experience. Adequate indication of roles and responsibilities and specific function. = 100 	2,5	
	<p>CV with qualifications (ND Electrical Engineering and above) and experience as the Electrical Engineer</p>		
	<p>General experience (total duration of construction activity) and positions held of each discipline specific team member.</p> <ul style="list-style-type: none"> No CVs and qualifications submitted = 0 Key staff do not have suitable levels of relevant experience and qualifications. He/she has 2 or more years' experience. No clear indication of roles and responsibilities. = 20 Key staff has limited recommended levels of relevant experience and qualifications. He/she has 3 or more years' experience. Inadequate indication of roles and responsibilities and specific function. = 40 Key staff have acceptable levels of relevant experience and qualifications. He/she has more than 4 or more years' experience. Reasonable indication of roles and responsibilities and specific function. = 60 Key staff have acceptable levels of relevant experience and qualifications. He/she has 5 or more years' experience. Adequate indication of roles and responsibilities and specific function. = 80 Key staff have acceptable levels of relevant experience and qualifications with 6 or more years' experience. Adequate indication of roles and responsibilities and specific function. = 100 	2,5	
	<p>CV with qualifications (ND in Structural/Civil Engineering and above) and experience as the Structural/Civil Engineer</p>		
	<p>General experience (total duration of construction activity) and positions held of each discipline specific team member.</p>		

	<ul style="list-style-type: none"> No CVs and qualifications submitted = 0 Key staff do not have suitable levels of relevant experience and qualifications. He/she has 2 or more years' experience. No clear indication of roles and responsibilities. = 20 Key staff has limited recommended levels of relevant experience and qualifications. He/she has 3 or more years' experience. Inadequate indication of roles and responsibilities and specific function. = 40 Key staff have acceptable levels of relevant experience and qualifications. He/she has more than 4 or more years' experience. Reasonable indication of roles and responsibilities and specific function. = 60 Key staff have acceptable levels of relevant experience and qualifications. He/she has 5 or more years' experience. Adequate indication of roles and responsibilities and specific function. = 80 Key staff have acceptable levels of relevant experience and qualifications with 6 or more years' experience. Adequate indication of roles and responsibilities and specific function. = 100 	2,5	
	<p>CV with qualifications (ND in Electrical/Civil Engineering and above) and experience as the Draftsman</p>		
	<p>General experience (total duration of construction activity) and positions held of each discipline specific team member.</p> <ul style="list-style-type: none"> No CVs and qualifications submitted = 0 Key staff do not have suitable levels of relevant experience and qualifications. He/she has 2 or more years' experience. No clear indication of roles and responsibilities. = 20 Key staff has limited recommended levels of relevant experience and qualifications. He/she has 3 or more years' experience. Inadequate indication of roles and responsibilities and specific function. = 40 Key staff have acceptable levels of relevant experience and qualifications. He/she has more than 4 or more years' experience. Reasonable indication of roles and responsibilities and specific function. = 60 Key staff have acceptable levels of relevant experience and qualifications. He/she has 5 or more years' experience. Adequate indication of roles and responsibilities and specific function. = 80 Key staff have acceptable levels of relevant experience and qualifications with 6 or more years' experience. Adequate indication of roles and responsibilities and specific function. = 100 	2,5	
	<p>CV with qualifications and experience for the SHE Officer</p>		
	<p>General experience (total duration of construction activity) and positions held of each discipline specific team member.</p> <ul style="list-style-type: none"> No CVs and qualifications submitted = 0 		

	<ul style="list-style-type: none"> Key staff do not have suitable levels of relevant experience and qualifications. He/she has 2 or more years' experience. No clear indication of roles and responsibilities. = 20 Key staff has limited recommended levels of relevant experience and qualifications. He/she has 3 or more years' experience. Inadequate indication of roles and responsibilities and specific function. = 40 Key staff have acceptable levels of relevant experience and qualifications. He/she has 4 or more years' experience. Reasonable indication of roles and responsibilities and specific function. = 60 Key staff have acceptable levels of relevant experience and qualifications. He/she has 5 or more years' experience. Adequate indication of roles and responsibilities and specific function. = 80 Key staff have acceptable levels of relevant experience and qualifications with 6 or more years' experience. Adequate indication of roles and responsibilities and specific function. = 100 	2,5	
	CV with qualifications (ND and above in Electrical/Mechanical engineering) and experience for the Construction Manager		
	General experience (total duration of construction activity) and positions held of each discipline specific team member.		
	<ul style="list-style-type: none"> No CVs and qualifications submitted = 0 Key staff do not have suitable levels of relevant experience and qualifications. He/she has 2 or more years' experience. No clear indication of roles and responsibilities. = 20 Key staff has limited recommended levels of relevant experience and qualifications. He/she has 3 or more years' experience. Inadequate indication of roles and responsibilities and specific function. = 40 Key staff have acceptable levels of relevant experience and qualifications. He/she has more than 4 or more years' experience. Reasonable indication of roles and responsibilities and specific function. = 60 Key staff have acceptable levels of relevant experience and qualifications. He/she has 5 or more years' experience. Adequate indication of roles and responsibilities and specific function. = 80 Key staff have acceptable levels of relevant experience and qualifications with 6 or more years' experience. Adequate indication of roles and responsibilities and specific function. = 100 	2,5	
	Sub Total for Experience and Qualifications		20
This Criteria must be read in conjunction with returnable T2.2-10. The Tenderer must provide their Contract specific health and safety plan.			
<i>Score</i>			
<i>Points = 100 x Weight</i>			
T2.2-09 Health and Safety Plan	Score	Weight	
	Project Specific Safety Plan		
	<ul style="list-style-type: none"> The Tenderer has submitted no information or inadequate information to determine a score. = 0 		

<ul style="list-style-type: none"> Information supplied is totally insignificant / inadequate to meet Employer's requirements = 20 	1,5	
<ul style="list-style-type: none"> Health and Safety Plan submission unlikely to ensure compliance with stated Employer's Works Information = 40 		
<ul style="list-style-type: none"> Health and Safety Plan submission possibly able to ensure compliance with stated Employer's Works Information. = 60 		
<ul style="list-style-type: none"> Health and Safety Plan submission likely to ensure compliance with stated Employer's Works Information. = 80 		
<ul style="list-style-type: none"> Health and Safety Plan submission most likely to ensure compliance with stated Employer's Works Information. = 100 		
Policy (State points allocated)		
<ul style="list-style-type: none"> The Tenderer has submitted no information or inadequate information to determine a score. = 0 	0,5	
<ul style="list-style-type: none"> 1 of the 5 key policy components are recognized and meet the Employer's requirement. = 20 		
<ul style="list-style-type: none"> 2 of the 5 key policy components are recognized and meet the Employer's requirement. = 40 		
<ul style="list-style-type: none"> 3 of the 5 key policy components are recognized and meet the Employer's requirements. = 60 		
<ul style="list-style-type: none"> 4 of the five key policy components are recognized and meets the Employer's requirements. = 80 		
<ul style="list-style-type: none"> All 5 key policy components are recognized and meets the Employer's requirements = 100 		
Roles & Responsibilities		
<ul style="list-style-type: none"> The Tenderer has submitted no information or inadequate information to determine a score. = 0 	0,5	
<ul style="list-style-type: none"> Roles and responsibilities do not meet the Occupational health and safety Act as per construction regulations and Transnet health and safety Specifications. = 20 		
<ul style="list-style-type: none"> Roles and responsibilities are unlikely to ensure compliance as per the Works information and not in line with OHS Act and Transnet health and safety Specifications. = 60 		
<ul style="list-style-type: none"> Satisfactory response on roles and responsibilities as per Employer's requirements. =80 		
<ul style="list-style-type: none"> Roles and responsibilities are likely to ensure compliance as per Works Information, OHS Act and Transnet health and safety Specifications. = 100 		
Training Matrix		
<ul style="list-style-type: none"> The Tenderer has submitted no information or inadequate information to determine a score. = 0 	1	
<ul style="list-style-type: none"> Key responsible persons are not included on training matrix as per proposed organogram structure. = 20 		
<ul style="list-style-type: none"> Not all key responsible persons are included in the training matrix. Training matrix submitted does not cover all SHE training listed on Health and Safety Specifications. Training matrix not signed by responsible personnel. = 40 		
<ul style="list-style-type: none"> Satisfactory response on the list of job categories and trainings as per proposed project organogram structure. 		



	<p>Training matrix covers most of the trainings listed on Transnet Health and safety Specifications. = 60</p> <ul style="list-style-type: none"> • Most of key persons listed on the training matrix as per proposed project organogram structure. Trainings specified on the matrix are in line with Transnet health and safety Specifications. = 80 • Training matrix include Management and all employees /personnel in the project. Training matrix had been signed by responsible personnel. = 100 		
	<p>Overview of the Baseline</p> <ul style="list-style-type: none"> • The Tenderer has submitted no information or inadequate information to determine a score. = 0 • Information supplied is totally insignificant /inadequate to achieve the required standard of service. = 20 • Poor response/answer /solution lacks convincing evidence, medium risk that stated employer's requirements will not be met. = 60 • Satisfactory response/answer/solution to the particular aspect of the requirement, evidence given that the stated Employer's requirements will be met. = 80 • Good response/answer/solution which demonstrates real understanding and evidence of ability to meet stated Employer's requirements. = 100 • Very good response /answer/solution gives real confidence that the tenderer is most likely to ensure compliance with stated Employer's requirements. 	1,5	
	<p>One year synopsis</p> <ul style="list-style-type: none"> • The Tenderer has submitted no information or inadequate information to determine a score. = 0 • Information supplied is totally insignificant /inadequate to achieve the Employers Works information. = 20 • Poor response /answer/solution lacks convincing evidence, medium risk that stated Employer's requirements will not be met. = 40 • Satisfactory response /answer/solution to the particular aspect of the requirement, evidence given that the stated Employer's requirements will be met. = 60 • Good response /answer/solution which demonstrates real understanding and evidence of ability to meet stated Employer's requirements. = 80 • Very good response /answer/solution gives real confidence that the tenderer is most likely to ensure compliance with stated Employer's requirements. = 100 	1	
	<p>Cost Breakdown Sheet</p> <ul style="list-style-type: none"> • The Tenderer has submitted no information or inadequate information to determine a score. = 0 • Health and safety Budget submitted is totally insignificant /inadequate to achieve the required standard of service, 0, 1 to 1% allocated. = 20 • Health and safety Budget submitted is insignificant /inadequate /answer /solution to the returnable, Employer's health and safety requirements will not be met, 1 – 2% allocated. = 40 	1,5	

	<ul style="list-style-type: none"> Health and safety Budget submitted is Satisfactory response /answer/solution to the returnable, Employer's health and safety requirements will be met, 2 – 3% allocated. = 60 		
	<ul style="list-style-type: none"> Health and safety Budget submitted is Good response /answer/solution to the returnable, Employer's health and safety requirements will be met, 3 – 4% - above allocated. = 80 		
	<ul style="list-style-type: none"> Health and safety Budget submitted is Very good response /answer/solution to the returnable, Employer's health and safety requirements will be met, 4% - above allocated. = 100 		
	Sub Total for health and safety plan		
Maximum possible points for Functionality		100	7,5 100

C.3.11. Only tenders that achieve the minimum qualifying score for functionality will be evaluated further in accordance with the 90/10 preference points systems as described in Preferential Procurement Regulations.

Thresholds	Minimum Threshold
Technical / functionality	70

Evaluation Criteria	Final Weighted Scores
Price	90
Specific goals - Scorecard	10
TOTAL SCORE:	100

90 where the financial value of one or more responsive tenders received have a value equal to or above R50 million, inclusive of all applicable taxes.

Up to 100 minus W_1 tender evaluation points will be awarded to tenderers who complete the preferencing schedule and who are found to be eligible for the preference claimed. **Should the evidence required for any of the Specific Goals applicable in this tender not be provided, a tenderer will score zero preference points for that particular "Specific Goal".**

In terms of Transnet Preferential Procurement Policy (TPPP) and Procurement Manuals, the following preference points must be awarded to a bidder who provides the relevant required evidence for claiming points

Selected Specific Goal	Number of points allocated (10)
B-BBEE Level of contributor (1 or 2)	5
EME or QSE 51% Black Owned	5
Non-Compliant and/or B-BBEE Level 3-8 contributors	0

The following Table represents the evidence to be submitted for claiming preference points for applicable specific goals in a particular tender:

Specific Goals	Acceptable Evidence
B-BBEE	B-BBEE Certificate / Sworn-Affidavit B-BBEE Certificate (in case of JV, a consolidate scorecard will be accept) as per DTIC guidelines
EME or QSE 51% Black Owned	B-BBEE Certificate / Affidavit (in case of JV, a consolidate scorecard will be accept) as per DTIC guidelines

The maximum points for this bid are allocated as follows

<u>DISCRPTION</u>	<u>POINTS</u>
PRICE	90
B-BBEE STATUS LEVEL OF CONTRIBUTION LEVEL 1 OR 2	5
EME OR QSE 51% BLACK OWNED	5
Total points for Price and Specific Goals must not exceed	100

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 reserves the right to award the tender to the tenderer who scores the highest number of points overall, unless there are **objective criteria** which will justify the award of the tender to another tenderer. Objective criteria include but are not limited to the outcome of a due diligence exercise to be conducted. The due diligence exercise may take the following factors into account inter alia;
the tenderer:
 - a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement,
 - b) can, as necessary and in relation to the proposed contract, demonstrate that he or she 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,
 - c) has the legal capacity to enter into the contract,
 - d) is not insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act, 2008, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing,
 - e) complies with the legal requirements, if any, stated in the tender data and
 - f) is able, in the option of the employer 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).

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 **Stage Three as per CIDB: Eligibility Criteria schedule: technical prequalification:**
- The Civil / Structural and Electrical Engineers must be professionally registered (Pr. Tech. Eng. or Pr. Eng.), for final sign off and provision of relevant compliance certifications (Attach ECSA registration certificate).
 - Corrosion protection guarantee/ warrantee certificate on high mast poles lighting > or = 7 years (Attach guarantee/ warrantee certificate or brochure from the manufacture).

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

- T2.2-04 **Evaluation Schedule:** Quality Management
- T2.2-05 **Evaluation Schedule:** Programme
- T2.2-06 **Evaluation Schedule:** Previous experience
- T2.2-07 **Evaluation Schedule:** Method Statement
- T2.2-08 **Evaluation Schedule:** Management & CV's
- T2.2-09 **Evaluation Schedule:** Health and Safety Management
- T2.2-10 **Evaluation Schedule:** Guarantees and Warrantees
- T2.2-11 **Evaluation Schedule:** Health and Safety management cost breakdown
- T2.2-12 **Evaluation Schedule:** Health and Safety management questionnaire

2.1.3 Returnable Schedules:

General:

- T2.2-13 Authority to submit tender
- T2.2-14 Record of addenda to tender documents
- T2.2-15 Letter of Good Standing
- T2.2-16 Risk Elements
- T2.2-17 Availability of equipment and other resources
- T2.2-18 Schedule of proposed Subcontractors (if subcontract in terms of TPPP is not eligibility)
- T2.2-19 Site Establishment requirements

Valid proof of Respondent's compliance to Specific Goals evidence (Preference Claim Form) requirements stipulated in SBD6.1.

Agreement and Commitment by Tenderer:

T2.2-20: CIDB SFU ANNEX G Compulsory Enterprise Questionnaire

T2.2-21 Non-Disclosure Agreement

T2.2-22 RFP Declaration Form

T2.2-23 RFP – Breach of Law

T2.2-24 Certificate of Acquaintance with Tender Document

T2.2-25 Service Provider Integrity Pact

T2.2-26 Supplier Code of Conduct

1.3.2 Bonds/Guarantees/Financial/Insurance:

T2.2-27 Insurance provided by the Contractor

T2.2-28 Three (3) years audited financial statements

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

2.3 C1.2 Contract Data

2.4 C2.1 Pricing Instructions (Bill of Quantities)

2.5 C2.2 Bill of Quantities

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:	HT Boardroom, HT Workshop Octopus Road Transnet Port Terminals Richards Bay	
On (date)	12 December 2024	Starting time: 11:00am

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 **SEP 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 **SEP 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 Contractor shall provide the employer with a certified 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.



Terminal Lighting	Compliance to Eligibility Criteria	Tender Schedule: T2.2-03
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Tenderers are to list in this schedule compliance to the Eligibility Criteria for the **Terminal Lighting**. For **Evidence tenderers are to submit proof in the form of either qualifications, specifications, drawings, data books, brochures, certificates, etc.** Proof to be attached as part of this returnable. Failure to comply with eligibility criteria i.e., a **"No" answer / response and No attachment** will lead to disqualification.

Eligibility Criteria Terminal Lighting		Comply (Yes/No)	Evidence Provided (Yes/No)
1.	The Civil / Structural and Electrical Engineers must be professionally registered (Pr. Tech. Eng. or Pr. Eng.), for final sign off and provision of relevant compliance certifications (Attach ECSA registration certificate).		
2.	Tenderer to have CIDB rating of 8EP or higher (Attach a copy of CIDB grading).		
3.	Corrosion protection guarantee/ warrantee certificate on high mast poles lighting > or = 7 years (Attach guarantee/ warrantee certificate or brochure from the manufacture).		

Signed	Date
Name	Position
Tenderer	



Terminal Lighting	Quality Management	Tender Schedule: T2.2-04
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1. The tenderer is to provide quality management plan and quality control plan based on employers' quality assurance requirements specification (EEAM-Q-009 Quality Management System).
2. As a minimum, the Supplier/Contractor shall submit its Quality System documentation to TPT at the time of tender and at Contract Phases as detailed below:
 - Data book Index/List of Procedures/Method statement to be used
 - Qualification and experience of Quality personnel
 - Project specific Quality Control Plan
 - Quality requirements of the works, identifying all procedures, reviews, audits, controls, and records used to control and verify compliance with the Works Information.
3. The tenderer shall as a minimum submit a valid ISO 9001 certification.
4. The Supplier/Contractor shall have, maintain, and demonstrate its use to TPT, its documented Quality Management System. The Supplier/Contractors Quality Management System should be in accordance with the International Standard ISO 9001.

Attached submissions to this schedule:

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The scoring will be as follows:

CORE		
	Project Quality Plan based on EEAM-Q-009 Quality Management System	Valid ISO 9001 Certificate
Score	6	4
	Formulae: $Points = \frac{Score}{100} \times Weight$	
0	No Project Quality Plan submitted.	No ISO 9001 certificate/ certificate has expired
20	Project Quality Plan is too general with no project Specifics.	N/A
40	Project Quality Plan is project specific but inadequate to cover project scope.	N/A
60	Project Quality Plan shows adequate understanding of project quality requirements.	N/A
80	Project Quality Plan shows above average understanding of the project quality requirements.	N/A
100	Project Quality Plan covers all and above the project quality requirements of the project scope.	ISO 9001 certificate submitted and valid.

Signed	Date
Name	Position
Tenderer	



Terminal Lighting	Program	Tender Schedule: T2.2-05
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The Tenderer details the program for evaluation and attaches it to this schedule. In addition, the Tenderer is to provide an electronic copy of the program in **Primavera or Ms. Project**. The Tenderer's attention is drawn to core **clause 31.2 of the NEC3 Engineering and Construction contract** regarding the items to be shown on a program.

The tenderer shall provide the proposed program, at a minimum Level 3 showing but not limited to the following:

- Ability to execute the works in terms of the Employer’s requirements and within the required timeframe indicating, in a logical sequence, the order and timing of the construction that will take place to Provide the Works clearly indicating the capacity & capability to achieve the dates stated in the Contract Data.
- Dates when the Contractor will need access to any part of the Site; submission & approval process and timing for Health & Safety Files, Environmental Files and Quality Files. In addition, the Programme must clearly demonstrate the procurement process for all long lead items if applicable and demonstrate adequate provision for timeframes of inductions, permits and medicals.
- The Contractor indicates how he plans in achieving the following dates and clearly demonstrates them on the schedule - Start Date, Access Date, Planned Completion, Key Dates/Sectional Completion Dates & Completion Date.
- In addition, the Programme must clearly demonstrate adequate provisions for Time Risk Allowance (TRA). Time Risk Allowances are not float, are owned by the Tenderer, can be included in the activity duration and illustrated in the schedule in a code field or as an attachment.
- The Programme must clearly support and demonstrate alignment to the Method Statement as contained in **T2.2-08 List of Returnables**. In addition, the programme needs to have a basis of a schedule not limited to assumptions, constraints and approach to providing the Works as detailed in the programme.
- Attachment of electronic copy and hard copy of the programme.

TRANSNET PORT TERMINALS

TENDER NUMBER: ICLM RB 924/TPT

DESCRIPTION OF THE WORKS: TERMINAL LIGHTING AT RICHARDS BAY TERMINAL FOR TRANSNET SOC LTD (REG.NO1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT")



The scoring of the Programme will be as follows:

CORE					
	Ability to execute the works in terms of the Employer's requirements and within the required timeframe indicating, in a logical sequence, the order and timing of the construction that will take place in order to Provide the Works clearly indicating the capacity & capability to achieve the dates stated in the Contract Data.	Dates when the Contractor will need access to any part of the Site, submission & approval process & timing for Health & Safety Files, inclusive of construction work permit, Environmental Files and Quality Files. In addition, the Programme must clearly demonstrate the procurement process for all long lead items if applicable. Moreover, the Programme must clearly demonstrate adequate provision for the process and timeframes associated with undertaking inductions, permits and medicals.	The Contractor indicates how he plans in achieving the following dates and clearly demonstrates them on the schedule - Starting Date, Planned Completion, Sectional Completion Dates & Completion Date. In addition, the Programme clearly demonstrates adequate provisions for Time Risk Allowance (TRA). Time Risk Allowances are not float, are owned by the Tenderer, can be included in the activity duration and illustrated in the schedule in a code field or as an attachment.	The Programme shall be aligned to the C3: Works Information and detailed at an appropriate level of decomposition to support the scope and associated duration estimates.	The Programme must clearly support and demonstrate alignment to the method statement as contained in T2.2-08 List of Returnables. In addition, the programme needs to have a basis of a schedule not limited to assumptions, constraints and approach to providing the Works and construction monitoring as detailed in the programme.
Score	3	3	3	3	3
	<i>Score</i> <i>Points = 100 x Weight</i>				
0	<ul style="list-style-type: none"> The tenderer has submitted no information 	<ul style="list-style-type: none"> The tenderer has submitted no information 	<ul style="list-style-type: none"> The tenderer has submitted no information 	<ul style="list-style-type: none"> The tenderer has submitted no information 	<ul style="list-style-type: none"> The tenderer has submitted no information
20	<ul style="list-style-type: none"> The programme is poor, and it will not satisfy project objectives or requirements. The tenderer has misunderstood the scope of Works and does not deal with the critical aspects of the 	<ul style="list-style-type: none"> The tenderer poorly addressed critical access requirements. The tenderer has not allowed timing for undertaking deliverables as stipulated within the Works 	<ul style="list-style-type: none"> The tenderer has poorly addressed some but not all date requirements and submission contain critical logic and sequencing errors which renders it unrealistic / unachievable. The tenderer has poorly demonstrated Time Risk Allowance 	<ul style="list-style-type: none"> Poor alignment between programme and the Works Information. 	<ul style="list-style-type: none"> Poor alignment between programme and method statement. The Basis of the Schedule document contains poor detail, critical errors and omissions. As such it does

TRANSNET PORT TERMINALS

TENDER NUMBER: ICLM RB 924/TPT

DESCRIPTION OF THE WORKS: TERMINAL LIGHTING AT RICHARDS BAY TERMINAL FOR TRANSNET SOC LTD (REG.NO1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT")



	overall programme	<p>Information.</p> <ul style="list-style-type: none"> The tenderer has not allowed approval process and timing for Health & Safety, Environmental and Quality pre-requisites/requirements. The tenderer has not demonstrated provision for the process and timeframes associated with undertaking procurement processes, inductions, permits and medicals. 	(TRA).		<p>not support the programme model.</p> <ul style="list-style-type: none"> Poor alignment between Basis of Schedule documentation and the programme model.
40	<ul style="list-style-type: none"> The programme is generic, not practical, and unrealistic, therefore is unlikely to satisfy project objectives or Employer's requirements. The tenderer has misunderstood certain aspects of the scope of the Works and does not deal with the critical aspects of the project. 	<ul style="list-style-type: none"> The tenderer has addressed some critical but not all access requirements. The tenderer has made an adequate allowance in timing for undertaking deliverables as stipulated within the Works Information. The tenderer has not made an adequate allowance for the approval process and timing for Health & Safety, Environmental and Quality pre-requisites/requirements. The tenderer has not adequately demonstrated provision for the process and timeframes associated with undertaking procurement processes, inductions. 	<ul style="list-style-type: none"> The tenderer has addressed some but not all date requirements and submission contain critical logic and sequencing errors which renders it unrealistic / unachievable. The tenderer has demonstrated Time Risk Allowance (TRA). 	<ul style="list-style-type: none"> Programme and some Works Information are relatively aligned but the level of decomposition of the programme is not appropriate to support the scope and associated duration estimates for the phase in question and the project overall. 	<ul style="list-style-type: none"> Some critical errors and or omissions in alignment between programme and method statement. The Basis of the Schedule document contains inadequate detail, and critical errors exist. As such the Basis of Schedule does not fully support the programme model. Some critical errors in alignment between Basis of Schedule documentation and the programme model.
60	<ul style="list-style-type: none"> The programme is project specific, practical, and realistic, therefore is likely to satisfy 	<ul style="list-style-type: none"> The tenderer has addressed all access requirements. The tenderer has made an 	<ul style="list-style-type: none"> The tenderer has addressed most date requirements correctly and submission contains logic and 	<ul style="list-style-type: none"> Programme and most Works Information are relatively aligned but the 	<ul style="list-style-type: none"> No critical errors and or omissions in alignment between programme and

TRANSNET PORT TERMINALS

TENDER NUMBER: ICLM RB 924/TPT

DESCRIPTION OF THE WORKS: TERMINAL LIGHTING AT RICHARDS BAY TERMINAL FOR TRANSNET SOC LTD (REG.NO1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT")



	<p>project objectives or Employer's requirements. The tenderer has understood certain aspects of the scope of the Works and is dealing with the critical aspects of the project.</p>	<p>allowance in timing and scope for undertaking deliverables as stipulated within the Works Information and Employer's Scope of Works.</p> <ul style="list-style-type: none"> The tenderer has made an allowance for the approval process, timing and scope for Health & Safety, Environmental and Quality pre-requisites/requirements. The tenderer has not demonstrated provision for the process and timeframes associated with undertaking procurement processes, inductions, permits and medicals. 	<p>sequencing which is accurate and renders the submission realistic and achievable.</p> <ul style="list-style-type: none"> The tenderer has demonstrated inadequate provision for Time Risk Allowance (TRA) i.e. TRA in inadequate quantities, and not assigned to specific activities and/or critical components of the scope which are known to be subject to uncertainty. 	<p>level of decomposition of the programme is appropriate to support the scope and associated duration estimates for the phase in question and the project overall.</p>	<p>method statement.</p> <ul style="list-style-type: none"> The Basis of Schedule document contains adequate detail, however critical aspects of the programme model are substantiated. No errors and or omissions exist in alignment of the Basis of Schedule document and the programme model.
<p>80</p>	<ul style="list-style-type: none"> The programme addresses certain specific project objectives but does not adequately deal with all the critical characteristics of the project. The programme is complete and decomposed, as demonstrated in the project WBS which fully demonstrates the Provision of the Works and the Scope of Works and is in accordance with the Works Information. The programme is predictive in that it contains minor errors or omissions in critical path. The programme contains 	<ul style="list-style-type: none"> The tenderer has addressed all access requirements. The tenderer has made an allowance in timing and scope for undertaking deliverables as stipulated within the Works Information and Employer's Scope of Works. The tenderer has made an allowance for the approval process, timing and scope for Health & Safety, Environmental and Quality pre-requisite/requirements. The tenderer has demonstrated provision for the process and timeframes 	<ul style="list-style-type: none"> The tenderer has addressed all date requirements correctly and submission contains logic and sequencing which is accurate and renders the submission realistic and achievable. The tenderer has demonstrated provision for Time Risk Allowance (TRA) i.e. TRA quantities, correctly assigned to specific activities and/or critical components of the scope which are known to be subject to uncertainty 	<ul style="list-style-type: none"> Programme and all Works Information are aligned and the level of decomposition of the programme is appropriate to support the scope and associated duration estimates for the phase in question and the project overall. 	<ul style="list-style-type: none"> Programme and method statement are aligned, and submission contains no critical errors or omissions. The Basis of the Schedule document contains adequate detail, no critical errors or omissions and as such fully supports the programme model. Basis of Schedule document and programme model are aligned.

TRANSNET PORT TERMINALS

TENDER NUMBER: ICLM RB 924/TPT

DESCRIPTION OF THE WORKS: TERMINAL LIGHTING AT RICHARDS BAY TERMINAL FOR TRANSNET SOC LTD (REG.NO1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT")



	<p>minor errors and omissions in logic (i.e., horizontal, and vertical traceability)</p> <ul style="list-style-type: none"> The programme demonstrates the sequence, methodology and underlying approach to Provision of the Works and the Scope of Works, in line with the requirements of the Contract, as such adequately deals with some but not all the critical characteristics of overall project. 	<p>associated with undertaking procurement processes, inductions, permits and medicals i.e., all items considered, and adequate timeframes allowed.</p>			
100	<ul style="list-style-type: none"> The programme adequately addresses specific project objectives and critical aspects. The programme is complete and adequately decomposed, as demonstrated in the project WBS which fully demonstrates the Provision of the Works and the Scope of Works and is in accordance with the Works Information and /or encompasses project scope as detailed but not limited to the Scope of Works. The programme is adequately predictive in that it provides meaningful critical path(s) and forms an accurate/realistic model of project risk, the latter as demonstrated in activity duration estimates. The programme contains logic that is horizontally, vertically traceable as supported by 	<ul style="list-style-type: none"> The tenderer has adequately addressed all access requirements. The tenderer has made an adequate allowance in timing and scope for undertaking deliverables as stipulated within the Works Information and Employer's Scope of Works. The tenderer has made an adequate allowance for the approval process, timing and scope for Health & Safety, Environmental and Quality pre-requisite/requirements. The tenderer has adequately demonstrated provision for the process and timeframes associated with undertaking procurement processes, inductions, permits and medicals i.e., all items considered, and adequate 	<ul style="list-style-type: none"> The tenderer has adequately addressed all date requirements correctly and submission contains logic and sequencing which is accurate and renders the submission realistic and achievable. The tenderer has demonstrated adequately provision for Time Risk Allowance (TRA) i.e. TRA adequate quantities, correctly assigned to specific activities and/or critical components of the scope which are known to be subject to uncertainty 	<ul style="list-style-type: none"> Programme and all Works Information are adequately aligned and the level of decomposition of the programme is appropriate to support the scope and associated duration estimates for the phase in question and the project overall. 	<ul style="list-style-type: none"> Programme and method statement are adequately aligned, and submission contains no errors or omissions. The Basis of the Schedule document contains adequate details, no errors or omissions and as such fully supports the programme model. Basis of Schedule document and programme model are adequately aligned.

