

FORM OF OFFER AND ACCEPTANCE (ECSC)

OFFER

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

SUPPLY AND INSTALL NEW SEWER AND WATER LINE FOR NEW SCRAP YARD AT MILLSITE (06AH019)

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

By the representative of the tenderer, signing this part of this Form of Offer and Acceptance, the tenderer offers to perform all of the obligations and liabilities of the *Contractor* under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the *conditions of contract* identified in the Contract Data. The representative, when signing this part of the Form of Offer and Acceptance, shall be deemed to be duly authorised by a Resolution of the Board of Directors/Certificate of Partners, a certified copy to be included in the Returnable Documents.

The offered total of the Prices exclusive of VAT is	
Value Added Tax @ 14% is	
The offered total of the Prices inclusive of VAT is	
(in words)	

If Option E or F (Cost reimbursable or management contract) applies, replace table with following sentence: "The offered prices are the Actual Cost plus the fee contained in the Contract Data".

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

Signature(s)

Name(s)

Capacity

**For the
tenderer:**

(Insert name and address of organisation)

Name of
witness

Signature of
witness

Date

Tenderer's CIDB registration number (if any):

ACCEPTANCE

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

The terms of the contract, are contained in:

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

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

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

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

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the tenderer (now *Contractor*) within five working days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the Parties.

Signature(s)

Name(s)

Capacity
for the
Employer

Name of
witness

Signature of
witness

Date

Transnet SOC Ltd trading as Transnet Freight Rail, Carlton Centre, 150 Commissioner Street, Johannesburg, 2000

Note: If a tenderer wishes to submit alternative tenders, use another copy of this Form of Offer and Acceptance.

SCHEDULE OF DEVIATIONS

Note:

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

No.	Subject	Details
1		
2		
3		
4		
5		
6		
7		

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

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

Contract Data

The *Employer* is

Name Transnet SOC Ltd trading as Transnet Freight Rail
Address 49th Floor Carlton Centre, 150 Commissioner Street, JHB, 2000
Telephone 011 082 445 4534 Fax 011 773 2026
E-mail address Neo.Majoe@transnet.net

The *works* are Supply and install new sewer and water line for new scrap yard at millsite

The *site* is Central Region

The *starting date* is The Contract Date

The *completion date* is 1 Months from Start Date

The *period for reply* is 3 weeks.

The *defects date* is 52 weeks after Completion.

The *defect correction period* is 2 weeks.

The *delay damages* are R 2,000.00 per day.

The *assessment day* is the 13th (thirteen) of each month.

The *retention* is 10%

Does the United Kingdom Housing Grants, Construction and
Regeneration Act (1996) apply? No

The *Adjudicator* is

Name Will be appointed as mutually agreed upon between the parties
when a dispute arises.

Contract Data

The interest rate on late payment is **2 (Two) % per annum above the prime lending rate of the Standard Bank Limited** as determined from time to time.

The *Contractor* is not liable to the *Employer* for loss of or damage to the *Employer's*

property in excess of R 25,000.00..... for any one event.

The *Employer* provides this insurance as stated in the insurance policy for contract works and public liability (Principal Controlled Insurance), attached to the tender documents.

The minimum amount of cover for the third insurance stated in the

Insurance Table is To the extent as stated in the insurance policy for contract works and public liability (Principal Controlled Insurance), attached to the tender documents.

The minimum amount of cover for the fourth insurance stated in the

Insurance Table is To the extent as stated in the insurance policy for contract works and public liability (Principal Controlled Insurance), attached to the tender documents.

The *Adjudicator nominating body* is Association of Arbitrators (Southern Africa)

The *tribunal* is Arbitration

If the *tribunal* is arbitration, the arbitration procedure is The Rules for the conduct of Arbitrations issued by the Association of Arbitrators (Southern Africa) by an Arbitrator to be mutually agreed by the Parties, and failing agreement to be appointed by the Association of Arbitrators.

The *conditions of contract* are the NEC3 Engineering and Construction Short Contract (June 2005) and the following additional conditions

1. CONTRACTUAL OBLIGATIONS

A:

- 1.1 This project specification covers Transnet freight rail's requirements for the Upgrading of Three Leeuhof Security Building 02AH056J

B:

- 1.2 The Contractor shall not make use of any sub-Contractor to perform the works or parts thereof without prior permission from the Project Manager.
- 1.3 The Contractor shall ensure that a safety representative is at site at all times.
- 1.4 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.
- 1.5 The Contractor shall, in particular, comply with the following Acts and Transnet Specifications:-
- 1.5.1 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.
- 1.5.2 The Occupational Health and Safety Act (Act 85 of 1993).

- 1.5.3 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.
- 1.5.4 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.
- 1.5.5 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.
- 1.6 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.
- 1.7 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.
- 1.8 The Contractor shall make necessary arrangements for sanitation, water and electricity at these relevant sites during the installation of the equipment.
- 1.9 A penalty charge of **R 2,000.00** per day will be levied for late completion.
- 1.10 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.
- 1.11 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.
- 1.12 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 energising or handing over.
- 1.13 All processes or the manufacture and assembly of the product components must be subjected to a quality assurance system.
- 1.14 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.
- 1.15 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.
- 1.16 The Contractor will remain liable for contractual delivery dates irrespective of deficiencies discovered during workshop inspections.



1.17 Payment – Added at Briefing: 30days ex rcpt of Tax Invoice

2. TENDERING PROCEDURE

- 2.1 Tenderers shall indicate clause-by-clause compliance with this specification as well as the relevant equipment specifications.
- 2.2 Tenderers may submit alternative offers for equipment considered being equal to or better standard compared to that specified in this specification, however, approval of this shall be of Transnet Freight Rail discretion.
- 2.3 Such offers shall be accompanied by a full, detailed documentation indicating the suitability of the components supplied.
- 2.4 An addendum reflecting any changes to the Project Specification and 'Price List' shall be forwarded to Contractors after the site meeting if applicable and Contractors shall quote accordingly, failure of which will result in disqualification.
- 2.5 Contractors shall duly fill in the attached 'Price List'. Items not reflected in the 'Price List', but covered in the Project Specification or agreed at site meetings, shall be added to the 'Price List' by the Contractor and quoted for accordingly.
- 2.6 Contractors shall submit qualifications of staff that will be performing the works. Only qualified technical personnel shall perform the works on the electrical equipment or installations thereof.
- 2.7 During the duration of the contract, the successful Contractor shall be required to inform the Supervisor of any staff changes and provide the qualifications of the replacement staff for approval.
- 2.8 Contractors shall motivate a statement of non-compliance.
- 2.9 The successful Contractor shall provide a Gantt or a similar chart showing when the works will be done and energised. This chart shall be submitted to the Project Manager or Supervisor within 14 days after the award of the contract has been made to the successful Contractor.
- 2.10 Where equipment offered does not comply with standards or publications referred to in the specification, Contractors shall state which standards apply and submit a copy in English or certified translation.
- 2.11 Contractors shall submit descriptive literature consisting of detailed technical specifications, general constructional details and principal dimensions, together with clear illustrations of the equipment offered.
- 2.12 During the duration of the contract period, the successful Contractor shall be required to inform the Project Manager / Supervisor of any changes to equipment offered and submit detailed information on replacement equipment for approval prior to it being used on this contract.
- 2.13 Contractors shall submit equipment type test certificates as specified on the contract. These shall be in English or certified translation.
- 2.14 Failure to comply with clauses 2.12 to 2.13 could preclude a tender from consideration.

Contract Data

The *Contractor's* Offer

The *Contractor* is

Name

Address

Telephone Fax

E-mail address

The percentage for overheads and profit added to the Defined Cost for people is %.

The percentage for overheads and profit added to other Defined Cost is %.

The *Contractor* offers to Provide the Works in accordance with the *conditions of contract* for an amount to be determined in accordance with the *conditions of contract*.

The offered total of the
Prices is

Enter the total of the Prices from the Price List.

Signed on behalf of the *Contractor*

Name

Position

Signature Date

The *Employer's* Acceptance

The *Employer* accepts the *Contractor's* Offer to Provide the Works

Signed on behalf of the *Employer*

Name

Position

Signature Date

Contract Data

Pricing Instructions

1. The Tenderer is deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices stated in the priced Price List in the works Information. The rates and prices (except in so far as otherwise provided in the Tender) collectively cover full payment for the discharge of all his obligations under the Contract and all matters and things necessary for the proper completion of the works.
2. Any additional costs foreseen by the Tenderer for items not included in the Price List shall be included in the List to be submitted, under the item 'P's & G's'. These items must be specified.
3. It will be assumed that prices included in the Price List are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders.
4. Reference to any particular trademark, name, patent, design, type, specific origin or producer is purely to establish a standard for requirements. Products or articles of an equivalent standard may be substituted but will be subject to approval by the Employer.
5. The amount of the Preliminaries to be included in each monthly payment certificate shall be assessed as an amount prorated to the value of the work duly executed in the same ratio as the preliminaries bears to the total of prices excluding any contingency sum, the amount of the Preliminaries and any amount in respect of contract price adjustment provided for in the contract.
6. The following abbreviations are used in the Price List:
ea = Each
7. The prices and rates in this Price List are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the work described in accordance with the provisions of the scope of work and shall cover liabilities and obligations set forth or implied in the Contract data, as well as profit.
8. Where the scope of work requires detailed drawings and designs or other information to be provided, all costs associated therewith are deemed to have been provided for and included in the unit rates and sum amount tendered for such items.
9. Where no quantity has been provided against an item in the Price List, the Contractor shall use their discretion and provide the quantity.
10. The short descriptions of the items of payment given in this Price List are only for purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the Works Information.
11. For each item in the Price List, including Preliminaries, the Contractor shall provide in the appropriate column the portion of the tendered sum (inclusive of labour and material).
12. The Contractor shall provide information related to imported content, i.e. equipment to be imported, value and applicable exchange rates. This information shall be provided as an Annexure to the Price List.



