

**TRANSNET FREIGHT RAIL**  
**an Operating Division of TRANSNET SOC LTD**  
**[Registration No. 1990/000900/30]**

**RFP NO.HOAC HO 9080**  
**IMPLEMENT WHEEL IMPACT MONITORING AND WEIGH IN MOTION**  
**SYSTEM FOR A PERIOD OF TWO YEARS**

**ISSUE DATE:** 10 September 2012  
**CLOSING DATE:** 02 October 2012  
**CLOSING TIME:** 10:00  
**BID VALIDITY PERIOD:** 02 February 2013

**“PREVIEW COPY ONLY”**

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#### LIST OF ACRONYMS

B-BBEE	Broad-Based Black Economic Empowerment
CD	Compact/computer disc
DAC	Divisional Acquisition Council
DPE	Department of Public Enterprises
DTI	Department of Trade and Industry
EME	Exempted Micro Enterprise
FRC	Further Recognition Criteria
GBC	General Bid Conditions
ID	Identity Document
JV	Joint Venture
LOI	Letter of Intent
NDA	Non-Disclosure Agreement
NGP	New Growth Path
OD	Transnet Operating Division
PTN	Post-Tender Negotiations
QSE	Qualifying Small Enterprise
RFP	Request for Proposal
SD	Supplier Development
SME	Small Medium Enterprise
SOC	State Owned Company
ST&C	Standard Terms and Conditions
TAC	Transnet Acquisition Council
TCO	Total Cost of Ownership
VAT	Value-Added Tax
ZAR	South African Rand

## RFP NO.HOAC HO 9080

### IMPLEMENT WHEEL IMPACT MONITORING AND WEIGH IN MOTION SYSTEM FOR A PERIOD OF TWO YEARS

#### Section 1: NOTICE TO BIDDERS

#### 1 PROPOSAL REQUEST

Responses to this RFP [hereinafter referred to as a **Proposal** or **Proposals**] are requested from persons, companies, close corporations or enterprises [hereinafter referred to as an **Entity** or **Respondent**] to supply the aforementioned requirement(s) to Transnet.

On or after 10 September 2012, the RFP documents may be inspected at, and are obtainable from the Reception, Ground Floor, Transnet Freight Rail, Tender Advice Centre, 21 Wellington Road, Inyanda House 1, PARKTOWN, JOHANNESBURG on payment of an amount of R250,00 (inclusive of VAT) per set. Payment is to be made as follows:

Bank:	Standard Bank
Account Number:	203 158 598
Branch:	Braamfontein
Branch code:	004805
Account Name:	Transnet Limited Head Office
Reference:	HOAC HO 9080

#### NOTES –

- a) This amount is not refundable.
- b) A receipt for such payment made must be presented when collecting the RFP documents and submitted with your Proposal.

RFP documents will only be available until 19 September 2012.

Any additional information or clarification will be faxed or emailed to all Respondents, if necessary.

#### 2 FORMAL BRIEFING

A briefing will be conducted at Transnet Freight Rail, 15 Girton Road, and PARKTOWN on the 19 September at Umjantshi A, Boardroom a period of ±1 hour. [Respondent to provide own transportation and accommodation].

- 2.1 A Certificate of Attendance in the form set out in Section 14 hereto must be completed and submitted with your Proposal.
- 2.2 Respondents failing to attend the compulsory site meeting and/or RFP briefing will be disqualified.
- 2.3 Respondents without a valid RFP document in their possession will not be allowed to attend the site meeting and/or RFP briefing.
- 2.4 The briefing session will start punctually at 11H00 and information will not be repeated for the benefit of Respondents arriving late.

### 3 PROPOSAL SUBMISSION

Proposals **in duplicate plus a CD copy** must reach the Secretary, Transnet Acquisition Council before the closing hour on the date shown below, and must be enclosed in a sealed envelope which must have inscribed on the outside:

RFP No:	HOAC HO 9080	Description	Implement Wheel Impact Monitoring and Weigh in Motion System for Transnet Freight Rail for a period of two years
		Required for a Period of Two Years	
Closing date and time:	02 October 2012 at 10H00		
Closing address	<i>[Refer options in paragraph 4 below]</i>		

### 4 DELIVERY INSTRUCTIONS FOR RFP

#### 4.1 Delivery by hand

If delivered by hand, the envelope is to be deposited in the Transnet tender box which is located at the main entrance, Inyanda House 1, Parktown and should be addressed as follows:

THE SECRETARY  
TRANSNET FREIGHT RAIL ACQUISITION COUNCIL  
GROUND FLOOR, INYANDA HOUSE 1  
21 WELLINGTON ROAD  
PARKTOWN

- a) The measurements of the "tender slot" are 500mm wide x 100mm high, and Respondents must please ensure that response documents or files are not larger than the above dimensions. Responses which are too bulky [i.e. more than 100mm thick] must be split into two or more files, and placed in separate envelopes, each such envelope to be addressed as required in paragraph 3 above.
- b) It should also be noted that the above tender box is located at the street level outside the main entrance in Commissioner Street and is accessible to the public 24 hours a day, 7 days a week.

#### 4.2 Dispatch by courier

If dispatched by courier, the envelope must be addressed as follows and delivered to the Office of The Secretary, Transnet Freight Rail Acquisition Council and a signature obtained from that Office.

THE SECRETARY  
TRANSNET FREIGHT RAIL ACQUISITION COUNCIL  
GROUND FLOOR, INYANDA HOUSE 1  
21 WELLINGTON ROAD  
PARKTOWN

- 4.3 Please note that this RFP closes punctually at 10:00 on Tuesday 02 October 28 September 2012.
- 4.4 If responses are not delivered as stipulated herein, such responses will not be considered and will be treated as "UNRESPONSIVE."
- 4.5 No email or facsimile responses will be considered, unless otherwise stated herein.
- 4.6 The responses to this RFP will be opened as soon as practicable after the expiry of the time advertised for receiving them.



- 4.7 Transnet shall not, at the opening of responses, disclose to any other company any confidential details pertaining to the Proposals / information received, i.e. pricing, delivery, etc. The names and locations of the Respondents will be divulged to other Respondents upon request.
- 4.8 Envelopes must not contain documents relating to any RFP other than that shown on the envelope. All envelopes must reflect the return address of the Respondent on the reverse side.
- 4.9 No slips are to be attached to the response documents. Any additional conditions must be embodied in an accompanying letter. Subject only to clause 23 [*Alterations made by the Respondent to Tendered Prices*] of the General Bid Conditions, alterations, additions or deletions must not be made by the Respondent to the actual RFP documents.

## 5 BROAD-BASED BLACK ECONOMIC EMPOWERMENT AND SOCIO-ECONOMIC OBLIGATIONS

Transnet fully endorses and supports the Government's Broad-Based Black Economic Empowerment Programme and it is strongly of the opinion that all South African business enterprises have an equal obligation to redress the imbalances of the past.

Transnet would therefore prefer to do business with local business enterprises who share these same values and who are prepared to contribute to meaningful B-BBEE initiatives [including, but not limited to subcontracting and Joint Ventures] as part of their tendered responses. Transnet will accordingly allow "preference" points to companies who provide a B-BBEE Accreditation Certificate. All procurement transactions will be evaluated accordingly.

Consequently, when Transnet invites prospective suppliers to submit Proposals for its various expenditure programmes, it urges Respondents [*Large Enterprises and QSE's - see below*] to have themselves accredited in compliance with the Government Gazette No 34612, Notice No. 754 dated 23 September 2011. As from 1 October 2011 valid B-BBEE Accreditation Certificates must be issued by

- a) Verification Agencies accredited by the South African National Accreditation System [**SANAS**]; or
- b) Registered auditors approved by the Independent Regulatory Board of Auditors [**IRBA**], in accordance with the approval granted by the Department of Trade and Industry.

A Verification Certificate issued must reflect the weighted points attained by the measured entity for each element of the scorecard as well as the overall B-BBEE rating.

### 5.1 B-BBEE Rating

Enterprises will be rated by Verification Agencies or registered auditors based on the following:

- a) **Large Enterprises** [i.e. annual turnover greater than R35 million]:
  - Rating level based on all seven elements of the B-BBEE scorecard
- b) **Qualifying Small Enterprises – QSE** [i.e. annual turnover between R5 million and R35 million]:
  - Rating based on any four of the elements of the B-BBEE scorecard
- c) **Exempted Micro Enterprises – EME** [i.e. annual turnover less than R5 million]:
  - EMEs are exempted from B-BBEE accreditation
  - Automatic rating of Level 4 B-BBEE irrespective of race or ownership

- Black ownership greater than 50% or Black Women ownership greater than 50% automatically qualify as Level 3 B-BBEE
- EME's should provide documentary proof of annual turnover [i.e. annual financials signed off by an accounting officer] plus proof of Black ownership if Black ownership is greater than 50% and/or Black Women ownership is greater than 50%

Respondents will be required to furnish proof of the above to Transnet. [i.e. a detailed scorecard as stipulated above in respect of Large Enterprises and QSEs, or proof of turnover in respect of EMEs].

*N.B. Failure to do so will result in a score of zero being allocated for B-BBEE.*

**Turnover: Kindly indicate your entity's annual turnover for the past year:**

R \_\_\_\_\_

**All Respondents must complete and return the B-BBEE Preference Points Claim Form attached hereto as Annexure A.**

#### 5.2 Joint Ventures and Subcontractors

In addition to the above, Respondents who wish to enter into a Joint Venture with, or subcontract portions of the contract to, B-BBEE entities must state in their RFPs, the percentage of the total contract value that will be allocated to such B-BBEE entities, should they be successful in being awarded any business. A rating certificate in respect of such B-BBEE JV-partners and/or subcontractor(s), as well as a breakdown of the distribution of the aforementioned percentage must also be furnished with the RFP response to enable Transnet to evaluate in accordance with the processes outlined in the B-BBEE Preference Points Claim Form appended hereto as Annexure A.

Please note that a Respondent will not be awarded points for B-BBEE if it is indicated in its Proposal that such Respondent intends subcontracting more than 25% [twenty-five per cent] of the value of the contract to an entity that does not qualify for at least the same points that the Respondent qualifies for, unless the intended subcontractor is an EME with the capability to execute the contract.

#### 5.3 B-BBEE Registration

In addition to the accreditation certificate, Transnet recommends that Respondents register their B-BBEE compliance and supporting documentation on the Department of Trade and Industry's [DTI] National B-BBEE IT Portal and Opportunities Network and provide Transnet with proof of registration in the form of an official B-BBEE Profile issued by the DTI.

Transnet would wish to use the DTI B-BBEE IT Portal as a data source for tracking B-BBEE compliance.

*For instructions to register and obtain a DTI B-BBEE Profile go to <http://bee.thedti.gov.za>*

#### 5.4 Further Recognition Criteria

Transnet encourages its suppliers to constantly strive to improve their B-BBEE rating. Whereas Respondents will be allocated points in terms of a preference point system based on its B-BBEE scorecard to be assessed as detailed in paragraph 5.1 above, in addition to such scoring, a further **10% [ten per cent]** will be allocated to a Respondent's score based on the "Further Recognition Criteria" [FRC] on an ascending scale. This will be calculated based on the extent to which the Respondent commits to meet and/or exceed the minimum compliance targets with its proposed target score to be achieved during the contract period.

Respondents are required to submit their Further Recognition Criteria with their Proposals. *[Refer Section ..... for further instructions]*

#### 5.5 Supplier Development Initiatives

Historically in South Africa there has been a lack of investment in infrastructure, skills and capability development and an inequality in the income distribution and wealth of a significant portion of the population. There have been a number of Government initiatives developed to address these challenges. In particular, the New Growth Path [NGP] developed in 2010 aligns and builds on previous policies to ensure the achievement of Government's development objectives for South Africa.

Transnet fully endorses and supports Government's New Growth Path policy through its facilitation of Supplier Development [SD] initiatives. Hence Supplier Development Initiatives are a prerequisite for this RFP and are included in the Evaluation Criteria.

### 6 COMMUNICATION

Respondents are warned that a Proposal will be liable to disqualification should any attempt be made by a Respondent either directly or indirectly to canvass any officer or employee of Transnet in respect of this RFP between the closing date and the date of the award of the business.

6.1 For specific queries relating to this RFP, a Bid Clarification Request Form should be submitted before 12:00 on 25 August 2014 substantially in the form set out in Section 12 hereto. In the interest of fairness and transparency Transnet's response to such a query will then be made available to the other Respondents who have collected RFP documents. For this purpose all Respondents need to indicate by email their intention to respond to this RFP by informing Transnet of their contact details as soon as possible but on or before 25 August 2012 to the Secretary of Acquisition Council email [prudence.nkabinde@transnet.net](mailto:prudence.nkabinde@transnet.net).

6.2 After the closing date of the RFP, a Respondent may communicate with the Secretary of the Transnet Freight Rail Acquisition Council, at telephone number 011 544 9486, email [prudence.nkabinde@transnet.net](mailto:prudence.nkabinde@transnet.net) or facsimile number 011 308 2637 on any matter relating to its RFP Proposal.

Respondents found to be in collusion with one another will be automatically disqualified and blacklisted from doing business with Transnet in the future.

### 7 INSTRUCTIONS FOR COMPLETING THE RFP

- 7.1 Sign one set of documents [sign, stamp and date the bottom of each page]. This set will serve as the legal and binding copy. A duplicate set of documents is required. This second set can be a copy of the original signed Proposal.
- 7.2 Both sets of documents to be submitted to the address specified in paragraph 4 above.
- 7.3 A CD copy of the RFP Proposal may be submitted. Please provide in MS Word / Excel format, not PDF versions, noting that the signed original set will be legally binding *[paragraph 7.1 above]*.
- 7.4 All returnable documents listed [✓] in the Proposal Form [Section 4] must be returned with your Proposal.



## 8 COMPLIANCE

The successful Respondent [hereinafter referred to as the **Supplier**] shall be in full and complete compliance with any and all applicable laws and regulations.

