Transnet Property

an Operating Division **TRANSNET SOC LTD**

[Registration Number 1990/000900/30]

REQUEST FOR PROPOSAL (RFP)

FOR THE: DECOMMISSION, DESIGN, SUPPLY, INSTALL, COMMISSIONING AND MAINTENANCE OF LIFTS & ESCALATORS AT CARLTON CENTRE FOR A PERIOD OF SEVENTY-TWO (72) MONTHS AS AND WHEN REUIRED

RFP NUMBER	**: TP/2026/05/0003/114444/RFP**
ISSUE DATE	**: 25 May 2026**
CLOSING DATE	**: 12 June 2026**
CLOSING TIME	**: 13:00 pm**
TENDER VALIDITY PERIOD	**: 12 weeks from closing date**

Contents

Number Heading

T1.1 TENDER NOTICE AND INVITATION TO TENDER

SECTION 1: NOTICE TO TENDERERS

1. INVITATION TO TENDER

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

DESCRIPTION	**REISSUE OF DECOMMISSION, DESIGN, SUPPLY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF LIFTS AND ESCALATORS AT CARLTON CENTRE FOR A PERIOD OF SEVENTY-TWO (72) MONTHS AS AND WHEN REQUIRED**
TENDER DOWNLOADING	**This Tender may be downloaded directly from the National Treasury eTender Publication Portal at www.etenders.gov.za and the Transnet website: https://transnetetenders.azurewebsites.net (please use Google Chrome to access Transnet link) FREE OF CHARGE.**

DEADLINE FOR ALL CLARIFICATION QUESTIONS:	*Scope Clarification Questions can be emailed to Zothile.Dilibo@transnet.net. On or before the:* ***08 June 2026 @ 16:00 (pm)***
COMPULSORY BRIEFING SESSION:	*No Briefing Session will be held*
CLOSING DATE:	***12 June 2026 @ 13:00 (pm)***

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) 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.

c) 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. Modify the RFx's Goods/Services and request Tenderers to re-bid on any such changes;

4.10. 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.

4.11. 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.

4.12. 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 [clause 12 on T2.2-08], [**Breach of Law**] whether or not they have been found guilty of a serious breach of law during the past 5 [five] years.

4.13. Transnet reserves the right to cancel the bid process.

4.14. Transnet reserves the right to award a contract for only a portion of the proposed Goods/Services which are reflected in the scope of this RFP;

4.15. Transnet reserves the right not to award more than 1 precinct/tender to 1 bidder to minimise risk of performance and payment issues;

4.16. Transnet reserves the right to split the award of the contract between more than one Supplier/Service provider, should it at Transnet's discretion be more advantageous in terms of, amongst others, cost or developmental considerations;

4.17. Transnet reserves the right to cancel the contract and/request that National Treasury place the Respondent on its Database of Restricted Suppliers for a period not exceeding 10 years, on the basis that a contract was awarded on the strength of incorrect information furnished by the Respondent or on any other basis recognised in law;

4.18. 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 returnable which are to be included in the contract.*

4.19. 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.

5. 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

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C1.1 Form of Offer & Acceptance

Offer

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

DECOMMISSION, DESIGN, SUPPLY, INSTALL, COMMISSIONING AND MAINTENANCE OF LIFTS & ESCALATORS AT CARLTON CENTRE FOR A PERIOD OF SEVENTY-TWO (72) MONTHS AS AND WHEN REQUIRED

The tenderer, identified in the Offer signature block, has

either	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.
or	examined the draft contract as listed in the Acceptance section and agreed to provide this Offer.

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: Service 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 of award.

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

.....
(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		

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

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

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

C1.2 Contract Data

Part one - Data provided by the *Employer*

Clause	Statement	Data
1	**General**	
	The *conditions of contract* are the core clauses and the clauses for main Option	
		A: Priced contract with Activity schedule
	dispute resolution Option	**W1: Dispute resolution procedure**
	and secondary Options	
		X2 Changes in the law
		X5: Sectional completion
		X7 Delay damages
		X16: Retention
		X17: Low performance damages
		X18: Limitation of liability
		Z: *Additional conditions of contract*
	of the NEC3 Engineering and Construction Contract June 2005 (amended June 2006 and April 2013)	
10.1	The *Employer* is:	Transnet SOC Ltd (Registration No. 1990/000900/30)

	Address	Registered address: Transnet Corporate Centre 138 Ellof Street Johannesburg 2001
	Having elected its Contractual Address for the purposes of this contract as:	Transnet Property 3rd Floor Carlton Centre 150 commissioner street Johannesburg 2001 Postal Address: P O Box 1048 Johannesburg South Africa 2000
10.1	The *Project Manager* is: (Name)	TBA
	Address	150 commissioner street Johannesburg 2001
	Tel	TBA
	e-mail	TBA
11.2(13)	The *works* are	Decommission of lifts & escalators, Design, Supply, Install, commissioning and Maintenance of Lifts and Escalators at Carlton Centre in Johannesburg - Gauteng
11.2(14)	The following matters will be included in the Risk Register	Service Level Performance Adherence & Compliance to OHS Act
11.2(15)	The *boundaries of the site* are	As stated in Part C4.1." Description of the Site and it surroundings"
11.2(16)	The Site Information is in	Part C4
11.2(19)	The Works Information is in	Part C3
12.2	The *law of the contract* is the law of	the Republic of South Africa subject to the jurisdiction of the Courts of South Africa.
13.1	The *language of this contract* is	English
13.3	The *period for reply* is	2 weeks
2	The *Contractor*'s main responsibilities	No additional data is required for this section of the *conditions of contract*.

3	Time	
11.2(3)	The *completion date* for the whole of the *works* is	TBC
30.1	The *access dates* are	Part of the Site TBA 1 Carton Centre
31.1	The *Contractor* is to submit a first programme for acceptance within	2 weeks of the Contract Date.
31.2	The *starting date* is	TBA
32.2	The *Contractor* submits revised programmes at intervals no longer than	2 weeks of the Contract Date.
4	Testing and Defects	
42.2	The *defects date* is	52 (fifty-two) weeks after Completion of the whole of the *works*.
43.2	The *defect correction period* is	2 weeks
5	Payment	
50.1	The *assessment interval* is monthly on the	25th (twenty fifth) day of each successive month.
51.1	The *currency of this contract* is the	South African Rand.
51.2	The period within which payments are made is	Payment will be 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 *interest rate* is	the prime lending rate of Standard Bank of South Africa.

6	Compensation events	
60.1(13)	The weather measurements to be recorded for each calendar month are,	**the cumulative rainfall (mm)** **the number of days with rainfall more than 10 mm the number of days with minimum air temperature less than 0 degrees Celsius the number of days with snow lying at 08:00 hours South African Time and these measurements: N/A**
	The place where weather is to be recorded (on the Site) is: The weather data are the records of past weather measurements for each calendar month which were recorded at: and which are available from:	**The Contractor's Site establishment area** **Johannesburg** **South African Weather Service 012 367 6023 or info3@weathersa.co.za.**
7	Title	No additional data is required for this section of the *conditions of contract*.
8	Risks and insurance	
80.1	These are additional *Employer*'s risks	None
84.1	The *Employer* provides these insurances from the Insurance Table	
	1 Insurance against:	Loss of or damage to the *works*, Plant and Materials is as stated in the Insurance policy for Contract Works/ Public Liability.
	Cover / indemnity:	to the extent as stated in the insurance policy for Contract Works / Public Liability
	The deductibles are:	as stated in the insurance policy for Contract Works / Public Liability
	2 Insurance against:	Loss of or damage to property (except the *works*, Plant and Materials & Equipment) and liability for bodily injury to or death of a person (not an employee of the *Contractor)* arising out of or in connection with the performance of the Contract as stated in the insurance policy for Contract Works / Public Liability

	Cover / indemnity	Is to the extent as stated in the insurance policy for Contract Works / Public Liability
	The deductibles are	as stated in the insurance policy for Contract Works / Public Liability
3	Insurance against:	Loss of or damage to Equipment (Temporary Works only) as stated in the insurance policy for contract Works and Public Liability
	Cover / indemnity	Is to the extent as stated in the insurance policy for Contract Works / Public Liability
	The deductibles are:	As stated in the insurance policy for Contract Works / Public Liability
4	Insurance against:	Contract Works SASRIA insurance subject to the terms, exceptions and conditions of the SASRIA coupon
	Cover / indemnity	Cover / indemnity is to the extent provided by the SASRIA coupon
	The deductibles are	The deductibles are, in respect of each and every theft claim, 0,1% of the contract value subject to a minimum of R2,500 and a maximum of R25,000.
	Note:	The deductibles for the insurance as stated above are listed in the document titled "Certificate of Insurance: Transnet (SOC) Limited Principal Controlled Insurance."

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

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

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

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

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

84.2	The minimum limit of indemnity for insurance in respect of loss of or damage to property (except the works, Plant, Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the *Contractor*) caused by activity in connection with this contract for any one event is	Whatever the *Contractor* requires in addition to the amount of insurance taken out by the *Employer* for the same risk.
84.2	The insurance against loss of or damage to the works, Plant and Materials as stated in the insurance policy for contract works and public liability selected from:	Principal Controlled Insurance policy for Contract OR Project Specific Insurance for the contract
9	Termination	There is no additional Contract Data required for this section of the *conditions of contract*.
10	Data for main Option clause	
A	Priced contract with Activity schedule	No additional data is required for this Option.
11	Data for Option W1	
W1.1	The *Adjudicator* is	Both parties will agree as and when a dispute arises. If the parties cannot reach an agreement on the *Adjudicator*, the Chairman of the Association of Arbitrators will appoint an *Adjudicator.*
W1.2(3)	The *Adjudicator nominating body* is:	The Chairman of the Association of Arbitrators (Southern Africa)
	If no *Adjudicator nominating body* is entered, it is:	the Association of Arbitrators (Southern Africa)
W1.4(2)	The *tribunal* is:	Arbitration
W1.4(5)	The *arbitration procedure* is	The Rules for the Conduct of Arbitrations of the Association of Arbitrators (Southern Africa)
	The place where arbitration is to be held is	Johannesburg Gauteng, South Africa

	The person or organisation who will choose an arbitrator - if the Parties cannot agree a choice or - if the arbitration procedure does not state who selects an arbitrator, is	The Chairman of the Association of Arbitrators (Southern Africa)
12	Data for secondary Option clauses	
X2	Changes in the law	No additional data is required for this Option
X5	Sectional completion	The Employer takes over upon completion of each section(phase)
X7.1	Delay damages for Completion of the whole of the *works* are	R1000. A day capped to 10% of the total contract value
X13	Performance bond	
X13.1	The amount of the performance bond is	5% of the total of the Prices
X16	Retention	
X16.1	The retention free amount is	Nil
	The retention percentage is	10% on all payments certified.
X17	Low Performance damages	Refer to C3.2 Service Level Agreement table of the Employer's Service Information
X18	Limitation of liability	

X18.1	The *Contractor*'s liability to the *Employer* for indirect or consequential loss is limited to:	The Total of the Prices The deductible of the relevant insurance policy
X18.2	For any one event, the *Contractor's* liability to the *Employer* for loss of or damage to the *Employer's* property is limited to:	The cost of correcting the Defect
X18.3	The *Contractor's* liability for Defects due to his design which are not listed on the Defects Certificate is limited to:	The Total of the Prices
X18.4	The *Contractor's* total liability to the *Employer* for all matters arising under or in connection with this contract, other than excluded matters, is limited to:	2 years after Completion of the whole of the *works*
X18.5	The *end of liability date* is	
Z	*Additional conditions of contract*	
Z.1	Additional clause relating to Performance Bonds and/or Guarantees	
Z1.1		The Performance Guarantee under X13 above shall be an irrevocable, on-demand performance guarantee, to be issued exactly in the form of the Pro Forma documents provided for this purpose under C1.3 (Forms of Securities), in favour of the Employer by a financial institution reasonably acceptable to the Employer.
Z2	**Obligations in respect of Supplier Development Programme (SDP)**	

Z2.1		As a general rule, Transnet must ensure that where opportunities for empowerment are identified and feasible to apply. Each bidder interested in participating in this tender should be cognisant that it is a condition of contract the winning bidder will be required to contract with Transnet on one or more of the following transformation initiatives: ➢Subcontracting ➢Job creation and preservation and ➢Skills Development
Z2.2		The bidder will be required to sub-contract a minimum of 30%, Create Job opportunities of the total value of the contract. On 28 April 2023, the Construction Industry Development Board gazette the best practice standard for Developing Skills through Infrastructure Contracts. These standard mandates construction companies to spend a percentage of the contract value to developing skills development. For this transaction, the following skills development initiatives should be undertaken by the contractor:
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;** **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.** **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)

Z4.2	Termination table	The following will be included under core clause 90.2 Termination Table as follows: Amend a reason other than R1- R21 to a reason than R1- R21
Z4.3		Amend a reason R1- R15 -R18, or R1- R15 -R, R18, R22,R23 (Refer to C3.2 Service Level Agreement table of the Employer's Service Information)
Z5	**Right Reserved by the Employer to Conduct Vetting through SSA**	
Z5.1		**The Employer reserves the right to conduct vetting through State Security Agency (SSA) for security clearances of any Contractor who has access to National Key Points for the following without limitations:** **1. Confidential – this clearance is based on any information which may be used by malicious, opposing or hostile elements to harm the objectives and functions of an organ of state.** **2. Secret – clearance is based on any information which may be used by malicious, opposing or hostile elements to disrupt the objectives and functions of an organ of state.** **3. Top Secret – this clearance is based on information which may be used by malicious, opposing or hostile elements to neutralise the objectives and functions of an organ of state.**
Z7	**Additional Clause Relating to Collusion in the Construction Industry**	**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.**

Z8	**Protection of Personal Information Act**	**The *Employer* and the *Contractor* are required to process information obtained for the duration of the Agreement in a manner that is aligned to the Protection of Personal Information Act.**

C1.2 Contract Data

Part two - Data provided by the *Contractor*

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

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

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

		CV's (and further key persons data including CVs) are appended to Tender Schedule entitled .
11.2(14)	The following matters will be included in the Risk Register	**Not applicable**
31.1	The programme identified in the Contract Data is	**Not applicable**
A	**Activity Schedule**	
11.2(21)	The Activity schedule is in	**C2.1 Pricing Data**
11.2(31)	The tendered total of the Prices is	(in figures) (in words), excluding VAT

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 *Employer* is	**Transnet SOC Ltd** **(Reg No. 1990/000900/30)**
C.1.2	The tender documents issued by the *Employer* comprise:	
	Part T: The Tender	
	Part T1: Tendering procedures	T1.1 Tender notice and invitation to tender T1.2 Tender data
	Part T2: Returnable documents	T2.1 List of returnable documents T2.2 Returnable schedules
	Part C: The contract	
	Part C1: Agreements and contract data	C1.1 Form of offer and acceptance C1.2 Contract data (Part 1 & 2)
	Part C2: Pricing data	C2.1 Pricing instructions/Pricing Assumptions C2.2 Price List

	Part C3: Scope of work	C3.1 Service Information
	Part C4: Technical Specification	C4.1 Technical Specification
C.1.4	The Employer's agent is:	Senior Buyer
	Name:	Zothile Dilibo
	Address:	150 Commissioner Street, Johannesburg
	Tel No.	N/A
	E – mail	Zothile.Dilibo@transnet.net

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

1. Stage One - Eligibility in terms of the Construction Industry Development Board: (Mandatory)

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 **8SI 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 **8SI or higher** class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations
4. The tenderer shall provide a certified copy of its signed joint venture agreement.

2. Stage Two - OEM / OEM Authorisation Certificate:

The Bidder is to provide proof that they are an Original Equipment Manufacturer (OEM). In the event that the bidder is not an OEM, the bidder must submit a letter (letterhead of the OEM) from an authorised OEM confirming the bidder's status as an Authorised distributor and outlining the terms and conditions of licensing agreement, for the parts and material to be procured under this contract or OEM Certificate**.**

Failure to Submit any of the above mandatory returnable documents will result to a bid disqualification

3. Stage Three - Functionality: (Attached as Annexure A)

Functionality criteria	**Maximum number of points**
1. Company Previous Experience	**20**
2. Management and CVs of Key Persons	**25**
3. Project Plan	**15**
4. Method Statement	**20**
5. Health and Safety Requirement for Lifts and Escalators	**20**
Maximum possible score for Functionality	**100**

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 eligibility 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.

C.2.12	No alternative tender offers will be considered.
C.2.13.3	Each tender offer shall be in the **English Language.**
C.2.13.5 C2.15.1	The *Employer*'s details and identification details that are to be shown on each tender offer package are as follows: Identification details: The tender documents must be uploaded with: ▪ Name of Tenderer: (insert company name) ▪ Contact person and details: (insert details) ▪ The Tender Number: ▪ The Tender Description Documents must be marked for the attention of: ***Employer*'s Agent:**
C.2.13.9	Telephonic, telegraphic, facsimile or e-mailed tender offers will not be accepted.
C.2.15	The closing time for submission of tender offers is: *As per system Generated date* Location: The Transnet e-Tender Submission Portal: (https://transnetetenders.azurewebsites.net); new site: https://esupplierportal.transnet.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 line with the code of good practice, together with the tender; 3. A valid CIDB certificate in the correct designated grading – 8SI or higher. 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.

6. OEM Certificate or OEM Authorisation Certificate

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:

Functionality shall be scored independently by not less than 2 (two) evaluators and averaged in accordance with the following schedules:

- Company Experience
- Management and CV of Key Personnel
- Project Plan
- Method Statement
- Health and Safety Requirement for Lifts and Escalators

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

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.

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

Thresholds	Minimum Threshold
Technical / functionality	70

Evaluation Criteria	Final Weighted Scores
Price and Total Cost of Ownership	90
B-BBEE Level of contributor – Level 1 or 2 – **5** points + 30% Subcontracting to EMEs and QSEs 51% (Black Owned) – **5** points	10
TOTAL SCORE:	**100**

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 (90/10)
B-BBEE Level of contributor – Level 1 or 2	5
30% Subcontracting to EMEs and QSEs 51% (Black Owned)	5

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 Level 1 or 2	B-BBEE Certificate / Sworn-Affidavit B-BBEE Certificate (in case of JV, a consolidate scorecard will be accept) as per DTIC guidelines
30% Subcontracting to EMEs and QSEs 51% (Black Owned)	Sub-contracting agreements and Declaration / Joint Venture Agreement and CIPC B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate as per DTIC guideline

The maximum points for this bid are allocated as follows:

DISCRIPTION	POINTS
PRICE	**90**
B-BBEE STATUS LEVEL OF CONTRIBUTION B-BBEE Level of contributor – Level 1 or 2 – **5 points**	**10**
30% Subcontracting to EMEs and QSEs 51% (Black Owned) **5 points**	
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) is not undergoing a process of being restricted by Transnet or other state institution that Transnet may be aware of,
   c) 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,
   d) has the legal capacity to enter into the contract,
   e) 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,
   f) complies with the legal requirements, if any, stated in the tender data and
   g) 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 These schedules are required for pre-qualification (mandatory) and eligibility purposes:

T2.2-01 **Stage One as per CIDB: Eligibility Criteria Schedule -** CIDB Registration of **8SI** or higher class of construction work

Stage Two – OEM / OEM Authorisation Certificate - The Bidder is to provide proof that they are an Original Equipment Manufacturer (OEM) in the Lifts and Escalator industry. In the event that the bidder is not an OEM, the bidder must submit a letter (letterhead of the OEM) from an authorised OEM confirming the bidder's status as an OEM distributor and outlining the terms and conditions of licensing agreement, for the parts and material to be procured under this contract.

Failure to Submit any of the above will result in a bid disqualification

Stage Three: These schedules will be utilised for Functionality evaluation purposes: (Detailed Evaluation Criteria Attached on Annexure A)

- Company Previous Experience
- Management and CVs of Key Personnel
- Project Plan
- Method Statement
- Health and Safety requirement

2.2 Returnable Schedules:

General:

T2.2-02 Authority to submit tender
T2.2-03 Record of addenda to tender documents
T2.2 04 Three year audited Financial Statements

Agreement and Commitment by Tenderer:

T2.2-05: CIDB SFU ANNEX G Compulsory Enterprise Questionnaire
T2.2-06 Non-Disclosure Agreement
T2.2-07 RFP Declaration Form
T2.2-08 RFP – Breach of Law
T2.2-09 Certificate of Acquaintance with Tender Document
T2.2-10 Service Provider Integrity Pact
T2.2-11 Supplier Code of Conduct
T2.2-12 Agreement in terms of Protection of Personal Information Act, 4 of 2013 ("POPIA")

T2.2-13 Domestic Prominent Influential Persons (DPIP) Or Foreign Prominent Public Officials (FPPO)

T2.2.14 Job Creation Schedule

C1.1 Offer portion of Form of Offer & Acceptance

C1.2 Contract Data

C2.1 Pricing Instructions

C2.2 Activity Schedule

C2.3 Labour Rates

C2.4 Price Rates

C3.1 Scope of Work

T2.2-01: 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 **8SI or higher** class of construction works, 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 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 **8SI or higher** class of construction works 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.

T2.2-01: Eligibility Criteria Schedule - CIDB Grading Designation

Note to tenderers: (Mandatory Returnable)

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 **8SI or higher** class of construction works, are eligible to have their tenders evaluated.

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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 **8SI or higher** class of construction works 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.

T2.2-01.1 OEM Certificate or OEM Authorisation Certificate for Lifts and Escalators (Mandatory Returnable)

Attached to this schedule is the OEM Certificate or OEM Authorization Certificate.

1.

2.

3.

4.

Name of Company/Members of Joint Venture:

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

T2.2-02: 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

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

T2.2-03: 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		

T2.2-04: 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:

……

……

……

……

……

……

……

T2.2-05 : 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.

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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 B-BBEE Level of contributor – Level 1 – **5** points 30% Subcontracting to EMEs and QSEs 51% (Black Owned) **5** points	**10**
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-BBBEE status level certificate issued by an authorised body or person;

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

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

(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

$$Ps = 90\left(1 - \frac{Pt - P\min}{P\min}\right)$$

Where

Ps = Points scored for comparative price of bid under consideration

Pt = Comparative price of bid under consideration

Pmin = Comparative price of lowest acceptable bid

4. EVEDINCE 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
30% Black Women Owned Entities	B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guideline
+50% Black Youth Owned Entities	Certified copy of ID Documents of the Owners and B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guideline
Entities Owned by People with Disability (PWD)	Certified copy of ID Documents of the Owners / Doctor's note and /or EEA1 form confirming the disability
Entities/Black People living in rural areas	Entity 's Municipal/ESKOM bill or letter from Induna/chief confirming residential address not older than 3 months.
South African Enterprises	CIPC Certificate
EME or QSE 51% Black Owned	B-BBEE Certificate / Sworn-Affidavit / CIPC Certificate
Entities that are 51 % Black Owned	CI B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guideline
Promoting exports Orientated for Job creation	Section……Job Creation Schedule Returnable documents
Local Content and Local Production	Returnable Local Content and production Annexures
NIPP	NIPP Returnable documents
Creation of new jobs and labour intensification	Section……Job Creation Schedule Returnable documents
The promotion of supplier development through sub-contracting or JV for a minimum of 30% of the value of a contract to South African Companies which are: I. 30% Black Women, 51% Black Youth and 51% Black people with disabilities II. Entities with a specified minimum B-BBEE level (1 and 2) III. EMEs and/or QSEs who are 51% black-owned	Sub-contracting agreements and Declaration / Joint Venture Agreement and CIPC – B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate as per DTIC guideline
The promotion of enterprises located in a specific province/region/municipal area for work to be done or services to be rendered in that province/region/municipal area	CIPC – B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guidelines and Proof Registered address of entity

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

Enterprise	**B-BBEE Certificate & Sworn Affidavit**
Large	Certificate issued by SANAS accredited verification agency
QSE	Certificate issued by SANAS accredited verification agency

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

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

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

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

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

4.7 Bidders are to note that the rules pertaining to B-BBEE verification and other B-BBEE requirements may be changed from time to time by 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 10 points)

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

7. SUB-CONTRACTING

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

(***Tick applicable box***)

YES		NO	

7.1.1 If yes, indicate:

[1] In terms of the Implementation Guide: Preferential Procurement Regulations, 2017, Version 2, paragraph 11.11 provides that in the Transport Sector, EMEs can provide a letter from accounting officer or get verified and be issued with a B-BBEE certificate by SANAS accredited professional or agency as the Transport Sector Code has not been aligned to the generic Codes. EMEs in the Transport Sector are not allowed to provide a sworn affidavit as the generic codes are not applicable to them.

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 Supplier/Service provider
- ☐ Other Suppliers/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.

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

SBD4

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:

.....

.....

2.3 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] 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.

2.3.1 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 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

[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.

APPENDIX B

Affidavit or Solemn Declaration as to VAT registration status

Affidavit or Solemn Declaration

I,_____solemnly swear/declare that_____is not a registered VAT vendor and is not required to register as a VAT vendor because the combined value of taxable suppliesmade by the provider in any 12 month period has not exceeded or is not expected to exceed R1millionthreshold, as required in terms of the Value Added Tax Act.

Signature:

Designation:

Date:

Commissioner of Oaths

Thus signed and sworn to before me at_____on this the _____ day of_____20_____,

the Deponent having knowledge that he/she knows and understands the contents of this Affidavit, and that he/she has no objection to taking the prescribed oath, which he/she regards binding on his/her conscience and that the allegations herein contained are all true and correct.

Commissioner of Oath

VENDOR REGISTRATION DOCUMENTS CHECKLIST

	Yes	No
1. Complete the "Supplier Code of Conduct" (SCC).		
2. Copy of letter from the bank verifying banking details (with **bank stamp not older than 3 Months & sign by Bank Teller**).		
3. Certified (**Not Older than 3 Months**) copy of Identity document of Shareholders/Directors/Members (where applicable).		
4. Certified copy of certificate of incorporation, CM29 / CM9 (name change).		
5. Certified copy of share Certificates of Shareholders, CK1 / CK2 (if CC).		
6. A letter with the company's letterhead confirming both **Physical** and **Postal** address.		
7. Original or certified copy of SARS Tax Clearance certificate and Vat registration certificate.		
8. BBBEE certificate and detailed scorecard from a **SANAS** Accredited Verification Agency and/or Sworn Certified Affidavit.		
9. Central Supplier Database (CSD) Summary Registration Report.		

T2.2-06 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	.....		

T2.2-07: 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 T2.2-10 "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.

T2.2-08: 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

T2.2-09 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

T2.2-10 Service Provider Integrity Pact

Important Note: All potential tenderers must read this document and certify in the RFP Declaration Form that they 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 ……..

T2.2-11 : 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

T2.2-12 Agreement in terms of Protection of Personal Information Act, 4 of 2013 ("POPIA")

1. PREAMBLE AND INTRODUCTION

1.1. The rights and obligation of the Parties in terms of the Protection of Personal Information Act, 4 of 2013 ("POPIA") are included as forming part of the terms and conditions of this contract.

2. PROTECTION OF PERSONAL INFORMATION

2.1. The following terms shall bear the same meaning as contemplated in Section 1 of the Protection of Person information act, No. of 2013 "(POPIA"):

consent; data subject; electronic communication; information officer; operator; person; personal information; processing; record; Regulator; responsible party; special information; as well as any terms derived from these terms.

2.2. The Operator will process all information by the Transnet in terms of the requirements contemplated in Section 4(1) of the POPIA:

Accountability; Processing limitation; Purpose specification; Further processing limitation; Information quality; Openness; Security safeguards and Data subject participation.

2.3. The Parties acknowledge and agree that, in relation to personal information of Transnet and the information of a third party that will be processed pursuant to this Agreement , the Operator is (... insert name of Tenderer/Contractor) hereinafter Operator and the Data subject is "Transnet". Operator will process personal information only with the knowledge and authorisation of Transnet and will treat personal information and the information of a third party which comes to its knowledge as confidential and will not disclose it, unless so required by law or subject to the exceptions contained in the POPIA.

2.4. Transnet reserves all the rights afforded to it by the POPIA in the processing of any of its information as contained in this Agreement and the Operator is required to comply with all prescripts as detailed in the POPIA relating to all information concerning Transnet.

2.5. In terms of this Agreement, the Operator acknowledges that it will obtain and have access to personal information of Transnet and the information of a third party and agrees that it shall only process the information disclosed by Transnet in terms of this Agreement and only for the purposes as detailed in this Agreement and in accordance with any applicable law.

2.6. Should there be a need for the Operator to process the personal information and the information of a third party in a way that is not agreed to in this Agreement, the Operator must request consent

from Transnet to the processing of its personal information or and the information of a third party in a manner other than that it was collected for, which consent cannot be unreasonably withheld.

2.7. Furthermore, the Operator will not otherwise modify, amend or alter any personal information and the information of a third party submitted by Transnet or disclose or permit the disclosure of any personal information and the information of a third party to any third party without prior written consent from Transnet.

2.8. The Operator shall, at all times, ensure compliance with any applicable laws put in place and maintain sufficient measures, policies and systems to manage and secure against all forms of risks to any information that may be shared or accessed pursuant to the services offered to Transnet in terms of this Agreement (physically, through a computer or any other form of electronic communication).