13. The total in the Price List shall be exclusive of VAT, and shall be transferred to Contractor's Offer.
14. Additional work not covered in the Price List shall be listed and quoted for by the tenderers in a separate sheet.
15. Payment Certificates - On or after the assessment date, the Supervisor and the Contractor will together assess the quantities of the progress on each item in the Price List and complete the Progress Assessment Detail form, where after the Progress Assessment Certificate will be issued.
16. The Contractor shall then submit a VAT invoice and attach the Progress Certificate mentioned in clause 15 of this section for payment by the Employer.
17. Contractor shall provide the Employer with the necessary details and documentation as required in order to enable the Employer to make electronic payments.

"PREVIEW ONLY COPY"

Contract Data

Price List

SEE THE ATTACHED: INFRASTRUCTURE PROPERTY TECHNICAL SPECIFICATION

Contract Data

Works Information

1.0. SCOPE.

Attached Specification with Schedule of works .

This project specification covers Transnet freight rail's requirements for As an when Supply and installation of inverter type air conditioners and electrical work on a day to day basis.

CONTENTS OF THE HEALTH & SAFETY FILE

The safety file shall at least contain "but not limited to" the following documentation/copies on site.		Y/N
1.	Notice of construction work to Dept. of Labor (where applicable).	
2.	Letter of good standing - Compensation.	
3.	Section 37(2) agreements. (Written defined responsibilities by mandatories)	
4.	Safety plan "which shall contain": -	
	Appointments letters i.e. copies.	
	- Applicable Written Safe Work Procedures (WSWP's) and Job Observations (J O's).	
	- Fall protection plan (where applicable).	
5.	Your Health and Safety structure on site.	
	- I.e. Organogram "also depicting sub-contractors on site (In the event of large contracts).	
6.	Appointments letters i.e. copies.	
	- Safety Reps (E4E). (Health and Safety structure for large contracts).	
	- Sub-contractors.	
7.	Emergency equipment and procedures e.g. First Aid box, Fire Extinguishers, tele nos. etc.	
8.	Competency certificates "i.e. copies".	
	- "Competent persons" as required by the Regulations (Construction Reg.).	
	- Machine operators (Large & Small plant).	
	- Lifting Equipment operators.	
9.	Health and Safety induction records.	
10.	Copies of medical surveillance records.	
	- Fitness certificates "e.g. working at heights.	
11.	Inspect Plant and Equipment (Includes all electrical equipment) and checklist.	
12.	Test certificates (e.g. Gases, Vapors etc. in confined spaces).	
13.	Minutes of safety meetings held on site.	
14.	Daily Safety talks by Contractor, etc, including attendance register (Green	

	Areas etc.)	
15.	Copies of hazardous waste removal and disposal certificates.	
16.	Copies of audit reports. (Contractor's & Transnet)	
17.	Copies of site inspections. (Contractor's) (Initial and daily)	
18.	Incident investigation records.	
19.	Permits / occupation certificates	
20.	Notices served by Dept. of Labor.	

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and lay 25mm black PVC pipe in trench.	60	m
new water supply to existing water supply.	1	item
and fit new 25mm water meter above ground.	1	ea
trench and make good.	10	m ³
in soil for sewer pipe 400mm x 500mm.	53	m ³
and lay 100mm black PVC pipe in trench.	270	m
trench and make good.	53	m ³
hole as per spec.	1	ea
and fit 500l tank in ground for sewer.	1	ea
and fit sewer pump complete.	1	ea
hole for sewer connection.	1	ea

RFQ NO. : Supply and install water and sewer connection for new scrapyard Millsite



SPECIFICATION

1. Supply and lay 25mm black PVC Class 16 pipe for domestic water.
2. Supply and fit Elster Kent 25mm water meter 300mm above ground with 25mm gate valve on each side of water meter.
3. Supply and fit 100mm black PVC Class 16 pipe for sewer.
4. Build manhole 900mm X 900mm with round manhole cover, walls to be plaster on inside for sewer connection.
5. Supply and fit 500l tank with sewer pump 10m head and 100l/h capacity.
6. Build 900mm X 900mm manhole above tank with round manhole cover.
7. Keep site clean.

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

Contract Data

Site Information

The works shall be performed at the following sites:

Millsite Scrapyard.

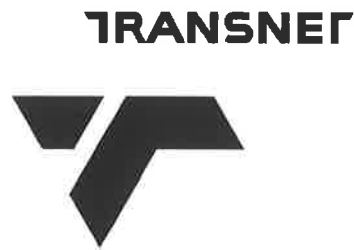
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**PART C1.2:
ADJUDICATOR'S CONTRACT DATA**

CONTRACT DATA

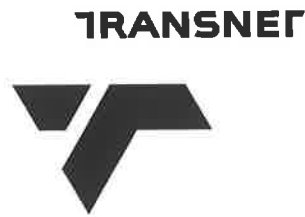
- Statements given in all contracts**
- The *contract between the Parties* is **To be advised**.....
 - The *period of retention* is ...**N/A**..... weeks.
 - The *law of the contract* is the law of **the Republic of South Africa**
 - The *language of this contract* is **English**.....
 - The amount of the advanced payment is **N/A**.....
 - The Adjudicator's *fee* is...**To be advised**.....per hour.
 - The *interest rate* is **2%** per annum above the prime lending rate of the **Standard Bank of South Africa Ltd.**
 - The *currency of this contract* is **ZAR**.....
 - The Adjudicator's appointment terminates on **(To be advised)**.....
- Optional statements**
- If the period for payment of invoices is not three weeks**
- The period for payment of invoices is **four**.....weeks.
- If additional conditions of contract are required**
- The *additional conditions of contract* are
To be advised
.....
.....
.....



(REGISTRATION NO.1990/000900/30)
**TRADING AS
TRANSNET FREIGHT RAIL**

**ADDENDUM NO. 1
TO THE
SECONDARY AND GENERAL SPECIFICATIONS
OF THE CONTRACT**

- 1) Where ever the word "Spoornet" appears in these specifications, please replace it with "Transnet Freight Rail".
- 2) Wherever reference is made to the E5(M.W.)(1996), the E5(Nov.1996) or E160 General Conditions of Contract, please refer to the Conditions of Contract of the ECC3 Contract.
- 3) Where ever the words "Technical Officer" appear in these specifications, please replace with "Supervisor".



(REGISTRATION NO.1990/000900/30)
TRADING AS TRANSNET Freight Rail

**MINIMUM COMMUNAL HEALTH REQUIREMENTS IN AREAS OUTSIDE THE
JURISDICTION OF A LOCAL AUTHORITY: TEMPORARY FACILITIES FOR
CONTRACTOR'S PERSONNEL**

1. CAMPS

- 1.1 Prior to the erection of any camp, the Contractor shall submit to the Technical Officer, for his approval, details of his proposals as to the site, water supply, sanitation, and size and type of buildings. Where the site is on private land, the Contractor shall submit the written approval for the use of the site of the relevant statutory authority and of the owner and occupier of the land (as applicable).
- 1.2 Camps must not be erected on land infested with field rodents.
- 1.3 Adequate drainage shall be provided to carry off storm and waste water.
- 1.4 Buildings shall be built to a neat and orderly pattern.
- 1.5 All buildings shall have smooth, hard, impervious floors, graded to provide effective drainage and to permit washing.
- 1.6 Camps shall be maintained by the Contractor at his own expense in a clean and tidy condition. The Contractor shall take such steps as the Technical Officer and landowner/occupier may demand to prevent the creation of a nuisance.
- 1.7 When so instructed by the Technical Officer, the Contractor shall, at his own expense, erect suitable screens between the camp and any public road, thoroughfare or railway line.
- 1.8 After removal of a camp, the Contractor shall, at his own expense, restore the site to its original condition to the satisfaction of the Technical Officer and of the landowner and occupier where the site is on private land.

2. HOUSING

- 2.1 Every living room shall have cross ventilation, both constant and occasional. Where only one window is provided, it shall not be in the same wall as the door.

- 2.2 Dimensions of living rooms shall be sufficient to allow 3.5 square metres of floor area and 11 cubic metres of air space for each person over the age of 10 years. The floor area of any living room shall not be less than 7,8 square metres.
- 2.3 Flat-roofed quarters shall have a minimum roof height of 3 metres above floor level. For quarters with pitched roofs, the wall height shall be not less than 2,6 metres above the floor with a minimum height above floor of 3 metres at the top of the pitch.
- 2.4 Doors shall not be less than 2m x 0,75m and must be halved.
- 2.5 Windows of each living room shall have an area not less than one twelfth of the floor area and shall be capable of opening to at least half their full area.
- 2.6 In areas where malaria is prevalent, doors and windows must be fitted with gauze screens.
- 2.7 Cooking shelters shall comprise roofed structures, three sides of which shall be enclosed by a weatherproof material, approved by the Technical Officer to a height of at least 1m above ground level.
- 2.7.1 Sleeping quarters shall not accommodate more than 8 persons per room.
- 2.7.2 Pegboards shall be carried on metal or concrete supports and shall be separated by partitions not less than 0,4 metres high extending to within 150mm of the end of the bunk. Pegboards shall be removable for cleaning.

3. WATER SUPPLY AND ABLUTION FACILITIES

- 3.1 The Contractor shall ensure that an adequate and conveniently situated supply of potable water is provided.
- 3.2 Separate buildings for ablution facilities shall be provided. Where approval has been obtained for the housing of both males and females, separate facilities for each sex shall be provided. The proportion shall be 1 cubicle for 20 persons.
- 3.3 Waste water shall be hygienically disposed of.

4. SANITATION

- 4.1 Separate buildings for latrine facilities shall be provided. Where housing are provided for both males and females, separate facilities for each sex shall be provided. The proportions shall be at least one squatting seat for every 15 persons or less in the case of pit latrines, or one for every 10 persons or less in case of pail latrines.

Latrines shall be fly proof and sited at least 10 metres from any other building, and shall not face on any public road, thoroughfare, railway line or residential property. Pits shall not be less than 2,5 metres deep and sited not less than 120 metres from nearest underground water source.