## 9 ADDITIONAL NOTES

- 9.1 All returnable documents as indicated in the Proposal Form [Section 4] must be returned with the response.
- 9.2 Changes by the Respondent to its submission will not be considered after the closing date.
- 9.3 The person or persons signing the Proposal must be legally authorised by the Respondent to do so [Refer Section 6 – Signing Power, Resolution of the Board of Directors]. A list of those person(s) authorised to negotiate on your behalf [if not the authorised signatories] must also be submitted along with the Proposal together with their contact details.
- 9.4 Transnet would prefer not to do business with any agents [“middlemen”] who do not add significant value to the supply chain. In such instances Transnet will endeavour to contract directly with the overseas and / or local OEMs [Original Equipment Manufacturers].
- 9.5 Transnet may wish to visit the Respondent’s place of manufacture/workshop/premises during this RFP process.
- 9.6 Transnet reserves the right to undertake post-tender negotiations [PTN] with selected Respondents or any number of short-listed Respondents, such PTN to include, at Transnet’s option, any evaluation criteria listed in this RFP document.
- 9.7 Unless otherwise expressly stated, all Proposals furnished pursuant to this RFP shall be deemed to be offers. Any exceptions to this statement must be clearly and specifically indicated. Transnet reserves the right to reject any or all offers.

**FAILURE TO OBSERVE ANY OF THE AFOREMENTIONED REQUIREMENTS  
MAY RESULT IN A PROPOSAL BEING REJECTED**

## 10 DISCLAIMERS

Respondents are hereby advised that Transnet is not committed to any course of action as a result of its issuance of this RFP and/or its receipt of a Proposal in response to it. In particular, please note that Transnet reserves the right to:

- 10.1 modify the RFP’s Goods and request Respondents to re-bid on any changes;
- 10.2 reject any Proposal which does not conform to instructions and specifications which are detailed herein;
- 10.3 disqualify Proposals submitted after the stated submission deadline;
- 10.4 not necessarily accept the lowest priced Proposal;
- 10.5 reject all Proposals, if it so decides;
- 10.6 withdraw the RFP on good cause shown;

- 10.7 award a contract in connection with this Proposal at any time after the RFP's closing date;
- 10.8 award a contract for only a portion of the proposed Goods which are reflected in the scope of this RFP;
- 10.9 split the award of the contract between more than one Supplier; or
- 10.10 make no award of a contract.

In addition, Transnet reserves the right to exclude any Respondent from the bidding 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. Respondents are required to indicate in Section 11 [*Breach of Law*] whether or not they have been found guilty of a serious breach of law during the past 5 [five] years.

Kindly note that Transnet will not reimburse any Respondent for any preparatory costs or other work performed in connection with this Proposal, whether or not the Respondent is awarded a contract.

## **11 LEGAL REVIEW**

A Proposal submitted by a Respondent will be subjected to review and acceptance or rejection of its proposed contractual terms and conditions by Transnet's Legal Counsel, prior to consideration for an award of business.

**Transnet urges its clients, suppliers and the general public  
to report any fraud or corruption on the part of Transnet employees to  
TIP-OFFS ANONYMOUS : 0800 003 056**

## RFP NO.HOAC HO 9080

### IMPLEMENT WHEEL IMPACT MONITORING AND WEIGH IN MOTION SYSTEM FOR A PERIOD OF TWO YEARS

#### Section 2 : BACKGROUND, OVERVIEW AND SCOPE OF REQUIREMENTS

#### 1 BACKGROUND

Implement Wheel Impact Monitoring and Weigh in Motion System for Transnet Freight Rail for a period of two years.

#### 2 EXECUTIVE OVERVIEW

Transnet is seeking a partner(s) to conduct and implement and weigh in motion system for Transnet Freight Rail for a period of two years.

The selected Supplier(s) will share in the mission and business objectives of Transnet. These mutual goals will be met by meeting contractual requirements and new challenges in an environment of teamwork, joint participation, flexibility, innovation and open communications. In this spirit of partnership, Transnet and its Supplier(s) will study the current ways they do business to enhance current practices and support processes and systems. Such a partnership will allow Transnet to reach higher levels of quality, service and profitability. Specifically, Transnet seeks to benefit from this partnership in the following ways:

- 2.1 Transnet must receive reduced cost of acquisition and improved service benefits resulting from the Supplier's economies of scale and streamlined service processes.
- 2.2 Transnet must achieve appropriate availability that meets user needs while reducing costs for both Transnet and the chosen Supplier(s).
- 2.3 Transnet must receive proactive improvements from the Supplier with respect to supply of Goods and related processes.
- 2.4 Transnet's overall competitive advantage must be strengthened by the chosen Supplier's leading edge technology and service delivery systems.
- 2.5 Transnet end users must be able to rely on the chosen Supplier's personnel for service enquiries, recommendations and substitutions.
- 2.6 Transnet must reduce costs by streamlining its acquisition of Goods, including managed service processes on a Group basis.

#### 3 SCOPE OF REQUIREMENTS

Please see attached document Annexure A

#### 4 GENERAL INFORMATION

- 4.1 The Supplier(s) shall be fully responsible to Transnet for the acts and omissions of persons directly or indirectly employed by them.
- 4.2 The Supplier(s) must provide the information requested and comply with the requirements stated in this RFP.

**5 "AS AND WHEN REQUIRED" CONTRACTS**

5.1 An RFQ for a particular signalling equipment will be forwarded to all relevant successful bidders on the list as and when goods are required.

5.2 Purchase orders will be placed on the Supplier(s) .

Transnet reserves the right to place purchase orders until the last day of the contract for deliveries to be effected within the delivery period / lead time specified beyond the expiry date of the contract under the same terms and conditions as agreed upon.

5.3 Delivery requirements may be stipulated in purchase orders and scheduled deliveries may be called for. However, delivery periods and maximum monthly rates of delivery offered by the Respondents will be used as guidelines in establishing lead times and monthly delivery requirements with the Supplier.

5.4 Where scheduled deliveries are required, the delivery period(s) specified must be strictly complied with, unless otherwise requested by Transnet. Material supplied earlier than specified may not be paid for or may be returned by Transnet, with the Supplier being held liable for all expenses so incurred, e.g. transport charges, handling charges, etc.

5.5 If the delivery period offered by the Respondents is subject to a maximum monthly production capacity, full particulars must be indicated in Section 3 [*Pricing and Delivery Schedule*]

5.6 The Respondent must state hereunder its annual holiday closedown period [if applicable] and whether this period has been included in the delivery lead time offered:

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5.3 Indicate below the action that the Respondent proposes to take to ensure continuity of supply during non-working days or holidays and periods occupied in stocktaking or in effecting repairs to plant or in overhaul of plant which would ordinarily occur within the stated delivery lead time:

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**6 RESPONDENT'S SAMPLES**

6.1 Only in cases when the Respondent submits a sample(s) of the Goods/products/material tendered for by it, the sample(s) must be forwarded on or before the deadline date to the addressee hereunder:

THE SECRETARY  
 TRANSNET FREIGHT RAIL ACQUISITION COUNCIL  
 GROUND FLOOR, INYANDA HOUSE 1  
 21 ELLINGTON ROAD  
 PARKTOWN

The sample(s) must be clearly marked with the reference number of this RFP and the names and addresses of both the Respondent and the manufacturer.

- a. Failure to submit the sample(s) in due time may result in a Proposal being rejected. Proposals must under no circumstances be included in the package containing a sample(s).

- b. The Respondents must state the following:
  - i. Has/have a sample(s) been submitted?

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- ii. How and to whom forwarded?

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- iii. Date of despatch

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**22 PRE-PRODUCTION SAMPLES/PROTOTYPES**

- a. Only in cases when a pre-production sample(s) or prototype(s) is/are called for, the Respondent should state here the date required to deliver the necessary pre-production samples(s) or prototype(s) calculated as from the date of notification of acceptance of the Proposal by Transnet:

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- b. NB: Purchase Orders will be placed on the Supplier(s) only after the date of approval of the pre-production sample(s).
- c. State the number of days/weeks/months after which delivery would commence subject to Transnet’s approval of the pre-production sample(s) or prototype(s), calculated as from the date of such approval:

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**23 MANUFACTURERS**

The Respondents must state hereunder the actual manufacturer(s) of the Goods tendered for:

- a. LOCAL MANUFACTURER(S):

RFP ITEM NUMBER	NAME	ADDRESS [IN FULL]
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>

- b. FOREIGN MANUFACTURER(S):

RFP ITEM NUMBER	NAME	ADDRESS [IN FULL]
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>

**24 INSPECTION DETAILS**

The Respondents must state the actual name(s) and address/addresses of the suppliers of the Goods for inspection purposes only:

- a. LOCAL MANUFACTURER(S):

RFP ITEM NO.	NAME	ADDRESS [IN FULL]
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>



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b. FOREIGN MANUFACTURER(S):

RFP ITEM NO.	NAME	ADDRESS [IN FULL]

**25 IMPORTED CONTENT**

The Respondents must state hereunder the value and percentage of the imported content as well as the country of origin in respect of each item tendered for:

RFP ITEM NO / DESCRIPTION.	VALUE	% COST	COUNTRY OF ORIGIN

Note: Where more than one country is applicable to one item, the Respondents must furnish this information separately.

**26 EXCHANGE AND REMITTANCE**

The attention of the Respondents is directed to clause 8 [Exchange and Remittance] of the General Bid Conditions appended hereto. The Respondent is also to note that the particulars of the exchange rate on which the Respondent has based its tendered price(s), is/are to be stipulated hereunder, *only if Transnet is requested by the Respondent to effect payment overseas direct to the Respondent’s principal or supplier, which is not a registered South African Company.*

a. ZAR 1.00 [South African currency] being equal to \_\_\_\_\_ [foreign currency]

b. \_\_\_\_\_% in relation to tendered price(s) to be remitted overseas by Transnet

c. \_\_\_\_\_ [Name of country to which payment is to be made]

d. Beneficiary details:

Name [Account holder] \_\_\_\_\_

Bank [Name and branch code] \_\_\_\_\_

Swift code \_\_\_\_\_

Country \_\_\_\_\_

e. \_\_\_\_\_ [Applicable base date of Exchange Rate used]

Respondents are advised that should a contract be awarded for deliveries on an “as and when required” basis, any future remittance(s) to overseas principals/suppliers, as instructed above, will be based on the currency rate of exchange related to the contractual price of the Goods at that time.

**EXPORT CREDIT AGENCY SUPPORTED FINANCE:**

In order to finance its payment obligations under a future contract where foreign transactions are involved, Transnet would consider raising debt financing [an "ECA Facility"] from one or more banks and financial institutions, with the benefit of export credit agency [ECA] credit support to be provided by an Export Credit Agency.

Under such circumstances the successful Respondent will agree to undertake:

- a) to provide (and/or cause the Parent to provide, as applicable) to Transnet and the banks and financial institutions that may participate in the ECA Facility all such assistance as an importer of Goods and services, which are eligible for ECA credit supported finance by an Export Credit Agency, is generally required to provide for the purposes of obtaining ECA support;
- b) not to do or (as Supplier of the relevant eligible Goods or services) omit to do anything, which may adversely affect Transnet’s prospects of qualifying for or, once obtained, maintaining ECA credit support by an Export Credit Agency in respect of an ECA Facility.

All cost, expenses, charges and liabilities incurred by Transnet in establishing an ECA Facility with credit support from an Export Credit Agency, would be for the account of Transnet.

**27 NATIONAL RAILWAY SAFETY REGULATOR ACT**

In compliance with the National Railway Safety Regulator Act, 16 of 2002, the successful Respondent (**the Supplier**) shall ensure that the Goods to be supplied to Transnet, under the terms and conditions of a contract between the parties, comply fully with the specifications as set forth in Section ..... [Specifications and Drawings] of this RFP, and shall thereby adhere to railway safety requirements and/or regulations [as applicable]. Permission for the engagement of a subcontractor by the Supplier, as applicable, both initially and during the course of a contract, shall be subject to a review of the capability of the proposed subcontractor to comply with the specified railway safety requirements and/or regulations. The Supplier and/or its subcontractor shall grant Transnet access, during the term of the contract, to review any safety-related activities, including the coordination of such activities across all parts of the organisation.

**Accepted:**

<b>YES</b>	<b>NO</b>

**28 SERVICE LEVELS**

- a. An experienced national account representative(s) is required to work with Transnet’s sourcing/procurement department. [No sales representatives are needed for individual department/locations]. Additionally, there shall be a minimal number of people, fully informed and accountable for this agreement.
- b. Transnet will have quarterly reviews with the Supplier’s account representative on an on-going basis.
- c. Transnet reserves the right to request that any member of the Supplier’s team involved on the Transnet account be replaced if deemed not to be adding value for Transnet.



- d. Supplier must provide a telephone number for customer service calls.
- e. Failure of the Supplier to comply with stated service level requirements will give Transnet the right to cancel the contract in whole, without penalty to Transnet, giving 30 [thirty] days’ notice to the Supplier.

**Acceptance of Service Levels:**

<b>YES</b>	<b>NO</b>

**29 CONTINUOUS IMPROVEMENT INITIATIVES**

- a. Respondents shall indicate whether they would be committed, for the duration of any contract which may be awarded through this RFP process, to participate with Transnet in its continuous improvement initiatives to reduce the overall cost of transportation services and related logistics provided by Transnet’s operating divisions within South Africa, to the ultimate benefit of all end-users.

**Accepted:**

<b>YES</b>	
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<b>NO</b>	
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If “yes”, please specify details in paragraph b below.

- b. Respondents must briefly describe their commitment to the continuous improvement initiatives and give examples of specific areas and strategies where cost reduction initiatives can be introduced. Specific areas and proposed potential savings percentages should be included. Additional information can be appended to the Respondent’s Proposal if there is insufficient space available.