2.9. The Operator shall notify Transnet in writing of any unauthorised access to personal information and the information of a third party , cybercrimes or suspected cybercrimes, in its knowledge and report such crimes or suspected crimes to the relevant authorities in accordance with applicable laws, after becoming aware of such crimes or suspected crime. The Operator must inform Transnet of the breach as soon as it has occurred to allow Transnet to take all necessary remedial steps to mitigate the extent of the loss or compromise of personal information and the information of a third party and to restore the integrity of the affected personal information as quickly as is possible.

2.10. Transnet may, in writing, request the Operator to confirm and/or make available any personal information and the information of a third party in its possession in relation to Transnet and if such personal information has been accessed by third parties and the identity thereof in terms of the POPIA.

2.11. Transnet may further request that the Operator correct, delete, destroy, withdraw consent or object to the processing of any personal information and the information of a third party relating to the Transnet or a third party in the Operator's s possession in terms of the provision of the POPIA and utilizing Form 2 of the POPIA Regulations .

2.12. In signing this addendum that is in terms of the POPIA, the Operator hereby agrees that it has adequate measures in place to provide protection of the personal information and the information of a third party given to it by Transnet in line with the 8 conditions of the POPIA and that it will provide to Transnet satisfactory evidence of these measures whenever called upon to do so by Transnet.

The Operator is required to provide confirmation that all measures in terms of the POPIA are in place when processing personal information and the information of a third party received from Transnet:

YES		NO	

2.13. Further, the Operator acknowledges that it will be held liable by Transnet should it fail to process personal information in line with the requirements of the POPIA. The Operator will be subject to any civil or criminal action, administrative fines or other penalty or loss that may arise as a result of the processing of any personal information that Transnet submitted to it.

2.14. Should a Tenderer have any complaints or objections to processing of its personal information, by Transnet, the Tenderer can submit a complaint to the Information Regulator on https://www.justice.gov.za/inforeg/, click on contact us, click on complaints.IR@justice.gov.za

3. SOLE AGREEMENT

3.1. The Agreement, constitute the sole agreement between the parties relating to the subject matter referred to in paragraph 1.1 of this and no amendment/variation/change shall be of any force and effect unless reduced to writing and signed by or on behalf of both parties.

Signed at _____ on this _____day of _____ 2021

Name: _____

Title: _____

Signature: _____

(Company)

Authorised signatory for and on behalf of .....who warrants that he/she is duly authorised to sign this Agreement.

AS WITNESSES:

1. Name: _____ Signature: _____

2. Name: _____ Signature: _____

T2.2-13: JOB-CREATION SCHEDULE

(Please ensure that you return this schedule with your bid submission)

The Government has identified State Owned Enterprises sourcing activities as a key enabler to achieve the National Development Plan (NDP) objective of reducing unemployment from the current baseline of 28% to 6%. In order to give effect to these job creation objectives, Respondents are required to provide the following undertaking of new jobs that will be created (either by them or by their subcontractors) should they be awarded this bid.

Note that this undertaking is not required if a NIPP obligation is applicable to a Respondent's bid as indicated in Section ..... . **Respondents are required to indicate below whether the NIPP obligation is applicable to their bid:**

YES		**NO**	

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

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

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

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

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

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

(d) Please indicate the number of new jobs to be created, broken down per quarter over the term of the contract.

Year 1	**Q1**	**Q2**	**Q3**	**Q4**
Total number of new jobs				
Number of new jobs for Black men				
Number of new jobs for black women				
Number of new jobs for black youth				
Number of new jobs for black people living in rural or underdeveloped areas or townships				
Number of new jobs for black People with Disabilities				
Number of new jobs for other categories				
Number of new skilled jobs				
Number of new semi-skilled jobs				
Number of new unskilled jobs				

Year 2	**Q1**	**Q2**	**Q3**	**Q4**
Total number of new jobs				
Number of new jobs for Black men				
Number of new jobs for black women				
Number of new jobs for black youth				
Number of new jobs for black people living in rural or underdeveloped areas or townships				
Number of new jobs for black People with Disabilities				
Number of new jobs for other categories				
Number of new skilled jobs				
Number of new semi-skilled jobs				
Number of new unskilled jobs				

Year 3	**Q1**	**Q2**	**Q3**	**Q4**
Total number of new jobs				
Number of new jobs for Black men				
Number of new jobs for black women				
Number of new jobs for black youth				
Number of new jobs for black people living in rural or underdeveloped areas or townships				
Number of new jobs for black People with Disabilities				
Number of new jobs for other categories				

Number of new skilled jobs				
Number of new semi-skilled jobs				
Number of new unskilled jobs				

Year 4	**Q1**	**Q2**	**Q3**	**Q4**
Total number of new jobs				
Number of new jobs for Black men				
Number of new jobs for black women				
Number of new jobs for black youth				
Number of new jobs for black people living in rural or underdeveloped areas or townships				
Number of new jobs for black People with Disabilities				
Number of new jobs for other categories				
Number of new skilled jobs				
Number of new semi-skilled jobs				
Number of new unskilled jobs				

Year 5	**Q1**	**Q2**	**Q3**	**Q4**
Total number of new jobs				
Number of new jobs for Black men				
Number of new jobs for black women				
Number of new jobs for black youth				
Number of new jobs for black people living in rural or underdeveloped areas or townships				
Number of new jobs for black People with Disabilities				
Number of new jobs for other categories				
Number of new skilled jobs				
Number of new semi-skilled jobs				
Number of new unskilled jobs				

Year 6	**Q1**	**Q2**	**Q3**	**Q4**
Total number of new jobs				
Number of new jobs for Black men				
Number of new jobs for black women				
Number of new jobs for black youth				
Number of new jobs for black people living in rural or underdeveloped areas or townships				

Number of new jobs for black People with Disabilities				
Number of new jobs for other categories				
Number of new skilled jobs				
Number of new semi-skilled jobs				
Number of new unskilled jobs				

Year 7	**Q1**	**Q2**	**Q3**	**Q4**
Total number of new jobs				
Number of new jobs for Black men				
Number of new jobs for black women				
Number of new jobs for black youth				
Number of new jobs for black people living in rural or underdeveloped areas or townships				
Number of new jobs for black People with Disabilities				
Number of new jobs for other categories				
Number of new skilled jobs				
Number of new semi-skilled jobs				
Number of new unskilled jobs				

ANNEXURE A: TECHNICAL EVALUATION CRITERIA

EVALUATION CRITERIA

Gatekeepers (Mandatory)

1. **CIDB 8SI** Grade or higher
2. **OEM certificate or OEM authorisation certificate.** The Bidder is to provide proof that they are an Original Equipment Manufacturer (OEM). In the event that the bidder is not an OEM, the bidder must submit a letter (letterhead of the OEM) from an authorised OEM confirming the bidder's status as an OEM distributor and outlining the terms and conditions of licensing agreement, for the parts and material to be procured under this contract.

All above requirements are mandatory. Bidders who fail to submit all documents shall be immediately disqualified.

The minimum qualifying score for technical evaluation is **70 points.**

Evaluation Criteria	**Weighting**	**Sub-Criteria Points**	**Maximum number of points**
Company Previous Experience: Bidders must demonstrate their experience in delivering similar experience in the past 10 years, including the replacement of lifts and escalators. • Proof of experience attached in the form of client letterhead • Completion certificates with contacts details, project title and work description • Work done as the main Contractor or Sub-contractor is permitted.	No evidence provided or Provided 1 to 2 similar projects submission	0	20
	Bidder has successfully completed 3 similar Project	5	
	Bidder has successfully completed 4 similar Projects	10	
	Bidder has successfully completed 5 similar Projects	15	
	Bidder has successfully completed 6 or more similar Projects	20	
Management and CVs of Key Personnel: The bidder must submit CVs, qualifications, and professional registration	**Mechanical**		
	No Previous Experience submitted/irrelevant experience submitted	0	
	CV with minimum 8 years of experience in lift and escalators	5	

certificates demonstrating practical experience of more than 8 years of all the key personnel. The submission should include the following key resources: 1. Mechanical Technologist/Engineer (Pr Tech or Pr Eng) Minimum qualification National Diploma or Higher in Mechanical Engineering, CV, valid certificate of professional registration with ECSA & SACPCMP. Lift and escalator design, installation, and maintenance experience 2. Lift Inspector Minimum qualification NQF level 5 qualification, CV demonstrating experience with similar scope and registered with ECSA as a Registered Lift Inspector with practical experience in the installation, maintenance and testing of lifts & escalators post professional registration. Accredited with SANAS. 3. Structural Technologist/Engineer (Pr Tech/Pr Eng) Minimum qualification National Diploma or higher in structural engineering, CV, certificate of professional registration with ECSA and Professional Indemnity insurance, structural assessment, design and compliance experience related to lift and escalator design and installation.	Professional registration ECSA Professional registration SACPCMP		25
	Lift inspector		
	No Previous Experience submitted/irrelevant experience submitted	0	
	CV with minimum 8 years of experience in lift and escalators Professional registration ECSA Accredited with SANAS	5	
	Structural engineer		
	No Previous Experience submitted/irrelevant experience submitted	0	
	CV with minimum 8 years of experience in lift and escalators Professional registration ECSA Professional Indemnity insurance	5	
	Safety officer		
	No Previous Experience submitted/irrelevant experience submitted	0	
	CV with minimum 8 years of experience in Health and safety Professional registration SACPCMP	5	
	Lift mechanic		
	No Previous Experience submitted/irrelevant experience submitted	0	
	CV with minimum 8 years of experience in lift and escalators Trade test certificate Appointment letter (signed by 16.2 appointee)	5	

4. Safety officer Minimum qualification National Diploma or Higher in Occupational Health and Safety, CV and registered with SACPCMP (South African Institute of Occupational Safety and Health) with practical experience in health and safety 5. Lift mechanic Minimum qualification NQF level 5 in Mechanical or Electrical Engineering, CV with trade test certificate as a Lift mechanic with practical experience in the installation, maintenance and testing of lifts & escalators with appointment letter.			
Project plan: Project plan/schedule to indicate all activities that will be undertaken for the implementation stage of the project (in the form of a Gantt chart). The project is anticipated to be completed within 72 months and must include the following critical key elements: 1. Timelines and schedules (with start and finish date) 2. Work breakdown	No submission or Gantt chart at level 1	0	15
	Project plan covers all 5 key elements in how the contractor will execute the activities that will be undertaken for the implementation stage of the project in line with the project scope and deliverables. Gantt chart at level 2	5	
	Project plan covers all 5 key elements in how the contractor will execute the activities that will be undertaken for the implementation stage of the project in line with the project scope and deliverables. Gantt chart at level 3	10	

3. Milestones (highlighting important stages or phases) 4. Task dependencies and sequence. 5. Resource plan	Project plan covers all 5 key elements in how the contractor will execute the activities that will be undertaken for the implementation stage of the project in line with the project scope and deliverables. Gantt chart at level 4	15	
Method Statement: Bidder to provide a proposal demonstrating ability to deliver a service with completeness and quality in consideration of but not limited to the following: 1. Sequence of work (i.e., Site assessment, Hoarding & Signage, & service isolation 2. Resources allocation (i.e., RACI (Responsibilities, Accountable, Consulted, Informed) Matrix, Tools, Plant & equipment 3. Quality and Assurance (i.e., Quality Control Plan (QCP), Inspection and Test Plan (ITP), valid ISO certificate, Project closure & Handover & records) 4. Transportation and delivery (i.e., Transport escalators & Lift, offload & Barricade) 5. Project team organogram	No submission	0	20
	Method statement covers all 5 key elements on how the contractor will execute the lift and escalator replacement. **Not signed by the Project Technician**	5	
	Method statement covers all 5 key elements on how the contractor will execute the lift and escalator replacement. **Signed by the Project Technician**	10	
	Method statement covers all 5 key elements on how the contractor will execute the lift and escalator replacement. **Signed by the Project Technician and Project manager**	15	
	Method statement covers all 5 key elements on how the contractor will execute the lift and escalator replacement. **Signed by the Project Technician, Project Manager and Engineer**	20	
Health and Safety: Bidders are to provide the health & safety plan and 9 key elements: **Health and safety plan authorized by an official Health and Safety officer/manager**	No submission of the health and safety plan or submitted key elements that are less than **2**	0	20
	The bidder has submitted a health and safety plan and covered **3** or **4** of the key elements that demonstrate the contractor's commitment to health and safety and ensure compliance with the stated employer's work information.	5	

for a lift & escalator replacement. **<u>and</u>** **9 Key elements as follows:** 1. Legal and Insurance Compliance • COIDA - Nature of Business must Include Installation, Maintenance and Repairs of Elevators. • Valid letter of good standing • Public liability insurance for the company 2. SHE Management System • Safety, Health & Environmental Policies. • Project -specific SHE system overview 3. Roles and Responsibilities • legal appointments. • Safety Officer CV, duties and accountability. 4. Risk assessment must cover the following: • physical, electrical, mechanical, environmental, and ergonomic risks and hazards associated with lift and escalator work. 5. SHE Incidents: • Last 6 months SHE incidents • Types, Causes, Corrective actions.	The bidder has submitted a health and safety plan and covered **5** or **6** of the key elements that demonstrate the contractor's commitment to health and safety and ensure compliance with the stated employer's work information.	10	
	The bidder has submitted a health and safety plan and covered **7** or **8** of the key elements that demonstrate the contractor's commitment to health and safety and ensure compliance with the stated employer's work information.	15	
	The bidder has submitted the Health and Safety Plan, which includes all **9** key elements that demonstrate their commitment to health and safety and ensure compliance with the stated employer's works information.	20	

6. Legal Compliance Framework: • OHS Appointments • Fall protection plan • Proof of Training records 7. Safe Work Procedures must include: • Working in lifts shafts • Lockout/tagout (LOTO) • Working at height • Material handling • Housekeeping 8. Emergency Preparedness Must address the following: • Lift entrapment • Fire • Medical emergencies • Electrical shock • Falls. 9. Health and environmental Management Requirements: • Annexure 3 documents which indicates fitness for work, heights and confined spaces, • substance abuse policies. • Waste management Plan			
Total			100

ANNEXURE B – PRICING DATA

PART 2: PRICING DATA

Document reference	Title	No of pages
C2.1	Pricing instructions: Option A	
C2.2	Activity Schedule	
C2.3	Labour Rates	
C2.4	Price Rates	

C2.1 Pricing Instructions: Option A

1. The *conditions of contract*

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

Clause 11 in NEC3 Engineering and Construction Contract, June 2005, (with amendments June 2006 and April 2013) (ECC) Option A states:

Identified and defined terms

11

11.2 (20) The Activity Schedule is the *activity schedule* unless later changed in accordance with this contract.

(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.

(27) The Price for Work Done to Date is the total of the Prices for

- each group of completed activities and
- each completed activity which is not in a group

A completed activity is one which is without Defects which would either delay or be covered by immediately following work.

(30) The Prices are the lump sums for each of the activities on the Activity Schedule unless later changed in accordance with this contract.

1.2. Measurement and Payment

1.2.1 The Activity Schedule provides the basis of all valuations of the Price for Work Done to Date, payments in multiple currencies, price adjustments for inflation and general progress monitoring.

1.2.2 The amount due at each assessment date is based on **completed activities and/or milestones** as indicated on the Activity Schedule.

1.2.3 The Activity Schedule work breakdown structure provided by the *Contractor* is based on the Activity Schedule provided by the *Employer*. The activities listed by the *Employer* are the minimum activities acceptable and identify the specific activities which are required to achieve Completion. The activity schedule work breakdown structure is compiled to the satisfaction of the *Project Manager* with any additions and/or amendments deemed necessary.

1.2.4 The *Contractor's* detailed Activity Schedule summates back to the Activity Schedule provided by the *Employer* and is in sufficient detail to monitor completion of activities related to the Accepted Programme in order that payment of completed activities may be assessed.

1.2.5 The short descriptions in the Activity Schedule are for identification purposes only. All work described in the Works Information is deemed included in the activities.

1.2.6 The Activity Schedule is integrated with the Prices, Accepted Programme and where required the forecast rate of payment schedule.

1.2.7 Activities in multiple currencies are separately identified on both the Activity Schedule and the Accepted Programme for each currency.

1.2.8 The tendered total of the prices as stated in the Contract Data is obtained from the Activity Schedule summary. The tendered total of the prices includes for all direct and indirect costs, overheads, profits, risks, liabilities and obligations relative to the Contract.

C2.2 Activity Schedule

The Tenderer details his Activity Schedule below or makes reference to his Activity Schedule and attaches it to this schedule.

The details given below serve as guidelines only and the Tenderer may split or combine the activities to suit his particular methods.

Section A (Preliminaries and General)

Activity No	Activity Description	Unit	Rate (Rands)	Quantity	Price of each activity
1.	Preliminary & General Costs				
1.1	– Site Establishment	Sum	R	1	R
1.2	– Removal of Contractor's establishment on completion	Sum	R	1	R
1.3	– Occupational Health and Safety	Sum	R	1	R
1.4	– Mobilisation costs	Sum	R	1	R
Sub-Total A: Preliminaries and General					**R**

All amounts to entered exclusive of VAT

Section B (Provisional Sum)

Activity No	Activity Description	Unit	Rate (Rands)	Quantity	Price of each activity
2.	Professional fees:				
1.5	– Structural (site assessment, concept design & detail design)	Sum	R	1	R
1.6	– Mechanical & Electrical (site assessment, concept design & detail design)	Sum	R	1	R
1.7	– Architectural	Sum	R	1	R
3.	Structural strengthening	Sum	R	1	R
4.	Slab and beam modification	Sum	R	1	R
5.	Temporary staircase	Sum	R	1	R
6.	Dust screens/hoarding	Sum	R	1	R
7.	Night shift allowance	Sum	R	1	R
8.	As-built drawings	Sum	R	1	R
9.	Allowance for power upgrades	Sum	R	1	R
10.	New cabling	Sum	R	1	R
11.	Switchgear modifications	Sum	R	1	R
12.	UPS/backup integration	Sum	R	1	R
13.	Integration of new lifts to existing lifts	Sum	R	1	R
14.	Fire recall, evacuation, and communication systems	Sum	R	1	R
15.	Full testing with Fire Department and Building Management System (BMS).	Sum	R	1	R
Sub-Total B: Provisional Sum					**R**

Section C (Replacement of Lifts and Escalators)

Activity No	Activity Description	Unit	Rate (Rands)	Quantity	Price of each activity
16.	Electrical Lifts (021) Fireman's Unit No. 680493 (JE5160) Load – 2470kg Speed 6m/s	Sum	R	1	R
17.	Electrical Lifts (020) Panorama Unit No. 680492 (JE5724) Load – 1816kg Speed 6m/s	Sum	R	1	R
18.	Electrical Lifts (UF49) Unit No. 680498 (JE5222) Load – 2268kg Speed 0.5m/s	Sum	R	1	R
19.	Electrical Lifts (UF42) Unit No. 680533 (JE5253) Load – 2270kg Speed 0.5m/s	Sum	R	1	R
20.	Electrical Lifts (DF44) Unit No. 680535 (JE8622) Load – 1816kg Speed 1.5m/s	Sum	R	1	R
21.	Electrical Lifts (UF47) Unit No. 680486 (JE5403) Load – 1816kg Speed 1.5m/s	Sum	R	1	R
22.	Electrical Lifts (UF48) Unit No. 680497(JE5224) Load – 2268kg Speed 0.5m/s	Sum	R	1	R
23.	Electrical Lifts (DF61) Unit No. 680572 (JE5252) Load – 1816kg Speed 1.5m/s	Sum	R	1	R
24.	Electrical lift (P53) Unit No. 680560 (JE5491) Load – 1816kg Speed 1.5m/s	Sum	R	1	R
25.	Electrical Lifts (UG 37) Unit No. 680518 (JE5227) Load – 1610kg Speed 1.75m/s	Sum	R	1	R
26.	Electrical Lifts (UG 38) Unit No. 680519 (JE5228) Load – 1610kg Speed 1.75m/s	Sum	R	1	R
27.	Electrical Lifts (UG 39) Unit No. 680520 (JE5225) Load – 1587kg Speed 1.5m/s	Sum	R	1	R
28.	Electrical Lifts (UG 40) Unit No. 680521 (JE5226) Load – 1587kg Speed 1.5m/s	Sum	R	1	R
29.	Electrical Lifts (P 54) Unit No. 680561 (JE5525) Load – 2270kg Speed 1.75m/s	Sum	R	1	R
30.	Electrical Lifts (P 55) Unit No. 680562 (JE5526) Load – 2270kg Speed 1.75m/s	Sum	R	1	R
31.	Electrical Lifts (P 57) Unit No. 680568 (JE5527)	Sum	R	1	R

	Load – 2270kg Speed 1.75m/s				
32.	Electrical Lifts (P 58) Unit No. 680569 (JE5528) Load – 2270kg Speed 1.75m/s	Sum	R	1	R
33.	Electrical Lifts (ML1) Unit No. 72NE6132 (01L1474) Load – 1600kg Speed 1m/s	Sum	R	1	R
34.	Electrical Lifts (Glass lift-GL01) Unit No. 72NE6097(O1/L1482) Load – 1100kg Speed 1m/s	Sum	R	1	R
35.	Electrical Lifts (UG 51) Unit No. 680558 (JE5250) Load – 1360kg Speed 1.5m/s	Sum	R	1	R
36.	Electrical Lifts (UG 52) Unit No. 680559 (JE5249) Load – 1360kg Speed 1.5m/s	Sum	R	1	R
37.	Electrical Lifts (O14) Unit No. 680486 (JE5718) Load – 1816kg Speed 7m/s	Sum	R	1	R
38.	Electrical Lifts (O15) Unit No. 680487 (JE5719) Load – 1816kg Speed 7m/s	Sum	R	1	R
39.	Electrical Lifts (O16) Unit No. 680488 (JE5720) Load – 1816kg Speed 7m/s	Sum	R	1	R
40.	Electric Passenger escalator (R1) – Large Unit No. 72NE3095 (JESC458) Capacity 8500 per hour Speed 0.5m/s Flat Steps 3	Sum	R	1	R
41.	Electric Passenger escalator (R2) – Large Unit No. 72NE3096 (JESC459) Capacity 8500 per hour Speed 0.5m/s Flat Steps 3	Sum	R	1	R
42.	Electric Passenger escalator (R3) – Large Unit No. 72NE3097 (JESC460) Capacity 8500 per hour Speed 0.5m/s Flat Steps 3	Sum	R	1	R
43.	Electric Passenger escalator (R4) – Large Unit No. 72NE3098 (JESC461) Capacity 8500 per hour Speed 0.5m/s Flat Steps 3	Sum	R	1	R
44.	Electric Passenger escalator (M1) – Small Unit No. 680550 (JESC117) Capacity 8500 per hour Speed 0.5m/s Flat Steps 3	Sum	R	1	R
45.	Electric Passenger escalator (M2) – Small Unit No. 680551 (JESC118) Capacity 8500 per hour	Sum	R	1	R

	Speed 0.5m/s Flat Steps 3				
46.	Electric Passenger escalator (M3) – Medium Unit No. 680552 (JESC119) Capacity 8500 per hour Speed 0.5m/s Flat Steps 3	Sum	R	1	R
47.	Electric Passenger escalator (M4) – Medium Unit No. 680553 (JESC120) Capacity 8500 per hour Speed 0.5m/s Flat Steps 3	Sum	R	1	R
48.	Electric Passenger escalator (M5) – Medium Unit No. 680554 (JESC121) Capacity 8500 per hour Speed 0.5m/s Flat Steps 3	Sum	R	1	R
49.	Electric Passenger (M6) – Medium Unit No. 68055 (JESC122) Capacity 8500 per hour Speed 0.5m/s Flat Steps 3	Sum	R	1	R
50.	Electric Passenger escalator (M7) – Medium Unit No. 680556(JESC123) Capacity 8500 per hour Speed 0.5m/s Flat Steps 3	Sum	R	1	R
51.	Electric Passenger escalator (M8) – Medium Unit No. 680557(JESC124) Capacity 8500 per hour Speed 0.5m/s Flat Steps 3	Sum	R	1	R
52.	Electric Passenger escalator (W1) – Large Unit No. 680538 (JESC616) Capacity 8500 per hour Speed 0.5m/s Flat Steps 3	Sum	R	1	R
53.	Electric Passenger escalator (W2) – Large Unit No. 680539 (JESC617) Capacity 8500 per hour Speed 0.5m/s Flat Steps 3	Sum	R	1	R
54.	Electric Passenger escalator (CL1) – Medium Unit No. 680538 (JESC616) Capacity 8500 per hour Speed 0.5m/s Flat Steps 3	Sum	R	1	R
55.	Electric Passenger escalator (CL2) – Medium Unit No. 680539 (JESC617) Capacity 8500 per hour Speed 0.5m/s Flat Steps 3	Sum	R	1	R
56.	Electric Passenger escalator (T1) – Large Unit No. 680500 (JESC145) Capacity 8500 per hour Speed 0.5m/s Flat Steps 3	Sum	R	1	R

57.	Electric Passenger escalator (T2) – Large Unit No. 680501 (JESC146) Capacity 8500 per hour Speed 0.5m/s Flat Steps 3	Sum	R	1	R
58.	Electric Passenger escalator (T3) – Large Unit No. 680502 (JESC147) Capacity 8500 per hour Speed 0.5m/s Flat Steps 3	Sum	R	1	R
59.	Electric Passenger escalator (T4) – Large Unit No. 680503 (JESC148) Capacity 8500 per hour Speed 0.5m/s Flat Steps 3	Sum	R	1	R
60.	Allowance for removal of existing lifts & escalators, hoarding, barricading	Sum	R	44	R
61.	Allowance for builder's work/electrical installation	Sum	R	44	R
62.	Allowance for Lift car interiors	Sum	R	24	R
63.	12 Months Warranty Period	Sum	R	44	R
64.	Operating & Maintenance manuals, training and keys as specified	Sum	R	44	R
Sub-Total C: Replacement of Lifts and Escalators					**R**

All amounts to entered exclusive of VAT
***The must be read and completed in conjunction with the Scope of Works and the Detailed Technical Specifications for Lifts and Escalators**.

Section D (Comprehensive Maintenance)

1. Comprehensive Schedule Maintenance Costs for 20 escalators and 24 lifts

Item no	Inventory number	Quantity	Unit	Unit Rate/month	Total Price/Month
1.1	Electrical Lifts	24	Each		
1.2	Electric Passenger	20	Each		

2. Provision for the spare parts and materials

Item no	Inventory number	Quantity	Unit	Total Price
1.1.	Allowance for spare parts	Lot	Item	**R**

3. Summary Table		
Item no	**Inventory number**	**Total Price**
3.1.	4 year Comprehensive Cost ***(Total maintenance cost per annum x 4 years)***	**R**
3.2.	Provision of spare parts and materials	**R**
Sub-Total D: Comprehensive Maintenance		**R**

All amounts to entered exclusive of VAT

Total Contract Value:	
Description	**Amount**
Sub-Total A: Preliminaries and General	**R**
Sub-Total B: Provisional Sum	**R**
Sub-Total C: Replacement of Lifts and Escalators	**R**
Sub-Total D: Comprehensive Maintenance	**R**
Grand total (Amount to be transferred to Form of Offer)	**R**

All amounts to entered exclusive of VAT
*** Fixed escalation rates or as per the CPI annual increase**

C2.3 Labour Rates

RATES FOR AD-HOC REPAIRS AND EMERGENCY CALL-OUTS:

All Rates must be excluding VAT.

1. **Normal office hours**: (07h30 to 16h00)

Chief Technician	R……**…**/ hour**.**
Lift Technician	R……**…**/ hour**.**
Semi-skilled	R……**.**/ hour**.**

2. **Overtime weekdays and Saturday**:

Chief Technician	R……**…**/ hour**.**
Lift Technician	R……**..** / hour**.**
Semi-skilled	R…… / hour**.**

3. **Sundays and Public Holidays**:

Chief Technician	R……**…**/ hour**.**
Lift Technician	R……**…**/ hour**.**
Semi-skilled	R……**.**/ hour**.**

4. **Call-outs and travelling costs**

Travelling charges R……. / km

5. Mark up (third party procured items/services) on materials and spares:

MARK-UP ON MATERIALS	
Value of Materials*	**% MARK-UP**
R0 up to R9 999.99	
R10 000.00 up to R49 999.99	
R50 000.00 up to R99 999.99	
R100 000.00 up to R199 999.99	
R200 000.00 and above.	

**Value of Materials shall be net cost (excluding VAT) of parts delivered to site with all discounts deducted.*

6. ***Contractor*** will provide Transnet Property with a minimum of 2 (Two) quotations to ensure the most feasible pricing is achieved.

7. CALL-OUTS AND TRAVELLING COSTS

The call-out rates shall include travelling costs as per AA rates R/km.

C2.4 Price Rates

1. Preservation Rates

(Provide the price rates for preserving each lift & escalator as listed below)

Item no	Inventory number	Quantity	Unit	Unit Rate
1.1.	Preservation rate (lift)	1	Each	**R**
1.2.	Preservation rate (escalator)	1	Each	**R**
1.3.	Comprehensive report of the 24 lifts	2	Each	**R**
1.4.	Comprehensive report of the 20 escalators	2	Each	**R**

ANNEXURE C – SCOPE OF WORK

PART C3: SCOPE OF WORK

C3.1 EMPLOYER'S WORKS INFORMATION

Contents

SECTION 1

1 Description of the *works*

1.1 Executive overview

The *works* that the *Contractor* is to perform *involve* the design, manufacture, supply, and installation of twenty (20) escalators and thirty five (35) new lifts, and eleven (11) of these lifts have already been completed in phase 1 at Carlton Centre, 150 Commissioner, Johannesburg. The contractor will also be responsible for the decommissioning and removal of existing lift and escalator equipment.
All items required for the installation of the new lifts and escalators are to be provided by the contractor, e.g., scaffolding, hoarding, plant and equipment, and all safety requirements according to the OHS Act for the duration of the contract.