- 4.2 Latrines shall be so constructed, situated and maintained, and night soil so disposed of as to prevent access by animals, breeding of flies, pollution of streams and domestic water supplies, and other nuisances. Where a night soil removal service is operated by a competent authority, use of such service shall be obligatory, and the use of pit latrines and atria pits will not be permitted.
- 4.3 At least one refuse bin of adequate size with close fitting lid shall be provided for each building. Refuse bins shall be emptied and cleaned out daily.
- 4.4 Labour shall be employed on camp sanitation duties on the following basis:-
- 4.4.1 Where the number of persons living at the camp is 20 or less - one unit.
- 4.4.2 For additional numbers over 20 living at the camp - one unit per 100 or part thereof.
- 4.5 Unless refuse is removed by a competent authority, it shall be disposed of in pits and covered over daily with a layer of earth or ash of sufficient thickness to prevent depredations by rodents and the breeding of flies.
- 4.6 Adequate measures shall be taken against all vermin and insects responsible for the spread of disease. Any instructions of a competent health authority shall be carried out promptly and implicitly.
- 4.7 Buildings and bedboards shall be treated whenever necessary with an approved insecticide.
- 4.8 The Contractor shall permit and facilitate inspection of the camp and structures on the site by the staff of Transnet or any other competent authority, and shall comply with any reasonable request by such staff or any other competent authority to eliminate any unsanitary condition.
- 4.9 Any outbreak of infectious disease shall immediately be reported telephonically and confirmed in writing to the Technical Officer.
- 4.10 The keeping of animals of any sort is not permitted.
- 4.11 The Contractor shall have on hand at the camp the necessary tools, disinfectants and cleaning materials to maintain and clean the sanitary facilities.

5. RATIONS

Rations, where supplied by the Contractor, shall be stored in a suitable and rodent proof building with sufficient shelving.

P02b-06 (JLH)

TRANSNET



TRANSNET SOC LTD

(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 SOC Ltd (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 Project Manager 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, Project Manager 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 Project Manager. 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 Project Manager.
- 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 Project Manager 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 Project Manager 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 Project Manager 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 Project Manager 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 Project Manager'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 Project Manager'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 Project Manager 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 the 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, Project Manager, 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 Project Manager 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 Project Manager, 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 Project Manager.
- 8.3 The Contractor shall hand over a consolidated health and safety file to the Project Manager 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 ONLY COPY"

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 16(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 ONLY COPY"

ANNEXURE 4

(LETTER HEAD OF BUSINESS DIVISION OR UNIT OF TRANSNET SOC LTD)

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 : _____
PROJECT MANAGER

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 : _____

Occupational Health and Safety Plan

Company name: _____

Project name: _____

Includes Environmental, Occupational Health and Safety and Quality Management (SHEQ)

CONTENT

1. Project Details
2. Policy Statement
3. Objectives
4. Common Vocabulary
5. Legislation
6. Statutory Obligations
7. Project Management
8. Incident Management
9. Logbooks and Registers
10. Risk Management
11. Education and Training
12. Emergency Planning – Evacuation plan
13. Environment
14. Ergonomics
15. Health and Safety Communications
16. Safe working procedures
17. Personal Protective Equipment and Clothing

18. Project security

19. Implementation Costs

Draft
"PREVIEW ONLY COPY"

Title.

Occupational Health and Safety Plan

This health and safety plan has been prepared in term of the Occupational Health and Safety Act 1993 (Act No 85 of 1993) and Regulations Construction Regulation 5. (1).

This Health and Safety Plan will be revised as and when additions, alterations etc are communicated to us by the Client, his Agent or the Architect / Designer or the conditions of the contract dictate.

1. PROJECT DETAILS

1.1. Project Name:

Physical address:

Contact Details:

Client name:

Postal address:

P O Box

Contact person - Name:

Contact No:

Telephone –

Cellular No:

Facsimile –

Email

1.2. Agent:

Company name:

Postal address:

Contact person - Name:

Contact No:

Telephone –

Cellular No:

Facsimile –

Email

1.3. Architect.

Company name:

Postal Address:

P O Box

Contact person:

Postal address:

P O Box

Contact No:

Telephone –

Cellular:

Facsimile –

Email:

1.4. Principle Contractor

Company name:

Postal Address:

P O Box

1.4.1. Project Manager.

Name:

Contact No:

Telephone –

Cellular:

Assignee Sect 16(2)

Facsimile

Email

1.4.2. Construction Work Supervisor:

Name:

Contact No:

Telephone

Cellular telephone No:

Construction Regulation 6. (1)

Facsimile

1.5. Scope of work

Doors

Electrical installation – re-wiring

Glazing

Granite tops

Plastering

Plumbing and drainage
Shop fittings
Softs, curtains etc
Tiling

NB Where there is construction work in progress with other personnel in the immediate vicinity activities must be co-ordinated by the Principle Contractor and the other Contractors.

1.6. Duration of contract: Start – Expected completion –

1.7. Emergency Telephone Numbers:

An emergency telephone number list should be prominently displayed adjacent to the telephone
The contents of this list is flexible and the following is given as a guide –

EMERGENCY TELEPHONE NUMBERS

Service	Name	Business	After Hours
i Ambulance:			
ii Doctor:			
iii. Hospital:			
iv. Fire Department:			
v. S.A. Police Services:		10111	
vi. Department of Labour:			
vii. Compensation Insurer			
vii.a COLD – Commissioner			
vii.b. FEMA			

Project Manager:

Safety Advisors:
Telephone
Facsimile
Email

DEPARTMENT OF LABOUR

Provincial Office

Department of Labour:

Contact No:

OCCUPATIONAL HEALTH AND SAFETY

2. Policy statement

The Company is committed to providing a safe and healthy working environment and this occupational health and safety plan documents the action that will be implemented.

We acknowledge that as the Principle Contractor we have both a legal and moral obligation to as far as is reasonable and practicable to develop a realistic Health and Safety plan making due reference to the Clients Health and Safety Specification.

We further accept that we must ensure that the relevant legislation is complied with and that all reasonable and practicable steps are taken by all Contractors to provide a safe and healthy environment for persons to work in and that the public are adequately protected.

An independent health and safety advisor will conduct a monthly legal compliance audit to ascertain the level of adherence with statutory requirements, company policy and rules including Occupational Health and Safety, Environmental and Quality standards.

3. Objective.

To complete the project within the budget in respect of finance and time, to an acceptable quality and with no injuries to employees or other persons.

The specific purpose is to achieve and maintain realistic and sustainable International and locally acceptable standards. A ZERO tolerance attitude towards incidents and non-compliance of prescribed quality and workmanship will be adopted. Deviations will be investigated and the appropriate corrective action must be implemented.

NB This Specification will be imposed on all Contractors and their employees working on this project.

4. Common Vocabulary (COMVOC)

Terminology

- | | |
|--|-----------|
| 4.1. Basic Conditions of Employment Act 1997 (Act No 75 of 1997) | BCEA |
| 4.2. Compensation for Occupational Injuries and Diseases Act 1993 (Act No 130 of 1993) | COIDA |
| 4.3. Department of Labour | DoL |
| 4.4. Department of Labour – Inspection and Enforcement Services | DoL (IES) |
| 4.5. Federated Employers Mutual Assurance Company Limited | FEMA |
| 4.6. National Building Regulations and Standards Act 1997 (Act No 103 of 1997) | NBR&S |
| 4.7. Occupational Health and Safety Act 1993 (Act No 85 of 1993) and Regulations | OH&SA |
| 4.8. Occupational Health & Safety Act 1993 Construction Regulations, 2003 | CR |
| 4.9. Provincial Director | PD |

Abbreviation

5. Legislation

Definitions:

"client" the person for whom any construction work is performed,

Legislation

CR 4. (1)

"agent" means any person, appointed in writing to represent the Client,

CR 4 (5)

"architect / Designer" a person who prepares, checks, prepares or assists with a design,	CR
"competent person" a person with the knowledge, training, experience and qualification specific to the work or task being performed. Where there is, and he/she has the appropriate SAQA qualification,	CR
"construction Safety Officer" a competent person in relation to occupational health and safety in the construction industry,	CR
"Contractor" an employer who performs construction work,	CR
"ergonomics" the application of scientific information to optimise human well being and performance,	CR
"fall prevention plan" a documented plan to eliminate or reduce the risk of falling,	CR
"hazard assessment" the analysis of all existing or potential hazard associated with the work being or to be performed.	
"hazard identification" the identification of existing or known hazards that is normally associated with the work being or to be performed,	CR
"health and safety file" a permanent record of the health and safety requirements prescribed in theses regulations,	CR
"health and safety plan" a documented plan, including safe work procedures to mitigate, remove, reduce or eliminate the hazards identified,	CR
"health and safety specification" means a documented specification of the health and safety requirements for the tasks to be performed safely,	CR
"medical certificate of fitness" a certificate valid for one year issued by an occupational health practitioner registered with the Health Professional Council of South Africa,	CR
"method statement" the documented procedure to perform the task as reasonably and practicably safe,	CR
"national building regulations" means the regulations made in terms of section 17(1) of the NBR and BS Act, 1997 (Act No 103 of 1997).	
"principle Contractor" an employer who performs construction work appointed in writing by the Client or his appointed Agent,	CR
"professional engineer or professional certificated engineer" means any person holding registration as either a Professional Engineer or Professional certificated Engineer under the Engineering Professions Act, 2000,	CR
"provincial director" means the Provincial Director as defined in Section 1 of the General Administration Regulations under the Act,	CR
"risk assessment" a programme to determine any risks associated with a task and the to	

identify the steps to remove, reduce or control such hazard,	CR
"SABS – 085" the code of practice – "Design, erection, use and inspection of Access Scaffolding",	CR
"SABS – 0400" the code of practice for the application of National Building Regulations,	CR
"SABS EN 1808 and SABS 1903" the code of practice entitled "safety requirements on suspended access equipment design calculations, stability criteria, construction – tests",	CR
"The Act" means the Occupational Health and Safety Act 1993 (Act No 85 of 1993),	CR
"construction Vehicle" a vehicle used for means of conveyance for transporting persons or material or both as the case may be, both on and off the construction site for the purpose of performing construction work,	CR
"excavation" means any man – made cavity, trench, pit or depression formed by cutting, digging or scooping,	CR
"fall prevention equipment" means equipment used to prevent persons from falling from an elevated position,	CR
"roof apex height" means the dimensional height in meters measured from the lowest ground level abutting any part of a building to the highest point of the roof,	CR
"scaffold" means any temporary elevated platform and supporting structure used for providing access to and supporting workmen or material or both,	CR
"structure" any building, steel or reinforced concrete structure, railway line, or siding, bridge, waterworks, reservoir or pipeline, cable, sewer, sewage works, fixed vessel, road, drainage works, earthworks, dam, wall, mast, tower, tower crane, batching plant, pylon, surface and underground tanks, earth retaining structures or any structure designed to preserve or alter any natural feature, and any other similar structure;	
(a) any formwork, false work, scaffold or other structure designed or used to provide support or means of access during construction work; or	
(b) any fixed plant in respect of work, which includes the installation, commissioning, decommissioning or dismantling and where any such work involves a risk to persons falling 2 metres or more.	C R

6. Statutory Obligations

Description	Legislation
6.1. Basic Conditions of Employment Act The relevant sections are to be complied with special attention to at least the following – Working hours, Conditions of employment and Remuneration, Termination of employment, Employment of child labour prohibited.	BCE
6.2. Compensation for Occupational Injuries and Diseases Act 1993 (Act No 130 of 1993) The Act provides for compensation for health conditions, death, diseases and or injuries that arises out of and in the course of an employee's duties. All employers-Principle Contractor and Contractors must	COIDA

register with a compensation insurer – either COIDA or FEMA. They must be in good standing – have proof of having paid their current assessment - in the form of either a receipt of payment or a letter of good standing from their compensation insurer prior to commencing work on the project with a copy on Site.