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**30 RISK**

Respondents must elaborate on the control measures put in place by their entity, which would mitigate the risk to Transnet pertaining to potential non-performance by a Supplier, in relation to:

- a. **Quality and specification of Goods delivered:**

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- b. **Continuity of supply** [refer clause 10.3 of Form ST&C]:

- c. **Compliance with the Occupational Health and Safety Act, 85 of 1993** [refer clause 7.1(f) of Form ST&C]:

- d. **Compliance with the National Railway Safety Regulator Act, 16 of 2002** [refer paragraph 27 above]:

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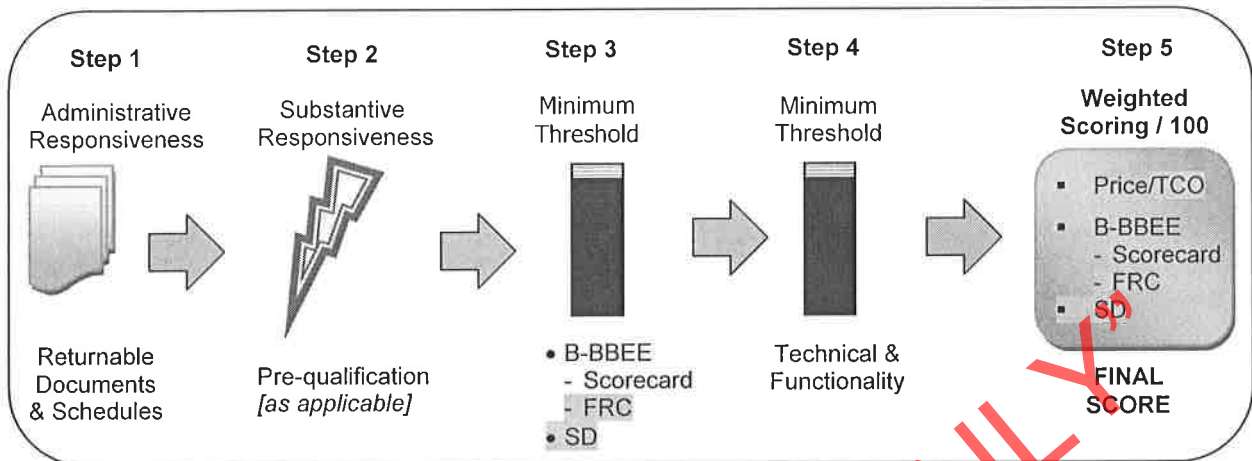
**31 REFERENCES**

Please indicate below the company names and contact details of existing customers whom Transnet may contact to seek third party evaluations of your current service levels:

NAME OF COMPANY	CONTACT PERSON	TELEPHONE

**32 EVALUATION METHODOLOGY AND CRITERIA**

Transnet will utilise the following methodology and criteria in selecting a preferred Supplier, if so required:



**a. STEP ONE – TEST FOR ADMINISTRATIVE RESPONSIVENESS**

The test for administrative responsiveness will include the following:

EVALUATION CRITERIA	RFP REFERENCE
• whether the bid has been lodged on time	<i>Section 1 paragraph 3</i>
• whether all returnable documents and/or schedules [where applicable] were completed and returned by the closing date and time	<i>Section 4</i>
• whether the bid documentation has been duly signed by the Respondent.	<i>Section 1 paragraph 7.1</i>

***The test for administrative responsiveness [Step One] must be passed for a Respondent’s proposal to progress to Step Two for further evaluation.***

**b. STEP TWO – TEST FOR SUBSTANTIVE RESPONSIVENESS TO RFP**

The test for substantive responsiveness to this RFP will include the following:

EVALUATION CRITERIA	RFP REFERENCE
• whether any pre-qualification criteria set by Transnet, have been met	<i>Section 1 paragraphs 2.2, 6.1, 10.3 Section 4 – validity period Section 8, General Bid Conditions clause 25 Section 10</i>
• whether the bid contains a priced offer	<i>Section 3</i>
• whether the bid materially complies with the scope and/or specification given	<i>Section 2</i>
• whether all material terms and conditions stated in the bid document have been met	<i>All Sections</i>

***The test for substantive responsiveness [Step Two] must be passed for a Respondent's proposal to progress to Step Three for further evaluation.***

**c. STEP THREE – TEST MINIMUM THRESHOLD FOR B-BBEE, FURTHER RECOGNITION CRITERIA & SUPPLIER DEVELOPMENT INITIATIVES**

a) **B-BBEE Rating**

(i) **B-BBEE Scorecard:**

EVALUATION CRITERION	RFP REFERENCE
<ul style="list-style-type: none"> <li>Current status evaluated according the B-BBEE Accreditation scorecard</li> </ul>	<i>Section 1, paragraph 5 &amp; Preferential Points Claim Form</i>

(ii) **Further Recognition Criteria – compliance targets:**

EVALUATION CRITERIA	RFP REFERENCE
<ul style="list-style-type: none"> <li>Ownership</li> </ul>	<i>Section .....</i>
<ul style="list-style-type: none"> <li>Management control</li> </ul>	<i>Section .....</i>
<ul style="list-style-type: none"> <li>Employment equity</li> </ul>	<i>Section .....</i>
<ul style="list-style-type: none"> <li>Enterprise Development</li> </ul>	<i>Section .....</i>
<ul style="list-style-type: none"> <li>Preferential Procurement</li> </ul>	<i>Section .....</i>

b) **Supplier Development Bid Document and SD Initiatives:** *[Refer Section ....., plus Annexures B & C & D]:*

EVALUATION CRITERIA	RFP REFERENCE
<ul style="list-style-type: none"> <li>Industrialisation</li> </ul>	<i>Section .....</i>
<ul style="list-style-type: none"> <li>Capability and Capacity Building</li> </ul>	<i>Section .....</i>
<ul style="list-style-type: none"> <li>Technology and Intellectual Property Rights [IPR] transfers</li> </ul>	<i>Section .....</i>
<ul style="list-style-type: none"> <li>New skills development</li> </ul>	<i>Section .....</i>
<ul style="list-style-type: none"> <li>Job creation and/or preservation</li> </ul>	<i>Section .....</i>
<ul style="list-style-type: none"> <li>Small business promotion</li> </ul>	<i>Section .....</i>
<ul style="list-style-type: none"> <li>Rural integration and regional development</li> </ul>	<i>Section .....</i>

***The test for meeting the B-BBEE and SD threshold [Step Three] must be passed for a Respondent's proposal to progress to Step Four for further evaluation.***



<b>DESCRIPTION</b>	
<b>CATEGORY - COMMERCIAL</b>	
<b>Pricing (Your quoted price should include all cost ) Excluding VAT</b>	
<b>CATEGORY: TECHNICAL &amp; FUNCTIONALITY</b>	
1.1	Will the system perform a comprehensive measurement of the wheel impact and the appropriate weighing of the vehicles? (as outline in BBF 5096 section 5.1 & 5.2)
1.2	Will the system include a comprehensive analysis of the skew bogies and a measurements of the lateral forces? (as outline in BBF 5096 section 5.3)
1.3	Will the system include reports and report alarm conditions as stipulated in BBF 5096 section 5.4?
1.4	Will the system encapsulate vehicle/loco recognition as well as the computation of train and vehicle speed? (as outline in BBF 5096 section 5.5 & 5.6)
1.5	Will the system process the measurement data and communicate this data to the ITCMS? (as outline in BBF 5096 section 5.7 & 5.8)
1.6	Will the system perform adequate self-checks to very continuous functionality? (as outline in BBF 5096 section 5.9)
<b>2. GENERAL REQUIREMENTS</b>	
2.1	Will the system be fully functional and unaffected by all the environmental conditions as stipulated in BBF 5096 section 6.1 ?
2.2	Are all the documentation requirements met? (as outline in BBF 5096 section 6.2)
2.3	Will the design, construction and installation be in line with all the set standards (see BBF 5096 section 6.3)
<b>3. MAINTENANCE REQUIREMENTS</b>	
3.1	Does the supplier guarantee continued local availability of all components along with the required warranties? (see BBF 5096 section 7.2)
3.2	Will the system design be such that any equipment's repair does not inhibit train movements on the line for more than 2 hours? (BBF 5096 section 7.3)
3.3	Will the supplier provide extensive maintenance and operating training in all aspects of the system as outlined in BBF 5096 section 7.1 & 7.4 ?
<b>4. SAFETY AND RISK</b>	
4.1	Risk: The supplier shall submit a comprehensive risk register and outline the respective business continuity plan.
4.2	Safety: In identifying any safety and health concerns the supplier shall provide a list outlining the makeup of the device's components
<b>CATEGORY B-BBEE</b>	
B-BBEE certificate and score card	
<b>SD/Further recognition</b>	
Black owned	

**For technical please refer to each section indicated**

*Note: Transnet reserves the right to conduct post-tender negotiations with the preferred Respondent(s)*

**RFP NO.HOAC HO 9080**

**IMPLEMENT WHEEL IMPACT MONITORING AND WEIGH IN MOTION SYSTEM FOR A PERIOD OF TWO YEARS**

**Section 3 : PRICING AND DELIVERY SCHEDULE**

PLEASE ATTACH A SCHEDULE

**Notes to Pricing:**

- c) All Prices must be quoted in South African Rand, exclusive of VAT
- d) Prices quoted must be held valid for a period of 90 days
- e) Respondents are to indicate whether prices quoted would be subject to adjustment after a period of 12 months, and if so which proposed adjustment factor(s) would be utilised

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**RFP NO.HOAC HO 9080****IMPLEMENT WHEEL IMPACT MONITORING AND WEIGH IN MOTION SYSTEM FOR A PERIOD OF TWO YEARS****Section 4 : PROPOSAL FORM**

I/We \_\_\_\_\_

*[name of entity, company, close corporation or partnership]*of *[full address]*

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

carrying on business under style or title of *[trading as]* \_\_\_\_\_

represented by \_\_\_\_\_

in my capacity as \_\_\_\_\_

being duly authorised thereto by a Resolution of the Board of Directors or Members or Certificate of Partners, as the case may be, dated \_\_\_\_\_ a certified copy of which is annexed hereto, hereby offer to supply the above-mentioned Goods at the prices quoted in the schedule of prices in accordance with the terms set forth in the accompanying letter(s) reference \_\_\_\_\_ and dated \_\_\_\_\_ *[if any]* and the documents listed in the accompanying schedule of RFP documents.

I/We agree to be bound by those conditions in Transnet's:

1. Standard Terms and Conditions of Contract [Form ST&C – Goods];
2. General Bid Conditions – Goods; and
3. any other standard or special conditions mentioned and/or embodied in this Request for Proposal.

I/We accept that unless Transnet should otherwise decide and so inform me/us in the letter of award, this Proposal [and, if any, its covering letter and any subsequent exchange of correspondence], together with Transnet's acceptance thereof shall constitute a binding contract between Transnet and me/us.

Should Transnet decide that a formal contract should be signed and so inform me/us in a letter of intent [the **Letter of Intent**], this Proposal [and, if any, its covering letter and any subsequent exchange of correspondence] together with Transnet's Letter of Intent, shall constitute a binding contract between Transnet and me/us until the formal contract is signed.

I/We further agree that if, after I/we have been notified of the acceptance of my/our Proposal, I/we fail to enter into a formal contract if called upon to do so, or fail to commence the supply of Goods within 4 [four] weeks thereafter, Transnet may, without prejudice to any other legal remedy which it may have, recover from me/us any expense to which it may have been put in calling for Proposals afresh and/or having to accept any less favourable Proposal.

I/We accept that any contract resulting from this offer will be for a period of two years only; and agree to a penalty clause to be negotiated with Transnet, which will allow Transnet to invoke a penalty [details to be negotiated] against us should the delivery of the Goods be delayed due to non-performance by ourselves.

The law of the Republic of South Africa shall govern any contract created by the acceptance of this RFP. The *domicilium citandi et executandi* shall be a place in the Republic of South Africa to be specified by the Respondent hereunder, at which all legal documents may be served on the Respondent who shall agree to submit to the jurisdiction of the courts of the Republic of South Africa. Foreign Respondents shall, therefore, state hereunder the name of their authorised representative in the Republic of South Africa who has the power of attorney to sign any contract which may have to be entered into in the event of their Proposal being accepted and to act on their behalf in all matters relating to such contract.

Respondent to indicate the details of its *domicilium citandi et executandi* hereunder:

Name of Entity: \_\_\_\_\_

Facsimile: \_\_\_\_\_

Address: \_\_\_\_\_

**NOTIFICATION OF AWARD OF RFP**

As soon as possible after approval to award the contract(s), the successful Respondent [the Supplier] will be informed of the acceptance of its Proposal. Unsuccessful Respondents will be advised in writing of the name of the successful Supplier and the reason as to why their Proposals have been unsuccessful, for example, in the category of price, delivery period, quality, B-BBEE status or for any other reason.

**VALIDITY PERIOD**

Transnet requires a validity period of 90 [ninety] days [from closing date] against this RFP.

**NAME(S) AND ADDRESS / ADDRESSES OF DIRECTOR(S) OR MEMBER(S)**

The Respondent must disclose hereunder the full name(s) and address(s) of the director(s) or members of the company or close corporation [C.C.] on whose behalf the RFP is submitted.

(i) Registration number of company / C.C. \_\_\_\_\_

(ii) Registered name of company / C.C. \_\_\_\_\_

(iii) Full name(s) of director/member(s)	Address/Addresses	ID Number(s)
_____	_____	_____
_____	_____	_____
_____	_____	_____

**CONFIDENTIALITY**

All information related to a subsequent contract, both during and after completion, is to be treated with strict confidence. Should the need however arise to divulge any information gleaned from provision of the Goods, which is either directly or indirectly related to Transnet’s business, written approval to divulge such information must be obtained from Transnet.

**DISCLOSURE OF PRICES TENDERED**

Respondents must indicate here whether Transnet may disclose their tendered prices and conditions to other Respondents:

<b>YES</b>		<b>NO</b>	
------------	--	-----------	--

**PRICE REVIEW**

The successful Respondent(s) will be obliged to submit to an annual price review. Transnet will be benchmarking this price offering(s) against the lowest price received as per a benchmarking exercise. If the Respondent’s price(s) is/are found to be higher than the benchmarked price(s), then the Respondent shall match or better such price(s) within 30 [thirty] days, failing which the contract may be terminated at Transnet’s discretion or the particular item(s) or service(s) purchased outside the contract.