TRANSNET PORT TERMINALS

TENDER NUMBER: ICLM RB 924/TPT

DESCRIPTION OF THE WORKS: TERMINAL LIGHTING AT RICHARDS BAY TERMINAL FOR TRANSNET SOC LTD (REG.NO1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT")



	<p>realistic duration estimates.</p> <ul style="list-style-type: none">The programme adequately demonstrates the sequence, methodology, and underlying approach to Provision of the Works and the Scope of Works, in line with the requirements of the Works information as such adequately deals with the critical characteristics of overall project. = 100.	<p>timeframes allowed.</p>			
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The undersigned, who warrants that he / she is duly authorized 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	



Terminal Lighting	Previous Experience	Tender Schedule: T2.2-06
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Tenderers are required to demonstrate performance in comparable projects of similar size and nature by supplying the following:

1. A list of past / current comparable projects.
2. Construction of similar works as detailed in the Works Information with reference to:
 - Previous Experience of High Mast Poles Lights installation conducted by tenderer in the last 7 years. References to provide letter of reference, to be traceable and contactable to allow verification of track record provided.
 - Sufficient references to substantiate experience indicated (Client name, contact details, project description, minimum duration and minimum of 10 million value)
 - Submit a signed reference letter with a customer letter head.
 - Submit completion certificates.
3. **Note:** Bidders are to complete all the details in the reference table for it to be considered for evaluation.

#	Name of Previous Customer	Contact Details	Nature of work	Minimum Duration	Contract Value
1.					
2.					
3.					
4.					
5.					



The scoring of the Previous Experience will be as follows:

CORE	
	<p>1. A list of past / current comparable projects.</p> <p>2. Construction of similar works as detailed in the Works Information with reference to</p> <ul style="list-style-type: none"> • Previous Experience of High Mast Poles Lights installation conducted by tenderer in the last 7 years. References to provide letter of reference, to be traceable and contactable to allow verification of track record provided. • Sufficient references to substantiate experience indicated (Client name and contact details and project description)
Score	25
	$Points = \frac{Score}{100} \times Weight$
0	The Tenderer failed to address the question / issue. Has not submitted the required information. The tenderer lacks convincing evidence of knowledge of previous experience, specific to the works.
20	The Tenderer's previous experience presented has no relevance to the scope of this project and did not address any of the required categories. Tenderers generally have experience in one (1) project relating to the scope of works. The tenderer has limited or poor evidence of previous experience.
40	The Tenderer's previous experience presented has some relevance to the project but lacks detail i.e. Description of previous projects and references. Tenderers generally have experience in two (2) projects relating to scope of works.
60	The Tenderer's previous experience presented demonstrates sufficient knowledge and experience to successfully execute this project scope. Tenderers generally have experience in at least three (3) projects relating to the scope of works. The tenderer has reasonable and relevant previous experience to the requirements of the works.
80	The Tenderer's previous experience presented demonstrates a real understanding and substantial evidence of the ability meet the stated project requirements. Tenderers generally have experience in at least four (4) projects relating to the scope of works. The tenderer has extensive previous experience in relation to the works.
100	The Tenderer's previous experience presented demonstrates real confidence extensive understanding in all the categories as required. Tenderers generally have experience in five (5) or more projects relating to the scope of works. The tenderer has comprehensive previous experience in projects of a similar nature.

Signed	Date
Name	Position
Tenderer	

Terminal Lighting	Method Statement	Tender Schedule: T2.2-07
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The tenderers must sufficiently demonstrate the approach/methodology that will be employed to cover the scope of the project.

- Designs.
- Demolition Work and disposal,
- High Mast Poles Lights Removal and Installation Work,
- Commissioning.
- Maintaining Security i.e. No section can be left open overnight,
- House Keeping and keeping material safe and secured, Control of Debris from the holes,
- Traffic Control and,
- Communication (All site requirements to be communicated the Project Manager)

In addition to general methodology for the project, the tenderer must demonstrate the following aspects but not limited to:

- Order and timing of the audits, inspection and design milestones that will take place to provide the Works.
- Indication of how the above will be achieved in terms of the associated policies and procedures, and relevant specification described in the tender.

Please note: Tenderers are required to provide detailed method statements for the categories as listed above.



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

CORE		
	<ul style="list-style-type: none"> • Designs • Demolition Work, • High Mast Poles Lights Installation Work, • Maintaining Security i.e. No section can be left open overnight, • Control of Debris from the holes, • Commissioning. • House Keeping and keeping material safe and secured, • Traffic Control and, • Communication (All site requirements to be communicated the Project Manager) 	<ul style="list-style-type: none"> • Order and timing of the audits, inspection and design milestones that will take place in order to provide the Works. • Indication of how the above will be achieved in terms of the associated policies and procedures, and relevant specification described in the tender. • Presentation of the form of offer for luminaires and energy management technology.
Score	10	5
	Formulae $Points = \frac{Score}{100} \times Weight$	_____
0	The tenderer has submitted no information or inadequate information to determine a score.	
20	The methodology/approach and work alignment to project schedule is poorly presented, generic and not tailored to address the specific project objectives and methodology.	
40	The methodology/approach is generic and not tailored to address the specific project objectives and methodology. The methodology approach does not adequately deal with the critical characteristics of the project.	
60	Satisfactory response/solution to the aspect of the requirement and evidence given that the stated employer's requirements will be met.	
80	The methodology/approach is specifically tailored to address the specific project objectives and methodology and is sufficiently flexible to accommodate changes that may occur during execution. The methodology/ approach to manage activities is specifically tailored to the critical characteristics of the project.	
100	Besides meeting the "80" rating, the important issues are approached in an innovative and efficient way, indicating that the tenderer has outstanding knowledge of state-of-the-art approaches. The methodology approach details ways to improve the project outcomes and the quality of the outputs.	

Signed	Date
Name	Position
Tenderer	

Terminal Lighting	Management & CV's of Key Persons	Tender Schedule: T2.2-08
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Tenderers are required to submit comprehensive CV's for their *key persons* as requested below.

1. The experience of assigned *key persons* in relation to the scope of work will be evaluated from three different points of view below:
 - a) General experience (total duration of construction activity) and positions held of each discipline specific team member.
 - b) The education, training, and skills of the assigned staff in the specific sector, field, subject, etc. which is directly linked to the scope of work. Proof of education and training must be attached to the C.V.
 - c) The key staff members' / experts' knowledge must provide his/her experience with respect to the specific aspects of the project.
2. Comprehensive CV's should be attached to this schedule, as a minimum each CV should address the following, but not limited to;
 - a) Personal particulars
 - Name
 - Date and place of birth
 - Place (s) of tertiary education and dates associated therewith
 - Professional awards
 - b) Attach proof of qualifications (degrees, diplomas, grades of membership of professional societies and professional registrations)
 - c) Skills
 - d) Name of current employer and position in enterprise
 - e) Overview of postgraduate / diploma experience (year, organization, and position)
 - f) Outline of recent assignments / experience that has a bearing on the scope of work
3. CV's for people proposed for all identified posts including:
 - a) Project Manager x 1**
 - The Project Manager must have an SACPMP or PMP registration a national diploma or higher qualification in Electrical/Mechanical, Civil/Structural engineering, national diploma or higher in Project Management and at least 6 years post qualification experience managing construction projects.
 - The Project Manager should further provide evidence in working with the NEC suit of contracts and must have experience working in similar projects.
 - b) SHE Officer x 1**

SHE Officer must have a minimum and completed SAMTRAC/NEBOSH or MSRM (Modern SHEQ Risk Management Qualification course) in safety management, registered with SACPCMP as CHSO (Construction Health and Safety Officer) and a minimum of 6 years' experience as a safety officer and have a basic environmental management background. Proof of environmental

training must be attached to the C.V. and experience in environmental management to be included in the C.V.

c) Construction Manager/Site Agent x 1

The Construction Manager must have a minimum qualification of a Diploma in Electrical/Mechanical/Civil Engineering and at least 6 years of experience in construction projects. The Construction Manager must have experience working with the NEC suit of contracts and must have experience working in similar projects.

d) Installation Electrician x 1

The Installation Electrician must have at least 10 years of experience in Low and Medium Voltage (LV and MV) installations and be registered with Department of Labour. The Installation electrician shall have experience in both electrical and electronic in relation to the scope of work.

e) Electrical Engineer x 1

The Electrical Engineer must be registered as a PrTech/Pr Eng with ECSA, have minimum qualification of a Diploma in Electrical Engineering and at least 6 years of post-registration experience in construction projects. The Electrical Engineer must have experience working with the NEC suit of contracts and must have experience working in similar projects. The Engineer must have experience in illumination designs, Relux software, power systems design, commissioning experience, lighting energy management technology selection and design experience, and ECSA level 3 supervision experience.

f) Structural or Civil Engineer x 1

The Engineer must be registered as a PrTech/Pr Eng with ECSA, have minimum qualification of a Diploma in Structural or Civil Engineering and at least 6 years of post-registration experience in construction projects. The Engineer must have experience working with the NEC suit of contracts and must have experience working in similar projects. The Engineer must have experience in HML concrete base designs, and ECSA level 3 supervision experience.

g) Draftsman x 1

The Draftsman must have a minimum in Diploma in Electrical or Civil Engineering and at least 6 years' experience in construction projects. The Draftsman must have experience working with the NEC suit of contracts and must have experience working in similar projects. The Draftsman must have experience in AutoCAD.

h) Site Supervisor (building and civil infrastructure)

The Site Supervisor must have a minimum of NTC 3/Grade 12 with at least 5 years of experience in engineering construction.

4. No sharing of key personnel roles will be permitted in this project.
5. Details of experience for proposed staff working in similar projects in terms of nature, complexity, and value.
6. An explanation of how you propose to allocate adequate resources to enable you to comply with the requirements and prohibitions imposed on you by or under the statutory provisions relating to health and safety.



7. Details of experience for proposed staff in respect to NEC3 Engineering and Construction Contract Option chosen for this contract. If staff experience is limited, an indication of relevant training that they have attended would be helpful.

The following table is to be populated by the tenderer identifying the resources for the key roles on the project.

Key Person Role	Name of Resource

Attached submissions to this schedule:

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The scoring of the Management & CV's of Key Persons will be as follows:

The scoring of the Management & CV's of Key Persons will be as follows:

	General experience for the following:	Weight	Education, training and skills Adequacy for the following:	Design and Build Knowledge of issues pertinent to the project for the following:
	<p>Site Management</p> <ul style="list-style-type: none"> ▪ Project manager ▪ Installation Electrician ▪ SHE officer ▪ Construction Manager <p>Engineering</p> <ul style="list-style-type: none"> ▪ Electrical Engineer ▪ Structural/Civil Engineer ▪ Draftsman 	<p>50%</p> <p>20%</p> <p>50%</p> <p>10%</p> <p>20%</p> <p>50%</p> <p>40%</p> <p>20%</p> <p>40%</p>	<ul style="list-style-type: none"> ▪ Project manager ▪ Installation Electrician ▪ SHE officer ▪ Civil/Structural Engineer ▪ Electrical Engineer ▪ Draftsman <p>NB: Weightings are as per general experience sub-criterion</p>	<ul style="list-style-type: none"> ▪ Project manager ▪ Installation Electrician ▪ SHE officer ▪ Civil/Structural Engineer ▪ Electrical Engineer ▪ Draftsman <p>NB: Weightings are as per general experience sub-criterion</p>
Points	5		5	10
(score 0)	The Tenderer has submitted no information or inadequate information to determine a score.			
(score 20)	Key staff does not have relevant levels of experience. <ul style="list-style-type: none"> ▪ Site Management: ≤ 2 years ▪ Engineering: ≤ 2 years 		Key staff does not have project specific education, skills, training and experience.	Key staff has no experience of issues pertinent to the project.
(score 40)	Key staff has limited levels of relevant experience. <ul style="list-style-type: none"> ▪ Site Management: (> 2 < 6 years) ▪ Engineering: (> 2 < 6 years) 		Key staff has limited levels of project specific education, skills, training and experience.	Key staff has limited knowledge of issues pertinent to the project.
(score 60)	Key staff has reasonable levels of experience. <ul style="list-style-type: none"> ▪ Site Management: (≥6 ≤ 7 years) ▪ Engineering: (≥6 ≤ 7 years) 		Key staff has reasonable levels of project specific education, skills, training, and experience.	Key staff has reasonable knowledge of issues pertinent to the project.
(score 80)	Key staff has extensive levels of relevant experience. <ul style="list-style-type: none"> ▪ Site Management: (> 7 ≤ 10 years) ▪ Engineering: (> 7 ≤ 10) 		Key staff has extensive levels of project specific education, skills, training, and experience.	Key staff has extensive knowledge of issues pertinent to the project.

(score 100)	Key staff has outstanding levels of relevant experience. <ul style="list-style-type: none"> ▪ Site Management: >10 years ▪ Engineering: >10 years 	Key staff has outstanding levels of project specific education, skills, training and experience.	Key staff has outstanding knowledge of issues pertinent to the project.
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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			

Terminal Lighting	Health and Safety Management	Tender Schedule: T2.2-09
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Submit the following documents as a minimum with your tender:

1. The Tenderer must provide their Contract specific health and safety plan.
2. Safety, Health & Environmental Policy signed by the Chief Executive Officer. List the five elements.
 - Commitment to Safety, prevention of pollution,
 - Continual improvement,
 - Compliance to legal requirements, appropriate to the nature of contractor's activities,
 - Hold management accountable for development of the safety systems.
 - Include objectives and targets.
3. Roles & Responsibilities, such as S16.2 CEO, CR8.1 Construction manager, CR8.2 Assistant Construction manager, CR8.5 Safety officer, CR8.7 Construction Supervisor – Civils, Construction and Electrical, CR8.8 Construction assistant supervisor, CR9.1 Risk Assessor, 17.1 SHE Reps, etc. as per the Occupational health and safety Act 85 of 1993
4. List of job categories for project and competencies required per category and develop a training Matrix for all employees who will be working on the project. This matrix must include Management and highlight training planned dates.
5. Overview of the project specific Baseline Risk Assessment (RA), indicating major activities of the project namely: **General work lifting and removal and erection of the high mast poles**
6. One year synopsis of SHE incidents, description, type and action taken to prevent re-occurrence.
7. Complete and return with tender documentation the Contractor Safety Questionnaire included to this Evaluation Schedule as a returnable.
8. Evidence that the Principal Contractor have made adequate provisions for the cost of Health & Safety "Bill of quantities": CR 3(5) (b)(iii) read with CR 5(1)(g)



The scoring of the Tender's Health and Safety criteria is as follows:

	Project Specific Safety Plan	Policy (State points allocated)	Roles & Responsibilities	Training Matrix	Overview of the Baseline	One year synopsis	Safety Questionnaire	Cost Breakdown Sheet
	Documented Health and Safety Plan in accordance with Transnet Project Health and Safety Specifications.	<ol style="list-style-type: none"> 1. Commitment to Safety, prevention of pollution, 2. Continual improvement, 3. Compliance to 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. 	S16.2 CEO, 8.1 Construction manager, 8.2 Assistant Construction manager, 8.5 Safety officer Registered with the SACPCMP, 8.7 Construction Supervisor, 8.8 Construction assistant supervisor, 9.1 Risk Assessor, 17.1 SHE Reps, etc. as per the Occupational health and safety Act 85 of 1993	List of job categories for project and competencies required per category and develop a training Matrix for all employees who will be working on the project. This matrix must include Management and highlight training planned dates.	Indicating major activities of the project namely: General work lifting and removal high mast poles	SHE incidents, description, type and action taken to prevent re-occurrence.	Complete and return with tender documentation the Contractor with required supporting documentation included as an Annexure.	Submission of completed cost breakdown sheet.
Score	1,5	0,5	0,5	1	1,5	1		1,5
0	The Tenderer has submitted no information or inadequate information to determine a score.							



<p>20</p>	<p>Information supplied is totally insignificant / inadequate to meet Employer's requirements</p>	<p>1 of the 5 key policy components are recognized and meet the <i>Employer's</i> requirement.</p>	<p>Roles and responsibilities do not meet the Occupational health and safety Act as per construction regulations and Transnet health and safety Specifications.</p>	<p>Key responsible persons are not included on training matrix as per proposed organogram structure.</p>	<p>Information supplied is totally insignificant /inadequate to achieve the required standard of service.</p>	<p>Information supplied is totally insignificant /inadequate to achieve the Employers Works information.</p>	<p>Information supplied is totally insignificant /inadequate to achieve the required standard of service.</p>	<p>Health and safety Budget submitted is totally insignificant /inadequate to achieve the required standard of service, 0, 1 to 1% allocated.</p>
<p>40</p>	<p>Health and Safety Plan submission unlikely to ensure compliance with stated Employer's Works Information</p>	<p>2 of the 5 key policy components are recognized and meet the <i>Employer's</i> requirement.</p>	<p>Roles and responsibilities are unlikely to ensure compliance as per the Works information and not in line with OHS Act and Transnet health and safety Specifications.</p>	<p>Not all key responsible persons are included in the training matrix. Trainings matrix submitted does not cover all SHE training listed on Health and Safety Specifications. Training matrix not signed by responsible personnel.</p>	<p>Poor response/answer /solution lacks convincing evidence, medium risk that stated <i>employer's</i> requirements will not be met.</p>	<p>Poor response /answer/solution lacks convincing evidence, medium risk that stated <i>Employer's</i> requirements will not be met.</p>	<p>Poor response /answer/solution lacks convincing evidence, medium risk that stated <i>Employer's</i> requirements will not be met.</p>	<p>Health and safety Budget submitted is insignificant /inadequate /answer /solution to the returnable, Employer's health and safety requirements will not be met, 1 – 2% allocated.</p>
<p>60</p>	<p>Health and Safety Plan submission possibly able to ensure compliance with stated Employer's</p>	<p>3 of the 5 key policy components are recognized and meet the <i>Employer's</i> requirements.</p>	<p>Satisfactory response on roles and responsibilities as per Employer's requirements.</p>	<p>Satisfactory response on the list of job categories and trainings as per proposed project organogram structure. Training matrix</p>	<p>Satisfactory response/answer /solution to the particular aspect of the requirement, evidence given that the stated <i>Employer's</i></p>	<p>Satisfactory response /answer/solution to the particular aspect of the requirement, evidence given that the stated <i>Employer's</i></p>	<p>Satisfactory response /answer/solution to the particular aspect of the requirement, evidence given that the stated <i>Employer's</i></p>	<p>Health and safety Budget submitted is Satisfactory response /answer/solution to the returnable, Employer's health and safety requirements will</p>



	Works Information.			covers most of the trainings listed on Transnet Health and safety Specifications.	requirements will be met.	requirements will be met.	requirements will be met.	be met, 2 – 3% allocated.
80	Health and Safety Plan submission likely to ensure compliance with stated Employer's Works Information.	4 of the five key policy components are recognized and meets the <i>Employer's</i> requirements.	Roles and responsibilities are likely to ensure compliance as per Works Information, OHS Act and Transnet health and safety Specifications.	Most of key persons listed on the training matrix as per proposed project organogram structure. Trainings specified on the matrix are in line with Transnet health and safety Specifications.	Good response/answer/solution which demonstrates real understanding and evidence of ability to meet stated <i>Employer's</i> requirements.	Good response /answer/solution which demonstrates real understanding and evidence of ability to meet stated <i>Employer's</i> requirements.	Good response /answer/solution which demonstrates real understanding and evidence of ability to meet stated <i>Employer's</i> requirements.	Health and safety Budget submitted is Good response /answer/solution to the returnable, Employer's health and safety requirements will be met, 3 – 4% - above allocated.
100	Health and Safety Plan submission most likely to ensure compliance with stated Employer's Works Information.	All 5 key policy components are recognized and meets the <i>Employer's</i> requirements	Roles and Responsibilities most likely to ensure compliance as per requirements of OHS Act and Transnet Health and Safety Specifications.	Training matrix include Management and all employees /personnel in the project. Training matrix had been signed by responsible personnel.	Very good response /answer/solution gives real confidence that the tenderer is most likely to ensure compliance with stated <i>Employer's</i> requirements.	Very good response /answer/solution gives real confidence that the tenderer is most likely to ensure compliance with stated <i>Employer's</i> requirements.	Very good response /answer/solution gives real confidence that the tenderer is most likely to ensure compliance with stated <i>Employer's</i> requirements	Health and safety Budget submitted is Very good response /answer/solution to the returnable, Employer's health and safety requirements will be met, 4% - above allocated.



Attached submissions to this schedule:

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Signed	Date
Name	Position
Tenderer	

Terminal Lighting	Guarantees and Warranties	Tender Schedule: T2.2-10
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The extent of guarantees that can be offered by the Tenderer on the corrosion protection and installation of the fencing will play an important role in the evaluation of the tenders.

- a) The Tenderer is required to indicate on the schedule what guarantee period is offered for the fencing, including the corrosion protection and installation (workmanship).
- b) A Guarantee period on the fencing of not less than seven years on corrosion protection is required.
- c) A Guarantee period on workmanship for the fencing, including gates and turnstiles, of not less than one year is required, however longer guarantees will be rewarded during the evaluation.
- d) The Tenderer is required to issue a guarantee/ warrantee from manufacturer.

Item	Guarantee and Warrantee period	Description of Guarantee
High Mast Poles Lights guarantee offered on corrosion protection		
High Mast Poles Lights Installation Workmanship Guarantee		

Signed	Date
Name	Position
Tenderer	

Terminal Lighting	Health and Safety Cost Breakdown	Tender Schedule: T2.2-12
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Tenderer (Company)	Responsible Person	Designation	Date
Project/Tender Title	Project/Tender No.	Project Location / Description	

#	Cost element	Unit Cost (R)	# of Units	Total Cost (R)
1.	Human Resources			
2.	Systems Documentation			
3.	Meetings & Administration			
4.	H&S Training			
5.	PPE & Safety Equipment			
6.	Signage & Barricading			
7.	Workplace Facilities			
8.	Emergency & Rescue Measures			
9.	Hygiene Surveys & Monitoring			
10.	Medical Surveillance			
11.	Safe Transport of Workers			
12.	HazMat Management (e.g. asbestos /silica)			
13.	Substance Abuse Testing (3 kits @R500 pm)			
14.	H&S Reward & Recognition			

Total Health and Safety Estimate (R)	
Total Estimate Value (R)	
H&S Cost as % of Tender value	

Terminal Lighting	Health and Safety Questionnaire	Tender Schedule: T2.2-12
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Health, Safety Questionnaire

1. SAFE WORK PERFORMANCE			
1A. Injury Experience / Historical Performance - Alberta			
Use the previous three years injury and illness records to complete the following:			
Year			
Number of medical treatment cases			
Number of restricted work day cases			
Number of lost time injury cases			
Number of fatal injuries			
Total recordable frequency			
Lost time injury frequency			
Number of worker manhours			
1 - Medical Treatment Case	Any occupational injury or illness requiring treatment provided by a physician or treatment provided under the direction of a physician		
2 - Restricted Work Day Case	Any occupational injury or illness that prevents a worker from performing any of his/her craft jurisdiction duties		
3 - Lost Time injury Cases	Any occupational injury that prevents the worker from performing any work for at least one day		
4 - Total Recordable Frequency	Total number of Medical Treatment, Restricted Work and Lost Time Injury cases multiplied by 200,000 then divided by total manhours		
5- Lost Time Injury Frequency	Total number of Lost Time Injury cases multiplied by 200,000 then divide by total manhours		
1B. Workers' Compensation Experience			
Use the previous three years injury and illness records to complete the following (if applicable):			
Industry Code:		Industry Classification:	
Year			
Industry Rate			
Contractor Rate			
% Discount or Surcharge			
Is your Workers' Compensation account in good standing? (Please provide letter of confirmation)		<input type="checkbox"/> Yes <input type="checkbox"/> No	
2. CITATIONS			
2A.	Has your company been cited, charged or prosecuted under Health, Safety and/or Environmental Legislation in the last 5 years? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, provide details:		
2B.	Has your company been cited, charged or prosecuted under the above Legislation in another Country, Region or State? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, provide details:		

3. CERTIFICATE OF RECOGNITION																																																																															
Does your company have a Certificate of Recognition? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, what is the Certificate No. _____ Issue Date _____																																																																															
4. SAFETY PROGRAM																																																																															
Do you have a written safety program manual? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, provide a copy for review																																																																															
Do you have a pocket safety booklet for field distribution? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, provide a copy for review																																																																															
Does your safety program contain the following elements:																																																																															
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5B. Do you have a program for training newly hired or promoted supervisors? Yes No
 (If Yes, submit an outline for evaluation. Does it include instruction on the following:

	Yes	No		Yes	No
EMPLOYER RESPONSIBILITIES	<input type="checkbox"/>	<input type="checkbox"/>	SAFETY COMMUNICATION	<input type="checkbox"/>	<input type="checkbox"/>
EMPLOYEE RESPONSIBILITIES	<input type="checkbox"/>	<input type="checkbox"/>	FIRST AID/MEDICAL PROCEDURES	<input type="checkbox"/>	<input type="checkbox"/>
DUE DILIGENCE	<input type="checkbox"/>	<input type="checkbox"/>	NEW WORKER TRAINING	<input type="checkbox"/>	<input type="checkbox"/>
SAFETY LEADERSHIP	<input type="checkbox"/>	<input type="checkbox"/>	ENVIRONMENTAL REQUIREMENTS	<input type="checkbox"/>	<input type="checkbox"/>
WORK REFUSALS	<input type="checkbox"/>	<input type="checkbox"/>	HAZARD ASSESSMENT	<input type="checkbox"/>	<input type="checkbox"/>
INSPECTION PROCESSES	<input type="checkbox"/>	<input type="checkbox"/>	PRE-JOB SAFETY INSTRUCTION	<input type="checkbox"/>	<input type="checkbox"/>
EMERGENCY PROCEDURES	<input type="checkbox"/>	<input type="checkbox"/>	DRUG & ALCOHOL POLICY	<input type="checkbox"/>	<input type="checkbox"/>
INCIDENT INVESTIGATION	<input type="checkbox"/>	<input type="checkbox"/>	PROGRESSIVE DISCIPLINARY POLICY	<input type="checkbox"/>	<input type="checkbox"/>
SAFE WORK PROCEDURES	<input type="checkbox"/>	<input type="checkbox"/>	SAFE WORK PRACTICES	<input type="checkbox"/>	<input type="checkbox"/>
SAFETY MEETINGS	<input type="checkbox"/>	<input type="checkbox"/>	NOTIFICATION REQUIREMENTS	<input type="checkbox"/>	<input type="checkbox"/>

6. SAFETY ACTIVITIES

Do you conduct safety inspections? Yes No Weekly Monthly Quarterly

Describe your safety inspection process (include participation, documentation requirements, follow-up, report distribution).

Who follows up on inspection action items? _____

Do you hold site safety meetings for field employees? If Yes, how often?
 Yes No Daily Weekly Biweekly

Do you hold site meetings where safety is addressed with management and field supervisors?
 Yes No Weekly Biweekly Monthly

Is pre-job safety instruction provided before to each new task? Yes No

Is the process documented? Yes No

Who leads the discussion? _____

Do you have a hazard assessment process? Yes No

- Are hazard assessments documented? If yes, how are hazard assessments communicated and implemented on each project? Who is responsible for leading the hazard assessment process?

Does your company have policies and procedures for environmental protection, spill clean-up, reporting, waste disposal, and recycling as part of the Health & Safety Program?
 Yes No

How does your company measure its H&S success?

- Attach separate sheet to explain

7. SAFETY STEWARDSHIP					
7A Are incident reports and report summaries sent to the following and how often?					
	Yes	No	Monthly	Quarterly	Annually
Project/Site Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Managing Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety Director/Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
/Chief Executive Officer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7B How are incident records and summaries kept? How often are they reported internally?					
	Yes	No	Monthly	Quarterly	Annually
Incidents totaled for the entire company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Incidents totaled by project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Subtotaled by superintendent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Subtotaled by foreman	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7C How are the costs of individual incidents kept? How often are they reported internally?					
	Yes	No	Monthly	Quarterly	Annually
Costs totaled for the entire company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Costs totaled by project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Subtotaled by superintendent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Subtotaled by foreman/general foreman	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7D Does your company track non-injury incidents?					
	Yes	No	Monthly	Quarterly	Annually
Near Miss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Property Damage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 PERSONNEL					
List key health and safety officers planned for this project. Attach resume.					
Name	Position/Title		Designation		
Supply name, address and phone number of your company's corporate health and safety representative. Does this individual have responsibilities other than health, safety and environment?					
Name	Address		Telephone Number		
Other responsibilities:					
9 REFERENCES					
List the last three company's your form has worked for that could verify the quality and management commitment to your occupational Health & Safety program					
Name and Company	Address		Phone Number		

T2.2-13: 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 organisation or alternatively attach a certified copy of a company / organisation document which provides the same information for the relevant category as requested here.

A - COMPANY	B - PARTNERSHIP	C - JOINT VENTURE	D - SOLE PROPRIETOR
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

T2.2-14: 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		
12		
13		
14		
15		



T2.2-15 Letter/s of Good Standing with the Workmen's Compensation Fund

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

- 1.
- 2.
- 3.
- 4.

