



TRANSNET FREIGHT RAIL
an Operating Division of
TRANSNET SOC LIMITED
(Registration No. 1990/000900/30)

REQUEST FOR QOUTATION (“RFQ”)

RFQ NUMBER BFX/51933

PROVISION OF MAINTENANCE OF BONDING BETWEEN KROONSTAD AND WOLWEHOEK

ISSUE DATE : 14 AUGUST 2012
CLOSING DATE : 4 SEPTEMBER 2012
CLOSING TIME : 10:00

Please note that late responses and those delivered or posted
to the incorrect address will be disqualified.

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Respondent's Signature

1

.....
Date and Company Stamp



RFQ NUMBER BFX/51933

PROVISION OF MAINTENANCE OF BONDING BETWEEN KROONSTAD AND WOLWEHOEK

SCHEDULE OF DOCUMENTS

Section

1. Notice to Bidders
2. Background, Overview and scope of requirements
3. Quotation Form
4. Resolution of Board of Directors (Respondent's Representative)
5. Certificate of Acquaintance with RFQ Documents
6. Service Fees and Costs
7. General Tender Conditions (CSS5 – Services)
8. Standard Terms and Conditions of Contract (US7 - Services)
9. Certificate of Attendance of RFQ Briefing
10. Safety arrangements and procedural compliance with the Occupational Health and Safety Act (Act 85 of 1993) and applicable regulations - E.4E Transnet (Jan 2004)
11. Specification for work on, over, under or adjacent to Railway lines and near high Voltage equipment – form E7/1 (July 1998)

Respondent's Signature

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Date and Company Stamp



SECTION 1

RFQ NUMBER BFX/51933

PROVISION OF MAINTENANCE OF BONDING BETWEEN KROONSTAD AND WOLWEHOEK

NOTICE TO BIDDERS

1. Quotations are requested from interested persons, companies, close corporations or enterprises (hereinafter referred to as the "**Respondent(s)**") to supply the above-mentioned requirement to Transnet.

On or after 14 August 2012 the RFQ documents are obtainable from the office of Transnet, Supply Chain Services, 1st Floor, Room 102, Rail Engineering Admin Building, Transnet Road, Bloemfontein

A non-refundable tender fee of R100.00 (inclusive of Vat) is applicable per tender. Payment is to be made to Transnet Freight Rail, Standard Bank Account number 203158598, Branch code 004805. The deposit slip must reflect RFQ BFX/51931 and the Company Name. Receipt/s to be presented prior to collection of the RFQ's. This amount is not refundable. RFQ documents will only be available until 15:00 on 20 August 2012

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

2. A compulsory pre-Quotation site meeting and/or briefing session will be conducted at Bloemfontein Station on the 21 August 2012, at 10:00 for a period of ± 1 hour. (**Respondent to provide own transportation and accommodation**).

Respondents failing to attend the compulsory site meeting and/or briefing session will be disqualified.

Respondents without a valid RFQ document in their possession will not be allowed to attend the site meeting and/or briefing session.

The briefing session will start punctually at 10:00 and Respondents arriving late will not be accommodated.

For specific queries before the closing of the RFQ, the following Transnet employee(s) may be contacted by email only:

Name : Gideon Joubert
Division : Supply Chain Services
Email : Gideon.Joubert@Transnet.net

Safety on site: Reflective jackets and safety shoes to be worn when visiting the site. Without the safety clothing and depending on the environment you will be entering, respondents won't be allowed at the various sites if safety apparel is required.

3. Quotations must reach Supply Chain Services, before the closing hour on the date shown below, and must be enclosed in a sealed envelope which must have inscribed on the outside:

RFQ No	: BFX/51933
Description	: Provision of maintenance of bonding between Kroonstad and Wolwehoek
Closing date and time	: 4 September 2012 at 10:00 Closing address (refer options paragraph 4 below)

Respondent's Signature

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Date and Company Stamp



4. DELIVERY INSTRUCTIONS FOR THIS RFQ

- 4.1 **If delivered by hand**, the envelope is to be deposited in the TRANSNET tender box which is located at the main entrance, Real Estate Management Building, Austen Street, Beaconsfield, Kimberley and should be addressed as follows:

SUPPLY CHAIN SERVICES
ADMIN SUPPORT
TENDER BOX
OFFICE NO. 2
REAL ESTATE MANAGEMENT BUILDING
AUSTEN STREET
BEACONSFIELD
KIMBERLEY

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.

- 4.2 **If dispatched by courier**, the envelope must be addressed as follows and delivered to the Regional Office, Supply Chain Services, Tender Box and a signature obtained from that Office.

SUPPLY CHAIN SERVICES
ADMIN SUPPORT
TENDER BOX
OFFICE NO. 2
REAL ESTATE MANAGEMENT BUILDING
AUSTEN STREET
BEACONSFIELD
KIMBERLEY

5. Please note that this RFQ closes punctually at 10:00 on Tuesday, 4 September 2012.
6. If responses are not posted or delivered as stipulated herein, such responses will not be considered and will be treated as "UNRESPONSIVE".
7. NO EMAIL OR FACSIMILE RESPONSES WILL BE CONSIDERED.
8. The responses to this RFQ will be opened as soon as practicable after the expiry of the time advertised for receiving them.
9. Transnet shall not, at the opening of responses, disclose to any other company any confidential details pertaining to the Quotations / information received, i.e. service fees, deliverables, etc. The names and location of the Respondents will, however, be divulged to other Respondents upon request.
10. Envelopes must not contain documents relating to any RFQ other than that shown on the envelope. All envelopes must reflect the return address of the Respondent on the reverse side.
11. No slips are to be attached to the response documents. Any additional conditions must be embodied in an accompanying letter. Subject only to clause 22 (*Alterations made by the Respondent to Tendered Prices*) of the General Tender Conditions, alterations, additions or deletions must not be made by the Respondent to the actual RFQ documents.

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Respondent's Signature

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Date and Company Stamp



12. BROAD-BASED BLACK ECONOMIC EMPOWERMENT ("BBBEE")

TRANSNET fully endorses and supports the South African Government's Broad-Based Black Economic Empowerment Programme and it is strongly of the opinion that all business enterprises have an equal obligation to redress the imbalances of the past. TRANSNET would therefore prefer to do business with business enterprises who share these same values and who are prepared to contribute to meaningful BBBEE initiatives (including and not limited to enterprise development, subcontracting and Joint Ventures) as part of their tender response.

Transnet would accordingly allow a "preference" in accordance with the 10% preference system, as per the Preferential Procurement Policy Framework Act 5 of 2000 (as amended) to companies who provide a BBBEE accreditation Certificate. All procurement and disposal transactions in excess of R30000 will be evaluated accordingly. All transactions below R 30,000 will as far as possible be earmarked for EME's.

TRANSNET consequently urges Respondents (Large enterprises and QSE's – see below) to have themselves duly accredited by any one of the Accreditation Agencies approved by SANAS (South African National Accreditation System, under the auspices of the DTI).

In terms of Government Gazette No. 32467, Notice No. 810 dated 31 July 2009, as from 1 February 2010 only BBBEE certificates issued by Accredited Verification Agencies of Verification Agencies that are in possession of a valid pre-assessment letter from South African National Accreditation System will be valid.

However accreditation certificates issued by non-accredited verification agencies before 01 February 2010 and which are still within their one (1) year validity period will still be acceptable, until their expiry date provided that the accreditation was done in accordance with the latest codes (i.e. those promulgated on 9 February 2007).

BBBEE Accreditation Certificates issued after the published date i.e. 01 February 2010, by a Verification Agency not approved by SANAS, will NOT be acceptable as from 01 February 2010.

Enterprises will be rated by such Accreditation Agencies based on the following:

(a) Large Enterprises (i.e. annual turnover >R35 million):

> Rating level based on all 7 (seven) elements of the BBBEE scorecard

> Enterprises to provide BBBEE certificate and detailed scorecard (to be renewed annually)

(b) Qualifying Small Enterprises – QSE (i.e. annual turnover >R5 million but <R35 million):

> Rating based on any 4 (four) of the elements of the BBBEE scorecard

> Enterprises to provide BBBEE certificate and detailed scorecard (to be renewed annually)

(c) Exempted Micro Enterprises – EME (i.e. annual turnover <R5m are exempted from being rated or verified):

> Automatic BBBEE Level 4 rating, irrespective of race ownership, i.e. 100% BBBEE recognition

> Black ownership >50% or Black Women ownership >30% automatically qualify as Level 3 BBBEE rating, i.e. 110% BBBEE recognition



- > EME's should provide documentary proof of annual turnover (i.e. audited financials) plus proof of Black ownership if Black ownership >50% or Black Women ownership >30% (to be renewed annually) from their Auditors / Accounting Officers

In addition to the above, Respondents who wish to enter into a Joint Venture (JV) or subcontract portions of the contract to BBBEE companies must state in their Tenders / Proposals the percentage of the total contract value which would be allocated to such BBBEE companies, should they be successful in being awarded any business. A rating certificate in respect of such BBBEE JV-partners and/or sub-contractors, as well as a breakdown of the distribution of the aforementioned percentage allocation must also be furnished with the tender response to enable Transnet to evaluate / adjudicate on all tenders received on a fair basis.

Each Respondent is required to furnish proof of its BBBEE status(Certificate and Detailed Scorecard) and ensure that the documentation is valid at the date of Tender Submission as stipulated above to TRANSNET.

Failure to submit your BBBEE Certificate and Detailed Scorecard will result in a score of zero being allocated for BBBEE evaluation.

Turnover: Indicate your company's most recent annual turnover:
R.....

- If annual turnover <R5m, please attach auditors / accounting officers letter confirming annual turnover and percentage black ownership as well as Black Women ownership
- If annual turnover >R5m please attach BBBEE certificate and detailed scorecard from an accredited rating agency.

The DTI has created an online **B-BBEE Registry** (<http://www.dti.gov.za>) in order to provide a central and standardized source of the B-BBEE status of all entities, and to facilitate the flow of this information amongst entities by providing a Unique Profile Number (UPN) per each listing. Existing and prospective suppliers are therefore urged to list their B-BBEE status on the DTI Registry. Hence, entities verified by DTI, will receive the following benefits:

- Their BBBEE status will be verified and confirmed by the DTI, before listing on the Registry
- Listing on the Registry will provide suppliers the option to market themselves on the DTI B-BBEE Opportunities Network. This is a search engine that is designed to help businesses find B-BBEE compliant entities who match specific requirements in terms of the nature of services/goods provided, region, B-BBEE status or other search criteria.

Transnet supports this DTI initiative and will use the DTI Registry to verify prospective and existing suppliers' BBBEE credentials.

Kindly provide Transnet with your DTI B-BBEE UNIQUE PROFILE NUMBER with all tender submissions.

DTI BBBEE UNIQUE PROFILE NUMBER:
.....



Failure to submit your BBBEE information in terms of the above-mentioned clauses will result in a score of zero being allocated for BBBEE evaluation

12 SOCIO-ECONOMIC OBLIGATIONS FOR FOREIGN RESPONDENTS

Foreign Respondents' socio-economic obligations under this procurement programme will fall under the associated Government initiative, namely, the Competitive Supplier Development Programme ("CSDP") as developed by the Department of Public Enterprises, details of which are appended hereto at Annexure A.

13 COMMUNICATION

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

A respondent may, however, BEFORE THE CLOSING DATE AND TIME, direct any enquiries relating to the RFQ to the Transnet employee as indicated in clause 2 above, and may also at any time after the closing date of the RFQ, communicate with the Secretary of the Transnet Acquisition Council, at telephone number 011 308 3528 / 3522 or fax no. 011 308 2637 on any matter relating to its RFQ response.

14 RFQ SCHEDULE

Respondents will be contacted as soon as practicable with a status update. At this time short-listed Respondents may be asked to meet with Transnet representatives at a location to be agreed.

15 INSTRUCTIONS FOR COMPLETING THE RFQ

- (i) Sign one set of documents (sign and date the bottom of each page). This set will serve as the legal and binding copy.
- (ii) Documents to be submitted to the address specified above.
- (iii) The following returnable documents must accompany all Quotations:
 - Respondent's latest audited financial statements;
 - Respondent's valid Tax Clearance Certificate.

16 COMPLIANCE

The successful Respondent (hereinafter referred to as the "Supplier") shall be in full and complete compliance with any and all applicable State and Local Laws and Regulations.

17 ADDITIONAL NOTES:

- All returnable documents as indicated in the Quotation Form (Section 3) must be returned with the response
- Respondents are to note that Quotations in which firm prices are quoted for the duration of any resulting contract may receive precedence over prices which are subject to adjustment
- Changes by the Respondent to its submission will not be considered after the closing date
- The person or persons signing the Quotation must be legally authorised by the Respondent to do so (Refer Section 4). A list of those person(s) authorised to negotiate on your behalf (if not the authorised signatories) must also be submitted along with the Quotation together with their contact details.
- All prices must be quoted in South African Rands

Respondent's Signature

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Date and Company Stamp



- Transnet reserves the right to undertake post-tender negotiations with selected Respondents or any number of short-listed Respondents and may wish to visit the Respondent's place of work during this process.

NB: Unless otherwise expressly stated, all Quotations furnished pursuant to this Request 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 QOUTATION BEING REJECTED**

18 DISCLAIMERS

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

- modify the RFQ's Services and request Respondents to re-bid on any changes
- reject any Quotation which does not conform to instructions and specifications which are detailed herein
- disqualify Quotations submitted after the stated submission deadline
- not necessarily accept the lowest priced Quotation
- reject all Quotations, if it so decides
- award a contract in connection with this Quotation at any time after the RFQ's closing date
- award only a portion of the proposed Services which are reflected in the scope of this RFQ
- split the award of the contract between more than one Supplier
- make no award of a contract

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

19 LEGAL REVIEW

Any Quotation submitted by a Respondent is subject to review and negotiation of the proposed contract by Transnet's Legal Counsel.

Respondent's Signature

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Date and Company Stamp



Respondents to complete this section:

NAME OF RESPONDENT

PHYSICAL ADDRESS

Respondent's contact person:

Name.....

Designation.....

Telephone.....

Cell Phone.....

Facsimile.....

Email.....

Website.....

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

- Transnet has appointed a Procurement Ombudsman to investigate any material complaint in respect of RFP's 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 familiarize himself/herself with the Terms of reference for the 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 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.

Respondent's Signature

Date and Company Stamp



SECTION 2

RFQ NUMBER BFX/51933

PROVISION OF MAINTENANCE OF BONDING BETWEEN KROONSTAD AND WOLWEHOEK

BACKGROUND, OVERVIEW AND SCOPE OF REQUIREMENTS

1. BACKGROUND

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2. EXECUTIVE OVERVIEW

Most Transnet Operating Divisions currently procure their requirements through a number of service providers. Our objective is to source all activity through a Preferred Supplier(s) capable of servicing all Transnet Operating Divisions in locations around the country. Other key considerations include.....