**RETURNABLE DOCUMENTS AND SCHEDULES**

Respondents are required to submit the following returnable documents and schedules with their responses [see √]. All Sections, as indicated in the footer of each page, must be signed, stamped and dated by the Respondent:

SECTION 1 : Notice to Bidders	√
- ANNEXURE A : B-BBEE Preference Points Claim Form	√
Declaration Certificate for Local Production and Content [Form SBD 6.2]	√
SECTION 2 : Background, Overview and Scope of Requirements	√
SECTION 3 : Pricing & Delivery Schedule	√
SECTION 4 : Proposal Form	√
SECTION 5 : Vendor Application Form	√
- Original cancelled cheque or bank verification of banking details	√
- Certified copies of IDs of shareholder/directors/members [as applicable]	√
- Certified copy of Certificate of Incorporation [CM29/CM9 name change]	√
- Certified copy of share certificates [CK1/CK2 if CC]	√
- Entity’s letterhead	√
- Original Tax Clearance Certificate	√
- Certified copy of VAT Registration Certificate	√
- Certified copy of Company Registration Certificate	√
- Valid B-BBEE Accreditation Certificate [Large Enterprises and QSEs]	√
- Annual financials signed off by an accounting officer [EMEs]	√
- Audited Financials for previous 3 years	√
SECTION 6 : Signing Power - Resolution of Board of Directors	√
SECTION 7 : Certificate of Acquaintance with RFP Documents	√
SECTION 8 : General Bid Conditions – Goods	√
SECTION 9 : Standard Terms and Conditions of Contract	√
SECTION 10 : RFP Declaration Form	√



SECTION 11 : Breach of Law	√
SECTION 12 : Bid Clarification Request Form	√
SECTION 13 : Supplier Code of Conduct	√
SECTION ..... : Certificate of attendance of Site Meeting / RFP Briefing	√
SECTION ..... : Specifications and Drawings	√
SECTION ..... : Non-Disclosure Agreement	√
SECTION ..... : Further Recognition Criteria	√
SECTION ..... : Supplier Development Initiatives	√
- Supplier Development Bid Document	√
- Annexure C : Supplier Development Value Summary	√
- Annexure D : Bill of Materials	√

**Failure to provide all the above-referenced returnable documents marked with a [√] will result in a Respondent's disqualification. Bidders are therefore urged to ensure that all these documents are returned with their Proposals.**

#### **CONTINUED VALIDITY OF RETURNABLE DOCUMENTS**

The successful Respondent will be required to ensure the validity of all returnable documents, including but not limited to its Tax Clearance Certificate and B-BBEE Accreditation Certificate, for the duration of any contract emanating from this RFP. Should the Respondent be awarded the contract [the **Agreement**] and fail to present Transnet with such renewals as and when they become due, Transnet shall be entitled, in addition to any other rights and remedies that it may have in terms of the eventual Agreement, to terminate the Agreement forthwith without any liability and without prejudice to any claims which Transnet may have for damages against the Respondent.

**By signing the RFP documents, the Respondent is deemed to acknowledge that he/she has made himself/herself thoroughly familiar with all the conditions governing this RFP, including those contained in any printed form stated to form part hereof and Transnet SOC Ltd will recognise no claim for relief based on an allegation that the Respondent overlooked any such condition or failed properly to take it into account for the purpose of calculating tendered prices or otherwise.**

SIGNED at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_ 2012

SIGNATURE OF WITNESSES

ADDRESS OF WITNESSES

1 \_\_\_\_\_  
Name \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2 \_\_\_\_\_  
Name \_\_\_\_\_

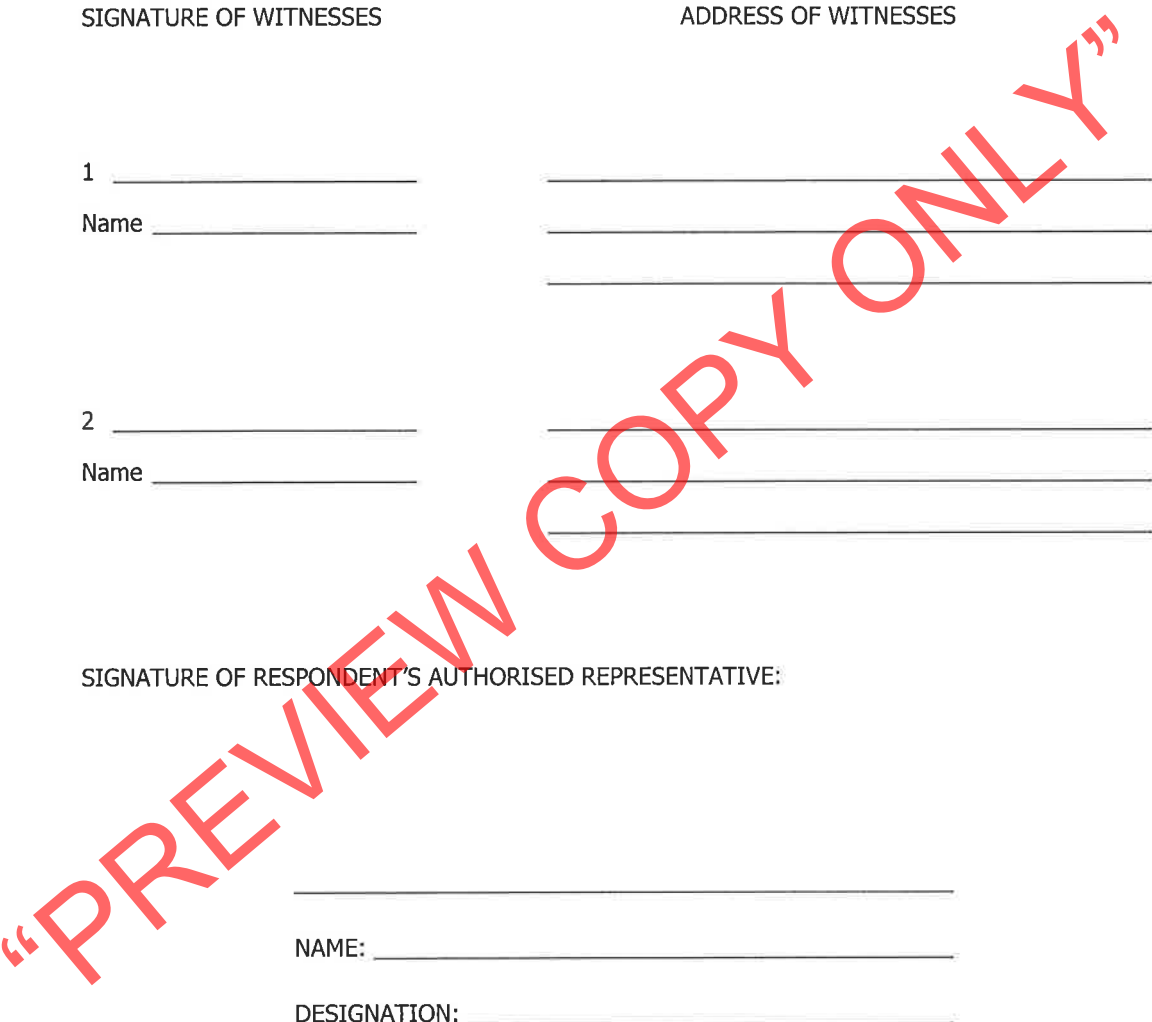
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SIGNATURE OF RESPONDENT'S AUTHORISED REPRESENTATIVE:

\_\_\_\_\_

NAME: \_\_\_\_\_

DESIGNATION: \_\_\_\_\_



### RFP NO.HOAC HO 9080

## IMPLEMENT WHEEL IMPACT MONITORING AND WEIGH IN MOTION SYSTEM FOR A PERIOD OF TWO YEARS

### Section 5 : VENDOR APPLICATION FORM

Respondents are to furnish the following documentation and complete the Vendor Application Form below:

1. **Original** cancelled cheque **OR** letter from the Respondent’s bank verifying banking details [**with bank stamp**]
2. **Certified** copy of Identity Document(s) of Shareholders/Directors/Members [where applicable]
3. **Certified** copy of Certificate of Incorporation, CM29 / CM9 [name change]
4. **Certified** copy of Share Certificates [CK1/CK2 if CC]
5. A letter on the entity’s letterhead confirm physical and postal addresses
6. **Original** valid SARS Tax Clearance Certificate and **certified copy** of VAT Registration Certificate
7. A signed letter from your auditor or accountant confirming most recent annual turnover figures

**Note: No contract shall be awarded to any Respondent whose tax matters have not been declared by SARS to be in order.**

## Vendor Application Form

Entity’s trading name							
Entity’s registered name							
Entity’s Registration Number or ID Number if a Sole Proprietor							
Form of entity [v]	<input type="checkbox"/> CC	<input type="checkbox"/> Trust	<input type="checkbox"/> Pty Ltd	<input type="checkbox"/> Limited	<input type="checkbox"/> Partnership	<input type="checkbox"/> Sole Proprietor	
How many years has your entity been in business?							
VAT number [if registered]							
Entity’s telephone number							
Entity’s fax number							
Entity’s email address							
Entity’s website address							
Bank name				Branch & Branch code			
Account holder				Bank account number			
Postal address						Code	

\_\_\_\_\_  
Respondent’s Signature

\_\_\_\_\_  
Date & Company Stamp

Physical address			
		Code	
Contact person			
Designation			
Telephone			
Email			
Annual turnover range [last financial year]	< R5 m	R5 - 35 m	> R35 m
Does your entity provide	Products	Services	Both
Area of delivery	National	Provincial	Local
Is your entity a public or private entity	Public	Private	
Does your entity have a Tax Directive or IRP30 Certificate	Yes	No	
Main product or services [e.g. Stationery/Consulting]			

*Complete B-BBEE Ownership Details:*

% Black ownership	% Black women ownership	% Disabled Black ownership
Does your entity have a B-BBEE certificate		No
What is your B-BBEE status [Level 1 to 9 / Unknown]		
How many personnel does the entity employ	Permanent	Part time

*If you are an existing Vendor with Transnet please complete the following:*

Transnet contact person	
Contact number	
Transnet Operating Division	

*Duly authorised to sign for and on behalf of Entity / Organisation:*

Name		Designation	
Signature		Date	

**RFP NO.HOAC HO 9080**

**IMPLEMENT WHEEL IMPACT MONITORING AND WEIGH IN MOTION SYSTEM FOR A PERIOD OF TWO YEARS**

**Section 6 : SIGNING POWER – RESOLUTION OF BOARD OF DIRECTORS**

NAME OF ENTITY: \_\_\_\_\_

It was resolved at a meeting of the Board of Directors held on \_\_\_\_\_ that

FULL NAME(S)	CAPACITY	SIGNATURE
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

in his/her capacity as indicated above is/are hereby authorised to enter into, sign, execute and complete any documents relating to Proposals and/or Agreements for the supply of Goods.

FULL NAME \_\_\_\_\_

\_\_\_\_\_  
SIGNATURE CHAIRMAN

FULL NAME \_\_\_\_\_

\_\_\_\_\_  
SIGNATURE SECRETARY

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**RFP NO.HOAC HO 9080**

**IMPLEMENT WHEEL IMPACT MONITORING AND WEIGH IN MOTION SYSTEM  
FOR A PERIOD OF TWO YEARS**

**Section 7 : CERTIFICATE OF ACQUAINTANCE WITH RFP DOCUMENTS**

NAME OF ENTITY:

\_\_\_\_\_

I/We \_\_\_\_\_ do hereby certify that I/we acquainted myself/ourselves with all the documentation comprising this RFP and all conditions contained therein, as laid down by Transnet SOC Ltd for the carrying out of the proposed supply/service/works for which I/we submitted my/our response.

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 RFP/contract condition or failed to take it into account for the purpose of calculating my/our offered prices or otherwise.

SIGNED at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_ 2012

\_\_\_\_\_

SIGNATURE OF WITNESS

\_\_\_\_\_

SIGNATURE OF RESPONDENT

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**RFP NO.HOAC HO 9080**

**IMPLEMENT WHEEL IMPACT MONITORING AND WEIGH IN MOTION SYSTEM  
FOR A PERIOD OF TWO YEARS**

**Section 8 : GENERAL BID CONDITIONS - GOODS**

**Refer General Bid Conditions attached hereto**

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**RFP NO.HOAC HO 9080**

**IMPLEMENT WHEEL IMPACT MONITORING AND WEIGH IN MOTION SYSTEM  
FOR A PERIOD OF TWO YEARS**

**Section 9 : STANDARD TERMS AND CONDITIONS OF CONTRACT  
FOR THE SUPPLY OF GOODS TO TRANSNET**

Refer Form ST&C attached hereto.

Respondents should note the obligations as set out in  
clause 25 [*Terms and Conditions of Bid*]  
of the General Bid Conditions [RFP Section 8] which reads as follows:

*"The Supplier shall adhere to the Standard Terms and Conditions of Contract as set out in Form ST&C – Goods, a copy of which is attached hereto. Should the Respondent find any conditions unacceptable, it should indicate which conditions are unacceptable and offer alternatives. 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."*

RFP NO.HOAC HO 9080

IMPLEMENT WHEEL IMPACT MONITORING AND WEIGH IN MOTION SYSTEM FOR A PERIOD OF TWO YEARS

Section 10 : RFP DECLARATION FORM

NAME OF ENTITY: \_\_\_\_\_

We \_\_\_\_\_ do hereby certify that:

1. Transnet has supplied and we have received appropriate responses to any/all questions [as applicable] which were submitted by ourselves for bid clarification purposes;
2. we have received all information we deemed necessary for the completion of this Request for Proposal [RFP];
3. at no stage have we received additional information relating to the subject matter of this RFP from Transnet sources, other than information formally received from the designated Transnet contact(s) as nominated in the RFP documents;
4. we are satisfied, insofar as our entity is concerned, that the processes and procedures adopted by Transnet in issuing this RFP and the requirements requested from bidders in responding to this RFP have been conducted in a fair and transparent manner; and
5. furthermore, we declare that a family, business and/or social relationship **exists / does not exist** [delete as applicable] between an owner / member / director / partner / shareholder of our entity and an employee or board member of the Transnet Group.

*If such a relationship exists, Respondent is to complete the following section:*

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 a response and may preclude a Respondent from doing future business with Transnet]*

6. 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 entity in the forthcoming adjudication process, we shall notify Transnet immediately in writing of such circumstances.
7. We accept that any dispute pertaining to this bid 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" overleaf].
8. We further accept that Transnet reserves the right to reverse an award of business 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.

SIGNED at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_ 2012

For and on behalf of _____ duly authorised hereto	AS WITNESS:
Name:	Name:
Position:	Position:
Signature:	Signature:
Date:	
Place:	

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**IMPORTANT NOTICE TO RESPONDENTS**

- Transnet has appointed a Procurement Ombudsman to investigate any material complaint in respect of RFPs exceeding R5,000,000.00 [five million S.A. Rand] in value. Should a Respondent have any material concern regarding an RFP process which meets this value threshold, a complaint may be lodged with Transnet's Procurement Ombudsman for further investigation.
- It is incumbent on the Respondent 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 Respondents should note that a complaint must be made in good faith. If a complaint is made in bad faith, Transnet reserves the right to place such a bidder on its List of Excluded Bidders.