The contractor is responsible for performing a comprehensive assessment of the site. This includes conducting a structural integrity assessment before demolition and verifying the load path. This includes assessing the existing lift shafts, motor room, pit equipment requirements, guiderail installation requirements, and escalator platforms. Decommissioned lift and escalator equipment must be delivered to the Transnet storeroom designated by the project manager.
The contractor must ensure that extra care is taken both before and during the work, as this is a 'live' building where daily operations will continue during the decommissioning and installation of the new lifts and escalators. Temporary staircases will be provided, or alternative arrangements will be made to ensure accessibility for those affected areas.

The contractor will be responsible for assessing all electrical and power requirements to ensure electrical installations are completed as per South African National Standards (SANS).
The contractor will also be responsible for the commissioning of the new equipment and will provide a 12-month free comprehensive maintenance and warranty period. At the end of the warranty period, the contractor or any other service provider authorized by the OEM will provide preventative, corrective, and emergency maintenance services for a duration of 48 months.

The project will be executed in phases as per the table below:

No	Equipment	Phase 1 (Completed)	Phase 2	Phase 3	Phase 4
1.	Lift	11	2	11	11
2.	Escalators	0	14	6	0

1.2 *Employer's* objectives

The *Employer*'s objectives are to provide, safe, reliable, and efficient vertical transportation at 150 commissioner street, Johannesburg South Africa.

1.3 Interpretation and terminology

The following abbreviations are used in this Works Information:

Abbreviation	Meaning given to the abbreviation
AIA	Authorised Inspection Authority
BBBEE	Broad Based Black Economic Empowerment
CEMP	Construction Environmental Management Plan
CD	Compact Disc
CDR	Contractor Documentation Register

CDS	Contractor Documentation Schedule
CRL	Contractor Review Label
CSHEO	Contractor's Safety, Health and Environmental Officer
CM	Construction Manager
DTI	Department of Trade and Industry
DWG	Drawings
EO	Environmental Officer
HAW	Hazard Assessment Workshop
HAZOP	Hazard and Operability Study
HSSP	Health and Safety Surveillance Plan
INC	Independent Nominated Consultant
IP	Industrial Participation
IR	Industrial Relations
IPP	Industrial Participation Policy
IPO	Industrial Participation Obligation
IPS	Industrial Participation Secretariat
IRCC	Industrial Relations Co-ordinating Committee
JSA	Job Safety Analysis
CIRP	Contractor's Industrial Relations Practitioner
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
PSIRM	Project Site Industrial Relations Manager
PSPM	Project Safety Program Manager
PSSM	Project Site Safety Manager
ProgEM	Programme Environmental Manager
ProjEM	Project Environmental Manager
QA	Quality Assurance
R&D	Research and Development
SANS	South African National Standards
SASRIA	South African Special Risks Insurance Association
SES	Standard Environmental Specification
SHE	Safety, Health and Environment
SHEC	Safety, Health and Environment Co-ordinator
SIP	Site Induction Programme
SMP	Safety Management Plan
SSRC	Site Safety Review Committee
……	……

2 Engineering and the *Contractor's* design

2.1 *Employer's* design

2.1.1 The *Employer*'s design for the *works* is: A detailed technical specification issued with this document, the contractor is to design, manufacture and install the equipment in accordance with the specifications issued by the Employer and as annexed to this document. The contractor is to clearly indicate any qualifications or deviations with the technical specification at the time of submission of their Tender.

and is contained in Annexure 'A' attached to this document.
Please note: *The employer reserves the right of aesthetic cohesion to be achieved, a uniform user experience, integrated technology, streamlined parts and supplies, and consistency in maintenance and repairs.*

2.1.2 The *Employer* grants the *Contractor* a licence to use the copyright in design data presented to the *Contractor* for the purpose of the *works* (and the *Contractor*'s obligation under paragraph 2.2 of the *Employer's Works* Information) ONLY.

2.2 Parts of the *works* which the *Contractor* is to design

2.2.1 The *Contractor* is to design the following parts of the *works*:

2.2.2 The *Contractor* is responsible in his design for the overall integration of the design of the *works* with the design of the *Employer* as stated under 2.1 *Employer*'s design above for the following parts of the *works*:

The contractor is to design all lifts to suit existing motor rooms, shafts and site conditions. The contractor is to design all escalators to suit existing truss, and site conditions All lifts and escalators and associated equipment supplied by the contractor are to be in compliance with SANS 1545 and other relevant codes as well as the detailed technical specification annexed to this document. The contractor is to design all the escalators to suit the existing platforms. The platform houses the curved section of the tracks and also the gears and motors that operate the stairs.

2.2.3 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*.

2.3 Procedure for submission and acceptance of *Contractor's* design

2.3.1 The *Contractor* shall address the following procedures:

Post appointment, the contactor is to provide workshop drawings for all equipment covered in this tender. The workshop drawings are to indicate equipment proposed and must be in accordance with the detailed technical specification provided with this document.
The *Employer* will check the workshop drawings and no manufacturing is to commence until such time that the *Employer* has issued a written approval for all proposed equipment as detailed in the workshop drawings.

2.3.2 The *Contractor* undertakes design safety reviews with the *Employers* appointed Consultant

2.3.3 Documentation Submission

2.4 Review and Acceptance of *Contractor* Documentation

The *Contractor* submits documentation as the '*Works* Information' requires to the *Project Manager* for review and acceptance.

2.5 Other requirements of the *Contractor's* design

2.5.1 The *Contractor*'s design complies with the following:

Provide all work in accordance with the requirements of the South African National Standards **SANS 1545-1** and **SANS 21-1**, all other relevant published lift **SANS Standards,** the Occupational Health and Safety Act 85 of 1993 as revised and current regulations of all other codes applicable to the work. Other relevant Standards (SANS) to be applied shall include but shall not be limited to:

- SANS 50081-1 (EN 81-1) Electric Lifts
- SANS 50081-70 (EN 81-70) Accessibility to lifts for persons including persons with disability.
- SANS 1545-9 Lift landing doors – Fire resistance testing.
- SANS 1543- Specification for escalators and passenger conveyors
- SANS 21- the specification for escalators, safety rules for the construction and installation of escalator and passenger conveyors
- SANS 10360- Lift maintenance requirements.

2.5.2 No designs will be approved unless so sanctioned by the *Employer*.

2.6 Use of *Contractor's* design

2.6.1 The *Contractor* grants the *Employer* a licence 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, refurbishment, repair, maintenance and extension of the *works* with such licence being capable of transfer to any third party without the consent of the *Contractor*.

2.6.2 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:

Design of lifts proposed as it may refer to the detailed technical specification provided by the Employer.

2.7 Design of Equipment

2.7.1 The *Contractor* submits his design details for the following categories of his proposed principal Equipment to the *Project Manager* for his information only:

a) The building/s where the *Works* are to be performed are occupied and the *Contractor* is to ensure minimal disruption to daily operations within the buildings.

b) The *Contractor* shall provide details of hoarding and barricading which they will install as protection from building occupants and the general public.

c) The *Contractor* shall provide detailed workshop drawings and the technical specifications for approval by the *Employer* or their appointed representative of their proposed product prior to the commencement of any manufacturing.

d) The *Contractor* is fully responsible for the product they provide, and the *Contractor* is to ensure that the provided product complies with all relevant regulations.

2.7.2 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:

Hoisting and rigging equipment as well as hand tools required during the removal of existing equipment and the installation of new equipment.

2.8 Equipment required to be included in the *works*

2.8.1 None

2.9 As-built drawings, operating manuals and maintenance schedules

2.9.1 The *Contractor* provides the following:

As-built drawings, commissioning, maintenance and operating manuals, copies of passwords, setup parameters, testing/programming tools at the time when a lift is certified and handed over to the *Employer* for their beneficial use.

2.9.2 **As-Built/Final Documentation**

Contractor submits documentation as the '*Works* Information' requires to the *Project Manager* for review and acceptance.

2.9.3 **Installation, Maintenance and Operating Manuals and Data Books**

Contractor submits documentation as the '*Works* Information' requires to the *Project Manager* for review and acceptance.

3 Construction

3.1 Temporary *works*, Site services & construction constraints

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

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

The *Contractor* is to issue a list of employees/personnel who will be performing the work on site and the *Employer* will issue this same list to the responsible security officials at the site.

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

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

The *Contractor* is to ensure adequate protection of all exposed works or areas where work is being performed. The *Contractor* is to ensure that the public cannot access areas where the *Contractor* is executing his works.

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

To be determined by the *Employers Project Manager* together with the *Contractors Site Manager.*

3.1.5 The *Contractor* complies with the following hours of work for his people (including Subcontractors) employed on the Site:

Same as 3.1.5

3.1.6 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.

3.1.7 Health and safety facilities on Site

3.1.8 The *Contractor* complies with the requirements stated under paragraph 2.3 of C3.1 *Employer*'s Works Information.

3.1.9 Environmental controls, fauna & flora, dealing with objects of historical interest

3.1.10 The *Contractor* complies with the CEMP, SES and PES in the construction of the *works*, all as described under paragraph 2.4 of C3.1 *Employer*'s Works Information.

3.1.11 Title to Materials from demolition and excavation

3.1.12 The *Contractor* has title to all Materials arising from excavation and demolition in the performance of the *works* with the exception of:

All obsolete materials or scrap removed prior to installation of the new equipment. All equipment which formed part of the existing vertical transportation are required to be removed to facilitate the installation of the new equipment, remains the property of the Employer.

With title to such Materials (as referenced above) remaining with the Employer. The *Project Manager* shall instruct the *Contractor* how to label, mark, set aside and/or dispose of such Materials for the benefit of the *Employer* in accordance with ECC Clause 73.1.

3.1.13 Cooperating with and obtaining acceptance of others

3.1.14 The *Contractor* performs the *works* and co-operates with:

Any other contractors or subcontractor who have been appointed by the *Employer* to perform ancillary works relative to the removal or installation of the lifts.

3.1.15 Publicity and progress photographs

No Publicity photographs without the permission of the *Project Manager* and *Employer*.

3.1.16 N/A

3.1.17 N/A

3.1.18 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*.

3.1.19 *Contractor*'s Equipment

The *Contractor* is responsible for his own equipment. The *Employer* has no liability for loss or damage, which may occur to the contractor's equipment.

The *Contractor* is to ensure that all equipment is tested and certified as required by the equipment manufacturer as well as OHS Act.

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

3.1.21 The *Contractor* complies with the following permissions and restrictions in the use of Equipment as required by the *Employer*:

All equipment including but not limited to hoisting and rigging equipment and devices, scaffolding, power tools are the be certified as required by the relevant regulations. Records are to be kept by the contractor of regular inspection and testing of this equipment.

3.1.22 Equipment provided by the *Employer*

None

3.1.23 The *Employer* provides the following Equipment on the Site for the *Contractor*'s use:

None

3.1.24 The *Contractor* complies with the following conditions in using the *Employer*'s Equipment:

N/A

3.1.25 Site services and facilities:

All sites where work is to be performed are existing with existing facilities. The contractor is to familiarize themselves with the sites and is to include in his tender the costs for any additional services and facilities they may require.

3.1.26 The *Employer* provides the following facilities for the *Contractor*:

N/A

3.1.27 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 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*.

3.1.28 Facilities provided by the *Contractor:*

The *Employer* will allocate to the *Contractor* a dedicated space where it will be the *Contractor's* responsibility to erect facilities including fencing and hoarding as the contractor may require. The *Contractor* is to ensure that they indicate all costs for these facilities at tender stage.

3.1.29 The *Contractor* provides the following facilities for the *Project Manager* and *Supervisor*:

Facilities for the *Project Manager* and *Supervisor* will be provided by the *Employer*

3.1.30 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.

3.1.31 Unless expressly stated as a responsibility of the *Employer* as stated under 5.1.11 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*.

3.1.32 Existing premises, inspection of adjoining properties and checking work of Others

3.1.33 N/A

3.1.34 N/A Insert relevant details

3.1.35 Survey control and setting out of the *works*

3.1.36 The *Employer* provides the following information and survey controls for the *Contractor*:

The contractor is responsible for setting out of his own works.

3.1.37 Excavations and associated water control

N/A

3.1.38 The *Contractor* complies with the following requirements N/A:

N/A

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

N/A

3.1.40 Where the *Contractor* encounters existing [underground services / existing services cables / pipe trenches] [state as appropriate], the *Contractor* undertakes the following:

Report to the *Project Manager* for their attention and action.

3.1.41 Control of noise, dust, water and waste

3.1.42 The *Contractor* complies with the following:

The *Contractor* shall keep noise and dust to a minimum as these are operating and fully functioning buildings.

3.1.43 Sequences of construction or installation

3.1.44 The *Contractor* complies with the following:

N/A

3.1.45 Giving notice of work to be covered up N/A

3.1.46 N/A

3.1.47 Hook ups to existing *works*

3.1.48 The *Contractor* complies with the following constraints in the execution of the *works*:

The Project Manager is to be informed should there be a requirement to shut down any services.

3.2 Completion, testing, commissioning and correction of Defects

3.2.1 The *work* to be done by the Completion Date

On or before the *Completion Date* the *Contractor* shall have done everything required to Provide the Works including the work listed below which is to be completed before the Completion Date and in any case before the dates stated. The *Project Manager* cannot certify Completion until all the work 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.

3.2.2 The *Contractor* is permitted to carry out the following *works* after Completion:

Routine maintenance/ servicing of lifts. Call-backs, repairs and defect rectification during the free maintenance/warrantee period.

3.2.3 Use of the *works* before final Completion. The *Contractor* together with the *Employers Project Manager* will decide the program for handover as well as if it is necessary for partial handover of completed lifts and escalators. The contractor will be responsible for maintenance of any partially handed over lifts and escalators. The free maintenance and warranty period will however only commence after completion and handover of all lifts and escalators forming part of this project.

3.2.4 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:

All lifts are to be certified as required by the OHS Act prior to being handed over for use by the Employer or their Tenants.

3.2.5 Materials facilities and samples for tests and inspections

All completed Lifts and Escalators prior to handover

3.2.6 The *Contractor* provides the *Employer* with the following [state what facilities will be made available and when, what Materials if any and samples in order for the *Supervisor* to perform his tests and inspections as described under paragraph 5.2.1 of C3.1 *Employer*'s Works Information] as ECC Clause 40.2:

Annexure 'A' and 'B' certifications

3.2.7 The *Employer* provides the *Contractor* with the following [state what facilities will be made available and when, what materials if any and samples in order for the Supervisor to perform his tests and inspections as described under paragraph 3.2.1 of C3.1 *Employer*'s *Works* Information] as ECC Clause 40.2:

N/A

3.2.8 Commissioning

The *Contractor* is to inform the Project Manager of the dates and times when the Contractor will be commissioning any equipment. The Project Manager is entitled to observe any commissioning and test activities as he may require

3.2.9 The *Contractor* provides the following commissioning activities to bring the *works* in use in liaison with the *Employer*:

Completion of Annexure certificates, completion of any snags, items which may have been identified by the *Project Manager* or *Supervisor*.

3.2.10 Start-up procedures required to put the *works* into operation

The *Contractor* shall inform the *Project Manager* in writing at least 5 working days prior to any lifts being put into use.

3.2.11 The *Contractor* performs the following duties and actions on behalf of the *Employer* to put the *works* into operation:

When a completed lift and escalators are put into use, the *Contractor* shall have engineering and technical staff on standby within the respective building where the contractor will be putting completed works into operation.

3.2.12 Take over procedures

3.2.13 The *Contractor* provides the following assistance to the *Employer*:

N/A

3.2.14 The *Contractor* ensures that the documentation as described under paragraph 3.8 of the *Works* Information is presented to the *Project Manager* before Completion.

3.2.15 The *Contractor* ensures that the *Project Manager* has a full and accurate dossier of As-built documents that represent the fully status of the completed *works* (to include Plant within the *works*) to present to the *Employer*.

3.2.16 The *Contractor* ensures that the *Project Manager* has a full and accurate dossier of maintenance and operating manuals at the earlier of take-over or Completion.

3.2.17 Where the *Contractor* has presented maintenance and operating manuals to the *Project Manager* at take-over, the *Contractor* modifies and updates As-built documents as necessary prior to Completion.

3.2.18 Access given by the *Employer* for correction of Defects

3.2.19 The *Contractor* complies with the following constraints and procedures of the *Employer* where the *Project Manager* arranges access for the *Contractor* after Completion:

The *Contractor* is to report to the respective building *Supervisor*/representative at each site visit.

3.2.20 Performance tests after Completion

3.2.21 The *Contractor* performs the following performance tests after Completion of the *works*:

Submit monthly call-back, breakdown or repair reports during the free maintenance / warranty period.

3.2.22 Training and technology transfer

3.2.23 The *Contractor* facilitates the following requirements for training *works*hops after Completion for the *works* in use:

N/A

3.2.24 The *Contractor* arranges for the following technology transfer to the *Employer* after Completion for the *works* in use:

Copies of setup parameter

Provide test tools required for programming and testing of control systems

Provide lists of passwords as well as any software required to access control systems

3.2.25 Operational maintenance after Completion

3.2.26 The *Contractor* performs the following operational maintenance in relation to the *works* after Completion:

Routine preventative maintenance, Repairs and Call-backs for the period specified

4 Plant and Materials Standards and Workmanship

4.1 Investigation, Survey and Site Clearance

4.1.1 The *Contractor* carries out the following investigations at the Site:

The contractor is to ensure that they accurately survey all existing lift shafts, pits, motor-rooms, and escalators platform and any associated infrastructure prior to the contractor issuing any workshop drawings or designs for approval to the Project Manager.

4.2 Building works

4.2.1 Where the Association of South African Quantity Surveyors Model Preamble for Trades 1999 are used within the Works Information, the following interpretations and meanings shall apply:

4.2.2 In case of any conflict in interpretation, ambiguity or discrepancy between any Model Preamble for Trades 1999 (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.

4.2.3 In case of any conflict in interpretation, ambiguity or discrepancy between any Model Preamble for Trades 1999 (whether standard or written as a particular project specification) contained in this paragraph 4.2 of C3.1 *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 Manager's* express duty to resolve any ambiguity or inconsistency in the *Works* Information under ECC Clause 17.1.

4.2.4 Within the Model Preambles for Trades 1999, the following amendments and interpretations shall apply:

Where the word or expression "Principal Agent" is used, read "*Project Manage*r" or "*Supervisor*" as the context requires.

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

Where the word or expression "Engineer" is used, read "*Project Manager*" or "*Supervisor*" as the context requires.

Where the Model Preambles for Trades 1999 mention "rates" for measured work and any contractual statements relating to payment, all such statements shall be discounted, with the ECC *conditions of contract* taking precedence.

4.2.5 Within the Model Preambles for Trades 1999, A. GENERAL, the following amendments and interpretations shall apply:

Where the word or expression "bills of quantities" is used, this shall be discounted for the purposes of the *Works* Information. The ECC Contract Data - Part One states the main option to apply within the ECC Contract between the Parties.

4.2.6 Within the Model Preambles for Trades 1999, B. ALTERATIONS, B.2 MATERIALS FROM THE ALTERATIONS, CREDIT, ETC and C. EARTHWORKS, C1.4 Materials from demolitions shall not apply. C3.1 *Employer's* Works Information paragraph 3.1.6 states details of the *Contractor's* title (if any) to Materials arising from excavations and/or demolitions and how such Materials are either to be disposed of or re-used in the *works*.

4.2.7 Within the Model Preamble for Trades 1999 Q. PLUMBING AND DRAINAGE, Q.24 TESTS shall be deemed to be included within paragraph 3.2.1 of C3.1 *Employer's* Works Information.

4.2.8 Within the Model Preamble for Trades 1999 U. EXTERNAL WORKS, U.3.8 Process control tests shall be deemed to be included within paragraph 3.2.1 of C3.1 *Employer's* Works Information.

4.2.9 The principles, meanings and interpretation stated and established within paragraphs 6.2.1 to 6.2.8 with respect to the Model Preambles for Trades 1999 equally apply to the other Model Preambles for Trades 1999 references used within this paragraph 4.2 of C3.1 *Employer's* Works Information.

4.3 Civil Engineering and Structural Works

4.3.1 Where the SANS 1200 series of Specifications are used within the Works Information, the following interpretations and meanings shall apply:

4.3.2 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.

4.3.3 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.

4.3.4 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 is in accordance with the *conditions of contract* (and the ECC main and secondary options stated therein);

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

"Acceptable. Approved (Approval)" is interpreted as either a *Project Manage*r 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 is in accordance with the conditions of contract (and the ECC main and secondary options stated therein);

4.3.6 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.

4.3.7 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).

4.3.8 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.

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

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

4.3.10 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.

4.3.11 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.

4.3.12 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".

4.3.13 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 at all times consistent with the *conditions of contract*.

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

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

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

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

4.4 Electrical & mechanical engineering works (refer to Annexure 'A' Technical Specification for lifts & escalators attached hereto)

SANS Number	Year	Edition	Title
SANS 21-1	2009	1.00	Safety of escalators and moving walks — Part 1: Construction and installation

SANS 204	2011	1.00	Energy efficiency in buildings
SANS 1543	2015	2.03	Escalators and passenger conveyors
SANS 1545-1	2015	3.05	Safety rules for the construction and installation of lifts — Part 1:Electric lifts
=	2015	3.04	Safety rules for the construction and installation of lifts — Part 2:Hydraulic lifts
SANS 1545-3	2006	1.03	Safety rules for the construction and installation of lifts — Part 3: Lifts for persons with physical disabilities (stairlifting platforms)
SANS 1545-4	2015	1.03	Safety rules for the construction and installation of lifts — Part 4: Lifts for persons with physical disabilities (vertical lifting platforms)
SANS 1545-5	2007	1.01	Safety rules for the construction and installation of lifts — Part 5:Electric and hydraulic access, goods only lifts
SANS 1545-6	2015	1.03	Safety rules for the construction and installation of lifts — Part 6: Rack-and-pinion lifts
SANS 1545-7	2007	1.00	Safety rules for the construction and installation of lifts — Part 7: Electric and hydraulic service lifts (dumb waiters)
SANS 1545-9	2004	1.00	Safety rules for the construction and installation of lifts — Part 9: Lift landing doors — Fire resistance testing
SANS 4344	2005	2.00	Steel wire ropes for lifts — Minimum requirements
SANS 10142-1	2012	1.08	The wiring of premises — Part 1: Low-voltage installations
SANS 10400-A*	2010	3.00	The application of the National Building Regulations — Part A: General principles and requirements
SANS 10400-B	2012	3.00	The application of the National Building Regulations — Part B: Structural design
SANS 10400-C	2010	3.00	The application of the National Building Regulations — Part C: Dimensions
SANS 10400-D	2011	3.00	The application of the National Building Regulations — Part D: Public safety
SANS 10400-F	2010	3.00	The application of the National Building Regulations — Part F: Site operations
SANS 10400-G	2011	3.00	The application of the National Building Regulations — Part G: Excavations
SANS 10400-H	2012	3.00	The application of the National Building Regulations — Part H: Foundations
SANS 10400-J	2010	3.00	The application of the National Building Regulations — Part J: Floors

SANS 10400-K	2015	3.01	The application of the National Building Regulations — Part K: Walls
SANS 10400-L	2011	3.00	The application of the National Building Regulations — Part L: Roofs
SANS 10400-M	2011	3.00	The application of the National Building Regulations — Part M:Stairways
SANS 10400-N	2012	3.01	The application of the National Building Regulations — Part N: Glazing
SANS 10400-O	2011	3.00	The application of the National Building Regulations — Part O: Lighting and ventilation
SANS 10400-P	2010	3.00	The application of the National Building Regulations — Part P: Drainage
SANS 10400-Q	2011	3.00	The application of the National Building Regulations — Part Q: Non-water-borne means of sanitary disposal
SANS 10400-R	2012	3.00	The application of the National Building Regulations — Part R: Stormwater disposal
SANS 10400-S	2011	3.00	The application of the National Building Regulations — Part S: Facilities for persons with disabilities
SANS 10400-T	2011	3.00	The application of the National Building Regulations — Part T: Fire protection
SANS 10400-V	2010	3.00	The application of the National Building Regulations — Part V: Space heating
SANS 10400-W	2011	3.00	The application of the National Building Regulations — Part W: Fire installation
SANS 10400-XA	2011	1.00	The application of the National Building Regulations — Part X: Environmental sustainability — Part XA: Energy usage in buildings
SANS 14798	2009	3.00	Lifts (elevators), escalators and passenger conveyors — Risk analysis methodology
SANS 16368	2014	2.00	Mobile elevating work platforms — Design calculations, safety requirements and test methods
SANS 50081-1	2004	1.00	Safety rules for the construction and installation of lifts — Part 1:Electric lifts
SANS 50081-2	1998	1.00	Safety rules for the construction and installation of lifts — Part 2: Hydraulic lifts
SANS 50081-3	2005	1.00	Safety rules for the construction and installation of lifts — Part 3: Electric and hydraulic service lifts
SANS 50081-21	2010	1.00	Safety rules for the construction and installation of lifts — Lifts for the transport of persons and goods — Part 21: New passenger and goods passenger lifts in existing building

SANS 50081-70	2004	1.00	Safety rules for the construction and installation of lifts — Particular applications for passenger and goods lifts — Part 70: Accessibility to lifts for persons including persons with disability
SANS 50081-72	2005	1.00	Safety rules for the construction and installation of lifts — Particular applications for passenger and goods lifts — Part 72: Fire fighters lifts
SANS 50081-20	2017	1.00	Safety rules for the construction and installation of lifts - Lifts for the transport of persons and goods - Part 20: Passenger and goods passenger lifts
SANS 50081-50	2017	1.00	Safety rules for the construction and installation of lifts - Examinations and tests - Part 50: Design rules, calculations, examinations and tests of lift components
SANS 50081-80	2005	1.00	Safety rules for the construction and installation of lifts — Existing lifts — Part 80: Rules for the improvement of safety of existing passenger and goods lifts
SANS 53015	2010	1.00	Maintenance for lifts and escalators — Rules for maintenance instructions
ARP 11071-1	2008	1.00	Comparison of worldwide lift safety standards — Part 1: Electric lifts (elevators)
ARP 11071-2	2008	1.00	Comparison of worldwide lift safety standards — Part 2: Hydraulic lifts (elevators)
ARP 11071-1	2008	1.00	Comparison of worldwide lift safety standards — Part 1: Electric lifts (elevators)
ARP 11071-2	2008	1.00	Comparison of worldwide lift safety standards — Part 2: Hydraulic lifts (elevators)

4.4.1 Where SANS 10142 and/or SANS 10198 specifications are used within the Works Information, then where the term “Equipment” (or the like) is used with the meaning of installation and items left behind in the *works*, then please read this term as “Plant” for ECC defined term compliance.

4.5 Process control and IT works

N/A

4.6 Other

N/A

5 List Of Drawings

5.1 Drawings issued by the *Employer*

This is the list of drawings issued by the *Employer* at or before the Contract Date, and which apply to this contract.

Note: Some drawings may contain both Works Information and Site Information.

Drawing number	Revision	Title

SECTION *2*

6 Management and start up

6.1 Management meetings

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

Table below to be completed by the Project Manager

Title and purpose	**Approximate time & interval**	**Location**	**Attendance by:**
Risk register and compensation events	Weekly on (As agreed with the project team)	Site	[state Project Manager (and appropriate delegates), Supervisor (as necessary and appropriate delegates) and Contractor (appropriate key persons)]
Overall contract progress and feedback	Monthly on (As agreed with the project team)		Employer, Contractor, Supervisor and Project Manager
*[**SHE meetings** (see paragraph 6.4)]*	*on (As agreed with the project team)*	*Site*	*CSHEO, CM, Project Manager, SHEC, ProjEM,*
*[**Safety Action Meetings** (see paragraph 6.3)*	*on (As agreed with the project team)*	*Site*	*CM, Project Manager, HSR*
*[**Safety Pre-Mobilisation Meeting** (see paragraph 6.3)*	*TBA*	*Transnet Offices*	*CM, Project Manager, HSR*

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.

6.2 Documentation Control

The Contractor shall submit all documentation (including correspondence and drawings) to Transnet (Employer) standards and to the Project Manager's requirements in accordance with the Project Manager's document control procedure. The Contractor shall use his own suitable document control system for the control, maintenance and handling of all relevant documentation and drawings issued to him.

The Contractor's documentation shall be issued to the Project Manager under cover of the Contractor's Transmittal Note indicating all Contract references (i.e. Project No, Contract No, etc.) as well as the Contractor's Project Document Number, Revision Number, Title and chronological listing of transmitted documentation.