6.3. Occupational Health and Safety Act 1993 (Act No. 85 of 1993)

OH&SA

The OH&SA is the primary law regulating occupational health and safety matters. The Act is a framework Act that provides for the development of detailed rules and standards through regulation. As a framework, the Act prescribes that -

- (a) the employer must provide and maintain a safe and healthy working environment for his employees and any person, who may enter onto the premises,
- (b) the duties of employers to their employees, employees to their employer and suppliers to the employer and
- (c) the “reasonable man” approach by the employer in decisions concerning occupational health and safety,
- (d) the management, application and enforcement of the Act and regulations are the responsibility of the employer i.e. be he the appointed agent where applicable, Project Managers, each principle Contractor and Contractor.
- (e) each principle Contractor and Contractor shall have a copy of the Act which must be available on site at all times. Employees are to be allowed reasonable access to the Act during normal working hours.

NB Interpretation

Where there is any question as to the interpretation of any legislation and an agreement cannot be reached the matter is to be escalated from Contractor to Principle Contractor to the client. Should the matter still not be resolved it needs to be referred to the Provincial Director – Department of Labour.

7. Project Management

Description	By whom	Legislation
7.1. Notification of Construction Work.	Principle Contractor!	CR 3.1
7.2. Health and Safety Specification The Health and Safety Specification from the Client must be referred to when preparing this Health and Safety Plan.	Client to provide.	CR 4. (1)(a)
7.3. Health and Safety Plan This Health and Safety Plan reflect the procedure that will be implemented to ensure legal compliance during Construction Work.	Contractor	CR 5. (1)
7.4. Health and Safety File All documentation – minutes of health and safety committee meetings, risk identifications / assessments, legal compliance audits, induction and other training including service records of equipment and machinery etc must be included in the file.	Contractor	CR 5. (7)
7.5. Agreement with Mandatory A written agreement will be entered into between the Client and the Agent, the Agent and each Contractor.	Client / Agent / Principle and Contractor	Act Sec 37(2)
7.6. Appointment of each Contractor by the Agent.		C R 5 (3) (b)

7.7. Organisation chart

7.7.1. Assignment of Duties

Contracts Manager

Act Sec 16(2)

Mr _____ is assigned the duty of ensuring that the requirements of the Act and Regulations and this Health and Safety Plan are complied with during the Construction Work.

7.7.2. Construction Supervisor

Site Agent

CR 6. (1)

Mr _____ is appoint, in writing a competent employee to supervise the day-to- day construction work on the project. The supervisor will manage and control all construction activities in the absence of the Sect 16(2) assignee.

7.7.3. Sub-ordinate Construction Supervisor.

CR 6. (2)

Mr _____ is appointed to be in control of the project in the absence of the Site agent appointed in terms of Construction Regulation 6. 1.

NB Under no circumstances may a Contractor leave employees on the site unless there is a competent construction work supervisor present.

7.7.4. Construction Safety Officer

Part-time/Full-time

CR 6. (6)

Mr _____ has been appointed a part – time construction safety officer for the duration of the project.

7.7.5. Contractors

CR 5. (3)(b)

An up dated list of Contractors will be kept and maintained on Site.

Company:

Activity:

Address

Contact person:

Contact numbers:

Telephone –
Cellular –

Facsimile –
Email:

Company:

Activity:

Address:

Contact person:

Contact numbers:

P O Box

Telephone -
Cellular -

Facsimile
Email:

Company:

Activity:

Address:

Contact person:

Contact numbers:

P O Box

Telephone -
Cellular -

Facsimile –
Email:

Company:

Activity:

Address:

Contact person:

Contact numbers:

P O Box

Telephone –
Cellular –

Facsimile –
Email

Company:

Activity:

Address:

Contact person:

Contact numbers:

P O Box

Telephone –
Cellular –

Facsimile -
Email:

Company:

Activity:

Address:

Contact person:

Contact numbers:

P O Box

Telephone -
Cellular –

Facsimile
Email:

Company:

Activity:

Address:

Contact person:

Contact numbers:

P O Box

Telephone –
Cellular –

Facsimile –
Email:

Company:

Activity:

Address:

Contact person:

Contact numbers:

P O Box 1254 –

Telephone –
Cellular –

Facsimile
Email:

Every Contractor is responsible to ensure that his employees comply with the applicable legislation and this health and safety plan.

NB: A section 37(2) Agreement with Mandatory must be entered into between the Contractors and the principle Contractor.

NB Contractor who contracts out construction work. Where a Contractor contracts construction work out to another Contractor he becomes the Principle Contractor and a section 37(2) agreement must be entered into.

7.7.6. Designation of the Health and Safety Representative / s

Act sect 18

Mr _____ is a designated health and safety representative.
He will perform his prescribed duties in his area of responsibility.

Act sect 18(1) (g)

7.7.7. Appointment as the Risk Assessor / Facilitator.

C R 7(1)

Mr _____ is appointed to identify and record the risks associated with tasks being or that will be performed. These assessments must be reviewed as and when necessary.

7.7.8. Scaffold Inspector:

C R 14(2)

Mr _____ is appointed for this project.
Scaffolds must be inspected as prescribed and the findings reflected in the register provided.

8. Incident Management – Occupational Health and Safety

8.1. Incidents and or injuries

A policy of ZERO tolerance is the target for the project. Every thing reasonable and practicable must be adopted and actively implemented to prevent any incident or injury. Every possible danger or hazard must be identified, documented, analysed and the appropriate action to mitigate and or reduce them implemented. The necessary training of employees must be identified and introduced.

TARGET - NO FATAL OR DISABLING INJURIES
Report to inspector regarding certain incidents

Sect 24

Each incident, which occurs at work or that, arises out of or in the course of his employment that could either result in the employee's death that he loses a limb or part of a limb, becomes unconscious or that he is unable to continue with his normal duties for a period of 14 days must be reported to the relevant Provincial Director of Labour.

8.1.1. no person shall without the permission of an inspector, in the event of an incident described in (1) above disturb the site –

NB Although incidents, which occur on a public road or that, are aviation related must be reported if it arose out of and in the course of the employee's employment.

Domestic incidents are excluded.

Definitions.

Accident

COID Def

Means an accident arising out of and in the course of an employee's employment and resulting in a personal injury, illness or the death of the employee.

Occupational disease

Means any disease contemplated in section 65(1) (a) or (b). NB It includes conditions resulting from exposure to items either used and or exposed to in work place.

Occupational injury

Means any personal injury sustained as a result of an accident.

Classifications.

Fatal - Where the employee dies.

Disabling - When an employee cannot continue to perform the duty he was employed for.

Lost time incident - When an employee does not return to perform the work he was employed for on the next normal working day.

Disabling Lost Time - When an employee sustains an injury on duty and does not return to perform the duties he was employed to do on the next normal working day.

Medical treatment incident - When an employee sustains an injury at work and requires medical – more than first aid treatment i.e. medical, surgical, hospital or skilled nursing services.

First Aid case - Where the wound is treated from the contents of a first aid box.

Disabling Lost Time Injury Frequency Rate (DIFR) It is the number of disabling injuries, including a death multiplied by 1 million (1,000,000) divided by the total number of man-hours worked by all employees on the project for a specific month or the project to date.

$$\text{DIFR} = \frac{\text{No. of disabling lost time injuries} \times 1,000,000}{\text{Total man-hours work for the period under review}}$$

8.1.2. Reporting.

COIDA

An incident must be reported to the relevant Provincial Director and on the prescribed W.CL 2(E) document and within the prescribed time frame i.e. when the employer becomes aware of or the incident was reported to him.

8.1.3. Recording.

All incidents must be recorded on a document similar to the injury statistic form provided.

8.1.4 Investigation.

Sect 31 The

severity of the injury will dictate whom and when the investigation must be conducted. Where reasonable and practicable all incidents must be investigated prior to the end on the shift on which it occurred, reported to or his employer became aware thereof.

Fatal and serious injuries must be investigated before the end of the shift on which it occurred or as soon as reasonably practical after the occurrence. A team consisting of the Principle Contractor, the construction safety officer and the health and safety representative in whose area the incident occurred must conduct the incident investigation.

Where an employee of a Contractor is injured the Contractor and the health and safety representative for the area in which it occurred will be part of the team. The client or his agent may if they wish form part of the team. A record of the proceeding including signed statements, the name of the person conducting the investigation and persons assisting team members must be kept. All photographs etc must also be kept in the health and safety file.

NB In the event of a fatal, or potentially fatal incident the relevant DoL and the nearest South African Police Services station must be contacted. The scene of the incident may only be altered or disturbed with permission of an inspector or when it is necessary to rescue a person or lives in danger.