Transnet is seeking a partner(s) to provide solutions for its nationally. It also seeks to improve its current processes for provision of these Services to its end user community throughout its locations.

The selected service provider(s) will share in the mission and business objectives of Transnet. These mutual goals will be met by meeting contract 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:

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

3. SCOPE OF REQUIREMENTS

This project specification covers the Maintenance of bonding between Kroonstad and Wolwehoek.



4. GENERAL INFORMATION

It is required that all Transnet operating divisions will be included in the scope of this Quotation.

The service provider(s) shall be fully responsible to Transnet for the acts and omissions of persons directly or indirectly employed by them.

The service provider(s) must provide the identified information requested and comply with the requirements stated in the RFQ.

5. EXCHANGE AND REMITTANCE

The attention of the Respondents is specially directed to clause 7 (*Exchange and Remittance*) of the General Tender Conditions Form CSS5. 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/supplier.

(a)	ZAR1.00 (South African currency) being equal to (foreign currency).% in relation to tendered price(s) (.....) to be remitted overseas by Transnet.
(b) (Name of country to which payment is to be made)
(c)	Beneficiary details : Name (Account holder) Bank (Name and branch code)..... Swift code Country
(d) (Applicable date of Exchange Rate used)

6. 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 Services 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 this RFQ, and shall thereby adhere to railway safety requirements and/or regulations. 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:

YES	
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NO	
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7. SERVICE LEVELS

- Experienced national account representative/s 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.
- Transnet will have quarterly reviews with the Supplier's account representative on an ongoing basis.
- 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.
- Supplier guarantees that it will achieve a 95% service level on the following measures. If the Supplier does not achieve this level as an average over each quarter, Transnet will receive a 1.5% rebate on quarterly fees payable in the next quarter:
 - On-time deliverables
- Supplier must provide a toll-free number or alternative number for customer service calls.
- Failure of the Supplier to comply with stated service level requirements will give Transnet the right to cancel the contract in whole, without penalty, giving 30 (thirty) days' notice to the Supplier.

Accepted:

YES		NO	
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8. CONTINUOUS IMPROVEMENT INITIATIVES AND VALUE ADD

Respondents shall indicate whether they are committed to participate in the continuous improvement initiatives of Transnet to reduce the overall cost of transportation within South Africa during the duration of the contract.

Accepted:

YES		NO	
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If "yes", please specify.

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 Quotation if there is insufficient space available.



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9. RISK

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

(i) quality of the Service(s) provided:

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(ii) continuity of provision of the Service(s) (refer clause 6.9 of Form US7)::

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Respondent's Signature

Date and Company Stamp



(iii) compliance with the Occupational Health and Safety Act, 85 of 1993 (refer clause 8.1(f) of Form US7)

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(iv) compliance with the National Railway Safety Regulator Act, 16 of 2002 (refer clause 16 above)

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10. 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 number

11. EVALUATION CRITERIA

Transnet will utilise the following criteria (not necessarily in this order) in choosing a Supplier, if so required:

- Pricing (fees) - Whilst not the sole factor for consideration, competitive pricing will be critical in indicating how much you value Transnet's business
- Service level guarantees
- An explicit commitment to continuous improvement initiatives

Respondent's Signature

Date and Company Stamp



- Compliance - Completeness of your responses and content of the Quotation will be considered
- Financial strength
- References
- BBBEE status of company
- Additional value-added services
- Duration of works

SUBSTANCE ABUSE TESTING

The OHS Act (Act 85 of 1993) clearly states in the Safety Regulations no. 2A "INTOXICATION" An employer or user, as the case may be, shall not permit any person who appears to be under the influence of intoxicating liquor or drugs, to enter or remain at a workplace". Transnet Freight Rail enforces this legislation by means of its Substance Abuse Policy, and therefore reserves the right to do substance abuse testing on anyone who enters their premises.

“PREVIEW COPY ONLY”

Respondent's Signature

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Date and Company Stamp



1.0 CONTRACTUAL OBLIGATIONS

- 1.1 The Contractor shall not make use of any sub-Contractor to perform the works or parts thereof without prior permission from the Project Manager.
- 1.2 The Contractor shall ensure that a safety representative is at site at all times.
- 1.3 The Contractor shall comply with all applicable legislation and Transnet safety requirements adopted from time to time and instructed by the Project Manager / Supervisor. Such compliance shall be entirely at his own cost, and shall be deemed to have been allowed for in the rates and prices in the contract.
- 1.4 The Contractor shall, in particular, comply with the following Acts and Transnet Specifications:-
 - 1.4.1 The Compensation for Occupational Injuries and Diseases Act, No. 130 of 1993. The Contractor shall produce proof of his registration and good standing with the Compensation Commissioner in terms of the Act.
 - 1.4.2 The Occupational Health and Safety Act (Act 85 of 1993).
 - 1.4.3 The explosive Act No. 26 of 1956 (as amended). The Contractor shall, when applicable, furnish the Project Manager / Supervisor with copies of the permits authorising him or his employees, to establish an explosives magazine on or near the site and to undertake blasting operations in compliance with the Act.
 - 1.4.4 The Contractor shall comply with the current Transnet Specification E.4E, Safety Arrangements and Procedural Compliance with the Occupational Health and Safety Act, Act 85 of 1993 and Regulations and shall before commencement with the execution of the contract, which shall include site establishment and delivery of plant, equipment or materials, submit to the Project Manager / Supervisor.
 - 1.4.5 The Contractor shall comply with the current Specification for Works On, Over, Under or Adjacent to Railway Lines and near High Voltage Equipment – E7/1, if applicable, and shall take particular care of the safety of his employees on or in close proximity to a railway line during track occupations as well as under normal operational conditions.
- 1.5 The Contractor's Health and Safety Programme shall be subject to agreement by the Project Manager / Supervisor, who may, in consultation with the Contractor, order supplementary and/or additional safety arrangements and/or different safe working methods to ensure full compliance by the Contractor with his obligations as an employer in terms of the Act.
- 1.6 In addition to compliance with clause 1.4 hereof, the Contractor shall report all incidents in writing to the Project Manager / Supervisor. Any incident resulting in the death of or injury to any person on the works shall be reported within 24 hours of its occurrence and any other incident shall be reported within 48 hours of its occurrence.
- 1.7 The Contractor shall make necessary arrangements for sanitation, water and electricity at these relevant sites during the work.
- 1.8 A penalty charge of R1000,00 per day will be levied for late completion.
- 1.9 The Contractor shall supply a **site diary** (with triplicate pages). This book shall be used to record any unusual events during the period of the work. Any delays to the work shall also be recorded such as delays caused by poor weather conditions, delays caused by permits being cancelled etc. The appointed Project Manager or Supervisor must countersign such delays. Other delays such as non-availability of equipment from 3rd party suppliers must be communicated to the Project Manager or Supervisor in writing.



- 1.10 The Contractor shall supply a **site instruction book** (with triplicate pages). This book shall be used to record any instructions to the Contractor regarding problems encountered on site – for example the quality of work or the placement of equipment. This book shall be filled in by the Project Manager or Supervisor and must be countersigned by the Contractor.
- 1.11 Both books mentioned in 1.9 and 1.10 shall be the property of Transnet Freight Rail and shall be handed over to the Project Manager or Supervisor on the day of handing over.
- 1.12 All processes or the manufacture and assembly of the product components must be subjected to a quality assurance system.
- 1.13 The Contractor will assume full responsibility for assuring that the products purchased meet the requirements of Transnet Freight Rail for function, performance, and reliability, including purchased products from 3rd part suppliers/Manufacturers.
- 1.14 The Contractor shall prove to Transnet Freight Rail that his equipment or those supplied from 3rd party suppliers/manufacturers confirms to Transnet freight rail specifications.
- 1.15 The Contractor will remain liable for contractual delivery dates irrespective of deficiencies discovered during site inspections.

“PREVIEW COPY ONLY”



Contract Data

Works Information

1. SCOPE OF WORK

This Maintenance specification covers Transnet Freight Rail's requirements for the maintenance of bonding of OHTE and related equipment between Kroonstad and Wolwehoek.

1.1 The work includes.

- 1.1.1 Maintenance and installing of all Rail Continuity bond (sets), Mast to Rail bonds (section), Mast to Rail bond (switches), Cross bonds, and H-Masts.
- 1.1.2 Removing, sorting, loading, secure handling and handing over of all OHTE material (Cu and Al) of all damaged bonding cable.
- 1.1.3 Daily scheduling of all the equipment and labour to suit the activities.
- 1.1.4 The safeguarding of all materials (scrap) against theft and pilferage.
- 1.1.5 All supervision and labour, tools and equipment unless otherwise specified, required for the execution of the work.
- 1.1.6 The team or individuals within the team will be expected to perform independently (without the assistance of Transnet Freight Rail Infra employees). This effectively means that the contractor will be authorized to work to clearances according to the Electrical Safety Instruction (Cat A Brown)
- 1.1.7 Any work arising out of or incidental to the above or required of the Contractor for the proper execution and completion of the contract in accordance with the true meaning and intent of the contract documents.
- 1.1.8 Work on this area will be executed under total occupation. Occupations will be arranged for 6-8 hours per day.
- 1.2 Specific requirements
 - 1.2.1 The risk associated with normal weather (rain, high or low rail temperature) is with the contractor.
 - 1.2.2 Occupations are not always granted on time as requested and approved. This may result in production time shifting. The waiting time on site before occupations are granted shall not be considered a basis for a claim for Standing Time.

Respondent's Signature

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Date and Company Stamp



2. DEFINITIONS

For the purpose of this contract the definitions shall be amplified as follows: -

- 2.1 **Project Manager:** The person or juristic person appointed by Transnet from time to time as the Project Manager, to administer the contract.
- 2.2 **Technical Officer:** Any person appointed by the Project Manager to deputise for him in supervising and carrying out the contract.
- 2.3 **Normal Working Hours (NWH):** A continuous shift of 8,0 hours out of every 24 hours for 5 consecutive days out of every 7 days or for 10 consecutive days out of every 14 days. The Technical Officer will determine the starting times, which may vary to suit train time tables.
- 2.4 **Maximum Occupation Time (TOM):** Occupation time of 8,0 hours out of every 24 hours for 5 consecutive days out of every 7 days or for 10 consecutive days out of every 14 days.
- 2.5 **Occupation:** The formal closure of the line to normal train traffic for a specified period of time arranged in accordance with Infrastructure Occupation Management System (IOMS) and implemented in accordance with the Protection Manual.
- 2.6 **Machinery:** The machinery provided by the Contractor for executing the Work, complete with all fittings, accessories and ancillary equipment including trailers, caravans and spare parts, as may be required to comply with the Contract specifications.
- 2.7 **Latest edition of specification/standards:** All specifications referred to in the contract documents, but not bound therein, shall be the latest edition or revision, which was published up to 3 months prior to the closing date of tenders. See clause 12.
- 2.8 **Project specification:** The terms "special conditions" and/or "special conditions and specifications" are replaced by "project specification" wherever they appear in the contract documents.

3. PRIORITIES AND ORDER OF WORK

3.1 Commencement and Duration of Contract

3.1.1 Site meeting

A compulsory site meeting will be conducted. The Project Manager for this contract will be Mr Themba Mumba and he may be contacted on Telephone number 083 280 2258. The Technical Officer will be Dineo Lekule on cell phone 083 687 1784.



3.1.2 Starting date

The Contractor shall start work within 7 calendar days after notification of award of the contract **or at a date set by Transnet Freight Rail.**

3.1.3 Duration of contract

The duration of the contract will be **four months** from the starting date.

3.1.4 Schedule and program of work

3.1.5 The Contractor shall commence work according to a work schedule that will be provided after award of the contract. The Contractor must submit a proposed programme based on this.

3.1.6 The Contractor shall programme his work in such a manner that the whole operation, including the loading away of all released material is restricted to allow, at the end of every occupation, for safe passage of trains at 60 km/h over the total length of overhead track already removed but not finally handed over.

4. DESCRIPTION OF WORK

4.1 The order of operations is left to the Contractor on condition that: -

4.1.2 All work shall take place during occupations as defined in clause 11.

4.1.3 Any bonding material left next to the railway line after any shift shall be adequately secured to prevent unauthorised persons tampering with this material. The Contractor at his cost shall replace any material lost whilst on the work site.

4.2 Preparation on site

4.2.1 The Contractor shall provide all material, resources and labour to do all preparations on the equipment on which the work is to be done.

4.3 DRILLING OF 13.5-MM HOLES THROUGH RAIL

4.3.1 Drilling machines used must be self-aligning to drill the hole through the neutral axis of the rail, using a 13.5 mm drill bit.

4.3.2 Drilling machines shall clear the vehicle gauge when set up for drilling, allowing for the safe passage of trains during the drilling process.

4.3.3 When drilling holes that do not allow for the situation mentioned in 4.3.2, drilling shall be done under protection of a track occupation.

No hole may be drilled closer than 310 mm from the end of the rail or from track welds.



- 4.3.4 Holes may not be drilled less than 75 mm centres apart in a rail.
- 4.3.5 The holes shall be drilled with a high-speed steel drill bit.
- 4.3.6 The cutting edges of the drill shall be sharp to ensure minimum friction during drilling, and to avoid reaming of the hole during the drilling process.
- 4.3.7 Cooling lubricant, similar to that used for general machining shall be used to overcome overheating and rust.
- 4.3.8 The hole shall be cleared of all sharp edges and burrs by means of a suitable reamer and counter sink drill. The counter sink shall be 1, 5 mm wide.
- 4.3.9 On completion, a go/no-go gauge shall be used to determine the hole size. The following tolerance shall apply:

<13.5 mm	no-go
13.5 mm – 13.7 mm	go
>13.7 mm	no-go

4.4 EXPANDING COLLAR FASTENING SYSTEM

- 4.4.1 Transnet Freight Rail approved fasteners are collars which apply a radial contact force on the inside of a hole through the rail, thus establishing an electrical contact. This system involves the crimping of lugs onto the ends of the bonding cable and the connection of the lugs to the rail using the expanding collar fastener.
- 4.4.2 This allows for easy removal/re-installation of the bonds during work on the permanent way, and indefinite re-use thereof.
- 4.4.3 Structure-to-rail bonds may be attached on the structure side by means of an M12 stainless steel self-locking nut, bolt and washer, torque to 60 Nm minimum.