Formats of Contractor data submitted is dependent on the project procedure and content and shall be specified by the Project Manager, upon the notified request of the Contractor i.e.:

Both Adobe Acrobat (.pdf) and native files
Only a native file
Only a hard copy
Only a pdf file

The Contractor shall deliver both hard copies and electronic media copies (CD Rom) to the Project Manager at the address stated within the Contract Data.
The documentation to be submitted for review shall be submitted on or before the dates specified in the Documentation Register under cover of the Contractor's Transmittal Note, and the Transmittal Note must state the purpose of the submission. Documentation for different purposes must be sent on separate transmittals. The Contractor shall note that documentation will be rejected if this requirement is not met.

Acceptance of documentation by the Project Manager will in no way relieve the Contractor of his responsibility for the correctness of information, or conformance with his obligation to provide the Works. This obligation rests solely with the Contractor.

The Contractor shall allow the Project Manager 2 weeks to review and respond to the Contractor's submission of their documentation, i.e. from time of receipt to the time of despatch. 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.

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.

All revised data shall be submitted by the Contractor in its entirety and shall reflect the revision control numbers and shall also indicate which documentation the revised documentation supersedes, if applicable. In the case of drawings every sheet has its own revision number and is revised as an individual document. In the case of documents all sheets under cover of one document number shall be under the same revision number and be resubmitted, even if the revision is a minor one.

6.3 Safety risk management

6.3.1 The *Contractor* complies with the approved SMP:

The Contractor is required to provide a site-specific Health & Safety management plan and manage the construction in accordance to their Health & Safety management plan received and approved by Project Manager.

6.3.2 The *Contractor* ensures that its Subcontractors comply with the requirements of the approved SMP.

6.4 Environmental constraints and management

The Contractor is required to provide a site-specific Environmental management plan(EMP) and manage construction in accordance to their Environmental management plan received and approved by Project Manager.

6.5 Quality assurance requirements

6.5.1 The *Contractor* shall have, maintain and demonstrate its use to the *Project Manager* (and/or the *Supervisor* to satisfy the requirements of paragraphs 7.4, 7.5, 3.2.1 and 3.2.8 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 sans 9001 (or an equivalent standard acceptable to the *Project Manager*).

6.5.2 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:

- Quality Plan for the contract;
- Quality Policy
- Index of Procedures to be used; and
- A schedule of internal and external audits during the contract

6.5.3 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.

6.5.4 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*.

~~6.5.5~~ The Quality Plan means the *Contractor*'s statement, which outlines strategy, methodology, resources allocation, QA and Quality Control co-ordination activities to ensure that the *works* meet the standards stated in the *Works*

6.6 Programming constraints

6.6.1 The *Contractor* submits within two weeks of appointment the first programme to be reviewed and accepted by the Project Manager.

6.6.2 The *Contractor* shows on each programme he submits to the *Project Manager*, the progress to date, the completion, commissioning and handover dates and any other data which may be required by the Project Manager.

6.6.3 The *Contractor* complies with the *Employer*'s programme when he submits his first programme.

6.6.4 The *Contractor* presents his first programme and all subsequently revised programmes (see ECC Clauses 31.2 and 32.1) in hard copy format and in soft copy format The *Contractor* uses Microsoft Projects version 3.1 for his programme submissions or a similar programme software package equivalent to Primavera version 3.1 subject to the prior written notification and acceptance by the *Project Manager*.

6.6.5 The *Contractor* shows on his Accepted Programme and all subsequently revised programmes schedules showing the critical path or paths and all necessary logic diagrams demonstrating sequence of operations.

6.6.6 The *Contractor*'s programme shows duration of operations in working days [please state here or by cross-reference elsewhere in C3.1 *Employer*'s Works Information to normal hours of a working days and what is a normal working week].

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

- 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.
- Level 2 Project Schedule – summary schedules 'rolled up' from Level 3 Project Schedule described below

- 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 The *Project Manager* notifies any subsequent layouts and corresponding filters on revised programmes
- Level 4 Project Schedule – detailed discipline speciality level developed and maintained by the *Contractor* relating to all operations identified on the programme representing the daily activities by each discipline
- A narrative status report, which includes 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*.

6.6.8 The *Contractor* submits programme report information to the *Project Manager* every Monday Morning by 11H00 at weekly intervals in addition to the intervals for submission of revised programmes stated under Contract Data Part One.

6.6.9 The *Contractor*'s weekly programme narrative report includes:

- 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.
- 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.
- Manpower Histogram – reflecting actual, forecasted and planned activities
- S-curves – reflecting the actual percentage complete versus the planned percentage for the overall contract utilising the earned values as calculated by the detailed progress report.

6.6.10 The *Employer* (including the agents of the *Employer*) operates on Site during [either state specific calendar dates or timings when the *Contractor* has completed certain elements of the *works* etc].

6.6.11 Others [state specific third parties] operate on Site during [either state specific calendar dates or timings when the *Contractor* has completed certain elements of the *works* etc.].

6.7 Contractor's management, supervision and key people

Key Personnel required

At Tender stage, the contractor is to provide the following list of key personnel

Skill	Name and Surname
Mechanical Engineer (Lead Engineer / PM)	
Lift inspector	
Safety Officer	
Lift mechanic	
Structural Engineer	

6.7.1 The *Contractor* arranges for the following technology transfer to the *Employer*:

Repair and maintenance manuals

Setup parameters

Test tools

Software required to access control systems

6.8 Insurance provided by the Employer

6.8.1 Insurance provided by the *Employer* is contained in the Contract Data – Part 1.

6.9 Contract change management

6.9.1 No additional requirements apply to ECC Clause 60 series.

6.10 Provision of bonds and guarantees

6.10.1 The form in which a bond or guarantee required by the conditions of contract (if any) is to be provided by the *Contractor* is given in Part 1 Agreements and Contract Data, document C1.3, Sureties.

6.10.2 The *Contractor* provides a bond or guarantee as required by the conditions of contract concurrently with the execution by the Parties of the form of agreement for the ECC contract.

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

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

- Records of design employees location of work (if appropriate); and

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

- Records of design employees location of work (if appropriate);
- Records of Equipment used and people employed outside the Working Areas (if applicable); and

7 Procurement

7.1 Code of Conduct

Transnet 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 Procedures Manual (PPM);
- 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 (B-BBEE); and
- The Anti-Corruption Act.

This code of conduct has been included in this contract to formally apprise Transnet Suppliers of Transnet's expectations regarding behaviour and conduct of it's 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 will not participate in corrupt practices and therefore 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, 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 decision stakeholders 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 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.
        - Transnet does not engage with non-value adding agents or representatives solely for the purpose of increasing B-BBEE spend (fronting)
3. *Transnet's relationship with suppliers requires us to clearly define requirements, 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, B-BBEE 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

1. *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.*
    - Doing business with family members
    - Having a financial interest in another company in our industry

7.2 The *Contractor's* Invoices

7.2.1 When the *Project Manager* certifies payment (see ECC Clause 51.1) following an assessment date, the *Contractor* complies with the *Employer's* procedure for invoice submission.

7.2.2 The invoice must correspond to the *Project Manager's* assessment of the amount due to the *Contractor* as stated in the payment certificate.

7.2.3 The invoice states the following:

Invoice addressed to Transnet SOC Ltd;

Transnet SOC Limited's VAT No: 4720103177;

Invoice number;

The *Contractor*'s VAT Number; and

The Contract number

The invoice contains the supporting detail

7.2.4 The invoice is presented either by post or by hand delivery.

7.2.5 Invoices submitted by post are addressed to:

Transnet SOC Ltd

150 Commissioner Street

Johannesburg

2001

For the attention of The Project Manager, Transnet Property.

7.2.6 Invoices submitted by hand are presented to:

Transnet SOC Ltd

150 Commissioner Street

Johannesburg

2001

For the attention of The Project Manager, Transnet Property.

7.2.7 The invoice is presented as an original.

7.3 Subcontracting

7.3.1 Preferred subcontractors

7.3.2 The *Contractor* uses one of the following specialists and suppliers as his Subcontractors:

7.3.3 Subcontract documentation, and assessment of subcontract tender

7.3.4 Where the *Contractor* employs a Subcontractor who constructs or installs part of the *works* or who supplies Plant and Materials for incorporation into the *works* which involves a Subcontractor operating on the Site and/or Working Areas, then the *Contractor* ensures that any such Subcontractor complies with the *Works* Information.

As a general rule, Transnet must ensure that where opportunities for empowerment are identified and feasible to apply. Each bidder interested in participating in this tender should be cognisant that it is a condition of contract the winning bidder will be required to contract with Transnet on one or more of the following transformation initiatives:

- Subcontracting

- Job creation and preservation and
- Skills Development

The bidder will be required to sub-contract a minimum of 30%, Create Job opportunities of the total value of the contract.

7.4 Plant and Materials

7.4.1 Quality

7.4.2 The *Contractor* provides Plant and Materials for inclusion in the *works* in accordance with SANS 1200A sub-paragraph 2.1, 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*.

7.4.3 Where Plant and Materials for inclusion in the *works* originate from outside the Republic of South Africa, all such Plant and Materials are new and of merchantable quality, to a recognised national standard, with all proprietary products installed to manufacturers' instructions.

7.4.4 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.

7.4.5 Plant & Materials provided "free issue" by the *Employer*

7.4.6 The *Employer* provides the following Plant and Materials for the *Contractor* to use in the *works*:

None

7.4.7 The Plant and Materials provided by the *Employer* are solely at the risk of the *Contractor* for inclusion in the *works*. The *Contractor* takes responsibility for ensuring the Plant and Materials do not contain a Defect(s) and are in compliance with the standards stated elsewhere in the *Works* Information.

7.4.8 The *Contractor* takes receipt of the Plant and Materials from the *Employer* in accordance with the following procedure:

N/A

7.4.9 The *Contractor* provides all other Plant and Materials necessary for the *works* not specifically stated to be provided "free issue" by the *Employer*.

7.4.10 *Contractor*'s procurement of Plant and Materials

7.4.11 The *Contractor* performs the following with respect to Plant and Materials procured for the *works*:

Contractor is responsible for their own plant and equipment

7.4.12 Spares and consumables

7.4.13 The *Contractor* provides the following spares and consumables to the *Employer*:

N/A

7.5 Tests and inspections before delivery

7.5.1 The *Contractor* submits to the Supervisor details to certify that tests and inspections have been carried out on Plant and Materials by others which include:

- AIA

- INC
- FAT(Factory Acceptance Test)
- Any requirements of the OHS Act

7.6 Marking Plant and Materials outside the Working Areas

7.6.1 The Contractor prepares and marks items of Plant and Materials outside the Working Areas with N/A

Please include the above default statements under paragraph 7.7 of the Works Information.

7.7 *Contractor's* Equipment (including temporary *works*).

7.7.1 The *Contractor* provides the *Project Manager* with a list of the following category of Equipment (or similar) for the execution of the *works*:

A list of hoisting and rigging equipment

Certification of scaffolding

List of tools and materials required for the installation of lifts .

7.7.2 The Equipment category [state relevant details] is subject to the following acceptance tests and inspections [state relevant details] by the *Project Manager* prior to using the Equipment on the Site and/or Working Areas:

The contractor is to provide valid test certificates for all equipment which require annual or other tests.

7.8 Preparation of post Completion contracts

7.8.1 The *Contractor* provides the following assistance to the *Employer* post Completion:

As per requirement for free maintenance and warranty. The contractor will attend to any call-backs for stoppages and breakdowns 24 hours a day including Sundays and Public holidays. The contractor will ensure that they have personnel on site within 1 hour from the time they have received the call. For calls or emergencies where there may be passengers trapped in the lifts, the contractor will have personnel on site within 30 minutes of receiving the call.

PART 3: EMPLOYER'S SERVICE INFORMATION

C3.2 Service Level Agreement table

Operational hours

Will be determined on Appointment

Performance Management

The Contractor agrees to meet the following Key Performance Indicators during the term of this contract:

- **During project execution:**

KPA	Definition	Target / Threshold	Measurement Frequency	Penalty for Non-Compliance
Compliance Documentation	All required safety, statutory inspections and reports	100% on-time submission	As required during project execution	Risk management. Continuous repeat failures will result in a contract termination. Site closure/Contract termination clause
Safety & environment Compliance	All the works to adhere to safety and environmental policy procedure, regulation and legislation	Always adhere to safety and environmental policy procedure, regulation and legislation	Always	Per Transnet health and safety & environmental requirements. Risk management. Continuous repeat failures will result in a contract review which may lead to contract termination.
Housekeeping	All the works to adhere to housekeeping practices	Contractor allocated areas must always be neat, without obstructing building occupants and hygienically	Always	R5000 in damages for lack of response to poor housekeeping
Defect Resolution Rate	% of defects resolved within agreed timeframe	Ensure there are no repeat failures which are due to poor	Always	Timely correction as per NEC 3 ECC correction period

& failure management		workmanship and inferior material		
Project Milestones	Timely completion of agreed project phases	Always adhere to milestones on the project schedule	Per milestone	Clause X7 R25000.00 per day for delays as per accepted programme
Safety Incidents	Number of escalator & lift-related safety incidents	Zero reportable incidents	Always	As per site safety inspection checklist R50 000 in damages per incident
Reporting	Project reporting requirements	Monthly project progress reports (Project progress, safety report & inspection report)	Monthly	Early warning and risk reduction meeting
Communication and issue Resolution Time	Time is required to address and resolve client queries or concerns.	Average time taken to address and resolve client queries or concerns.	Always	Failure to acknowledge or respond promptly to project communications may result in a review of risk management and contract performance.
Progress meeting attendance	Project team members that need to be part of the meeting or have representation.	Ensure attendance at the progress meeting or elect a representative who is well-informed about the project.	As per the contract	Failure to attend the meetings will lead to risk management and contract review

- **Post commissioning:**

KPA	Definition	Target / Threshold	Measurement Frequency	Penalty for Non-Compliance
Escalator & lift Availability	Escalators & lifts are operational and safe	After commissioning, during the retention phase, ensure that there are no stoppages caused by operational issues.	Always	5% deduction of retention cost per reported incident. Continuous repeat failures will result in a contract review, which may lead to contract termination.
Emergency Response Time	Time to attend to urgent breakdowns	Within 45 minutes from notification	As required	Clause X7 R1000 in low performance damages for failure to respond in the specified time.
Repair Completion Time	Time to complete repairs (Escalators & lift)	Completed within 8 hours	Monthly	2.5% damages to be deducted from the value of the work request/work order/task order for every week delayed (7-day period)
Defect Resolution Rate & failure management	% of defects resolved within agreed timeframe	Ensure there are no repeat failures which are due to poor workmanship and inferior material	Always	Corrective action. Continuous repeat failures will result in a contract review which may lead to contract termination

In addition to the low services damages table, contractors will be evaluated on the following on a continuous basis:

Safety & Housekeeping	Information / Safety / warning sign(s) in place
	Isolation / cordon / barricading off area
	Apology sign in place
Security	Permit card always clearly visible
	Clear sign of the name of contractor
Reliability	No repeat incident on equipment
	Adherence to SLAs
	Availability of equipment as per contract

	Routine inspection and assessment of operations
	Competence of staff
Finance	Invoices submitted to finance department on time and with correct order numbers.
	Cost control and efficiency improvements
Uniforms	To be properly dressed in overalls with company name for identification
Quality of workmanship	Work to be done according to correct practices and standards.
	Workmanship to be of a good quality
Submission of safety documents on a regular basis	Adhering to OHS Act & Transnet safety requirements, processes and procedures.

ANNEXURE D – TECHNICAL SPECIFICATION AND SITE INFORMATION

DETAILED TECHNICAL SPECIFICATIONS FOR LIFTS AND ESCALATORS

CARLTON CENTRE, 150 COMMISSIONER, JOHANNESBURG

TECHNICAL SPECIFICATION FOR LIFTS

Contents

PART 1: OPERATION

1.1 GROUP AUTOMATIC OPERATION – TWO OR MORE LIFTS IN GROUP

1.1.1 The operation for groups of lifts shall be group automatic operation arranged, dispatched and controlled by a de-centralised group supervisory system. The lift system control shall be supervised by a flexible and intelligent re-programmable microprocessor system and re-programming shall be possible without making changes to the lift hardware or fixed wiring.

1.2 AUTOMATIC LANDING CALL BY-PASS

1.2.1 When the car loading exceeds a predetermined level, it shall automatically bypass all landing calls in the direction of service and shall respond only to car calls.

- Default setting**: 65% of rated load**

1.3 CAR HELD UP AT A LANDING

Should a lift be delayed at a typical floor beyond a pre-set software adjustable time period initially set at **Thirty (30) seconds,** the lift shall be disconnected from the group automatic operation and the assigned landing calls shall be re-assigned to an alternative operational lift.

1.4 CAR CALL CANCELLING

When the car has responded to the last call in the up or down direction, the car calls shall automatically be cleared from the system to maintain optimum efficiency.

1.5 LOAD WEIGHING

1.5.1 Each lift shall be provided with a strain gauge or load-cell type load-weighing device to ensure optimum service.

1.6 ANTI-NUISANCE CONTROL

When a lift with a loading level of less than **10-kg** arrives at a landing, all car calls shall be reset automatically.

1.7 OPERATION WITH INDEPENDENT SERVICE

1.7.1 A two-position Independent service key operated switch, with cylinder as approved by the Consulting Lift Engineer and Principal Agent and master-keyed to the building system, shall be readily accessible and mounted in the car operating station of each lift. When this switch is in the "On" position, the removal of the key from the barrel shall be prevented and the lift shall be operated from the car buttons only and independent of all other automatic or special operation modes.

1.8 OPERATION WITH INSPECTION

Provide a two-position switch on top of the car enclosure (car top working platform) to operate each lift manually during adjustment, inspection, maintenance and repair. The operating buttons shall be of the continuous pressure type and the speed of the lift when on inspection control shall **not exceed 0.63-m/s and** shall operate the car only when the car doors and all lift shaft doors are closed, and all safety circuits are operational.

1.9 EMERGENCY OPERATION

Provide a two-position switch in the motor room to operate each lift manually during emergency conditions, adjustment, inspection, maintenance and repair. The operating buttons shall be of the continuous pressure type and when on emergency operation, the speed of the lift shall **not exceed 0.63-m/s** and shall operate when the lift doors are closed, and when the inspection control on top of the car is switched to normal operation. It shall be permitted to over-ride the final limits, safety gear contacts, and governor contacts.

1.9.1 AUTOMATIC LOWERING OPERATION DURING POWER FAILURE

Provide a battery-powered automatic lowering system which functions automatically in the event of a power failure. The automatic lowering system is to ensure that the lift is lowered to the nearest floor and opens the doors when floor level is reached. If the lift is not connected to backup generated power, the doors are to remain open and the lift is to remain stationary until such time that the normal power supply is returned to the lift.

1.10 FIREMAN'S OPERATION

1.10.1 Fire recall – Level 1:

- All lifts shall be equipped with Fire Control Level-1 and each group or single lift shall be equipped with a common Fire Control switch to recall the lifts (non-stop)

to the nominated evacuation landing, where it shall remain parked with open doors. The switch shall be mounted in a box with a break-glass front marked "Lift Fire Control".

- When the fire control switch is activated, lifts travelling away from the designated landing, shall stop and reverse direction at the next closest floor without opening its doors, and return non-stop to the designated fireman's floor.

- An illuminated indicator fitted inside the car shall indicate that the lift is on fire control and shall further instruct the passengers to evacuate the lift at the designated evacuation floor.

- When on standby power the fire control operation shall operate as detailed under this section in conjunction with the emergency standby power control sequenced evacuation.

1.11 OPERATION WITH STANDBY POWER

1.11.1 Emergency recall to main landing – Level 1:

- Provide a standby power operation which recognises the feeder arrangement and the standby power operation which automatically evacuates all lifts on each affected feeder by operating **One (1)** lift at a time to the main dispatching landing without responding to car or landing calls. The system shall subsequently permit automatic and manual selection of any lift to be released for normal operation with standby power.
- The lifts shall be capable of operation on standby power at **100%** of rated speed in both directions and **100%** of rated capacity without overheating.

- Provide all connections to the lift controls for standby power operation in the appropriate machine rooms and all the necessary interlocking interconnection wiring among machine rooms of different lifts.

1.11.2 Emergency Control Cables/Wiring: Provide all the cabling and the installation thereof to link motor rooms and control room. The site and relevant drawings shall be checked to determine the route and lengths of cable required. It is anticipated that the existing cabling shall be re-used or extended as required.

1.12 OVERLOAD PROTECTION

Provide overload protection for all lifts. If the load in the car enclosure exceeds the rated load, a buzzer shall sound, an overload Indicator will illuminate in the car-operating panel to indicate this condition, the lift doors shall remain open and the lift blocked from travelling. The overload device shall not be active during the travel phase of the lift.

1.13 DRIVE CONTROL

1.13.1 Provide fully regulated distance dependant **closed loop AC VVVF** drive control system capable of constantly maintaining the floor levels and ride quality as specified**.** Lift acceleration, nominal speed and slowdown phases shall constantly be monitored and controlled against and with reference to, distance, speed, current and voltage feedback loops. The lift drive shall be capable of bringing the lift to a standstill after travel without a creeping-in or levelling-in phase (direct approach).

1.13.2 Driving machine and motor shall be controlled to operate the lift continuously at **100%** of contract speed in both directions without overheating or hunting during levelling.

1.13.3 Levelling Tolerance: Provide equipment to maintain levelling as shown below:

- Levelling Accuracy: **3-mm** maximum
- Re-levelling Accuracy: **3-mm** maximum

1.14 TRAFFIC HANDLING

The lift, drive and group controls shall constantly deliver the traffic handling performance times and percentages as specified herein.

1.15 DUTY RATE –TRIP COUNTER

In order to evaluate the duty rate (usage factor) in terms of the specification and subsequent maintenance agreements, provide external trip counters on each lift controller. Trip counters incorporated in to the lift control software if not easily accessible to building management personnel shall not be regarded as sufficient in terms of this section. As a minimum, the tip counters to incorporate a re-settable **7-digit** duel function display:

- Function-1: Record the total trips / starts - not re-settable
- Function-2: Re-settable tip counter

1.15.1 **Back-up Software:** Keep safe at a local office, full back-up software for the lift controls and remote monitoring system. Software replacement shall be deemed to be included under future maintenance agreements unless the replacement of the software resulted from abuse or misuse of the equipment. It shall be accepted that by purchasing the lift equipment, the Employer has already paid for all development costs associated with replacement software.

PART 2: LIFTS EQUIPMENT

2.1 EQUIPMENT AND LOCATION - LIFTS

2.1.1 Lifts with machines located directly over the lift shaft and machines below shall be mounted on steel beams on steel or concrete up-stands. Motor room less lift machines shall be mounted on steel beams at the top of the shaft and outside the projection of the car. The steel beams shall be provided by the lift supplier and shall be suitably rated for normal duty as well as for any maximum load which may be placed on the machinery during full load safety applications etc.

2.1.2 Provide all required templates, inserts and signal boxes in walls or floors.

2.1.3 Arranged that rotating element, sheaves, etc., so that they can be removed for repairs or replacement, either by trolley hoist and dolly, or other conventional means, without dismantling or removing other equipment components in the same machine room.

2.1.4 Trolley beams shall not be utilised as the normal support of diverter sheaves.

2.1.5 Provide any additional structural members required for the installations of the equipment, such as shelf angles and steel beam supports for sheaves, governors, motor generator sets, controllers and dead-end hitch beams

2.1.6 Clearance around equipment located in each machine room shall comply with the applicable provisions of the relevant SANS codes.

2.2 SHEAVES SITUATED IN THE SHAFT:

The Contractor shall provide all equipment necessary to meet the requirements of **SANS-1545** with regards to diverter sheaves situated in the shaft and positioned directly above the lift enclosure including but not limited to:

- Installation of working platforms to create separate sheave rooms if the existing head-room permits including sheave guards, lights and emergency stop switches.
- Supply and installation of remote activate / release governors if not accessible from outside the shaft.

2.3 HOISTING MACHINE

2.3.1 Traction Drives:

- **Main Brake**: The main brake shall be spring applied and electrically released by direct current. The main brake shall have sufficient power to hold the car at any landing with the normal amount of counterbalancing and with at least **150%** of contract load. Each brake shall be fitted with monitoring switches which shall be monitored by the main control CPU and the lift shall be immediately shutdown in the event of a malfunction of these switches.

- **Vibration Isolation**: Provide an effective sound reducing material / vibration isolation shall be installed between the bed-plate or supporting steelwork of an overhead, basement or motor room less driving machine and the beams, the structural concrete slab, shaft structure or the up-stands.

- **Duty Rate:** Driving machines, motors and drive controls shall have sufficient capacity to operate the lift continuously at **100%** of contract speed in both directions without overheating or hunting during normal operation and levelling.

- Equipment shall meet heavy usage requirements not less than the duty rates shown below:
  - **>= 240 starts per hour**

- **Noise and Vibration Levels for Conventional Machines**: Overhead and basement driving machinery situated in a machine room shall operate silently, without vibration and shall constantly maintain noise levels not **exceeding 56-DB (A)**. The machine noise level shall at all times remain at an acceptable level, shall be inaudible from the landings or the car enclosure and shall maintain the performance levels as specified herein.

- **Noise and Vibration Levels for Motor-Room-Less Lifts:** Motor room less driving machinery shall operate silently, without vibration and the noise generated by the control and machine on the landing shall not exceed **42-DB (A)maximum** and **38-DB (A) average**. The noise and vibration levels measured in the lift car shall not exceed the performance levels as specified herein.

- Provision shall be made for a safe method of moving the machine by hand in the event of a power failure. All the necessary equipment and signage required to carry out this task in terms of **SANS-1545**, shall be mounted neatly in the motor room and shall remain on site at all times.

- For protection against entanglement, a positive action emergency stop switch shall be supplied and installed in close proximity to the main driving sheave it controls.

2.4 CONTROLLERS

2.4.1 Provide re-programmable solid-state operation and motion controller to control the operation, the starting, the stopping, the speed of the lift motor and to apply the brake automatically if any of the safety devices operate or the power fails. Three-phase protection shall be provided to the motor-generator set, driving motor or the solid-state motion controller by the use of simultaneous tripping devices.

2.4.2 Provide solid-state controllers enclosed in ventilated sheet metal cabinets with integral blowers. In order to maintain an acceptable control panel internal temperature, all power resistors and heat generating transformers shall be mounted in separate enclosures.

2.4.3 Each controller or the section of the controller supporting the main control contactors shall be vibration isolated from the motor room floor slab and building structure.

2.4.4 Provide only control systems, which have been designed, manufactured and tested for the purpose passenger carrying lifts. **PLC type controllers will not be accepted.**

2.4.5 Provide and install a Main Switch for each lift in a position where it is easily and rapidly accessible from the entrance to the machine room.

2.4.6 The Main Switch shall have a dual application namely:

- Motors connected directly to the mains shall be protected against short circuit. (Not required if motor protection is provided in the control panel),
- The main switch shall be capable of breaking the supply to the lift by interrupting all the live conductors,
- The main Circuit Breaker or Isolator provided in the motor room Distribution Board shall not be regarded as the Main Switch covered under this section,
- The Main Switch shall not cut off the supply to the circuits feeding the car light, car ventilation and car, shaft, pit and motor room **220-volt** supply.

2.4.7 Control panels and machines of multi-lifts situated in a common area shall be clearly marked with numerical or alphabetical number at least **100-mm high**.

2.5 CONTROL SYSTEM

2.5.1 The control system shall be capable of constantly producing the performance criteria specified herein.

2.5.2 Provide drive control system capable of decelerating the lift to stand still without a levelling-in or creeping-in phase. Only lifts with direct floor approach capabilities shall be accepted.

2.5.3 Provide Variable Voltage Variable Frequency motor drive control units capable of providing a smooth acceleration, steady velocity and deceleration plus levelling to various floors within the time allowance and levelling tolerances as specified herein. This performance shall be consistent under all conditions of loading and in either direction of travel.

2.5.4 The motor drive unit control shall be equipped with all necessary monitoring circuits to maintain a safe and reliable operation. These shall include but are not limited to the monitoring of the load, direction of rotation, speed, supply voltage, and operating currents.

2.5.5 The hoist motor shall be provided with a thermostatically controlled blower if necessary, to dissipate accumulated heat so as to maintain the equipment below the maximum operating temperature rise specified by the Manufacturer.

2.5.6 The control system shall provide a consistent operation with the levelling accuracy at all landings from no load to full rated load in the lift. The specified operation shall be maintained for all lifts under stable conditions at maximum car start to car stop and floor approach times as specified.

2.5.7 A maximum of **0.5-second** shall be allowed from door close to car start.

2.5.8 Equipment shall be designed to operate at plus or minus **10%** of normal feeder voltage and plus or minus **5%** of feeder frequency without interruption and protective devices to prevent damage to equipment on over or under-voltage shall be provided.

2.5.9 The control system shall be designed to operate the lift continuously at **100%** of contract speed and at **100%** of contract load in both directions without overheating or hunting.

2.5.10 Lifts shall be adjusted as required to meet the performance requirements as specified within **10%** tolerance**.**

2.6 MACHINE ROOM INDICATORS / ROPE MARKERS MONITORS AND TEST TOOLS

2.6.1 Monitors / Test Tools: Monitor and key board or hand held testing instruments for commissioning, re-commissioning and fault analysis of the lift control systems shall be provided and shall remain on site at all times. If monitors are provided, each group of lifts shall be supplied with its own monitor.