8.1.5. Analysis.

The statistics for the total project, each principle Contractor and Contractor must be analysed to ascertain if there is or if any trends are developing by the construction safety officer or a competent person appointed by the client, his agent, the principle Contractor's and all Contractors.

8.1.6. Statistics.

Comprehensive incident / injury statistics must be kept for the total project i.e. the Principle Contractor and every Contractor. The following information must be recorded and kept on the health and safety file of the principle Contractor / s and the Contractor / s.

The client or where applicable his appointed agent must ensure that the relevant statistics are collected, recorded, analysed and the appropriate action instituted. Where a construction safety officer is appointed it will form part of his duties and responsibilities.

Statistics must be kept in the format, suggested which is attached to this document.

The following incidents must be recorded – Fatal, disabling lost time, days lost, medical and first aid cases and man-hours worked. Statistics for the month under review and for the project to-date must be kept either together on one or more documents.

NB The Compensation Commissioner still refers to and reports the Disabling Injury Frequency Rate (DIFR). It has been decided to use the same formula. Contractors may use 200,000 in the formula. However they need to multiply by 5 to reflect the COIDA statistic rate.

8.1.7. Occupational disease / conditions

These must be reported and recorded as prescribed

COIDA

8.1.8. Medical certificate of fitness.

A medical certificate of fitness, valid for 1 year must be available on the premises at all times for employee working on or operating the following:

i) *working in an elevated position,*

R

8. (2)(b)

i. *suspended platform,*

CR 15(12) (a)

ii. *Cranes – mobile - tower*

CR 20(g)

iii. *Construction vehicles*

CR21 (1) (d)(ii)

During the process of task analyses and or risk assessment it is possible that

CR 7. (1)

other tasks may indicate that a medical certificate of fitness is necessary. The prescribed conditions will apply as though it was legislated.

8.2. Health and Safety Committee

Sect 19(4)

8.2.1. Composition.

Sect 19

The duly nominated, elected and designated employees, as health and safety representatives will serve on a health and safety committee. The Health and safety representatives will be required to attend the health and safety committee meetings. The Client and his appointed Construction safety officer are ex-officio members.

8.2.2. Meetings.

Meetings will be held on the day, date, time and place as mutually agreed upon by the health and safety representatives and management. The frequency will also be determined by the aforementioned.

Where the Principle Contractor has established a Health and Safety Committee the designated Health and Safety Representative shall serve on the Committee and the formula applied.

8.3. Legal compliance audits

8.3.1. Audit schedule

The attached schedule or a similar one approved by the Client and or the Principle Contractor must be used. The person conducting the assessment must report in writing any major deviations observed and where

reasonable, practicable the corrective action recommended, the party responsible to take the action and a date by which such must be implemented.

8.3.2. Audit frequency.

An internal legal compliance audit will be conducted monthly.

CR 4. (1)

A legal compliance audit will be conducted by an external / independent auditor one (1) per month.

8.3.3. Analysis.

Each audit report must be tabled and discussed at the next relevant health and safety committee meeting. The chairman shall make any appropriate comments and or recommendations and sign the minutes. The Client, Principle Agent must receive a copy of the minutes. The audit of the Contractors must be consolidated, analysed and submitted to the principle Contractor and the client. The findings will be documented, analyses and recommendations made. Where necessary the client / agent will be consulted with to ascertain if additional resources and or finances are required. The action agreed on i.e. the responsible man test - and the time scheduling must be implemented. As the project progresses it may become necessary to increase the frequency of audits.

NB The construction safety office will assume and be appointed to perform these functions.

9. Log books and Registers.

9.1. First aid Equipment

GSR 3(3)

Mr _____ has been appointed the first aid attendant for the project. The prescribed contents of a first aid box will be available on the project and will be under the control of the first aid attendant.

9.2. Fire fighting appliances,

Mr _____ is appointed to inspect at the prescribed interval and record his CR 27 (g) findings in the appropriate register.

9.3. Access Scaffolding.

Mr _____ has been appointed to inspect access scaffolding as prescribed.

10. Risk Management

The prescribed risk identification, assessment and where necessary a method statement will be completed prior to coming on site where possible. As and when additional information etc is received concerning new or additional tasks the necessary risk identification, assessment must be conducted and approval obtained. Risks assessed that suggest a need for a change in design or other corrective action will be referred to the architect / designer or the client or his agent. Employees must receive, and sign acknowledgment of having received appropriate training, that they understood the requirement and would apply the knowledge.

Mr _____ is appointed the competent person to conduct the risk assessment.

11. Education and Training

11.1. Induction Training

No person will work on this project, or enter or be allowed to remain on the premises unless they have received and acknowledged in writing that they have received, understood and accept the conditions detailed in the induction programme.

A comprehensive list of all induction training given must be kept in the health and safety files and reported on, to management at least monthly. Training sessions must be conducted at least weekly.

NB Occasional visitors, client, agent, architect etc must be re-inducted when significant progress has been made on the project – risk, potential risks become apparent.

- 11.2. Site-specific training.
Site-specific training requirements will be identified. Where applicable a certificate on competency must be must be available – or a certified copy – on the site.

12. Evacuation procedure

- 12.1. The Clients or Principle Contractors evacuation procedure will be communicated to all employees.
12.2. All Company employees will report to their assembly point - the site office.
12.3. Definition of an emergency:
An emergency is a major occurrence such as a fire, bomb threat, chemical spillage, explosion, aircraft crash, or a natural disaster i.e. earthquake / cyclone, which could result in injury, loss of life, or extensive damage to property and the environment.
12.4. Alarm
An audible alarm will be sounded to warn employees of an emergency and also when the situation returns too normal.
12.5. Employee response to an alarm.
Stop working,
If you are using an electric or pneumatic tool switch it off place it on the ground and proceed to the assembly point.
Report to your Supervisor
12.6. Employee response to the all-clear signal.
Return to your working area and proceed with the task you were busy with prior to the evacuation.

Fire:	3 Short sharp blasts
Serious Incident :	Long – short – long blasts
All clear :	5 seconds

13. Environmental Management.

Pressure on natural resources, including land, has continuously increased, as the population increases and likewise, awareness of the need to lessen the negative impacts of development and construction on the environment will continue to increase.

Every effort must be made to use environmentally friendly paints and where possible water-based. The containers once emptied must be disposed of at an approved disposal site or returned to the supplier.

14. Ergonomics

Ergonomics is “the study of work”. Ergonomics therefore is the Profession that studies and analyses people at work, the work systems, and how best they fit together. Much of the work done on Construction Sites is by its very nature an ergonomic problem, because it requires physical work to be done above head height, and below waist level, aggravated by constructions materials being heavy and/or inconveniently sized and shaped, which presents further manual materials handling issues.

15 Health and Safety Communication

Minutes of all health and safety committee meetings shall after acceptance shall be displayed, strategically placed on a site notice board. Where appropriate Newspaper clipping may be used during “tool box” talks and induction training. Any change in company policy or legislation the may affect employees must be communicated to employees as soon as is reasonable and practicable.

16. Safe work procedures.

A programme of safe work procedures is the be embarked on starting with those identified during the risk identification and assessment. Where reasonable and practicable steps have been taken and elements of risk still remain a procedure needs to be developed. The employees required to perform them must receive adequate training. Proof of training must be kept and be available on the premises.

All procedures need to be documented.

17. Personal Protective Clothing and equipment.

PPE may only be issued only after all reasonable and practicable steps have been taken to remove or reduce the hazard and or potential hazards. Act sec 8(2)
GSR 2(2)

All items issued must be maintained in good working order i.e. serviced and repaired as and when necessary. Items must be issued free of charge and for the personal use of the employee. The employee shall sign acknowledgement of receipt of the items that he will use it, them as prescribed and that he has received the necessary training in the use and care of the items.

The principle Contractor and Contractor must take all reasonable steps to ensure that PPE GSR 2(6) issued is used, worn and maintained as described.

18. Project / Site Security.

18.1. Barricading and maintenance

Adequate and suitable solid barricading must be erect and maintained to prevent unauthorised entry as well as to control access onto and off the site. Suitable information signs must be strategically positioned. They will include but not be limited to the following – No unauthorised entry, all visitors must report to the Site office, personal protective clothing / equipment must be worn etc. NB Project / Site management are responsible for all activities taking place on the premises, and people who enter onto or who are allowed to remain on the site.

18.2. Access control

The Client is responsible for the access to and egress from the construction area.

19. Implementation costs.

The cost of implementation should include but are not limited to the following-

19.1. Administration

Project registration,
Occupational health and safety plan and file,
All assignments, appointments and designation,
Risk identifications and assessments and Logbooks and registers,
Health and safety committee meetings and minutes.

19.2. Training and Education

Induction training and badges,
First aid,
Health and safety representatives
Others - specify,

19.3. Legal compliance audits and reports.

Monthly or as required by the client.

19.4. Personal Protective Equipment and Clothing.

19.5. Other.

Site-specific requirements are to be specified.

Conclusion

This Health and Safety Plan has been developed and after negotiation with the Agent accepted. This approved plan will be made available to each Contractor prior to their commencing construction work on the project. We the undersigned do hereby acknowledge receipt of, understand and accept the contents of this Health and Safety Plan.

Client

Name

Signature

Designation

Date

Principle Contractor

Name

Signature

Designation

Date

Principle Contractor

Name

Signature

Designation

Date

Draft
"PREVIEW ONLY COPY"

Occupational Health and Safety Plan

Company name: _____

Project name: _____

Includes Environmental, Occupational Health and Safety and Quality Management (SHEQ)

CONTENT

1. Project Details
2. Policy Statement
3. Objectives
4. Common Vocabulary
5. Legislation
6. Statutory Obligations
7. Project Management
8. Incident Management
9. Logbooks and Registers
10. Risk Management
11. Education and Training
12. Emergency Planning – Evacuation plan
13. Environment
14. Ergonomics
15. Health and Safety Communications
16. Safe working procedures
17. Personal Protective Equipment and Clothing

18. **Project security**

19. **Implementation Costs**

Draft
"PREVIEW ONLY COPY"

Title.

Occupational Health and Safety Plan

This health and safety plan has been prepared in term of the Occupational Health and Safety Act 1993 (Act No 85 of 1993) and Regulations Construction Regulation 5. (1).