4.5 CONNECTION OF BONDING CABLES

- 4.5.1 A lug with bolting hole of 12 mm diameter (nominal) shall be crimped to the end/s of the bond which is/are to be attached to the rail. Only the lugs referred to in drawing no. CEE-TU-120 shall be used, as commonly available lugs would prevent future undoing of the bond connection by means of the special collar provided for this purpose.
- 4.5.2 The size of a hole drilled on the mast shall be 13.5mm, in a position not higher than 300mm from base of the mast pole.
 - 4.5.2.1 Connections to masts shall be either by exothermic welding or M12 stainless steel self locking bolt and nut to bolt a lug onto the mast. For the latter option, the paint must be grinded clean on the mast side, a hole drilled and the lug fastened with a stainless steel bolt, -nut, -washer and -spring washer. The connection must thereafter be sealed with anti-corrosive paste.



- 4.5.3 The bond at the mast shall be installed with a bend so as to prevent water from penetrating the strands at the lug where the PVC insulation terminates.
- 4.5.4 Anti-corrosion paste ("Denso" chrome paste – Stores item no. 54/4093) shall be applied over all exposed surfaces of the fastening system and at the entrance of the bond cable to the lug to prevent corrosion.
- 4.5.5 Back-to-back connections of bonds may be applied using the appropriate bonding system for back-to-back application.

4.6 BONDING CABLE ARRANGEMENTS

- 4.6.1 The works may include the bonding of structures to rails, rails to rails; transmission line make-offs, feeder switches and cross bonds between tracks.
- 4.6.2 The following wire sizes are to be used:

Mast to Rail bond	1 x 96mm ²	PVC sheath stranded flexible galvanized steel wire.
Rail to Rail continuity bonds	1 x 120mm ²	PVC covered Copper-Steel composite conductor (50mm ² Cu equivalent).
Cross bonds	3 x 120 mm ²	PVC covered Copper-Steel composite conductor (50mm ² Cu equivalent).
Diagonal bonds	6 x 120 mm ²	PVC covered Copper-Steel composite conductor. (50mm ² Cu equivalent).

- 4.6.3 Bonds shall be installed at the following locations:
 - 4.6.3.1 Mast-to-rail bonds shall be installed according to drawing No: CEE-TU-0035. Bonds shall be clamped to sleepers using the clip in drawing CEE-TU-50.
 - 4.6.3.2 A double mast-to-rail bond shall be installed at every electrification mast that is not connected to an earth wire.
 - 4.6.3.3 Mast-to-rail bonds shall be provided at intervals not exceeding 355 m or roughly every 5th structure for ACSR earth wires sections, and 210m for steel earth wire sections.
 - 4.6.3.4 On sections between stations, cross-bonds according to drawing No: CEE-TU-0036 shall electrically connect only the return current rails together. Cross bonds shall be provided at intervals not exceeding 355m. Cross-bonds shall be provided at both ends and in the centre of yards or loops.
 - 4.6.3.5 Where the Signalling circuit changes from one rail to the other at insulated block joints, diagonal bonds shall be provided between the rails to ensure return current continuity as per the above table.



- 4.6.3.6 Diagonal bonds shall be clamped to sleepers and rails using appropriated clips and in such a way as to ensure that they will always be intact and free of interference with tampering machine when such a machine is in use.
- 4.6.3.7 Double bonds to rail shall be installed at all steel bridges over electrified tracks, Steel railway line bridges over roads, rivers, etc. shall be double bonded to rail through separate spark gaps on DC electrification, and directly on AC electrification.
- 4.6.3.8 Masts where earth wires terminate shall be bonded to rail.

5. SPECIFICATION AND DRAWINGS

All bonds shall be attached to the rail by means of Transnet Freight Rail-approved expanding collar fasteners. On steel structures an exothermic process may be used, or expanding collar fastener may be installed which involves the drilling of a 13.5 mm hole.

When applying bonding connections on lines in service, traction currents may flow through such circuits. Suitable precautions must be made to ensure the safe installation under such conditions.

The following specifications are referred to in this specification:

BBB 6017	Specification for Rail Bond Fasteners.
BBB 5985	Specification for Supply of tools for attaching expanding collar type fastenings to rails for Electrification bonds.
BBB 1679 version 1	Specification for Portable Earthing Devices for AC and DC Traction, HV Transmission Lines and 3 kV DC Traction Substation and Tie-station Busbars.

The following drawings are referred to in this specification:

CEE-TU-35	Bonding: Mast to Rail (Single Bond)
CEE-TU-36	Cross-bonding: Multiple tracks.
CEE-TU-50	Clip for fastening bond onto sleeper
CEE-TU-120	Connection of Bonds to Web of Rail
CEE-TU-0136_AMD_3	Terminal lug for use with ring grooved rivet
BBC1798	Bond positions at turnouts

The tenderer shall indicate compliance with this specification in a clause-by-clause statement, indicating compliance, or elucidating deviations from the specific clause.



6. Safety

- 6.1 The Contractor shall comply with requirements of safety legislation and regulations in all respects.
- 6.1.2 Security of all of the Contractor's staff, vehicles, machinery, equipment and materials shall remain the responsibility of the Contractor. The Contractor may use Transnet Freight Rail premises from time to time but the responsibility and cost to provide security, which may be required, shall be for the Contractor's account. No separate payment shall be made and the cost thereof shall be deemed to be included in the rates tendered. Transnet Freight Rail shall entertain no claims whatsoever in this regard.
- 6.1.3 The Contractor shall prepare and submit to Transnet Freight Rail at the start of the contract, a comprehensive safety plan which shall also cover the following headings:
- 6.1.4 Transportation of flammable/explosive materials and/or equipment on the same road or rail vehicle as personnel.
- 6.1.5 Storing flammable/explosive materials and/or equipment
- Fire prevention and fire fighting plan
- 6.1.6 Safety procedures for staff when working on double line sections.
- 6.1.7 Safe working procedure for all aspects of the operation, inclusive of all moving of machinery by rail if required by the Contractor
- 6.1.8 The method of work shall be such that at all times it shall comply with Transnet Freight Rail Specification E7/1.
- 6.1.9 Normal protection measures in accordance with the Transnet Freight Rail Protection Manual shall apply.
- 6.1.10 All protection arrangements shall at all times remain under the supervision and responsibility of a Transnet Freight Rail Traction Linesman. No work is permitted if the occupation is not granted.
- 6.1.11 The Contractor shall not allow any persons on the work site to venture within the structure gauge of any adjacent line when this warning procedure is not operating effectively.**
- 6.1.12 An effective safety procedure to be followed by all personnel on any work site in the case of approaching rail traffic shall be compiled by the Contractor and implemented before any work commences. This procedure shall be updated whenever the need



arises and any changes shall be communicated to all employees on a work site before work proceeds.

6.1.13 All reasonable steps to effectively prevent the occurrence of veldt fires shall be required from the Contractor. Such fire fighting equipment and resources deemed necessary to effectively fight any veldt fire, which may occur as a result of the work, shall be required at each relay site and shall form part of this contract. The cost to provide such fire fighting equipment and resources shall be deemed to be included in the rates tendered and no separate payment shall be made for this.

6.1.14 No separate payment shall be made for the safety measures and the costs hereof will be deemed to be included in the rates tendered.

6.2 Training

6.2.1 General

6.2.1.1 The Contractor shall ensure that all staff working on or with the contract is adequately trained, so as to comply with any relevant safety and quality requirements.

6.2.1.2 It is the Contractor's responsibility to ensure that his personnel are trained. At the commencement of the contract, Transnet Freight Rail shall assist the contractor with the initial on-the-job training of the staff as specified below, so as to assist the Contractor to qualify the workers / staff. The Contractor shall ensure that he has a core group of workers with sufficient previous experience to take the lead in undertaking maintenance tasks.

6.2.1.3 Where the Contractor requires training and Transnet Freight Rail is committed to provide this training, the contractor shall quantify in his tender as to what and how many staff, training will be required. After award of the contract, the contractor shall then arrange with the appropriate Transnet Freight Rail Production Manager (OHTE), through the Technical Officer, for this training / testing.

6.2.1.4 The Contractor's Traction Linesman shall take full charge of the Contractor's resources on the work site. An employee / agent appointed by the contractor, will not act as, or be allowed to take on any responsibility as, the person-in-charge-of-the-occupation. The function of person-in-charge-of-the-occupation is restricted to competent Transnet Freight Rail employees only.

6.2.1.5 The person-in-charge-of-the-occupation shall be a competent Transnet Freight Rail employee, reporting to the Transnet Freight Rail Depot Engineer. This person shall be responsible for the following on a work site:

Taking occupations

Declaring the track safe for the passage of trains



Cancelling the occupation
 Communication with Train Traffic Control with regard to occupation matters.

- 6.2.1.6 The Transnet Freight Rail Depot Engineer remains ultimately responsible in terms of the requirements of Act 85 for the safe working environment of his own personnel as well as contractor's personnel within the track maintenance environment on his depot.
- 6.2.1.7 The Depot Engineer is therefore also responsible for ensuring that any changes in the Protection Procedures that may occur over time are effectively communicated his own personnel as well as contractor's personnel within the track maintenance environment on his depot
- 6.2.1.8 Electrical awareness, Educational and competency training
- 6.2.1.9 The following training shall be arranged for the following Contractors staff:
- 6.2.1.10 The electrical awareness training must be arranged for beforehand on-the-job.
- 6.2.1.11 The electrical educational and competency training may be arranged for at either a depot's lecture room (Transnet Freight Rail property), or at a venue of the Contractors choice (Contractors cost).
- 6.2.1.12 Transnet Freight Rail will provide the Accredited Electrical Trainer from Transnet Freight Rail, at Transnet Freight Rail's cost, provided that an arrangement for the training session required is done beforehand and will fit in with the Trainers training program for the year.

Course	Objective	Duration & trainer	Grade to attend
A) Awareness (Electrical)	To inform all contractors staff working near a machine and on the line on electrified sections of the dangerous situations of high voltage OHTE	Two-hour on-the-job lecture and training. Accredited Electrical Trainer / Depot's Electrical technical officer.	All workers and staff working on the contract
B) PWC Educational (Electrical)	For the safe working on and with On-track machinery in the vicinity or near exposed High voltage OHTE.	Lecture room training = 1,25 d On-the-job training = 0,25 d Criterion test = 0,5 d Total = 2 days Accredited Electrical trainer	Workers working on a machine (High risk area's) Operators Machine fitters Area supervisors Contract supervisors



C)COM Competency (Electrical) (To follow A) (PWC)	Work permits safe working procedures under the direct supervision of a responsible representative.	Lecture room training = 0,25 d On-the-job training = 0,25 d Criterion test = 0,5 days Total = 1 day Accredited Electrical trainer	Supervisor (Responsible person in charge at machine working)
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7. STANDARD SPECIFICATIONS

The conditions contained in the following documents shall also apply:

- ~~7.1 Inter Divisional Agreement and general conditions.~~
- 7.2 E4B (Nov 1996) Minimum Communal Health Requirements in areas outside the jurisdiction of a local Authority.
- 7.3 E4E Transnet (Jan 2004) Safety Arrangements and Procedural Compliance with the Occupational Health and Safety Act.
- 7.4 Specification E7/1 (July 1998) Specification for works on, over, under, or adjacent to railway lines and near high voltage equipment.

8. FINANCIAL

8.1 Penalty for late completion:

If the Contractor does not meet the stipulated completion time a penalty of R1000 per day shall be imposed for every day or part thereof for late completion.

8.2 Value Added Tax:

The tendered rates in the schedule of quantities and prices must exclude VAT. VAT will be calculated and added to the total at the bottom of the schedule of Quantities and Prices.

8.3 Site Establishment:

No separate payment shall be made for site establishment re-establishment and the removal of it. The cost for this shall be deemed to be included in the rates tendered.

9. Schedule of Quantities and Prices:

The quantities in the Schedule of Quantities and Prices are estimated and may be more or less than stated.



10. CAMP AND OFFICE, SITE CONDITIONS AND REQUIREMENTS

10.1 Offices, Workshops and Campsites

The Contractor shall allow for making his own arrangements for housing, security, water, communications, electricity, sanitary, refuse removal and all other services to these sites. On vacating these sites the Contractor shall clean the sites from all rubbish and reinstate the sites to the satisfaction of the Technical Officer.

10.2 Access to Work Site, Office, Workshops and Camps

10.2.1 The Contractor may make use of existing roads to gain access to site.

10.2.2 Transnet Freight Rail will however not be responsible for ensuring all weather passage to the Contractor.

10.2.3 Transnet Freight Rail will entertain no claims from the Contractor for production delays, work done or expenditure incurred in gaining access to the work sites, offices, workshops or campsites.

10.3 Site Books

The Contractor shall record in the site diary:

10.3.1 Planned Occupation times and Actual Working times.

10.3.2 An accurate record of all Non-Ferrous Metals removed and returned to Transnet Freight Rail shall be kept. These records shall be kept in such a way that a clear audit trail is created of all material movements' removal from site.

10.4 Site Meetings

The Contractor shall attend meetings at dates and times convened by the Technical Officer (normally once a week). Such meetings shall be for the purpose of discussing actual progress versus construction programme, delays, conditions and specifications, occupations, material truck requirements etc. The meeting will be held under the chairmanship of the Technical Officer and the proceedings will be minuted.

10.5 Danger of Contact with Electrical Conductors

10.5.1 The majority of the work will take place under or adjacent to electrified lines. Campsites, offices, workshops and staging facilities within the railway reserve will generally be in close proximity of live electrical equipment.



10.5.2 The Contractor's attention is therefore drawn to the instructions laid down in the specification for Works on, over, under or adjacent to Railway lines and near high voltage equipment - E7/1 (July 1998), and the addendums to clauses 1 and 3.

10.5.3 The Contractor shall, before commencing with any work, ascertain from the appointed Electrical Officer (Contracts) for the particular work area whether overhead or other electrical equipment is affected by the works and he shall ensure that all precautionary measures laid down in the E7/1 (July 1998), and the addendums to clauses 1 and 3 as well as by the Electrical Officer (Contracts) are strictly observed.

10.6 Services

The Contractor shall inspect each worksite in advance of the day of the occupation for the presence of services that might interfere with the operation. In the event of the Contractor encountering any services that could affect the works, he shall notify the Technical Officer immediately and arrange for the removal thereof.

11. OCCUPATIONS

11.1 Although not guaranteed, the Technical Officer will realistically arrange occupations according to the approved programme of approximately 6-8 hours for any one occupation up to a cumulative total of approximately 30 hours per 7-day period.

11.2 During the occupation the line will be open to normal rail traffic over the section on which the Contractor is working. Protection of the site shall be as per the Protection Manual.

11.3 The Contractor shall control and be responsible for the movements of all his plant and personnel, within the confines of the area of the occupation and for its duration.

11.4 The Contractor shall however allow that: -

11.4.1 Before the end of any shift the commencement time (\pm 1 hour) and duration of the following occupation will be advised in writing.