Name of Company/Members of Joint Venture:

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

T2.2-16: Risk Elements

Tenderers to identify and evaluate the potential risk elements associated with the Works and possible mitigation thereof. The risk elements and the mitigation as identified thereof by the Tenderer are to be submitted.

If No Risks are identified "No Risks" must be stated on this schedule.

Tenderers are also to evaluate any risk/s stated by the *Employer* in Contract Data Part C1, and provide possible mitigation thereof.

Tenders to note: Notwithstanding this information, all costs related to risk elements which are at the Contractor's risk are deemed to be included in the tenderer's offered total of the Prices.



T2.2-17: Availability of Equipment and Other Resources

The Tenderer to submit a list of all Equipment and other resources that will be used to execute the *works* as described in the Works Information.

Equipment Type and Availability – Description	Hourly Rate	Number of Equipment	Details of Ownership



T2.2-18: 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*.

Note to tenderers:

- In terms of PPPFA Regulation 6 (5), A tenderer may not be awarded points for B-BBEE status level of contributor if the tender documents indicate that the tenderer intends subcontracting more than 25% of the value of the contract to any other person not qualifying for at least the points that the tenderer qualifies for, unless the intended subcontractor is an EME that has the capability to execute the subcontract.
- In terms of PPPFA Regulation 12 (3), A person awarded a contract may not subcontract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBBEE status level of contributor that the person concerned, unless the contract is subcontracted to an EME that has the capability and ability to execute the contract.

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 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
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Terminal Lighting	Site Establishment Requirements	Tender Schedule: T2.2-19
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Tenderers are to indicate their site establishment requirements, including the following:

- Site office area required (m²).
- Site lay-down area required (m²).
- Estimated electricity usage per week including average usage and peak demand.
- Estimated water consumption per week including average usage and peak demand.
- Site requirements are subjected to employer approval.

Signed		Date	
Name		Position	
Tenderer			

T2.2-20: 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 SBD 6 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	_____		

SBD 6.1

PREFERENCE POINTS CLAIM FORM

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 as per the table of evidence in paragraph 4.1 below.

1. GENERAL CONDITIONS

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

- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 The value of this bid is estimated to exceed R50 000 000 (all applicable taxes included) and therefore the 90/10 preference point system shall be applicable. Despite the stipulated preference point system, Transnet shall use the lowest acceptable bid to determine the applicable preference point system in a situation where all received acceptable bids are received outside the stated preference point system.

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 the Transnet preferential procurement policy

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

	POINTS
PRICE	90
B-BBEE STATUS LEVEL OF CONTRIBUTION Level 1 or 2	5
BO EMEs &QSE (51% BO)	5

Total points for Price and B-BBEE must not exceed

100

- 1.5 Failure on the part of a bidder to submit proof of evidence required for any of the specific goals together with the bid will be interpreted to mean that preference points for that specific goal 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) **"bid"** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the supply/provision of services, works or goods, through price quotations, advertised competitive bidding processes or proposals;
- (e) **"Broad-Based Black Economic Empowerment Act"** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (f) **"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);
- (g) **"functionality"** means the ability of a bidder to provide goods or services in accordance with specification as set out in the bid documents
- (h) **"Price"** includes all applicable taxes less all unconditional discounts.
- (i) **"Proof of B-BBEE Status Level of Contributor"**
- i) the B-BBEE 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.
- (j) **"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);
- (k) **"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.
- (l) **"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 90/10 PREFERENCE POINT SYSTEMS

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

90/10

$$P_s = 90 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$$

Where

P_s = Points scored for comparative price of bid under consideration

P_t = Comparative price of bid under consideration

P_{\min} = Comparative price of lowest acceptable bid

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 contributor	B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC

	Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guideline
EME or QSE 51% Black Owned	B-BBEE Certificate / Sworn-Affidavit / CIPC Certificate

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 .]
EME¹	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 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 5 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	
-----	--	----	--

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,, which will affect or has affected the evaluation of a bid, or where a bidder has failed to declare any subcontracting arrangements or any of the conditions of contract have not been fulfilled, 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.

<p>WITNESSES</p> <p>1.</p> <p>2.</p>
--

<p>.....</p> <p>SIGNATURE(S) OF BIDDERS(S)</p> <p>DATE:</p>

BIDDER’S DISCLOSURE

1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. Bidder’s declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or



any person having a controlling interest² in the enterprise,
employed by the state?

YES/NO

2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**

2.2.1 If so, furnish particulars:

.....
.....

² the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract?

YES/NO

2.3.1 If so, furnish particulars:

.....
.....

3 DECLARATION

I, the undersigned, (name)..... in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official

³ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.



bid opening or of the awarding of the contract.

3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.

3.6 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids 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 ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature	Date
.....
Position	Name of bidder



T2.2-21 NON-DISCLOSURE AGREEMENT

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	_____		



T2.2-22: RFP 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 the Ombudsman process and will be subject to the Terms of Reference of the Ombudsman. The Ombudsman 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 the Ombudsman without having to follow a formal court process to have such award or decision set aside.
8. We have acquainted ourselves and agree with the content of T2.2-25 "Service Provider Integrity Pact".

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

IMPORTANT NOTICE TO TENDERERS

- Transnet has appointed a Procurement Ombudsman to investigate any material complaint in respect of tenders exceeding R5,000,000.00 (five million S.A. Rand) in value. Should a Tenderer have any material concern regarding an tender process which meets this value threshold, a complaint may be lodged with Transnet’s Procurement Ombudsman for further investigation.
- It is incumbent on the Tenderer to familiarise himself/herself with the Terms of Reference for the Transnet Procurement Ombudsman, details of which are available for review at Transnet’s website www.transnet.net.

-
- An official complaint form may be downloaded from this website and submitted, together with any supporting documentation, within the prescribed period, to procurement.ombud@transnet.net
 - For transactions below the R5,000,000.00 (five million S.A. Rand) threshold, a complaint may be lodged with the Chief Procurement Officer of the relevant Transnet Operating Division.
 - 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 tenderer on its List of Excluded Bidders.

T2.2-23: 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

T2.2-24 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

T2.2-25 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

T2.2-26 : 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

T2.2-27: 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 <i>Contractor</i> 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/R10 000 000.			
Insurance in respect of loss of or damage to own property and equipment.			



T2.2-28: 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:

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



C1.1: Form of Offer & Acceptance

Offer

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

PROVISION OF TERMINAL LIGHTING AT THE PORT OF RICHARDS BAY, FOR TRANSNET SOC LTD (REG. NO. 1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS, (HEREINAFTER REFERRED TO AS "TPT").

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

TRANSNET PORT TERMINALS
TENDER NUMBER: ICLM RB 924/TPT
DESCRIPTION OF THE WORKS: PROVISION OF TERMINAL LIGHTING AT THE PORT OF RICHARDS BAY, FOR
TRANSNET SOC LTD (REG. NO. 1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS,
(HEREINAFTER REFERRED TO AS "TPT").



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	<i>(Insert name and address of organisation)</i>	Transnet SOC Ltd
Name & signature of witness
Date



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C1.2 Contract Data

Part one - Data provided by the *Employer*

Clause	Statement	Data
1	General The <i>conditions of contract</i> 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	X1: Price adjustment for inflation X2 Changes in the law X7: Delay damages X16: Retention X18: Limitation of liability X20: Key performance indicators Z: <i>Additional conditions of contract</i>
	of the NEC3 Engineering and Construction Contract June 2005 (amended June 2006 and April 2013)	
10.1	The <i>Employer</i> is:	Transnet SOC Ltd (Registration No. 1990/000900/30)



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	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 Port Terminals Gordon's Road Umhlathuze Building Richards Bay, 3900
10.1	The <i>Project Manager</i> is: (Name)	TBA
	Address	Transnet Port Terminals Gordon's Road Umhlathuze Building Richards Bay, 3900
	Tel	TBA
	e-mail	TBA
10.1	The <i>Supervisor</i> is: (Name)	TBA
	Address	Transnet Port Terminals Gordon's Road Umhlathuze Building Richards Bay, 3900
	Tel No.	TBA
	e-mail	TBA
11.2(13)	The <i>works</i> are	For the provision of terminal lighting at the port of Richards Bay, for Transnet soc ltd (reg. No. 1990/000900/30) operating as Transnet Port Terminals, (hereinafter referred to as "TPT").



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11.2(14)	The following matters will be included in the Risk Register	<ol style="list-style-type: none"> 1. Uncontrollable access 2. Poor quality 3. Site access not granted 4. Scope creep 5. Delays in project approval 6. Operational disruptions 7. Delay in material supply 8. Inclement weather delay 				
11.2(15)	The <i>boundaries of the site</i> are	All related areas necessary for the Contractor to Provide the Works within the boundaries of the Richards Bay Terminal				
11.2(16)	The Site Information is in	Not applicable				
11.2(19)	The Works Information is in	Part C3				
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa subject to the jurisdiction of the Courts of South Africa.				
13.1	The <i>language of this contract</i> is	English				
13.3	The <i>period for reply</i> is	2 weeks				
2	The Contractor's main responsibilities	No additional data is required for this section of the <i>conditions of contract</i>.				
3	Time					
11.2(3)	The <i>completion date</i> for the whole of the <i>works</i> is	TBA				
11.2(9)	The <i>key dates</i> and the <i>conditions</i> to be met are:	<table border="1"> <thead> <tr> <th>Condition to be met</th> <th>key date</th> </tr> </thead> <tbody> <tr> <td>1 Not applicable</td> <td></td> </tr> </tbody> </table>	Condition to be met	key date	1 Not applicable	
Condition to be met	key date					
1 Not applicable						
30.1	The <i>access dates</i> are	<table border="1"> <thead> <tr> <th>Part of the Site</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>1 Not applicable</td> <td></td> </tr> </tbody> </table>	Part of the Site	Date	1 Not applicable	
Part of the Site	Date					
1 Not applicable						
31.1	The <i>Contractor</i> is to submit a first programme for acceptance within	2 weeks of the Contract Date.				
31.2	The <i>starting date</i> is	Upon SHE file approval and receipt of TPT access permits				



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32.2	The <i>Contractor</i> submits revised programmes at intervals no longer than	4 weeks.
35.1	The <i>Employer</i> is not willing to take over the <i>works</i> before the Completion Date.	
4	Testing and Defects	
42.2	The <i>defects date</i> is	52 (fifty-two) weeks after Completion of the whole of the <i>works</i>.
43.2	The <i>defect correction period</i> is	2 weeks
5	Payment	
50.1	The <i>assessment interval</i> is monthly on the	25th (twenty fifth) day of each successive month.
51.1	The <i>currency of this contract</i> is the	the prime lending rate of the Rand Merchant Bank (RMB) of South Africa.
51.2	The period within which payments are made is	Payment will be affected 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 <i>interest rate</i> is	the prime lending rate of Standard Bank of South Africa.
6	Compensation events	
60.1(13)	The <i>weather measurements</i> to be recorded for each calendar month are,	the cumulative rainfall (mm) the number of days with rainfall more than 10 mm the number of days with minimum air temperature less than 0 degrees Celsius
	The place where weather is to be recorded (on the Site) is:	Transnet Ports Terminals, Richards Bay, KwaZulu Natal



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The *weather data* are the records of past *weather measurements* for each calendar month which **Richards Bay** were recorded at:

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 <i>conditions of contract</i>.
8	Risks and insurance	
80.1	These are additional <i>Employer's</i> risks	Not applicable
84.1	The <i>Employer</i> provides these insurances from the Insurance Table	
	1 Insurance against:	Loss of or damage to the <i>works</i>, 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 <i>works</i>, Plant and Materials & Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) 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



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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 <i>Contractor</i> arising out of and in the course of their employment in connection with this contract for any one event is	The <i>Contractor</i> must comply at a minimum with the provisions of the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 as amended.
	The <i>Contractor</i> provides these additional Insurances	1 Where the contract requires that the design of any part of the <i>works</i> shall be provided by the <i>Contractor</i> the <i>Contractor</i> shall satisfy the <i>Employer</i> that professional indemnity insurance cover in connection therewith has been affected



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-
- 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 R10 000 000.**
 - 7 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*.**
-



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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 <i>Contractor</i>) caused by activity in connection with this contract for any one event is	Whatever the <i>Contractor</i> requires in addition to the amount of insurance taken out by the <i>Employer</i> 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 <i>conditions of contract</i>.
10	Data for main Option clause	
B	Priced contract with Bill of Quantities	No additional data is required for this Option.
60.6	The <i>method of measurement</i> is	The Bill of Quantities have been measured in accordance with SANS 1200 unless indicated otherwise.
11	Data for Option W1	
W1.1	The <i>Adjudicator</i> is	Both parties will agree as and when a dispute arises. If the parties cannot reach an agreement on the <i>Adjudicator</i>, the Chairman of the Association of Arbitrators will appoint an <i>Adjudicator</i>.
W1.2(3)	The <i>Adjudicator nominating body</i> is: If no <i>Adjudicator nominating body</i> is entered, it is:	The Chairman of the Association of Arbitrators (Southern Africa) the Association of Arbitrators (Southern Africa)



TRANSNET PORT TERMINALS

TENDER NUMBER: ICLM RB 924/TPT

DESCRIPTION OF THE WORKS: PROVISION OF TERMINAL LIGHTING AT THE PORT OF RICHARDS BAY, FOR TRANSNET SOC LTD (REG. NO. 1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS, (HEREINAFTER REFERRED TO AS "TPT").

W1.4(2)	The <i>tribunal</i> is:	Arbitration
W1.4(5)	The <i>arbitration procedure</i> is	The Rules for the Conduct of Arbitrations of the Association of Arbitrators (Southern Africa)
	The place where arbitration is to be held is	South Africa
	The person or organisation who will choose an arbitrator	
	- if the Parties cannot agree a choice or	The Chairman of the Association of Arbitrators (Southern Africa)
	- if the arbitration procedure does not state who selects an arbitrator, is	
12	Data for secondary Option clauses	
X1	Price adjustment for inflation	
X1.1(c)	The proportions used to calculate the Price Adjustment Factor are:	Pro-portion linked to index Index prepared by
		1.00
		0.15 Non-adjustable
	*Statistical release P0151 – Contract Price Adjustment Provisions (CPAP) Work Group and Selected Materials Indices	
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 <i>works</i> are	R10 000.00 per day
X16	Retention	
X16.1	The retention free amount is	Nil
	The retention percentage is	10% on all payments certified.
X18	Limitation of liability	



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X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to:	Nil The deductible of the relevant insurance policy
X18.2	For any one event, the <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to:	The cost of correcting the Defect
X18.3	The <i>Contractor's</i> liability for Defects due to his design which are not listed on the Defects Certificate is limited to:	
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> 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 <i>end of liability date</i> is	52 weeks after Completion of the whole of the works

Z ***Additional conditions of contract are:***



Z3 Additional clauses relating to Joint Venture

Z3.1 Insert the additional core clause 27.5

27.5. In the instance that the *Contractor* is a joint venture, the *Contractor* shall provide the *Employer* with a certified copy of its signed joint venture agreement, and in the instance that the joint venture is an 'Incorporated Joint Venture,' the Memorandum of Incorporation, within 4 (four) weeks of the Contract Date.

The Joint Venture agreement shall contain but not be limited to the following:

- **A brief description of the Contract and the Deliverables;**
- **The name, physical address, communications addresses and domicilium citandi et executandi of each of the constituents and of the Joint Venture;**
- **The constituent's interests;**
- **A schedule of the insurance policies, sureties, indemnities and guarantees which must be taken out by the Joint Venture and by the individual constituents;**
- **Details of an internal dispute resolution procedure;**
- **Written confirmation by all of the constituents:**
 - i. **of their joint and several liabilities to the *Employer* to Provide the Works;**
 - ii. **identification of the lead partner in the joint venture confirming the authority of the lead partner to bind the joint venture through the *Contractor's* representative;**



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iii. **Identification of the roles and responsibilities of the constituents to provide the Works.**

• **Financial requirements for the Joint Venture:**

iv. **the working capital requirements for the Joint Venture and the extent to which and manner whereby this will be provided and/or guaranteed by the constituents from time to time;**

v. **the names of the auditors and others, if any, who will provide auditing and accounting services to the Joint Venture.**

Z3.2

Insert additional core clause 27.6

27.6. The *Contractor* shall not alter its composition or legal status of the Joint Venture without the prior approval of the *Employer*.

Z4 Additional obligations in respect of Termination

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)**



TRANSNET PORT TERMINALS
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Z4.2	Termination Table	<p>The following will be included under core clause 90.2 Termination Table as follows:</p>
Z4.3		<p>Amend "A reason other than R1 – R21" to "A reason other than R1 – R23"</p> <p>Amend "R1 – R15 or R18" to "R1 – R15, R18, R22 or R23."</p>
Z5	<p>Right Reserved by the Employer to Conduct Vetting through SSA</p>	
Z5.1		<p>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:</p> <ol style="list-style-type: none"> <li>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. <li>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. <li>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.



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**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.**



TRANSNET PORT TERMINALS

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



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		CV's (and further key persons data including CVs) are appended to Tender Schedule entitled .
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 <i>bill of quantities</i> is in	
11.2(31)	The tendered total of the Prices is	(in figures) (in words), excluding VAT
	Data for Schedules of Cost Components	<i>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.</i>

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



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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:		





TRANSNET PORT TERMINALS

CONTRACT NUMBER: ICLM RB 924/TPT

DESCRIPTION OF THE WORKS: TERMINAL LIGHTING AT RICHARDS BAY TERMINAL FOR TRANSNET SOC LTD
(REG.1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT")

PART 2: PRICING DATA

Document reference	TERMINAL LIGHTING AT RICHARDS BAY TERMINAL FOR TRANSNET SOC LTD (REG.1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT")	No of pages
C2.1	Pricing instructions: Option B	1-4
C2.2	The <i>bill of quantities</i>	92



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 (ECC) Option B states:

Identified and defined terms	11	
	11.2	<p>(21) The Bill of Quantities is the <i>bill of quantities</i> as changed in accordance with this contract to accommodate implemented compensation events and for accepted quotations for acceleration.</p> <p>(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.</p> <p>(28) The Price for Work Done to Date is the total of</p> <ul style="list-style-type: none"> • the quantity of the work which the <i>Contractor</i> 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 <i>Contractor</i> 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



Transnet Port Terminals

ENQUIRY NUMBER: XXXX

DESCRIPTION OF THE WORKS: TERMINAL LIGHTING AT RICHARDS BAY TERMINAL FOR TRANSNET SOC LTD (REG.1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT") 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.

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



Transnet Port Terminals

ENQUIRY NUMBER: XXXX

DESCRIPTION OF THE WORKS: TERMINAL LIGHTING AT RICHARDS BAY TERMINAL FOR TRANSNET SOC LTD (REG.1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT")

- 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.
- 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*

- 2.3.1.

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.

- 2.4.1.



Transnet Port Terminals

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(REG.1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT")

C2.2 the *bill of quantities*

Use this page as a summary page or as a cover page to the *bill of quantities*.

SUMMARY

ITEM NO.	ITEM DESCRIPTION	TOTAL COST
1	PRELIMINARIES AND GENERALS	
2	POWER SUPPLY	
3	MPT	
4	STAGING AREA	
5	6 SERIES	
6	A, B, C & D	
7	FERRO SLAB	
8	EXPORT & QUAYSIDE	
9	TRIANGLE AREA	
10	OLD MHA	
11	7 SERIES	
	Total carried to form of offer and acceptance	

Total Price to be carried over to the Form of Offer & Acceptance
(Excl. VAT)

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

Payment Ref.	Description	Unit	Quantity	Rate	Price
SANS 1200	SECTION 1: PRELIMINARIES AND GENERAL BILL No 1 PRELIMINARIES AND GENERAL FIXED CHARGED AND VALUE RELATED ITEMS <u>Contractual requirements</u>				
A 8.3.1	Contractual requirements	Sum	1		
	<u>Establishment of facilities for engineer</u>				
A 8.3.2.1	(a) Furnished offices	Sum	1		
A 8.3.2.1	(b) Telephone	Sum	1		
A 8.3.2.1	(c) Nameboards	Sum	1		
	<u>Establishment of facilities for contractor</u>				
A 8.3.2.2	(a) Offices and storage sheds	Sum	1		
A 8.3.2.2	(b) Workshops	Sum	1		
A 8.3.2.2	(c) Laboratories	Sum	1		
A 8.3.2.2	(d) Living accommodation	Sum	1		
A 8.3.2.2	(e) Ablution and latrine facilities	Sum	1		
A 8.3.2.2	(f) Tools and equipment	Sum	1		
A 8.3.2.2	(g) Water supplies, electric power and communications	Sum	1		
A 8.3.2.2	(h) Dealing with water	Sum	1		
A 8.3.2.2	(i) Access	Sum	1		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

A 8.3.2.2	(j) Plant	Sum	1		
A 8.3.3	Other Fixed-charge Obligations Survey, setting out and preparation of as-built drawings	Sum	1		
A 8.3.3	Soil testing equipment	Sum	1		
A 8.3.3	Environmental management	Sum	1		
A 8.3.3	Occupational Health and Safety	Sum	1		
A 8.3.3	Items in terms of the Industrial Relations Act and Employment conditions for tender purposes	Sum	1		
A.8.3.4	<u>Removal of site establishment</u> Removal of site establishment	Sum	1		
	TIME RELATED ITEMS				
	<u>Contractual requirements</u>				
A 8.4.1	Contractual requirements	Sum	1		
	<u>Establishment of facilities for engineer</u>				
A 8.4.2.1	(a) Furnished offices	Sum	1		
A 8.4.2.1	(b) Telephone	Sum	1		
A 8.4.2.1	(c) Nameboards	Sum	1		
A 8.4.2.1	(d) Survey assistants and materials	Sum	1		
	<u>Establishment of Facilities for contractor</u>				
A 8.4.2.2	(a) Offices and storage sheds	Sum	1		
A 8.4.2.2	(b) Workshops	Sum	1		
A 8.4.2.2	(c) Laboratories	Sum	1		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

A 8.4.2.2	(d) Living accommodation	Sum	1		
A 8.4.2.2	(e) Ablution and latrine facilities	Sum	1		
A 8.4.2.2	(f) Tools and equipment	Sum	1		
A 8.4.2.2	(g) Water supplies, electric power and communications	Sum	1		
A 8.4.2.2	(h) Dealing with water	Sum	1		
A 8.4.2.2	(i) Access	Sum	1		
A 8.4.2.2	(j) Plant	Sum	1		
	<u>Supervision</u>				
A 8.4.3	Supervision for the duration of Construction	Sum	1		
	<u>Company and Head office Overhead Cost</u>				
A 8.4.4	Company and Head office Overhead Cost for the duration for the contract	Sum	1		
	<u>Other time related obligations</u>				
A 8.4.5	Survey, setting out and preparation of as-built drawings	Sum	1		
A 8.4.5	Soil testing equipment	Sum	1		
A 8.4.5	Environmental management	Sum	1		
A 8.4.5	Occupational Health and Safety	Sum	1		
A 8.4.5	Items in terms of the Industrial Relations Act and Employment conditions for tender purposes	Sum	1		
	Provision of the environmental officer with experience working in wetlands	Sum	1		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

	TEMPORARY WORKS				
	<u>Temporary works</u>				
8.8.1	Main access roads to works	Sum	1		
8.8.2	Dealing with traffic	Sum	1		
Total carried to summary					

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

Payment Ref.	Description	Unit	Quantity	Rate	Price
	Notes				
	i) References in the headings and/or items are those contained, and described in the specifications and the Employer's Works Information (Part C3: Scope of works). Tenderers are required to study the entire Works Information (Part C3: Scope of Works) before pricing this Bill.				
	ii) If there are cases where the Employers Works Information does not adequately specify any item of work, the Model Preambles for Trades shall apply.				
	iii) Transportation costs for HML poles that might require to be taken back to factories for refurbishment should be factored in the supply rate.				
	POWER SUPPLY				
1	Power Supply Scope				
1.1	Supply and install of a new 1000kVA minisubstation.	ea	2		
1.4	Supply and installation of a new 3ph 4 core 25mm ² SWA ECC LV Cu Cable.	m	200		
1.5	Supply and installation of a new 3ph 4 core 25mm ² SWA ECC LV Cu Cable standard terminations.	ea	4		
1.6	Supply and installation of a new 3ph 1 core 50mm ² 11KV XLPE Cable.	m	200		
1.7	Supply and installation of a new 3ph 1 core 50 mm ² 11KV XLPE Cable standard terminations.	ea	2		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

1.13	Design, supply and installation of the Earthing and lightning protection for the system in accordance with TPD-004-EARTHINGSPEC. Total	sum	1		
1.14	Design, supply and installation of the 30meter highmast poles in accordance with Transnet Spec	no	10		
Power Supply Total carried to summary					

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

Payment Ref.	Description	Unit	Quantity	Rate	Price
	Notes				
	i) References in the headings and/or items are those contained, and described in the specifications and the Employer's Works Information (Part C3: Scope of works). Tenderers are required to study the entire Works Information (Part C3: Scope of Works) before pricing this Bill.				
	ii) If there are cases where the Employers Works Information does not adequately specify any item of work, the Model Preambles for Trades shall apply.				
	iii) Transportation costs for HML poles that might require to be taken back to factories for refurbishment should be factored in the supply rate.				
	6 SERIES				
1	Mast No. 6H/M NO: 1				
1.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
1.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
1.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
1.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		

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Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

1.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
1.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
1.7	Test and issue High Mast RMD9 Certificate	ea	1		
2	Total Mast No. 6H/M NO: 2				
2.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
2.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
2.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
2.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
2.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
2.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
2.7	Test and issue High Mast RMD9 Certificate	ea	1		
3	Total Mast No. 6H/M NO: 3				
3.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
3.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

3.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
3.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
3.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
3.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
3.7	Test and issue High Mast RMD9 Certificate	ea	1		
4	Mast No. 6H/M NO: 4				
4.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
4.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
4.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
4.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
4.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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4.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
4.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
5	Mast No. 6H/M NO: 5				
5.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
5.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
5.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
5.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
5.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
5.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
5.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
6	Mast No. 6H/M NO: 6				
6.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
6.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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6.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
6.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
6.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
6.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
6.7	Test and issue High Mast RMD9 Certificate	ea	1		
7	Mast No. 6H/M NO: 7				
7.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
7.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
7.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
7.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
7.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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7.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
7.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
8	Mast No. 6H/M NO: 10				
8.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
8.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
8.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
8.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
8.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
8.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
8.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
9	Mast No. 6H/M NO: 11				
9.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
9.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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9.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
9.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
9.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
9.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
9.7	Test and issue High Mast RMD9 Certificate	ea	1		
10	Mast No. 6H/M NO: 12				
10.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
10.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
10.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
10.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
10.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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10.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
10.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
11	Mast No. 6H/M NO: 13				
11.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
11.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
11.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
11.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
11.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
11.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
11.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
12	Mast No. 6H/M NO: 14				
12.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
12.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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12.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
12.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
12.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
12.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
12.7	Test and issue High Mast RMD9 Certificate	ea	1		
13	Mast No. 6H/M NO: 15				
13.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
13.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
13.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
13.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
13.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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13.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
13.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
14	Mast No. 6H/M NO: 16				
14.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
14.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
14.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
14.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
14.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
14.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
14.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
15	Mast No. 6H/M NO: 17				
15.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
15.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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15.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
15.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
15.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
15.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
15.7	Test and issue High Mast RMD9 Certificate	ea	1		
16	Mast No. 6H/M NO: 16				
16.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
16.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
16.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
16.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
16.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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16.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1	
16.7	Test and issue High Mast RMD9 Certificate	ea	1	
	Total			
17	Overall Scope			
17.1	Provisional Sum for the replacement of bolts and nuts.	sum	1	
17.2	Provisional Sum for the replacement of the HML raising and lowering mechanism.	sum	1	
17.3	Supply and install an equal or similar approved to a WiFi enabled Lenovo A740 workstation with an i3 processor, 27 inch touch screen monitor complete with network adaptor and USB RJ45 adapter to control the dimming functionality of the high mast lighting	ea	1	
17.4	Supply of Spare luminaires. Equal or similar approved to 6xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	10	
	Total			
18	Concrete Sundries			
18.1	Repair of cracking on concrete (16 Number of High Mast light pedestal)	m ³	0.1	
18.2	Repair of Spalling concrete (16 Number of High Mast light pedestal)	m ³	0.1	
6 Series Total carried to summary				

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Payment Ref.	Description	Unit	Quantity	Rate	Price
	<p align="center">Notes</p> <p>i) References in the headings and/or items are those contained, and described in the specifications and the Employer's Works Information (Part C3: Scope of works). Tenderers are required to study the entire Works Information (Part C3: Scope of Works) before pricing this Bill.</p> <p>ii) If there are cases where the Employers Works Information does not adequately specify any item of work, the Model Preambles for Trades shall apply.</p> <p>iii) Transportation costs for HML poles that might require to be taken back to factories for refurbishment should be factored in the supply rate.</p>				
1	MPT Mast No. 1 H/M NO: 1				
1.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
1.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
1.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
1.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		

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1.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
1.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
1.7	Test and issue High Mast RMD9 Certificate	ea	1		
2	Total Mast No. 1 H/M NO: 2				
2.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
2.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
2.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
2.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
2.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
2.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
2.7	Test and issue High Mast RMD9 Certificate	ea	1		
3	Total Mast No. 1 H/M NO: 3				
3.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
3.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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3.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
3.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
3.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
3.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
3.7	Test and issue High Mast RMD9 Certificate	ea	1		
4	Mast No. 1 H/M NO: 4				
4.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
4.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
4.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
4.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
4.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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4.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
4.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
5	Mast No. 1 H/M NO: 5				
5.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
5.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
5.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
5.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
5.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
5.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
5.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
6	Mast No. 1 H/M NO: 6				
6.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
6.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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6.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
6.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
6.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
6.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
6.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
7	Overall Scope				
7.1	Provisional Sum for the replacement of bolts and nuts.	sum	1		
	Supply of Spare luminaires.				
7.2	Equal or similar approved to 6xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	10		
7.3	Supply and install an equal or similar approved to a WiFi enabled Lenovo A740 workstation with an i3 processor, 27 inch touch screen monitor complete with network adaptor and USB RJ45 adapter to control the dimming functionality of the high mast lighting	ea	1		
	Total				
8	Concrete Sundries				