2.6.2 Emergency Floor Level Indicator: As each lift travels through the lift shaft, its floor level position shall be indicated by an LED indicator mounted in a position clearly visible from the machine. This indicator shall operate independently to the lift control and shall not be dependent on the lift supply for its operation.

2.6.3 Error logs: The lift control system shall incorporate the equipment to generate error logs and fault reports. Error logs for each lift shall generate a history of at least fifty (50) of the most recent faults indicating the type of fault, lift number, date and time the fault occurred.

2.7 AUTOMATIC SELF-LEVELLING

Provide lifts with both a self-levelling and a re-levelling controls to automatically bring the lift to the floor landings within a tolerance of **3.0-mm** under no load to full rated load conditions without hunting. Self-levelling shall within its zone, be entirely automatic and independent of the operating device and shall correct for over-travel and rope stretch. The lift shall be maintained level with the landing, irrespective of load and while loading and unloading.

2.8 STOPPING DEVICES

2.8.1 Provide normal terminal stopping devices enclosed in dust-proof enclosures for each lift. These devices through operation shall bring the lift automatically to a smooth stop at the terminal landing.

2.8.2 **End of Shaft Final Limits**: Provide final terminal stopping device at the top and at the bottom of each lift shaft. A fixed cam securely attached to the lift shall operate these final limit switches. These limit switches shall be independent of any other stopping devices and shall positively open without the use of springs to cut off all power from the driving machine motor and brake and shall prevent the lift operation

in either direction. Limit switches shall be so located that they operate before lift or the counterweight engages the buffer.

2.9 ROPE GUARDS

2.9.1 Rope guards shall be provided on machine sheaves, secondary or deflector sheaves and governor sheaves to cover moving sheaves and ropes. Provide guards on rope hole openings in machine room and secondary level floors to prevent objects from falling into the lift shaft. Provide guards in secondary level where ropes and tapes or selector drives pass through to prevent accidental contact.

2.9.2 Rope guards shall be fitted to the top of main diverter and governor sheaves mounted in the shaft, pit or under-slung sheaves protruding past the projection of the car.

2.10 CAR AND LANDING DOOR OPERATOR

NOTE: For the purpose of this specification the door operator shall be interpreted as the entire door operator including all associated components on the car and landing excluding the door panels and sills.

2.10.1 The door operator is regarded as a CRITICAL ITEM and it shall be the Contractor's responsibility to select and supply equipment considered by the Manufacturer as top of the range, low maintenance equipment which is capable of meeting the highest operation, duty rates and performance levels. Only door operator considered by the Manufacturer as heavy-duty, with continuous operation capabilities will be accepted.

2.10.2 Duty Cycle:

- Passenger Lifts: Only door operators with heavy-duty guide rails / tracks shall be accepted for Passenger Lifts.

2.10.3 Incorrectly supplied or suspect door equipment with regards to clearly meeting the requirements shall be replaced with suitable equipment at no additional cost to the Employer.

2.10.4 Appointment for the Contract shall not be considered as acceptance of the equipment offered and it shall remain the Manufacturer's responsibility to select, supply and install the correct equipment in terms of this specification.

2.10.5 Doors on the lift car and at each landing opening shall be opened and closed quietly and smoothly by a fully regulated electric motor and driving mechanism.

2.10.6 Car doors shall be mechanically locked when fully closed under power. It shall not be possible to force the car doors open from within the car and interrupt the safety contact when the doors are fully closed under power.

2.10.7 Provide mechanical car door locks where the free distance from the car sill to the shaft front wall exceeds **120-mm**.

2.10.8 The motion of the door operator shall be accomplished with arms and appropriate linkages to the approximate centre of gravity of the driven door panel.

2.10.9 Each landing door shall be equipped with electro-mechanical interlocks so that the lift can operate only when the interlock circuit is established.

2.10.10 Each landing door panel shall be closed by an independent auxiliary self-closing device (door closer weight) whenever the door is not in the closed position and it is not restrained by the equipment relating to the car and landing door system.

2.10.11 An electric contact for the lift car door shall be provided which shall prevent the lift moving away from a landing, unless the door is in the closed position.

2.10.12 An electrical contact shall be fitted to the non-driving car and landing doors if its linkage is dependent on a steel rope, belt or chain.

2.10.13 Emergency Triangle access key mechanisms shall be provided on each entrance.

2.10.14 The opening time and closing time for lift doors shall be within **10%** of the values specified herein.

2.10.15 To incorporate a curtain of light mechanism **–** a non-contact detection system that is designed to prevent the doors from closing if an obstruction is detected.

2.11 PASSENGER LIFT DOOR HANGERS

2.11.1 Hangers shall be equipped with ball bearing adjustable rollers to take the up-thrust of the doors. The hangers and rollers shall be designed to accommodate the size and weight of the doors operated with a high-speed door operator.

2.11.2 Either the running surfaces of the tracks or the sheaves shall be non-metallic.

2.12 CAR DOOR CONTROL

2.12.1 Door Motion Control:
Only door operators with a fully regulated **VVVF** motion controller shall be accepted.

2.12.2 Door Open and Close Times:
Door open and close times shall be regulated by software and shall be adjusted to meet the traffic requirements of the application.

2.12.3 Door Anti-Nuisance Control / Forced Closing: If doors are held open for an adjustable period of time by a passenger standing in the entrance or by constant pressure of the door open button, a buzzer shall sound and the doors shall start to close at a reduced speed and force level. When the doors touch an obstruction, they shall re-open.

2.12.4 Door Protection Devices

- **Leading Door Edge Protection**: Provide an electronic infra-red car leading edge protection device. The car door protection device shall extend at least **2100-mm** above the platform and its active surface/area shall project beyond the front edges of each leading car door panel. Should this device come in close proximity, or touch a person or object whilst the car doors are closing, the car and shaft doors shall return to their open position. Manual reversal of the doors while the lift is on automatic operation shall be accomplished by pressing a door open button in a car-operating panel.

- The door protection device shall have the capabilities of detecting metal objects / trolleys.

2.13 LIFT SHAFT & PIT REQUIREMENTS

2.13.1 Provide access ladders into pit and for pit buffers as required to service the equipment. The pit ladder shall extend from the pit floor to **1100-mm** beyond the level of the lower entrance.

2.13.2 Provide the necessary rope, or selector tape guards in pit areas.

2.13.3 Deep Pits: Provide safe working platforms in pits with depths in excess of Two (2) metres and if necessary at the top of the shaft to create sheave room platforms. The working platforms shall comply with the SANS 1545 (EN 81) safety requirements pertaining to the depth/ height and free space of these areas. Access to the area below the pit working platform including lighting shall be provided to accommodate the checking of the lower section of car and counterweight guide, cleaning and checking of hoisting ropes if applicable for basement machines.

2.13.4 In terms of **SANS-1545 (EN 81)**, provide and install shaft lights in each lift shaft, the lower and highest light fitting shall be mounted no more than **500-mm** from the pit floor and shaft top respectively. These lights shall be switched from the lift motor room, top of shaft and pits and shall maintain a minimum lighting level of **50-Lux** measured at **1000-mm** above the car roof.

2.13.5 Shaft Requirements**:** shall apply if the existing equipment covered under this section is upgraded or if replaced:

- The positioning and fixing of all shaft steelwork shall be uniform and consistent throughout the shaft.

2.13.6 Lower Shaft Dividing Screen**:** Where the lift shaft contains several lifts and in terms of the **SANS-1545 (EN 81)**, provide ridged metal screens to separate the moving parts of the individual lifts. The metal screen shall be from the level of the first landing to a height of **2500-mm** and shall be the full width / depth of the shaft.

2.13.7 Upper Shaft Dividing Screen**:** Where the lift shaft contains several lifts and the running clearances of car and counterweight and car and counterweight of adjacent lifts in a common shaft do not meet the minimum requirements in terms of the **SANS-1545 (EN 81)**, provide ridged metal screens to separate the moving parts of the individual lifts.

2.13.8 Pit Dividing Screen**:** In terms of the **SANS-1545 (EN 81)**, provide ridged metal screens to separate the moving parts of the individual lifts situated in a common pits. The screens shall be the full depth of the shaft to the level of the first landing.

2.13.9 Provide sump pump for pit in the basement. If drains or sump pumps installed, they must not be directly connected to the sewer and /or storm drains.

2.14 CAR AND COUNTERWEIGHT GUIDE RAILS

Notwithstanding the requirements pertaining to performance, ride comfort, retained car and counterweight guide rails (shaft steelwork), guides for prestige office buildings, **SANS 1545 (EN 81),** Best Engineering Practice and the Manufacturer's requirements, **Part-3.14.1** to **Part-3.14.8** shall apply if the existing equipment covered under these sections is modernised or if replaced.

2.14.1 Provide guide rails with brackets and sliding rail clips for each lift car and counterweight, suitably attached to the building structural members. Car guide rails and car frame shall be so located as to balance the car assembly in the guides.

2.14.2 Guide fixings: Provide any additional car and counterweight guide rail backing, intermediate steel and brackets fixed to the shaft wall with **two (2)** (minimum) bolts / Anchors per bracket as required between floors to maintain proper bracket spacing not exceeding **manufacturers specification**

2.14.3 Guide Bracing: Intermediate guide supports which use the guides of an adjacent lift and not the shaft wall or shaft trimmer as the supporting member, shall not be regarded as a guide fixing.

2.14.4 Fish Plates: Joints of car and counterweight rails shall be accurately machined with tongues and grooves in the ends of the rails at the centre of the railhead and base forming matched joints. Each rail joint gap, as installed, shall **not exceed 1.0-mm.** Each rail joint shall be fitted with machined fish-plates fastened to the back of each rail's machined surface with not less than a total of eight **(8) through-bolts**. Additional brackets with sliding rail clips between floor beams shall be provided as necessary to obtain proper rail rigidity and maintain the alignment for both the car and counterweight rails.

2.14.5 Shim packs shall be **20-mm** maximum and shall secure rail clip alignment and shall be so designed that they shall remain in position even though the fastening bolts may become loosened.

2.14.6 Building Settlement: Car and counterweight rails shall be cut off at the top and bottom with an allowance for building compression of **3.5-mm** per typical floor and a maximum of **300-mm** at Works Completion.

2.14.7 The final location of divider beams, with respect to each floor level, shall be co-ordinated under this section. Any additional steel members required for the installation of the lift equipment and not shown on the structural drawings, including their fabrication and installation shall be provided under this section. The

reinforcement of structural steel to absorb rail forces and safety application applied at pinning floors, rather than in the pit, shall be provided under this section. Car and counterweight rail backing shall be provided as required by the code.

2.14.8 Shaft Trimmer: Shaft trimmers shall be (I) beams of adequate strength. Formed metal sections for example; (U) channels, (T) sections or Box Channels shall only be accepted on the submittal of the Manufacturer's design and fixing details.

2.14.9 The blade of car guides shall be machined.

2.14.10 The car and counterweight guide rails shall be provided and aligned so that the faces of the rails are plumb within plus or minus **5.0-mm** from top to bottom of the lift shaft. The maximum change in the distance between guides (DBG) shall not exceed **2.0-mm.**

2.14.11 Retained Car and Counterweight Guide Rails**:**

- The car and counterweight guide rails shall be aligned if necessary to provide smooth and vibration and jerk free ride throughout the length of travel.

2.15 HOIST AND GOVERNOR ROPES

2.15.1 Hoist ropes of sizes and numbers sufficient to comply with the requirements of the relevant code and traction requirements. The shop drawings shall indicate the number and sizes of ropes proposed, together with the name of the manufacturer, type, ultimate strength, the proper working load and that the core is of manila fibre. All hoist ropes shall be cut in sequence from the rope reel and tagged for sequential adjacent installation.

2.15.2 The ends of the hoist ropes shall be properly secured to the car and counterweight cross-head or to the dead-end hitch plates on **2:1-roping**, with adjustable rope shackles having approved sockets. Screw adjustment shall permit equalisation of the tension in all ropes.

2.15.3 **Governor Ropes:** Governor ropes shall be in accordance with **SANS-1545 (EN 81).** The two ends shall be securely fastened together at the lift and shall be attached to the safety operating mechanism. The governor rope shall pass over the governor sheave and over an approved tensioner sheave in the pit. An electrical contact shall be fitted to the pit sheave and shall stop the lift if the governor rope becomes slack or breaks.

2.16 COUNTERWEIGHT

2.16.1 Each lift shall be suitably counterbalanced for smooth and economical operation. Cast iron or steel sub-weights shall be contained in a guided structural steel frame. The counterweight shall be equal to the weight of complete lift car plus at least **40%** of the contract load. The weights in the counterweight frame shall be balanced with the weight equally distributed across the width of the frame to equalise guide

pressures. The sub-weights shall be welded or fastened together as necessary to prevent rattling.

2.16.2 If the main ropes are to be replaced or renewed as part of this project or in terms of the Maintenance Agreement, blocking between the counterweight and the buffer striker plate shall be provided equal to **300-mm per 30-meters** of hoist rope between car and counterweight.

2.17 CAR AND COUNTERWEIGHT GUIDE ROLLERS OR SHOES

2.17.1 Guide Shoes: Part-3.17.1 shall apply if the existing equipment covered under this section does not comply with the requirements of this section or if modernised or if replaced:

- If the speed and load specified allows and guide rollers are not required, provide car and counterweight spring loaded shoe guides. The spring tension shall be adjusted so as to maintain the lift in the centre of the rails and provide continuous contact with the corresponding rail surface under all conditions of loading and operation. The shoe guides shall be lined with a durable resilient material, which shall ensure a quiet and smooth ride.

- If the speed and load allows, spring tensioned guide shoes on the counterweight may be replaced with an alternative approved system.

- The car and counterweight guide rollers / shoes shall constantly provide the ride quality as specified.

- Guide / Sliding Shoe Noise: The guide and sliding shoe arrangement in conjunction with the guide rails selected for both the car and counterweight shall be designed and manufactured to limit all guide noise to a level not audible in the car enclosure or on the landings during travel.

2.18 COMPENSATION CABLES

Provide compensation cables when required by manufacturer's specification and in order to maintain traction on driving sheave throughout the length of travel.

2.19 BUFFERS

New buffers shall be provided

2.19.1 Lifts operating at speeds of up to and including **1,0m/s** shall be provided with buffers of the energy accumulation type, at speeds of up to and including **1,6m/s** shall be provided with buffers of the energy accumulation with buffered return type, and at speeds exceeding **1,6m/s** shall be provided buffered of the energy dissipation type, placed at the bottom of the hatchway for both the car and the counterweight.

2.20 SAFETY GEAR AND GOVERNOR

New safety gear and/or governor shall be provided.

2.20.1 Over-speed governors and safety gear shall be arranged to stop the lift whenever excessive descending speed is attained. The safety gear shall be released by moving the lift in the up direction.

2.20.2 The governor rope system, including the governor and tension sheave, shall be arranged so that the carrier shall not release due to system dynamics when the lift is subjected to an emergency stop.

2.20.3 Car and counterweight safety gear shall be provided with a switch to cut off power from the motor and apply the brake if the safety gear applies without tripping of the governor.

2.20.4 The governor shall be provided with an electrical contact, which shall cut off power from the motor and apply the brake if a speed of **110% nominal speed** is reached in either direction before tripping the governor.

2.20.5 Rope guards and an electrical contact to monitor the rope stretch shall be provided on governor rope tension sheaves.

2.20.6 If an accessible space exists below the car or counterweight, the counterweight shall be equipped with safety gear in terms of this section.

2.20.7 Safety gear supplied and installed shall comply with **SANS-1545 (EN 81).**

2.20.8 Ascending Over-Speed Brake / Safety Gear: shall be provided for all installation where there is a required upgrade or replacement of the main driving machine.

As required in terms of **SANS-1545 (EN 81)**the lift speed in the upward direction shall be controlled by one of the following:

- Ascending safety gear fitted to the car,
- Governor and safety gear fitted to the counterweight,
- Main hoisting rope brake / clamp fitted to the machine bed-plate,
- Brake fitted to the main drive sheave.

2.21 PIT SAFETY STOP SWITCHES

2.21.1 Each lift pit shall be provided with positive action pit safety switches easily accessible from the entrance to the pits without the necessity of entering. Pit switches shall comply with **SANS-1545 (EN 81)**.

2.22 CAR PLATFORM AND SLING

Should a new lift car be required, provide new platform and sling complying to **SANS 1545 (EN 81)**

2.22.1 Static Balancing:

- The car platform with enclosure of each lift shall be balanced by arranging balancing weights to equalise the guide pressure front to back and side to side so that the pressure on any guide shoe roller does **not exceed 18-kg** without load in the car. **(Statically balanced).**

- It shall be accepted that the level of ride comfort is directly related to the static balancing of the car / sling. Therefore, as requested by the Lift Consulting Engineer, the Contractor shall demonstrate that the free hanging car / sling has as a minimum, been statically balanced in accordance with the requirements of this specification.

- As required the work related to meet the requirements of this section shall include but shall not be limited to:
  - Re-positioning and/or installation of balancing weights,
  - Repositioning of steady brackets,
  - Repositioning and/or adjustment of guide shoes / rollers and
  - Repositioning of the rope hitch.

2.23 TRAVELLING CABLES

2.23.1 Provide travelling cables between the lift and the fixed lift shaft or motor room wiring. Travelling cables shall be flexible and suitably suspended to relieve the strains in the individual conductors and all cables shall contain an approximately equal number of conductors, or shall have equal flexibility.

2.23.2 As a minimum travelling cables shall contain two shielded pairs for each lift car to accommodate voice communication.

2.24 ELECTRICAL WIRING AND CONTROL COMMUNICATION NETWORKS

2.24.1 Low voltage and control communication cables shall be run in separate ducts, conduits and trailing cables.

2.25 PASSENGER LIFT CAR ENCLOSURES

Should new car enclosures be required, the entire enclosure is to be manufactured from stainless steel.

2.25.1 **Emergency Light Unit**: Provide emergency battery operated lighting and alarm units. The alarm switch shall be connected to the emergency battery source to ring the alarm bell in the lift shaft when the normal and the standby power source is not available. A button for the testing of the emergency-light battery power pack shall be mounted on top of the car. The emergency light unit shall form an integral part of the normal car lighting including fluorescent lighting and down lighter. Separate emergency light units mounted within the car enclosure shall not be accepted.

2.25.2 Lift Enclosure Fan: Provide silent running squirrel cage, centrifugal flow exhaust blowers mounted in the car roof to draw air into car enclosure from the landing when the doors are open and through car vents and door clearance gaps when doors are closed. The car ceiling or suspended ceiling shall be designed so as not to restrict the flow of air to the fan.

2.25.3 Provide car top terminal boxes of ample size incorporating clearly marked car wiring terminals and a car top inspection control unit.

2.25.4 Provide an illumination intensity of 100 lux instead of 50 lux, and emergency in-car lighting 5 lux for one hour

2.26 LANDING ENTRANCES

NOTE:Part-3.26.1 to **Part-3.26.4** shall apply if the equipment covered under these sections is upgraded or if replaced.

2.26.1 Provide shop drawings showing the wall and unit frame connection for the masonry or concrete wall system.

2.26.2 The type and construction of the unit landing frame shall be as specified under **Part-3** of this specification.

2.26.3 **Fire Rating of the Lift Entrances: (When Specified)** Provide **two-hour fire rated** landing entrance equipment, including door panels and signal faceplates. Should the landing faceplate fixtures not meet the two hour fire rating, provide additional fire rating fixed on the inside of the shaft. Provide the relevant **SANS** (South African National Standards) or equivalent International test certificates for a Class "C" type landing door equipment.

2.26.4 For maintenance purposes, floor designation shall be clearly and permanently and neatly marked with at least **100-mm** letters or numbers on the inside of the landing doors (shaft side).

2.26.5 Lift shaft landing entrance assembly shall consist of a unit frame, door panels, fascia, sill, hanger, closer and interlock in compliance with the applicable code requirements.

2.26.6 In compliance with **SANS-1545 (EN 81)**, provide landing door dis-locking devices on all landings.

2.27 DOOR PANELS

2.27.1 Provide door panels for all openings manufactured from **1.5-mm** minimum stainless steel. Provide continuous stiffener channels at top, bottom and edges. The bottom of each door panel shall be provided with removable laminated phenolic guides running in the sill slots and door guides shall be designed to be replaced without removing door panels. All door panels shall be reinforced and provided with key-

ways as required for door hangers and operating mechanisms. All mitres, junctions or other joints shall be securely welded, ground smooth and filled.

2.27.2 Door panels shall be constructed to operate free from objectionable squeaks or metallic sounds and shall be acoustically designed. Metal door panels shall be treated with a sound deadening material to produce a quiet door operation under all operating conditions.

2.27.3 Door Panel Leading Edge: Provide door panels with leading edge interlocking profiles and with rubber stoppers top and bottom to prevent the metal door panels touching when fully closed. Door leading edge rubber profiles shall meet the specified fire rating.

2.27.4 Car and landing door assembly shall be designed to maintain a minimum gap between door panels when fully open. It is intended that landing door add-on or in-fill site guards shall not be required.

2.27.5 Stainless Steel Door Panels: Where stainless steel door panels are specified, the entire door panel shall be constructed from stainless steel and shall not be a mild steel construction clad in stainless steel.

2.27.6 The selection of the door operator shall take into account the door height, clear opening and weight of the panels.

2.28 SILLS AND SUPPORT ANGLES

The landing sills for all openings shall be of narrow extruded aluminium or stainless steel. Grooves in sills for the door guides shall be machined with minimum clearances for the guides. The sills shall be supported on steel angles securely fastened to the building floor construction.

2.29 STRUTS AND DOOR CLOSER SUPPORT ANGLES

Steel strut angles of adequate size shall be provided to rigidly support the hanger housing and the door closers. The angles shall be continuous between the sill and building beams above and securely bolted to the header. Strut angles fastened to the guide rails or the lift shaft wall construction shall not be accepted.

2.30 DOOR HANGER SUPPORTS

Hanger supports shall be **5.0-mm** minimum thick steel-formed sections securely bolted to strut angles and closer support angles.

2.31 TOE GUARDS

Provide toe guards constructed from mild steel on all landings. Toe guards shall extend the full width of the door opening and shall be gradually bevelled and fixed to the wall. The straight vertical portion of the guards shall equal a distance of **400-mm** or as in the case of the lowest landing shall equal the distance travelled by the car sill from when the car is on the fully compressed buffer. Toe guards for observation lifts shall be the full width of the door sill and shall be manufactured from the material as specified for observation lifts.

2.32 FASCIA PLATES

2.32.1 Where the car sill to shaft front clear distance exceeds the maximum allowed in terms of **SANS-1545 (EN 81)**, provide fascia plates constructed from mild steel and reinforced where necessary to ensure a ridged surface. Fascia plates shall extend the full distance between header and sill and shall extend the full width of travel of the doors.

2.32.2 Alternatively, if car door mechanical locks are provided, fascia plates are not required. Car door locking mechanism using an electrical solenoid shall not be accepted.

2.32.3 Required to incorporate a car-door locking mechanism that prevents the doors from being opened from inside when the car is outside the unlocking zone.

2.33 FIXTURE FACE-PLATES AND MOUNTING

2.33.1 For all lifts with square rectangle stainless steel face-places and unless otherwise specified, landing fixture faceplates shall be surface mounted and shall be of stainless steel. However, alternative landing fixture faceplates may be offered if these faceplate are generic products and aesthetically acceptable to the Principal Agent and Consulting Lift Engineer.

2.33.2 The fixture faceplates in the lift car shall be mounted with concealed security fastenings or fastenings requiring special tools to remove them. Exposed fastenings shall match the material and finish of the faceplate.

2.33.5 Without exception the Principal Agent and Consulting Lift Engineer shall sign off and approve the final design of the fixture faceplates before placing the order or manufacture of this equipment.

2.34 BLANKING-OFF FACEPLATES

: Where applicable, allowances for full blanking-off plates to cover the existing landing indicator and/or arrow and/or button unit cut-outs shall be included and shall be of stainless steel.

2.35 CAR POSITION INDICATOR

2.35.1 Provide LED or LCD readout position indicators incorporated in each lift car operating panel.

2.35.2 Information to be displayed shall include but shall not be limited to, floor position, fire control information / status, independent service (goods mode) and over-load conditions maintenance operation etc..

2.35.3 The digital readout shall be at least **50-mm** in height.

2.36 CAR OPERATING PANEL (COP)

2.36.1 Provide car operating panel(s) incorporating but not limited to:

- A series of call buttons, numbered to correspond to the active landings. Not applicable if destination control has been specified.
- Emergency alarm button.
- Fan switch if not automatically controlled.
- Intercom equipment.
- Voice Annunciation components as specified.
- Door open and door close buttons.
- Position indicator as specified.
- Signage as specified.
- Independent / reservation control equipment specified.

2.36.2 Car operating panels shall be flush mounted into the car fronts or car side panels.

2.36.3 Provide car call and emergency buttons with an approved, micro-push operation. Each button shall be clearly marked with its corresponding floor position or function as the case may be. The demarcation shall either comprise a raised or recessed numeric or alphabetic character. Call buttons offered shall be those as regarded as top of the range equipment by the Contractor and shall be approved in terms of Health and Safety.

2.36.4 DISABLED REQUIREMENTS.

Except for dedicated goods lifts and in accordance with **SANS 50081-70:2004** (**EN 81-70:2003)** the following shall apply:

- **Braille Buttons**: Provide Braille car call buttons. Braille buttons shall be provided with the Braille incorporated (engraved) into the button unit.

- The car operating panels shall be **Disabled friendly** and shall be located so that all operating and emergency buttons are located within **1200-mm and 900-mm** above the car platform. The emergency buttons and switches including the alarms, door-open button, intercom button and control key switches shall be mounted at the bottom and the call buttons shall be mounted in numerical order starting above the emergency button and numbering from left to right.

- The minimum area of the active part of the button shall be **49-mm** square or an inscribed circle of **20-mm** square diameter.

- The position of the symbol shall be on the active part or **10-mm** to **15-mm** left of it.

- The minimum distance between active parts of the buttons shall be **10-mm**.

2.36.5 Voice Annunciation:

Provide blind friendly full range volume controlled voice annunciation / voice synthesiser. The voice annunciation shall be software generated. Voice annunciation shall be in English and shall have a clearly understandable English accent.

Voice annunciation shall include:
- Next selected landing at which the lift will stop,
- The direction the lift is committed to travel,
- Special door safety instructions,
- Special instructions if the lift is held up at a landing for an extended period of time.
- Announcement when the lift is overloaded.

2.36.6 Car operating panels shall be arranged so that the call buttons and the control and signal devices are substantially flush to the vertical surface. The wiring to the individual components shall permit the panel to swing open for maintenance purposes without disconnecting any of the fixed wiring.

2.36.7 Signage: Provide all mandatory notices including, load plate, official lift number and emergency instructions. Signage shall be engraved into the car operating panel or alternatively, signage on removable plates laser cut and flush mounted into the car operating panel may be accepted.

2.36.8 Key Switches**:** All key switches in the fixture faceplates of landing stations, car stations and supervisory control stations shall be master-keyed with removable core cylinders (KABA type or equivalent). Key switches shall be clearly designated and the on/off position shall be clearly marked.

2.36.9 Goods and Trolley Passenger Lift COP**:** To allow for maximum and optimum loading, bed, goods and trolley passenger lift's COPs shall be mounted in the car fronts or if no car fronts exist, as close as possible to the lift entrance.

2.37 CALL BUTTON ACKNOWLEDGING LIGHTS

Car and landing call buttons shall be of the electronic illumination acknowledging type. The registering of a call button shall illuminate the button to acknowledge that a call has been registered. Incandescent lamp illumination shall not be accepted.

2.38 LANDING CONTROL STATIONS

2.38.1 Landing Call Buttons (Conventional Lift Controls):

- Provide landing button stations on all floors. Terminal floors shall contain a single button station and intermediate floors shall contain both up and down buttons. In the case of multiple risers, activation of a button on one riser shall ensure the activation of same button on all risers on the same floor.
- Provide landing buttons with an approved, micro-push button operation. All landing fixtures shall be high quality vandal resistant type.

2.39 WAITING PASSENGER LANTERNS AND GONGS

2.39.1 Waiting Passenger Lanterns and Gongs (Conventional Lift Controls)

- Provide an up and down, LED or LCD digital readout electric indication waiting passenger lantern at each intermediate landing and an up or down single indication lantern at a terminal landing of all lifts. The lanterns shall be mounted above the head jamb or beside the side jamb or shall be incorporated into the landing frame on each typical entrance. Incandescent illumination indicator lamps shall not be accepted.

- Supply and fit electronic arrival gongs to each entrance. The fixture faceplate shall contain an approved pattern of perforations / slots to enable the transmitting of the sound from within the shaft to the lift foyer. Gongs shall be fitted in enclosures to retain and direct the annunciation to the applicable landing foyer. It is intended that arrival gongs on one landing will not be heard on another landing.

- As soon as a lift has reached a predetermined distance from a landing and is going to stop at that landing, the corresponding waiting passenger lantern shall be illuminated and the gong shall sound whether or not a landing call has been registered. The waiting passenger lantern shall remain illuminated until the lift leaves the landing or if the car becomes filled whichever occurs first.

- **Disabled Friendly Gongs:** In order to meet the disabled friendly requirements, the tone of the gong for up and down shall differ i.e. one “gong” for up and two “gongs” down.