11.4.2 Occupations may commence at any hour of the day, but will normally be during normal working hours.



12. TO BE SUPPLIED BY THE CONTRACTOR

12.1 The Contractor shall supply his/her own labour.

12.2 Except where otherwise specified, the Contractor shall at his own cost provide all labour, transport, consumables (including fuel), plant, tools, drills, equipment, services and ingredients of every description required for the carrying out and completion of his contractual obligations and to the satisfaction of the Technical Officer.

13. TO BE SUPPLIED BY TRANSNET FREIGHT RAIL

13.1 Work permits for the safe working between trains will be arranged by Transnet Freight Rail.

13.2 TFR will provide all the material needed including bonding cable, bolts, jumper cables and lugs.

14. RAIN AND ADVERSE WEATHER CONDITIONS

14.1 The Contractor shall allow that weather conditions may adversely affect his rate of progress and plan his progress as well as labour capacity accordingly.

14.2 The risk for loss in production due to normal weather prevailing for the area shall be on the Contractor. In the event of abnormal weather conditions prevailing, the onus for proof shall be on the Contractor and Transnet Freight Rail shall consider a claim upon written proof submitted by the Contractor.

15. MEASUREMENT AND PAYMENT

15.1 The Schedule of Quantities reflects quantities and provides for separate unit rates for various types of bonds and the contractor will be paid accordingly.

15.2 All claims will only be accepted, if all documentation proving the performance has been thoroughly completed, signed of by Assistant foreman and received in time, before each month's financial closing date. Only five payments (one for each month) will be made during the duration of the contract.

NOTE: PAYMENT SHALL BE ON THE BASIS OF THE TOTAL NUMBER OF BONDS COMPLETED. THIS WILL BE INSPECTED AND CONFIRMED BY A TRANSNET FREIGHT RAIL REPRESENTATIVE.

16. INSURANCE OF WORKS

16.1 Transnet Freight Rail shall arrange insurance for Public Liability.

Respondent's Signature

Date and Company Stamp



- 16.2 Transnet Freight Rail accepts no responsibility for any veldt fires during the execution of the work as stated in the contract.
- 16.3 The contractor shall in his own interest, obtain insurance for his own site establishment, materials, equipment and tools as well as insurance for his motor vehicles and the common law liabilities of the Contractor as an employer, for the duration of the contract.

“PREVIEW COPY ONLY”



SECTION 3

RFQ NUMBER BFX/51933

PROVISION OF MAINTENANCE OF BONDING BETWEEN KROONSTAD AND WOLWEHOEK

QUOTATION FORM

I/We _____

(name of 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 Services at the prices quoted in the schedule of Service Fees 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 RFQ documents.

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

- (i) Standard Terms and Conditions of Contract, Form No. US7 - Services;
- (ii) General Tender Conditions, Form CSS5 – Services; and
- (iii) any other standard or special conditions mentioned and/or embodied in the Request for Quotation form; and;-

I/We accept that unless Transnet should otherwise decide and so inform me/us in the facsimile or letter of acceptance, this Quotation (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 the facsimile or letter of acceptance, this Quotation (and, if any, its covering letter and any subsequent exchange of correspondence) together with Transnet's letter of acceptance/intent, shall constitute a binding contract between Transnet and me/us until the formal contract is signed.

Respondent's Signature

Date and Company Stamp



I/We further agree that if, after I/we have been notified of the acceptance of my/our Quotation, I/we fail to enter into a formal contract if called upon to do so, or fail to commence the provision of the Services within 4 (four) weeks, 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 Quotations afresh and/or having to accept any less favourable Quotation.

I/We accept that any contract resulting from this offer will be for a period ofonly; 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 Services be delayed due to non-performance by us.

The law of the Republic of South Africa shall govern the contract created by the acceptance of this RFQ. The *domicillium 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 accredited agent in the Republic of South Africa who is empowered to sign any contract which may have to be entered into in the event of their Quotation being accepted and to act on their behalf in all matters relating to the contract.

Respondent to indicate *domicillium citandi et executandi* hereunder:

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

NOTIFICATION OF AWARD OF RFQ

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

VALIDITY PERIOD

Transnet desires a validity period of 3 (three) months (from closing date) against this RFQ. It should be noted that Respondents may offer an earlier validity period, but that their Quotations may be disregarded for that reason. Should Respondents be unable to comply with this validity period, an alternative validity period must be stated hereunder:

This RFQ is valid until (State alternative validity period/date).

TAX (VAT) REGISTRATION NUMBER

The Respondent must state hereunder the tax registration number which is applicable to Value-Added Tax:

.....

TAX CLEARANCE CERTIFICATE

Respondents are required to forward a valid copy of their company's Tax Clearance Certificate with their Quotation.

Indicate tax clearance certificate expiry date:



BANKING DETAILS

BANK: _____

BRANCH NAME / CODE: _____

ACCOUNT HOLDER: _____

ACCOUNT NUMBER: _____

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 RFQ 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

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

REGISTRATION CERTIFICATE

Respondents must submit a certified copy of their company's Registration Certificate with their Quotation.

NAME AND ADDRESS OF ACCREDITED AGENT

Provide hereunder, if applicable, details of the accredited agent in the Republic of South Africa appointed as local representative by foreign Respondents and whose address shall be regarded as the Respondent's domicilium citandi et executandi in terms of the Standard Terms and Conditions of Contract, US7 – Services.

Name
Address



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 Services, which is either directly or indirectly related to Transnet's business, written approval to divulge such information will have to be obtained from Transnet.

DISCLOSURE OF PRICES TENDERED

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

YES		NO	
-----	--	----	--

DECLARATION

Respondents to declare hereunder whether any family and/or direct relationship exists between any of the owners / members / directors / partners / shareholders (unlisted companies) of the responding company and any employee or board member of the Transnet Group:

YES		NO	
-----	--	----	--

If YES, please indicate below:

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

ADDRESS

Indicate nature of relationship (if any):

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

PRICE REVIEW

Transnet will be benchmarking this price offering(s) against the lowest price received as per the 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 days - failing which the Contract may be terminated at Transnet's discretion or the particular item(s) or service(s) purchased outside the contract.

Respondent's Signature

Date and Company Stamp



RETURNABLE DOCUMENTS

Respondents are required to submit the following returnable documents with their responses (see tick):

Notice to Bidders – Section 1	√
Background overview – Section 2	√
Quotation Form – Section 3	√
Resolution of Board of Directors (Respondent's Representative) - Section 4	√
Certificate of Acquaintance with RFQ Documents – Section 5	√
Service Fees and Costs - Section 6	√
General Tender Conditions - Form CSS5 – Section 7	√
Conditions of Contract - Form US7 – Section 8	√
Certificate of attendance of RFQ Briefing – Section 9	√
Audited Financials for previous year	√
Valid Tax Clearance Certificate	√
VAT Registration Certificate	√
BBBEE Accreditation Certificate	√
Letter of Good Standing	√
E.4E Transnet (Jan 2004) - Safety arrangements and procedural compliance with the Occupational Health and Safety Act (Act 85 of 1993) and applicable regulations- Section 10	√
Specification for work on, over, under or adjacent to Railway lines and near high Voltage equipment – form E7/1 (July 1998) –Section 11	√

NOTE: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11 as indicated in the footer of each page, must be signed and dated by the Respondent.

“PREVIEW COPY ONLY”

 Respondent's Signature

 Date and Company Stamp



By signing the RFQ documents, the Respondent is deemed to acknowledge that he / she has made himself / herself thoroughly familiar with all the conditions governing this RFQ, including those contained in any printed form stated to form part hereof and Transnet Limited 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 _____

1 _____

2 _____

2 _____

SIGNATURE OF RESPONDENT'S AUTHORISED REPRESENTATIVE:

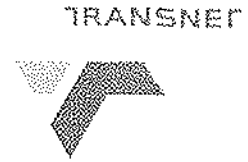
NAME

DESIGNATION

“PREVIEW COPY ONLY”

Respondent's Signature

Date and Company Stamp



SECTION 4

RFQ NUMBER BFX/51933

PROVISION OF MAINTENANCE OF BONDING BETWEEN KROONSTAD AND WOLWEHOEK

SIGNING POWER : RESOLUTION OF BOARD OF DIRECTORS

NAME OF COMPANY: _____

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 Tenders, Quotations and/or Contracts for the supply of Goods.

FULL NAME _____

SIGNATURE CHAIRMAN

FULL NAME _____

SIGNATURE SECRETARY

Respondent's Signature

Date and Company Stamp



SECTION 5

RFQ NUMBER BFX/51933

PROVISION OF MAINTENANCE OF BONDING BETWEEN KROONSTAD AND WOLWEHOEK

CERTIFICATE OF ACQUAINTANCE WITH RFQ DOCUMENTS

NAME OF COMPANY: _____

I/We _____ do

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

I/We furthermore agree that Transnet Limited shall recognise no claim from me/us for relief based on an allegation that I/we overlooked any RFQ/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

WITNESS : _____

SIGNATURE OF RESPONDENT



SECTION 6

RFQ NUMBER BFX/51933

PROVISION OF MAINTENANCE OF BONDING BETWEEN KROONSTAD AND WOLWEHOEK

SERVICE FEES AND COSTS

“PREVIEW COPY ONLY”

Respondent's Signature

40

Date and Company Stamp



Contract Data
Price List

Item	Description	Unit	Qty	Rate	Price
A	Maintenance of bonding between Kroonstad and Wolwehoek				
1	Mast to Rail bond (section), complete	EA	1437		
2	Cross bonds	EA	800		
3	Rail to Rail Continuity bond	EA	700		
Total Price (Excl. VAT)			R		

Amount in words:.....
(Excl. VAT)

 Respondent's Signature

 Date and Company Stamp



SECTION 7

RFQ NUMBER BFX/51933

PROVISION OF MAINTENANCE OF BONDING BETWEEN KROONSTAD AND WOLWEHOEK

GENERAL TENDER CONDITIONS - SERVICES

Refer Form CSS5

NOTE: Bidders must familiarise themselves with the contents of GENERAL TENDER CONDITIONS – SERVICES Form CSS5 which is available on request

Respondent's Signature

42

Date and Company Stamp



SECTION 8

RFQ NUMBER BFX/51933

PROVISION OF MAINTENANCE OF BONDING BETWEEN KROONSTAD AND WOLWEHOEK

STANDARD TERMS AND CONDITIONS OF CONTRACT FOR THE PROVISION OF SERVICES TO TRANSNET

Refer Form US7 .

Respondents should note the obligations as set out in Clause 19 of the General Tender Conditions (Section 7) which reads as follows:

"The Supplier shall adhere to the Standard Terms and Conditions of Contract as set out in Form US7 - Services), a copy of which is attached hereto. Should the Respondent find any conditions unacceptable, it should indicate which conditions are unacceptable and offer an alternative. Please note that any alternative offered shall be compared with acceptance of the Form US7 conditions or alternatives offered by other Respondents."

NOTE: Bidders must familiarise themselves with the contents of GENERAL TENDER CONDITIONS – Form US7 which is available on request

Respondent's Signature

43

Date and Company Stamp



SECTION 9

RFQ NUMBER BFX/51933

PROVISION OF MAINTENANCE OF BONDING BETWEEN KROONSTAD AND WOLWEHOEK

CERTIFICATE OF ATTENDANCE OF SITE MEETING / BRIEFING SESSION

It is hereby certified that -

- 1.
- 2.

Representative(s) of
(name of company)

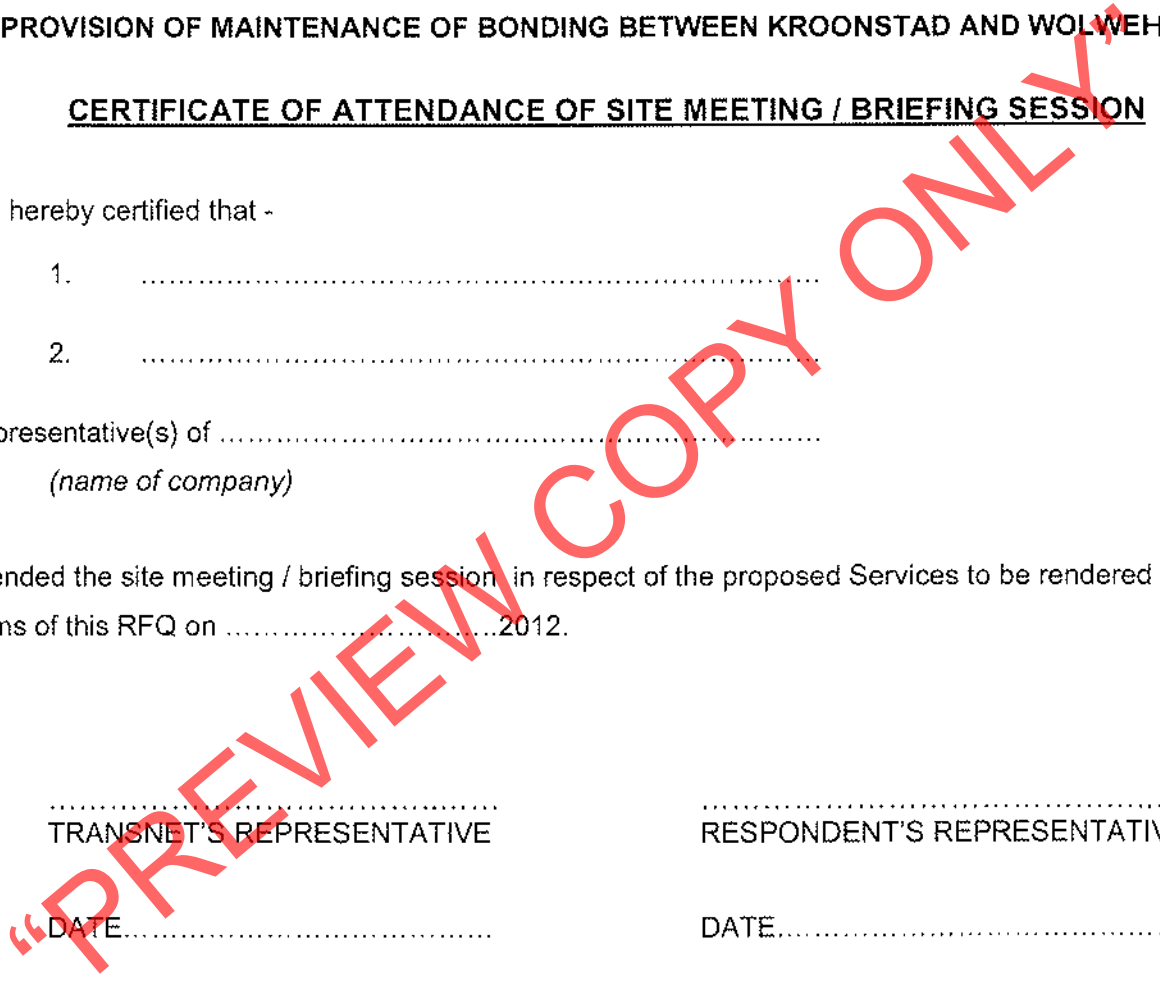
attended the site meeting / briefing session in respect of the proposed Services to be rendered in terms of this RFQ on2012.