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8.1	Repair of cracking on concrete (6 Number of High Mast light pedestal)	m ³	0.1		
8.2	Repair of Spalling concrete (6 Number of High Mast light pedestal)	m ³	0.1		
MPT Total carried to summary					

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Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

Payment Ref.	Description	Unit	Quantity	Rate	Price
	<p align="center">Notes</p> <p>i) References in the headings and/or items are those contained, and described in the specifications and the Employer's Works Information (Part C3: Scope of works). Tenderers are required to study the entire Works Information (Part C3: Scope of Works) before pricing this Bill.</p> <p>ii) If there are cases where the Employers Works Information does not adequately specify any item of work, the Model Preambles for Trades shall apply.</p> <p>iii) Transportation costs for HML poles that might require to be taken back to factories for refurbishment should be factored in the supply rate.</p> <p>STAGING AREA</p> <p>1 Mast No. S/HM NO: 1</p>				
1.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
1.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
1.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
1.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		

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1.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
1.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
1.7	Test and issue High Mast RMD9 Certificate	ea	1		
2	Total Mast No. S/HM NO: 2				
2.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
2.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
2.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
2.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
2.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
2.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
2.7	Test and issue High Mast RMD9 Certificate	ea	1		
3	Total Mast No. S/HM NO: 3				
3.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
3.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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3.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
3.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
3.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
3.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
3.7	Test and issue High Mast RMD9 Certificate	ea	1		
4	Mast No. S/HM NO: 4				
4.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
4.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
4.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
4.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
4.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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4.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
4.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
5	Mast No. S/HM NO: 5				
5.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
5.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
5.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
5.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
5.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
5.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
5.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
6	Mast No. S/HM NO: 6				
6.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
6.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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6.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
6.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
6.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
6.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
6.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
7	Overall Scope				
7.1	Provisional Sum for the replacement of bolts and nuts. Supply of Spare luminaires.	sum	1		
7.2	Equal or similar approved to 6xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	10		
7.3	Supply and install an equal or similar approved to a WiFi enabled Lenovo A740 workstation with an i3 processor, 27 inch touch screen monitor complete with network adaptor and USB RJ45 adapter to control the dimming functionality of the high mast lighting	ea	1		
	Total				
8	Concrete Sundries				

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

8.1	Repair of cracking on concrete (6 Number of High Mast light pedestal)	m ³	0.1		
8.2	Repair of Spalling concrete (6 Number of High Mast light pedestal)	m ³	0.1		
Staging Area Total carried to summary					

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

Payment Ref.	Description	Unit	Quantity	Rate	Price
	Notes				
	i) References in the headings and/or items are those contained, and described in the specifications and the Employer's Works Information (Part C3: Scope of works). Tenderers are required to study the entire Works Information (Part C3: Scope of Works) before pricing this Bill.				
	ii) If there are cases where the Employers Works Information does not adequately specify any item of work, the Model Preambles for Trades shall apply.				
	iii) Transportation costs for HML poles that might require to be taken back to factories for refurbishment should be factored in the supply rate.				
	A,B,C&D				
1	Mast No. CD/HM NO: 1				
1.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
1.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
1.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
1.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

1.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
1.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
1.7	Test and issue High Mast RMD9 Certificate	ea	1		
2	Total Mast No.CD/HM NO: 2				
2.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
2.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
2.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
2.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
2.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
2.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
2.7	Test and issue High Mast RMD9 Certificate	ea	1		
3	Total Mast No.CD/HM NO: 3				
3.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
3.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

3.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
3.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
3.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
3.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
3.7	Test and issue High Mast RMD9 Certificate	ea	1		
4	Mast No. CD/HM NO: 4				
4.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
4.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
4.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
4.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
4.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

4.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
4.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
5	Mast No. CD/HM NO: 5				
5.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
5.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
5.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
5.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
5.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
5.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
5.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
6	Mast No. CD/HM NO: 6				
6.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
6.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

6.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
6.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
6.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
6.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
6.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
7	Mast No. CDHM NO: 7				
7.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
7.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
7.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
7.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
7.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

7.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
7.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
8	Mast No. CD/HM NO: 8				
8.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
8.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
8.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
8.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
8.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
8.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
8.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
9	Mast No. CD/HM NO: 9				
9.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
9.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

9.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
9.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
9.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
9.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
9.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
10	Overall Scope				
10.1	Provisional Sum for the replacement of bolts and nuts.	sum	1		
10.1	Supply of Spare luminaires. Equal or similar approved to 6xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	10		
10.1	Supply and install an equal or similar approved to a WiFi enabled Lenovo A740 workstation with an i3 processor, 27 inch touch screen monitor complete with network adaptor and USB RJ45 adapter to control the dimming functionality of the high mast lighting	ea	1		
	Total				
11	Concrete Sundries				

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

11.1	Repair of cracking on concrete (9 Number of High Mast light pedestal)	m ³	0.1		
11.2	Repair of Spalling concrete (9 Number of High Mast light pedestal)	m ³	0.1		
A,B, C & D Total carried to summary					

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

Payment Ref.	Description	Unit	Quantity	Rate	Price
	Notes				
	i) References in the headings and/or items are those contained, and described in the specifications and the Employer's Works Information (Part C3: Scope of works). Tenderers are required to study the entire Works Information (Part C3: Scope of Works) before pricing this Bill.				
	ii) If there are cases where the Employers Works Information does not adequately specify any item of work, the Model Preambles for Trades shall apply.				
	iii) Transportation costs for HML poles that might require to be taken back to factories for refurbishment should be factored in the supply rate.				
1	FERRO SLAB Mast No. F/HM NO: 1				
1.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
1.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
1.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
1.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

1.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
1.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
1.7	Test and issue High Mast RMD9 Certificate	ea	1		
2	Total Mast No.F/HM NO: 2				
2.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
2.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
2.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
2.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
2.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
2.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
2.7	Test and issue High Mast RMD9 Certificate	ea	1		
3	Total Mast No.F/HM NO: 3				
3.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
3.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

3.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
3.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
3.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
3.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
3.7	Test and issue High Mast RMD9 Certificate	ea	1		
4	Mast No. F/HM NO: 4				
4.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
4.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
4.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
4.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
4.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

4.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
4.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
5	Mast No. F/HM NO: 13				
5.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
5.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
5.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
5.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
5.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
5.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
5.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
6	Mast No. F/HM NO: 14				
6.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
6.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

6.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
6.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
6.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
6.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
6.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
7	Mast No. F/HM NO: 15				
7.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
7.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
7.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
7.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
7.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

7.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
7.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
8	Mast No. F/HM NO: 16				
8.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
8.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
8.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
8.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
8.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
8.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
8.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
9	Overall Scope				
9.1	Provisional Sum for the replacement of bolts and nuts.	sum	1		
9.2	Supply of Spare luminaires. Equal or similar approved to 6xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	10		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

9.3	Supply and install an equal or similar approved to a WiFi enabled Lenovo A740 workstation with an i3 processor, 27 inch touch screen monitor complete with network adaptor and USB RJ45 adapter to control the dimming functionality of the high mast lighting Total	ea	1	
10	Concrete Sundries			
10.1	Repair of cracking on concrete (8 Number of High Mast light pedestal)	m ³	0.1	
10.2	Repair of Spalling concrete (8 Number of High Mast light pedestal)	m ³	0.1	
Ferro Slab Total carried to summary				

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

Payment Ref.	Description	Unit	Quantity	Rate	Price
	<p>Note:</p> <p>i) References in the headings and/or items are those contained, and described in the specifications and the Employer's Works Information (Part C3: Scope of works). Tenderers are required to study the entire Works Information (Part C3: Scope of Works) before pricing this Bill.</p> <p>ii) If there are cases where the Employers Works Information does not adequately specify any item of work, the Model Preambles for Trades shall apply.</p> <p>iii) Transportation costs for HML poles that might require to be taken back to factories for refurbishment should be factored in the supply rate.</p> <p>EXPORT AND QUAYSIDE</p> <p>1 Mast No. EQ/HM NO: 2</p>				
1.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
1.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
1.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
1.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

1.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
1.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
1.7	Test and issue High Mast RMD9 Certificate	ea	1		
2	Total Mast No.EQ/HM NO: 3				
2.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
2.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
2.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
2.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
2.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
2.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
2.7	Test and issue High Mast RMD9 Certificate	ea	1		
3	Total Mast No.EQ/HM NO: 4				
3.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
3.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

3.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
3.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
3.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
3.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
3.7	Test and issue High Mast RMD9 Certificate	ea	1		
4	Mast No. EQ/HM NO: 5				
4.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
4.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
4.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
4.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
4.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

4.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
4.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
5	Mast No. EQ/HM NO: 6				
5.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
5.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
5.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
5.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
5.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
5.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
5.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
6	Mast No. EQ/HM NO: 7				
6.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
6.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

6.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
6.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
6.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
6.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
6.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
7	Mast No. EQ/HM NO: 8				
7.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
7.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
7.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
7.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
7.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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7.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
7.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
8	Mast No. EQ/HM NO: 9				
8.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
8.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
8.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
8.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
8.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
8.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
8.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
9	Overall Scope				
9.1	Provisional Sum for the replacement of bolts and nuts.	sum	1		
9.2	Supply of Spare luminaires. Equal or similar approved to 6xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	10		

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<p>9.3</p> <p>10</p> <p>10.1</p> <p>10.2</p>	<p>Supply and install an equal or similar approved to a WiFi enabled Lenovo A740 workstation with an i3 processor, 27 inch touch screen monitor complete with network adaptor and USB RJ45 adapter to control the dimming functionality of the high mast lighting</p> <p>Total</p> <p>Concrete Sundries</p> <p>Repair of cracking on concrete (8 Number of High Mast light pedestal)</p> <p>Repair of Spalling concrete (8 Number of High Mast light pedestal)</p>	<p>ea</p> <p>m³</p> <p>m³</p>	<p>1</p> <p>0.1</p> <p>0.1</p>		
<p>Export and Quayside Total carried to summary</p>					

Transnet Port Terminals

Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

Payment Ref.	Description	Unit	Quantity	Rate	Price
	<p align="center">Notes</p> <p>i) References in the headings and/or items are those contained, and described in the specifications and the Employer's Works Information (Part C3: Scope of works). Tenderers are required to study the entire Works Information (Part C3: Scope of Works) before pricing this Bill.</p> <p>ii) If there are cases where the Employers Works Information does not adequately specify any item of work, the Model Preambles for Trades shall apply.</p> <p>iii) Transportation costs for HML poles that might require to be taken back to factories for refurbishment should be factored in the supply rate.</p> <p>TRIANGLE AREA</p> <p>1 Mast No. TH/M NO: 1</p>				
1.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
1.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
1.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
1.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		

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1.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
1.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
1.7	Test and issue High Mast RMD9 Certificate	ea	1		
2	Total Mast No. TH/M NO: 2				
2.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
2.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
2.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
2.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
2.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
2.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
2.7	Test and issue High Mast RMD9 Certificate	ea	1		
3	Total Mast No. TH/M NO: 3				
3.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
3.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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3.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
3.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
3.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
3.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
3.7	Test and issue High Mast RMD9 Certificate	ea	1		
4	Mast No. TH/M NO: 4				
4.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
4.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
4.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
4.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
4.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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4.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
4.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
5	Mast No. TH/M NO: 5				
5.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
5.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
5.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
5.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
5.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
5.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
5.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
6	Mast No. TH/M NO: 6				
6.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
6.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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6.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
6.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
6.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
6.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
6.7	Test and issue High Mast RMD9 Certificate	ea	1		
7	Mast No. TH/M NO: 7				
7.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
7.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
7.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
7.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
7.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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7.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
7.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
8	Mast No. TH/M NO: 8				
8.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
8.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
8.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
8.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
8.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
8.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
8.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
9	Mast No. TH/M NO: 9				
9.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
9.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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9.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
9.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
9.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
9.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
9.7	Test and issue High Mast RMD9 Certificate	ea	1		
10	Mast No. TH/M NO: 10				
10.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
10.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
10.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
10.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
10.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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10.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
10.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
11	Mast No. TH/M NO: 11				
11.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
11.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
11.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
11.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
11.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
11.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
11.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
12	Mast No. TH/M NO: 12				
12.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
12.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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12.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
12.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
12.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
12.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
12.7	Test and issue High Mast RMD9 Certificate	ea	1		
13	Mast No. TH/M NO: 13				
13.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
13.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
13.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
13.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
13.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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13.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
13.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
14	Mast No. TH/M NO: 14				
14.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
14.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
14.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
14.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
14.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
14.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
14.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
15	Overall Scope				
15.1	Provisional Sum for the replacement of bolts and nuts.	sum	1		
15.2	Supply of Spare luminaires. Equal or similar approved to 6xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	10		

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15.3	Supply and install an equal or similar approved to a WiFi enabled Lenovo A740 workstation with an i3 processor, 27 inch touch screen monitor complete with network adaptor and USB RJ45 adapter to control the dimming functionality of the high mast lighting Total	ea	1		
16	Concrete Sundries				
16.1	Repair of cracking on concrete (14 Number of High Mast light pedestal)	m ³	0.1		
16.2	Repair of Spalling concrete (14 Number of High Mast light pedestal)	m ³	0.1		
Total Triangle Area carried to summary					

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Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

Payment Ref.	Description	Unit	Quantity	Rate	Price
	<p>Note:</p> <p>i) References in the headings and/or items are those contained, and described in the specifications and the Employer's Works Information (Part C3: Scope of works). Tenderers are required to study the entire Works Information (Part C3: Scope of Works) before pricing this Bill.</p> <p>ii) If there are cases where the Employers Works Information does not adequately specify any item of work, the Model Preambles for Trades shall apply.</p> <p>iii) Transportation costs for HML poles that might require to be taken back to factories for refurbishment should be factored in the supply rate.</p>				
1	OLD MHA Mast No. O/HM NO: 1				
1.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
1.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
1.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
1.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		

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1.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
1.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
1.7	Test and issue High Mast RMD9 Certificate	ea	1		
2	Total Mast No.O/HM NO: 2				
2.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
2.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
2.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
2.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
2.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
2.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
2.7	Test and issue High Mast RMD9 Certificate	ea	1		
3	Total Mast No.O/HM NO: 3				
3.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
3.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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3.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
3.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
3.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
3.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
3.7	Test and issue High Mast RMD9 Certificate	ea	1		
4	Mast No. O/HM NO: 4				
4.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
4.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
4.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
4.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
4.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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4.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
4.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
5	Mast No. O/HM NO: 5				
5.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
5.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
5.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
5.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
5.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
5.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
5.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
6	Mast No. O/HM NO: 6				
6.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
6.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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6.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
6.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
6.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
6.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
6.7	Test and issue High Mast RMD9 Certificate	ea	1		
6	Mast No. O/HM NO: 7				
6.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
6.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
6.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
6.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
6.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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6.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
6.7	Test and issue High Mast RMD9 Certificate Total	ea	1		
7	Overall Scope				
7.1	Provisional Sum for the replacement of bolts and nuts. Supply of Spare luminaires. Equal or similar approved to	sum	1		
7.2	6xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	10		
7.3	Supply and install an equal or similar approved to a WiFi enabled Lenovo A740 workstation with an i3 processor, 27 inch touch screen monitor complete with network adaptor and USB RJ45 adapter to control the dimming functionality of the high mast lighting Total	ea	1		
8	Concrete Sundries				
8.1	Repair of cracking on concrete (6 Number of High Mast light pedestal)	m ³	0.1		
8.2	Repair of Spalling concrete (6 Number of High Mast light pedestal)	m ³	0.1		
Total Old MHA carried to summary					

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Terminal Lighting at Richards Bay Terminal for Transnet SOC LTD

Payment Ref.	Description	Unit	Quantity	Rate	Price
	Notes				
	i) References in the headings and/or items are those contained, and described in the specifications and the Employer's Works Information (Part C3: Scope of works). Tenderers are required to study the entire Works Information (Part C3: Scope of Works) before pricing this Bill.				
	ii) If there are cases where the Employers Works Information does not adequately specify any item of work, the Model Preambles for Trades shall apply.				
	iii) Transportation costs for HML poles that might require to be taken back to factories for refurbishment should be factored in the supply rate.				
	7 SERIES				
1	Mast No. 7H/M NO: 1				
1.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
1.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
1.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
1.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		

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1.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
1.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
1.7	Test and issue High Mast RMD9 Certificate	ea	1		
2	Total Mast No. 7H/M NO: 2				
2.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
2.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
2.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
2.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
2.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
2.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
2.7	Test and issue High Mast RMD9 Certificate	ea	1		
3	Total Mast No. 7H/M NO: 3				
3.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
3.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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3.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
3.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
3.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
3.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
3.7	Test and issue High Mast RMD9 Certificate	ea	1		
4	Mast No. 7H/M NO: 4				
4.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
4.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
4.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
4.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
4.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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4.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
4.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
5	Mast No. 7H/M NO: 5				
5.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
5.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
5.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
5.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
5.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
5.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
5.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
6	Mast No. 7H/M NO: 6				
6.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
6.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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6.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
6.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
6.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
6.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
6.7	Test and issue High Mast RMD9 Certificate	ea	1		
7	Mast No. 7H/M NO: 7				
7.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
7.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
7.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
7.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
7.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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7.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
7.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
8	Mast No. 7H/M NO: 8				
8.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
8.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
8.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
8.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
8.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
8.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
8.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
9	Mast No. 7H/M NO: 9				
9.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
9.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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9.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
9.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
9.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
9.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
9.7	Test and issue High Mast RMD9 Certificate	ea	1		
10	Mast No. 7H/M NO: 10				
10.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
10.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
10.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
10.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
10.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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10.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
10.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
11	Mast No. 7H/M NO: 11				
11.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
11.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
11.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
11.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
11.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
11.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
11.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
12	Mast No. 7H/M NO: 12				
12.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
12.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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12.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
12.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
12.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
12.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
12.7	Test and issue High Mast RMD9 Certificate	ea	1		
13	Mast No. 7H/M NO: 13				
13.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
13.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
13.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
13.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
13.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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13.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
13.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
14	Mast No. 7H/M NO: 14				
14.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
14.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
14.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
14.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
14.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
14.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
14.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
15	Mast No. 7H/M NO: 15				
15.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
15.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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15.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
15.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
15.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
15.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
15.7	Test and issue High Mast RMD9 Certificate	ea	1		
16	Mast No. 6H/M NO: 16				
16.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
16.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
16.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
16.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
16.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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16.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
16.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
17	Mast No. 7H/M NO: 17				
17.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
17.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
17.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
17.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
17.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
17.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
17.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
18	Mast No. 7H/M NO: 18				
18.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
18.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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18.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
18.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
18.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
18.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
18.7	Test and issue High Mast RMD9 Certificate	ea	1		
19	Mast No. 7H/M NO: 19				
19.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
19.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
19.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
19.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
19.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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19.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
19.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
20	Mast No. 7H/M NO: 20				
20.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
20.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
20.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
20.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
20.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
20.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
20.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
21	Mast No. 7H/M NO: 21				
21.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
21.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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21.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
21.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
21.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
21.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
21.7	Test and issue High Mast RMD9 Certificate	ea	1		
22	Mast No. 7H/M NO: 22				
22.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
22.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
22.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
22.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
22.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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22.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
22.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
23	Mast No. 7H/M NO: 23				
23.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
23.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
23.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
23.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
23.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
23.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
23.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
24	Mast No. 7H/M NO: 24				
24.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
24.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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24.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
24.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
24.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
24.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
24.7	Test and issue High Mast RMD9 Certificate	ea	1		
25	Mast No. 7H/M NO: 25				
25.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
25.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
25.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
25.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
25.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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25.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
25.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
26	Mast No. 7H/M NO: 26				
26.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
26.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
26.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
26.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
26.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
26.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
26.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
27	Mast No. 7H/M NO: 27				
27.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
27.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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27.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
27.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
27.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
27.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
27.7	Test and issue High Mast RMD9 Certificate	ea	1		
28	Mast No. 7H/M NO: 28				
28.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
28.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
28.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
28.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
28.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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28.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
28.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
29	Mast No. 7H/M NO:29				
29.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
29.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
29.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
29.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
29.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
29.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
29.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
30	Mast No. 7H/M NO: 30				
30.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
30.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		

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30.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
30.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
30.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
30.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
30.7	Test and issue High Mast RMD9 Certificate	ea	1		
37	Mast No. 6H/M NO: 31				
31.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
31.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
31.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
31.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
31.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		

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31.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
31.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
32	Mast No. 7H/M NO: 32				
32.1	Uninstall the existing Light fittings complete with the head ring.	sum	1		
32.2	Refurbish the high mast as detailed in specification TPD-010B-HIGHMASTSPEC-B.	ea	1		
32.3	Supply, and install new lighting on the existing 30m High Mast Pole. Equal or similar approved to 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	8		
32.4	Design, supply and install an earthing and lightning protection system in the high mast.	ea	1		
32.5	Supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT.	ea	1		
32.6	Testing and Commissioning of complete installation in accordance to SANS 10142-1 including the issue of COC certificates.	ea	1		
32.7	Test and issue High Mast RMD9 Certificate	ea	1		
	Total				
33	Overall Scope				
33.1	Provisional Sum for the replacement of bolts and nuts.	sum	1		

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33.2	Supply and install an equal or similar approved to a WiFi enabled Lenovo A740 workstation with an i3 processor, 27 inch touch screen monitor complete with network adaptor and USB RJ45 adapter to control the dimming functionality of the high mast lighting	ea	1		
33.3	Supply of Spare luminaires. Equal or similar approved to 6xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K shall be used as a bench mark for pricing.	ea	20		
	Total				
34	Concrete Sundries				
34.1	Repair of cracking on concrete (32 Number of High Mast light pedestal)	m ³	0.1		
34.2	Repair of Spalling concrete (32 Number of High Mast light pedestal)	m ³	0.1		
Total 7 Serries carried to summary					



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PART C3: SCOPE OF WORK

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C3.2	<i>Contractor's Works</i>	
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C3.1 EMPLOYER'S WORKS INFORMATION

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SECTION A

1 DESCRIPTION OF THE WORKS

1.1 Executive overview

The Port of Richards Bay (PORB) is predominantly a bulk handling export facility. The Transnet Port Terminals (TPT) facilities at the PORB comprise of two terminals, namely, the Dry Bulk Terminal (DBT), and Multi-Purpose Terminal (MPT). These terminals contribute to the economy of South Africa by ensuring that bulk and break-bulk minerals are imported and exported through the existing bulk materials handling infrastructure. DBT is a bulk material handling facilities where bulk cargo is imported and export through a network of conveyors and bulk materials handling appliances. This equipment includes tippers, stackers, ship loaders and unloaders. Most bulk materials that arrive by rail are unloaded at one of the two existing rail wagon tippers [Tippler 01 and 02] and thereafter a conveyed to the stockpiles, sheds, silos, and bins utilizing the existing conveyor network.

The lighting infrastructure condition and the lighting technology requires an upgrade. This upgrade is proposed in the form of refurbishments of high mast bases, poles, the electrical reticulation, the provision of new luminaires, provision of 10 new poles and the complete replacement of the entire high mast lights respectively where applicable.

1.2 Employer's objectives

The employers' objective is to appoint a suitable contractor to execute the project for Transnet Port Terminals to comply and adhere to lightning measure and the following standards/regulation:

- National Ports Act No. 12 of 2005.
- Ensure compliance to International Ship and Port Security (ISPS) Code requirements.
- Adhere to security measures and control of access into TPT property and assets.
- The OHS Act

1.3 Guarantees and Warranties

The extent of guarantees that can be offered by the Tenderer on the corrosion protection and replacement of the Terminal lighting will play an important role in the evaluation of the tenders.

- The Tenderer is required to indicate on the schedule what guarantee period is offered for the terminal lighting, including the corrosion protection and installation (workmanship).
- A Guarantee period on the High mast poles of not less than seven years on corrosion protection is required.



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- A Guarantee period on workmanship for the high mast poles, including LED lights and concrete base, of not less than one year is required, however longer guarantees will be rewarded during the evaluation.
- The Tenderer is required to issue a guarantee/ warrantee from manufacturer.

1.4 Interpretation and Terminology

The following abbreviations are used in this Works Information:

Abbreviation	Meaning given to the abbreviation
Approx.	Approximate
SOP: CEM	Standard Operating Procedure for Construction Environmental Management
CDR	<i>Contractor</i> Documentation Register
CDS	<i>Contractor</i> Documentation Schedule
CRL	<i>Contractor</i> Review Label
CIRP	<i>Contractor's</i> Industrial Relations Practitioner
CM	Construction Manager
CSHEO	Contractor's Safety, Health, and Environmental Officer
DTI	Department of Trade and Industry
DGN	CAD file format supported by MicroStation
DWG	Drawings
EA	Environmental Authorisation
EIR	Environmental Impact Report
EM	Environmental Manager
EMPr	Environmental Management Programme
EDMS	Emissions Data Management System
EO	Environmental Officer
HAZCON	Hazard of Construction
HAZOP	Hazard and Operability Study
HSSP	Health and Safety Surveillance Plan
INC	Independent Nominated Consultant
IP	Industrial Participation
IR	Industrial Relations
ISO	International Standard Organisation
ISPS	International Ship and Port Facility Security Code
IPP	Industrial Participation Policy
IPO	Industrial Participation Obligation
IPS	Industrial Participation Secretariat



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IRCC	Industrial Relations Co-ordinating Committee
JSA	Job Safety Analysis
CIRP	<i>Contractor's</i> Industrial Relations Practitioner
MSP	Microsoft Projects
Native	Original electronic file format of documentation
PES	Project Environmental Specifications
PHA	Preliminary Hazard Assessment
PIRM	Project Industrial Relations Manager
PIRPMP	Project Industrial Relations Policy and Management Plan
PLA	Project Labour Agreements
PIRM	Project Industrial Relations Manager
PSPM	Project Safety Program Manager
ProgEM	Programme Environmental Manager
ProjEM	Project Environmental Manager
QA	Quality Assurance
R&D	Research and Development
SACNASP	South African Council for Natural Scientific Professions
SACPCMP	South African Council for Project and Construction Management Professionals
SANS	South African National Standards
SASRIA	South African Special Risks Insurance Association
CESSG	Contractor Environmental and Sustainable and Specification Guideline
SHEO	Safety, Health and Environment Officer
TPT	Transnet Port Terminals



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2 ENGINEERING AND THE CONTRACTOR'S DESIGN

2.1 Employer's Responsibilities

- a) Lighting Designs (These designs are to inform pricing; the contractor shall advance the designs to proper as built for handover of the project).
- b) The *Employer's* performance requirements for the *works* are contained in the Works Information and all annexures thereto (Typical Transnet Drawings).
- c) The *Employer* grants the *Contractor* a licence to use the copyright in performance data presented to the *Contractor* for the purpose of the works ONLY.
- d) The *employer* has provided minimum requirements to be adhered to and used as guidelines during the procurement, designing and execution.

2.2 Parts of the works which the Contractor is to Design

All designs undertaken by the Contractor as per the below clauses are required to be endorsed by an ECSA Registered Professional Engineer/Professional Technologist suitably experienced in the Electrical discipline.

2.2.1 The *Contractor* is to design the following parts of the *Works* and will be responsible in his design for the overall integration of the design of the works with the existing installation.

- a) All supporting infrastructure required to implement all of the Employers' high-level designs. These may include, but is not necessarily limited to, cableways, cable support systems, conduit systems and arrangement, piped systems and pipe support systems, and the selection of fasteners and fastening systems for these items, where not specified, referenced, or detailed by the Employer.
- b) The detailed foundation design for a 30 meter High Mast in accordance with the Manufacturers minimum requirements and specifications.
- c) The Earthing and Lightning Protection design in accordance with the Employer's specifications.
- d) The *Contractor* shall submit detailed drawings and Workshop details for all designs, both Contractor's designs and OEM designs, to the Project Manager for acceptance by the *Employer's Engineers*.
- e) Concrete mix designs, for high mast foundations, bases.
- f) All and any equipment, formwork, and temporary work associated with the provision of the Works.



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2.2.2 Unless expressly stated to form part of the design responsibility of the Employer as stated under 2.1 Employer's design above and whether or not specifically stated to form part of the design responsibility of the Contractor under this paragraph 2.2, all residual design responsibility and overall responsibility for the total design solution for the Works rests with the Contractor.

- a) The *Contractor* shall engage the services of ECSA registered Engineers and/or Technologists for all aspects of the Works for which the Contractor is to design as per Clauses 2.2.1
- b) The *Contractor* shall thus be wholly accountable and responsible for all aspects of his designs, including the implementation of all Statutory Safety, Health and Environmental Regulations of South Africa and the requirements, specifications, and regulations of the Employer pertaining to Health and Safety, Environment, Quality and Engineering.
- c) The *Contractor* shall be wholly accountable and responsible for the implementation of the aspects of his designs including commissioning, putting into service, and handover of his constructed designs to the Employer, and his duly appointed ECSA registered Engineers shall be held accountable and responsible for these aspects of the Works for the lifetime duration of the Works.

2.2.3 Procedure for submission and acceptance of Contractor's design

The *Contractor* shall address the following procedures:

- All designs done by the *Contractor* must comply with all relevant SANS and SABS must be approved by Professional registered personnel with ECSA.
- A hardcopy of the design, approved by Professional registered personnel with ECSA, must be supplied to the *Project Manager* for approval.
- After the approval both a hard copy of the design as well as USB and CD rom with Adobe Acrobat (PDF) and "Native" file format of the design must be supplied to the *Project Manager*.

Acceptance of documentation by the *Project Manager* in no way relieves the *Contractor* of his professional indemnity responsibility for the correctness of information, or conformance with the requirements of the Works Information. This responsibility rests solely with the *Contractor*.