2.40 LANDING POSITION INDICATOR

2.40.1 Provide LED or LCD digital readout position indicators over the architrave of each lift. As the lift travels through the lift shaft, its position shall be indicated continuously by the illumination of the numeral or letter corresponding to the landing at which the lift is stopped or passing.

2.40.2 Landing position indicators **shall not illuminate** with the floor position if the lift is not able to respond to landing calls as a result of a fault condition, on inspection control or when undergoing routine maintenance.

2.41 LANDING DOORS AND ARCHITRAVE FINISH

2.41.1 Stainless Steel Landing Finish: The direction of the grain of stainless steel door panels, frames and headers shall be in the same direction. Unless otherwise specified by the Principal Agent or Consulting Lift Engineer, the direction of the grain for a stainless steel finish shall be vertical / top to bottom.

2.42 LIFT CAR FINISHES

2.42.1 Decorative finishes in the car or floor covering shall not have a fire index of more than **two (2)** when tested in accordance with **SANS-0177: Part3 or 4**, as the case may be.

2.42.2 ENCLOSURE FINISH SAFETY GEAR TEST:

- The design and final fixing of the car interior wall and ceiling covering shall be tested by activating the safety gear while the lift is running in a down direction at nominal / contract speed.

- On completion of the safeties test, the lift enclosure wall and ceiling panels shall be inspected for distortion or damage and if necessary, the test covered under this section shall be repeated until satisfactory conclusion.

- In order to verify the design and inspect the hidden fixings of the car enclosure wall and ceiling panels, the Principal Agent or Consulting Lift Engineer reserves the right to request the removal of the wall and ceiling covering after the safety gear test covered under this section.

2.42.3 Stainless Steel Car Entrance Finish: The direction of the grain of stainless steel door panels, slam-posts and headers shall be in the same direction.

2.42.5 Blanking off Plates**:** Where applicable, provide full blanking-off faceplates to cover the existing car operating panels and indicator cut-outs. Blanking off plates to cover cut-outs of removed indicators above the entrance shall extend the full width of the car entrance header section.

2.43 PROTECTION PADDING / DRAPES

Provide vinyl impregnated nylon faced drapes for all goods / passenger lift car enclosures. The vinyl-impregnated nylon shall be at least **1.5-mm** thick backed by **7.0-mm** padding. Pads shall be double stitched on a grid **150-mm** on centres. Padding shall be treated with a fire retardant compound so as to be self-extinguishing. The protection padding shall be provided to protect the two sides and the rear of the car enclosure. Suitable supporting studs shall be provided in the car enclosure in accordance with the Principal Agent and Consulting Lift Engineer's requirements. Quantities shall be specified under **Section-6.**

2.44 LIFT INTERCOM SYSTEM

2.44.1 Provide an intercom system complete with talk-back speakers with all required auxiliary equipment, wiring, a **Six (6) hour** minimum back up power supply/

2.44.2 Lift travelling cables on each lift shall contain **Two (2)-shielded** twisted pairs of conductors for intercom usage.

2.44.3 Provide one hands-free sub-station in each lift car, one master-station for each motor room and one master-station for the security / control room as specified. Two-way voice communication between the lift car and lift motor room, lift car and control room, and lift motor room and control room shall be possible.

Intercom Security / Control Room: The lift intercoms for all the lifts and motor rooms shall be wired back to a centrally located common security / control room.

GSM Auto-Dialler: in addition to the specified intercom system, all lifts are to be equipped with a GSM Auto-Dialler system. The GSM unit is to be located on top of the car or in the lift motor-room. The installation shall ensure that the signal strength to the GSM unit is at all times sufficient to ensure radio communication no matter what the position of the lift car in the shaft. The required audio quality shall be the same as that specified for the intercom unit.

The GSM unit shall be programmable and shall have the facility to dial alternate numbers should the first programmed number be unavailable. The unit shall be activated after the alarm button is pushed for a period longer than 3 seconds

2.44.4 CCTV Camera Requirements:
Provide CAT6 Shielded twisted cable for each lift car for the connection of digital CCTV cameras, which will be provided by the Employer.

2.44.5 Breakdown Rate:

- Provide guarantees that after completion of the lift installation, the lift breakdowns / equipment interruptions shall not exceed the stop rate shown below. The fault analysis shall be compiled on a monthly basis and assessed on a “rolling year”. A defect as stated above is defined as an event, which prevents equipment from providing its required service and which was not as a consequence of an external factor or at the specific direction of the Employer.

- The total annual average stops per lift shall not exceed **Four (4).** The total annual stops per lift which are attributed to the lift drive and control systems, shall not exceed **Two (2).**

- If the lifts do not deliver the specified service after Works Completion and the twelve (12) months guarantee period, it shall be considered as a Latent Defect to be rectified by re-commissioning, adjusting, or replacing equipment at no additional cost to the Employer.

2.45 MACHINE AND CONTROL DATA SUBMITTALS

2.45.1 Machine Data: Provide the relevant machine data as shown below to ensure the correct Power Feeder Design well in advance of field requirements:

- Lift numbers:
- Capacity / load: kg
- Speed: m/s
- Supply Voltage: Volts
- Supply Frequency: Hertz
- Number of wires:
- Motor kW rating: kW
- Roping: Ratio
- Full load UP acceleration: Amps
- Full load UP nominal speed: Amps
- Machine heat release per car: BTU/hr/car
- Power Factor: %

2.46 MOTOR-ROOM-LESS (MRL) LIFTS INSTALLATIONS

Shall apply if motor-room-less lift equipment is provided.

2.46.1 **Codes of Practice:** The standards and requirements for the installation of motor-room-less lifts will therefore, have to satisfy **SANS-1545** (latest edition) as well as all other codes, practices, standards and local by-laws applicable to this type of lift installation.

2.46.2 **Noise and Vibration Levels:** The noise generated by the control and drive on the landing shall not exceed **42-DB (A)maximum** and **38-DB (A) average**. The noise and vibration levels measured in the lift car shall not exceed the performance levels as specified herein.

2.46.3 Motor-room-less lifts shall be supplied as a complete package and the following items shall be provided and considered as an integral part of the equipment:

- Distribution board including circuit breakers and earth leakage for control equipment,
- Motor room lights (**minimum 200-lux**),
- Car lights and plugs,
- Pit lights (**minimum 50-lux**),
- Shaft lights (**minimum 50-lux**),
- Motor room plug socket (15-Amnps),
- Pit plug socket (15-Amps).

2.46.4 All electrical work shall comply with the requirements of **SANS-0142**.

2.46.5 **Painting of the Motor Room**: Paint the motor room walls and roof within the shaft white. The motor room shall be considered as the complete shaft area containing the drive and control equipment from the level of the highest landing to the top of the shaft / motor room roof.

2.46.6 Electrical Feeder / Supply Cable & Distribution Board:

- Provide all material and work required to extend or transfer the lift supply cable(s) from the existing DB Board to the new distribution board mounted in the shaft (motor-room less lifts).
- Provide all material, work and signage necessary to make the existing distribution board safe after relocating of the lift's electrical supply and distribution board into the lift shaft.

2.46.7 Car-Top Guard Rails**:** In terms of **SANS-1545 (EN 81)**, the car roof shall be provided with a balustrade (guard-rail) where the free distance in the horizontal plane beyond and perpendicular to its outer edge exceeds **300-mm**. The balustrade shall fulfil the following requirements:

- It shall consist of a toe guard of **100-mm** height and an intermediate bar at half the height of the balustrade,

- Considering the free distance in a horizontal plane beyond the outer edge of the hand-rail of the balustrade, its height shall be at least:
    - **700-mm** where the free distance is up to **850-mm** and
    - **1100-mm** where the free distance exceeds **850-mm**.

2.46.8 Inspect and verify that the existing power feeder system is compatible with the equipment offered and any changes or upgrading of the electrical supply shall be brought to the attention of the Consulting Lift Engineer and Principal Agent at tender stage. Any work to the power feeder system necessary to produce a reliable lift operation and which was not brought to the Consulting Lift Engineer and Principal Agent's attention, shall be undertaken by the Manufacturer at no additional cost to the Employer.

2.46.9 All components and their respective adjustment which do not form part of the equipment change yet influence the optimum operation of the upgraded equipment, shall be included in the Manufacturer's scope of works.

PART 3: SPECIFIC REQUIREMENTS FOR LIFTS

The following items are special requirements for the upgrade project at Carlton Centre; it is a requirement of the tender that these requirements be met. Should it not be possible for the tenderer to meet these requirements, they are to indicate any deviation or qualifications in writing and this information is to be submitted in the form of a covering letter together with the tender document.

3.1 GUIDE-RAILS

With the intention of minimizing disruption to daily operations of the building and in keeping the project lead-time to a minimum, the Tenderer is allowed the option to retain and re-use the existing guide rails. Should the guide rails be retained, it is the responsibility of contractor to ensure that the rails are re-aligned to ensure that the ride quality as detailed in this specification is achieved.

3.2 CONTRACT SPEED

For all units, existing lift contract speeds should be maintained; tenderers who propose any contract speed lower than the existing will not be considered for this project.

3.3 HYDRAULIC LIFTS

All hydraulic lifts are to be replaced in their entirety with machine-room-less type lifts. The successful tenderer will be responsible for the removal and safe disposal of any hydraulic oil/ fluid as well as the rehabilitation of pits or motor-rooms where there may be contamination due to earlier oil spills etc.
The bidder is to provide at tender stage the following information relating to all hydraulic lifts which are to be replaced with traction type motor-room less lifts: Load Capacity, Speed, Car internal dimensions, Door opening type, width and height

3.4 GOODS PASSENGER LIFT CARS

All goods/passenger lift cars provided shall be of the same design as the lift being replaced with extended car roofs, etc., tenderers are to ensure that they familiarise themselves with the existing design and they offer the same or better.
Standard/reduced car sizes will not be accepted as replacements for the existing goods/passenger lift cars.

3.5 DESTINATION DISPATCHING SYSTEM (WHERE SPECIFIED)

Where specified, the destination control system, elevator cars are to be equipped with an additional car operating panel which is to be housed in a lockable panel which will allow the lift to be removed from the group and used on independent service or as a goods lift.
Tenderers are to provide detailed information on the proposed destination dispatching system. The information of the offered Destination Dispatching System shall include high resolution photos of lobby, car control and signal panels, a comprehensive system operation manual as well as a traffic analysis comparing traffic handling with traditional group control system as well as Destination Dispatching system. This information is to be submitted together with the tender document.

3.6 RETAINED EQUIPMENT

With the intention of minimizing disruption to daily operations of the building and in keeping the project lead-time to a minimum, the Tenderer is allowed the option to retain and re-use the following equipment:

3.6.1 Guide Rails: As detailed in point 4.1 above

3.6.2 Counterweights: the existing counterweights can be retained and re-used; however it is a requirement that all guide-rollers and their stands be replaced with suitable high performance equipment. Should a 2:1 roped lift counterweight be retained, the successful contractor is to ensure that the counterweight diverter sheaves are removed, all bearings are to be replaced, the sheave is to be inspected by X-Ray and a certificate is to be issued to the Employer (prior to the unit being returned to service) indicating that the diverter sheave is free from any structural or mechanical defects and that the diverter sheave is safe for re-use.

3.6.3 Pit equipment: any pit equipment including but not limited to; diverter sheaves, rope tension sheaves, car and counterweight buffers are to be fully re-conditioned and certified as per the requirements for counterweight sheaves and bearings.

3.6.4 Landing Door Frames: Existing landing door frames are to be retained for all office tower lifts, the frames are Granite and form an integral part of the buildings foyer designs. Any tenderer who requires that these frames be removed or adjusted to suit the new installation will not be considered for this project. Tenderers are to confirm in writing that the offered product will be suitable to re-use the existing landing doorframes.

3.7 COUNTERWEIGHT SAFETY GEAR

3.7.1 Counterweight safety gear is to be provided as specified, all units which are to be replaced and where the existing unit is fitted with counterweight safety gear or where the latest SANS regulations require the installation of counterweight safety gear.

TECHNICAL SPECIFICATION FOR ESCALATORS

PART 1: TECHNICAL SPECIFICATION FOR ESCALATORS

1.1 DEFINITIONS

A. Heavy-duty escalator: An escalator designed specifically for transit system usage, which is substantially different from commercial units in the design of truss, machine, step, step chain tensioning device, steps, brake, and other components/equipment.

B. Flat steps: Number of flat steps shall be measured from edge of comb teeth in horizontal direction to first exposure of a riser, at upper and lower landings. The three steps shall be flat within 1,6mm.

C. Working points: Points of intersection of step nosing lining and the horizontal of the top and bottom landing plates at finish elevation.

D. Special tools: Tools designed specifically for tasks associated with escalator inspections, maintenance, and repair, or those which are required for these tasks and are not readily available through normal purchasing channels.

E. Escalator support: These are the upper, lower and intermediate supports needed to support the total loads of the escalator.

F. Slip joints: A slip joint is a sliding joint required to support escalators in transit system and high rise applications. Location shall be at bottom support areas or as indicated on the Contract Drawings.

G. Structural Rated Load: For the purpose of structural design, the rated load shall be considered to be not less than the weight of the escalator system plus the product of 300kg on each exposed step times the number of exposed steps.

H. Machinery Rated Load: For the purpose of driving machine, power transmission and braking calculations, the rated load shall be considered to be not less than: Machinery rated load (kg) = 7.0(W + 8)B, where W = width of the step tread (M), to the next whole inch. B =√3 X Total Escalator Rise (M)

1.2 QUALIFICATIONS

A. Manufacturer's Qualifications: The escalator manufacturer shall have been a builder of escalators regularly engaged in escalator building activity for at least the past five years. The design, engineering and manufacture of major escalator components such as truss, drive machine, steps, controllers, and safety devices shall be of the same manufacturer, except where otherwise specified.

1.3 DESIGN AND CONSTRUCTION REQUIREMENTS

A. All escalators provided under this Contract shall be the product of a single manufacturer. Design and construction requirements for the escalators shall meet the requirements of SANS 21 except as specified herein and as shown on the Contract Drawings.

B. Escalators shall be heavy-duty or commercial type as specified in the bill of quantities and shall have a minimum design life expectancy of 20 years.

C. Escalators shall be designed and installed for indoor/outdoor use as specified in the bill of quantities.

D. Escalators shall be designed to provide three flat steps at both the upper and lower ends. **Where it is not possible to provide 3 flat steps, the bidder can offer 2 flat steps, however this information is to be indicated in writing at tender stage and the bidder is to provide a detailed motivation as to why they are unable to provide 3 flat step arrangements.**

E. The drive mechanism shall be located within the escalator.

F. Escalators shall be designed with provisions for thermal expansion and contraction of complete escalator assemblies due to changing ambient conditions.

G. No wood products shall be permitted in the escalator system.

H. Each escalator shall be designed for an incline of 30 degrees from horizontal plane.

I. The drive mechanism, step drive unit assembly, steps, step linkage, comb plates, handrails, handrail drive units, and any parts subjected to wear or frequent removal shall be readily and easily removable and replaceable without requiring any modification or alteration of escalator structure, building structure, or equipment.

J. On parts of equipment subject to wear and requiring periodic replacement, provide key and seat, nut, screws, or other removable and replaceable type mechanical fasteners. Such replacements shall not diminish original structural integrity. Use of rivets or similar type fasteners requiring physical deformation during field positioning will not be permitted.

K. All gaps and running openings within structural design tolerances where the escalator structure meets the surface of the finished openings shall be properly closed by the use of, polyurethane sealant as specified or other approved means installed in accordance with the manufacturers' instructions.

L. The equipment shall be quiet and smooth running and be capable of withstanding the operating conditions described herein.

M. Surface irregularities, sharp edges, or protrusions in public and maintenance areas will not be permitted.

N. *Performance Requirements*

1. Hours of Operation

Hours of escalator operation shall be considered as 14 hours per day, seven days per week.

2. Direction:

Direction of travel shall be both direction, up or down and reversible.

3. Speed:

0,5m/s plus or minus 5% speed variation under varying load conditions in either direction.

4. Vibration:

Vibration level shall not exceed 0.4 inches per second as tested using a Bruel and Kjaer Model 2516 integrating vibration meter or equal. Readings will be taken throughout the travel of the exposed steps.

5. Supporting Structure

The supporting structure shall be designed in a way that it can support the dead weight of the escalator or moving walk plus a rated load of 5 000 N/m2. It shall be calculated in accordance with EN 1993-1-1.

O. *Notices:*
The use of lifts is the preferred method of vertical travel for most people with disabilities and in particular wheelchair users and persons with guide dogs. Additional signs should be provided to indicate the location of other facilities, these facilities should be in close proximity to the escalators and moving walks and easy to find.

P. *Airborne Noise Criteria*:
Maximum airborne noise shall not exceed 65 dBA measured at distance of 150cm above any moving step throughout the length of escalator travel and the immediate surrounding public areas.

Q. *Fire Protection*:
Contractor shall provide escalators constructed of non-combustible materials throughout rollers, chain step wheels, and electrical equipment. Handrails shall have a flame spread rating of 76 to 200.

R. *Modifications to Existing Well ways*: If well-ways are indicated as existing on the Contract Drawings, the dimensions and working points of the existing well-ways indicated are the best available information on the existing conditions. Contractor shall field verify all dimensions and fabricate escalators to best-fit existing conditions. The Contractor may keep existing working point locations or shift them to minimize modification to existing facilities. All proposed modifications shall be designed and stamped by a registered civil or structural engineer and shall be submitted to the Consultant for approval.

All proposed modifications shall be designed and constructed to withstand all applicable loads. No well way modification work shall begin until the Consultant/Engineer has approved the design. The architectural features of the building shall be maintained and any modification shall match the existing finish or shall be in accordance to details indicated in the Contract Drawings. Prior to any modification, the Contractor shall submit drawings to the Consultant/Engineer for approval. Such submittal shall include pit location and structural details. Existing pre-stressed concrete structural members shall not be modified in any manner.

S. *Clearances:*

1. Bottom escalator pits: There shall be a minimum working space of 900mmbetween the step or step guard and the end of the escalator truss or any component along the pit wall, whichever is less.

2. Upper escalator pits: For escalators with the controller located in the machine room, there shall be a minimum working space of 900mm between the step guard and the end of the escalator truss or any electrical component along the head pit wall, whichever is less.

1.4 SUBMITTALS

A. *General*: Refer to Technical Specification Section - Submittal Procedures and Section- Shop Drawings, Product Data, and Samples for submittal requirements and procedures.

B. *Shop Drawings*: Submit shop drawings and data including the following for Consultant/Engineer's approval.

1. Fully dimensioned layout in plan and elevation indicating component locations, structural supports, access spaces, and points of entry.

2. Loads on supporting members, reaction points and loads, and deflections under varying loads. Loads imposed on the structure by the escalator system shall not exceed the safety limit of the structure. The Contractor shall be responsible for verifying that these requirements are met.

3. Submit details of finishes including push button fixtures, key switches, and required signage. Indicate direction of stainless steel directional grain.

C. *Product Data:*

1. Manufacturer's design data and material specifications for all replacement parts and equipment. Specifications shall include test methods required to verify compliance with specifications.

2. Lubricants, sealers, paints and any other potentially hazardous substances shall be submitted for Consultants/Engineer's review. The Contractor shall submit the necessary Material Safety Data Sheets.

D. Operation and Maintenance Manuals: Submit Operation and Maintenance manuals in accordance with Section - Operation and Maintenance Data.

1. Drawings, installation and maintenance instructions, and other data pertinent to the components used in the escalator systems. Manuals shall cover all mechanical and electrical components, operating panels, controls and indicators.
2. Provide maintenance tool manuals and supporting software documentation.
3. The Contractor shall submit the final version in hard copies and an electronic version on CD-ROM.

1.5 MAINTENANCE

A. *Maintenance Program*: Within 60 days after the Notice To Proceed, and prior to installation, Contractor shall submit a detailed Maintenance Program, showing functions to be performed and their schedule. The Maintenance Program shall also include trouble call service and emergency repair service.

B. *Free Maintenance Period*: Contractor shall perform maintenance on the escalator as specified in the tender document, after Completion and the unit is open for public use. Contractor will not be relieved of maintenance until final acceptance of the escalator is issued Maintenance shall include all work and materials needed to keep the equipment in perfect operating condition. Contractor shall coordinate and perform maintenance in a manner to result in minimum inconvenience to the users/building occupants.

C. *Escalator Access*: The Contractor shall inform the Client's representative's office each time an escalator is barricaded and removed from service and again when the escalator is returned to service.

D. *Work Hours for Maintenance*:

1. Routine maintenance, non-urgent repairs, and warranty work shall be performed on no more than one escalator at a time per group of escalators.
2. Repairs (urgent repairs) required to return equipment to service shall be accomplished as soon as possible.
3. The Contractor shall notify the Consultant/Engineer 48 hours in advance to request access to the equipment for routine or non-urgent work.

E. *Inspection during Maintenance Period*: Systematic inspection once a month; adjustment and lubrication of escalator equipment when required as recommended by the manufacturer. Replace defective parts with new parts of same manufacture as required.

F. *Follow-Up Tests*: Test all safety devices as per SANS/manufacturers requirements.

G. *Performance Standards:*
1. Maintain the performance standard specified herein and maintain correct operation of all safety devices and circuits.

2. Maintain uniform starting, stopping and uniform riding qualities at all times.

H. *Escalator Shutdowns:*

1. Should an escalator become inoperative, the Contractor shall attend to the escalator within 4 hours of notification of such incident. If the incident occurs after 8:00 PM, the service representative shall be on-site no later than 7:30 AM the following day. The escalator shall be returned to service as quickly as possible.

2. Should there be a failure to comply with above, the Client may order the work to be done by others at the Contractor's expense. Such action by the Client will not affect the Contractor's responsibility to warrant the work.

I. *Final Service and Inspection*: Two weeks before expiration of the Maintenance Period, the equipment shall be lubricated, fully serviced, adjusted to the standards designated herein and safety devices shall be checked; Contractor shall re-lamp escalator demarcation light fixture and pit light fixtures. A complete inspection will be made by the Consultant/Engineer or Client representative.

J. Keep a Record book on each escalator with the following information: Worker's name, date, time arrived, total time spent, parts inspected, adjustments and work done, and parts replaced. The records shall be submitted to the consultant/Engineer at one-month intervals.

K. Contractor shall maintain local stock of parts for maintenance throughout the Warranty Period and the Maintenance Period.

L. *Chargeable Repairs*: Contractor will not be responsible for trouble calls that are due to misuse, or accidents, or are otherwise not caused by the Contractor. Calls which result in adjustment of safety devices not accessible to the public will not be reimbursed. Contractor shall submit all documentation necessary to prove that a particular trouble call should be a Chargeable Repair. Contractor shall also submit all documentation necessary to justify the direct costs incurred.

1.6 RELIABILITY

A. *Definitions*:

1. *Run-in Period*: The initial period of operation of the escalator. There shall be only one Run-in period for the escalator, regardless of maintenance, unless a modification or other major work done has been performed on the escalator, during, or after the run-in period.

2. *Failure*: An incident which is corrected by replacing a part, resetting the unit, or making an adjustment. Exceptions to failure are conditions of misuse, vandalism, accidents or negligence not caused by the Contractor.
3. *Incident*: An incident is any escalator stoppage, regardless of cause.

4. *Pattern Failures*: The occurrence of multiple independent failures of the same primary replaceable item or adjustment in identical or equivalent applications.

5. *Reliability Demonstration Test (RDT)*: A test to determine a reliability-associated parameter, such as available operating time, within defined statistical risks or with a specific statistical confidence.

B. Requirements:

1. The break-in period shall begin after the installer has satisfactorily completed the escalator installation, obtained respective annexure certificates and the Consultant/Engineer has performed substantial inspection of the escalator. The escalator shall be barricaded and operated continuously under no load condition for a minimum of 48 hours. Upon satisfactory operation without incident, the barricades may be removed and the escalator may be put into service to the public.

2. After the run-in period, the Reliability Demonstration Test (RDT) shall begin. The escalator shall operate up to full load under normal modes of operation in either direction and be able to provide 95 percent reliability as determined by the following formula:% Reliability = T/A
T = Actual aggregate operation time for the escalator. Downtime for scheduled preventive maintenance and incidents, which are not failures, shall not be deducted from the aggregate operation time. A = Aggregate revenue operating time of building, nominally 14 hours per day.

3. Contractor shall take corrective action to eliminate pattern failures, regardless of total operating time accumulated. The Contractor shall notify the Clients office that a unit has been returned to service after corrective actions or maintenance has been performed. The tracking of down time is determined by reports from the Clients facilities management offices. Failure by the Contractor to report “returned to service” will result in lower reliability performance and will remain the responsibility of the Contractor.

C. **The Contractor shall**:

1. Collect the data and document the results of the RDT, perform all calculations, and issue the results.

2. Review all failure incident reports to ensure that only pertinent failures are included in the test results.

3. Review the data with Consultant at interim stages of the RDT and at the final stage, prior to issuing the results.

D. If the Consultant determines that the RDT has failed below the 95 percent goal for any consecutive 30 day period, the Maintenance fee due to the Contractor for the that 30 day period shall be reduced by the following formula: A = MF * % Reliability: where A = Amount due to Contractor,
MF = Monthly Maintenance Fee for one escalator, %Reliability = As calculated above.

PART 2 – PRODUCTS

2.1 GENERAL

A. Each escalator shall be a self-contained, unit consisting of truss, tracks, step drive units, steps, step chains or linkages, comb plates, handrails, driving machine, controller, safety devices, balustrades, cladding and all other parts required to provide a complete operating installation. The design and method of installation of each escalator shall be such that each will operate within the tolerances specified herein. Installation shall allow items in machine space to be removed with portable hoist or other approved means for replacement or repair. Minimum design life shall be 20 years in use for 14 hours per day, seven days per week.

B. Each escalator assembly shall meet the requirements of SANS.

C. Each escalator shall be of the cleat step, reversible type with full semi-circular newels and handrails. Each escalator shall be capable of operating and stopping under full load condition in either direction for ascending or descending transportation service.

D. Methods of sound isolation shall be employed to assure that the complete installation shall be free of noise and vibration.

E. Weather proofing (outdoor escalators only): All metal surfaces shall be hot-dipped galvanized except non-ferrous metals and stainless steel. Machined and

operational areas shall be protected from corrosion by applying a rust preventative compound, plastic foils, oil or grease. Exposed-to-view hardware shall be stainless steel to match adjacent finish. Decking, balustrades, and cladding shall have smooth and tight-fitting seams.

F. *Lubrication System Requirements*

1. All parts, other than sealed bearings, requiring lubrication shall be designed for an automatic or remote lubricating system. The lubrication system shall operate only when the escalator is running and the amount of lubrication shall be fully adjustable. A reservoir shall be provided with a low oil signal to the controller, and a minimum capacity sufficient for one month operation without refill.

2. The lubrication system shall be positive acting and located in the escalator machine room or pit to allow for easy access. System shall have a removable drain plug to allow flushing of lubricants.

3. Reservoir level indications shall be provided and visible where lubricants are contained within housings, supply tanks, and large filler cups.

4. Contractor shall furnish and mount near the lubricating system in the escalator pit, a framed lubrication chart for each escalator. The chart shall show the location of each lubrication point, type of lubricant to be used, and the frequency of lubrication.

5. All tubing shall be supported to truss structural members using clamps or other approved support method.

G. *Bearings*

1. All bearings shall be ball or roller bearings rated for heavy-duty service and shall be of the best quality available.

2. Sealed bearings shall be used where accessibility or manual lubrication is impractical in escalator design.

H. Oil collector chutes and collection trays shall be fabricated of steel, shall be free of obstructions for ease of cleaning.

2.2 MATERIALS

A. The materials shall retain their strength characteristics during their specified life cycle taking into account the use and environmental conditions, e.g., temperature, ultraviolet radiation, humidity, corrosion.

B. All mechanically moving parts of the escalator shall be completely enclosed within imperforate panels or walls. Exempt from this are the accessible steps, the accessible pallets, the accessible belt and that part of the handrail available for the user. Apertures for ventilation are permitted.

C. Inspection covers and floor plates shall be imperforate. Inspection covers shall conform to the same conditions as required for the location where they are installed.

2.3 FINISHES

A. *Exposed-to-View Surfaces*:
1. Sheet Steel:
a. Shop Prime: Clean of foreign substances and apply one coat of zinc chromatic or similar primer compatible with finish paint specified.

2. Stainless Steel:
Plain: Hairline, vertical grain. Sanding medium shall not deposit particles in the grain that are capable of rusting.

B. *Paint and Corrosion Protection*: The escalator shall have the following minimum corrosion protection:

1. All ferrous metal parts of the escalator, including cast metal parts such as gear housings, chain sprockets and return station sprockets, which are not stainless steel or galvanized shall be primed with a rust-inhibitive primer and painted or otherwise protected as approved by the Consultant/Engineer. Paint finish coats shall be as follows:

    a. Two heavy duty gloss enamel, minimum 2 mil (dry film thickness) each coat.

2.4 TRUSSES

A. *General*

1. The trusses shall span the distance between the support points as indicated. The working points as indicated shall not be moved except as approved by the Consultant/Engineer.

2. Trusses shall be sufficient width to accommodate the width of the finished escalator.

3. Trusses shall be designed to rest on the available truss supports, and existing supports in each facility.

4. Trusses shall be of ample strength to maintain alignment of tracks and moving parts, and so designed that they shall safely retain steps and running gear, and in case of failure of track systems, retain step mechanism within guides and envelope of the truss.