.....
TRANSNET'S REPRESENTATIVE

.....
RESPONDENT'S REPRESENTATIVE

DATE.....

DATE.....





SECTION 10

RFQ NUMBER BFX/51933

PROVISION OF MAINTENANCE OF BONDING BETWEEN KROONSTAD AND WOLWEHOEK

Refer to form E.4E Transnet (Jan 2004) attached hereto

Safety arrangements and procedural compliance with the Occupational Health and Safety Act (Act 85 of 1993) and applicable regulations

“PREVIEW COPY ONLY”

Respondent's Signature

Date and Company Stamp



TRANSNET SOC LIMITED
(REGISTRATION NO. 1990/000900/30)

SAFETY ARRANGEMENTS AND PROCEDURAL COMPLIANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT (ACT 85 OF 1993) AND APPLICABLE REGULATIONS

1. General

- 1.1 The Contractor and Transnet Limited (hereinafter referred to as "Transnet") are individual employers, each in its own right, with their respective duties and obligations set out in the Occupational Health and Safety Act, Act 85 of 1993 (the Act) and applicable Regulations.
- 1.2 The Contractor accepts, in terms of the General Conditions of Contract and in terms of the Act, his obligations as an employer in respect of all persons in his employ, other persons on the premises or the Site or place of work or on the work to be executed by him, and under his control. He shall, before commencement with the execution of the contract work, comply with the provisions set out in the Act, and shall implement and maintain a Health and Safety Plan as described in the Construction Regulations, 2003 and as approved by Transnet, on the Site and place of work for the duration of the Contract.
- 1.3 The Contractor accepts his obligation to complying fully with the Act and applicable Regulations notwithstanding the omission of some of the provisions of the Act and the Regulations from this document.
- 1.4 Transnet accepts, in terms of the Act, its obligations as an employer of its own employees working on or associated with the site or place of work, and the Contractor and Technical Officer or his deputy shall at all times, co-operate in respect of the health and safety management of the site, and shall agree on the practical arrangements and procedures to be implemented and maintained during execution of the Works.
- 1.5 In the event of any discrepancies between any legislation and this specification, the applicable legislation will take precedence.

2. Definitions

- 2.1 In this Specification any word or expression to which a meaning has been assigned in the Construction Regulations, shall have the meaning so assigned to it, unless the context otherwise indicates: -
- 2.2 The work included in this Contract shall for the purposes of compliance with the Act be deemed to be "**Construction Work**", which, in terms of the Construction Regulations, 2003 means any work in connection with: -
 - (a) the erection, maintenance, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure;

- (b) the installation, erection, dismantling or maintenance of fixed plant where such work includes the risk of a person falling;
 - (c) the construction, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system or any similar civil engineering structure; or
 - (d) the moving of earth, clearing of land, the making of an excavation, piling, or any similar type of work;
- 2.3 “**competent person**” in relation to construction work, means any person having the knowledge, training and experience specific to the work or task being performed: Provided that where appropriate qualifications and training are registered as per the South African Qualifications Authority Act, 1995 these qualifications and training shall be deemed to be the required qualifications and training;
- 2.4 “**contractor**” means principal contractor and “**subcontractor**” means contractor as defined by the Construction Regulations, 2003.
- 2.5 “**fall protection plan**” means a documented plan, of all risks relating to working from an elevated position, considering the nature of work undertaken, and setting out the procedures and methods applied to eliminate the risk;
- 2.6 “**health and safety file**” means a file, or other record in permanent form, containing the information required to be kept on site in accordance with the Act and applicable Regulations;
- 2.7 “**Health and Safety Plan**” means a documented plan which addresses the hazards identified and include safe work procedures to mitigate, reduce or control the hazards identified;
- 2.8 “**Risk Assessment**” means a programme to determine any risk associated with any hazard at a construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard;
- 2.9 “**the Act**” means the Occupational Health and Safety Act No. 85 of 1993.

3. Procedural Compliance

- 3.1 The Contractor who intends to carry out any construction work shall, before carrying out such work, notify the Provincial Director in writing if the construction work:-
- (a) includes the demolition of a structure exceeding a height of 3 metres; or
 - (b) includes the use of explosives to perform construction work; or
 - (c) includes the dismantling of fixed plant at a height greater than 3m,
- and shall also notify the Provincial Director in writing when the construction work exceeds 30 days or will involve more than 300 person days of construction work and if the construction work:-
- (a) includes excavation work deeper than 1m; or

- (b) includes working at a height greater than 3 metres above ground or a landing.
- 3.2 The notification to the Provincial Director shall be on a form similar to Annexure A of the Construction Regulations, 2003, also shown in Annexure 1 of this Specification. The Contractor shall ensure that a copy of the completed notification form is kept on site for inspection by an inspector, Technical Officer or employee.
- 3.3 The Contractor shall, in accordance with the Act and applicable Regulations, make all the necessary appointments of competent persons in writing on a form similar to Annexure 2 of this Specification and deliver copies thereof to the Technical Officer. Copies should also be retained on the health and safety file.
- 3.4 Subcontractors shall also make the above written appointments and the Contractor shall deliver copies thereof to the Technical Officer.
- 3.5 In the case of a self-employed Contractor or any subcontractor who has the appropriate competencies and supervises the work himself, the appointment of a construction supervisor in terms of regulation 6.1 of the Construction Regulations, 2003 will not be necessary. The Contractor shall in such a case execute and sign a declaration, as in Annexure 3, by which he personally undertakes the duties and obligations of the "Chief Executive Officer" in terms of section 16(1) of the Act.
- 3.6 The Contractor shall, before commencing any work, obtain from the Technical Officer an access certificate as in Annexure 4 executed and signed by him, permitting and limiting access to the designated site or place of work by the Contractor and any subcontractors under his control.
- 3.7 Procedural compliance with Act and Regulations, as above, shall also apply to any subcontractors as employers in their own right. The Contractor shall furnish the Technical Officer with full particulars of such subcontractors and shall ensure that they comply with the Act and Regulations and Transnet's safety requirements and procedures.

4. Special Permits

Where special permits are required before work may be carried out such as for hotwork, isolation permits, work permits and occupations, the Contractor shall apply to the Technical Officer or the relevant authority for such permits to be issued. The Contractor shall strictly comply with the conditions and requirements pertaining to the issue of such permits.

5. Health and Safety Programme

- 5.1 The Tenderer shall, with his tender, submit a Health and Safety Programme setting out the practical arrangements and procedures to be implemented by him to ensure compliance by him with the Act and Regulations and particularly in respect of: -
- (i) The provision, as far as is reasonably practical, of a working environment that is safe and without risk to the health of his employees and subcontractors in terms of section 8 of the Act;

- (ii) the execution of the contract work in such a manner as to ensure in terms of section 9 of the Act that persons other than those in the Contractor's employment, who may be directly affected by the contract work are not thereby exposed to hazards to their health and safety;
 - (iii) ensuring, as far as is reasonably practical, in terms of section 37 of the Act that no employee or subcontractor of the Contractor does or omits to do any act which would be an offence for the Contractor to do or omit to do.
- 5.2 The Contractor's Health and Safety Programme shall be based on a risk assessment in respect of the hazards to health and safety of his employees and other persons under his control that are associated with or directly affected by the Contractor's activities in performing the contract work and shall establish precautionary measures as are reasonable and practical in protecting the safety and health of such employees and persons.
- 5.3 The Contractor shall cause a risk assessment contemplated in clause 5.2 above to be performed by a competent person, appointed in writing, before commencement of any Construction Work and reviewed during construction. The Risk Assessments shall form part of the Health and Safety programme to be applied on the site and shall include at least the following:
- (a) The identification of the risks and hazards that persons may be exposed to;
 - (b) the analysis and evaluation of the hazards identified;
 - (c) a documented Health and Safety Plan, including safe work procedures to mitigate, reduce or control the risks identified;
 - (d) a monitoring and review plan.
- 5.4 The Health and Safety Plan shall include full particulars in respect of: -
- (a) The safety management structure to be instituted on site or place of work and the names of the Contractor's health and safety representatives and members of safety committees where applicable;
 - (b) the safe working methods and procedures to be implemented to ensure the work is performed in compliance with the Act and Regulations;
 - (c) the safety equipment, devices and clothing to be made available by the Contractor to his employees;
 - (d) the site access control measures pertaining to health and safety to be implemented;
 - (e) the arrangements in respect of communication of health and safety related matters and incidents between the Contractor, his employees, subcontractors and the Technical Officer with particular reference to the reporting of incidents in compliance with Section 24 and General Administrative Regulation 8 of the Act and with the pertinent clause of the General Conditions of Contract forming part of the Contract and

- (f) the introduction of control measures for ensuring that the Safety Plan is maintained and monitored for the duration of the Contract.
- 5.4 The Health and Safety programme shall be subject to the Technical Officer's approval and he may, in consultation with the Contractor, order that additional and/or supplementary practical arrangements and procedures be implemented and maintained by the Contractor or that different working methods or safety equipment be used or safety clothes be issued which, in the Technical Officer's opinion, are necessary to ensure full compliance by the Contractor with his obligations as an employer in terms of the Act and Regulations. The Technical Officer or his deputy shall be allowed to attend meetings of the Contractor's safety committee as an observer.
- 5.5 The Contractor shall take reasonable steps to ensure that each subcontractor's Health and Safety Plan is implemented and maintained on the construction site: Provided that the steps taken, shall include periodic audits at intervals mutually agreed to between them, but at least once every month.
- 5.6 The Contractor shall stop any subcontractor from executing any construction work, which is not in accordance with the Contractor's, and/or subcontractor's Health and Safety Plan for the site or which poses a threat to the health and safety of persons.
- 5.7 The Contractor shall ensure that a copy of the Health and Safety Plan is available on site for inspection by an inspector, Technical Officer, agent, subcontractor, employee, registered employee organisation, health and safety representative or any member of the health and safety committee.
- 5.8 The Contractor shall consult with the health and safety committee or, if no health and safety committee exists, with a representative group of employees, on the development, monitoring and review of the Risk Assessment.
- 5.9 The Contractor shall ensure that all employees under his control are informed, instructed and trained by a competent person regarding any hazard and the related work procedures before any work commences, and thereafter at such times as may be determined in the Risk Assessment.
- 5.10 The Contractor shall ensure that all subcontractors are informed regarding any hazard as stipulated in the Risk Assessment before any work commences, and thereafter at such times as may be determined in the Risk Assessment.
- 5.11 The Contractor shall ensure that all visitors to a construction site undergoes health and safety induction pertaining to the hazards prevalent on the site and shall be provided with the necessary personal protective equipment.

6. Fall Protection Plan

- 6.1 In the event of the risk and hazard identification, as required in terms of clause 5.3 of this Specification, revealing risks relating to working from an elevated position the contractor shall cause the designation of a competent person, responsible for the preparation of a fall protection plan;

- 6.2 The Contractor shall implement, maintain and monitor the fall protection plan for the duration of Contract. The Contractor shall also take such steps to ensure the continued adherence to the fall protection plan.
- 6.3 The fall protection plan shall include:-
- (a) A Risk Assessment of all work carried out from an elevated position;
 - (b) the procedures and methods to address all the identified risks per location;
 - (c) the evaluation of the employees physical and psychological fitness necessary to work at elevated positions;
 - (d) the training of employees working from elevated positions; and
 - (e) the procedure addressing the inspection, testing and maintenance of all fall protection equipment.

7. Hazards and Potential Hazardous Situations

The Contractor and the Technical Officer shall immediately notify one another of any hazardous or potentially hazardous situations which may arise during performance of the Contract by the Contractor or any subcontractor and, in particular, of such hazards as may be caused by the design, execution and/or location and any other aspect pertaining to the contract work.

8. Health and Safety File

- 8.1 The Contractor shall ensure that a health and safety file is opened and kept on site and shall include all documentation required as per the Act and applicable regulations, and made available to an inspector, the Technical Officer, or subcontractor upon request.
- 8.2 The Contractor shall ensure that a copy of the both his Health and Safety Plan as well as any subcontractor's Health and Safety Plan is available on request to an employee, inspector, contractor or the Technical Officer.
- 8.3 The Contractor shall hand over a consolidated health and safety file to the Technical Officer upon completion of the Construction Work and shall in addition to documentation mentioned in the Act and applicable Regulations include a record of all drawings, designs, materials used and other similar information concerning the completed structure.

ANNEXURE 1

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993

Regulation 3(1) of the Construction Regulations

NOTIFICATION OF CONSTRUCTION WORK

1(a) Name and postal address of principal contractor:

(b) Name and tel. no of principal contractor's contact person:

2. Principal contractor's compensation registration number: _____

3.(a) Name and postal address of client:

(b) Name and tel no of client's contact person or agent:

4.(a) Name and postal address of designer(s) for the project:

(b) Name and tel. no of designer(s) contact person:

5. Name and telephone number of principal contractor's construction supervisor on site appointed in terms of regulation 6(1).