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**RFP NO.HOAC HO 9080**

**IMPLEMENT WHEEL IMPACT MONITORING AND WEIGH IN MOTION SYSTEM  
FOR A PERIOD OF TWO YEARS**

**Section 11 : BREACH OF LAW**

NAME OF ENTITY: \_\_\_\_\_

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 Respondent 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 Respondent from the bidding process, should that person or entity have been found guilty of a serious breach of law, tribunal or regulatory obligation.

SIGNED at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_

\_\_\_\_\_  
SIGNATURE OF WITNESS

\_\_\_\_\_  
SIGNATURE OF RESPONDENT

**RFP NO.HOAC HO 9080**

**IMPLEMENT WHEEL IMPACT MONITORING AND WEIGH IN MOTION SYSTEM  
FOR A PERIOD OF TWO YEARS**

**Section 12 : BID CLARIFICATION REQUEST FORM**

RFP No: HOAC HO 8633

RFP deadline for questions / bid clarifications: **Before 12:00 on 12 August 2012**

Transnet Freight Rail SOC Ltd

ATTENTION: Patrick Magwaza

EMAIL Patrick.magwaza2@transnet.net

DATE: \_\_\_\_\_

FROM: \_\_\_\_\_

RFP Bid Clarification No [to be inserted by Transnet]

**REQUEST FOR BID CLARIFICATION**

\_\_\_\_\_  
\_\_\_\_\_  
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## RFP NO.HOAC HO 9080

### IMPLEMENT WHEEL IMPACT MONITORING AND WEIGH IN MOTION SYSTEM FOR A PERIOD OF TWO YEARS

#### Section 13 : SUPPLIER 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 Prevention and Combating of Corrupt Activities Act.

This Code of Conduct has been included in this RFP to formally appraise prospective 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 Company [SOC], 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 [e.g. origin of manufacture, specifications, intellectual property rights];
  - collusion;
  - failure to disclose accurate information required during the sourcing activity [e.g. ownership, financial situation, B-BBEE status];
  - 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.

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

**RFP NO.HOAC HO 9080**

**IMPLEMENT WHEEL IMPACT MONITORING AND WEIGH IN MOTION SYSTEM  
FOR A PERIOD OF TWO YEARS**

**Section 14: CERTIFICATE OF ATTENDANCE OF SITE MEETING / RFP BRIEFING**

It is hereby certified that –

1. \_\_\_\_\_

2. \_\_\_\_\_

Representative(s) of \_\_\_\_\_ *[name of entity]*

attended the site meeting / RFP briefing in respect of the proposed Goods to be supplied in terms of this RFP on  
\_\_\_\_\_ 2012

\_\_\_\_\_  
TRANSNET'S REPRESENTATIVE

\_\_\_\_\_  
RESPONDENT'S REPRESENTATIVE

DATE \_\_\_\_\_

DATE \_\_\_\_\_

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**RFP NO.HOAC HO 9080**

**IMPLEMENT WHEEL IMPACT MONITORING AND WEIGH IN MOTION SYSTEM  
FOR A PERIOD OF TWO YEARS**

**Section 15 : FUNCTIONAL SPECIFICATIONS**

**TECHNOLOGY MANAGEMENT**

**FUNCTIONAL SPECIFICATION FOR**

**Wheel Impact Monitor Weigh In Motion (WIMWIM) system**

Author:	Engineer Technology Management	W. Janse van Rensburg	..... .....
Approved:	Principal Engineer Technology Management	B. Steyn	..... .....
Authorised:	Principal Engineer Technology Management	K. Mistry	..... .....
		Date:	July 2012

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## 1 SCOPE

### 1.1 Identification

The system specified is the Wheel Impact Monitor Weigh In Motion System (WIMWIM).

### 1.2 System Overview

High vertical forces exerted on the rail (known as wheel impacts) due to wheel irregularities misaligned axles, damaged bogies and defective braking systems are known to cause many safety risks on the Transnet rail network. In extreme cases these wheel irregularities have led to rail breaks, derailments and damages to the track structure.

Furthermore, skew loading and overloading of wagons are also a big safety risk. Vertical forces of each wheel can also be used to determine the mass and loading distribution of each wagon.

The WIM-WIM shall therefore be implemented for the primary function to measure wheel impacts of each wheel on a railway vehicle and report alarm conditions. As a secondary function the WIM-WIM shall also weigh and determine the load distribution of each wagon.

Furthermore, it is also desirable that the lateral forces exerted on the rail – caused typically by lateral creep and wheel flange forces by rail wheels – be measured by the WIMWIM.

### 1.3 Document Overview

This specification describes all the technical functional requirements that a WIM-WIM needs to meet in order to be successfully installed, commissioned and approved by Transnet Freight Rail.

## 2 DOCUMENTS

### 2.1 Applicable documents

The following specifications, standards and drawings of the exact issue shown, form a part of this specification to the extent shown herein. In the event of conflict between the referenced document and this specification, the contents of this specification shall be considered a superseding requirement.

- 2.1.1 Transnet Freight Rail (Infrastructure) standard specification CSE-1154\_001 category X 48 latest issues: "Environmental Specification for Transnet Freight Rail Railway Signalling Systems".

- 2.1.2 Transnet Freight Rail (Infrastructure) standard specification CSE-1159\_001 category X4 issue 1 (March 1994): "Standard Specification for Documentation for Signals Equipment"
- 2.1.3 Transnet Freight Rail GPRS communication guideline as documented in BBC 0659-Version 1.
- 2.1.4 BBD 5249 (latest version): "Alarm Limits For The Measurements Of Weighbridges, Wheel-Impact Monitors And Skew Bogie Detectors".

## 2.2 Referenced Documents

- 2.2.1 BBD 6353 Ver 1 "Radio Frequency Identification Tag Programming And Installation On Transnet Freight Rail Vehicles".

## 3 SYSTEM CONTEXT AND INTERFACE REQUIREMENTS

### 3.1 Context diagram

The context diagram describes the different entities that the WIM-WIM shall interface with as depicted in Figure 1:

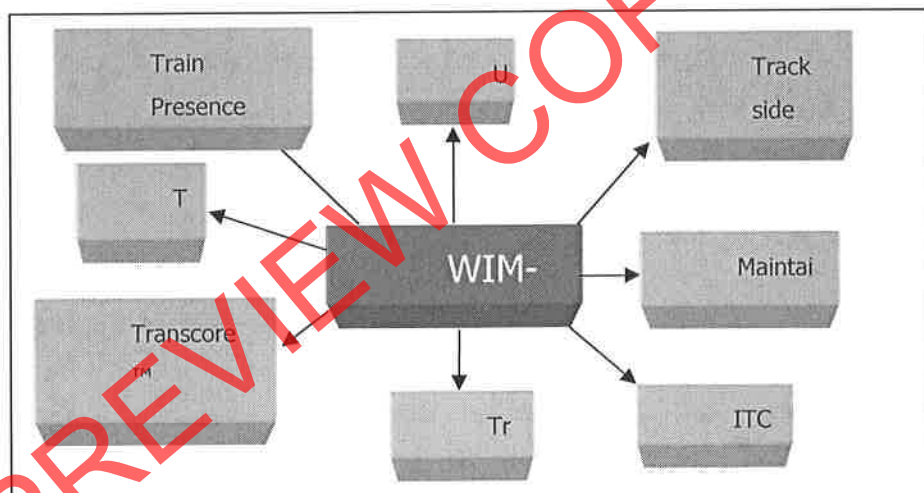


Figure 1: Context Diagram of WIM-WIM

### 3.2 Interfaces

The following is a description of each of the interfaces of the WIM-WIM:

#### 3.2.1 Track Interface

- 3.2.1.1 The WIM-WIM shall interface with the rail track mainly by installing impact or load transducers of any kind on the track. Other needed equipment (like wheel detectors or train presence detectors) can also form part of the installed equipment on the track.

- 3.2.1.2 All installed equipment on the track shall however not affect the safe travelling of trains over the system at line speed in any way.
- 3.2.1.3 All tenderers of Transnet non-approved systems shall submit detailed information (engineering drawings, plans etc.) of the configuration of the equipment installed on the track to Transnet Technology Management for approval. Only upon formal written approval by Transnet Technology Management, shall the system be considered for installation.
- 3.2.1.4 Preference shall be given to suppliers whose installation of equipment on the track also meets the following requirements:
- No discontinuity in the rail track
  - Adherence to the specific type of rail used at the measurement site
  - Do not alter the sleeper spacing
  - Do not replace sleepers
  - Do not drill holes in the rail
  - Do not cut or weld the rail
  - Maintain the center of the rail
  - Maintain the same sleeper fastening system
  - Do not have any influence on the operation of all types of track circuits in use on the site
  - No single - or double failure of field equipment can cause a short circuit or impedance less than 10 ohm between the rails.
  - Can install the system with in-between trains – therefore do not require total occupation on site

### 3.2.2 Train Interface

Trains moving over the WIM-WIM have the characteristics presented below and the WIM-WIM shall interface with the train in the specified manner:

- 3.2.2.1 The train consist can contain 4 and/or 6 axle locomotives, as well as 4 axle wagons. The locomotives can be located anywhere within the train consist.
- 3.2.2.2 The train can contain up to 500 vehicles in the consist which translates to more than 2000 axles. The WIM-WIM shall be able to measure these trains without loss of integrity.
- 3.2.2.3 Trains can travel at speeds between 0 – 100km/h. The WIM-WIM shall be able to allow the safe travelling of trains at line speed on each specific line where the WIM-WIM is installed. The WIM-WIM shall be able to accurately measure trains travelling at differential speed.
- 3.2.2.4 The trains can stop whilst on the WIM-WIM impact and load transducers. The WIM-WIM shall cater for trains stopping on the site. When a train stops on the site, the WIM-WIM shall sense the train presence (see 3.2....) and maintain its measurement integrity for the rest of the train once it departs again. The



measurements of wagons which have stood still on the impact and load transducers or travelled at less than 3 km/h may be discarded from measurement if needed. Default values of these discarded shall however still be written into the train measurement record against the correct vehicle.

- 3.2.2.5 The trains can travel in both directions which are termed “Up” or “Down”.
- 3.2.2.6 The load of the train can consist of various loads like general freight, export coal, export iron ore, export manganese or liquids.
- 3.2.2.7 The axle loads of wagons and locomotives can be up to 35 tons/axle.
- 3.2.2.8 Dynamic vertical forces can go up to 600kN per wheel. The WIM-WIM shall be able to operate, without damage or degradation, with these vertical forces.

### 3.2.3 Vehicle Identification Tags

- 3.2.3.1 All Transnet Freight Rail wagons and locomotives will be fitted with Radio Frequency Identification (RFID) tags, which contain the vehicle number and other information. The tags employed are the Transcore™ AT 5118 - or AT 5110 tag. Detail about how the tags are fitted on the vehicles and what information is programmed into these tags is specified in document BBD 6353 Version 1 which shall be read in conjunction with this specification.
- 3.2.3.2 The program structure of tags is configured into 15 lines, each consisting of 10 bytes (characters). TFR only utilizes the first two lines. All tags is programmed according to the definition in Table 1. That is, the first line consisting of an asset type field (6 characters long). If the asset type field code is shorter than 6 characters then padding spaces are used to complete the field of 6 characters. The asset field is followed by a banked space separating the asset type field to the next field, which is the owner code consisting of 2 characters. Finally to complete the first line a banked space is inserted into the tenth space of Line No.1. In the case of a wagon, the second line consists of a wagon number field consisting of 8 characters. This is followed by a banked space separating the wagon number field from the following field, which is the 10th character defining the orientation field (1 for front or 2 for rear). If the wagon number is shorter than 8 characters, padding spaces are used to complete the wagon number field.
- 3.2.3.3 In the case of a locomotive, the second line consists of a locomotive number field consisting of 8 characters. If the locomotive number is shorter than 8 characters, padding spaces are used to complete the field of 8 characters. This is followed by a banked space separating it from the next field, which is 1 character for the orientation of the locomotive (1 for front or 2 for rear).
- 3.2.3.4 All the data on the tag shall be read which includes vehicle type, asset owner, vehicle number and vehicle orientation. Please refer to table 1 and table 2 below:

Vehicle Type	Tag Type Field (max 6)	Owner code field (always 2)	Number Field (max 8)	Orientation Field (1)
Locomotive	34D400	00	34D123	1 or 2
GFB wagon	FZJ7	00	87654321	1 or 2
Coallink	CCR11	Currently none	63512345	1 or 2

wagon				
Orex wagon	CR5	00	12345678	1 or 2

**Table 1: Fields programmed on the vehicle tag**

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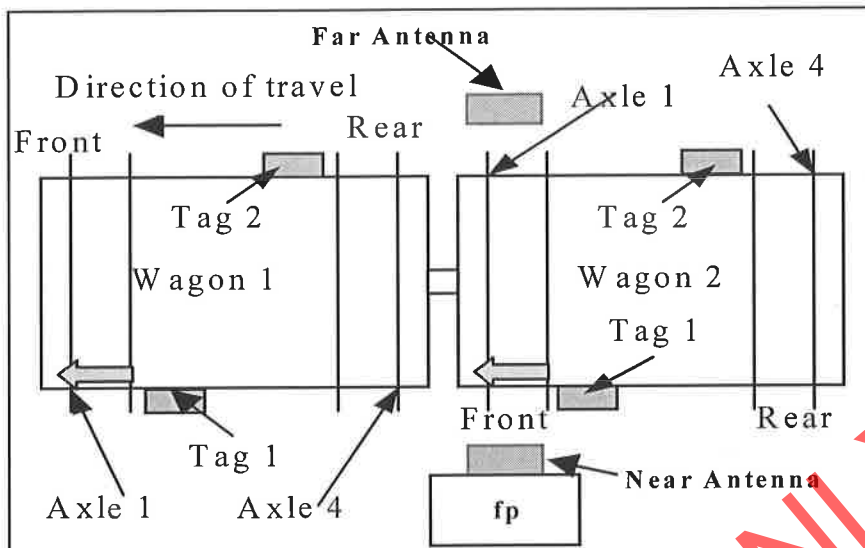


Field No.	Field Description	Definition of field	Field Size (max 10 characters) - show example.									
1	Asset Type & Owner (for both Wagons and locos)	Type of asset consisting of 7 characters and 2 characters for owner code	S	M	L	J	1	3	space	Banked space	0	0
2	Wagon Number	The unique number of the asset (8 char) plus 1 char for orientation (1 or 2)	5	2	1	2	3	4	5	6	Banked space	1
2	Locomotive Number	The unique number of the locomotive (7 char) plus 1 char for orientation. The number must include a prefix for locomotive type (E = Electric, D = Diesel or S = Steam)	E	0	0	7	0	1	1	Banked space	Banked space	2

Table 2: Examples Vehicle Tag Contents

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- 3.2.3.5 In order to determine an absolute reference for consistent readings, the following convention is used for determining vehicle orientation.