2.2.4 Review and Acceptance of Contractor Documentation



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- a) Acceptance of documentation by the Project Manager will in no way relieve the Contractor of its responsibility for the correctness of information, or conformance with his obligation to Provide the Works. This obligation rests solely with the Contractor.
- b) After review, a copy of the original reviewed/marked-up drawing/document, with the Project Manager's consolidated comments and document status marked on the Contractor Review Label, is scanned and the copy shall be returned to the Contractor under cover of the project's Transmittal Note for revision or re-submittal as instructed.
- c) The Contractor shall allow the Project Manager 2 weeks (unless otherwise stated and agreed) to review and respond to the Contractor's submission of their documentation, i.e. from time of receipt by the project to the time of dispatch. However, work shall proceed without delay in the event of late return of the documentation by the Project Manager with prior notification in writing by the Contractor.
- d) On receipt of the reviewed documentation the Contractor shall make any modifications requested/marked-up and resubmit the revised documentation to the Project Manager within 2 weeks. Queries regarding comments/changes should be addressed with the Project Manager prior to re-submittal.
- e) Any re-submittals, which have not included the changes/comments identified, will be returned to the Contractor to be corrected. The Contractor shall re-issue the revised documentation incorporating all comments and other specified details not included in the previous issue within 2 working days of receipt of the marked-up document.
- f) The Contractor is required to undertake design safety reviews with the Project Manager the NEC Supervisor, the Employer's Engineer's and Professional team, the Employer's Health and Safety Officers, the Employer's Environmental Officers, the Employer's Quality Assurance and Quality Control Officers and any other Specialists and/or Subject Matter Experts (SME) as deemed by the Employer necessary for the provision of the Works.

2.2.5 Other requirements of the Contractor's design:

- a) All Statutes, Standards, Specifications, Policies, Conventions, Requirements as referenced in this document and all Statutes, Standards, Specifications, Policies, Conventions, Requirements as referenced in any Annexures thereto.

2.3 Use of Contractor's design

The *Contractor* grants the *Employer* a license to use the copyright in all design data presented to the *Employer* in relation to the *Works* for any purpose in connection with the construction, re-construction,

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refurbishment, repair, maintenance and extension of the *Works* with such license being capable of transfer to any third party without the consent of the *Contractor*.

2.3.1 The contractor vests in the employer full title guarantee in the intellectual property and copyright in the design data created in relation to the works as follows:

- a) All supporting infrastructure required to implement all of the Employers' high-level designs. These may include, but is not necessarily limited to, cableways, cable support systems, conduit systems and arrangement, piped systems and pipe support systems, and the selection of fasteners and fastening systems for these items, where not specified, referenced or detailed by the Employer.
- b) All lighting designs.
- c) All designs of all LV distribution panels. The Earthing and Lightning Protection design in accordance with the Employer's specifications.
- d) Concrete mix designs, descriptions and properties for high mast and street light pole foundations, bases and wearing and levelling courses.
- e) The design of light poles, base plates and luminaire fixtures and fittings where required for the provision of the Works.
- f) All and any equipment, formwork, and temporary work associated with the provision of the Works.
- g) Concrete mix designs, descriptions, and properties for wearing and levelling courses.
- h) All and any equipment, formwork, and temporary work associated with the provision of the works.
- i) Design of Equipment

2.3.2 The contractor submits his design details for the following categories of his proposed principal equipment to the project manager for his information only:

- a) Any formwork required to Provide the Works
- b) Temporary electrically powered compressed air systems and pneumatic equipment that may be required to Provide the Works
- c) Small electrically powered equipment
- d) Equipment designed for the lifting of personnel to access any areas necessary to provide the Works, which are not at ground level.
- e) Equipment designed for the lowering of personnel to access any areas necessary to Provide the Works, which are below ground level.

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2.3.3 The following principal equipment categories deployed for the contractor to provide the works require its design to be accepted by the project manager under ecc clause 23.1:

- a) Temporary petrol- or diesel-powered compressed air systems and pneumatic equipment that may be required to Provide the Works
- b) Small petrol- or diesel-powered equipment.
- c) Specialist Equipment required to Provide the Works
- d) Rigging platforms and specialized rigging Equipment that may be required by the Contractor to Provide the Works.
- e) Temporary access platforms, ladders, walkways, scaffolds, and any other temporary structures required to Provide the Works.

2.4 Design of Equipment

The principal Equipment categories deployed for the *Contractor* to provide the *Works* require its design to be accepted by the *Project Manager* under ECC Clause 23.1

2.4.1 As-built drawings, operating manuals, and maintenance schedules

2.4.1.1 The Contractor provides the following:

- a) As Built /Final Documentation
- b) Plan view from start to end and left to right hand boundaries is required.
- c) All elements are to be on separate layers. Example, points, codes, and elevation are to be on separate layers. Every different element is to be on a separate layer. Note that no "z" values are to be saved to any lines or points.
- d) Topographical survey shall be provided in the form of hard copies to a scale of 1:500 as well as a magnetic medium in a format assessable by MicroStation and AutoCAD (.dwg and/or .dxf format) on a USB.
- e) In undertaking the works (including all incidental services required), the Contractor shall conform and adhere to the requirements of the Contractor Document Submittal Requirements Standard included in the Annexures (Refer DOC-STD-0001 Rev 03).
- f) All Red Line information to be signed off by *Contractor's* responsible Professional Engineer/Technologist before issue to the *Project Manager*.

2.4.1.2 Installation, Maintenance and Operating Manuals and Data Books



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- a) The *Contractor* provides manuals in an A4 hard covered, red, grease and waterproof binder, using 2 ring type binders. The manuals are well indexed and user friendly and include a summarized Table of Contents.
- b) Drawings and charts larger than A4 are folded and those greater than A3 are enclosed in an A4 plastic pocket of adequate strength.
- c) The *Contractor* submits the draft Table of Contents to the *Project Manager* for acceptance prior to the compilation and official submittal of the manuals.
- d) The originals of all brochures shall be issued to the *Project Manager*. When a general brochure is applicable to a range of equipment, then the specific item, catalogue number or model number shall be stated, which is best achieved by introducing a separate index page, which cross-references the specific item to a tag number.
- e) The address, phone numbers, fax numbers and reference numbers of all Subcontractors is provided.
- f) Where manuals include drawings that still need to be revised to "As-Built" status, and such manuals are required prior to 'As-Built' status, the manual will not be in its final form until the "As-Built" version of each such drawing has been incorporated.
- g) The required number of copies of the manual (s) shall be as specified by the *Project Manager* and submitted per type or model number of equipment included in the contract, or as specified by the *Project Manager*.
- h) All electronic copies (pdf.) of Data Packs to be properly indexed.
- i) A typical example of what the binder/file (s) shall be marked with on the spine and the front cover is as follows: -
 - Project Name
 - Manual Title, e.g. Installation, Maintenance and Operating Manual
 - Title
 - Manual Numbering (e.g. Volume 1 of 2, etc.)
 - Contract Number
 - *Contractor* Name
- j) Unless otherwise stated elsewhere the required number of copies of as built/Final documents/drawings shall be:
 - 2 x hard copies (full size)
 - USB with Adobe Acrobat (PDF) and "Native" file format.

3 CONSTRUCTION

3.1 Temporary works, Site services & construction constraints

Employer's Site entry and security control, permits, and Site regulations.



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- The *Contractor* complies with the *Employer's* Site entry and security control, permits, and Site regulations.
- The *Contractor* arranges for ID cards to all *Contractors'* employees for access/egress of personnel (and Equipment) within the Site boundaries.

The *Contractor* complies with the following requirements of the *Employer*:

- a) All *Contractor* staff entering the Transnet Port Terminal (TPT) facility will undertake an alcohol breathalyser daily.
- b) All relevant PPE must be worn by Site personnel when entering the Port.
- c) All vehicle permits must be obtained prior to site access.
- d) All relevant personnel inductions must be done prior to site access being granted.

Restrictions to access on Site, roads, walkways, and barricades

- a) The *Contractor* is specifically excluded from entering the *Employer's* Operational Areas which are adjacent to the Site and Working Area. The *Contractor* plans and organises his work in such a manner to cause the least possible disruption to the *Employer's* operations (Where required, the contractor to provide Traffic Management)
- b) The *Contractor* ensures the safe passage of *Contractor's* traffic to and from the Site and Working Areas at all times that includes providing flagmen, protective barriers, signage, etc. for the protection, direction, and control of traffic.
- c) The *Contractor* ensures that none of his personnel and Equipment will be allowed to move outside of his allocated Site and Working Areas. To this end, access routes are allocated and co-ordinated by the *Project Manager*.
- d) The *Contractor* ensures that all his construction personnel and Equipment remains within his allocated and fenced off construction area.

The *Contractor* complies with the following requirements of the *Employer*:

- a) Access permissions and restrictions for all personnel and equipment will apply.
- b) All personnel to always remain within the site boundary.

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

The working hours shall be in accordance with the requirements of the Department of Labour or with the agreement of the relevant trade unions. This information relating to working hours shall be supplied to the Project Manager prior to commencement of the proposed working hours.



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If the Contractor requests to work overtime to make up for time lost due to his own delays, the Contractor will be liable for the supervision cost required from The Employer's team during The Works.

The Contractor complies with a nine (9) hour a day, five (5) day a week standard workday/week for all activities to be undertaken by his people (including Sub-Contractors) employed on site.

The *Contractor* keeps 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* at all reasonable times.

Health and safety facilities on Site to comply with the OSH ACT.

The *Contractor* provides a notice board in terms of Transnet requirements at a location to be approved by the *Project Manager* on site.

The *Contractor* provides progress photographs at weekly intervals in electronic format to the *Project Manager*.

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*.

Site services and facilities:

- a) For the duration of the Contract, the *Project Manager* will provide an area, free of charge, of the *Contractor* to establish his offices, lay down areas, stores, workshops, and other *Contractor's* Equipment when needed.
- b) No connection to the sewer system will be made available to the *Contractor*, therefore a *Contractor* shall provide portable chemical type toilets for use on site by his people.
- c) All costs for preparation of the site establishment area are for the *Contractor's* account.
- d) The *Contractor* is responsible for his own connection to the *Employer's* services and for the reticulation of his services from the connection point. The cost of meters, connections, reticulation, and all other usage costs associated with the provision of services are for the *Contractor's* account.
- e) The *Contractor* provides, at his own cost, enough toilets and maintains them in a clean and sanitary working condition. Safe disposal certificates to be obtained for all waste removed.
- f) The *Supervisor* (or his nominated representative) conducts routine inspections of the *Contractor's* construction power reticulation and power tools. If found to be un-



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- safe and / or non-compliant with statutory requirements, the electrical power supply is disconnected until the Contractor rectifies all defaults.
- g) The *Contractor* provides temporary lighting and fencing around every section occupied by him during the construction of the works in accordance with the Traffic Management Plan.
 - h) Such fencing demarcates and secures the construction area. The fencing is erected before any work starts and is removed only upon completion of the work in the area.
 - i) The *Contractor* includes for all costs for such lighting and fencing, including access control into and out of these restricted areas.
 - j) Wherever the *Contractor* provides facilities (either his own or for the *Project Manager* and/or *Supervisor*) and all items of Equipment, involving, *inter alia*, offices, accommodation, laboratories, Materials storage, compound areas etc, within the Working Areas, then the *Contractor* makes good and provides full reinstatement to the land (including all apparatus of the *Employer* and Others in, on or under the land) and surrounding areas to its original standard, upon dismantling of such facilities and items of Equipment.
 - k) Upon completion, and within one month of the date of acceptance of the works, the *Contractor* completely removes from the Site and Working Area all his Equipment, including the foundations of any structures, stores, office accommodation or any other asset belonging to him, and leaves the Site and Working Areas in a tidy condition to the satisfaction of the *Project Manager*.
 - l) No excess or discarded materials or Equipment may be buried or dumped within the port boundary.
 - m) Demolition of all temporary structures, surfaces, etc., shall be first approved by the *Project Manager* prior to the work being carried out.
 - n) The *Employer* does not provide any security for the Site and Working Areas. The *Contractor* provides same and indemnifies and hold indemnified the *Project Manager* and *Employer* against any claims and actions that may arise out of Site and Working Areas security.
 - o) No housing is available for the *Contractor's* employees. The *Contractor* makes his own arrangements to house his employees and transports them to site in a closed vehicle specifically designed for passenger transport (bus or similar), accepted by the *Project Manager*.
 - p) The *Contractor* shall provide everything else necessary for Providing the Works.

Wherever the *Employer* provides facilities (including, *inter alia*, temporary power, water, waste disposal, telecommunications etc) for the *Contractor's* use within the Working Areas and the *Contractor* adapts such facilities for use, then the *Contractor* makes good



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and provides full reinstatement to the land (including all apparatus of the *Employer* and Others in, on or under the land) and surrounding areas to its original standard upon dismantling of such facilities and hand-back to the *Employer*.

Facilities provided by the *Contractor*:

- The *Contractor* ensures that this site establishment area is compliant with the relevant safety regulations and restrictions, is clearly sign posted, and has a suitable security fence, lighting, and the necessary access control gates.

Wherever the *Contractor* provides facilities (either his own or for the *Project Manager* and/or *Supervisor*) and all items of Equipment, involving, *inter alia*, offices, accommodation, laboratories, Materials storage, compound areas etc, within the Working Areas, then the *Contractor* makes good and provides full reinstatement to the land (including all apparatus of the *Employer* and Others in, on or under the land) and surrounding areas to its original standard, upon dismantling of such facilities and items of Equipment.

Unless expressly stated as a responsibility of the *Employer* as stated under 0 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*.

Underground services, other existing services, cable, and pipe trenches and covers.

Where the *Contractor* encounters existing underground services or existing service cables, the *Contractor* undertakes the following:

The *Contractor* is required to liaise with the *Project Manager*, and the Supervisor and *The Employer's* Engineers, and establish as accurately as possible the location of the various existing services situated within the Work Area and always record all such information on a suitable "marked-up" drawing for reference.

In addition to the above, the *Contractor* shall consult the *Project Manager*, the Supervisor and *The Employer's* Engineers, prior to undertaking any excavation work.

Where the *Contractor* encounters existing underground services / existing services cables / pipe trenches, the *Contractor* is to notify the *Project Manager*, the Supervisor and *The Employers* Engineers.

Where the encountered services are causing a delay in the provision of *The Works*, the *Contractor* shall approach the *Project Manager*, the Supervisor and *The Employer's* Engineers for a decision by submitting a Field Engineering Query (FEQ), including his recommendations.

The *Contractor* shall then provide the solution described in the answered FEQ.



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The *Contractor* must thereafter exercise due care and attention in carrying out the agreed excavation Works and any Works as may be directed by the *Project Manager* to avoid damage or disruption to existing services.

The *Contractor* shall be liable for all claims arising out of any damage caused by such excavation if the *Contractor* fails to exercise the requisite care and attention in carrying out the excavation.

The cost of locating and protecting, if necessary, services shall be included in the rates for the services intersecting and adjoining the trenches.

A group of cables intersecting or adjoining a trench will be regarded as one service.

The existing services shall be protected when excavating.

The costs of protecting these services shall be included in the rates for excavation and compaction.

All existing services shall be treated as in service and "live". All necessary Safety Instructions of *The Employer* and statutory requirements as per the OHS Act and its Regulations shall be complied with in the handling of the "live" service.

In the case of electrical services, the *Contractor* shall trace, locate, and identify all cables within the service and record the information as per this Works Information above.

Control of noise, dust, water, and waste

Before moving Equipment onto the Site and Working Areas and commencing The Works, the *Contractor* submits his proposed methods of construction (In accordance with TIMS Environment and Sustainability Contractor Specification Guideline) which demonstrate the measures taken to avoid and or reduce any environmental and health issues arising from dust, noise, and vibration for acceptance by the Project Manager.

The Contractor shall comply with the requirements of "Environmental constraints and management" of Section C3.1 Employer's Works Information.

The Contractor shall comply with the requirements of "Safety risk management" of Section C3.1 Employer's Works Information.

The *Contractor* is to provide dust suppression as per the SOP: CEM, CESSG and PES documents to ensure that dust levels resulting from the *Contractor's* construction traffic are kept to the required safety and environmental standards as specified in the relevant project environmental specifications.

Excavations and associated water control

- a) Where applicable, the *Contractor* protects all excavations against any water ingress whether by seepage, rains, storms, floods, or any other means.



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- b) Where applicable, the *Contractor* immediately removes any water found in the excavation by pumping and / or bailing provided the removal of water complies with the National Water Act (Act 36 of 1998) and provides all necessary Equipment (pumps, pipes, etc.) to do so.
- c) Water is cleared in such a way that it cannot seep or flow back into the excavations.
- d) The *Contractor* shall install shoring where necessary, and in all deep excavations to ensure that the sides of the excavation does not collapse.
- e) The *Contractor* shall comply with *The Employer's* TIMS Policy Commitment Statement in all respects for the Provision of *The Works* involving deep excavations.
- f) All activities related to excavations and water control forms part of this contract, and the *Contractor* shall make allowance for these activities in his Price and Programme.

Giving notice of work to be covered up:

The *Contractor* notifies the *Supervisor* in writing of any elements of The Works which are to be covered up. This notification is given not less than 48 (forty-eight) hours prior to the proposed covering up.

The *Contractor* shall not cover The Works without the authorization of the Supervisor.

The Contractor shall make the *Project Manager* and Supervisor aware of any tests and inspections required by The *Employer's* Quality Management Procedures. Notification of required test and/or The *Employer's* Engineers inspections to be given 24 (twenty-four) hours in advance.

3.2 Completion, testing, commissioning, and correction of Defects

3.2.1 The work to be done by the Completion Date

- a) On or before the Completion Date or Sectional Completion Date, the Contractor shall have done everything required to Provide the Works including removal of his establishment and equipment from the respective sites but excluding the work listed below which may be done after the Completion Date but in any case, before the dates stated.
- b) The Project Manager cannot certify Completion until all the work except that listed below has been done and is also free of Defects, which would have, in his opinion, prevented the Employer from using the Works and Others from doing their work.

Item of work	To be completed by
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As built drawings as specified in the Works information	14 days prior to Completion
Performance testing of the Works	Sectional Completion dates
Issuing of COC's	Sectional Completion dates

3.2.2 Use of the Works before Completion has been certified.

The **employer** uses the following part / parts of the **works** before completion is certified by the **project manager** which do not constitute take over by the **employer** for the reason(s) stated:

- a) All Cable, Switchgear, Protection relays, Control Systems Plant and Software or any other Electrical Plant installed by the Contractor so that the Employer may maintain the functionality of systems and existing Plant that is required by the Employer to conduct the Employer's operational activities, and the operational activities of TPT.
- b) All Cable, Switchgear, Protection relays, Control Systems Plant and Software or any other Electrical Plant installed by the Contractor so that the Employer may maintain the continuity of the Electrical Supply to the lighting in the Port Terminal.
- c) Any temporary or permanent Lighting installation installed by the Contractor that may be required by the Employer to be used for the nighttime operational activities of TPT or others, as required by the Project Manager.

3.2.3 Materials facilities and samples for tests and inspections

The contractor provides the employer with the following materials, facilities and samples during the provision of the works, as per ECC clause 40.2:

- a) The Contractor shall furnish samples of any Plant and Materials that is other than, or different to, that specified by the Employer's Engineers, to the Supervisor for Acceptance by the Employer's Engineers. The Contractor is prohibited from installing said Plant without the required prior authorization from the Employers Engineers.
- b) The Contractor shall furnish samples of any Plant and Materials that is other than, or different to, that required by the Employer's Engineering Specifications, that shall be utilised in the Contractor's Designs, to the Supervisor for Acceptance by the Employer's Engineers. The Contractor is prohibited from installing said Plant without the required prior authorization from the Employer's Engineers.



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- c) The Contractor shall supply concrete mix designs to Transnet specifications, concrete cube tests, compaction results, steelwork shop detail drawings for approval, steelwork material certificates.
- d) The Contractor shall furnish samples of any Plant and Materials that is proposed to be used in the Contractor's Designs, to the Supervisor for Acceptance by the Employer's Engineers. The Contractor is prohibited from designing with, and subsequently installing said Plant and Materials without the required prior authorization from the Employer's Engineers.
- e) Samples, tests, and inspections required of the Contractor, shall be as specified in Paragraph 4 of C3.1 or any other standards, specifications or statutory requirements referred to therein or annexed thereto.
- f) The Contractor shall give notice to the Supervisor of the required inspection not less than 48 hours before the inspection is required.
- g) The Employer will not provide any materials or facilities for the use of the Contractor, to perform tests and inspections.

3.2.4 Pre-Commissioning Tests and Commissioning

- a) The Contractor is referred to the list of Annexures for TGC's High Level Commissioning Plan for details of the inspections tests and activities required for commissioning of Plant. Where the word or expression in the former document reads "Equipment" the meaning is "Plant" and vice versa.
- b) After the Pole is erected, headgear and ring must be lowered and raised to test the operation on the pole of High Mast Pole gear.
- c) Contractor to provide the certification of all steel wire ropes and shackles.
- d) The Contractor shall arrange for Factory Acceptance Testing of selected Electrical Plant, as required by the Employer's Engineers at the supplier's premises and/or factory of manufacture before any Plant is despatched to Site.
- e) The Factory Acceptance Testing shall be witnessed by the Employers Engineers, but in doing so; the Employers Engineers assume no responsibility or accountability for the proper functionality of the Plant in any way whatsoever.
- f) The Contractor shall arrange for Factory Acceptance testing for Electrical Plant at the factory of manufacture before the Plant leaves the factory.
- g) The Contractor shall arrange Site Acceptance Testing for the selected Plant when it arrives on Site.



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- h) The Site Acceptance Testing shall be witnessed by the Employers Engineers, but in doing so; the Employers Engineers assume no responsibility or accountability for the proper functionality of the Plant in any way whatsoever.
- i) The Employer will make its own arrangements for attendance of FATs and will carry all costs associated with its personnel attending FATs.
- j) The Contractor shall appoint an independent ECSA registered commissioning engineer to conduct and coordinate the commissioning activities. The Curriculum Vitae of the commissioning engineer shall be submitted to the Project Manager and Employer's Engineers for acceptance before his appointment.
- k) The Employer's Engineers and/or the Project Manager reserves the right to reject the proposed commissioning engineer if he is deemed unsuitable to carry out the commissioning activities as required by the Employer and the Employer's Engineers.
- l) The installation shall be comprehensively tested and commissioned as individual and integrated systems as may be required by the configuration, after the Works are substantially complete.
- m) The Contractor shall provide adequate and competent personnel for testing and commissioning of every installation and for the full duration of the commissioning process.
- n) The commissioning shall include interaction between other systems and others where interdependence of installations is encountered.
- o) The commissioning process shall, after all testing has been completed be the final proving ground of the systems and during this procedure the installations shall be subjected to all possible inputs and actions which may be encountered under operational conditions.
- p) The Contractor shall prove the full operation, working and compliance of the installation in accordance with the specifications.
- q) A detailed programme of the planned commissioning procedures shall be submitted to the Project Manager and Employer's Engineers at least 4 weeks before commissioning commences.

3.2.4.1 The commissioning programme shall include but is not limited to:

- A schedule of equipment to be commissioned, the proposed tests to be conducted and the testing methods and the range of acceptable results,
- Commissioning check sheets,
- Commissioning programme dates and duration



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- r) The Contractor shall supply all relevant test equipment, monitoring devices, network analysers, protocol testers/analysers etc. required to test and commission the complete Works.
- s) An accurate record of all commissioning and testing is to be taken and included in the handover documentation as a permanent record.
- t) The Contractor shall perform any and all tests as required by any Sections or Clauses of the Works Information and any and all tests required by the Employers Specifications annexed thereto, and any and all tests required by any applicable SANS Standard, or other Standard, and/or as directed by the Employer's Engineers and the Project Manager.
- u) Testing and commissioning are considered part of the Works and is to be done before completion.

3.2.4.2 Take over procedures.

The *contractor* provides the following assistance to the *employer*:

- a) The Contractor ensures that all the required documentation as described in the Works Information is presented to the Project Manager before Completion.
- b) The Contractor ensures that the Project Manager has a full and accurate dossier of As-built documents that represent the completed Works for Electrical, General Layouts and Detail Drawings to present to the Employer.
- c) The Contractor ensures that the Project Manager has a full and accurate dossier of Maintenance and Operating Manuals that represent the completed Works for Electrical, General Layouts and Detail Drawings prior to take-over or Completion.
- d) Where the Contractor has presented Maintenance and Operating Manuals that represent the Lighting, Switchgear, Services and systems (lighting control systems) that reflect the status of the completed Works for Electrical, General Layouts and Detail Drawings to the Project Manager at take-over, the Contractor modifies and updates As-built documents as necessary prior to Completion.
- e) The Contractor shall ensure that all cellular, wireless and radio communication link applications, and licencing for the lighting control system are made on behalf of the Employer.

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3.2.4.3 Access given by the Employer for correction of Defects.

The contractor complies with the following constraints and procedures of the employer where the project manager arranges access for the contractor after completion:

- a) Access into areas already handed over by the Contractor for correction of any defect shall be subject to the approval of Port's Operations, and these times shall be communicated to the Contractor by the Project Manager.
- b) The areas required by the Contractor will need to be temporarily barricaded by the Contractor before the Contractor commences with any corrective work.

3.2.4.4 The contractor complies with the following constraints and procedures of the employer where the project manager arranges access for the contractor after completion:

- a) Where the Contractor has to return to Site after Completion to rectify notified Defects, the Employer may either impose the same Site access / egress restrictions as communicated elsewhere under C3.1 Employer's Works Information at the starting date / access date stated under Contract Data - Part One, or as the Works are now in use or the Employer's occupation of the Site may be incrementally or substantially changed post Completion, there may be further access / egress restrictions as required by the Employer and/The Port Terminal.

3.2.5 Performance tests after Completion

The *contractor* performs the following performance tests after completion of the *works*:

- a) The Contractor shall be required to measure and record the lighting levels at all zones to the satisfaction of the Employer's Engineers, OHS Act requirements and applicable SANS standard.

3.2.6 Training and technology transfer

The *contractor* facilitates the following requirements for training workshops after completion for the *works* in use:



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- a) The Contractor shall provide training for the Employer's selected staff in the maintenance and operations of all specialised Plant and Systems and Software including the lighting control system.
- b) The Training shall be comprehensive with printed training manuals and electronic copies of such manuals made available to each delegate.
- c) The Employer envisages that the number of staff required to be trained will be approximately 15, the exact number to be confirmed by the Project Manager during the provision of the Works.

3.2.7 Operational maintenance after Completion

The *contractor performs* the following operational maintenance in relation to the *works* after completion:

- a) The Contractor shall arrange for with the OEM for technical support and operational maintenance (by means of an OEM service and maintenance contract) to TPT for the lighting control systems for a period of 24 months after completion.
- b) After the expiry of the 24-month period, the OEM shall be required to offer a renewal of these contracts to TPT, at the same contract Price for the period, plus reasonable escalation, however, TPT reserves the right to decline the offer.
- c) The Contractor shall provide maintenance contracts for Plant as contained and required anywhere else in this Works Information.

4 PLANT AND MATERIALS STANDARDS AND WORKMANSHIP

4.1 Plant and Materials

- a) The Contractor provides Plant and Materials for inclusion in the Works in accordance with the Standard Specifications and/or Project Specifications, unless otherwise stated elsewhere in the Works Information provided by the Employer. All Plant and Materials are new, unless the use of old or refurbished goods and/or Materials are expressly permitted as stated elsewhere in this Works Information or as may be subsequently instructed by the Project Manager.
- b) The Contractor replaces any Plant and Materials subject to breakages (whether in the Working Areas or not) or any Plant and Materials not conforming to standards or specifications stated and notifies the Project Manager and the Supervisor on each occasion where replacement is required.



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- c) Lights to be reused as retrofits on high mast lights will be considered as "free issue" by the Employer. These lights shall be refurbished in accordance with the HML refurbishment specification.
- d) The Contractor provides all Plant and Materials necessary for the Works.
- e) The Contractor supplies all certification including test certificates, user manuals, maintenance manuals and data books with respect to Plant and Materials procured for the Works:

4.2 Investigation, Survey and Site Clearance

- a) The Contractor will be responsible for setting out the Works.
- b) The Contractor validates the information provided by the Project Manager.
- c) Prior to commencing the Works, the Contractor records any defects or inaccuracies related to the existing structures, paving, etc. and presents this record to the Project Manager for acceptance. Only items recorded in this manner will be accepted as having pre-existed the Works and the remedying of all other damage will be the Contractor's responsibility and for his cost.

4.3 Civil Engineering and Structural Works

The SANS 1200 Series of Specifications are applicable to all Civil Engineering and Structural works associated with this contract. The following interpretations and meanings shall apply: In case of any conflict in interpretation, ambiguity, or discrepancy between any SANS 1200 Specification (whether standard or written as a particular project specification) contained in the *Works* Information and the conditions of contract, the conditions of contract take precedence within the ECC contract.

In case of any conflict in interpretation, ambiguity or discrepancy between any SANS 1200 Specification (whether standard or written as a particular project specification) contained in this paragraph 4.3 of the *Employer's Works* Information and specific statements contained elsewhere in C3.1 *Employer's Works* Information, the specific statements contained elsewhere shall prevail, without prejudice to the *Project Manger's* express duty to resolve any ambiguity or inconsistency in the *Works* Information under ECC Clause 17.1.

Within SANS 1200 A: GENERAL, the following amendments and interpretations shall apply:

Where the word or expression "Employer" is used, read "*Employer*";

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 word or expression "schedule of quantities" is used, this is deleted in entirety.

Assessment and payment are in accordance with the *conditions of contract* (and the ECC main and secondary options stated therein);



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Within SANS 1200 A: GENERAL 2.3 DEFINITIONS, the following apply:

"Acceptable. Approved (Approval)" is interpreted as either a *Project Manager* or a *Supervisor* communication or instruction in relation to Works Information compliance, consistent with the *conditions of contract* as the context requires.

"Adequate" is deleted. The *Project Manager* notifies the *Contractor* where the *Contractor* has not complied with the *Works* Information.

"Measurement and payment" and the further definitions contained within 6.3 c) are deleted. Assessment and payment are in accordance with the conditions of contract (and the ECC main and secondary options stated therein);

Within SANS 1200 A: GENERAL 2.6 APPROVAL, the following applies:

"Approval" by either the *Project Manager* and/or the *Supervisor* is without prejudice to ECC Clause 14.1 and, inter alia, ECC Clauses 13.1, 14.3 and 27.1.