5. The truss shall be designed to applicable SANS 21 standard.

6. The vertical deflection of the loaded trusses shall not exceed one one-thousandths (1/1000) of the free supporting distance of not less than 15 Meter. Deflection shall be measured at the midpoint between the support

points from the position of the unloaded truss to the position of the truss with the fully installed escalator loaded at the Structural Rated Load.

7. Truss material and fabrication shall conform to Section - Structural Steel Framing, and Section - Metal Welding.

8. Holes for attaching components shall be drilled or punched prior to galvanizing/ painting.

B. *Field Modifications and Connections*

1. Field splices shall be rigid, non-deforming, and shall maintain alignment.

2. Field modification by burning shall not be permitted.

2.5 DRIP PANS

A. Provide for each escalator, a drip pan of sufficient size to collect oil and grease from step linkage, and all forms of loose debris that may be deposited into the escalator truss. At the upper section of the truss, the drip pan shall be sloped so that all liquids collected drain towards the lower section of the truss. At the lower section of the truss, the drip pan shall be constructed so that the liquids collected drain from anywhere in the truss towards a floor drain in the drip pan.

B. Drip pan shall be galvanized sheet steel/painted construction over the entire length and width of the truss and under the machine and pit spaces. All joints between the sheets making up the drip pan shall be sealed with a continuous seal weld over the entire length of the joint. Pan shall be hot-dipped galvanized/painted after all welding, drilling, and tapping have been completed.

C. Protective side covers shall be provided on both sides of the main drive sprockets to prevent the splatter of chain or gear oil beyond the escalator truss and drip pan. Side covers shall be galvanized/painted sheet metal and shall be removable from inside of the truss.

2.6 STEP DRIVE UNITS

A. The step drive unit shall be designed for continuous escalator service and be supported within the truss envelope between the steps.

B. Escalator Drive Equipment shall be readily accessible for inspection, servicing, and replacing of equipment. A removable drip shield shall cover the drive motor and brakes. Removal of a few steps shall leave an open, unobstructed space in the centre of the escalator structure; the drive unit shall be accessible in that location after step removal.

C. Carriage Requirements: Carriage for tensioning step chain shall move on tracks. Such movement shall be accomplished by use of precision ground rollers or slides and horizontal guides to prevent skewing while adjusting carriage.

2.7 TRACKS

A. Design and fabrication of tracks shall retain steps and running gear safely under load requirements and at the highest design speeds specified.

B. Contractor shall assemble and secure sections of track together for easy removal and replacement of defective sections. The system shall be adjustable, and welding of the tracks is not acceptable.

C. Design of the mechanical components shall provide for easy installation and removal without the dismantling of parts of the structure.

D. Tracks shall be properly supported on trusses to provide correct alignment and smooth transition to return stations. The rolling surface of the track shall be a minimum thickness of 3mm.

E. The track system shall be smooth for continuous support of the chain wheels from sprocket to sprocket. The transition between incline and upper landing level shall be accomplished by a curved track system.

F. The guiding system for the step chains and step wheels shall be of steel profiles with smooth and even running surfaces, and with the joints cut diagonally to the running direction. The profiles shall not be welded together at the joints.

G. A second, continuous guiding profile shall be provided above the step chain rollers so that the step chains are positively guided in the area of the escalator open to passengers.

H. The step guides shall be designed to ensure that the gap between the step tread and the skirt panel does not exceed more than 5 mm or 0.2 inch when 25lbf (1 2.5 lbf) is laterally applied from the step to the adjacent skirt panel.

2.8 DRIVING MACHINE AND MOTOR

A. Machine shall be readily accessible without use of special tools. The motor shall be flange mounted directly to the driving mechanism. Worm or helical gears may be employed.

B. Motor shall be TEFC (totally enclosed fan cooled) type with a service factor of 1.15 and have insulation group B. Motor shall be an AC induction motor and shall operate at 400Volts, 3 phase, 50 Hertz power.

C. V-belt and tooth belt drives are not acceptable. If chain drives are used, they shall be protected against dirt and water, and shall have an automatic lubricating device and an adjustable means of taking up any slack in the chain.

D. Driving motors and motor switchgear shall be designed in such a way so as to provide smooth soft start that shall prevent possible passenger accidents as well as

undue strain on drive components. All escalators are to be fitted with a Variable Voltage, Variable Frequency drive system with automatic stop/start control.

E. The driving machine shall be designed to operate continuously for the Machinery Rated Load.

2.9 CONTROLLER AND WIRING

A. Controllers shall be housed in a dust proof cabinet located within the machine room in the escalator machine room under the escalator. Controllers shall include a circuit breaker, local disconnect, motor starter, control relays, fault indicator, and all other functions of escalator controls. A reset button shall be integral with the controller and shall be accessible without opening the controller cabinet. Motor starter shall be three phase controllers current solid
state VVVF drive. Contactors may be used for reversing. Solid state drive shall control and limit the starting current of the motor to 250 percent of full load rating. The drive shall protect the motor against overload, single phasing and input power phase reversals. Overload protection shall be provided in each motor leg. Controller shall utilize variable speed soft start for running and inspection speed. Inspection speed shall be set to nominal 0,2m/s maximum. Provisions shall be made to ensure escalator will not over-speed when operating at inspection speed. A non-reset, minimum 5digit, run time meter shall be provided with the controller to measure whole hours escalator is in operation.

B. Screw type compression terminal block or other approved connector rated for 20 amperes minimum shall be used for all control, power, and indicating conductors entering and leaving controller. Wiring shall be minimum 1mm diameter stranded, colour coded and permanently identified at all terminations. A maximum of three wires shall be terminated at any terminal. Wiring jumpers, taps and multiple wire connections shall be located on a terminal; tee taps, wire nuts or mid conductor splices are not permitted. All controls shall operate at 120 Volts or lower, AC or DC. Control power shall be obtained from integral dry type control transformers. Primary and secondary fuses shall be provided with load side indicating neon lamps.

C. The controller shall provide for an emergency stop that disconnects the power supply to the driving machine motor and applies the brake to stop the escalator at a rate no greater than900mm per second squared under all load conditions.

D. Main drive controls may be relay logic. If solid state or printed circuit boards are provided for main drive controls, diagnostic schematics and equipment shall be supplied.

E. Escalator controller shall be a purpose designed and approved micro-computer system.

F. *Wiring*

1. Wiring external to controller including switches and control wires shall utilize at least1,5mm diameter copper stranded machine tool type, moisture, heat and oil resistant thermoplastic insulated conductors. Terminations at devices and terminals shall utilize insulated type crimp connectors. Terminals shall be

identified with wire numbers that correspond to wiring diagrams. Wiring shall be laced and tied at terminal blocks. Conductors shall be identified with embossed tubing sleeves at each terminal. Terminations shall be made within boxes at terminal strips.

2. All wiring shall be tested by means of 500 Volt megger prior to connection to safety and control devices.

3. Control wiring shall be colour coded by function to assist in troubleshooting and maintenance.

G. Main power feed to controller shall be supplied by the switchgear A, 400 Volt, 3 phase circuit. If escalator is being installed in an existing facility and existing circuit breaker are insufficient for new escalator, then the Contractor shall furnish and install new, appropriately sized circuit breaker. Contractor shall provide the necessary cabling and any conduit modifications from the switchgear cabinet to the new escalator controller at no additional cost to the Client. New conduit shall be concealed within structure except as otherwise indicated on the Contract Drawings.

H. *Remote Control Inspection Station*:

1. Provide a Remote-Control Inspection Station consisting of a portable switch box, extension cord, and plug-in cap for each escalator to allow operation of the escalator by remote control during periods of inspection and service.

2. The Remote Control Inspection Station shall include an emergency stop switch (maintained-contact selector switch), and "up" direction push button (momentary contact only when button is held down) and a "down" direction push button (momentary contact) 3 meter flexible cord (number of conductors as required) with multi-conductor screw cap and matching receptacle.

3. Two receptacles with tethered weather-proof caps, one at each end of the escalator, shall be provided in the pit area for the attachment of the Remote-Control Inspection Control Station. These receptacles shall be designed such that the escalator will not initiate normal operation unless caps are in place.

4. When the Remote Control Inspection Station is plugged into either receptacle all normal operating devices, including all regular control switches, shall become inoperative and full control of the escalator shall be transferred to the Remote Control Inspection Station. The operating speed of the escalator shall automatically be reduced to the maintenance mode speed. Control shall be returned to the normal operating devices when the Remote Control Inspection Station is removed from the receptacle in-place. All safety devices including emergency stop buttons, except missing step devices and handrail speed sensors shall remain effective during the maintenance mode.

I. *Fault Indicating Device:*

1. Provide a fault indicating device in the front panel of the controller which shall visually indicate and identify the actuation of every safety device causing escalator shutdown and shall cause the indication to remain until the fault is cleared by maintenance personnel or automatic reset.

2. Provide an identical display and reset button in the upper right newel of the escalator. The local display shall be concealed behind a lockable door. The type of key will be assigned by the Engineer.

3. The fault indication device shall provide diagnostic capabilities including the following information:

    a. Historical data storage of at least 100 events that records escalator identification, date, time and cause of all escalator stoppages and faults. Historical data shall be printable by downloading to laptop computers.

    b. Drive motor over temperature.

    c. Braking distance with date and time stamp for each stoppage, manual or automatic.

    d. Operating status of escalator (ready to run, running, reset required, or maintenance mode).

    e. Operating direction of escalator.

4. Event data shall be retained if the power to the controller should fail.

5. The Contractor shall provide one notebook style computer/test-tool and the necessary software to assist in the setup and troubleshooting of the escalator control.

J. Foreign Voltage Relay: Provide one multi-pole, 600 Volt Class for isolation of all foreign voltage conductors entering the controller to safely isolate all electrical sources. Examples of foreign voltages are the fire alarm shutdown, external directional signs, seismic switch, rolling grille, and malfunction alarm to station agent's booth. Coil of relay shall be de-energized when main disconnect is open.

K. The escalator controller shall interface with the buildings fire alarm system. In the event of fire alarm signal, the escalator emergency stop alarm shall be activated for at least 15 but not more than 20 seconds, at which time the power to the driving machine motor shall be interrupted and the brake applied.

L. The escalator controller shall interface with the station seismic sensor (where applicable). In the event of seismic event, the escalator emergency stop alarm shall be activated for at least 3 but not more than 10 seconds, at which time the power to the driving machine motor shall be interrupted and the brake applied.

M. The controller shall provide for a remote monitoring interface (if required by the Client), the following functions at a minimum are required to be monitored:
1. Emergency Stop Switch –Top.
2. Emergency Stop Switch – Bottom.
3. Handrail Inlet Switches – Top (left and right).
4. Handrail Inlet Switches – Bottom (left and right).
5. Skirt Switches - Top (left and right).
6. Skirt Switches – Bottom (left and right).

7. Comb Impact Switches -Top (left and right).
8. Comb Impact Switches -Bottom (left and right).
9. Missing Step – Top.
10. Missing Step – Bottom.
11. Step Sag Switch – Top.
12. Step Sag Switch – Bottom.
13. Step Up-thrust – Left and right.
14. Starting Fault – (anti-reversal switch over-speed/under-speed, encoder, stuck key switch, soft-start device fault)
15. Brake Watchdog (brake picked indication)
16. Communication Fault.
17. Miscellaneous Switches – (pit switches, broken drive chain, overload, governor, reverse phase, load weighing)
18. Handrail Speed – (left and right)
19. External Safety – (fire alarm, earthquake, rolling grilled).
20. "Mechanic On-Site" Switch
21. Running Up
22. Running Down
23. Not Running, Ready to Run
24. Not Running, Reset Required
25. Normal Stop Key Switch (on-off)

N. All controller devices shall be labelled corresponding with identification shown on wiring diagrams. Labelling medium shall be either indelible stamped ink or engraved labels.

O. All switches and indications mounted on the controller enclosure's exterior shall be labelled

2.10 SAFETY DEVICES AND SWITCHES

A. *Key Switches*:

1. Escalators shall have key operated switches, accessible at both upper and lower landings, located on the exterior deck above the newel base. Alternate locations maybe used subject to approval by the Engineer.

2. Each keyed switch shall be clearly and permanently labelled on engraved metal plates, including starting and direction selection.

3. The change of direction shall only be possible after the escalator is stopped.

B. Safety Devices:

1. Provide safety devices required by SANS 21 on each escalator.

2. Safety devices, depending upon interruption of electric circuit for their operation, shall be interlocked to remove the electric power supply to the motor and shall apply the brakes to bring the escalator to a smooth, safe stop in the original direction of travel.

3. Provide an interlock to prevent operation of the escalator until a safety hazard or malfunction has been corrected if the escalator stops because of malfunction or actuation of one or more of the safety devices. The escalator can be restarted by use of keyed switches only after clearance of hazards or malfunction.

4. Safety devices shall be mounted in locations accessible for maintenance within escalators, and these devices shall be designed for ease of adjustment or reset. Devices shall be so located that their operation will not be affected by moisture or debris.

5. If escalators are equipped with a braking system dependent upon activation of springs, then the springs shall be of a guidance compression type. The use of weights or self-excitation of the brake release shall not be allowed.

6. Disconnect switches capable of being locked in the "off" position shall be provided at the upper and lower pit of each escalator to prevent the starting of the escalator from any other location.

7. At each escalator, Contractor shall provide the following minimum additional safety devices that shall interrupt electric power within escalator, and automatically apply brakes and bring escalator to a smooth stop per Article 2.10B.1 in the original direction of travel:

    a. A device to stop the escalator should the escalator have a misalignment of steps, or linkages. This device, one at top, one at bottom, shall monitor the steps before entry into comb as well as on return side and shall be manually reset at the control panel.

    b. Device or devices incorporating single operation to stop escalator should one or both step linkages have significant amount of wear, experience breakage, change in length, change in strain, or should adjustable carriage move more than predetermined distance in any direction.

    c. A device to stop the escalator should an object become wedged between step tread of one step and riser of another step during the formation of a landing.

    d. A device to stop the escalator should a foreign object such as a passenger's hand or object accidentally be carried into the handrail entrance of the newel.

    e. A device to stop the escalator should the handrail break, lose motion, or stretch beyond a present amount.

    f. Devices installed behind the skirt panels at the upper and lower landings and at both sides of the escalator to stop escalator should the skirt panels

be forced away from the steps or if any object should become wedged between the step and skirt panel.

g. Devices at both the upper and lower comb plates to stop the escalator should a horizontal force not greater than 400 lbf in the direction of travel is applied at either side or not greater than 800 lbf at the centre of the front edge of the comb plate, or a resultant vertical force in upward direction is applied exceeding 150lbf at the centre of the front of the comb plate.

h. Devices at both the top and bottom of the escalator to stop escalator upon detection of a missing step prior to the vacant step being exposed at the comb plate. The sensing device shall be a non-mechanical proximity type sensor.

i. Step sag monitors shall actuate should step position be more than 3mm lower than normal. The devices shall be located at both the top and bottom approaches to the comb areas.

j. A minimum of two safety devices shall be installed at each end of the escalator where the steps begin levelling off and before they pass under the comb plate. Devices shall be of the self-resetting type with electrical contacts and when actuated shall stop the escalator. One device shall stop the unit when an article becomes wedged between the steps or a step roller is prevented from following the normal curvature of track. The switches shall be manually reset.

8. Protection shall be provided to prevent accidental or sudden reversal of escalator direction from designated direction of travel.

9. A disconnect switch shall be provided which, when used, will stop the escalator or prevent starting.

10. Emergency Stop Button:

    a. One emergency stop button shall be located at each landing accessible on the exterior deck cover. Location shall be in the upper quadrant, 45 degrees above horizontal of newels complying with SANS 21.

    b. Stop buttons shall be momentary contact push buttons, red in colour.

    c. The momentary pressure of any emergency stop button shall interrupt the power supply to the motor and automatically apply the brakes and bring the escalator to a smooth stop.

2.11 BRAKES

A. Each escalator shall be provided with the following brakes for stopping and locking of movable drive components:

1. Motor brake shall be located on the motor shaft. Brake shall safely stop escalator upon activation of normal stop control, local or remote emergency stop buttons, activation of any safety device, or upon loss of power.

2. Service brake shall be located on the main drive shaft. Brake shall mechanically lock linkages to truss when repair work is being performed within truss (where applicable).

B. Operational Sequence

1. *Motor Brake*

a. Brake shall be mechanically applied (fail safe) and electrically released. Brake shall be capable of stopping and holding an escalator at the Machinery Rated Load.
b. The brake shall be designed so that the minimum stopping distance for an up or down travelling escalator under any load shall be no less than 320mm.
c. Stopping distance shall be adjustable and set to distance approved by the
d. Consultant/Engineer. Stops shall be gradual and not abrupt.
e. Deceleration shall be smooth, gradual, and with no sudden stop.
f. There shall be no time delay designed into the application of the brake.

g. Design of brake shall provide ease of access to brake equipment for inspection and maintenance.

h. The brake operating temperature shall not exceed 195 degrees Fahrenheit above ambient. Temperature and wear monitors shall be provided and if brake lining becomes insufficient for safe usage, restart of escalator shall be prevented and reported as a brake fault.

i. Brake assembly shall be protected from falling water and debris by a removable cover. Cover shall not be higher than 6 inches above brake assembly.

j. The brake shall have a nameplate that indicates the allowable range of brake torques (ftlb), method of measuring (breakaway on dynamic), and measured procedures.

2. Service Brake

a. Brake shall be manually applied and mechanically engaged to prevent movement of linkages, while escalator is disconnected from its power supply.

b. An electrical interlock shall be provided that shall prevent escalator drive motors from starting while service brake is engaged.

2.12 OVERSPEED GOVERNOR

A. The over-speed governor shall be designed to cut off the power supply to the motor and bring the escalator to rest when the speed varies plus or minus 20 percent of rated speed.
B. The over-speed governor shall be mechanically driven from the driving machine or an electrical sensing type. The over-speed governor shall be fail-safe.

2.13 STEPS

A. Steps shall be of the horizontal tread formation. Provide three flat steps at upper and lower ends.
B. The steps shall be one-piece die cast aluminium designed to carry a load of 300kg per step.
C. The step wheels shall be designed for quiet operation and shall be a type that will assure rotation and prevent flat spots. They shall be mounted to prevent tilting and the rocking of the steps in excess of 1,5mm maximum at the step's extremity. They shall be provided with sealed bearings. Step wheels shall be tired with synthetic composition materials.
D. The design of the steps and their various attachments shall permit the steps being removed without disturbing the balustrades or dismantling any part of the chains. Lock washers shall be provided on all tap bolts, and lock washers and lock nuts or an approved equal shall be on all through bolts.
E. The design of the escalator shall permit running the chain without the steps for convenience in cleaning and inspection.
F. All exposed gearing, sprockets, and chains shall be covered with guards. Side panels of guards shall be in sections of convenient size and removable for purposes of inspection and maintenance.
G. Adjacent skirt panels shall have a maximum running clearance gap of not more than 5 mm without load, the gap shall not exceed 1,5mm at any point between the step safety side plates and the skirt panels.
H. The step treads shall be cleat type designed to assure a secure foothold and comfortable tread surface.
I. The treads shall have all square edges. Cleats shall be so spaced that the ends are flush with the step risers and those on the sides located for minimum clearance with the adjustable skirts.
J. Yellow visual demarcation (strips) shall be provided on the front and rear edges of each tread. The demarcation shall either be integral to the step or shall be powder coated.
K. Step risers shall be of the cleated type with vertical cleats arranged to engage with corresponding cleats in the back end of the step tread so as to form an interlocking unit.

2.14 STEP CHAINS

A. The step chains shall be of the endless type, one located on each side of the steps. Step chains shall be precision roller-fishplate chains of high-grade, heat-treated steel, and specifically designed for escalator applications. The pins, bushings, and rollers shall be hardened and ground. No split bushings shall be allowed. Pins shall have peened ends to secure side plates.

B. The chains shall be designed to give:

1. A link pin pressure of less than 160 kg/sq.
2. The breaking factor of safety of a step chain defined as a ratio of chain breaking load to chain traction force.

C. Pins shall be designed suitable for the intended purpose with suitably hardened material.

D. Provide synthetic composition rollers with sealed ball bearing at each step to support the chain and leading edge of the step.

2.15 COMB TEETH

A. The comb teeth shall be epoxy powder coated aluminium, with comb teeth so arranged that the cleats of the step treads will pass between them. The comb teeth shall be made in sections so that any damaged or worn section can be replaced without disturbing the balance of comb. The comb teeth shall be formed to correspond to the form of the treads and maintain a uniform side clearance. Comb plate fasteners shall have securing threads of same material as the fasteners to prevent bonding. Inserts are permitted if necessary.

2.16 STEP DEMARCATION LIGHTS

A. Step demarcation lights shall be provided at the top and bottom of each escalator. Lights shall consist of two light fixtures that shall be installed directly below the track system and slightly ahead of the point where the steps enter or leave the comb plate. Each fixture shall be provided with two green lamps lighting up the full width of the step separation. The lighting shall be connected to the controller of each escalator in such manner that the lights will be illuminated only when the escalator is in operation.

2.17 HANDRAILS AND HANDRAIL DRIVE SYSTEMS

A. Traction drive handrail system shall have a minimum contact of 180 degrees around a drive wheel and provide a minimum positive drive contact of 120cm. Handrails shall be firmly engaged by the drive and shall not have any slippage during start-up or running.

B. Handrails shall receive their motion from main escalator drive through direct gearing and drive shaft or drive chains, so that handrail and steps operate at the same speed in each direction of travel. Driving and guiding wheels shall have a groove to accept the wedge on the underside of the handrail.

C. Handrail drive system shall be designed to permit installation of replacement handrails without field splicing.

D. Provide convenient way of adjusting handrail tension and drive chain tension.

E. Newels meeting the following requirements shall be provided:

1. Surface of newel bases, adjacent to where handrail enters, or leaves shall be at an angle of 90 degrees with surface handrail.

2. Newels shall be designed and constructed so that handrail shall return into newel end at a point inconspicuous and difficult for passengers to reach.

3. Handrails, handrail drive system, and guides shall be so designed and installed that handrail cannot be thrown off or disengaged while running, and special design attention shall be given to area where handrail passes from drive system to guides. Stationary guides at the newel return shall not be considered acceptable.

4. Newel wheels shall have sealed bearings that have provision for retention of lubricant to ensure satisfactory lubrication and operation. Additional lubrication shall not be required.

5. Friction drive wheels and idlers shall be designed and positioned so that lubricant cannot reach surface of handrail. Marking and spotting of handrail by drive equipment shall not be permitted.

F. Handrail colour shall be black and shall be constructed of laminated, steel, wire mesh, or steel cable reinforced, flexible elastomer material vulcanized into an integral, non-separating, seamless, smooth handrail resistant to environmental conditions. A "V" shaped underside design shall be used, providing a more positive drive. No cotton fabric shall be used.

G. Handrail guides shall be continuous on exposed portion of handrails, constructed of material which shall not corrode or pit and shall have a polished, permanent smooth finish to minimize frictional wear to under surface of handrail. On the unexposed portion, guiding shall be by adjustable rollers having sealed bearings, and set in a way so as not to cause wear on the handrail. Gaps between guide sections shall be 3mm or less and shall be level.

2.18 LANDING PLATES

A. Provide aluminium landing plates designed to be supported on truss heads and covering the entire area of the landing within the outline of the truss.

B. Landing plates shall be extruded from die cast aluminium in a ribbed pattern transverse to the escalator axis. Ribs shall be designed to provide maximum traction and shall be finished in the same manner as the comb plates. They shall have exposed portions constructed of material and finish to harmonize with steps and comb plates.

C. Landing plates shall be reinforced, as necessary, to be rigid and able to withstand required load.

D. Landing plates shall be pivoted to swing upward to a vertical position, or plates may be made in removable sections to provide access to the pit. Plates shall be

removed either by removable T-handle lifts or other approved methods. Plates shall not exceed 20kg each.

E. Means shall be provided to secure the landing plates in the closed position. All locking means such as bolts or screws shall be captive.

2.19 BALUSTRADES (HEAVY DUTY ESCALATORS ONLY)

A. Balustrade panels shall be a minimum of 14 gage stainless steel. Backing panels, where used, shall be non-combustible and subject to Engineer's approval. Stiffeners, brackets, attachment angles and other concealed ferrous metal framework shall be galvanized or constructed of equivalent, corrosion-resistant materials.
B. Balustrade panels shall be attached by means that allow easy assembly and disassembly without the removal of trim, safety brushes, or other flashing.
C. Panels shall be constructed, when practical, in equal lengths for interchange ability.
D. Panels shall have edges sealed against moisture.
E. Panels shall be attached to permit easy assembly and disassembly without the removal of trim or other flashing.
F. Panels shall be sized so that no more than one person shall be required to remove a panel. Panels shall be designed to be removed without the aid of special handling equipment other than suction cups. Panels shall not weigh more than 50 pounds each. Panels at top and bottom from the newel end through the transition curve shall weigh no more than 30 lbs each.
G. Panel fasteners requirements: Panels shall be fastened to their respective supports or mating portions with tamper proof, flathead machine screws.
H. When framework to which panels are fastened is less than 1/4 inch thick, steel backup plates with a minimum 1/4 of an inch thickness shall be added which have tapped holes or clearance holes where necessary.
I. If glass is used for the interior panel, it shall be toughened glass. The minimum thickness of 6 mm shall apply to single layer balustrades. When multi-layer glass balustrades are used, they shall be laminated toughened glass, the thickness of at least one layer shall also be not less than 6 mm.

2.20 SKIRT PANELS

A. Skirt panels shall be stainless steel, suitably reinforced to prevent deformation and bending under normal operating conditions.

B. Skirt panels shall deflect not more than 1,5mm under a force of 150 lbf.

C. Skirt panels shall have rounded smooth joints and seams.

D. Stiffeners, brackets, attachment angles and other concealed ferrous metal framework shall be galvanized or constructed of equivalent, corrosion-resistant materials.

E. Skirt Panel Fastening Requirements: Panels shall be fastened to their respective supports or mating portions with no exposed fasteners from the side adjacent to the steps.

F. When framework to which panels are fastened is less than 6mm thick, steel backup plates with a minimum 6mm of an inch thickness shall be added which have tapped holes or clearance holes where necessary.

2.21 DECK COVERS AND MOLDINGS

A. Deck covers and moulding shall be stainless steel.

B. Surface joints in the deck covers shall be metal-to-metal with no visible joint sealing material. Where concealed fastenings cannot be used, exposed fastenings shall be countersunk flush, tamper-proof, and finished to match the adjacent materials.

C. Decking of the escalators shall be designed to support a live load without surface deflection.

D. Panelling, decking, and other enclosures shall be supported on steel framework. Deck covers shall be attached to the truss framework without the use of exposed screws.

2.22 SIGNS

A. Furnish and install "Hold Handrail" caution signs as specified in SANS 21 at each right-hand newel.

B. Provide on a panel an escalator number located at the upper and lower newels at the emergency stop button and key operated switch. Escalator number information will be supplied by the Consultant/Engineer.

C. The design of Mandatory safety signs shall be in accordance with ISO 3864-1 and ISO 3864-3. The minimum diameter of the signs shall be 80 mm.

2.23 SAFETY BRUSHES

A. Provide nylon brush deflector device fastened to the skirt/balustrade trim on each side of the escalator. The brush deflector device shall have replaceable dual nylon brushes in an extruded aluminium channel or integral one-piece moulded rubber channel as approved by the Consultant/Engineer. The safety brushes shall be secured to the skirt panels. Joints of safety brushes shall coincide with skirt panel joints.

2.24 MISCELLANEOUS

A. Emergency lighting shall be provided to allow safe evacuation of all personnel working in machinery spaces.

B. Duplex receptacles with GFI circuits shall be provided in the upper and lower pits and in the escalator machine room. Receptacles shall be industrial grade 230V, 20A receptacles.

C. Pit lights shall be installed in upper and lower pits. Fixtures shall be equipped with polycarbonate clear globe, protective metal grille and 230 Volt, 100-Watt incandescent lamps.

PART 3: EXECUTION

3.1 PREPARATION

A. Field verify dimensions in the field before proceeding with the work. Verify the following to be acceptable for installation of escalators:
1. Well-ways size, location and ancillary installations.
2. Truss supports
3. Electrical conduits and wiring

B. Correct unsatisfactory conditions prior to proceeding with the work. Where escalator is being installed in an existing well-way, notify the Engineer immediately if unsatisfactory conditions exist, and do not begin installation until non-compliant conditions have been corrected.

3.2 INSTALLATION

A. General: Install in accordance with the requirements of the manufacturer and regulatory agencies and as specified herein. Lubricate all equipment per manufacturer's instructions. Adjust brakes, controllers, switches, handrail tension and safety devices to achieve required performance.

B. Adjust skirt panels plumb with a maximum running clearance gap of not more than 3mmat any point between steps and skirt panels.

C. Truss field splices shall be rigid, non-deforming, and shall maintain the truss alignment and structural integrity.

3.3 FIELD QUALITY CONTROL

A. General
1. Contractor shall notify the Engineer 7 days prior to each scheduled test. Contractor shall perform testing in the presence of the consultant/Engineer.
2. Contractor shall notify Engineer, and the appropriate authorities having jurisdiction minimum of 7 days in advance of final Annexures and acceptance tests.