**Figure 2 Tag fits relative to wagon orientation**

- 3.2.3.6 Tag 1 (programmed "1") is always on the front (F) left hand side when looking towards the front of the wagon (yellow arrow points to front of wagon), and tag 2 (programmed "2") on the right hand rear (R) side. If Tag#1 is read on the left hand (near) side of the rail in the direction of travel, it implies that the front (F) of the wagon is facing the direction of travel. If Tag#2 is read on the left hand side of the rail in the direction of travel, it implies that the rear (R) of the wagon is facing the direction of travel.
- 3.2.3.7 A similar convention is used for locomotives when the front of the locomotive (normally the cab side) has been determined.
- 3.2.3.8 Tags are mounted behind the second axle of a vehicle at a height of 1 meter above the rail.
- 3.2.3.9 Table 1 shows the information that is programmed into rail tags (for Wagons and Locomotives) for the first two lines (fields) of 10 characters each of the TRANSCORE tag.

### 3.2.4 Maintenance Interface

- 3.2.4.1 The WIM-WIM maintenance interface provides the means for the maintainer to interact with the system. The interface shall allow the maintainers to determine whether the system is operational and to access the measurements and configuration parameters. This interface shall enable the maintainer to perform the required maintenance and assist with fault finding. The maintainer interface can make use of various user interface technologies locally at the site or remote such as a computer screen, web-page, data communication port with interfacing software etc.
- 3.2.4.2 The interface shall display the overall status of the system and of each of its major components (such as the wheel impact transducers etc.).
- 3.2.4.3 The interface shall provide a means to allow the maintainer to request any self checks on the system and to provide him/her with the necessary results.

- 3.2.4.4 The interface shall display the status (activity) of the system such as:
- Self-check in progress, or
  - System in process of acquiring train information, etc.
- 3.2.4.5 The interface shall facilitate the maintainer to modify configuration parameters in the WIM-WIM. The typical configuration parameters under his/her control shall be:
- Date and time.
  - The communication settings of the communication interfaces.
  - Calibration or configuration settings
  - Alarm limits

### 3.2.5 Integrated Train Condition Monitoring System interface

This paragraph specifies the requirements necessary to interface the WIM-WIM to the Integrated Train Condition Monitoring System (ITCMS). It also specifies the minimum required messages that shall be communicated on this interface.

- 3.2.5.1 The design of the ITCMS with which the WIM-WIM shall interface, are developed in a modular fashion and is capable of accommodating proprietary message protocols. The supplier shall thus submit a protocol specification of the WIM-WIM message structure employed to enable Transnet Freight Rail to develop the necessary interfacing module on the ITCMS. This interface shall accommodate sufficient acknowledgement messages to verify the integrity of the information transferred between the WIM-WIM and the ITCMS.
- 3.2.5.2 The physical interface layer shall be a Serial or an Ethernet connection.
- 3.2.5.3 For the Serial interface the baud rate, number of data bits, number of stop bits, parity bit and flow control shall be configurable to interface with the ITCMS equipment.
- 3.2.5.4 The Serial interface shall have the ability to interface via the following methods of communication:
- Direct Serial connection to the ITCMS.
  - Dedicated communication channels via appropriate modems (i.e. 4 wire-leased line).
  - GPRS. For this communication method, a GPRS modem shall be installed only at the WIM-WIM. Transnet Freight Rail issued SIM cards, with fixed IP addresses on the GPRS network shall be utilised in the modems to provide access to the Transnet Freight Rail Wide Area Network (TFR WAN) via the Transnet Freight Rail GPRS APN server. Implementation of this communication solution shall be in accordance with the Transnet Freight Rail GPRS communication guideline as documented in BBC 0659- Version 1.
- 3.2.5.5 If an Ethernet connection is employed, a TCP/IP protocol to communicate information shall be used. The WIM-WIM and the ITCMS shall communicate over the Transnet Freight Rail Technical Virtual Private Network on the TFR WAN. Fixed IP addresses shall be made available for both systems. Implemented on the ITCMS is a file transfer capability, which is available for implementation on the WIM-WIM if so desired. Client software for the Microsoft Windows Operating Systems is available and can be loaded on the WIM-WIM to implement these file transfers.

### 3.2.5.6 Required condition messages

After or during the passage of a train over the system, a condition message shall be communicated to the ITCMS. These messages shall at least include the following data entries:

3.2.5.6.1 The following minimum train information shall be required after the measurement of a train:

- Unique system identification
- Message identification
- Date and time of the passage of the train.
- Direction of travel (UP/DOWN as defined by Transnet Freight Rail).
- Total number of vehicles on the train
- Each vehicle in the train's measurements (see next requirement)
- An indication of the success of the measurement, with an appropriate error or warning message if some exception was detected

3.2.5.6.2 An entry for each vehicle of the train shall contain the following minimum information:

- Vehicle sequence number (position) on the train
- Vehicle type as read from the vehicle tag. If the type was not read from the tag, the WIM-WIM shall at least distinguish between locomotives, wagons and unknown vehicles for example insert an "L" for locomotive, "W" for wagon, "U" for unknown vehicle in the vehicle type field
- Vehicle orientation as read from the tag
- Asset owner if available on the tag
- Vehicle number as read from the tag if the vehicle tag data is available, left blank otherwise
- Speed in km/h of each vehicle
- Maximum vertical force measured of each wheel on the vehicle in tons
- Total mass of each vehicle in tons, rounded to at least one decimal
- Total mass of each bogie on the vehicle in tons, rounded to at least one decimal
- Total mass of each side (left and right) of the vehicle tons, rounded to at least one decimal. The side shall be identified as if looking from the rear of the train towards the direction of travel.

### 3.2.5.7 Required alarm messages

The WIM-WIM shall communicate alarm data separately from condition data. The alarm message shall contain at least the following information:

- Unique system identification
- Message identification
- Date and time of the passage of the train.
- Direction of travel (UP/DOWN as defined by Transnet Freight Rail).
- Alarm information of each vehicle in the alarm message (see next requirement)

3.2.5.7.1 An entry for each vehicle of the alarm message shall contain the following minimum information:

- Vehicle sequence number (position) on the train
- Vehicle type as read from the vehicle tag. If the type was not read from the tag, the WIM-WIM shall at least distinguish between locomotives, wagons and unknown vehicles for example insert an “L” for locomotive, “W” for wagon, “U” for unknown vehicle in the vehicle type field
- Vehicle orientation as read from the tag
- Vehicle number as read from the tag if the vehicle tag data is available, left blank otherwise
- Speed in km/h of each vehicle
- Alarm type (for example “Maximum Wheel Impact Exceeded”) and its corresponding measurement value
- Alarm component on the vehicle (i.e. axle, bogie, or wheel).
- The component number which shall be configured as follows:
  - Bogies and axles are numbered in the sequence the bogies pass over the system, i.e. Bogie 1 refers to the first Bogie which passed over the system.
  - A wheel is identified by the number and side of its axle in the direction of travel

3.2.5.7.2 The WIM-WIM shall either send regular status messages (with a configurable time period) or respond to a status request (as per the system’s protocol specification) from ITCMS or from a maintainer via the maintainer interface. The latter of the two is preferred. The status message shall include all relevant status information and possible warnings or errors on the system. All the errors and warnings shall be clearly specified in the protocol specification of the system.

3.2.5.7.3 The WIM-WIM shall allow for a time update from the ITCMS. As per ITCMS philosophy, the protocol of this message is specified by the supplier of the WIM-WIM and must therefore be included in the protocol specification.

3.2.5.7.4 In addition to the required messages specified above, the supplier can add any other additional information which might be valuable. Some ideas which might be considered favourable can include:

- Remote updating of configuration parameters

- Remote updating of firmware or software

### 3.2.6 Track side enclosure interface

- 3.2.6.1 The system excluding track-mounted equipment shall be installed or housed in a relay room or equipment container.
- 3.2.6.2 The system excluding the track-mounted equipment shall be a fixed installation in a suitable rack or cabinet, which can be floor or wall mounted. The dimensions shall not exceed 1 metre deep by 1.5 metre wide by 2 metres high.
- 3.2.6.3 Easy access shall be provided for cable connections to the track mounted equipment.

### 3.2.7 Power Supply (UPS) interface

- 3.2.7.1 The WIM-WIM shall operate from a 230V single-phase 50Hz according to the characteristics as defined in NRCS 048.
- 3.2.7.2 In some instances Transnet supplies power which is derived from the traction supply. In these cases the requirements of NRCS 048 are exceeded. Information regarding this can be found in Appendix A of this document.
- 3.2.7.3 The suppliers shall clearly state the power consumption of the WIM-WIM in his tender.

### 3.2.8 Train Presence interface

- 3.2.8.1 Due to the requirement that the WIM-WIM shall cater for trains stopping on the system, the WIM-WIM shall sense the presence of a train in such an instance.
- 3.2.8.2 Transnet will supply information on an approved non-vital train presence detector currently in use on other systems upon request. The supplier can however propose any train presence detection for Transnet approval.

## 4 TRANSNET FREIGHT RAIL SUPPLIED PROPERTY LIST

### 4.1 Communication Mediums

- 4.1.1 One or more of the communication mediums (as discussed in paragraph 3.5 "ITCMS Interface" shall be available:
- Voice grade leased line communication channels at any point in the yard
  - GPRS communication mediums
  - Wide Area Network entry points including termination equipment (hubs) shall be provided by Transnet Freight Rail
  - Satellite communications (future use)



## 4.2 Measurement sites

Transnet Freight Rail shall select suitable sections of track for the positioning of measurement sites according to the site specification BBB4209.

## 4.3 Power Supply

Electricity supplies shall be provided by Transnet Freight Rail at every measurement site where required. The supply voltage shall be 220V at 50 Hz.

## 5 FUNCTIONAL REQUIREMENTS

The following section describes all the Transnet Freight Rail functional requirements for the WIM-WIM.

### 5.1 Measuring of wheel impacts

- 5.1.1 The WIM-WIM shall automatically measure vertical forces exerted on the rail by a wheel of a railway vehicle as part of a train whilst the train is in motion.
- 5.1.2 The WIM-WIM shall employ its impact and load transducers in such a way that the whole circumference of a rail wheel's contact area on the rail be measured.
- 5.1.3 The WIM-WIM shall determine the maximum wheel impact of each wheel on a train and report this value as a wheel impact value.
- 5.1.4 The WIM-WIM shall determine wheel impacts in two ways: The absolute maximum wheel impact force (in ton), but also as a ratio of the wheel's maximum impact (in ton) to its mass (in tons).

### 5.2 Weighing of vehicles

- 5.2.1 The WIM-WIM shall be able to automatically (i.e. without an operator present) weigh individual vehicles (locomotives and wagons) whilst in motion, at an accuracy of 2 percent to its verified static mass.
- 5.2.2 The WIM-WIM shall include an automatic dynamic calibration procedure for automatically calculating the calibration coefficients of the total wagon masses with a test train consisting of pre-weighed wagons. The dynamic calibration procedure shall be available for use by Transnet personnel on site.
- 5.2.3 The WIM-WIM shall weigh trains travelling in both directions.
- 5.2.4 Transnet Freight Rail requires the WIM-WIM to measure trains travelling at line speed. Maximum train speed can be 100 km/h.
- 5.2.5 The WIM-WIM shall be able to provide the following measurement results as a minimum:
  - Total mass of each side of the vehicle (left and right)

- Total mass per bogie
- Total mass per wagon

5.2.6 Transnet Freight Rail's requirement is to perform accurate mass measurements of up to 1.25 times the site-specific maximum axle load of the wagons in order to identify over-loading. The maximum axle load of a vehicle on the Transnet Freight Rail network is currently 35 tons/axle.

### 5.3 Measuring of lateral forces (desirable)

The measurement of lateral forces is desirable for the WIM-WIM. When the WIM-WIM does include lateral force measurement, it shall meet the following minimum requirements:

- 5.3.1 The WIM-WIM shall automatically measure lateral forces exerted on the rail by a wheel of a railway vehicle as part of a train whilst the train is in motion travelling in both directions.
- 5.3.2 The WIM-WIM shall be able to calculate the axle gauge spreading force as well as bogie couple forces. Refer to BBD 5249 (lateral version) on how these are calculated from the lateral force measurements.
- 5.3.3 The WIM-WIM shall include measurements in its condition and alarm reporting data.

### 5.4 Report Alarms

- 5.4.1 The WIM-WIM shall report alarm conditions directly to the ITCMS with an alarm message as specified in 3.2.5.7 according to the WIM-WIM protocol specification. Please refer to BBD 5249 (latest version) for more information on the alarm limits pertaining to the WIM-WIM and how they are calculated. The following alarm limits shall be configured on the WIM-WIM:
- 5.4.1.1 A "Maximum Wheel Impact Exceeded" alarm. This alarm shall be configured in tonnage referring to the absolute maximum vertical force (converted to ton) allowed on the WIM-WIM. If any vertical force on the rail exceeding this limit is detected by the WIM-WIM, an alarm shall be raised.
- 5.4.1.2 A "Serious Flat Wheel" alarm. This alarm is calculated as a ratio of the maximum impact of a wheel detected by the WIM-WIM and the calculated mass of the wheel.
- 5.4.1.3 A "Flat wheel" alarm. This alarm is calculated as a ratio of the maximum impact of a wheel and the calculated mass of the wheel.
- 5.4.1.4 A "Maximum Axle Mass Exceeded" alarm. This alarm shall be configured in tons and refers to the maximum allowable axle mass of a vehicle on the site. This alarm shall therefore be derived from the mass measured on each axle of a railway vehicle.
- 5.4.1.5 Each alarm shall be configured according to the alarm types as specified in BBD 5249 where Type 1 refers to "Stop train immediately", Type 2 refers to "Continue

to Station” and Type 3 refers to “Continue to Maintenance Depot”. The following defaults shall be employed on the WIM-WIM:

- Maximum Wheel Impact Exceeded – Type 1
- Serious Flat Wheel – Type 2
- Flat Wheel – Type 3
- Maximum Axle Mass Exceeded – Type 2

5.4.1.6 It is desirable that the setting of the alarm limits be password protected.

5.4.1.7 The sending of an alarm message shall take highest priority in the communication of messages to the ITCMS.

## 5.5 Determine Train Composition

5.5.1 The system shall construct the train composition and identify the vehicle type of all vehicles irrespective of their position in the train, even when vehicle tag information (i.e. tags) is absent. This shall be done by determining the axle spacing and employing pattern recognition algorithms. See appendix B for all the axle spacings of Transnet Freight Rail vehicles. If a vehicle cannot be identified it shall be marked accordingly. The different type classifications are:

- Locomotive.
- Wagon.
- Unidentified vehicle.