SANS 1200 A: GENERAL 2.8 ITEMS IN SCHEDULE OF QUANTITIES, is deleted in entirety. Assessment and payment is in accordance with the *conditions of contract* (and the ECC main and secondary options stated therein).

SANS 1200 A: GENERAL 3.2 STRUCTURES AND NATURAL MATERIAL ON SITE, applies only to the extent that it is consistent with paragraph 3.1.6 of C3.1 *Employer's* Works Information.

Within SANS 1200 A: GENERAL 7.1 PLANT, the following applies:

Where the word or expression "Plant" is used, read "Equipment".

SANS 1200 A: GENERAL 7.2 *CONTRACTOR'S* OFFICES, STORES AND SERVICES, applies but the *Project Manager* resolves any inconsistency with statements included within paragraph 3.1.12 of C3.1 *Employer's* Works Information.

SANS 1200 A: GENERAL 3.1 SURVEY, applies only to the extent that it is consistent with paragraph 3.1.14 of C3.1 *Employer's* Works Information.

Within SANS 1200 A: GENERAL 3.2 WATCHING, BARRICADING, LIGHTING AND TRAFFIC CROSSINGS, the following applies:

Where the word or expression "specification" is used, read "Works Information".

SANS 1200 A: GENERAL 3.4 PROTECTION OF OVERHEAD AND UNDERGROUND SERVICES applies only to the extent that it is consistent with the specific statements made elsewhere in C3.1 *Employer's* Works Information and in any case and always consistent with the *conditions of contract*.

Within SANS 1200 A: GENERAL 5 TESTING, the following applies:

Where the word or expression "Engineer" is used, read "*Supervisor*".

SANS 1200 A: GENERAL 8 MEASUREMENT AND PAYMENT, is deleted in entirety. Assessment and payment are in accordance with the conditions of contract (and the ECC main and secondary options stated therein).

The principles, meanings and interpretation stated and established within paragraphs 6.3.1 to 6.3.15 with respect to SANS 1200 series and to SANS 1200 A: GENERAL equally apply to the

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other SANS 1200 specification references used within this paragraph 6.3 of C3.1 *Employer's* Works Information.

4.4 Electrical Engineering Works

4.4.1 High Level Scope of Work

The scope to be carried out by the *Contractor* shall include but not be limited to the following mechanical and electrical works:

- a. The Supply, Delivery, installation and commissioning of all the associated works for the high mast lighting Upgrade for the Richards Bay Port Terminal Lighting.
- b. The design, supply and installation of lightning protection and earthing of the lighting structures.
- c. The Supply delivery and Installation of cabling and terminations, to power the lighting and associated infrastructure where necessary.
- d. Removal and replacement of safety chains
- e. Mounting of safety chains
- f. Removal and replacement of D-shackles
- g. Removal and replacement of turn buckles
- h. Replacement of mast, complete with head, luminaries and splinter box
- i. Removal and replacement of luminaries
- j. Removal and replacement of splinter boxes
- k. Replacement of spikes
- l. Replacement of canopies
- m. Removal and replacement of stainless-steel wire rope
- n. Replacement of DB covers
- o. Securing of DB covers
- p. Replacement of light fittings
- q. Removal and replacement of socket outlets
- r. Removal and replacement of DB's
- s. Removal and replacement of earthing wires
- t. Powering of high mast lights
- u. Removal and replacement of Pratley boxes
- v. Testing and fixing of electrical faults.
- w. Refurbishment or maintenance work as per the maintenance schedule/specification
- x. Prepare, sandblast, and galvanize headgear.



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- y. Supply and install new rollers for headgear.
- z. Commission and testing of the entire installation and hand over to the Employer.

4.4.1.1 General

- a) Transnet's Port electrical appointed personnel shall perform all the required switching and control work permits.
- b) For any required switching, the Contractor shall submit a notification to the Project Manager seven days prior to the required work being performed.

4.4.1.2 Standard of work, Plant & Materials and Notes

- a) The electrical installation shall conform to the requirements of the latest edition and amendments of SANS 10142-1 Code of Practice for the Wiring of Premises and any additional requirements thereto, described in this specification.
- b) All Plant and Material used shall be of high quality and the work shall be of a high standard of workmanship carried out by qualified staff under proper supervision by experienced and competent officers.
- c) All Plant and Material shall comply with the relevant National or International standard specification.
- d) The contractor's designs for earthing and lightning protection shall include surge protection for LED luminaire.
- e) All OEM and contractor's designs shall be submitted to the employer's engineer for acceptance prior procurements of equipment. The pricing for shop drawings, contractor's designs and all returnable for acceptance shall be priced under the design, supply and install item of the BOQ.

4.4.1.3 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 standard requirements, the *Contractor* is required to fully comply with the Transnet Specifications. In the case where SANS standard is stringent than Transnet Standard, the *Contractor* shall comply with SANS Standard. The contractor shall also verify all site details given in the employers' drawings.



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TPD-002-DBSPEC	Annexure A	Technical specification for low voltage distribution boards
TPD-003-CABLESPEC	Annexure B	Technical specification for medium and low voltage cables
TPD-004-EARTHINGSPEC	Annexure C	Technical specification for earthing and the protection of buildings and structures against lightning
TDPLED FLOODLIGHT LUMINAIRE SPEC	Annexure D	Specification For the Supply of Luminaires For Lighting Of Yards And High mast Lighting
TPD-010A-HIGHMASTSPEC-A	Annexure E	Specification for the design, supply, and installation of high mast lighting.
TPD-010B-HIGHMASTSPEC-B	Annexure F	Specification for the maintenance and upgrade of high mast lighting structures.
E7/1 (July 1998)	Annexure G	Specification For Works On, Over, Under or Adjacent To Railway Lines And Near High Voltage Equipment

4.4.1.4 Service Conditions

The Plant and Material shall be designed and rated for continuous operation under the following conditions.

4.4.1.4.1 Ambient/environment conditions:

All Plant and Material offered shall be rated for continuous operation under the following conditions:

- Altitude: 0 to 1800m Above Sea Level
- Ambient temperature: -5°C to +40°C (daily average +35°C)
- Relative humidity: As high as 96%
- Lightning conditions: Severe, with a maximum lightning ground flash density of 11 flashes per km² per annum.
- Lightning conditions: Salt laden and corrosive industrial Chemical and dust nature. Frequent Heavy rains driven by wind reaching Speed of 100Km/h and above.

4.4.1.4.2 LIGHTNING CONDITIONS

All lightning protection Plant and Material offered shall be rated to withstand the following conditions:

- Current: The peak lightning current and its rate of rise of rise Shall be regarded as severe when $IMAX = 200kA$.
- Voltage: The highest cloud potential shall be assumed to be More than 100MV, where;
 $Q = CV$, where Q is Assumed at 100C and C to be 10-7

4.4.1.4.3 NORMATIVE REFERENCES

The following publications and specifications (latest edition) shall apply where contextually correct:

SANS 10313	Protection against Lightning – Physical damage to structures and life hazard
SANS 10064	Code Of Practice for The Preparation of Steel Surfaces for Coating.
SANS10142-1	Code Of Practice for The Wiring of Premises
SANS 10389-1	Exterior Lighting Part 1: Artificial Lighting of Exterior Areas for Work and Safety
OHS Act	Occupational Health and Safety Act Of 1993
SANS 10199	The Design and Installation of Earth Electrodes
SANS152	Low Voltage Air Breaker Switches, Connectors, Switch Disconnectors, Fuse Combination Units.
SANS 172	Low Voltage Fuses
SANS 767-1	Earth Leakage Protection Units.
SABS 763	Hot Dip Zinc (Galvanised) Coatings
SANS 890-1	Ballasts For Fluorescent Lamps:
SABS 950	Non-metallic Conduit and Fittings.
SANS 1091	National Colour Standards for Paints.
SANS 1012	Electric Light Dimmers
SANS 1065-1	Metal Conduits and Fittings for Electrical Wiring



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SABS 1180	Electrical Distribution Boards
SANS 1507	Electric Cables with Extruded Solid Dielectric Installation for Fixed Installations
SANS 1279	Floodlight Luminaires
SABS IEC 439	Low Voltage Switchgear
SABS IEC 309	Plugs, Socket Outlets and Couplers for Industrial Purposes
SABS IEC 742	Isolating Transformers and Safety Isolating Transformers

4.4.1.5 DETAILED ELECTRICAL SCOPE

4.4.1.5.1 6 SERIES

4.4.1.5.1.1 Mast No. 6H/M NO:1, NO:2, NO:3, NO:4, NO:5, NO:6, NO:7, NO:10, NO:11, NO:12, NO:13, NO14, NO:15, NO:6, NO:17 AND NO:18

- a) The Contractor shall uninstall the existing Light fittings complete with the head ring of the existing 30m High Mast Pole and issue the luminaires to TPT. *The fittings in a good condition shall be reused to replace the existing fittings in other high mast poles in the same contract.*
- b) The *Contractor* shall inspect and refurbish the existing high masts as detailed in specification TPD-010B-HIGHMASTSPEC-B and as detailed in Civil Engineering and Structural Works Scope
- c) The *Contractor* shall supply, and install a completely new lighting on the existing 30m High Mast Pole. The contractor shall demonstrate the suitability of the incomer cable and the existing cable from the DB supplying the luminaires. The design shall be complete with a new DB and mountings for the luminaires.
- d) 8xBEKA-SCHRÉDER OMNI Blast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K have been used on a preliminary design by the *employer* for benchmarking and pricing purposes. Equal or similar approved range of product shall be used by the bidder subject to simulations submitted to the *Employer 's* Engineer for acceptance.
- e) The Contractor shall design, supply, and install the earthing and lightning protection system for the HML. The *Contractor* shall tie the new installation to the existing suitable earthing and



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lightning protection system upon testing the integrity of the existing earthing and lightning protection. The results and recommendations shall be submitted to the *Employer's* Engineer for acceptance.

- f) The Contractor shall supply, install, and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT. The Contractor shall supply and install an equal or similar approved to a Wi-Fi enabled Lenovo A740 workstation with an i3 processor, 27-inch touch screen monitor complete with network adaptor and USB RJ45 adapter to control the dimming functionality of the high mast lighting. The system shall be wall mounted in a hinged lockable stainless-steel box with cut-out for the monitor screen. The system shall be installed in the TPT office within the site. The Contractor shall also configure, programme and commission the system.
- g) The Contractor is required to test the installation in the presence of the Employer's Engineers and issue electrical "Certificate of Compliance" (COC) for all work done to the satisfaction of the Employer's Engineers.
- h) The Contractor shall undertake a lighting survey at night to measure and record the lighting level in the area where work was undertaken in the presence of the Employer's Engineers. The Contractor shall notify the Employer's Engineer, seven days prior to the lighting survey.

4.4.1.6 40 MPT HIGH MAST

4.4.1.6.1 Mast No. I H/M NO:10, NO:11, NO:12, NO:13, NO:14 AND NO:15

- a) The Contractor shall uninstall the existing Light fittings complete with the head ring of the existing 30m High Mast Pole and issue the luminaires to TPT. The fittings in a good condition shall be reused to replace the existing fittings in other high mast poles in the same contract.
- b) The Contractor shall inspect and refurbish the existing high masts as detailed in specification TPD-010B-HIGHMASTSPEC-B and as detailed in Civil Engineering and Structural Works Scope.
- c) The Contractor shall supply and install a completely new lighting on the existing 30m High Mast Pole. The contractor shall demonstrate the suitability of the incomer cable and the existing cable from the DB supplying the luminaires. The design shall be complete with a new DB and mountings for the luminaires.



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- d) 8xBEKA-SCHRÉDER OMNI Blast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K have been used on a preliminary design by the employer for benchmarking and pricing purposes. Equal or similar approved range of product shall be used by the bidder subject to simulations submitted to the Employer 's Engineer for acceptance.
- e) The Contractor shall design, supply, and install the earthing and lightning protection system for the HML. The Contractor shall tie the new installation to the existing suitable earthing and lightning protection system upon testing the integrity of the existing earthing and lightning protection system. The results and recommendations shall be submitted to the Employer 's Engineer for acceptance.
- f) The Contractor shall supply, install, and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT. The Contractor shall supply and install an equal or similar approved to a WiFi enabled Lenovo A740 workstation with an i3 processor, 27 inch touch screen monitor complete with network adaptor and USB RJ45 adapter to control the dimming functionality of the high mast lighting. The system shall be wall mounted in a hinged lockable stainless-steel box with cut-out for the monitor screen. The system shall be installed in the TPT office within the site. The Contractor shall also configure, programme and commission the system.
- g) The Contractor is required to test the installation in the presence of the Employer 's Engineers and issue electrical "Certificate of Compliance" (COC) for all work done to the satisfaction of the Employer's Engineers.
- h) The Contractor shall undertake a lighting survey at night to measure and record the lighting level in the area where work was undertaken in the presence of the Employer 's Engineers. The Contractor shall notify the Employer 's Engineer, seven days prior to the lighting survey.

4.4.1.7 STAGING AREA

4.4.1.7.1 Mast No. S/HM N0:1, N0:2, N0:3, N0:4, N0:5 AND N0:6

- a) The Contractor shall uninstall the existing Light fittings complete with the head ring of the existing 30m High Mast Pole and issue the luminaires to TPT. The fittings in a good condition shall be reused to replace the existing fittings in other high mast poles in the same contract.



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- b) The Contractor shall inspect and refurbish the existing high masts as detailed in specification TPD-010B-HIGHMASTSPEC-B and as detailed in Civil Engineering and Structural Works Scope.
- c) The Contractor shall supply and install a completely new lighting on the existing 30m High Mast Pole. The contractor shall demonstrate the suitability of the incomer cable and the existing cable from the DB supplying the luminaires. The design shall be complete with a new DB and mountings for the luminaires.
- d) 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K have been used on a preliminary design by the employer for benchmarking and pricing purposes. Equal or similar approved range of product shall be used by the bidder subject to simulations submitted to the Employer's Engineer for acceptance.
- e) The Contractor shall design, supply and install the earthing and lightning protection system for the HML. The Contractor shall tie the new installation to the existing suitable earthing and lightning protection system upon testing the integrity of the existing earthing and lightning protection. The results and recommendations shall be submitted to the Employer's Engineer for acceptance.
- f) The Contractor shall supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT. The Contractor shall supply and install an equal or similar approved to a WiFi enabled Lenovo A740 workstation with an i3 processor, 27 inch touch screen monitor complete with network adaptor and USB RJ45 adapter to control the dimming functionality of the high mast lighting. The system shall be wall mounted in a hinged lockable stainless steel box with cut-out for the monitor screen. The system shall be installed in the TPT office within the site. The Contractor shall also configure, programme and commission the system.
- g) The Contractor is required to test the installation in the presence of the Employer's Engineers and issue electrical "Certificate of Compliance" (COC) for all work done to the satisfaction of the Employer's Engineers.
- h) The Contractor shall undertake a lighting survey at night to measure and record the lighting level in the area where work was undertaken in the presence of the Employer's Engineers. The Contractor shall notify the Employer's Engineer, seven days prior to the lighting survey.

4.4.1.8 A, B, C&D



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4.4.1.8.1 Mast No. CD/HM N0:1, N0:2, N0:3, N0:4, N0:5, N0:6, N0:7, N0:8 AND N0:9

- a) The Contractor shall uninstall the existing Light fittings complete with the head ring of the existing 30m High Mast Pole and issue the luminaires to TPT. The fittings in a good condition shall be reused to replace the existing fittings in other high mast poles in the same contract.
- b) The Contractor shall inspect and refurbish the existing high masts as detailed in specification TPD-010B-HIGHMASTSPEC-B and as detailed in Civil Engineering and Structural Works Scope.
- c) The Contractor shall supply, and install a completely new lighting on the existing 30m High Mast Pole. The contractor shall demonstrate the suitability of the incomer cable and the existing cable from the DB supplying the luminaires. The design shall be complete with a new DB and mountings for the luminaires.
- d) 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K have been used on a preliminary design by the employer for benchmarking and pricing purposes. Equal or similar approved range of product shall be used by the bidder subject to simulations submitted to the Employer's Engineer for acceptance.
- e) The Contractor shall design, supply and install the earthing and lightning protection system for the HML. The Contractor shall tie the new installation to the existing suitable earthing and lightning protection system upon testing the integrity of the existing earthing and lightning protection. The results and recommendations shall be submitted to the Employer's Engineer for acceptance.
- f) The Contractor shall supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT. The Contractor shall supply and install an equal or similar approved to a WiFi enabled Lenovo A740 workstation with an i3 processor, 27 inch touch screen monitor complete with network adaptor and USB RJ45 adapter to control the dimming functionality of the high mast lighting. The system shall be wall mounted in a hinged lockable stainless steel box with cut-out for the monitor screen. The system shall be installed in the TPT office within the site. The Contractor shall also configure, programme and commission the system.
- g) The Contractor is required to test the installation in the presence of the Employer's Engineers and issue electrical "Certificate of Compliance" (COC) for all work done to the satisfaction of the Employer's Engineers.



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- h) The Contractor shall undertake a lighting survey at night to measure and record the lighting level in the area where work was undertaken in the presence of the Employer's Engineers. The Contractor shall notify the Employer's Engineer, seven days prior to the lighting survey.

4.4.1.9 FERRO SLAB

4.4.1.9.1 Mast No. F/HM N0:1, N0:2, N0:3, N0:4, N0:13, N0:14, N0:15 AND N0:16

- a) The Contractor shall uninstall the existing Light fittings complete with the head ring of the existing 30m High Mast Pole and issue the luminaires to TPT. The fittings in a good condition shall be reused to replace the existing fittings in other high mast poles in the same contract.
- b) The Contractor shall inspect and refurbish the existing high masts as detailed in specification TPD-010B-HIGHMASTSPEC-B and as detailed in Civil Engineering and Structural Works Scope.
- c) The Contractor shall supply, and install a completely new lighting on the existing 30m High Mast Pole. The contractor shall demonstrate the suitability of the incomer cable and the existing cable from the DB supplying the luminaires. The design shall be complete with a new DB and mountings for the luminaires.
- d) 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K have been used on a preliminary design by the employer for benchmarking and pricing purposes. Equal or similar approved range of product shall be used by the bidder subject to simulations submitted to the Employer's Engineer for acceptance.
- e) The Contractor shall design, supply and install the earthing and lightning protection system for the HML. The Contractor shall tie the new installation to the existing suitable earthing and lightning protection system upon testing the integrity of the existing earthing and lightning protection. The results and recommendations shall be submitted to the Employer's Engineer for acceptance.
- f) The Contractor shall supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owllet IoT. The Contractor shall supply and install an equal or similar approved to a WiFi enabled Lenovo A740 workstation with an i3 processor, 27 inch touch screen monitor complete with network adaptor and USB RJ45 adapter to control the dimming functionality of the high mast lighting. The system shall be wall mounted in a hinged lockable stainless steel box with cut-out for the monitor screen. The system shall be installed



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in the TPT office within the site. The Contractor shall also configure, programme and commission the system.

- g) The Contractor is required to test the installation in the presence of the Employer's Engineers and issue electrical "Certificate of Compliance" (COC) for all work done to the satisfaction of the Employer's Engineers.
- h) The Contractor shall undertake a lighting survey at night to measure and record the lighting level in the area where work was undertaken in the presence of the Employer's Engineers. The Contractor shall notify the Employer's Engineer, seven days prior to the lighting survey.

4.4.1.10 EXPORT & QUAYSIDE

4.4.1.10.1 Mast No. EQ/HM N0:2, N0:3, N0:4, N0:5, N0:6, N0:7, N0:8 AND N0:9

- a) The Contractor shall uninstall the existing Light fittings complete with the head ring of the existing 30m High Mast Pole and issue the luminaires to TPT. The fittings in a good condition shall be reused to replace the existing fittings in other high mast poles in the same contract.
- b) The Contractor shall inspect and refurbish the existing high masts as detailed in specification TPD-010B-HIGHMASTSPEC-B and as detailed in Civil Engineering and Structural Works Scope.
- c) The Contractor shall supply, and install a completely new lighting on the existing 30m High Mast Pole. The contractor shall demonstrate the suitability of the incomer cable and the existing cable from the DB supplying the luminaires. The design shall be complete with a new DB and mountings for the luminaires.
- d) 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K have been used on a preliminary design by the employer for benchmarking and pricing purposes. Equal or similar approved range of product shall be used by the bidder subject to simulations submitted to the Employer's Engineer for acceptance.
- e) The Contractor shall design, supply and install the earthing and lightning protection system for the HML. The Contractor shall tie the new installation to the existing suitable earthing and lightning protection system upon testing the integrity of the existing earthing and lightning protection. The results and recommendations shall be submitted to the Employer's Engineer for acceptance.



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- f) The Contractor shall supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT. The Contractor shall supply and install an equal or similar approved to a WiFi enabled Lenovo A740 workstation with an i3 processor, 27 inch touch screen monitor complete with network adaptor and USB RJ45 adapter to control the dimming functionality of the high mast lighting. The system shall be wall mounted in a hinged lockable stainless-steel box with cut-out for the monitor screen. The system shall be installed in the TPT office within the site. The Contractor shall also configure, programme and commission the system.
- g) The Contractor is required to test the installation in the presence of the Employer's Engineers and issue electrical "Certificate of Compliance" (COC) for all work done to the satisfaction of the Employer's Engineers.
- h) The Contractor shall undertake a lighting survey at night to measure and record the lighting level in the area where work was undertaken in the presence of the Employer's Engineers. The Contractor shall notify the Employer's Engineer, seven days prior to the lighting survey.

4.4.1.11 TRIANGLE AREA

4.4.1.11.1 Mast No. T/HM N0:1, N0:2, N0:3, N0:4, N0:5, N0:6, N0:7, N0:8, N0:9, N0:10, N0:11, N0:12, N0:13 AND N0:14

- a) The Contractor shall uninstall the existing Light fittings complete with the head ring of the existing 30m High Mast Pole and issue the luminaires to TPT. The fittings in a good condition shall be reused to replace the existing fittings in other high mast poles in the same contract.
- b) The Contractor shall inspect and refurbish the existing high masts as detailed in specification TPD-010B-HIGHMASTSPEC-B and as detailed in Civil Engineering and Structural Works Scope.
- c) The Contractor shall supply, and install a completely new lighting on the existing 30m High Mast Pole. The contractor shall demonstrate the suitability of the incomer cable and the existing cable from the DB supplying the luminaires. The design shall be complete with a new DB and mountings for the luminaires.
- d) 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K have been used on a preliminary design by the employer for benchmarking and pricing purposes. Equal or similar approved range of product shall be used by the bidder subject to simulations submitted to the Employer 's Engineer for acceptance.



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- e) The Contractor shall design, supply and install the earthing and lightning protection system for the HML. The Contractor shall tie the new installation to the existing suitable earthing and lightning protection system upon testing the integrity of the existing earthing and lightning protection. The results and recommendations shall be submitted to the Employer 's Engineer for acceptance.
- f) The Contractor shall supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT. The Contractor shall supply and install an equal or similar approved to a WiFi enabled Lenovo A740 workstation with an i3 processor, 27-inch touch screen monitor complete with network adaptor and USB RJ45 adapter to control the dimming functionality of the high mast lighting. The system shall be wall mounted in a hinged lockable stainless-steel box with cut-out for the monitor screen. The system shall be installed in the TPT office within the site. The Contractor shall also configure, programme and commission the system.
- g) The Contractor is required to test the installation in the presence of the Employer's Engineers and issue electrical "Certificate of Compliance" (COC) for all work done to the satisfaction of the Employer's Engineers.
- h) The Contractor shall undertake a lighting survey at night to measure and record the lighting level in the area where work was undertaken in the presence of the Employer's Engineers. The Contractor shall notify the Employer's Engineer, seven days prior to the lighting survey.

4.4.1.12 OLD MHA

4.4.1.12.1 Mast No. O/HM N0:1, N0:2, N0:3, N0:4, N0:5, N0:6 AND N0:7

- a) The Contractor shall uninstall the existing Light fittings complete with the head ring of the existing 30m High Mast Pole and issue the luminaires to TPT. The fittings in a good condition shall be reused to replace the existing fittings in other high mast poles in the same contract.
- b) The Contractor shall inspect and refurbish the existing high masts as detailed in specification TPD-010B-HIGHMASTSPEC-B and as detailed in Civil Engineering and Structural Works Scope.
- c) The Contractor shall supply, and install a completely new lighting on the existing 30m High Mast Pole. The contractor shall demonstrate the suitability of the incomer cable and the existing



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cable from the DB supplying the luminaires. The design shall be complete with a new DB and mountings for the luminaires.

- d) 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K have been used on a preliminary design by the employer for benchmarking and pricing purposes. Equal or similar approved range of product shall be used by the bidder subject to simulations submitted to the Employer's Engineer for acceptance.
- e) The Contractor shall design, supply and install the earthing and lightning protection system for the HML. The Contractor shall tie the new installation to the existing suitable earthing and lightning protection system upon testing the integrity of the existing earthing and lightning protection. The results and recommendations shall be submitted to the Employer's Engineer for acceptance.
- f) The Contractor shall supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT. The Contractor shall supply and install an equal or similar approved to a WiFi enabled Lenovo A740 workstation with an i3 processor, 27 inch touch screen monitor complete with network adaptor and USB RJ45 adapter to control the dimming functionality of the high mast lighting. The system shall be wall mounted in a hinged lockable stainless steel box with cut-out for the monitor screen. The system shall be installed in the TPT office within the site. The Contractor shall also configure, programme and commission the system.
- g) The Contractor is required to test the installation in the presence of the Employer's Engineers and issue electrical "Certificate of Compliance" (COC) for all work done to the satisfaction of the Employer's Engineers.
- h) The Contractor shall undertake a lighting survey at night to measure and record the lighting level in the area where work was undertaken in the presence of the Employer's Engineers. The Contractor shall notify the Employer's Engineer, seven days prior to the lighting survey.

4.4.1.13 7 Series

4.4.1.13.1 Mast No. 7H/M NO:1, NO:2, NO:3, NO:4, NO:5, NO:6, NO:7, NO:8, NO:9, NO:10, NO:11, NO:12, NO:13, NO:14, NO:15, NO:16, NO:17, NO:18, NO:19, NO:20, NO:21, NO:22, NO:23, NO:24, NO:25, NO:26, NO:27, NO:28, NO:29, NO:30, NO:31 AND NO:32



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- a) The Contractor shall uninstall the existing Light fittings complete with the head ring of the existing 30m High Mast Pole and issue the luminaires to TPT. *The fittings in a good condition shall be reused to replace the existing fittings in other high mast poles in the same contract.*
- b) The *Contractor* shall inspect and refurbish the existing high masts as detailed in specification TPD-010B-HIGHMASTSPEC-B and as detailed in Civil Engineering and Structural Works Scope.
- c) The *Contractor* shall supply, and install a completely new lighting on the existing 30m High Mast Pole. The contractor shall demonstrate the suitability of the incomer cable and the existing cable from the DB supplying the luminaires. The design shall be complete with a new DB and mountings for the luminaires.
- d) 8xBEKA-SCHRÉDER OMNIBlast 2-E Maxi 192LED/910W OPTIC 5188 - 3000K have been used on a preliminary design by the *employer* for benchmarking and pricing purposes. Equal or similar approved range of product shall be used by the bidder subject to simulations submitted to the *Employer's* Engineer for acceptance.
- e) The Contractor shall design, supply and install the earthing and lightning protection system for the HML. The *Contractor* shall tie the new installation to the existing suitable earthing and lightning protection system upon testing the integrity of the existing earthing and lightning protection. The results and recommendations shall be submitted to the *Employer's* Engineer for acceptance.
- f) The Contractor shall supply, install and commission an Integrated Lighting Control System, equal or similar approved to Beka Owlet IoT. The Contractor shall supply and install an equal or similar approved to a WiFi enabled Lenovo A740 workstation with an i3 processor, 27 inch touch screen monitor complete with network adaptor and USB RJ45 adapter to control the dimming functionality of the high mast lighting. The system shall be wall mounted in a hinged lockable stainless-steel box with cut-out for the monitor screen. The system shall be installed in the TPT office within the site. The Contractor shall also configure, programme and commission the system.
- g) The Contractor is required to test the installation in the presence of the Employer's Engineers and issue electrical "Certificate of Compliance" (COC) for all work done to the satisfaction of the Employer's Engineers.



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- h) The Contractor shall undertake a lighting survey at night to measure and record the lighting level in the area where work was undertaken in the presence of the Employer's Engineers. The Contractor shall notify the Employer's Engineer, seven days prior to the lighting survey.

4.4.1.14 POWER SUPPLY

- a) The Contractor shall make provision of two mini substations and power cables.

5 TESTING AND COMMISSIONING OF THE ENTIRE INSTALLATION

- a) The Contractor shall make provision of two mini substations and LV and MV power cable. The Contractor shall conduct a Factory Acceptance Test (FAT) for all distribution boards and electrical kiosks to be installed as part of the Works to be executed in this Contract prior to delivery to site. The FAT shall be conducted in the presence of the Employer's Engineers. The legal transfer of ownership from the supplier to the Contractor shall be held by the Contractor until the distribution boards and electrical kiosks are fully installed, tested and commissioned on the Employer's designated site.
- b) The Contractor shall test the entire installation, including but not limited to the LV installation and the lighting installation as per SANS 10142-1. All relevant test certificates shall be handed over to the Employer's Project Manager for acceptance.

5.1 EARTHING AND LIGHTNING PROTECTION

- a) The Contractor shall design, supply and install earthing and lightning protection to all new high mast installations with new luminaires in accordance to specification No. TPD: 004-EARTHINGSPEC; "Transnet Specification for lightning protection and earthing". This component of work shall be undertaken by a specialist earthing and lightning protection Contractor.
- b) The Contractor shall inspect and test the existing earthing and lightning protection installation for all existing high mast installations and retrofits with existing reused light fittings. Where the earthing and lightning protection is found to be non-compliant, the contractor shall inform the employer's engineer, recommend remedial measures and upon approval by the employer's engineer design, supply, install and commission the earthing and lightning protection. The installation shall be in accordance with specification No. TPD: 004-EARTHINGSPEC; "Transnet Specification for lightning protection and earthing". This component of work shall be undertaken by a specialist earthing and lightning protection Contractor.
- c) The high mast shall be provided with a M12 earth bolt welded to the mast with stainless steel nuts. The incoming electrical supply earth conductor and all other electrical equipment shall be connected to the earth bolt.