3.4 TRAINING

A. Training Program: The Contractor shall provide a program to train the Clients Operations, maintenance and training personnel in details of the lift and escalator system as required to enable the Client to operate this system such that this system will perform and continue to perform in accordance with the requirements of this Contract. In regard to work of this Section, these provisions supersede Section 01 79 00 -Demonstration and Training.

1. The Training Program shall include formal and informal instruction, as appropriate, and any models, mock-ups, documentation, and aids to carry out the program.

2. *Assumptions*:

a. The Contractor shall assume that the personnel to be trained have only the basic skills pertinent to their craft as outlined in the Clients job descriptions for the involved personnel.

b. The Contractor shall assume that the Clients personnel to be trained by the training program have no knowledge of features of the equipment or systems to be taught.

4. *Training Program Plan*: The Training Program Plan shall be submitted within 90days of the Notice to Proceed and shall contain, as a minimum, the following data:

a. A flow diagram indicating the logical progression of training to be conducted.

b. A description of each course, including the number, description and duration for each lesson in the course.

PART 4: SPECIFIC REQUIREMENTS FOR ESCALATORS

ESCALATORS

Any escalator offered for this project should at a minimum include the following features:

4.1 UNDER STEP LIGHTING:

Under step lighting should be of the LED type, the light should be green in colour.

4.2 AUTOMATIC START/STOP OPERATION:

All escalators should be equipped with automatic start/stop operation. The starting/ stopping shall be accomplished through the application of a variable speed VVVF AC drive i.e., all starting shall be of the soft start/stop with a ramp up/down to full speed or standstill operation. During periods of no passenger traffic, the escalator shall automatically reduce the operating speed through the use of a variable voltage variable frequency speed drive. After a programmable extended period of no passenger traffic, the escalator is to shut-down the main driving motor. At the return of passengers, the escalator is to resume operation automatically. **A full description of the operation of the escalator offered is to be included and submitted with the tender document.**

4.3 HANDRAIL LIGHTING:

Handrail lighting is to be provided with all escalators fitted with a glass balustrade. The handrail lighting is to be of the LED type. Handrail lighting shall remain on during normal operation of the escalator.

4.4 SKIRT BRUSHES:

Provide nylon brush deflector device fastened to the skirt/balustrade trim on each side of the escalator. The brush deflector device shall have replaceable dual nylon brushes in an extruded aluminium channel or integral one-piece moulded rubber channel as approved byte Consultant/Engineer. The safety brushes shall be secured to the skirt panels. Joints of safety brushes shall coincide with skirt panel joints.

4.5 HANDRAIL ENTRY BRUSHES:

All escalators are to be equipped with brushes located at all handrail entry and exit boxes, these are required as a deterrent to passengers getting their fingers trapped at the handrail entry and exit points.

SCOPE OF WORK SPECIFIC TO THE PROJECT

MAIN PASSENGER LIFTS

1. Full replacement with Motor-room type of units
2. Retain existing landing door frames
3. Removal of existing equipment

GOODS OR SERVICE LIFTS

1. Full replacement with Motor-room type of units
2. Retain existing landing door frames
3. Removal of existing equipment

ESCALATORS

1. Full replacement with Motor-room type of units
2. Removal of existing equipment

GENERAL

THIS APPLIES TO BOTH LIFTS AND ESCALATORS

- ***Builders Work:***
  Tenderers are to submit a list of builders work which is required as part of the installation of lifts and escalators together with the tender document.

- ***Scaffolding:***
  All scaffolding, hoarding, boarding and barricading required during removal of existing equipment or installation of new equipment is to be included in the tender amount and erection and dismantling thereof shall be the responsibility of the successful bidder.

- ***Hoarding & Barricading of Works:***
  It should be noted,this is a fully occupied and operational building, all works taking place in areas exposed to building occupants and the general public are to be enclosed by suitable, aesthetically acceptable temporary structures which will ensure that building occupants and the general public are not exposed to any danger. Prior to the commencement of any construction or installation of hoarding and barricading, a drawing indicating the structure and type of materials intended for use is to be submitted to the consultant for approval.

- ***Structural Changes:***
  Tenderers are to submit a list of any changes, which will be required to the lift/escalator supporting structure to facilitate the removal or installation of the new equipment. The list of required changes is to be submitted together with the tender document. Should any structural changes be required for the removal or installation of lifts and escalators forming part of this tender, details of the changes are to be submitted to the Employer or the Employer's appointed representative in writing prior to the commencement of any related work.

- ***Lift and Escalator Management System:***
  As part of the Tender, the cost for an integrated lift and escalator management system is to be included in the tender amount. The management system shall be a 'real time' system, which displays lift group activity, car positions, and lift and escalator status. The management system shall also allow remote control of lifts and escalators (shut-down, fire operation etc.) A full description of the offered management system is to be submitted together with the tender document.

- ***Setup and Test Equipment:***
  After completion and final handover of the project, the contractor is to provide as part of the handover package, to the Employer or the Employers appointed representative the following: A list of setup and adjustment parameters, passwords, test tools required for setup and adjustment, software required for setup and adjustment together with any required user licenses. This requirement is for all units, which are upgraded.

- ***Proposed Project Program:***
  Tenderers are to submit together with the tender document, a proposed project program in Microsoft Project format. The proposed program is to indicate lead-times

for manufacture, shipping, installation and commissioning for each group of lifts/ escalators. The proposed program should be realistic and achievable. Preference will be given to tenderers who can provide the shortest but achievable lead-time.

- ***Compliance:***
  All complete units as well as any equipment supplied shall fully comply with the requirements of the Occupational Health & Safety ACT as well as any relevant SANS standard.

- ***Finishes:***
  - Landing Doors: All landing doors and frames where required are to be hairline stainless steel with vertical grain.
  - Car interior: all supplied lift car panels including doors are to be hairline stainless steel with vertical grain.
  - Car operating panels: All passenger lifts, excluding those which are to be equipped with Destination despatching systems are to have 2 car operating panels; each panel shall have an LED display located at the top of the car operating panel. Goods passenger lifts shall have only one car-operating panel with controls for independent service etc. housed in a lockable sub-panel below the car-operating panel.
  - Passenger lift car flooring: all passenger lift cars are to be supplied with a minimum 30mm recess to facilitate the installation of ceramic floor tiles.
  - Goods lift car flooring: all goods lifts are to be supplied with durable Norament flooring.

  Details of all standard finishes are to be provided at tender stage.

- ***Scrap:***
  All scrap, obsolete and salvaged material remains the property of the Employer, all existing lift/escalator material which is to be removed to facilitate the installation of new equipment is to be handed over to the Employer or the Employers appointed representative for disposal or removal from site.

TECHNICAL DATA: LIFTS & ESCALATORS

TECHNICAL DATA: LIFTS

1. **Unit No's: 680486/87/88/ (3 units) (JE5718,JE5719,JE5720)**

General:	
Unit No.	680486/87/88
Known As	No.014,015, 016
Location	High-Rise office tower
Item	**Specific Requirements**
Load	1816kg
Speed	7m/s
Shaft Width	2920mm
Shaft Depth	2600mm
No. of Stops	16
No. of Openings	16
Travel	181864mm
Pit Depth	5480mm
No. of Car Doors	1 per lift
Door Width	1219mm
Door Height	2133mm
Door Type	Two Panel Centre opening
Operation	Group
Machine Type	Gearless
Machine Room Location	Above Shaft
No. of Units	6
Number of landing Doors	16 Per Lift
Counterweight Safeties	Provide
Intercommunication Device	Provide
Shaft Lighting	Provide
Position indicators	In car and at all landings
Arrival Signals	Provide on all landings

Item	**Specific Requirements**
Machine:	Permanent Magnet Gearless
Drive system	AC – VVVF
Rated Speed	2,5m/s
Load	1816kg
Ascending over-speed protection	Provide
Emergency Lowering Device	Provide
AC Power Regeneration	Provide
Group Control	Provide Destination Dispatching System

2. **Unit No's: 680492 (1 unit) (JE5724)**

General:	
Unit No.	680492
Known As	No.020
Location	High-Rise (Panorama)
Item	**Specific Requirements**
Load	1816kg
Speed	7m/s
Shaft Width	2895mm
Shaft Depth	2600mm
No. of Stops	3
No. of Openings	3
Travel	199796mm
Pit Depth	5480mm
No. of Car Doors	1 per lift
Door Width	1219mm
Door Height	2133mm
Door Type	Two Panel Centre opening
Operation	Simplex
Machine Type	Gearless
Machine Room Location	Above Shaft
No. of Units	Single
Number of landing Doors	3
Counterweight Safeties	Provide
Intercommunication Device	Provide
Shaft Lighting	Provide
Position indicators	In car and at all landings
Arrival Signals	Provide on all landings

Machine

Item	**Specific Requirements**
Machine:	Permanent Magnet Gearless
Drive system	AC – VVVF
Rated Speed	7m/s
Load	1816kg
Ascending over-speed protection	Provide
Emergency Lowering Device	Provide
AC Power Regeneration	Provide

3. **Unit No. :680493 (1 unit) (JE5160)**

General:	
Unit No.	680493
Known As	No.021
Location	Tower Goods Lift
Item	**Specific Requirements**
Load	2470kg
Speed	4m/s
Shaft Width	2552mm
Shaft Depth	2740mm
No. of Stops	52
No. of Openings	52
Travel	208635mm
Pit Depth	5485mm
No. of Car Doors	1 per lift
Door Width	1219mm
Door Height	2684mm
Door Type	2SP Side opening doors
Operation	Simplex
Machine Type	Gearless
Machine Room Location	Above Shaft
No. of Units	Single
Number of landing Doors	52
Counterweight Safeties	Provide
Intercommunication Device	Provide
Shaft Lighting	Provide
Position indicators	In car and at all landings
Arrival Signals	Provide on all landings

Machine

Item	**Specific Requirements**
Machine:	Permanent Magnet Gearless
Drive system	AC – VVVF
Rated Speed	4m/s
Load	2470kg
Ascending over-speed protection	Provide
Emergency Lowering Device	Provide
AC Power Regeneration	Provide

4. **Unit No's: 680558/90 (2 units) (JE5250 &JE5249)**

General:	
Unit No.	680558/59
Known As	No. UG 51, UG 52
Location	PICK AND PAY
Item	**Specific Requirements**
Load	1360kg
Speed	1,5m/s
Shaft Width	2740mm
Shaft Depth	2690mm
No. of Stops	6
No. of Openings	6
Travel	18364mm
Pit Depth	2113mm
No. of Car Doors	1 per lift
Door Width	1066mm
Door Height	2133mm
Door Type	Centre opening
Operation	Duplex
Machine Type	DC Geared
Machine Room Location	Below Machine
No. of Units	2
Number of landing Doors	6 Per Lift
Counterweight Safeties	Provide
Intercommunication Device	Provide
Shaft Lighting	Provide
Position indicators	In car and at all landings
Arrival Signals	Provide on all landings

Machine

Item	**Specific Requirements**
Machine:	Permanent Magnet Gearless
Drive system	AC – VVVF
Rated Speed	1,5m/s
Load	1360kg
Ascending over-speed protection	Provide
Emergency Lowering Device	Provide
AC Power Regeneration	Provide

5. **Unit No's: 680561/62/68/69 (4 units) (JE5525 TO JE5528)**

General:	
Unit No.	680561,62,68,69
Known As	No. P54, P55, P57, P58
Location	Sky rink Parkade
Item	**Specific Requirements**
Load	2270kg
Speed	1,75m/s
Shaft Width	2970mm
Shaft Depth	2819mm
No. of Stops	10
No. of Openings	10
Travel	32460mm
Pit Depth	1828mm
No. of Car Doors	1 per lift
Door Width	1778mm
Door Height	2133mm
Door Type	Centre opening
Operation	Group
Machine Type	27BT Geared
Machine Room Location	Above Shaft
No. of Units	4
Number of landing Doors	10 Per Lift
Counterweight Safeties	Provide
Intercommunication Device	Provide
Shaft Lighting	Provide
Position indicators	In car
Arrival Signals	Provide on all landings

Item	**Specific Requirements**
Machine:	Permanent Magnet Gearless
Drive system	AC – VVVF
Rated Speed	1,75m/s
Load	2270kg
Ascending over-speed protection	Provide
Emergency Lowering Device	Provide
AC Power Regeneration	Provide
Group Control	Provide Destination Dispatching System

6. **Unit No's: 680518/19 (2 units) (JE5227 & JE5228)**

General:	
Unit No.	680518/19
Known As	No. UG37, UG38
Location	Absa Lifts
Item	**Specific Requirements**
Load	1400kg ,1610kg
Speed	1,75m/s
Shaft Width	2743mm
Shaft Depth	2616mm
No. of Stops	6
No. of Openings	6
Travel	20600mm
Pit Depth	2438mm
No. of Car Doors	1 per lift
Door Width	1066mm
Door Height	2133mm
Door Type	Centre opening
Operation	Duplex
Machine Type	19 BT Geared
Machine Room Location	Below Shaft
No. of Units	2
Number of landing Doors	6 Per Lift
Counterweight Safeties	Provide
Intercommunication Device	Provide
Shaft Lighting	Provide
Position indicators	In car
Arrival Signals	Provide on all landings

Machine

Item	**Specific Requirements**
Machine:	Permanent Magnet Gearless
Drive system	AC – VVVF
Rated Speed	1,75m/s
Load	1400kg, 1610kg
Ascending over-speed protection	Provide
Emergency Lowering Device	Provide
AC Power Regeneration	Provide

7. **Unit No's: 680520/21 (2 units) (JE5225 & JE5226)**

General:	
Unit No.	680520/21
Known As	No. UG39, UG40
Location	Foschini Lifts
Item	**Specific Requirements**
Load	1587kg
Speed	1,5m/s
Shaft Width	2743mm
Shaft Depth	2616mm
No. of Stops	6
No. of Openings	6
Travel	20650mm
Pit Depth	2438mm
No. of Car Doors	1 per lift
Door Width	1066mm
Door Height	2133mm
Door Type	Centre opening
Operation	Duplex
Machine Type	19 BT Geared
Machine Room Location	Mid/Rear
No. of Units	2
Number of landing Doors	6 Per Lift
Counterweight Safeties	Provide
Intercommunication Device	Provide
Shaft Lighting	Provide
Position indicators	In car
Arrival Signals	Provide on all landings

Machine

Item	**Specific Requirements**
Machine:	Permanent Magnet Gearless
Drive system	AC – VVVF
Rated Speed	1,5m/s
Load	1610kg
Ascending over-speed protection	Provide
Emergency Lowering Device	Provide
AC Power Regeneration	Provide

8. **Unit No: 680533 (1 unit) (JE5253)**

General:	
Unit No.	680533
Known As	No. UF42
Location	Clicks Goods Lift
Item	**Specific Requirements**
Load	2270kg
Speed	0,5m/s
Shaft Width	2895mm
Shaft Depth	3200mm
No. of Stops	3
No. of Openings	3
Travel	8915mm
Pit Depth	3350mm
No. of Car Doors	1 per lift
Door Width	1370mm
Door Height	2133mm
Door Type	Side opening
Operation	Simplex
Machine Type	19 BT Geared
Machine Room Location	Below Shaft
No. of Units	1
Number of landing Doors	3
Counterweight Safeties	Provide
Intercommunication Device	Provide
Shaft Lighting	Provide
Position indicators	In car
Arrival Signals	Provide on all landings

Machine

Item	**Specific Requirements**
Machine:	Permanent Magnet Gearless
Drive system	AC – VVVF
Rated Speed	0,5m/s
Load	2270kg
Ascending over-speed protection	Provide
Emergency Lowering Device	Provide
AC Power Regeneration	Provide

9. **Unit No.: 680560 (1 unit) (JE5491)**

General:	
Unit No.	680560
Known As	No. PF53
Location	Service lifts retail
Item	**Specific Requirements**
Load	1590kg
Speed	1,5m/s
Shaft Width	2610mm
Shaft Depth	3150mm
No. of Stops	2
No. of Openings	2
Travel	217400mm
Pit Depth	4490mm
No. of Car Doors	1 per lift
Door Width	1370mm
Door Height	2133mm
Door Type	4 Panel Centre opening
Operation	duplex
Machine Type	19BT Geared
Machine Room Location	Below Shaft at rear
No. of Units	2
Number of landing Doors	2 per lift
Counterweight Safeties	Provide
Intercommunication Device	Provide
Shaft Lighting	Provide
Position indicators	In car and at all landings
Arrival Signals	Provide on all landings

Machine

Item	**Specific Requirements**
Machine:	Permanent Magnet Gearless
Drive system	AC – VVVF
Rated Speed	1,5m/s
Load	1590kg
Ascending over-speed protection	Provide
Emergency Lowering Device	Provide
AC Power Regeneration	Provide

10. Unit No. JE5252 (1 unit)

General:	
Unit No.	JE5252
Known As	No. DF61
Location	Woolworths Lift
Item	**Specific Requirements**
Load	1590kg
Speed	1,5m/s
Shaft Width	2690mm
Shaft Depth	2590mm
No. of Stops	6
No. of Openings	6
Travel	26136mm
Pit Depth	3350mm
No. of Car Doors	1 per lift
Door Width	1370mm
Door Height	2133mm
Door Type	Centre opening
Operation	Simplex
Machine Type	19 BT Geared
Machine Room Location	Below Shaft
No. of Units	1
Number of landing Doors	6
Counterweight Safeties	Provide
Intercommunication Device	Provide
Shaft Lighting	Provide
Position indicators	In car
Arrival Signals	Provide on all landings

Machine

Item	**Specific Requirements**
Machine:	Permanent Magnet Gearless
Drive system	AC – VVVF
Rated Speed	1,5m/s
Load	1590kg
Ascending over-speed protection	Provide
Emergency Lowering Device	Provide
AC Power Regeneration	Provide

11. Unit No. 680496 (2 unit) (JE5403) (JE5222)

General:	
Unit No.	680496 & 680498
Known As	No. UF47 & UF49
Location	Service department
Item	**Specific Requirements**
Load	2270kg
Speed	0,5m/s
Shaft Width	2844mm
Shaft Depth	3657mm
No. of Stops	3
No. of Openings	3
Travel	9448mm
Pit Depth	2895mm
No. of Car Doors	1 per lift
Door Width	1320mm
Door Height	2133mm
Door Type	Side opening
Operation	Simplex
Machine Type	19 BT Geared
Machine Room Location	Below Shaft
No. of Units	2
Number of landing Doors	3
Counterweight Safeties	Provide
Intercommunication Device	Provide
Shaft Lighting	Provide
Position indicators	In car
Arrival Signals	Provide on all landings

Machine

Item	**Specific Requirements**
Machine:	Permanent Magnet Gearless
Drive system	AC – VVVF
Rated Speed	0,5m/s
Load	2270kg
Ascending over-speed protection	Provide
Emergency Lowering Device	Provide
AC Power Regeneration	Provide

12. Unit No. 680497 (1 unit) (JE5224)

General:	
Unit No.	680497
Known As	No. UF48
Location	Service department
Item	**Specific Requirements**
Load	2268kg
Speed	0,5m/s
Shaft Width	2895mm
Shaft Depth	3124mm
No. of Stops	5
No. of Openings	6
Travel	20777mm
Pit Depth	2463mm
No. of Car Doors	2
Door Width	1371mm
Door Height	2438mm
Door Type	2SP side opening
Operation	Simplex
Machine Type	19 BT Geared
Machine Room Location	Below Shaft
No. of Units	1
Number of landing Doors	6
Counterweight Safeties	Provide
Intercommunication Device	Provide
Shaft Lighting	Provide
Position indicators	In car
Arrival Signals	Provide on all landings

Machine

Item	**Specific Requirements**
Machine:	Permanent Magnet Gearless
Drive system	AC – VVVF
Rated Speed	0,5m/s
Load	2268kg
Ascending over-speed protection	Provide
Emergency Lowering Device	Provide
AC Power Regeneration	Provide

13. Unit No's: 72NE6132(01/L/1475)

General:	
Unit No.	72NE6132
Known As	No.ML-1
Location	Shopping Centre MAIN STREET
Item	**Specific Requirements**
Load	1600kg
Speed	1m/s
Shaft Width	2805mm
Shaft Depth	1897mm
No. of Stops	5
No. of Openings	5
Travel	10380mm
Pit Depth	1300mm
No. of Car Doors	2 per lift
Door Width	1100mm
Door Height	2100mm
Door Type	2 panel Centre opening
Operation	Simplex
Machine Type	Machine room less
Machine Room Location	N/A
No. of Units	1
Number of landing Doors	5 Per Lift (NOT IN LINE, THROUGH-CAR)
Counterweight Safeties	Provide
Intercommunication Device	Provide
Shaft Lighting	Provide
Position indicators	In car
Arrival Signals	Provide on all landings

Item	**Specific Requirements**
Machine:	Permanent Magnet Gearless
Drive system	AC – VVVF
Rated Speed	1m/s
Load	1600kg
Ascending over-speed protection	Provide
Emergency Lowering Device	Provide
AC Power Regeneration	Provide
Group Control	N/A Simplex

14. Unit No's: 72NE6097(O1/L1482)

General:	
Unit No.	72NE6097
Known As	GL01, (Glass lift)
Location	Retail
Item	**Existing**
Load	1610kg
Speed	3,5m/s
Shaft Width	2424mm
Shaft Depth	2033mm
No. of Stops	3
No. of Openings	3
Travel	60m
Pit Depth	3400mm
No. of Car Doors	1 per lift
Door Width	1061mm
Door Height	2130mm
Door Type	Centre opening
Operation	Simplex
Machine Type	Gearless Ward Leonard
Machine Room Location	Above Shaft
No. of Units	17
Number of landing Doors	-

15. Unit No: 680535 (1 unit) (JE5432)

General:	
Unit No.	680535
Known As	No. DF44
Location	Spitz Goods Lift
Item	**Specific Requirements**
Load	2270kg
Speed	0,5m/s
Shaft Width	2895mm
Shaft Depth	3200mm
No. of Stops	3
No. of Openings	3
Travel	8915mm
Pit Depth	3350mm
No. of Car Doors	1 per lift
Door Width	1370mm
Door Height	2133mm
Door Type	Side opening
Operation	Simplex
Machine Type	19 BT Geared
Machine Room Location	Below Shaft
No. of Units	1
Number of landing Doors	3
Counterweight Safeties	Provide
Intercommunication Device	Provide

Shaft Lighting	Provide
Position indicators	In car
Arrival Signals	Provide on all landings

Machine

Item	Specific Requirements
Machine:	Permanent Magnet Gearless
Drive system	AC – VVVF
Rated Speed	0,5m/s
Load	2270kg
Ascending over-speed protection	Provide
Emergency Lowering Device	Provide
AC Power Regeneration	Provide

TECHNICAL DATA: ESCALATORS

1. **Unit No's 72NE3095/96 (2 units)**

General:	
Unit No.	72NE3095/6 (JESC458/459)
Known As	Rondehof R1, R2
Location	Shopping Centre
Unit Type	Heavy Duty
Passenger Capacity	8500 per hour
Item	**Specific Requirements**
Vertical Rise	5441mm
Step Width	1000mm
Speed	0.6m/s
Angle	30 Degree
No. of Flat Steps	3
Automatic Start & Stop Operation	Provide
Variable Speed Operation	Provide
Truss exterior Cladding	Hairline Stainless Steel with Vertical Grain
Under Step Lighting	Provide
Handrail LED Lighting	Provide
Balustrade Type	Tempered Glass

2. **Unit No's 72NE3097/98 (2 units)**

General:	
Unit No.	72NE3097/8 (JESC460/1)
Known As	Rondehof R3, R4
Location	Shopping Centre
Unit Type	Heavy Duty
Passenger Capacity	8500 per hour
Item	**Specific Requirements**
Vertical Rise	4572mm
Step Width	1000mm
Speed	0.6m/s
Angle	30 Degree
No. of Flat Steps	3
Automatic Start & Stop Operation	Provide
Variable Speed Operation	Provide
Truss exterior Cladding	Hairline Stainless Steel with Vertical Grain
Under Step Lighting	Provide
Handrail LED Lighting	Provide
Balustrade Type	Tempered Glass

3. **Unit No's 680538/39 (2 units)**

General:	
Unit No.	680538/39 (JESC616/7)
Known As	CL1, CL2 or W1, W2
Location	Woolworths
Unit Type	Heavy duty
Passenger Capacity	6500 per hour
Item	**Specific Requirements**
Vertical Rise	6934mm
Step Width	1000mm
Speed	0.5m/s
Angle	30 Degree
No. of Flat Steps	3
Automatic Start & Stop Operation	Provide
Variable Speed Operation	Provide
Truss exterior Cladding	Hairline Stainless Steel with Vertical Grain
Under Step Lighting	Provide
Handrail LED Lighting	Provide
Balustrade Type	Tempered Glass

4. **Unit No's 680500/01 (2 units)**

General:	
Unit No.	680500/01 (JESC145/6)
Known As	T1, T2
Location	FNB
Unit Type	Heavy Duty
Passenger Capacity	8500 per hour
Item	**Specific Requirements**
Vertical Rise	4572mm
Step Width	600mm
Speed	0.5m/s
Angle	30 Degree
No. of Flat Steps	3
Automatic Start & Stop Operation	Provide
Variable Speed Operation	Provide
Truss exterior Cladding	Hairline Stainless Steel with Vertical Grain
Under Step Lighting	Provide
Handrail LED Lighting	Provide
Balustrade Type	Tempered Glass

5. **Unit No's 680502/03 (2 units)**

General:	
Unit No.	680502/03 (JESC147/8)
Known As	T3, T4
Location	FNB
Unit Type	Heavy Duty
Passenger Capacity	8500 per hour
Item	**Specific Requirements**
Vertical Rise	5334mm
Step Width	600mm
Speed	0.5m/s
Angle	30 Degree
No. of Flat Steps	3
Automatic Start & Stop Operation	Provide
Variable Speed Operation	Provide
Truss exterior Cladding	Hairline Stainless Steel with Vertical Grain
Under Step Lighting	Provide
Handrail LED Lighting	Provide
Balustrade Type	Tempered Glass

6. Unit No's 680550/51/52/53/54/55 (6 units)

General:	
Unit No.	680550,51,52,53,54,55 (JESC117/8/9/20/21/22)
Known As	M1 to M6
Location	Main Street entrance
Unit Type	Heavy Duty
Passenger Capacity	8500 per hour
Item	**Specific Requirements**
Vertical Rise	2286mm
Step Width	600mm
Speed	0.5m/s
Angle	30 Degree
No. of Flat Steps	3
Automatic Start & Stop Operation	Provide
Variable Speed Operation	Provide
Truss exterior Cladding	Hairline Stainless Steel with Vertical Grain
Under Step Lighting	Provide
Handrail LED Lighting	Provide
Balustrade Type	Tempered Glass

7. **Unit No's 680556/57 (2 units)**

General:	
Unit No.	680556, 57(JESC123/4)
Known As	M7 and M8
Location	Main Street entrance
Unit Type	Heavy Duty
Passenger Capacity	8500 per hour
Item	**Specific Requirements**
Vertical Rise	3124mm
Step Width	600mm
Speed	0.5m/s
Angle	30 Degree
No. of Flat Steps	3
Automatic Start & Stop Operation	Provide
Variable Speed Operation	Provide
Truss exterior Cladding	Hairline Stainless Steel with Vertical Grain
Under Step Lighting	Provide
Handrail LED Lighting	Provide
Balustrade Type	Tempered Glass

8. **Unit No's 680522/23 (2 units)**

General:	
Unit No.	680522,23 (JESC157/166)
Known As	C1, C2
Location	Absa
Unit Type	Heavy Duty
Passenger Capacity	8500 per hour
Item	**Specific Requirements**
Vertical Rise	5441mm
Step Width	1000mm
Speed	0.5m/s
Angle	30 Degree
No. of Flat Steps	3
Automatic Start & Stop Operation	Provide
Variable Speed Operation	Provide
Truss exterior Cladding	Hairline Stainless Steel with Vertical Grain
Under Step Lighting	Provide
Handrail LED Lighting	Provide
Balustrade Type	Tempered Glass

PART 4: SITE INFORMATION

Core clause 11.2(16) states

"Site Information is information which

- describes the Site and its surroundings and
- is in the documents which the Contract Data states it is in."

In Contract Data, reference has been made to this Part 4 of the contract for the location of Site Information.

The Contractor shall attend the site clarification meeting and acquaint himself with the nature of the works, the conditions under which the work is to be performed, and the means of access to the affected properties. Any limitations or other authorities and in general with all matters that may influence that may affect the contract.

1. Description of the Site and its surroundings

1.1. General description

The site is situated at 150 Commissioner Street, Carlton Centre Johannesburg 2001.
The Design, manufacture, supply and installation of new twenty-four (24) lifts and twenty (20) escalators at Carlton centre, 150 Commissioner, Johannesburg

1.2. Existing buildings, structures, and plant & machinery on the Site

- There are no drawings for the existing lifts & escalators, escalator platforms, lift shafts, motor rooms etc.
- A typical floor plan indicating the position of the escalator's platforms & lifts shafts with no elevations will be share with the successful bidder.
- Successful bidder will be responsible for providing As-built drawings, O&M Manuals including Annexure A's and B's at completion.

1.3. Hidden services

The contractor is to provide conduct inspection and provide as built drawings showing all hidden services.