5.5.2 The WIM-WIM shall read the vehicle number from the TRANSCORE tag mounted on the vehicle and uniquely couple this information with the measured data of this vehicle.

5.5.3 The WIM-WIM shall employ algorithms which shall cater for missing or faulty tags on vehicles, varying speed of the train and incorrectly installed tags.

5.5.4 The WIM-WIM shall employ algorithms to prevent the WIM-WIM from coupling a measurement to the wrong tag at all costs.

5.5.5 The WIM-WIM's train composition shall not be influenced by a train's tags running on an adjacent line.

5.5.6 The system shall determine train composition for any train travelling at line speed. The following composition information shall at least be obtained:

- The VIS vehicle number (tag) or left blank if none is available
- The type of vehicle
- The orientation of the vehicle
- Asset owner (if available)
- Number of axles on each vehicle

- 5.5.7 The system shall keep track of axles and the train composition even if the train stops on the measurement site.
- 5.5.8 When a train reverses over the site, the WIM-WIM shall discard the whole train measurement.
- 5.5.9 The system shall determine the train composition of trains moving in both directions and indicate the train's direction.

## **5.6 Determine train and vehicle speed**

- 5.6.1 The system shall determine the average speed of each vehicle in the train with an accuracy of  $\pm 1$ km/h.

## **5.7 Process the measurement data**

- 5.7.1 The system shall measure, store and process the wheel impact and mass measurements for trains travelling at line speed irrespective of direction of travel.
- 5.7.2 Each measured vehicle shall be time and date stamped.
- 5.7.3 Processing of the measured data after a train shall not exceed 30 seconds.

## **5.8 Communicate the data to the ITCMS**

- 5.8.1 The system shall communicate the mass measurements together with all the other relevant data to the ITCMS sending the messages as specified in the 3.2.5 above. The system shall provide the measurements for every vehicle irrespective of whether vehicle identification information (VIS) is available.
- 5.8.2 The system shall acknowledge the transfer of data to and from the ITCMS to ensure transmission integrity.
- 5.8.3 The system shall synchronise its date and time with the ITCMS. Refer to the 3.2.5 for more detail on the date/time update message.
- 5.8.4 Preference shall be given to systems, which cater for the possibility of updating the WIM-WIM software and/or parameters from the ITCMS or other remote means. This feature shall be maintainer initiated.

## **5.9 Health Monitoring**

- 5.9.1 Adequate self-checks to verify the functionality of the system shall be employed.
- 5.9.2 The timing of automatic self-checks shall be configurable in the system. Possible self-check configurations shall include:
- Execute the self-check after the passage of a train.
  - Execute the self-check after a certain period of time has elapsed. The duration between self-checks shall be configurable.
  - A combination of the previous two.
  - Upon a request received from the ITCMS
  - Upon a request from the maintainer via the maintainer interface.

- 5.9.3 The system shall record and communicate the self-check results to the source initiating the self-check. The result shall include:
- Measurement system identifier to identify the unit.
  - Date and Time when the self-check was executed.
  - Information on the equipment that has failed the self-check as well as any failure description.
- 5.9.4 If the system detects the presence of a train while performing a self-check the system shall abort the self-check and communicate to the self-check initiator that the self-check has been aborted due to the presence of the train.

## 6 GENERAL REQUIREMENTS

### 6.1 Environmental Conditions

The WIM-WIM shall be fully functional and unaffected by the following environmental conditions:

- 6.1.1 The measuring equipment shall be exposed to temperatures ranging from  $-10^{\circ}\text{C}$  up to  $75^{\circ}\text{C}$ , fully exposed to sunlight. Processing equipment shall be exposed to temperatures ranging from  $-10^{\circ}\text{C}$  up to  $50^{\circ}\text{C}$  ambient.
- 6.1.2 The processing equipment (inside trackside enclosure) shall be exposed to humidity ranging from dry to 95%. All trackside equipment (outside trackside enclosure) shall be water resistant.
- 6.1.3 The processing equipment shall be fully exposed to fine and coarse dust. The processing equipment may be exposed to fine dust filtering into the trackside cabinet.
- 6.1.4 The measuring equipment shall be exposed to contact with flying ballast stones. Requirements are as specified in specification CSE-1154-001.
- 6.1.5 The WIM-WIM shall be exposed to vibration as specified in CSE-1154-001.
- 6.1.6 The measuring equipment may be exposed to chemicals including lime, sulphur, petroleum products and phosphates, which may spill from wagons.
- 6.1.7 The WIM-WIM may be exposed to electro-magnetic interference (EMI) as specified in CSE-1154-001.
- 6.1.8 All track-mounted, track-side, communication and office equipment shall have comprehensive lightning protection to enable the equipment to withstand, without damage or loss of functionality, severe lightning activity, except for a direct hit. The lightning protection design shall be submitted to Transnet Freight Rail Technology Management for approval prior to installation
- 6.1.9 The system shall be suitable for operation in 3 Kilovolts DC traction, 25 Kilovolts AC



traction, 50 Kilovolts traction areas.

## 6.2 Documentation

- 6.2.1 The system and its components shall be fully documented in English in compliance with Infrastructure (Signals) standard specification no. CSE-1159-001. The list of documents that shall be supplied and their contents is described in Standard Specification CSE-1159-001.
- 6.2.2 In addition to the requirements of CSE-1159-001, the technical documentation shall also contain all the relevant information of the interfaces to the system. It shall include a full description of the hardware, protocols and message contents used on all interfaces. This shall be adequate to enable the technical staff of Transnet Freight Rail to be able to interface with the system for the purpose of upgrading the WIM-WIM, extraction of information or integration into existing infrastructure systems.
- 6.2.3 All software used by the system shall be fully documented.
- 6.2.4 All technical documentation required above shall be made available during tender submission to enable Transnet Freight Rail Technology Management to perform the technical evaluation.
- 6.2.5 The quality and completeness of the documentation shall form part of the technical evaluation.

## 6.3 Design, construction and installation

- 6.3.1 All hardware shall be equipped with durable manufacturer's nameplates bearing at least unit identification, the manufacturer's name, date of manufacture, a serial number, revision number with the current revision status marked, operating voltage and power requirements.
- 6.3.2 All materials used in the system shall be at least industrial grade. Where possible, materials used shall be SABS approved. Parts shall be supplied with a certificate of origin. All dimensions and bolt and nut sizes shall use the Metric standard.

## 7 MAINTENANCE REQUIREMENTS

The maintenance of the WIM-WIM shall be according to the following requirements:

### 7.1 Routine Maintenance

The design of the system shall be such that the personnel indicated below can successfully conduct the maintenance of the system, given that they have attended the appropriate training course.

- 7.1.1 First line routine maintenance shall be done by a technician (T3 / S4).
- 7.1.2 Comprehensive second line maintenance shall be done by skilled, computer literate electronics technicians.

7.1.3 Third line maintenance will be performed by highly skilled technicians, technologists or engineers.

## 7.2 Availability

The design of the system shall be modular and such that replacement modules and components will be available over an expected system life of 10 years.

7.2.1 The supplier shall guarantee continued local availability of all components of the system, as well as frequently used spares of the components, for a contractually specified period of at least 10 years.

7.2.2 All components of the WIM-WIM shall be available within 7 days of order from the local agency.

7.2.3 Each component of the WIM-WIM shall contain a warranty of at least 12 months.

7.2.4 Accuracy shall be as specified for a period of at least 12 months after calibration, unless the ballast is disturbed (e.g. by a ballast tamper or sifting machine).

## 7.3 Repair of equipment

7.3.1 The system design shall be such that the repair of any on-track equipment shall not inhibit train movements on the line for more than 2 hours.

## 7.4 Training

7.4.1 The supplier shall provide extensive maintenance and operating training in all aspects of the WIM-WIM. The training shall not exceed one week.

7.4.2 The supplier shall also, in conjunction with the maintenance training provide extensive theoretical and practical training to second and third line technicians and/or engineers, not exceeding 1 week.

7.4.3 The supplier shall submit all course material for approval by Transnet Freight Rail prior to training taking place.



## 8 QUALITY ASSURANCE

### 8.1 Responsibility for tests

- 8.1.1 The responsibility for proving the correctness of test results shall reside with the contractor. The contractor shall document the tests and test results and produce a detailed test report to Transnet Freight Rail Technology Management.
- 8.1.2 All tests shall be observed and accepted by Transnet Freight Rail. Transnet Freight Rail shall assist with all the tests where necessary, e.g. the arrangement of rolling stock for tests.

### 8.2 Tests and examinations

- 8.2.1 The tests shall be executed to meet the Transnet Freight Rail requirements as described in this document.
- 8.2.2 The contractors shall also produce an Acceptance Test Procedure (ATP) document and submit it to Transnet Freight Rail Technology Management for approval.
- 8.2.3 Once approved, this ATP together with the Functional Specification shall be used to determine system compliance during commissioning.

## 9 QUALITY CONFORMANCE INSPECTIONS

### 9.1 Transnet Freight Rail

- 9.1.1 Transnet Freight Rail shall be responsible for all quality conformance inspections.

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**APPENDIX A**

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**TECHNICAL**

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**Railway Engineering***Technical Addendum*

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**CHARACTERISTICS OF THE QUALITY OF THE 230V AC POWER SUPPLY  
AT VARIOUS RAILWAY TRACK SIDE INSTALLATIONS**

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**1. INTRODUCTION**

1.1 The following is a typical representation of the power supply expected in the vicinity of a traction power line. These characteristics are to be taken into consideration when purchasing power equipment (such as UPS, chargers etc.) for Spoornet's industrial applications.

1.2 The data used in these guidelines was extracted from the findings of a Quality of Power Supply investigation on the 230V supply at Elands Bay - Loop 2 on the 50kV AC OREX line.

**2.0 THE UNINTERRUPTABLE POWER SUPPLY**

2.1 The power equipment shall not be adversely affected by odd voltage harmonics between the 3<sup>rd</sup> and 13<sup>th</sup> harmonics of which can reach amplitudes as indicated in the following table. The THD can reach maximum amplitudes up to 27%.

2.2 The power equipment shall not be subject to degradation when exposed to the voltage Dips with deviations to the magnitudes of -50 % on all the phases.

**3.0 TYPICAL VOLTAGE HARMONICS ON THE 230V SUPPLY**

Table 1	Typical Daily Values of Harmonics and THD on the OREX 230V Supply
Harmonic and THD	Highest Daily Values (%)
3 <sup>rd</sup>	12
5 <sup>th</sup>	9
7 <sup>th</sup>	8
11 <sup>th</sup>	14
13 <sup>th</sup>	4
THD	27

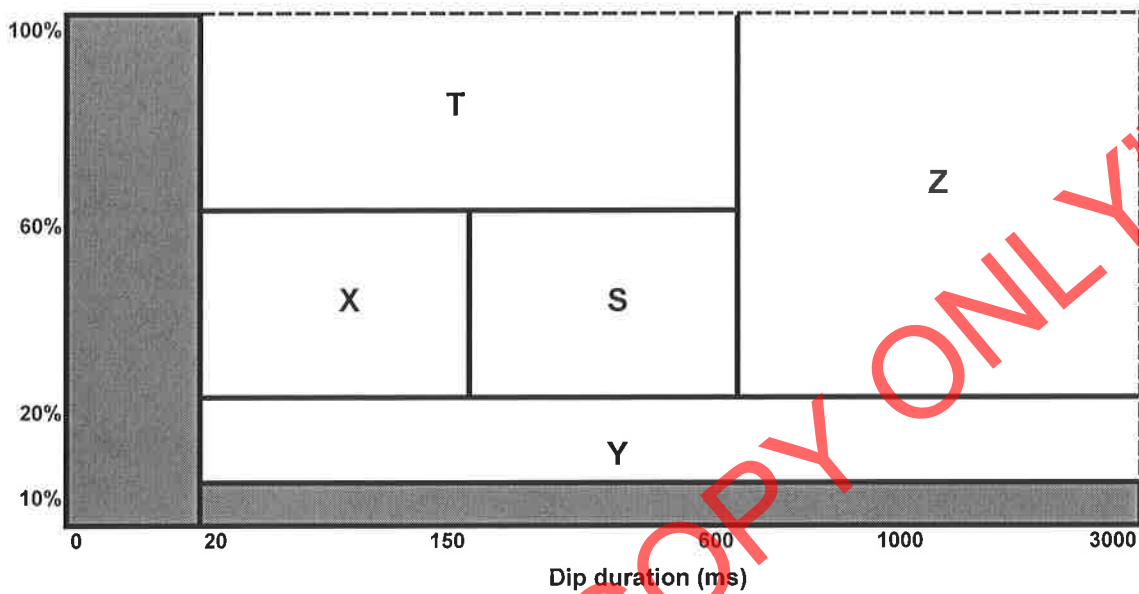
#### 4.0 TYPICAL VOLTAGE DIPS ON THE 230V SUPPLY

(i) Table .2	(ii) Daily Voltage Dips on the OREX 230V Supply			
Time	NRS048	Phases	Duration	Deviation (%)
25:50.8	X	ABC	0.040 s	-28.6
59:53.6	X	ABC	0.020 s	-22.6
59:53.7	X	ABC	0.030 s	-22.6
59:53.7	X	ABC	0.030 s	-25
59:53.8	X	ABC	0.030 s	-27
59:53.9	X	ABC	0.020 s	-25.6
21:59.9	Y	ABC	0.070 s	-15.3
59:53.9	X	ABC	0.020 s	-30.8
59:53.9	X	ABC	0.030 s	-28.6
59:54.0	X	ABC	0.030 s	-32.5
22:00.1	Y	ABC	0.030 s	-15.3
59:54.0	X	ABC	0.030 s	-33.6
59:54.1	X	ABC	0.020 s	-32.2
59:54.1	X	ABC	0.020 s	-34.4
22:00.2	Y	ABC	0.110 s	-15.3
59:54.2	X	ABC	0.020 s	-34.9
59:54.2	X	ABC	0.020 s	-36.5
59:54.2	X	ABC	0.030 s	-39.5
59:54.3	X	ABC	0.030 s	-39
22:00.6	Y	ABC	0.110 s	-15.4
59:54.3	X	ABC	0.020 s	-39
59:54.3	X	ABC	0.060 s	-41.8
22:06.5	Y	ABC	0.380 s	-16.4

## 5.0 VOLTAGE DIP WINDOW

5.1 The table below is the typical Voltage Dip Window for the classification of Dips taken from the Quality of Supply standards NRS 048-2.