This Health and Safety Plan will be revised as and when additions, alterations etc are communicated to us by the Client, his Agent or the Architect / Designer or the conditions of the contract dictate.

1. PROJECT DETAILS

1.1. Project Name:

Physical address:

Contact Details:

Client name:

Postal address:

P O Box

Contact person - Name:

Contact No:

Telephone –

Cellular No:

Facsimile –
Email

1.2. Agent:

Company name:

Postal address:

Contact person - Name:

Contact No:

Telephone –

Cellular No:

Facsimile –
Email

1.3. Architect.

Company name:

Postal Address:

P O Box

Contact person:

Postal address:

P O Box

Contact No:

Telephone –

Cellular:

Facsimile –
Email:

1.4. Principle Contractor

Company name:

Postal Address:

P O Box

1.4.1. Project Manager.

Name:

Contact No:

Telephone –

Cellular:

Assignee Sect 16(2)
Facsimile
Email

1.4.2. Construction Work Supervisor:

Name:

Contact No:

Telephone

Cellular telephone No:

Construction Regulation 6. (1)
Facsimile

1.5. Scope of work

Doors

Electrical installation – re-wiring

Glazing

Granite tops

Plastering

Plumbing and drainage
Shop fittings
Softs, curtains etc
Tiling

NB Where there is construction work in progress with other personnel in the immediate vicinity activities must be co-ordinated by the Principle Contractor and the other Contractors.

1.6. Duration of contract: Start – Expected completion –

1.7. Emergency Telephone Numbers:

An emergency telephone number list should be prominently displayed adjacent to the telephone
The contents of this list is flexible and the following is given as a guide –

EMERGENCY TELEPHONE NUMBERS

Service	Name	Business	After Hours
i Ambulance:			
ii Doctor:			
iii. Hospital:			
iv. Fire Department:			
v. S.A. Police Services:		10111	
vi. Department of Labour:			
vii. Compensation Insurer			
vii.a COLD – Commissioner			
vii.b. FEMA			

Project Manager:

Safety Advisors:
Telephone
Facsimile
Email

DEPARTMENT OF LABOUR

Provincial Office

Department of Labour:

Contact No:

OCCUPATIONAL HEALTH AND SAFETY

2. Policy statement

The Company is committed to providing a safe and healthy working environment and this occupational health and safety plan documents the action that will be implemented.

We acknowledge that as the Principle Contractor we have both a legal and moral obligation to as far as is reasonable and practicable to develop a realistic Health and Safety plan making due reference to the Clients Health and Safety Specification.

We further accept that we must ensure that the relevant legislation is complied with and that all reasonable and practicable steps are taken by all Contractors to provide a safe and healthy environment for persons to work in and that the public are adequately protected.

An independent health and safety advisor will conduct a monthly legal compliance audit to ascertain the level of adherence with statutory requirements, company policy and rules including Occupational Health and Safety, Environmental and Quality standards.

3. Objective.

To complete the project within the budget in respect of finance and time, to an acceptable quality and with no injuries to employees or other persons.

The specific purpose is to achieve and maintain realistic and sustainable International and locally acceptable standards. A ZERO tolerance attitude towards incidents and non-compliance of prescribed quality and workmanship will be adopted. Deviations will be investigated and the appropriate corrective action must be implemented.

NB This Specification will be imposed on all Contractors and their employees working on this project.

4. Common Vocabulary (COMVOC)

Terminology

- | | |
|--|-----------|
| 4.1. Basic Conditions of Employment Act 1997 (Act No 75 of 1997) | BCEA |
| 4.2. Compensation for Occupational Injuries and Diseases Act 1993 (Act No 130 of 1993) | COIDA |
| 4.3. Department of Labour | DoL |
| 4.4. Department of Labour – Inspection and Enforcement Services | DoL (IES) |
| 4.5. Federated Employers Mutual Assurance Company Limited | FEMA |
| 4.6. National Building Regulations and Standards Act 1997 (Act No 103 of 1997) | NBR&S |
| 4.7. Occupational Health and Safety Act 1993 (Act No 85 of 1993) and Regulations | OH&SA |
| 4.8. Occupational Health & Safety Act 1993 Construction Regulations, 2003 | CR |
| 4.9. Provincial Director | PD |

Abbreviation

5. Legislation

Definitions:

“client” the person for whom any construction work is performed,

Legislation

CR 4. (1)

“agent” means any person, appointed in writing to represent the Client,

CR 4 (5)

"architect / Designer" a person who prepares, checks, prepares or assists with a design,	CR
"competent person" a person with the knowledge, training, experience and qualification specific to the work or task being performed. Where there is, and he/she has the appropriate SAQA qualification,	CR
"construction Safety Officer" a competent person in relation to occupational health and safety in the construction industry,	CR
"Contractor" an employer who performs construction work,	CR
"ergonomics" the application of scientific information to optimise human well-being and performance,	CR
"fall prevention plan" a documented plan to eliminate or reduce the risk of falling,	CR
"hazard assessment" the analysis of all existing or potential hazard associated with the work being or to be performed.	
"hazard identification" the identification of existing or known hazards that is normally associated with the work being or to be performed,	CR
"health and safety file" a permanent record of the health and safety requirements prescribed in these regulations,	CR
"health and safety plan" a documented plan, including safe work procedures to mitigate, remove, reduce or eliminate the hazards identified,	CR
"health and safety specification" means a documented specification of the health and safety requirements for the tasks to be performed safely,	CR
"medical certificate of fitness" a certificate valid for one year issued by an occupational health practitioner registered with the Health Professional Council of South Africa,	CR
"method statement" the documented procedure to perform the task as reasonably and practicably safe,	CR
"national building regulations" means the regulations made in terms of section 17(1) of the NBR and BS Act, 1997 (Act No 103 of 1997).	
"principle Contractor" an employer who performs construction work appointed in writing by the Client or his appointed Agent,	CR
"professional engineer or professional certificated engineer" means any person holding registration as either a Professional Engineer or Professional certificated Engineer under the Engineering Professions Act, 2000,	CR
"provincial director" means the Provincial Director as defined in Section 1 of the General Administration Regulations under the Act,	CR
"risk assessment" a programme to determine any risks associated with a task and the to	

identify the steps to remove, reduce or control such hazard,	CR
"SABS – 085" the code of practice – "Design, erection, use and inspection of Access Scaffolding",	CR
"SABS – 0400" the code of practice for the application of National Building Regulations,	CR
"SABS EN 1808 and SABS 1903" the code of practice entitled "safety requirements on suspended access equipment design calculations, stability criteria, construction – tests",	CR
"The Act" means the Occupational Health and Safety Act 1993 (Act No 85 of 1993),	CR
"construction Vehicle" a vehicle used for means of conveyance for transporting persons or material or both as the case may be, both on and off the construction site for the purpose of performing construction work,	CR
"excavation" means any man – made cavity, trench, pit or depression formed by cutting, digging or scooping,	CR
"fall prevention equipment" means equipment used to prevent persons from falling from an elevated position,	CR
"roof apex height" means the dimensional height in meters measured from the lowest ground level abutting any part of a building to the highest point of the roof,	CR
"scaffold" means any temporary elevated platform and supporting structure used for providing access to and supporting workmen or material or both,	CR
"structure" any building, steel or reinforced concrete structure, railway line, or siding, bridge, waterworks, reservoir or pipeline, cable, sewer, sewage works, fixed vessel, road, drainage works, earthworks, dam, wall, mast, tower, tower crane, batching plant, pylon, surface and underground tanks, earth retaining structures or any structure designed to preserve or alter any natural feature, and any other similar structure; (a) any formwork, false work, scaffold or other structure designed or used to provide support or means of access during construction work; or (b) any fixed plant in respect of work, which includes the installation, commissioning, decommissioning or dismantling and where any such work involves a risk to persons falling 2 metres or more.	CR

6. Statutory Obligations

Description	Legislation
6.1. Basic Conditions of Employment Act The relevant sections are to be complied with special attention to at least the following – Working hours, Conditions of employment and Remuneration, Termination of employment, Employment of child labour prohibited.	BCE
6.2. Compensation for Occupational Injuries and Diseases Act 1993 (Act No 130 of 1993) The Act provides for compensation for health conditions, death, diseases and or injuries that arises out of and in the course of an employee's duties. All employers-Principle Contractor and Contractors must	COIDA

register with a compensation insurer – either COIDA or FEMA. They must be in good standing – have proof of having paid their current assessment - in the form of either a receipt of payment or a letter of good standing from their compensation insurer prior to commencing work on the project with a copy on Site.

6.3. Occupational Health and Safety Act 1993 (Act No. 85 of 1993)

OH&SA

The OH&SA is the primary law regulating occupational health and safety matters. The Act is a framework Act that provides for the development of detailed rules and standards through regulation. As a framework, the Act prescribes that -

- (a) the employer must provide and maintain a safe and healthy working environment for his employees and any person, who may enter onto the premises,
- (b) the duties of employers to their employees, employees to their employer and suppliers to the employer and
- (c) the “reasonable man” approach by the employer in decisions concerning occupational health and safety,
- (d) the management, application and enforcement of the Act and regulations are the responsibility of the employer i.e. be he the appointed agent where applicable, Project Managers, each principle Contractor and Contractor.
- (e) each principle Contractor and Contractor shall have a copy of the Act which must be available on site at all times. Employees are to be allowed reasonable access to the Act during normal working hours.

NB Interpretation

Where there is any question as to the interpretation of any legislation and an agreement cannot be reached the matter is to be escalated from Contractor to Principle Contractor to the client. Should the matter still not be resolved it needs to be referred to the Provincial Director – Department of Labour.