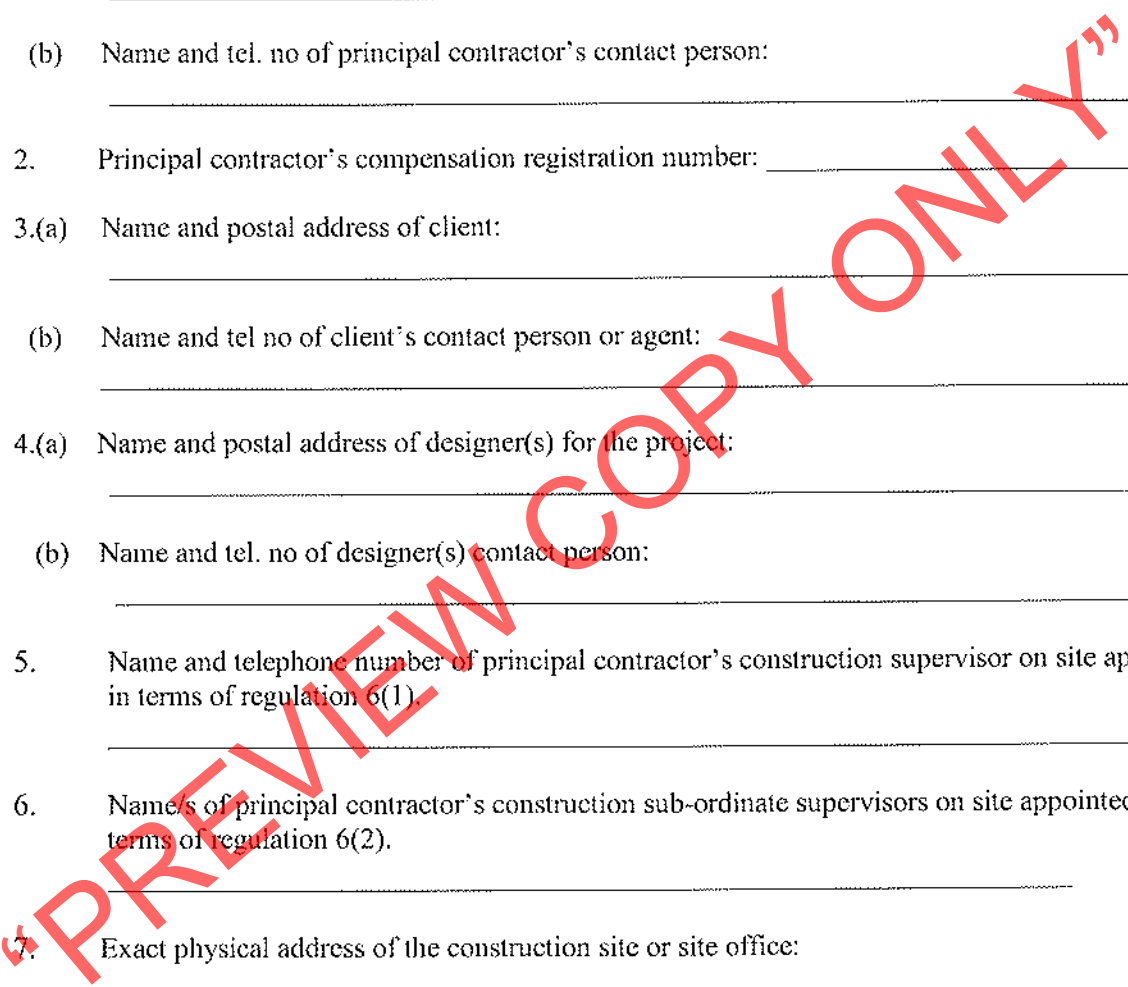
6. Name/s of principal contractor's construction sub-ordinate supervisors on site appointed in terms of regulation 6(2).

7. Exact physical address of the construction site or site office:

8. Nature of the construction work:

9. Expected commencement date: _____

10. Expected completion date: _____



11. Estimated maximum number of persons on the construction site: _____

12. Planned number of contractors on the construction site accountable to the principle contractor:

13. Name(s) of contractors already chosen.

Principal Contractor

Date

Client

Date

* THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR **PRIOR TO COMMENCEMENT** OF WORK ON SITE.

* **ALL PRINCIPAL CONTRACTORS** THAT QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER PRINCIPAL CONTRACTOR ON THE SAME SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF WORK.

“PREVIEW COPY ONLY”

ANNEXURE 2

(COMPANY LETTER HEAD)

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 OF 1993) :

SECTION/REGULATION: _____

REQUIRED COMPETENCY: _____

In terms of _____ I, _____

representing the Employer) do hereby appoint _____

As the Competent Person on the premises at _____

(physical address) to assist in compliance with the Act and the applicable Regulations.

Your designated area/s is/are as follows :-

Date : _____

Signature :- _____

Designation :- _____

ACCEPTANCE OF DESIGNATION

I, _____ do hereby accept this Designation and acknowledge that I understand the requirements of this appointment.

Date : _____

Signature :- _____

Designation :- _____

ANNEXURE 3

(COMPANY LETTER HEAD)

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 OF 1993) :

DECLARATION

In terms of the above Act I, _____ am personally assuming the duties and obligations as Chief Executive Officer, defined in Section 1 of the Act and in terms of Section 46(1), I will, as far as is reasonably practicable, ensure that the duties and obligations of the Employer as contemplated in the above Act are properly discharged.

Signature :- _____

Date : _____

“PREVIEW COPY ONLY”

ANNEXURE 4

(LETTER HEAD OF BUSINESS DIVISION OR UNIT OF TRANSNET LIMITED)

SITE ACCESS CERTIFICATE

Access to : _____ (Area)
Name of Contractor/Builder :- _____
Contract/Order No.: _____

The contract works site/area described above are made available to you for the carrying out of associated works

In terms of your contract/order with
(company) _____

Kindly note that you are at all times responsible for the control and safety of the Works Site, and for persons under your control having access to the site.

As from the date hereof you will be responsible for compliance with the requirements of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended, and all conditions of the Contract pertaining to the site of the works as defined and demarcated in the contract documents including the plans of the site or work areas forming part thereof.

Signed : _____ Date : _____
TECHNICAL OFFICER

ACKNOWLEDGEMENT OF RECEIPT

Name of Contractor/Builder :- _____ I,
_____ do hereby acknowledge and accept the duties
and obligations in respect of the Safety of the site/area of Work in terms of the Occupational Health and
Safety Act; Act 85 of 1993.

Name : _____ Designation : _____

Signature : _____ Date : _____



SECTION 11

RFQ NUMBER BFX/51933

PROVISION OF MAINTENANCE OF BONDING BETWEEN KROONSTAD AND WOLWEHOEK

Refer to form E7/1 (July 1998) attached hereto

Specification for work on, over, under or adjacent to Railway lines and near high
Voltage equipment

“PREVIEW COPY ONLY”

Respondent's Signature

46

Date and Company Stamp

E7/1 (July 1998)

SPECIFICATION FOR WORKS ON, OVER, UNDER OR ADJACENT TO RAILWAY LINES AND
NEAR HIGH VOLTAGE EQUIPMENT

(This Specification shall be used in Transnet Contracts)

“PREVIEW COPY ONLY”

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ANNEXES

1. Horizontal clearances 1 065 mm gauge

2. Vertical clearances 1 065 mm gauge
3. Clearances 610 mm gauge
4. Platform clearances

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1 DEFINITIONS

The following definitions shall apply :

Authorised Person. A person whether an employee of Transnet or not, who has been specially authorised to undertake specific duties in terms of Transnet's publication SAFETY INSTRUCTIONS: HIGH-VOLTAGE ELECTRICAL EQUIPMENT, and who holds a certificate or letter of authority to that effect.

Barrier. Any device designed to restrict access to "live" high-voltage electrical equipment.

Bond. A short conductor installed to provide electrical continuity.

Contractor. Any person or organisation appointed by Transnet to carry out work on its behalf.

Dead. Isolated and earthed.

Electrical Officer (Contracts). The person appointed in writing by the responsible Electrical Engineer in Transnet as the person who shall be consulted by the Contractor in all electrical matters to ensure that adequate safety precautions are taken by the Contractor.

Executive Officer. The person appointed by Transnet from time to time as the Executive Officer to act according to the rights and powers held by and obligations placed upon him in terms of the Contract.

High-Voltage. A voltage normally exceeding 1 000 volts.

Live. A conductor is said to be "live" when it is at a potential different from that of the earth or any other conductor of the system of which it forms a part.

Near. To be in such a position that a person's body or the tools he is using or any equipment he is handling may come within 3 metres of live exposed high-voltage electrical equipment.

Occupation. An authorisation granted by Transnet for work to be carried out under specified conditions on, over under or adjacent to railway lines.

Occupation Between Trains. An occupation during an interval between successive trains.

Project Manager. The person or juristic person appointed by Transnet from time to time as the Project Manager, to administer the Contract according to the powers and rights held by and obligations placed upon him in terms of the Contract.

Responsible Representative. The responsible person in charge, appointed by a contractor, who has undergone specific training (and holds a certificate) to supervise staff under his control to work on, over, under or adjacent to railway lines and in the vicinity of high-voltage electrical equipment.

Technical Officer. The person or juristic person appointed by Transnet from time to time as the Technical Officer, to administer the Contractor's performance and execution of the Works according to the powers and rights held by and obligations placed upon the Technical Officer in terms of the Contract.

Total Occupation. An occupation for a period when trains are not to traverse the section of line covered by the occupation.

Work on. Work undertaken on or so close to the equipment that the specified working clearances to the live equipment cannot be maintained.

Work Permit. A combined written application and authority to proceed with work on or near dead electrical equipment.

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PART A - GENERAL SPECIFICATION

2. AUTHORITY OF OFFICERS OF TRANSNET

- 2.1 The Contractor shall co-operate with the officers of Transnet and shall comply with all instructions issued and restrictions imposed with respect to the Works which bear on the existence and operation of Transnet's railway lines and high-voltage equipment.
- 2.2 Without limiting the generality of the provisions of 2.1, any duly authorised representative of Transnet, having identified himself, may stop the work if, in his opinion, the safe passage of trains or the safety of Transnet assets or any person is affected. **CONSIDERATIONS OF SAFETY SHALL TAKE PRECEDENCE OVER ALL OTHER CONSIDERATIONS.**

3. CONTRACTOR'S REPRESENTATIVES

- 3.1 The Contractor shall nominate Responsible Representatives of whom at least one shall be available at any hour for call-out in cases of emergency. The Contractor shall provide the Technical Officer with the names, addresses and telephone numbers of the representatives.
- 3.2 The Contractor guarantees that he has satisfied himself that the Responsible Representative is fully conversant with this specification and that he shall comply with all his obligations in respect thereof.

4. OCCUPATIONS AND WORK PERMITS

- 4.1 Work to be done during total occupation or during an occupation between trains or under a work permit shall be done in a manner decided by the Technical Officer and at times to suit Transnet requirements.
- 4.2 The Contractor shall organise the Works in a manner, which will minimise the number and duration of occupations and work permits required.
- 4.3 Transnet will not be liable for any financial or other loss suffered by the Contractor arising from his failure to complete any work scheduled during the period of an occupation or work permit.
- 4.4 The Contractor shall submit to the Technical Officer, in writing, requests for occupations or work permits together with details of the work to be undertaken, at least 14 days before they are required. Transnet does not undertake to grant an occupation or work permit for any particular date, time or duration.
- 4.5 Transnet reserves the right to cancel any occupation or work permit at any time before or during the period of occupation or work permit. If, due to cancellation or change in date or time, the Contractor is not permitted to start work under conditions of total occupation or work permit at the time arranged, all costs caused by the cancellation shall be born by the Contractor except as provided for in clauses 4.6 to 4.8.

- 4.6 When the Contractor is notified less than 2 hours before the scheduled starting time that the occupation or work permit is cancelled, he may claim reimbursement of his direct financial losses caused by the loss of working time up to the time his labour and plant are employed on other work, but not exceeding the period of the cancelled occupation or work permit.
- 4.7 When the Contractor is notified less than 2 hours before the schedule starting time, or during an occupation or work permit, that the duration of the occupation or work permit is reduced, he may claim reimbursement of his direct financial losses caused by the loss of working time due to the reduced duration of the occupation or work permit.
- 4.8 Reimbursement the Contractor for any loss of working time in terms of 4.6 and 4.7, shall be subject to his claims being submitted within 14 days of the event with full details of labour and plant involved, and provided that the Technical Officer certifies that no other work on which the labour and plant could be employed was immediately available.
- 4.9 Before starting any work for which an occupation has been arranged, the Contractor shall obtain from the Technical Officer written confirmation of the date, time and duration of the occupation.
- 4.10 Before starting any work for which a work permit has been arranged, the Responsible Representative shall read and sign portion C of form No. T.1276 signifying that he is aware of the limits within which work may be undertaken. After the work for which the permit was granted has been completed, or when the work permit is due to be terminated, or if the permit is cancelled after the start, the same person who signed portion C shall sign portion D of the T.1276 form, thereby acknowledging that he is aware that the electrical equipment is to be made "live". The Contractor shall advise all his workmen accordingly.

5. SPEED RESTRICTIONS AND PROTECTION

- 5.1 When speed restrictions are imposed by Transnet because of the Contractor's activities, the Contractor shall organise and carry out his work so as to permit the removal of the restrictions as soon as possible.
- 5.2 When the Technical Officer considers protection to be necessary the Contractor shall, unless otherwise agreed, provide all protection including flagmen, other personnel and all equipment for the protection of Transnet's and the Contractor's personnel and assets, the public and including trains. Transnet will provide training free of charge of the Contractor's flagmen and other personnel performing protection duties. The Contractor shall consult with the Technical Officer, whenever he considers that protection will be necessary, taking into account the minimum permissible clearances set out in appendixes 1 to 4.
- 5.3 The Contractor shall appoint a Responsible Representative to receive and transmit any instruction, which may be given by Transnet personnel providing protection.

6. ROADS ON TRANSNET PROPERTY

The provision of clause 25 of the E.5, General Conditions of Contract, or clause 23 of the E.5 (MW), General Conditions of Contract for Maintenance Works, shall apply to the use of existing roads on Transnet's property.

7. **CLEARANCES**

7.1 No temporary works shall encroach on the appropriate minimum clearances set out in Annexure 1 BE97-01 Sheets 1,2, 3 and 5 of 5.

8. **STACKING OF MATERIAL**

8.1 The Contractor shall not stack any material closer than 3 m from the centre line of any railway line without prior approval of the Technical Officer.

9. **EXCAVATION, SHORING, DEWATERING AND DRAINAGE**

9.1 Unless otherwise approved by the Technical Officer any excavation adjacent to a railway line shall not encroach on the hatched area shown in Figure 1.

9.2 The Contractor shall provide at his own cost any shoring, dewatering or drainage of any excavation unless otherwise stipulated elsewhere in the Contract.

9.3 Where required by the Technical Officer, drawings of shoring for any excavation under or adjacent to a railway line shall be submitted and permission to proceed obtained, before the excavation is commenced.

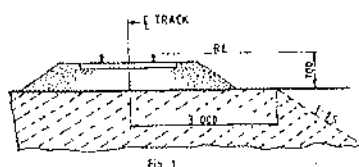
9.4 The Contractor shall prevent ingress of water to the excavation but where water does enter, he shall dispose of it as directed by the Technical Officer.

9.5 The Contractor shall not block, obstruct or damage any existing drains either above or below ground level unless he has made adequate prior arrangements to deal with drainage.

10. **FALSEWORK FOR STRUCTURES**

10.1 Drawings of falsework for the construction of any structure over, under or adjacent to any railway line shall be submitted to the Technical Officer and his permission to proceed obtained before the falsework is erected. Each drawing shall be given a title and a distinguishing number and shall be signed by a registered professional engineer certifying that he has checked the design of the falsework and that the drawings are correct and in accordance with the design.