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- d) The earth electrodes and couplers used on all high masts shall be manufactured from stainless steel and in accordance to SABS 1063.
- e) The earth electrode resistance shall be in accordance with the requirements of SANS 10142-1 and SANS 10313.
- f) The Contractor shall submit all the proposed designs to the employers engineer for acceptance.

5.2 STRUCTURAL ENGINEERING WORKS

Scope of Works

- a. The following section details the scope of repair works to be conducted. Throughout the section, wherever the term "To match existing" is used, the contractor shall price a similar material and components that matches the material to be replaced as closely as possible and is similarly approved.
 - Site to be made safe with the use of appropriate temporary works. Temporary supports are to be designed and provided for all works by the contractor, inclusive of all scaffoldings and working at heights requirements.
 - Debris on site is to be cleared.
 - Repair all damaged and spalled concrete.
 - Replace all the affected joints,
 - All rubble is to be cleared and transported off site for disposal.
 - All dimensions and site conditions on site to be verified by the contractor prior to construction.
- b. The Contractor will be required to:
 - Review and understand the existing available engineering design drawings and the design intent.
 - Review and understand current operations.
 - Provide a method statement to execute the works.
 - Undertake a detailed assessment of the area to verify the scope of works.
 - Develop and submit engineering specifications for the works.
 - Design, supply and construct the works in accordance with Transnet's Requirements and processes, industry best practices and latest statutory codes and standards.



TRANSNET PORT TERMINALS:

CONTRACT NUMBER:

DESCRIPTION OF THE WORKS: Terminal Lighting at the Port of Richards Bay, for Transnet SOC Ltd (Reg. No. 1990/000900/30) Operating as Transnet Port Terminals, (Hereinafter Referred to as "TPT").

- The contractor is to ensure that the stability and integrity of the infrastructure is maintained at all times.
 - All repair works are to comply with statutory and legislative codes and standards and must be signed off by an ECSA registered Professional.
 - On completion, issue a certificate of stability signed by an ECSA professionally registered engineer.
- c. The designs must consider all operational and maintenance requirements and tie into the current infrastructure. The design will be required to incorporate all applied loads and necessary fixings and supports to ensure safe installation of associated infrastructure and equipment.
- d. Structures shall be designed to comply with the relevant parts of the international or national regulation.
- e. Design calculations and analyses shall consider the most unfavourable combination of static, dynamic, erection and lay-down loads and loads due to temperature and shrinkage effects, to which the structure or component part may be subjected, both for the serviceability and ultimate limit states. Methods of computation and magnitude of loads shall be in accordance with the relevant standards and codes of practices.
- f. Structural Steelwork must be corrosion protected and reinstated in accordance with EEAM specifications.
- g. All new structural steelwork to be hot-dipped galvanised and corrosion protected as per Transnet specification.
- h. The stability and integrity of all existing infrastructure is not to be compromised during construction.
- i. The Contractor is responsible for the design of all temporary works.
- j. The Contractor is to make provisions in his designs and his construction methodology for undertake construction works under live operational conditions. Existing operations is not to be disrupted.
- k. The Contractor is to submit all updated as-built drawings, specifications, and designs in both native electronic and signed hardcopies.

5.3 Employer's requirements

5.3.1 Professional Appointments Requirement:

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All design and construction Works within this project are to be conducted by an ECSA Professional Registered personnel with experience in the relevant infrastructure design.

5.3.2 The Contractor design complies with the following:

- All international, national legislation, and Transnet specifications. Where there is a duplication of specifications, the most stringent shall apply.
- Remedial works are to be approved by the engineer on site prior to construction.
- Engineering supervision and construction monitoring normal services and additional services to ECSA Level 3 as stipulated in ECSA Reg
- Approval of Shop drawings by the responsible professional engineer prior to fabrication
- Specialized products are to be approved by the responsible engineer and applied in accordance with the manufacturer's specifications.
- Method statements for remedial works are to be provided by the contractor and accepted by the responsible engineer prior to any work undertaken.
- Providing and signing-off the critical hold points for all critical construction and fabrication works,
- Respond to field engineering queries,
- Engineering changes and updates to drawings,

5.3.3 Governing Standards and Guidelines

All works shall comply with the requirements of all South African National Standards (SANS) and CODES as applicable.

Where reference is made to code, standard or specification, the reference shall be taken to mean the latest edition of the code, standards, or specification, including the latest Addenda, supplements, and revisions thereto. Where no SANS documents are available the works shall be in accordance with recognized international standards or codes, e.g. ANSI, BS, DIN, EU, ISO, etc.

5.3.4 Design standards

- SANS 10164-1:1980, The structural use of masonry Part 1: Unreinforced masonry walling
- SANS 10164-2:2008, The structural use of masonry Part 2: Structural design and requirements for reinforced and prestressed masonry



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- SANS 10249:2012, Masonry walling
- SANS 10400-H:2012, The application of the National Building Regulations Part H: Foundations
- SANS 10400-K:2015, The application of the National Building Regulations Part K: Walls
- SANS 10400-T:2024, The application of the National Building Regulation Part T: Fire protection
- SANS 10400-W:2011, The application of the National Building Regulation Part W: Fire installation
- EN 1996-1-1:2005, Eurocode 6 - Design of masonry structures - Part 1-1: General rules for reinforced and unreinforced masonry structures
- EN 1996-1-2:2005, Eurocode 6 - Design of masonry structures - Part 1-2: General rules - Structural fire design
- EB 1996-2:2006, Eurocode 6 - Design of masonry structures - Part 2: Design considerations, selection of materials, and execution of masonry
- EN 1996-3:2006, Eurocode 6 - Design of masonry structures - Part 3: Simplified calculation methods for unreinforced masonry structures

5.3.5 Material standards

- SANS 28:2010, Metal ties for cavity walls
- SANS 190-2:2008, Expanded metal Part 2: Building products.
- SANS 227:2007, Burnt clay masonry units.
- SANS 248:2007, Bituminous damp-proof courses
- SANS 285:2010, Calcium silicate masonry units
- SANS 298:2007, Mastic asphalt for damp-proof courses and tanking
- SANS 523:2009, Limes for use in building 26
- SANS 952-1:2011, Polymer film for damp-proofing and waterproofing in buildings Part 1: Monofilament and co-extruded products.
- SANS 1090:2009, Aggregates from natural sources - Fine aggregates for plaster and mortar
- SANS 1215:2008, Concrete masonry units
- SANS 1504:2015, Prestressed concrete lintels
- SANS 10073:1974, The safe application of masonry-type facings to buildings. (Refer to SANS 10400-K (Latest version))



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- SANS 50197-1:2013 / EN 197-1:2011, Cement Part 1: Composition, specifications, and conformity criteria for common cement
- SANS 50413-1:2014 / EN 413-1:2011, Masonry cement Part 1: Composition, specifications and conformity criteria
- SANS 50934-3:2012 / EN 934-3:2009, Admixtures for concrete, mortar and grout Part 3: Admixtures for masonry mortar - Definitions, requirements, conformity, and marking and labelling.
- EN 12878:2014, Pigments for the colouring of building materials based on cement and/or lime - Specifications and methods of test.

5.3.6 Construction standards

- SANS 1504:2015, Prestressed concrete lintels
- SANS 2001-CC2:2007, Construction works Part CC2: Concrete works (minor works)
- SANS 2001-CM1:2012, Construction works Part CM1: Masonry walling.
- SANS 2001-EM1:2007, Construction works Part EM1: Cement plaster.
- SANS 10145:2013, Concrete masonry construction
- SANS 10249:2009 Masonry walling
- BS 8215:2013, Design and Installation of Damp-Proof Courses in Masonry

5.3.7 Transnet Specifications and Standards

- S420 Transnet specification for concrete work
- EEAM-Q-003 General - Specification for Steel Wire
- EEAM-Q-006 Structural steel work
- EEAM-Q-008 Corrosion Protection
- EEAM-Q-009 Quality Management
- EEAM-Q-010 Specification for Reinforced Concrete and Structural
- EEAM-Q-013 Punch List Specification
- EEAM-Q-016 General Requirements and Conditions

5.3.8 Reference Drawings



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• Title	• No.
• None	•

6 DESCRIPTION OF STRUCTURE

The High Mast light foundation structure is a reinforced concrete base and plinth that supports the light poles. The poles are fixed to the plinth with holding down bolts.

6.1 Extent of Damage

6.1.1 Assessment of Observations

The visual inspection was observed during a site visit. shows defects observed can have varying minimal spalling and cracking of concrete. This section describes these defects in detail providing an understanding of what they are and the possible causes.

6.1.2 Cracking

Cracking in concrete is a common occurrence. It appears in floors, beams, walls and bases. Cracking cannot be prevented entirely but it can be significantly reduced and controlled when preventative steps are taken. In order to take these steps, the causes of these cracks need to be considered.

6.1.3 Diagnosing 6 Causes of Concrete Cracking:

6.1.3.1 Cracks Caused by Plastic Shrinkage

The most common reason for early cracks in concrete is plastic shrinkage. When the concrete is still in its plastic state (before hardening), it contains a fair amount of water. As the concrete inherently loses moisture during curing it begins to reduce in volume. As the concrete shrinks, internal tensile stresses are formed particularly in cases where the concrete is restrained. Concrete is rigid by nature and is strong in compression but relatively weak when placed in tension. When the stress becomes too great for the now hardened concrete it will crack in order to relieve tension.

6.1.4 Cracks Caused by Premature Drying

These are cracks, sometimes referred to as crazing cracks, occur on the surface of a concrete element when the top loses moisture too quickly. Crazing cracks are very fine surface cracks that resemble spider webs or shattered glass. Crazing cracks can be unsightly but are not a structural problem. It is therefore important to ensure that the concrete surface is wetted throughout its curing period. Concrete that is exposed to the sun and wind will require more attention than concrete indoors for example.

6.1.5 Cracks Caused by Thermal Changes

All materials expand or contract when subjected to changes in temperature. Most materials expand when they are heated, and contract when they are cooled. When free to deform, concrete will expand or contract due to fluctuations in temperature. Temperature difference within a concrete structure may be caused by weather conditions cooling or heating one portion of the structure to a different degree or at a different rate than another portion of the structure. These temperature differences result in differential volume change, which creates tensile forces within the concrete. If the tensile strength of the concrete is exceeded, cracking will occur.

6.1.6 Cracks Caused by Corrosion of Reinforcement

Steel reinforcement is susceptible to corrosion when exposed to oxygen and water. Reinforcement is usually protected against the elements to a certain degree when cast inside concrete. The high alkalinity of concrete further protects against corrosion. Water molecules are, however, able to penetrate the microscopic pits and cracks in exposed concrete. This is intensified in the presence of larger cracks caused by shrinkage and thermal actions. If there are chloride ions or carbon dioxide present, the passivating layer of alkalinity around the steel is destroyed, allowing oxidation to take place. Oxidation is usually accompanied by a net expansion so that when it occurs in a confined space stresses are generated in the surrounding medium. This expansive force of corrosion causes tensile forces in the concrete causing it to crack and sometimes detach.

6.1.7 Cracks Caused by Settlement

Settlement cracks occur because of settlement of a portion of the concrete which creates stresses in other portions. These stresses may develop over embedded items, such as steel reinforcement, tree roots or adjacent hardened concrete. Settlement cracking will result typically from insufficient consolidation (vibration), high slumps (overly wet concrete), or a lack of adequate cover over embedded items.

6.1.8 Cracks Caused by Overloading

Another factor which contributes to cracking is loading the concrete beyond that for which it has been designed. Although it is a very strong material, concrete still has load limits. Cracking is an early sign that the concrete is beginning to fail due to excessive loads.

Cracks in concrete can scar a building's aesthetic appearance. They can be the cause of leaks or of corrosion. Most importantly, they can be the first indicative signs of a potential structural failure. No crack should therefore go unexamined.

6.1.9 Spalling

Concrete spalling is easily identifiable, occurring on the surface of the concrete when it becomes rough and flaky, and may be pitted due to concrete chunks detaching from the structure. This may cause cracking in the concrete as well. Concrete spalling is a common problem and occurs due to a wide variety of reasons. Reinforcement corrosion is a primary cause of concrete spalling. This typically occurs because of wind-blown water and salt penetrating the concrete and causing the embedded reinforcing steel to corrosion. As a result of the corrosion process, the steel expands and then causes cracking and breaking of the concrete. Other common causes of spalling include damage and wear to the concrete, poor construction techniques and carbonation of the concrete where carbon dioxide reacts with the chemicals within the concrete.

Concrete spalling can be dangerous when left untreated since chunks of concrete could fall and potentially injure somebody. The deterioration also affects the structural stability and the longevity of the structure. It is important to therefore take measures to prevent spalling before it occurs as well as to treat it when it has already occurred. The following are some ways to prevent and treat spalled concrete:

- Properly design the concrete element, allowing joints for expansion and contraction, allowing sufficient cover, giving due consideration to the environment in which the concrete will be placed.
- Using proper concrete mixes and concreting practices.
- Coating the concrete with a waterproofing membrane or using a sealant is another option, especially if it contains chemicals which are resistant to chloride.
- Filling the spalled area with cement or an adhesive admixture.

6.1.10 Corrosion

When iron or an alloy that contains iron, such as steel, is exposed to oxygen or water for a sustained period of time, a chemical reaction occurs and a new compound is formed called oxide. This process is known as oxidation, corrosion or, in the case of iron and iron alloys, corrosioning. This process is often accelerated if salt is present, as is the case with sea water or sea spray. Over time the iron or iron alloy will convert entirely to corrosion becoming brittle and flaky and will eventually disintegrate. There are a variety of methods for preventing corrosion or at best to slow down the corrosion process. The most common are galvanisation, cathodic protection, coatings or painting and corrosion inhibitor repair techniques.

Steel corrosion in concrete leads to cracking, reduction of bond strength, reduction of steel cross section and loss of serviceability. Reinforced concrete undergoing corrosion does not only lead to a reduced lifespan, in some cases the concrete may lose its structural integrity entirely before it reaches its intended design life. The basic processes of corrosion are closely related to the medium surrounding the steel.

Environmental factors cannot affect the corrosion process directly but they can cause the deterioration of the cover concrete and accelerate the ingress of aggressive species.

Factors that can affect corrosion of steel in concrete are: steel, pore solution of concrete, permeability of concrete, moisture, chloride, carbon dioxide, component of concrete, concrete resistivity, thickness of concrete cover and the temperature. The first defense against corrosion of steel in concrete is quality concrete and sufficient concrete cover over the reinforcing bars. Increased corrosion resistance can also be induced by the use of concrete additives which reduce the permeability of the concrete to the penetration of chloride ions.



Figure 1 : Spalling, exposed reinforcement.



Figure 2: Spalling Concrete



Figure 3: Spalled and damaged concrete.

6.2 REPAIR SYSTEMS

- The following systems are specified for the repair of defects on the structures. Note that a single source supplier must be used for the concrete repairs, i.e. an ABE reinforcement primer may not be used with a Sika repair mortar.

6.2.1 Method of Repair for concrete.

- a) Remove all loose concrete from the affected area.
- b) Assess condition of reinforcement to determine remedial action.
- c) Sand blast or water jet all steel and coat with primer agent.
- d) Apply repair mortar to replace spalled concrete, or micro concrete where large volumes of repair area are accessible
- e) Apply curing compound to repaired area

6.3 CONCRETE REMOVAL

- CODES, STANDARD AND SPECIFICATIONS
- BS 4232 Surface preparation Swedish Standard SIS 05 5900 - Surface preparation. The required strength at 3 days is 45 MPa.
- All the designated defective concrete shall be broken out by mechanical means to expose sound concrete. The subsequent repair of broken out areas should not be commenced until the Engineer has inspected, measured and approved the affected areas.
- The power and size of equipment used for concrete removal shall be appropriate to the scale of the individual repairs and shall be subject to the approval of the Engineer. Where percussive equipment is used particular care shall be taken that damage is not caused to concrete substrate and reinforcement which is to remain in place.
- The amount of concrete removed from a member at any time shall be subject to the restrictions described in the Contract to the approval of the Engineer.
- All loose and cracked concrete shall be removed. Concrete shall not be removed without prior approval of the Engineer.
- The Contractor shall ensure that adequate supervision of all breaking out operations is provided such that lateral overbreak is limited to +50 mm. The employment of operators inexperienced in concrete repair procedure will not be permitted.

6.4 SURFACE PREPARATION



- It is the intension to re-use, where possible, existing reinforcing. All defective concrete will be removed by using appropriate tools and equipment, e.g.:
- Pneumatic breaker
- Electric hammer
- High pressure water jetting.
- Hammer and bolster.
- The Contractor will confirm the equipment to be used for removing the concrete with Transnet Port Terminals. The concrete will be removed from around the full circumference of the steel reinforcing bars and a further 20-30mm beyond it, or as directed by the Engineer. Removal will continue along the lengths of all exposed reinforcing bars to a point 50mm beyond the limit of corroded steel, or as directed by the Engineer.
- Note: No feather edges to repaired areas are permitted. The perimeter of the repaired concrete area shall be cut 20mm deep, perpendicular to the working surface with an angle grinder. Care shall be taken not to cut existing reinforcement during this process.
- Exposed concrete substrates shall be tested with a phenolphthalein pH indicator. All non-alkaline concrete within 5mm distance of steel reinforcing shall be removed. Where reinforcing bars need to be replaced, they will be fixed or welded as directed by the Engineer. No welding of reinforcement is permitted.
- A lap of 60 bar diameters will be used.
- The reinforcing steel will be cleaned to a bright condition such as BS 4232 (second quality) or Swedish Standard SIS 05 5900 : 1967 (quality SA 2½) by grit blasting, grinding or hand sanding. Where chlorides are present, grit and water blasting will be used, taking particular care to remove chlorides from pits in the surface of the steel.
- Where large areas of steel reinforcing are exposed, these will be made fully secure using clean tie-wires and, if necessary, anchored to the concrete substrate in an approved manner.
- All dust and loose particles will be removed from the treated area using clean, oil-free compressed air. Where chlorides are known to have been present, the concrete and the exposed reinforcing bars will be thoroughly washed down with clean water to ensure the removal of residual contamination.
- Where bars are so heavily corroded that a significant loss of cross section has occurred e.g. 10%, a structural assessment will be made by the Engineer to establish whether additional reinforcement is required.

6.4.1 STEEL PRIMING

- Priming of the exposed steel reinforcing bars will take place immediately the blasting operation is complete. In the case of wet blasting process, priming will take place immediately the steel is dry.
- All exposed rebar is to be coated as per manufacturer's instructions and specifications.

6.4.2 CONCRETE PRIMING

6.4.2.1 Concrete with no inherent chloride

- The primer will be mixed where appropriate and applied to all surfaces as per manufacturer's instructions and specifications.
- Note: Priming too large an area will be avoided because of the necessity to apply the repair mortar before the primer dries. The work pattern will be laid out accordingly.
- If the primer dries before the repair mortar application, the area will be re-primed exactly as above.

6.4.2.2 Concrete with inherent chloride

- To form a barrier between the chloride contaminated concrete and the repairs material, the prepared concrete surface shall be primed in accordance with the manufacturer's instructions.

7 FORMWORK

- Adequate formwork shall be provided and securely fixed to withstand the hydraulic pressure of the fluid repair material without distortion or movement during placement.
- Formwork surfaces that are in contact with the repair material shall be treated with suitable mould release agent in accordance with the manufacturer's recommendations.
- Where necessary, provision shall be made for controllable bleed points to prevent air entrapment and enable the extent of flow of the repair material to be assessed.

8 REPAIR MATERIAL

- The repair material shall be prepacked by the supplier. No blending is permitted on site.
- The pre-packed material shall be mixed and placed in accordance with the manufacturer's recommendations, particularly regarding water content, mixing equipment and placing time.



9 CURING

- The repaired area must be adequately cured with an approved curing compound, in accordance with the manufacturer’s recommendations.

10 NON-ACTIVE CRACKS

- Cracks which are deemed not to be active shall be sealed against the ingress of water. The cracks should be sealed with a two-component low viscosity solvent free epoxy, for cracks up to 0,15mm in width. Cracks greater than 0,15mm must be chased out, and sealed with a two-component epoxy structural repair mortar.

SECTION B

11 MANAGEMENT AND START UP

- It is the *Employer’s* specific intention that the Parties and their agents use the techniques of partnering to manage the contract by holding meetings designed to pro-actively and jointly manage the administration of the contract with the objective of minimising the adverse effects of risks and surprises for both parties.
- Depending on the size and complexities of the Works, it is probably beneficial for the Employer to hold a weekly risk register meeting (Clause 16.2). This could be used to discuss safety, environmental, compensation events, subcontracting, overall co-ordination, and other matters of a general nature. Separate meetings for specialist activities such as programming, engineering, and design management, may also be warranted.

12 MANAGEMENT MEETINGS

Regular meetings of a general nature may be convened and chaired by the *Project Manager* as follows:

Title and purpose	Approximate time & interval	Location	Attendance by:
Risk register and compensation events	Weekly on (or at shorter intervals if required)	On site / Virtual	<i>Project Manager, Supervisor, Contractor,</i> and appropriate key persons
Overall contract progress and feedback	Every two weeks	On site / Virtual	<i>Employer, Project Manager, Supervisor, Contractor,</i> and appropriate key persons



Technical Meetings	Every two weeks	On site / Virtual	<i>Project Manager, Supervisor, Contractor, and appropriate key persons</i>
Planning Meetings	Weekly	On site / Virtual	<i>Employer, Project Manager, Supervisor, Contractor, and appropriate key persons</i>

Meetings of a specialist nature may be convened as specified elsewhere in this Works Information or if not so specified by persons and at times and locations to suit the Parties, the nature, and the progress of the *works*. Records of these meetings are to be submitted to the *Project Manager* by the person convening the meeting within five days of the meeting.

All meetings are to be recorded using 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 identified in the *conditions of contract* to carry out such actions or instructions.

13 DOCUMENTATION CONTROL

- a) In undertaking the *works* all documentation requirements for the *works* shall be dealt with in accordance with document DOC-STD-0001 – Rev03 (*Contractor* Documentation Submittal Requirements). The control, maintenance and handling of these documents and drawings, using a suitable document control system, remain the sole responsibility of the *Contractor*.
- b) TPT’s Project Document Controller will take the responsibility for the management of all technical and non-technical documentation throughout the life cycle of the Project. All documentation produced for and on behalf of the project will be registered with document control and its management thereof.
- c) This will include the registration, classification, managing, scanning, tracking, filing, storing, distribution and filing of all hardcopy and electronic documentation generated for and on behalf of the project.
- d) All documentation and data created for the Project shall be numbered and named according to the TPT Codification Procedure. Such numbering is only available from the Project’s Document Control Group.
- e) All contract correspondence is issued through document control. All communication to submitted electronically and is to be addressed to the Project Manager and Transnet Port Terminals Doc Control mailbox at all times email: RBayDocControl@transnet.net.
- f) Each supplier of documentation and data to the Project is responsible for ensuring that all documentation and data submitted conforms to the Project Standards and data Quality

requirements in terms of numbering, uniqueness, quality, accuracy, format, completeness, and currency of information. Data not meeting the Project Standards and data Quality requirements will be cause for rejection and returned to the *Contractor* for corrective action and re-submission.

- g) Should any change be made to documentation or data, which has already been submitted to the Project, then new or revised documentation or data shall be issued to Doc Control RBayDocControl@transnet.net to replace the out-dated information.
- h) It is the responsibility of all Project participants undertaking work on the Project to ensure they obtain and comply with the relevant requirements to suit their deliverables and Scope of Work.
- i) Electronic files submitted to the Project shall be clear of known viruses and extraneous "macros". The supplier of documentation is required to have, at all times, the latest generation of virus protection software and up-to-date virus definitions.
- j) The *Contractor* is to ensure that the latest versions of the required application software and a suitable 'IT' Infrastructure are in place to support the electronic transmission of documentation. Eg One drive should be used for document submission that exceed the email space requirement.
- k) The *Contractor* shall be responsible for the supply of all Sub-Supplier/*Contractor*/Manufacturer, etc. documentation and data related to their package of work and shall ensure that these Sub-Suppliers have the capability to supply the necessary documentation and data in the required time-frame and quality as outlined in the specified standards prior to awarding sub-orders.
- l) The required number of copies shall as a minimum be three (3) (1x original + 2 x hard copies), with the corresponding electronic PDF and 'Native' file formats upon final submission.
- m) The *Contractor* shall apply "wet signatures" to the original Documentation before scanning the signed original and prior to formal submission to the Project.
- n) Final issues of all documentation shall be supplied to the Project in "wet signature" format along with the associated corresponding electronic 'native files' and PDF renditions.

The *Contractor* shall ensure adequate resources are available to manage and execute the Document Control function as per the requirements of the Project. (*The Contractor* shall ensure that a dedicated Document).

14 SAFETY RISK MANAGEMENT

Health and Safety Standard

- The *Contractor* must comply with the requirements of the Project Health and Safety Specification – PHSS-0001 and OHS Act No. 85 of 1993 and its applicable Regulations.

Contractor's General Requirements for Health and Safety

The *Contractor* is solely responsible for carrying out the work under the Contract having the highest regard for the health and safety of its employees, Transnet's employees and persons at or in the vicinity of the Site, the *works*, temporary work, materials, the property of third parties and any purpose relating to the *Contractor* carrying out its obligations under this Contract.

The *Contractor* must initiate and maintain safety precautions and programs to conform to all applicable Health and Safety laws or other requirements, including requirements of any applicable government instrumentality and client corporate, business unit and site requirements. The *Contractor* must, at its own cost, erect and maintain safeguards for the protection of workers and the public. The *Contractor* must manage all reasonably foreseeable hazards created by performance of the work. The *Contractor* must:

- Provide all things and take all measures necessary for maintaining proper personal hygiene, ensuring safety of persons and property and protecting the environment at or near the Site.
- Avoid unnecessary interference with the passage of people and property at or near the Site.
- Prevent nuisance and excessive noises and unreasonable disturbances in performing the Services.
- Be responsible for the adequacy, stability and safety of all of its site operations, of all its methods of design, construction and work and be responsible for all of the work, irrespective of any acceptance, recommendation or consent by TPT, its *Contractors*, employees, agents and invitees, or any Government Body.

Costs for the above are borne by the *Contractor*.

The *Contractor* must comply and is responsible for ensuring that all of its Subcontractors comply with the relevant legislation(s) and statutory regulations for health and safety, the Transnet Health and Safety requirements included in the Contract and other document pertaining to health & safety contained in the Programme Health & Safety Management System and include standards, policies, procedures, guidelines and safe work instructions.

Contractor's Health and Safety Management

The *Contractor* must prepare, implement and maintain a project-specific Health and Safety Management Plan. The plan must be based on the requirements set out in this Project Health and Safety specification as well as all applicable legislation. It must cover

all activities that will be carried out on the project site(s), from mobilisation and set-up through to rehabilitation and decommissioning.

The plan must demonstrate the *Contractor's* commitment to health and safety and must, as a minimum, include the following:

- a) A copy of the *Contractor's* Health and Safety Policy; in terms of the OHS Act section 7;
- b) Procedures concerning Hazard Identification and Risk Assessment, including both Baseline and Task-Based Risk Assessments;
- c) Arrangements concerning the identification of applicable Legal and Other Requirements, measures to ensure compliance with these requirements, and measures to ensure that this information is accessible to relevant personnel;
- d) Details concerning Health and Safety Objectives – a process must be in place for setting objectives (and developing associated action plans) to drive continual improvement.
- e) Details concerning Resources, Accountabilities and Responsibilities – this includes the assignment of specific health and safety responsibilities to individuals in accordance with legal or project requirements, including the appointment of a *Project Manager*, Health and Safety Officers, *Supervisors*, Health and Safety Representatives, and First Aiders;
- f) Details concerning Competence, Training and Awareness – a system must be in place to ensure that each employee is suitably trained and competent, and procedures must be in place for identifying training needs and providing the necessary training;
- g) Communication, Participation and Consultation arrangements concerning health and safety, including Toolbox Talks, Daily Safe Task Instructions, project health and safety meetings, and notice boards;
- h) Documentation and Document Control – project-specific documentation required for the effective management of health and safety on the project must be developed and maintained, and processes must be in place for the control of these documents;
- i) Processes and procedures for maintaining Operational Control, including rules and requirements (typically contained in Safe Work Procedures) for effectively managing health and safety risks, particularly critical risks associated with working at heights, confined spaces, mobile equipment and light vehicles, lifting operations, hazardous chemical substances, etc.;
- j) Emergency Preparedness and Response procedures;
- k) Management of Change – a process must be in place to ensure that health and safety risks are considered before changes are implemented;

- l) Sub-*Contractor* Alignment procedures – a process must be in place for the assessment of Subcontractors and suppliers with regard to health and safety requirements and performance (before any contract or purchase order is awarded);
- m) Measuring and Monitoring plans, including a plan for the measuring and monitoring of employee exposure to hazardous substances or agents (e.g. noise, dust, etc.) in order to determine the effectiveness of control measures;
- n) Incident Reporting and Investigation procedures describing the protocols to be followed with regard to incident reporting, recording, investigation and analysis;
- o) Non-conformance and Action Management procedures concerning the management of corrective actions;
- p) Performance Assessment and Auditing procedures concerning health and safety performance reporting, monthly internal audits to assess compliance with the project health and safety requirements, and daily site health and safety inspections; and
- q) Details concerning the Management Review process followed to assess the effectiveness of health and safety management efforts.
- r) The *Contractor* shall comply with OH&S Act – Section 8, 9, 13 and 16 and the Construction Regulations 2014.
- s) 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 Section (2)).
- t) 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).)
- u) 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 maintained at all times.
- v) The *Contractor's* Site *Supervisor* must provide a list of names and contact telephone numbers of all *Contractors* and Subcontractor's contact persons on Site. This list is updated as a new *Contractor* or Subcontractor employee commences on Site.
- w) 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*.