7. Project Management

Description	By whom	Legislation
7.1. Notification of Construction Work.	Principle Contractor!	CR 3.1
7.2. Health and Safety Specification The Health and Safety Specification from the Client must be referred to when preparing this Health and Safety Plan.	Client to provide.	CR 4. (1)(a)
7.3. Health and Safety Plan This Health and Safety Plan reflect the procedure that will be implemented to ensure legal compliance during Construction Work.	Contractor	CR 5. (1)
7.4. Health and Safety File All documentation – minutes of health and safety committee meetings, risk Identifications / assessments, legal compliance audits, induction and other training including service records of equipment and machinery etc must be included in the file.	Contractor	CR 5. (7)
7.5. Agreement with Mandatory A written agreement will be entered into between the Client and the Agent, the Agent and each Contractor.	Client / Agent / Principle and Contractor	Act Sec 37(2)
7.6. Appointment of each Contractor by the Agent.		CR 5 (3) (b)

7.7. Organisation chart

7.7.1. Assignment of Duties

Contracts Manager

Act Sec 16(2)

Mr _____ is assigned the duty of ensuring that the requirements of the Act and Regulations and this Health and Safety Plan are complied with during the Construction Work.

7.7.2. Construction Supervisor

Site Agent

CR 6. (1)

Mr _____ is appointed, in writing a competent employee to supervise the day-to-day construction work on the project. The supervisor will manage and control all construction activities in the absence of the Sect 16(2) assignee.

7.7.3. Sub-ordinate Construction Supervisor.

CR 6. (2)

Mr _____ is appointed to be in control of the project in the absence of the Site agent appointed in terms of Construction Regulation 6. 1.

NB Under no circumstances may a Contractor leave employees on the site unless there is a competent construction work supervisor present.

7.7.4. Construction Safety Officer

Part-time/Full-time

CR 6. (6)

Mr _____ has been appointed a part – time construction safety officer for the duration of the project.

7.7.5. Contractors

CR 5. (3)(b)

An up dated list of Contractors will be kept and maintained on Site.

Company:

Activity:

Address

Contact person:

Contact numbers:

Telephone –

Cellular –

Facsimile –

Email:

Company:

Activity:

Address:

P O Box

Contact person:

Contact numbers:

Telephone -

Cellular -

Facsimile

Email:

Company:

Activity:

Address:

P O Box

Contact person:

Contact numbers:

Telephone -

Cellular –

Facsimile –

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Cellular –

Facsimile

Email:

Company:

Activity:

Address:

P O Box

Contact person:

Contact numbers:

Telephone –

Cellular –

Facsimile –

Email:

Company:

Activity:

Address:

P O Box 1254 –

Contact person:

Contact numbers:

Telephone –

Cellular –

Facsimile

Email:

Every Contractor is responsible to ensure that his employees comply with the applicable legislation and this health and safety plan.

NB: A section 37(2) Agreement with Mandatory must be entered into between the Contractors and the principle Contractor.

NB Contractor who contracts out construction work. Where a Contractor contracts construction work out to another Contractor he becomes the Principle Contractor and a section 37(2) agreement must be entered into.

7.7.6. Designation of the Health and Safety Representative / s

Act sect 18

Mr _____ is a designated health and safety representative.
He will perform his prescribed duties in his area of responsibility.

Act sect 18(1) (g)

7.7.7. Appointment as the Risk Assessor / Facilitator.

C R 7(1)

Mr _____ is appointed to identify and record the risks associated with tasks being or that will be performed. These assessments must be reviewed as and when necessary.

7.7.8. Scaffold Inspector:

C R 14(2)

Mr _____ is appointed for this project.
Scaffolds must be inspected as prescribed and the findings reflected in the register provided.

8. Incident Management – Occupational Health and Safety

8.1. Incidents and or injuries

A policy of ZERO tolerance is the target for the project. Every thing reasonable and practicable must be adopted and actively implemented to prevent any incident or injury. Every possible danger or hazard must be identified, documented, analysed and the appropriate action to mitigate and or reduce them implemented. The necessary training of employees must be identified and introduced.

TARGET - NO FATAL OR DISABLING INJURIES
Report to inspector regarding certain incidents

Sect 24

Each incident, which occurs at work or that, arises out of or in the course of his employment that could either result in the employee's death that he loses a limb or part of a limb, becomes unconscious or that he is unable to continue with his normal duties for a period of 14 days must be reported to the relevant Provincial Director of Labour.

8.1.1. no person shall without the permission of an inspector, in the event of an incident described in (1) above disturb the site –

NB Although incidents, which occur on a public road or that, are aviation related must be reported if it arose out of and in the course of the employee's employment.

Domestic incidents are excluded.

Definitions.

Accident

COID Def

Means an accident arising out of and in the course of an employee's employment and resulting in a personal injury, illness or the death of the employee.

Occupational disease

Means any disease contemplated in section 65(1) (a) or (b). NB It includes conditions resulting from exposure to items either used and or exposed to in work place.

Occupational injury

Means any personal injury sustained as a result of an accident.

Classifications.

Fatal - Where the employee dies.

Disabling - When an employee cannot continue to perform the duty he was employed for.

Lost time incident - When an employee does not return to perform the work he was employed for on the next normal working day.

Disabling Lost Time - When an employee sustains an injury on duty and does not return to perform the duties he was employed to do on the next normal working day.

Medical treatment incident - When an employee sustains an injury at work and requires medical – more than first aid treatment i.e. medical, surgical, hospital or skilled nursing services.

First Aid case - Where the wound is treated from the contents of a first aid box

Disabling Lost Time Injury Frequency Rate (DIFR) It is the number of disabling injuries, including a death multiplied by 1 million (1,000,000) divided by the total number of man-hours worked by all employees on the project for a specific month or the project to date.

$$\text{DIFR} = \frac{\text{No of disabling lost time injuries} \times 1,000,000}{\text{Total man-hours work for the period under review}}$$

8.1.2. Reporting.

COIDA

An incident must be reported to the relevant Provincial Director and on the prescribed W.CL 2(E) document and within the prescribed time frame i.e. when the employer becomes aware of or the incident was reported to him.

8.1.3. Recording.

All incidents must be recorded on a document similar to the injury statistic form provided.

8.1.4 Investigation.

Sect 31 The

severity of the injury will dictate whom and when the investigation must be conducted. Where reasonable and practicable all incidents must be investigated prior to the end on the shift on which it occurred, reported to or his employer became aware thereof.

Fatal and serious injuries must be investigated before the end of the shift on which it occurred or as soon as reasonably practical after the occurrence. A team consisting of the Principle Contractor, the construction safety officer and the health and safety representative in whose area the incident occurred must conduct the incident investigation.

Where an employee of a Contractor is injured the Contractor and the health and safety representative for the area in which it occurred will be part of the team. The client or his agent may if they wish form part of the team. A record of the proceeding including signed statements, the name of the person conducting the investigation and persons assisting team members must be kept. All photographs etc must also be kept in the health and safety file.

NB In the event of a fatal, or potentially fatal incident the relevant DoL and the nearest South African Police Services station must be contacted. The scene of the incident may only be altered or disturbed with permission of an inspector or when it is necessary to rescue a person or lives in danger.

8.1.5. Analysis.

The statistics for the total project, each principle Contractor and Contractor must be analysed to ascertain if there is or if any trends are developing by the construction safety officer or a competent person appointed by the client, his agent, the principle Contractor's and all Contractors.

8.1.6. Statistics.

Comprehensive incident / injury statistics must be kept for the total project i.e. the Principle Contractor and every Contractor. The following information must be recorded and kept on the health and safety file of the principle Contractor / s and the Contractor / s.

The client or where applicable his appointed agent must ensure that the relevant statistics are collected, recorded, analysed and the appropriate action instituted. Where a construction safety officer is appointed it will form part of his duties and responsibilities.

Statistics must be kept in the format, suggested which is attached to this document.

The following incidents must be recorded – Fatal, disabling lost time, days lost, medical and first aid cases and man-hours worked. Statistics for the month under review and for the project to-date must be kept either together on one or more documents.

NB The Compensation Commissioner still refers to and reports the Disabling Injury Frequency Rate (DIFR). It has been decided to use the same formula. Contractors may use 200,000 in the formula. However they need to multiply by 5 to reflect the COIDA statistic rate.

8.1.7. Occupational disease / conditions

These must be reported and recorded as prescribed.

COIDA

8.1.8. Medical certificate of fitness.

A medical certificate of fitness, valid for 1 year must be available on the premises at all times for employee working on or operating the following:

i) *working in an elevated position,*

R

8. (2)(b)

i. *suspended platform,*

CR 15(12) (a)

ii. *Cranes – mobile - tower*

CR 20(g)

iii. *Construction vehicles*

CR21 (1) (d)(ii)

During the process of task analyses and or risk assessment it is possible that

CR 7. (1)

other tasks may indicate that a medical certificate of fitness is necessary. The prescribed conditions will apply as though it was legislated.

8.2. Health and Safety Committee

Sect 19(4)

8.2.1. Composition.

Sect 19

The duly nominated, elected and designated employees, as health and safety representatives will serve on a health and safety committee. The Health and safety representatives will be required to attend the health and safety committee meetings. The Client and his appointed Construction safety officer are ex-officio members.

8.2.2. Meetings.

Meetings will be held on the day, date, time and place as mutually agreed upon by the health and safety representatives and management. The frequency will also be determined by the aforementioned.

Where the Principle Contractor has established a Health and Safety Committee the designated Health and Safety Representative shall serve on the Committee and the formula applied.

8.3. Legal compliance audits

8.3.1. Audit schedule

The attached schedule or a similar one approved by the Client and or the Principle Contractor must be used. The person conducting the assessment must report in writing any major deviations observed and where

reasonable, practicable the corrective action recommended, the party responsible to take the action and a date by which such must be implemented.

8.3.2. Audit frequency.

An internal legal compliance audit will be conducted monthly.

CR 4. (1)

A legal compliance audit will be conducted by an external / independent auditor one (1) per month.

8.3.3. Analysis.

Each audit report must be tabled and discussed at the next relevant health and safety committee meeting. The chairman shall make any appropriate comments and or recommendations and sign the minutes. The Client, Principle Agent must receive a copy of the minutes. The audit of the Contractors must be consolidated, analysed and submitted to the principle Contractor and the client. The findings will be documented, analyses and recommendations made. Where necessary the client / agent will be consulted with to ascertain if additional resources and or finances are required. The action agreed on i.e. the responsible man test - and the time scheduling must be implemented. As the project progresses it may become necessary to increase the frequency of audits.

NB The construction safety office will assume and be appointed to perform these functions.