10.2 After the falsework has been erected and before any load is applied, the Contractor shall submit to the Technical Officer a certificate signed by a registered professional engineer certifying that he has checked the falsework and that it has been erected in accordance with the drawings. Titles and numbers of the drawings shall be stated in the certificate. Notwithstanding permission given by the Technical Officer to proceed, the Contractor shall be entirely responsible for the safety and



adequacy of the falsework.

11. **PILING**

11.1 The Technical Officer will specify the conditions under which piles may be installed on Transnet property.

12. **UNDERGROUND SERVICES**

12.1 No pegs or stakes shall be driven or any excavation made before the Contractor has established that there are no underground services, which may be damaged thereby.

12.2 Any damage shall be reported immediately to the Technical Officer, or to the official in charge at the nearest station, or to the traffic controller in the case of centralised traffic control.

13. **BLASTING**

13.1 The provisions of clause 23 of the E.5, General Conditions of Contract or clause 21 of the E.5 (MW), General Conditions of Contract for Maintenance Work, shall apply to all blasting operations undertaken in terms of the Contract.

13.2 The Contractor shall provide proof that he has complied with the provisions of clauses 10.17.1 to 10.17.4 of the Explosives Regulations (Act 26 of 1956 as amended).

13.3 Blasting within 500m of a railway line will only be permitted during intervals between trains. A person appointed by the Technical Officer, assisted by flagmen with the necessary protective equipment, will be in communication with the controlling railway station. Only this person will be authorised to give the Contractor permission to blast, and the Contractor shall obey his instructions implicitly regarding the time during which blasting may take place.

13.4 The flagmen described in 13.3, where provided by Transnet, are for the protection of trains and Transnet property only, and their presence does not relieve the Contractor in any manner of his responsibilities in terms of Explosives Act or Regulations, or any obligation in terms of this Contract.

13.5 The person described in 13.3 will record in a book provided and retained by Transnet the dates and times -

(i) when each request is made by him to the controlling station for permission to blast;

(ii) when blasting may take place;

(iii) when blasting actually takes place; and

(iv) when he advises the controlling station that the line is safe for the passage of trains.

13.6 Before each blast the Contractor shall record in the same book, the details of the blast to be carried out. The person appointed by the Technical Officer and the person who will do the

blasting shall both sign the book whenever an entry described in 13.5 is made.

13.7 The terms of clause 27 hereof shall be strictly adhered to.

14. **RAIL TROLLEYS**

14.1 The use of rail trolleys or trestle trolleys on a railway line for working on high voltage equipment will be permitted only if approved by the Technical Officer and under the conditions stipulated by him.

14.2 All costs in connection with such trolley working requested by the Contractor shall, unless otherwise agreed, be borne by the Contractor, excluding the costs of any train protection services normally provided free of charge by Transnet.

15. **SIGNAL TRACK CIRCUITS**

15.1 Where signal track circuits are installed, the Contractor shall ensure that no material capable of conducting an electrical current makes contact between rails of a railway line/lines.

15.2 No signal connections on track-circuited tracks shall be severed without the Technical Officer's knowledge and consent.

16. **PENALTY FOR DELAYS TO TRAINS**

16.1 If any trains are delayed by the Contractor and the Technical Officer is satisfied that the delay was avoidable, a penalty will be imposed on the Contractor of R5 000 per hour or part thereof for the period of delay, irrespective of the number of trains delayed.

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PART B - ADDITIONAL SPECIFICATION FOR WORK NEAR HIGH-VOLTAGE ELECTRICAL EQUIPMENT

17. **GENERAL**

- 17.1 This specification is based on the contents of Transnet's publication SAFETY INSTRUCTIONS, HIGH-VOLTAGE ELECTRICAL EQUIPMENT, as amended, a copy of which will be made available on loan to the Contractor for the duration of the contract. These instructions apply to all work near live high-voltage equipment maintained and/or operated by Transnet, and the onus rests on the Contractor to ensure that he obtains a copy.
- 17.2 The Contractor's attention is drawn in particular to the contents of Part I, Sections 1 and 2 of the Safety Instructions : High-Voltage Electrical Equipment.
- 17.3 The Safety Instructions : High-Voltage Electrical Equipment cover the minimum safety precautions which must be taken to ensure safe working on or near high-voltage electrical equipment, and must be observed at all times. Should additional safety measures be considered necessary because of peculiar local conditions, these may be ordered by and at the discretion of the Electrical Officer (Contracts).
- 17.4 This specification must be read in conjunction with and not in lieu of the Safety Instructions : High-Voltage Electrical Equipment.
- 17.5 The Contractor shall obtain the approval of the Electrical Officer (Contracts) before any work is done which causes or could cause any portion of a person's body or the tools he is using or any equipment he is handling, to come within 3 metres of any live high-voltage equipment.
- 17.6 The Contractor shall regard all high-voltage equipment as live unless a work permit is in force.
- 17.7 Safety precautions taken or barriers erected shall comply with the requirements of the Electrical Officer (Contracts), and shall be approved by him before the work to be protected is undertaken by the Contractor. The Contractor shall, unless otherwise agreed, bear the cost of the provision of the barriers and other safety precautions required, including the attendance of Transnet staff where this is necessary.
- 17.8 No barrier shall be removed unless authorised by the Electrical Officer (Contracts).

18. **WORK ON BUILDINGS OR FIXED STRUCTURES**

- Before any work is carried out or measurements are taken on any part of a building, fixed structure or earthworks of any kind above ground level situated within 3 metres of live high-voltage equipment, the Electrical Officer (Contracts) shall be consulted to ascertain the conditions under which the work may be carried out.
- 18.2 No barrier erected to comply with the requirements of the Electrical Officer (Contracts) shall be used as temporary staging or shuttering for any part of the Works.
- 18.3 The shuttering for bridge piers, abutments, retaining walls or parapets adjacent to or over any

track may be permitted to serve as a barrier, provided that it extends at least 2,5 metres above any working level in the case of piers, abutments and retaining walls and 1,5 metres above any working level in the case of parapets.

19. **WORK DONE ON OR OUTSIDE OF ROLLING STOCK, INCLUDING LOADING OR UNLOADING**

19.1 No person shall stand, climb or work whilst on any platform, surface or foothold higher than the normal unrestricted places of access, namely -

- (i) the floor level of trucks;
- (ii) external walkways on diesel, steam and electric locomotives, steam heat vans, etc. and
- (iii) walkways between coaches and locomotives.

When in these positions, no person may raise his hands or any equipment or material he is handling above his head.

19.2 In cases where the Contractor operates his own rail mounted equipment, he shall arrange for the walkways on this plant to be inspected by the Electrical Officer (Contracts) and approved, before commencement of work.

19.3 The handling of long lengths of material such as metal pipes, reinforcing bars, etc should be avoided, but if essential they shall be handled as nearly as possible in a horizontal position below head height.

19.4 The Responsible Representative shall warn all persons under his control of the danger of being near live high-voltage equipment, and shall ensure that the warning is fully understood.

19.5 Where the conditions in 19.1 to 19.3 cannot be observed the Electrical Officer (Contracts), shall be notified. He will arrange for suitable Safety measures to be taken. The Electrical Officer (Contracts), may in his discretion and in appropriate circumstances, arrange for a suitable employee of the Contractor to be specially trained by Transnet and at its costs, as an Authorised Person to work closer than 3 metres from live overhead conductors and under such conditions as may be imposed by the Senior responsible Electrical Engineer in Transnet.

20. **USE OF EQUIPMENT**

20.1 Measuring Tapes and Devices

20.1.1 Measuring tapes may be used near live high-voltage equipment provided that no part of any tape or a person's body comes within 3 metres of the live equipment.

20.1.2 In windy conditions the distance shall be increased to ensure that if the tape should fall it will not be blown nearer than 3 metres from the live high-voltage equipment.

- 20.1.3 Special measuring devices longer than 2 metres such as survey staves and rods may be used if these are of non-conducting material and approved by the responsible Electrical Engineer in Transnet, but these devices must not be used within 3 metres of live high-voltage equipment in rainy or wet conditions.
- 20.1.4 The assistance of the Electrical Officer (Contracts) shall be requested when measurements within the limits defined in 20.1.1 to 20.1.3 are required.
- 20.1.5 The restrictions described in 20.1.1 to 20.1.3 do not apply on a bridge deck between permanent parapets nor in other situations where a barrier effectively prevents contact with the live high-voltage equipment.
- 20.2 Portable Ladders
- 20.2.1 Any type of portable ladder longer than 2 metres may only be used near live high-voltage equipment under the direct supervision of the Responsible Representative. He shall ensure that the ladder is always used in such a manner that the distance from the base of the ladder to any live high-voltage equipment is greater than the fully extended length of the ladder plus 3 metres. Where these conditions cannot be observed, the Electrical Officer (Contracts) shall be advised, and he will arrange for suitable safety measures to be taken.

21. **CARRYING AND HANDLING MATERIAL AND EQUIPMENT**

- 21.1 Pipes, scaffolding, iron sheets, reinforcing bars and other material, which exceeds 2 metres in length, shall be carried completely below head height near live high-voltage equipment. For maximum safety two or more persons so as to maintain it as nearly as possible in a horizontal position should carry such material. The utmost care must be taken to ensure that no part of the material comes within 3 metres of any live high-voltage equipment.
- 21.2 Long lengths of wire or cable shall never be run out in conditions where a part of a wire or cable can come within 3 metres of any live high-voltage equipment unless the Electrical Officer (Contracts) has been advised and has approved appropriate safety precautions.
- 21.3 The presence of overhead power lines shall always be taken account of especially when communications lines or cables or aerial cables, stay wires, etc. are being erected above ground level.

22. **PRECAUTIONS TO BE TAKEN WHEN ERECTING OR REMOVING POLES, ANTENNAE, TREES ETC.**

- 22.1 A pole may be handled for the purpose of erection or removal near high-voltage equipment under the following conditions:
- (i) If the distance between the point at which the pole is to be erected or removed and the nearest live high-voltage equipment is more than the length of the pole plus 3 metres, the work shall be supervised by the Responsible Representative.

- (ii) If the distance described in (i) is less than the length of the pole plus 3 metres, the Electrical Officer (Contracts) shall be consulted to arrange for an Authorised Person to supervise the work and to ensure that the pole is earthed where possible. The pole shall be kept in contact with the point of erection, and adequate precautions shall be taken to prevent contact with live high-voltage equipment.

22.2 The cost of supervision by an Authorised Person and the provision of earthing shall, unless otherwise agreed, be borne by the Contractor.

22.3 The provisions of clauses 22.1 and 22.2 shall also apply to the erection or removal of columns, antennae, trees, posts, etc.

23. **USE OF WATER**

23.1 No water shall be used in the form of a jet if it can make contact with any live high-voltage equipment or with any person working on such equipment.

24. **USE OF CONSTRUCTION PLANT**

24.1 "Construction plant" entails all types of plant including cranes, piling frames, boring machines, excavators, draglines, dewatering equipment and road vehicles with or without lifting equipment.

24.2 When work is being undertaken in such a position that it is possible for construction plant or its load to come within 3 metres of live high-voltage equipment, the Electrical Officer (Contracts) shall be consulted. He will arrange for an Authorised Person to supervise the work and to ensure that the plant is adequately earthed. The Electrical Officer (Contracts) will decide whether further safety measures are necessary.

24.3 The cost of any supervision by an Authorised Person and the provision of earthing shall, unless otherwise agreed, be borne by the Contractor.

24.4 When loads are handled by cranes, non-metallic rope hand lines shall be used, affixed to such loads so as to prevent their swinging and coming within 3 metres of live high-voltage equipment.

24.5 Clauses 24.1 to 24.4 shall apply mutatis mutandis to the use of maintenance machines of any nature.

25. **WORK PERFORMED UNDER DEAD CONDITIONS UNDER COVER OF A WORK PERMIT**

25.1 If the Responsible Representative finds that the work cannot be done in safety with the high-voltage electrical equipment live, he shall consult the Electrical Officer (Contracts) who will decide on the action to be taken.

25.2 If a work permit is issued the Responsible Representative shall -

- (i) before commencement of work ensure that the limits within which work may be carried out

have been explained to him by the Authorised Person who issued the permit to him, and that he fully understands these limits.

- (ii) sign portion C of the permit before commencement of work;
- (iii) explain to all persons under his control the limits within which work may be carried out, and ensure that they fully understand these limits;
- (iv) care for the safety of all persons under his control whilst work is in progress; and
- (v) withdraw all personnel under his control from the equipment on completion of the work before he signs portion D of the work permit.

26. **TRACTION RETURN CIRCUITS IN RAILS**

26.1 DANGEROUS CONDITIONS CAN BE CREATED BY REMOVING OR SEVERING ANY BOND.

26.2 Broken rails with an air gap between the ends, and joints, at which fishplates are removed under "broken bond" conditions, are potentially lethal. The rails on either side of an air gap between rail ends on electrified lines shall not be touched simultaneously until rendered safe by Transnet personnel.

26.3 The Contractor shall not break any permanent bonds between rails or between rails and any structure. He shall give the Technical Officer at least 7 days written notice when removal of such bonds is necessary.

26.4 No work on the track which involves interference with the traction return rail circuit either by cutting or removing the rails, or by removal of bonds shall be done unless the Electrical Officer (Contracts) is consulted. He will take such precautions as may be necessary to ensure continuity of the return circuit before permitting the work to be commenced.

27. **BLASTING**

27.1 The Contractor shall obtain the permission of the Electrical Officer (Contracts) before blasting, and shall give at least 14 days notice of his intention to blast.

27.2 No blasting shall be done in the vicinity of electrified lines unless a member of Transnet's electrical personnel is present.