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

Contractor's Safety Officer

The *Contractor* must appoint a full-time Health and Safety Officer for the duration of the contract who 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:

- a) Reviewing all applicable legal and project health and safety requirements and providing guidance to *Contractor* and Subcontractor personnel (particularly the *Contractor's Project Manager*) to help ensure compliance at all times;
- b) Assisting with the implementation of effective hazard identification and risk management processes for all work to be carried out by the *Contractor*;
- c) 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;
- d) 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;
- e) Conducting *Contractor* health and safety induction training for all *Contractor* and Subcontractor personnel;
- f) Compiling and maintaining all health and safety related documents and records required of the *Contractor*;
- g) Communicating relevant health and safety information to *Contractor* and Subcontractor personnel (e.g. incidents and lessons learnt, leading practices, hazards, risks and control measures, etc.);
- h) Carrying out Safety Observations and Coaching (one per day);

- i) Evaluating (on a daily basis) 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;
- j) Attending monthly *Contractor* and Site Health and Safety Meetings;
- k) Assisting with the implementation of the *Contractor's* Health and Safety Management Plan and associated Safe Work Procedures;
- l) Carrying out Planned Task Observations on an ad hoc basis;
- m) Assisting with the implementation, testing and maintenance of an effective Emergency Response Plan for all *Contractor* and sub-*Contractor* activities;
- n) Responding to workplace incidents (as appropriate);
- o) Participating in incident investigations;
- p) Maintaining accurate health and safety statistics (for the *Contractor* and all Subcontractors), and compiling health and safety performance reports as required;
- q) Auditing the health and safety management system and workplace activities of the *Contractor* and each Subcontractor on a monthly basis to assess compliance with the project health and safety requirements; and
- r) 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. The *Contractor* must ensure that the 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) A computer with access to all necessary systems, including access to e-mail and the internet;
- b) A mobile telephone on contract or with adequate pre-paid airtime; and
- c) A vehicle where required or instructed by a nominated project management representative (depending on the size and location of the project site(s)).
- d) A Health and Safety Officer must be computer literate, fluent in English, and must have the following minimum qualifications, training, and experience:
- e) At least 5 years' experience as a Health and Safety Officer on construction, and mechanical projects;
- f) SAMTRAC or NEBOSH or Modern SHEQ Risk Management training course as a minimum qualification;
- g) Experience and appropriate training with regard to implementing and maintaining a health and safety management system compliant with national legislation or an international standard;
- h) Experience and appropriate training with regard to construction related hazard identification and risk management processes;

- i) Competence, experience and relevant training with regard to incident investigation procedures and causation analysis;
- j) Health and safety auditing experience and training;
- k) A valid First Aid certificate of competency;
- l) Fire prevention and protection training; and
- m) A valid Driving License (light motor vehicle).
- n) Registered as a Health and Safety Officer with SACPCMP.
- o) Before placing a SHE Officer on the project site(s), the *Contractor* must forward a copy of the person's CV to the nominated project management representative or to TPT Health and Safety Manager and TPT Project Environmental Resource 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.

Contractor's Safety Manual

The *Contractor* must provide a hard copy of its safety manual, 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 manuals, 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 manual, 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.

Performance Measurement and Reporting

Health and Safety Statistics

The *Contractor* and each of its Subcontractors 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* nominated representative.

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.

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, of a minor nature (Risk Rating of 6 or less), 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 non-conformity, and initiate corrective actions to rectify such deficiencies and non-conformities and to prevent recurrence. These corrective action plan(s) is 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 *Contractor* Safety Management Plan and site operations and activities. The

Contractor audit conformance will be assessed as a percentage and where conformance is better than 90% 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 80 – 90%, 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 80% 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.

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 TPT Health and Safety Manager.

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.

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
- Significant Safety Occurrences (SSO)

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.

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. Safety Review Meetings

- The *Contractor* Site Manager and a Site Safety Representative must take part in weekly 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.

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.

HAZOP Review

The *Contractor* participates in HAZOP reviews upon the instruction and direction of the *Project Manager*.

The reviews may include, but not be limited to, studies to ensure that the Plant is built and operated as designed and that personal safety, employee health and environmental protection systems conform to the *Employer's* and legislative requirements.

Job Safety Analysis

The *Contractor* completes a JSA prior to carrying out any operation on the Site and/or Working Area to the approval of the *Project Manager*.

Lines of Communication

The following personnel act on behalf of the *Project Manager* and may communicate directly with the *Contractor* and his key persons with respect to the SMP:

- Construction Manager (CM)
- Project Site Safety Manager (PSSM)

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:

5.3.7.1 Construction Manager

- a) The CM is responsible (in the context of the SMP only) for health and safety on the Site and Working Areas and reports to the *Project Manager*.
- b) The CM specific tasks (in the context of the SMP) are:
- c) Implement the safety management system
- d) Monitor compliance to the established safety management system
- e) Ensure risk is at an acceptable level
- f) Ensure Consultant Construction Management Team are competent
- g) Provide for:
- h) Planning, organisation, leadership and control
- i) Particular technical competencies for critical work
- j) Supervision and control on each shift
- k) Regular monitoring and assessment
- l) Workplace inspections

5.3.7.2 Project Site Safety Manager:

- m) The PSSM is responsible for ensuring that the *Contractor* complies with the SMP. The PSSM acts on behalf of the *Project Manager*.
- n) The PSSM specific tasks (in the context of the SMP) are:
- o) Define, in accordance with the HSSP, the:
- p) Safety program (instructions, training, meetings, inspections, incentive)
- q) Health and medical program
- r) Checks that *Contractors* have issued their Health and Safety plans, PPSPS and procedures before the beginning of work
- s) Organizes safety awareness campaigns
- t) Promotes communication on all health and safety matters (awards, incentives, meeting/inspections/audits reports)
- u) Checks conformance of equipment to technical requirements and regulations.
- v) Issues and address the site EHS activities reports
- w) Promotes everybody's best efforts to keep accident frequency and severity ratios at their lowest level

- x) Promotes a proper and continuous housekeeping of Plant and temporary facilities in order to create the most suitable conditions for workers to work and to be encouraged to follow HSE requirements
- y) Conducts *Worksite* EHS walks with all *Contractors*, and directs appropriate corrective actions
- z) Monitors that all factors likely to improve health and safety are taken into consideration, particularly those which lead to:
 - aa) Promoting personnel protection as an absolute requisite
 - bb) Investigating, identifying and neutralizing potential hazards
 - cc) Close coordination with all parties involved in construction in order to avoid overcrowded areas and dangerous operations
 - dd) Thorough preparation of work critical phases
 - ee) Close contacts to local EHS authorities
 - ff) Continuous follow-up in order to correct immediately unsafe acts and situations
 - gg) In case of accident, he takes actions necessary to:
 - hh) Initiate quick interventions of the emergency means.
 - ii) Check that first aid and evacuation of injured persons are properly carried out.
 - jj) Obtain a clear accident report from the sub-*Contractor* concerned.
 - kk) Report immediately to the Construction Manager.
 - ll) Investigate to identify the root causes of all incidents and near misses.

Commissioning Safety Study

The *Project Manager*, through his Construction Management Team, will facilitate and coordinate a formal Commissioning Safety Study and ensure that required procedures are prepared prior to the commencement of the commissioning phase.

The Commissioning Safety Study 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:

- a) 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
- b) Formal hazard analyses for pre-commissioning and commissioning activities have been completed, appropriately documented, and communicated, and are available to all personnel.
- c) Punch-list work has been sufficiently completed so that installations are safe to apply hazardous energy.
- d) Documentation relevant to any modifications has been created/updated.
- e) Safe operating, maintenance and emergency procedures are in place.

- f) Operating and maintenance manuals are available and training of commissioning employees has been completed.
- g) As Built drawings are available.
- h) 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. Site-wide Permits to Work will be used as the basis of safe systems of work for specified hazardous activities.

Housekeeping

Accidents can occur as a result of poor housekeeping. Hazards at construction site are the same for both day and night shift while the risks of injury are much higher during night *Works* because of the inherent poor illumination. It is essential that the workplace is kept clean and tidy to ensure safety and prevent accidents.

Document Control

All safety documents shall comply with the Project Document Control Procedures.

Medicals

Pre-employment medicals, including chest X-ray examinations, specific for the Contract will be required for all employees working on the Site regardless of duration spent on Site. Exit medicals, including chest X-ray examinations will be required at the end of the Contract. These medical examinations must be carried out by a registered Occupational Health Practitioner.

The *Contractor* must ensure that budget provision for SHE requirements are in place.

15 ENVIRONMENTAL CONSTRAINTS AND MANAGEMENT

All work is to be conducted in accordance with the principles of the National Environmental Management Act, 1998 (Act no 107 of 1998) but not limited to other applicable regulations as well acceptable environmental good practices. In addition, the *Contractor* is expected to comply with all applicable eThekweni Municipal bylaws.

The following documents, included in Annexure of the Works Information, provide the minimum acceptable standards that shall be adhered to:

- a) Standard Operating Procedure for Construction Environmental Management (SOP: CEM)

- b) Contractor Environmental and Sustainable Specifications Guideline (CESSG)
- c) Transnet Integrated Management Policy Commitment Statement (TIMS)
- d) Project Environmental Specifications (PES) as contained in:
 - Project Environmental Specification (PES) includes eThekweni bylaws such as:
 - *Schedule Trades and Occupations Bylaws*
 - *Interim* Code relating to fire prevention and flammable liquids and substances

The above requirements shall be applicable to the main *Contractor* and its service providers. The *Contractor* must comply with all the requirements of the SOP: CEM, CESSG and the PES as mentioned above. The *Contractor* must pay special attention to all PES conditions. These conditions must strictly be adhered to and shall be monitored.

The *Contractor* must sign the Declaration of Understanding as a commitment (Commitment to conform to the SOP: CEM) abide with TPT's Environmental Control Framework and Project Environmental Specifications. Sufficient environmental budget must be allocated to meet all the project environmental requirements for the duration of the contract.

The *Contractor* shall perform the *works* and all construction activities within the Site and Working Areas having due regard to the environment and to environmental management practices as more particularly described within the SOP: CEM, PES and CESSG.

The SOP: CEM defines how environmental management will be practiced on construction projects under Transnet's management and to ensure that that the environment is considered that negative impacts are avoided, or minimised and positive impacts are enhanced. The SOP: CEM further describes the main roles and responsibilities of the project team with respect to Environmental Management.

The CESSG describes the minimal requirements for environmental management to which the contractors must comply.

The *Contractor* must appoint a Safety, Health & Environmental Officer (SHEO) to monitor and manage compliance to Environmental Specification and all applicable environmental legislation. The SHEO must as a minimum have at least 5 years work experience in environmental management within the civil/structural and/or construction projects.

The *Contractor* will be required to submit a SHE file to TPT post award of tender. Requirements of the *Employer* will be made known on award of the contract. Site access certificate shall not be granted until the environmental file has been approved by the Employer.

The overarching obligations of the *Contractor* under the CESSG before construction activities commence on the Site and/or Working Areas is to provide environmental method statements (as contained under section 5.10 of the CESSG) for all construction operations

at the Site and/or Working Area by the *Contractor* and where requested by the CM and to comply with the following:

The *Contractor* shall identify the kinds of environmental impacts that will occur as a result of their activities and accordingly prepare separate method statements describing how each of these impacts will be prevented or managed so that the standards set out in the CESSG document are achieved. The method statements will be prepared in accordance with the requirements set out in the SOP: CEM. These method statements shall form part of the environmental file.

The *Contractor* shall ensure that his management, foremen and the general workforce, as well as all suppliers and visitors to Site have attended the Environmental Induction Programme prior to commencing any *work* on Site. If new personnel commence work on the Site during construction, the *Contractor* shall ensure that these personnel undergo the Environmental Induction Programme and are made aware of the environmental specifications on Site.

Where required, one of the first actions to be undertaken by the *Contractor* shall be to erect and maintain a temporary fence along the boundaries of the Site and Working Areas as applicable, and around any no-go areas identified on the layout plans, to the satisfaction of the *Project Manager*.

During the construction period, the *Contractor* complies with the following:

- a) A copy of the SOP: CEM and CESSG shall be available on Site, and the *Contractor* shall ensure that all the personnel on Site (including Subcontractors and their staff) as well as suppliers are familiar with and understand the specifications.
- b) Method statements need to be compiled by the *Contractor* throughout the Construction and Commissioning phase of the project. These Method Statements must be approved by the *Supervisor* and TPT *SHEQ Manager or Project Environmental Resource*. Approval must at least be two weeks prior to the proposed commencement of the activity. Emergency construction activity method statements may also be required. The activities requiring method statements cannot commence if they have not been approved by the TPT Environmental Manager or Project Environmental Resource.
- c) Where applicable, the *Contractor* shall provide job-specific training on an *ad hoc* basis when workers are engaged in activities, which require method statements.
- d) The *Contractor* shall be responsible for rehabilitating and or re-vegetating all areas to the satisfaction of the TPT Environmental Manager or Project Environmental Resource as detailed in the CESSG. Sufficient environmental budget must be allocated to achieve this.

The *Contractor* must ensure that its Subcontractors comply with the Environmental Specification. The *Contractor* shall retain proof of having conducted adequate training / awareness with the sub-contractor, in terms of these requirements.

16 QUALITY ASSURANCE REQUIREMENTS

The *Contractor* shall have, maintain, and demonstrate its use to the *Project Manager* (and/or the *Supervisor* to satisfy the requirements of *The Works* Information as appropriate) the documented Quality Management System to be used in the performance of *The Works*.

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 requirements of specification **EAM-Q-009**, General Quality requirements for Suppliers and contractors as contained in the Annexure to this *Works* Information.

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:

- a) Typical Project Quality Plan (PQP) for the contract;
- b) Valid ISO 9001 Certificate
- c) Index/List of Procedures/Method statement to be used
- d) Qualification and experience of Quality personnel
- e) Project specific Quality Control Plan
- f) Typical Quality Data Book Index

The *Contractor's* PQP includes or references to the quality plans of his Subcontractors and Suppliers.

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.

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 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*.

The Project 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*.

The Quality Control plans shall identify all inspection, test and verification requirements to meet Contractual obligations, specifications, drawings and related details including

destructive, non-destructive testing, witness and hold points. The *Contractor* shall not commence fabrication or manufacture prior to review and acceptance of the applicable QCP's by *The Employer*.

The Index of Procedures means the *Contractor's* system for management of:

- Documentation Control
- Design Control
- Procurement

The Inspection and testing mean:

- a) Quality Control Plans
- b) Inspection Points
- c) Schedule of Inspections
- d) Field Inspection Checklists
- e) Inspection Notification
- f) Inspection release
- g) Inspection and testing
- h) Special processes
- i) Welding Procedures
- j) Material traceability and certification

Programming constraints

The *Contractor's* construction WBS as a minimum shall include but not be limited to the following WBS Elements:

- a) Procurement and delivery of all long lead items necessary to Provide the *works* in line with the stipulations of the *Employer's* Works Information. Long lead items include but are not limited to; Plant, equipment, materials and any other resources, as required to provide both temporary and permanent *works*.
- b) *Contractor's* design as well as associated procedure for *Contractor's* design submission and acceptance of any portion of the *works* and/or approval of Plant as stipulated under Sections 1 Clause 2 of the Works Information in accordance with the stipulations for submission, acceptance and approval as stipulated under the relevant section(s) of the *Employer's* Works Information; including any other additional design requirements, interfacing and or alterations in existing design which may stem from the aforementioned.
- c) Manufacturing and or Fabrication both on and off-site which may include but is not limited to; Plant, equipment, materials and any other resources, as required to provide both temporary and permanent *works*.
- d) Preparation and Approvals of Health & Safety, Environmental and Quality Documentation.

e) Approval of any applicable permits, permissions and licenses, including inductions. The *Contractor's* construction programme shall correspond with the *Contractor's* Method Statements, Quality Control Plans and Risk Assessments, as drafted in line with the *Employer's* stipulations.

The *Contractor* uses the latest version of MSP for his programme submissions, or similar approved software with the prior written consent of the *Project Manager*. In the event that the *Contractor* will be using earlier or later versions of the software, the onus is on the *Contractor* to ensure that a conversion is done in order for the file to be compatible with MSP.

The *Contractor* shows on each programme he submits to the *Project Manager*, the requirements of the [SOP: CEM, PES and CESSG] as described under the relevant sections of the Works Information, together with the associated environmental method statements. The *Employer* (including the agents of the *Employer*) operates on *Site* during dates or timings when the *Contractor* has completed certain elements of the *works* and/or during the contract period as stipulated in this Works Information.

Others operate on *working area* during dates or timings when the *Contractor* has completed certain elements of the *works* as stipulated in this Works Information

The *Contractor's* first programme submitted for acceptance shall be agreed during the pre-contract negotiation period, and no later than the period stipulated under Contract Data Part One (2 weeks after the Contract Date).

The *Contractor* complies with the *Employer's* high-level programme when he submits his first programme for acceptance.

The *Contractor* presents his first programme for acceptance and all subsequently revised programmes (see ECC Clauses 31.2 and 32.1) in hard copy and soft copy format.

The *Contractor* shows on his programme submitted for acceptance and all subsequently revised programmes, the critical path or paths and all necessary logic diagrams demonstrating sequence of operations.

The *Contractor's* programme shows duration of operations in working days as per the stipulated definition of the workdays and hours in the *Employer's Works* Information.

Each programme submitted by the *Contractor* to the *Project Manager*, is fully Cost and Resource Loaded (People, Equipment, Plant, Materials & Other Resources) with the exception of the *Contractor's* tender programme submission.

The *Contractor* shows on each programme he submits to the *Project Manager*, the requirements as listed in the NEC 3, ECC, Clause 31.2.

The *Contractor* attends, participates in and makes a meaningful contribution to, planning initiation & set-up meetings held during the pre-contract negotiation period and no later than the period stipulated under *Contract Data Part One* (2 weeks after the Contract Date); to agree and set-up including but not limited to - the first schedule for acceptance;

monitoring, control and reporting requirements; proposed templates and planning/scheduling procedures to be complied with for the duration of the project.

The *Contractor* shows on each revised programme he submits to the *Project Manager* a resource histogram showing planned progress versus actual, deviations from the Accepted Programme and any remedial actions proposed by the *Contractor*, including a spread sheet identifying instances of resource over-allocation and/or conflicts, accompanied by proposed resolutions.

The *Contractor's* programme shows the following levels:

- a) Level 1 Master Schedule – defines the major operations and interfaces between engineering design, procurement, fabrication and assembly of Plant and Materials, transportation, construction, testing and pre-commissioning, commissioning and Completion.
- b) Level 2 Project Schedule – summary schedules 'rolled up' from Level 3 Project Schedule described below.
- c) Level 3 Project Schedule – detailed schedules generated to demonstrate all operations identified on the programme from the starting date to Completion. Individual operations will be assigned a code. The *Employer* notifies any subsequent layouts and corresponding filters on revised programmes.
- d) Level 4 Project Schedule –detailed discipline/speciality level schedule decomposed to the appropriate levels of detail in order to accurately substantiate activity scope and activity duration estimates; developed and maintained by the *Contractor* relating to all operations identified on the programme representing the daily activities by each discipline, with activities and operations adequately decomposed in order to accurately represent the effort required to execute said activity/operation and support accurate duration estimates.
- e) A narrative status report, which includes but is not limited to status and performance of operations on the *Site* and Working Areas; status and performance of operations outside the Working Areas; manpower histograms; critical action items (top 10) and deviations from the Accepted Programme and action plan to rectify.
- f) Basis of Programme/Schedule document detailing but not limited to the following minimum requirements:
 - Basis of latest accepted programme, including an overview of assumptions, constraints, specific and quantified resource allocations, productivity assumptions and basis of calculation, identification and justification of general scheduling provisions such as calendars and working times, lags, date constraints, activity durations longer than one reporting period, etc.
 - Description of network logic and sequencing.
 - Description of general construction approach.

- Description of approach to allocation, use and management of all resources dedicated to the project.
- Description of and trend analysis of critical risks as identified through schedule risk analysis and included in schedule contingency and or Time Risk Allowance provisions.
- Discussion regarding the basis, method of calculation and validity of the critical path and near critical paths, (interrogate longest path and total float as contained in the programme).
- Reporting on change management, i.e. identify and record any deviations/changes that have taken place within the previous reporting cycle, and their resultant impact on the remaining *works* and as identified and highlighted in the current revision of the programme for acceptance.
- Identification critical activities, as well as top 10 near critical activities and undertake trends analysis on such activities with the aim to identify any deviations from planned performance.
- Identification of any recovery and or mitigation action required in order to neutralise any deviations.

Reporting and Monitoring

The *Contractor* attends meetings as included but not limited to Section 2 Clause 5 of the *Employer's Works* Information.

The *Contractor* attends weekly planning meetings. Meeting agenda to include progress reporting as detailed under Section 2 Clause 5.10 of the *Employer's Works* Information, recovery/optimisation, contractual matters in line with NEC ECC core clauses 31, 32 and main option clause, Option B.

The *Contractor* submits programme narrative report to the *Project Manager* at fortnightly intervals in addition to the intervals for submission of revised programmes stated under *Contract Data Part One*. The *Contractor* also submits monthly programme narrative report to *Project Manager*.

The *Contractor* completes an assessment of all activities in progress and to completion to determine physical percentage complete, forecasted completion dates, deviations from the Accepted Programme and proposes remedial action to rectify deviations.

The *Contractor* shows on each revised programme he submits to the *Project Manager* a resource histogram showing planned progress versus actual, deviations from the accepted programme and any remedial actions proposed by the *Contractor*.

The *Contractor* submits the programme narrative report detailing the status and performance of operations on the Site and Working Areas, status and performance of operations outside the Working Areas, man-power histograms, Plant and equipment

histograms, and critical action items (top 10). Report shall indicate "progress this period" and "progress to date".

The *Contractor's* **fortnightly** project progress report (narrative report) includes but is not limited to:

- a) Level 4 Project Schedule – showing two separate bars for each task i.e. the primary bar must reflect the current forecast dates and the secondary bar the latest Accepted Programme.
- b) Progress Spreadsheet detailing actual progress achieved (target/planned quantity versus actual quantity) on current (critical) activities for the previous week, planned progress for the current week, deviations and proposed recovery for each activity in question. A 1-week Look Ahead Spreadsheet in line with the aforementioned stipulations to be included. Priority to be given to identification of critical activities, progress and any deviations from planned performance in this regard.
- c) 3-week Look Ahead Schedule showing two separate bars for each task i.e. the primary bar must reflect the current forecast dates and the secondary bar the latest Accepted Programme.
- d) Dependencies/Deliverables matrix detailing interim approvals and/or any other inputs/requirements from *Employer/Supervisor/Project Manager/Others* or any other project *Stakeholder* in line with the activities identified in the 3-week Look Ahead Schedule.
- e) Interfacing Matrix, detailing timeous identification of any requirements for providing the *works* and/or *works* to be executed by *Others* and any other *Stakeholders* party to this contract in line with the stipulations of the *Works Information*.
- f) Manpower Histogram – reflecting actual, forecasted and planned activities.
- g) Plant and Equipment Histogram – reflecting actual, forecast and planned activities.
- h) Identification critical activities, progress and any deviations from planned performance.
- i) Adherence and actual performance achieved with regards to Environmental, Health & Safety and Quality Management.
- j) The *Contractor* shall submit to the *Project Manager*, a bi-weekly report on progress of any off-site manufacturing activities undertaken during the previous half-month.
- k) Based on the Accepted Programme/ latest programme submitted for acceptance the *Contractor* submits a cash flow forecast report that details the anticipated monthly cash flow, represented by the expected assessment of the amounts due, to the *Project Manager*. The cash flow forecast is to be extrapolated from the latest Accepted Programme through the mechanism of the cost loaded schedule or other similar methodologies with the prior approval of the *Project Manager*.

The *Contractor's* **monthly** project progress report includes but is not limited to:

- a) Monthly, the Contractor completes an assessment of all activities in progress and to completion, and accordingly revises and submits the updated programme for acceptance and cash flow forecast report detailing any variances and proposes remedial actions to rectify deviations.
- b) The *Contractor's* monthly programme narrative report is submitted a week before the last Friday of each month, or as required by the *Project Manager*. The report shall indicate "progress this period" and "progress to date" and shall include, but is not limited to, the following;
 - Summary of progress achieved during the reporting period.
 - Latest Accepted Programme.
 - Deviations from the current Accepted Programme and action plans to rectify.
 - Project milestones table – planned versus actual and forecast.
 - Status and performance of operations on the site and Working Areas.
 - Status and performance of operations outside Working Areas.
 - Cash flow forecast report.
 - Digital photographic record of the progress of the *works*.
 - Manpower histograms, including a control spread sheet detailing specific over allocation and/or conflicts in allocation of resources.
 - *Contractor's* Plant and equipment histograms, including a control spread sheet detailing specific over-allocation and/or conflicts in allocation of resources.
 - S-curves of overall progress.
 - Critical action items list (top 10).

Contractor's management, supervision, and key people

The *Contractor* shall make an adequate, experienced, and stable project team available for the duration of the contract. Every effort must be exercised by the *Contractor* to minimise the replacement of project team members in order to ensure optimum contract management continuity and efficiency. No sharing of key personnel roles will be permitted in this project.

The *Contractor* employs full time, fully qualified and experienced key persons who have been delegated sufficient authority to manage the contract efficiently on-site during completion of the *works* including and not limited to:

a) Project Manager x 1

- The Project Manager must have an SACPMP or PMP registration a national diploma or higher qualification in Electrical/Mechanical, Civil/Structural engineering, national diploma or higher in Project Management and at least 6 years post qualification experience managing construction projects.
- The Project Manager should further provide evidence in working with the NEC suit of contracts and must have experience working in similar projects.

b) SHE Officer x 1

SHE Officer must have a minimum and completed SAMTRAC/NEBOSH or MSRM (Modern SHEQ Risk Management Qualification course) in safety management, registered with SACPCMP as CHSO (Construction Health and Safety Officer) and a minimum of 6 years' experience as a safety officer and have a basic environmental management background. Proof of environmental training must be attached to the C.V. and experience in environmental management to be included in the C.V.

c) Construction Manager/Site Agent x 1

The Construction Manager must have a minimum qualification of a Diploma in Electrical/Mechanical/Civil Engineering and at least 6 years of experience in construction projects. The Construction Manager must have experience working with the NEC suit of contracts and must have experience working in similar projects.

d) Installation Electrician x 1

The Installation Electrician must have at least 10 years of experience in Low and Medium Voltage (LV and MV) installations and be registered with Department of Labour. The Installation electrician shall have experience in both electrical and electronic in relation to the scope of work.

e) Electrical Engineer x 1

The Electrical Engineer must be registered as a PrTech/Pr Eng with ECSA, have minimum qualification of a Diploma in Electrical Engineering and at least 6 years of post-registration experience in construction projects. The Electrical Engineer must have experience working with the NEC suit of contracts and must have experience working in similar projects. The Engineer must have experience in illumination designs, Relux software, power systems design, commissioning experience, lighting energy management technology selection and design experience, and ECSA level 3 supervision experience.

f) Structural or Civil Engineer x 1

The Engineer must be registered as a PrTech/Pr Eng with ECSA, have minimum qualification of a Diploma in Structural or Civil Engineering and at least 6 years of post-registration experience in construction projects. The Engineer must have experience working with the NEC suit of contracts and must have experience working in similar projects. The Engineer must have experience in HML concrete base designs, and ECSA level 3 supervision experience.

g) Draftsman x 1

The Draftsman must have a minimum in Diploma in Electrical or Civil Engineering and at least 6 years' experience in construction projects. The Draftsman must have experience working with the NEC suit of contracts and must have experience working in similar projects. The Draftsman must have experience in AutoCAD.

h) Site Supervisor (building and civil infrastructure)

The Site Supervisor must have a minimum of NTC 3/Grade 12 with at least 5 years of experience in engineering construction.

i) Planner

The planner should at least have an Engineering Diploma and a minimum of 5 years' experience working in engineering projects as planner.

The *Contractor* employs personnel listed above but not limited to those mentioned in order to perform the functions of key persons under NEC3 ECC Clause 24.1. These appointments shall have the necessary experience and be suitably qualified.

TRANSNET PORT TERMINAL

CONTRACT NUMBER: XXXX

DESCRIPTION OF THE WORKS: TERMINAL LIGHTING AT RICHARDS BAY PORT TARMINAL FOR TRANSNET SOC LTD (REG.NO 1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TOAS "TPT").



The *Contractor* provides an Organogram of all his key people (both as required by the *Employer* and as independently stated by the *Contractor* under Contract Data Part Two) and how such key people communicate with the *Project Manager* and the Supervisor and their delegates all as stated at paragraph 2.5 of C3.1 *Employer's Works Information*.

Contract change management

For ease of communication standard templates shall be used for contract change management. The *Contractor* forwards all correspondence with respect to contract change management, i.e. Early Warnings and notifications of Compensation Events, on the standard templates provided.

Records of Defined Cost, payments & assessments of compensation events kept by Contractor

The *Contractor* keeps the following records available for the *Project Manager* to inspect:

- a) Records of design employees location of work or professional engineers engaged by the *Contractor*
- b) Records of people and Equipment within the working areas
- c) Records of Equipment used and people employed outside the Working Areas
- d) Records of quotations, invoices and pay slips.



17 LIST OF ANNEXURES

All the annexures listed hereunder shall be deemed to form part of *The Works* Information.

Description / Discipline
Annexure A - Project Health and Safety Specification
Annexure B - CAD Standards
Annexure C - Contractor Environmental and Sustainable Specifications (TRN-IMS-GRP-GDL-014.4)
Annexure D - Standard Operating Procedure for Construction Environmental Management
Annexure E - DOC-STD-0001 Rev.03 <i>Contractor</i> Documentation Submittal Requirements
Annexure F - TPT Structural Steelwork EEAM-Q-006
Annexure G - TPT Corrosion Protection EAM-Q-008
Annexure H - TPT Quality Management EAM-Q-009
Annexure I - TIMS Policy Commitment Statement