Magnitude of voltage depression  
(Decrease below nominal)



(iii)

## APPENDIX B

Class	Tag Type	Space 1	Space 2	Space 3	Space 4	Space 5
A		1854 mm	6376 mm	1854 mm		
A		1830 mm	6480 mm	1830 mm		
A		1830 mm	6401 mm	1830 mm		
A		1753 mm	6477 mm	1753 mm		
A		1753 mm	6431 mm	1753 mm		
B	36D1	2082 mm	6618 mm	2082 mm		
C	36D2	2438 mm	5029 mm	2438 mm		
D	31D	2438 mm	5242 mm	2438 mm		
E	38D	2600 mm	6500 mm	2600 mm		
F	14E	3100 mm	6200 mm	3100 mm		
G	8E	3280 mm	4570 mm	3280 mm		
H		3430 mm	4418 mm	3430 mm		
I	37D	1816 mm	1816 mm	7468 mm	1816 mm	1816 mm
J	35D1	1562 mm	1740 mm	6071 mm	1740 mm	1562 mm
K	34D1	1594 mm	1594 mm	6628 mm	1594 mm	1594 mm
L	35D2	1594 mm	1594 mm	4406 mm	1594 mm	1594 mm
M	33D1	1594 mm	1911 mm	5233 mm	1911 mm	1594 mm
N	33D2	1600 mm	2007 mm	6686 mm	2007 mm	1600 mm
O	34D2	1816 mm	1816 mm	7468 mm	1816 mm	1816 mm
P	9E	1970 mm	1970 mm	8410 mm	1970 mm	1970 mm
Q	1.00E+03	2030 mm	2030 mm	5340 mm	2030 mm	2030 mm
R	7E*	2200 mm	2200 mm	5000 mm	2200 mm	2200 mm

Class	Tag Type	Space 1	Space 2	Space 3	Space 4	Space 5
S	11E	2200 mm	2200 mm	6360 mm	2200 mm	2200 mm
T		2743 mm	9754 mm	2743 mm		
T		2743 mm	9754 mm	2743 mm		
U	15E	2100 mm	2100 mm	8400 mm	2100 mm	2100 mm
V	19E	3000 mm	8200 mm	3000 mm		
W	43D	1850 mm	1850 mm	8174 mm	1850 mm	1850 mm
a		1753 mm	4343 mm	1753 mm		
b		1830 mm	4660 mm	1830 mm		
b		1753 mm	4491 mm	1753 mm		
c		1753 mm	4851 mm	1753 mm		
c		1753 mm	4847 mm	1753 mm		
d		1753 mm	5167 mm	1753 mm		
d		1753 mm	5047 mm	1753 mm		
d		1753 mm	5043 mm	1753 mm		
e		1753 mm	5562 mm	1753 mm		
e		1753 mm	5347 mm	1753 mm		
e		1854 mm	5334 mm	1854 mm		
f		1753 mm	5647 mm	1753 mm		
g		1753 mm	6172 mm	1753 mm		
h		1753 mm	6993 mm	1753 mm		
h		1753 mm	6886 mm	1753 mm		
h		1753 mm	6782 mm	1753 mm		
j		1753 mm	7547 mm	1753 mm		
j		1753 mm	7541 mm	1753 mm		

Class	Tag Type	Space 1	Space 2	Space 3	Space 4	Space 5
		mm	mm	mm		
j		1753 mm	7537 mm	1753 mm		
j		1753 mm	7497 mm	1753 mm		
j		1753 mm	7467 mm	1753 mm		
j		1753 mm	7445 mm	1753 mm		
j		1753 mm	7391 mm	1753 mm		
j		1753 mm	7353 mm	1753 mm		
j		1753 mm	7315 mm	1753 mm		
j		1753 mm	7247 mm	1753 mm		
j		1753 mm	7197 mm	1753 mm		
k		1753 mm	8001 mm	1753 mm		
k		1753 mm	7997 mm	1753 mm		
k		1753 mm	7897 mm	1753 mm		
k		1753 mm	7830 mm	1753 mm		
k		1753 mm	7821 mm	1753 mm		
k		1753 mm	7717 mm	1753 mm		
m		1753 mm	8547 mm	1753 mm		
m		1753 mm	8499 mm	1753 mm		
m		1753 mm	8351 mm	1753 mm		
m		1753 mm	8347 mm	1753 mm		
m		1753 mm	8332 mm	1753 mm		
m		1753 mm	8323 mm	1753 mm		
m		1753 mm	8305 mm	1753 mm		
m		1753 mm	8153 mm	1753 mm		



Class	Tag Type	Space 1	Space 2	Space 3	Space 4	Space 5
n		1753 mm	9067 mm	1753 mm		
n		1753 mm	9063 mm	1753 mm		
n		1753 mm	8940 mm	1753 mm		
n		1753 mm	8915 mm	1753 mm		
n		1753 mm	8802 mm	1753 mm		
n		1753 mm	8707 mm	1753 mm		
n		1753 mm	8677 mm	1753 mm		
n		1753 mm	8627 mm	1753 mm		
n		1753 mm	8617 mm	1753 mm		
n		1753 mm	8609 mm	1753 mm		
p		1753 mm	9461 mm	1753 mm		
p		1753 mm	9350 mm	1753 mm		
p		1753 mm	9251 mm	1753 mm		
p		1753 mm	9247 mm	1753 mm		
q		1753 mm	10147 mm	1753 mm		
q		1753 mm	9752 mm	1753 mm		
r		1753 mm	10849 mm	1753 mm		
r		1753 mm	10744 mm	1753 mm		
r		1753 mm	10659 mm	1753 mm		
s		1753 mm	11077 mm	1753 mm		
s		1753 mm	11049 mm	1753 mm		
t		1753 mm	11803 mm	1753 mm		
t		1753 mm	11757 mm	1753 mm		

Class	Tag Type	Space 1	Space 2	Space 3	Space 4	Space 5
t		1753 mm	11754 mm	1753 mm		
u		1753 mm	12995 mm	1753 mm		
u		1753 mm	12936 mm	1753 mm		
u		1753 mm	12747 mm	1753 mm		
u		1753 mm	12725 mm	1753 mm		
v		1753 mm	13669 mm	1753 mm		
v		1753 mm	13577 mm	1753 mm		
v		1753 mm	13351 mm	1753 mm		
v		1753 mm	13347 mm	1753 mm		
v		1753 mm	13247 mm	1753 mm		
v		1753 mm	13171 mm	1753 mm		
w		2057 mm	11506 mm	2057 mm		
w		2210 mm	12268 mm	2210 mm		
w		2057 mm	12421 mm	2057 mm		
w		2134 mm	12436 mm	2134 mm		

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 Respondent's Signature

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 Date & Company Stamp

**RFP NO.HOAC HO 9080**

**IMPLEMENT WHEEL IMPACT MONITORING AND WEIGH IN MOTION  
SYSTEM FOR A PERIOD OF TWO YEARS**

**Section ..... : OTHER SPECIFICATIONS**

**SPECIFICATION REFERENCE**

- a. **BBB 0041 VERSION 4**
- b. **BBB 493 VERSION 3**
- c. **BBB 1190 AMD 1**
- d. **BBB 3235 VERSION 1**
- e. **BBC 0659 VERSION 2**
- f. **BBD 5249 VERSION 31**
- g. **BBF 5096 V1**
- h. **CSE 504**
- i. **CSE 1154 001**
- j. **CSE 1159**

**“PREVIEW COPY ONLY”**

**RFP NO.HOAC HO 8633**

**SUPPLY AND DELIVER VARIOUS TYPES OF SIGNALLING EQUIPMENT TO  
TRANSNET FREIGHT RAIL AS AND WHEN REQUIRED FOR A PERIOD OF  
TWO YEARS**

**Section ..... : NON-DISCLOSURE AGREEMENT [NDA]**

*[if applicable]*

**Complete and sign the Non-Disclosure Agreement attached hereto**

**“PREVIEW COPY ONLY”**

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Respondent's Signature

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Date & Company Stamp

## RFP NO.HOAC HO 8633

**SUPPLY AND DELIVER VARIOUS TYPES OF SIGNALLING EQUIPMENT TO  
TRANSNET FREIGHT RAIL AS AND WHEN REQUIRED FOR A PERIOD OF  
TWO YEARS**

**Section ..... : FURTHER RECOGNITION CRITERIA [FRC]**

Transnet encourages its suppliers to constantly strive to improve their B-BBEE rating. Whereas Respondents will be allocated points in terms of a preference point system based on its B-BBEE scorecard to be assessed as detailed in Section 1, paragraph 5.1, in addition to such scoring, a further 10% [ten per cent] will be allocated to Respondents score based on the following "Further Recognition Criteria" on an ascending scale. This will be calculated based on the extent to which the Respondent commits to meet, sustain and/or exceed the minimum compliance targets with its proposed target score to be achieved during the contract period.

*Respondents are to insert their Further Recognition Criteria current and target compliance scores [i.e. not the % change but the end-state quantum expressed as a percentage] in the table below. This will indicate how you would intend to sustain or improve your FRC compliance rating over the contract period, which will represent a binding commitment to the successful Respondent.*

Further Recognition Criteria				
Ownership Indicator	Required Responses	Compliance Target	Current Scores (%)	RFP Target Scores (%)
<b>A Ownership :</b>				
1. The percentage of the business owned by Black persons.	<i>Provide a commitment based on the extent to which ownership in the hands of Black persons as a percentage of total ownership of the organisation will be sustained or increased over the contract period.</i>	Points will be allocated for any score >50% to 100%, on a sliding scale		
2. The percentage of your business owned by Black women.	<i>Provide a commitment based on the extent to which ownership in the hands of black women as a percentage of total ownership of the organisation will be sustained or increased over the contract period.</i>	Points will be allocated for any score >30% to 100%, on a sliding scale		
Management Control Indicator	Required Responses	Compliance Target	Current Scores (%)	RFP Target Scores (%)
<b>B Board Participation :</b>				
1. The percentage of Black Board members in relation to the total number of Board members.	<i>Provide a commitment based on the extent to which the number of Black Board members, as a percentage of the total Board, will be sustained or increased over the contract period.</i>	Points will be allocated for any score >50% to 100%, on a sliding scale		

<sup>1</sup> "Black" means South African Blacks , Coloureds and Indians, as defined in the B-BBEE Act, 53 of 2003

<b>C Management :</b>					
1.	The percentage of Black Senior Top Management involved in day to day management of the organisation, in relation to the total Top Management cadre.	<i>Provide the percentage of Blacks that will be appointed or retained by the Board and will be operationally involved in the day to day Top management of the business, with individual responsibility for overall and/or financial management of the business and actively involved in the development and implementation of overall strategy, over the contract period.</i>	Points will be allocated for any score >40% to 100%, on a sliding scale		
2.	The percentage of Black Middle Management involved in day to day management of the organisation, in relation to the total Middle Management cadre.	<i>Provide the percentage of Blacks that will be retained or appointed by the organisation in the middle management cadre and will be operationally involved in the day to day management of the business, with individual responsibility for a particular area within the business and actively involved in the day to day management of the organisation, over the contract period.</i>	Points will be allocated for any score >63% to 100%, on a sliding scale		
3.	The percentage of Black Junior Management involved in day to day management of the organisation, in relation to the total Junior Management cadre.	<i>Provide the percentage of Blacks that will be retained or appointed by the organisation in the junior management cadre and will be operationally involved in the day to day running of the business, with individual responsibility for a particular area within the business and actively involved in a supervisory role with regards to the day to day management of the organisation, over the contract period.</i>	Points will be allocated for any score >68% to 100%, on a sliding scale		
<b>Employment Equity Indicator</b>		<b>Required Responses</b>	<b>Compliance Target</b>	<b>Current Scores (%)</b>	<b>RFP Target Scores (%)</b>
<b>D. Employment Equity :</b>					
1.	The percentage of Black disabled employees in relation to the total number of employees in the organisation.	<i>Provide a commitment based on the extent to which the percentage of Black disabled employees in relation to the total of all employees in the organisation, will be sustained or increased over the contract period.</i>	Points will be allocated for any score >2% to 10%, on a sliding scale		
2.	The percentage of Black employees as a percentage of the total workforce i.e. of all employees in the organisation.	<i>Provide a commitment based on the extent to which the number of Black employees will be sustained or increased as a percentage of the organisation's total workforce, over the contract period.</i>	Points will be allocated for any score >65% to 100%, on a sliding scale		
3.	The percentage of Black women employees as a percentage of the total workforce.	<i>Provide a commitment based on the increase in the number of Black women employees as a percentage of the organisation's total workforce, or sustained over the contract period.</i>	Points will be allocated for any score >40% to 100%, on a sliding scale		
<b>Enterprise Development Indicator</b>		<b>Required Responses</b>	<b>Compliance Target</b>	<b>Current Scores (%)</b>	<b>RFP Target Scores (%)</b>
<b>E. Enterprise Development :</b>					
1.	The organisation's annual spend on Enterprise Development as a percentage of Net Profit after Tax [NPAT]	<i>Provide a commitment based on the retention or increase in your organisation's annual spend on Enterprise Development initiatives as a percentage of its Net Profit after Tax, over the contract period.</i>	Points will be allocated for any score >3% of NPAT, on a sliding scale		



Preferential Procurement Indicator	Required Responses	Compliance Target	Current Scores (%)	RFP Target Scores (%)
<b>F. Preferential Procurement:</b>				
1. B-BBEE procurement spend from all suppliers based on the B-BBEE procurement recognition level as a percentage of total measured procurement spend	<i>Provide a commitment based on the extent to which B-BBEE spend will be sustained or increased over the contract period.</i>	Score will be allocated for any score >50% to 100%, on a sliding scale		

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