27.3 The terms of clause 13 hereof shall be strictly adhered to.

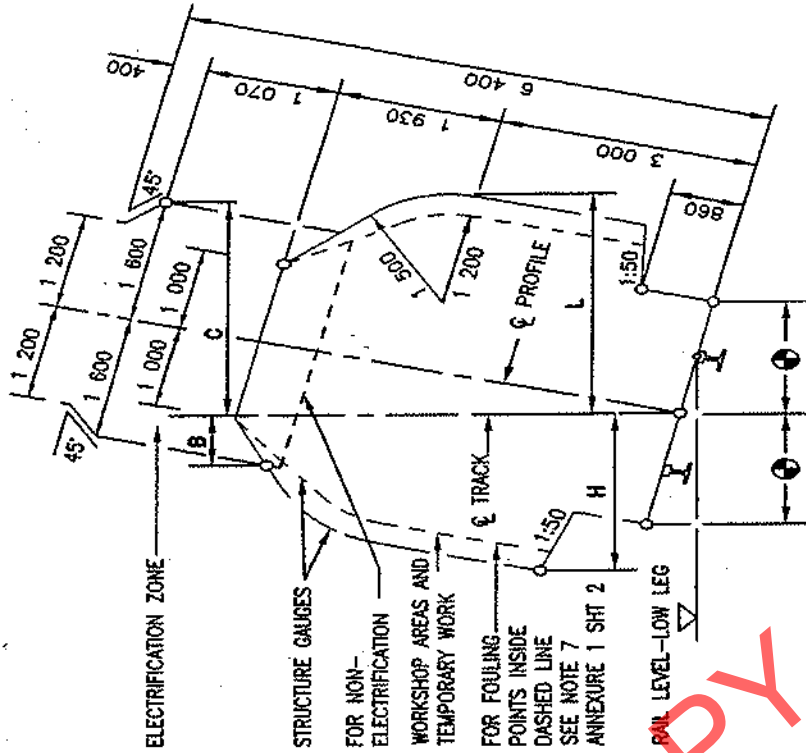
28. **HIGH-VOLTAGE ELECTRICAL EQUIPMENT NOT MAINTAINED AND/OR OPERATED BY TRANSNET**

Where the work is undertaken on or near high-voltage electrical equipment which is not maintained and/or operated by Transnet, the Occupational Health and Safety Act No. 85 of 1993, and Regulations and Instructions, or the Mines Health and Safety Act (Act 29 of 1996), shall apply.

Such equipment includes: -

- (i) Eskom and municipal equipment;
- (ii) the Contractor's own power supplies; and
- (iii) electrical equipment being installed but not yet taken over from the Contractor.

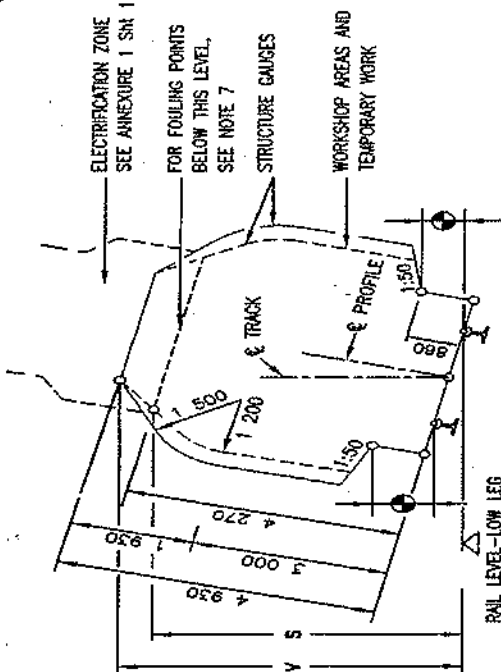
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RADIUS (m)	WITH CANT		NO CANT		WITH CANT	
	H (mm)	L (mm)	H & L	B (mm)	C (mm)	C (mm)
90	2 730	3 080	2 780	1 130	2 100	2 100
100	2 700	3 030	2 750	1 140	2 050	2 050
120	2 650	2 970	2 700	1 160	2 010	2 010
140	2 620	2 920	2 660	1 175	1 990	1 990
170	2 590	2 870	2 630	1 190	1 970	1 970
200	2 570	2 820	2 600	1 205	1 950	1 950
250	2 550	2 790	2 580	1 230	1 920	1 920
300	2 540	2 760	2 560	1 250	1 900	1 900
350	2 530	2 730	2 540	1 270	1 890	1 890
400	2 520	2 710	2 530	1 290	1 875	1 875
500	2 510	2 680	2 520	1 320	1 850	1 850
600	2 500	2 660	2 510	1 340	1 830	1 830
800	2 490	2 620	2 500	1 365	1 790	1 790
1 000	2 480	2 600	2 490	1 380	1 760	1 760
1 200	2 480	2 580	2 490	1 200	1 730	1 730
1 500	2 480	2 550	2 480	1 415	1 700	1 700
2 000	2 480	2 500	2 480	1 440	1 660	1 660
3 000	2 470	2 470	2 470	1 500	1 600	1 600
>5 000	2 460	2 460	2 460	1 600	1 600	1 600

REMARKS:

1. H AND B IS THE REQUIRED HORIZONTAL CLEARANCE ON THE OUTSIDE OF THE CURVE BASED ON MINIMUM CANT.
2. L AND C IS THE REQUIRED HORIZONTAL CLEARANCE ON THE INSIDE OF THE CURVE BASED ON MAXIMUM CANT.
3. INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
4. FOR WORKSHOP AREAS AND TEMPORARY WORK, CLEARANCES H AND L MAY BE REDUCED BY 300mm.
5. SEE ANNEXURE 1 SHEET 3 FOR PLATFORM CLEARANCES.
6. ALSO REFER TO REMARKS 4 TO 8 OF ANNEXURE 1 SHEET 2.



LOCATION	RADIUS (mm)	ELECTRIFIED (PRESENT OR FUTURE)	
		NOT ELECTRIFIED	3KV & 25KV 50KV
		S (mm)	V (mm)
	100	4 470	5 400
	300	4 410	5 370
	600	4 370	5 350
	1 000	4 350	5 340
	1 500	4 310	5 310
	2 000	4 290	5 290
	>3 000	4 270	5 280
			5 650
			6 000

* OVER OR NEAR POINTS AND CROSSING IF REQUIRED BY ELECTRICAL RESPECTIVE OF RADIUS

ALL AREAS OTHER THAN THOSE INDICATED BY * BELOW

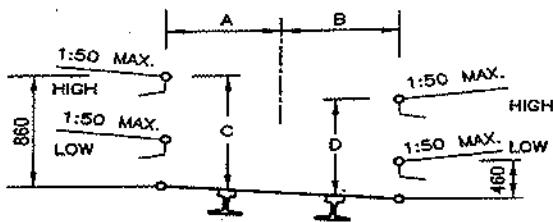
REMARKS:

1. V IS THE REQUIRED VERTICAL CLEARANCE EXCEPT WHERE REDUCED CLEARANCE S APPLIES.
2. S IS THE MINIMUM VERTICAL CLEARANCE FOR STRUCTURES AND TEMPORARY WORK OVER NON-ELECTRIFIED LINES.
3. INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
4. FOR APPLICATION AT CURVES
 - 4.1 APPLY INCREASED CLEARANCES FOR CURVES TO POINTS 3m BEYOND THE ENDS OF THE CIRCULAR CURVE.
 - 4.2 REDUCE CLEARANCES AT A UNIFORM RATE OVER THE REMAINDER OF THE TRANSITION CURVE.
 - 4.3 FOR NON-TRANSITIONED CURVES REDUCE AT A UNIFORM RATE OVER A LENGTH OF 15m ALONG STRAIGHTS.
5. NEW STRUCTURES: SEE BRIDGE CODE.
6. TUNNELS: SEE DRAWING BE 82--35.
7. FOULING POINTS: SEE CLAUSE 8.1.
8. CLEARANCES ARE BASED ON 15m BOGIE CENTRES AND 21.2m VEHICLE BODY LENGTH.
9. SEE ANNEXURE 1 SHEET 3 FOR PLATFORM CLEARANCES.

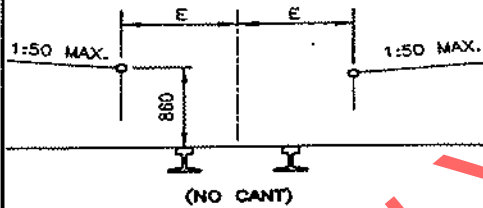
CLEARANCES : PLATFORMS

PLATFORMS : TRACK GAUGE 1 065mm

PASSENGERS



GOODS

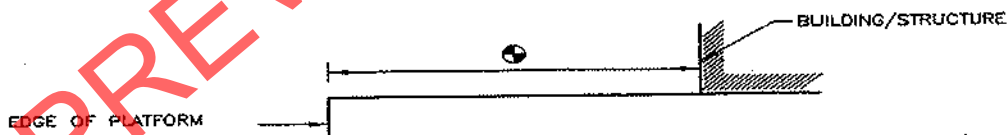


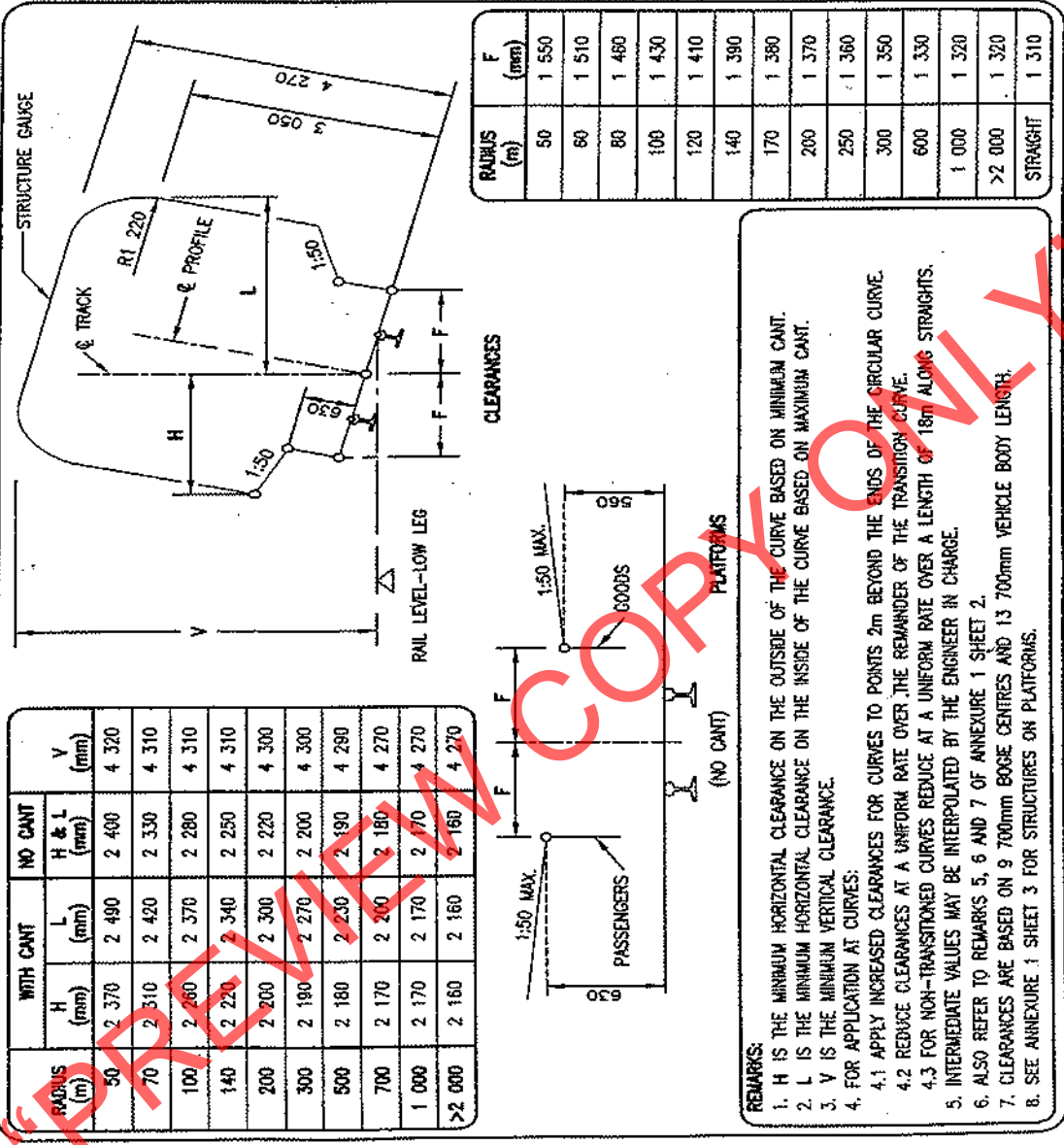
RADIUS (m)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
90	1 690	1 820	890	810	1 840
100	1 650	1 790	890	810	1 810
120	1 610	1 740	890	810	1 760
140	1 580	1 700	890	810	1 720
170	1 550	1 660	890	810	1 690
200	1 530	1 630	890	820	1 670
250	1 520	1 600	890	820	1 640
300	1 520	1 580	890	830	1 620
350	1 520	1 560	880	830	1 600
400	1 520	1 550	880	840	1 590
500	1 520	1 540	880	850	1 580
600	1 520	1 530	870	850	1 570
800	1 520	1 520	860	860	1 560
1 200	1 520	1 520	860	860	1 550
2 000	1 520	1 520	860	860	1 540
3 000	1 520	1 520	860	860	1 530
STRAIGHT	1 520	1 520	860	860	1 520

REMARKS:

- NO CANT TO BE APPLIED EXCEPT WHEN THE GOODS PLATFORM IS ON A RUNNING LINE.
- INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
- 8m TO MAIN STATION-BUILDINGS AND 3m TO ALL OTHER STRUCTURES.
- TOLERANCES : SEE CLAUSE 8.0.10.

STRUCTURES ON PLATFORMS : 1 065mm AND 610mm TRACK GAUGE





RADIUS (m)	WITH CANT		NO CANT	
	H (mm)	L (mm)	H & L (mm)	V (mm)
50	2 370	2 490	2 400	4 320
70	2 310	2 420	2 330	4 310
100	2 260	2 370	2 280	4 310
140	2 220	2 340	2 250	4 310
200	2 200	2 300	2 220	4 300
300	2 190	2 270	2 200	4 300
500	2 180	2 230	2 190	4 290
700	2 170	2 200	2 180	4 270
1 000	2 170	2 170	2 170	4 270
> 2 000	2 160	2 160	2 160	4 270

REMARKS:

- H IS THE MINIMUM HORIZONTAL CLEARANCE ON THE OUTSIDE OF THE CURVE BASED ON MINIMUM CANT.
- L IS THE MINIMUM HORIZONTAL CLEARANCE ON THE INSIDE OF THE CURVE BASED ON MAXIMUM CANT.
- V IS THE MINIMUM VERTICAL CLEARANCE.
- FOR APPLICATION AT CURVES:
 - APPLY INCREASED CLEARANCES FOR CURVES TO POINTS 2m BEYOND THE ENDS OF THE CIRCULAR CURVE.
 - REDUCE CLEARANCES AT A UNIFORM RATE OVER THE REMAINDER OF THE TRANSITION CURVE.
 - FOR NON-TRANSITIONED CURVES REDUCE AT A UNIFORM RATE OVER A LENGTH OF 18m ALONG STRAIGHTS.
- INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
- ALSO REFER TO REMARKS 5, 6 AND 7 OF ANNEXURE 1 SHEET 2.
- CLEARANCES ARE BASED ON 9 700mm BOGE CENTRES AND 13 700mm VEHICLE BODY LENGTH.
- SEE ANNEXURE 1 SHEET 3 FOR STRUCTURES ON PLATFORMS.