9. Log books and Registers.

9.1. First aid Equipment

GSR 3(3)

Mr _____ has been appointed the first aid attendant for the project. The prescribed contents of a first aid box will be available on the project and will be under the control of the first aid attendant.

9.2. Fire fighting appliances,

Mr _____ is appointed to inspect at the prescribed interval and record his CR 27 (g) findings in the appropriate register.

9.3. Access Scaffolding.

Mr _____ has been appointed to inspect access scaffolding as prescribed.

10. Risk Management

The prescribed risk identification, assessment and where necessary a method statement will be completed prior to coming on site where possible. As and when additional information etc is received concerning new or additional tasks the necessary risk identification, assessment must be conducted and approval obtained. Risks assessed that suggest a need for a change in design or other corrective action will be referred to the architect / designer or the client or his agent. Employees must receive, and sign acknowledgment of having received appropriate training, that they understood the requirement and would apply the knowledge.

Mr _____ is appointed the competent person to conduct the risk assessment.

11. Education and Training

11.1. Induction Training

No person will work on this project, or enter or be allowed to remain on the premises unless they have received and acknowledged in writing that they have received, understood and accept the conditions detailed in the induction programme.

A comprehensive list of all induction training given must be kept in the health and safety files and reported on, to management at least monthly. Training sessions must be conducted at least weekly.

NB Occasional visitors, client, agent, architect etc must be re-inducted when significant progress has been made on the project – risk, potential risks become apparent.

- 11.2. Site-specific training.
Site-specific training requirements will be identified. Where applicable a certificate on competency must be must be available – or a certified copy – on the site.

12. Evacuation procedure

- 12.1. The Clients or Principle Contractors evacuation procedure will be communicated to all employees.
12.2. All Company employees will report to their assembly point - the site office.
12.3. Definition of an emergency:
An emergency is a major occurrence such as a fire, bomb threat, chemical spillage, explosion, aircraft crash, or a natural disaster i.e. earthquake / cyclone, which could result in injury, loss of life, or extensive damage to property and the environment.
12.4. Alarm
An audible alarm will be sounded to warn employees of an emergency and also when the situation returns too normal.
12.5. Employee response to an alarm.
Stop working,
If you are using an electric or pneumatic tool switch it off place it on the ground and proceed to the assembly point.
Report to your Supervisor
12.6. Employee response to the all-clear signal.
Return to your working area and proceed with the task you were busy with prior to the evacuation.

Fire:	_____	3 Short sharp blasts
Serious Incident :	_____	Long – short – long blasts
All clear :	_____	5 seconds

13. Environmental Management.

Pressure on natural resources, including land, has continuously increased, as the population increases and likewise, awareness of the need to lessen the negative impacts of development and construction on the environment will continue to increase.

Every effort must be made to use environmentally friendly paints and where possible water-based. The containers once emptied must be disposed of at an approved disposal site or returned to the supplier.

14. Ergonomics

Ergonomics is “the study of work”. Ergonomics therefore is the Profession that studies and analyses people at work, the work systems, and how best they fit together. Much of the work done on Construction Sites is by its very nature an ergonomic problem, because it requires physical work to be done above head height, and below waist level, aggravated by constructions materials being heavy and/or inconveniently sized and shaped, which presents further manual materials handling issues.

15 Health and Safety Communication

Minutes of all health and safety committee meetings shall after acceptance shall be displayed, strategically placed on a site notice board. Where appropriate Newspaper clipping may be used during “tool box” talks and induction training. Any change in company policy or legislation the may affect employees must be communicated to employees as soon as is reasonable and practicable.

16. Safe work procedures.

A programme of safe work procedures is the be embarked on starting with those identified during the risk identification and assessment. Where reasonable and practicable steps have been taken and elements of risk still remain a procedure needs to be developed. The employees required to perform them must receive adequate training. Proof of training must be kept and be available on the premises.

All procedures need to be documented.

17. Personal Protective Clothing and equipment.

PPE may only be issued only after all reasonable and practicable steps have been taken to remove or reduce the hazard and or potential hazards. Act sec 8(2)
GSR 2(2)

All items issued must be maintained in good working order i.e. serviced and repaired as and when necessary. Items must be issued free of charge and for the personal use of the employee. The employee shall sign acknowledgement of receipt of the items that he will use it, them as prescribed and that he has received the necessary training in the use and care of the items.

The principle Contractor and Contractor must take all reasonable steps to ensure that PPE GSR 2(6) issued is used, worn and maintained as described.

18. Project / Site Security.

18.1. Barricading and maintenance

Adequate and suitable solid barricading must be erect and maintained to prevent unauthorised entry as well as to control access onto and off the site. Suitable information signs must be strategically positioned. They will include but not be limited to the following – No unauthorised entry, all visitors must report to the Site office, personal protective clothing / equipment must be worn etc. NB Project / Site management are responsible for all activities taking place on the premises, and people who enter onto or who are allowed to remain on the site.

18.2. Access control

The Client is responsible for the access to and egress from the construction area.

19. Implementation costs.

The cost of implementation should include but are not limited to the following-

19.1. Administration

Project registration,
Occupational health and safety plan and file,
All assignments, appointments and designation,
Risk identifications and assessments and Logbooks and registers,
Health and safety committee meetings and minutes.

19.2. Training and Education

Induction training and badges,
First aid,
Health and safety representatives
Others - specify,

19.3. Legal compliance audits and reports.

Monthly or as required by the client.

19.4. Personal Protective Equipment and Clothing.

19.5. Other.

Site-specific requirements are to be specified.

Conclusion

This Health and Safety Plan has been developed and after negotiation with the Agent accepted. This approved plan will be made available to each Contractor prior to their commencing construction work on the project. We the undersigned do hereby acknowledge receipt of, understand and accept the contents of this Health and Safety Plan.

Client

_____	_____	_____	_____
Name	Signature	Designation	Date

Principle Contractor

_____	_____	_____	_____
Name	Signature	Designation	Date

Principle Contractor

_____	_____	_____	_____
Name	Signature	Designation	Date

Draft
"PREVIEW ONLY COPY"

TRANSNET



Transnet SOC Limited Registration Number 1990/00900/06

TRANSNET SPECIFICATION

E7/1 - SPECIFICATION FOR GENERAL WORK AND WORKS ON, OVER, UNDER OR ADJACENT TO RAILWAY LINES AND NEAR HIGH VOLTAGE EQUIPMENT


(This specification shall be used in network operator contracts)

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

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Date: May 2011

(This page not to be issued with contract)

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1.0 SCOPE

- 1.1 This specification covers the network operator's requirements for general work and works on, over, under or adjacent to railway lines and near high voltage equipment.

2.0 DEFINITIONS

The following definitions shall apply:

"Authorised Person" - A person whether an employee of the network operator or not, who has been specially authorised to undertake specific duties in terms of Transnet's publication Electrical Safety Instructions, 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 the network operator to carry out work on its behalf.

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

"Dead" - Isolated and earthed.

"Electrical Officer (Contracts)" - The person appointed in writing by the Project Manager in terms of this specification 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 the network operator 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 1000 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 the network operator 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.

"Optical Fibre Cable" - Buried or suspended composite cable containing optical fibres used in:

- telecommunication networks for transmission of digital information and
- safety sensitive train operations systems.

"Project Manager" - As defined in the special conditions of the contract. The person or juristic person appointed by the network operator 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 (general or direct) staff under his control who perform general work or to work on, over, under or adjacent to railway lines and in the vicinity of high-voltage electrical equipment.

"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.

"Works" - The contractual intent for the work to be done as defined in the contract at a defined work site.

PART A - GENERAL SPECIFICATION

3.0 AUTHORITY OF OFFICERS OF TRANSNET

- 3.1 The Contractor shall co-operate with the officers of the network operator and shall comply with all instructions issued and restrictions imposed with respect to the Works which bear on the existence and operation of the network operator's railway lines and high-voltage equipment.
- 3.2 Without limiting the generality of the provisions of clause 3.1, any duly authorised representative of the network operator, having identified himself, may stop the work if, in his opinion, the safe passage of trains or the safety of the network operator's assets or any person is affected. **CONSIDERATIONS OF SAFETY SHALL TAKE PRECEDENCE OVER ALL OTHER CONSIDERATIONS.**

4.0 CONTRACTOR'S REPRESENTATIVES AND STAFF

- 4.1 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 Contract Supervisor with the names, addresses and telephone numbers of the representatives.
- 4.2 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.
- 4.3 The Contractor shall ensure that all contractor staff receives relevant awareness, educational and competence training regarding safety as prescribed.

5.0 OCCUPATIONS AND WORK PERMITS

- 5.1 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 Contract Supervisor and at times to suit the network operator requirements.
- 5.2 The Contractor shall organise the Works in a manner which will minimise the number and duration of occupations and work permits required.
- 5.3 The network operator 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.
- 5.4 The Contractor shall submit to the Contract Supervisor, in writing, requests for occupations or work permits together with details of the work to be undertaken, at least 21 days before they are required. The network operator does not undertake to grant an occupation or work permit for any particular date, time or duration.
- 5.5 The network operator 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 5.6 to 5.8.
- 5.6 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.
- 5.7 When the Contractor is notified less than 2 hours before the scheduled 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.
- 5.8 Reimbursement of the Contractor for any loss of working time in terms of clause 5.6 and 5.7, 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 Contract Supervisor certifies that no other work on which the labour and plant could be employed was immediately available.
- 5.9 Before starting any work for which an occupation has been arranged, the Contractor shall obtain from the Contract Supervisor written confirmation of the date, time and duration of the occupation.
- 5.10 Before starting any work for which a work permit has been arranged, the Responsible Representative shall read and sign portion C of the Work Permit, signifying that he is aware of the work boundaries 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 Work Permit, thereby acknowledging that he is aware that the electrical equipment is to be made "live". The Contractor shall advise all his workmen accordingly.

6.0 SPEED RESTRICTIONS AND PROTECTION

- 6.1 When speed restrictions are imposed by the network operator 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.
- 6.2 When the Contract Supervisor 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 the network operator's and the Contractor's personnel and assets, the public and including trains.
- 6.2.1 The network operator will provide training free of charge of the Contractor's flagmen and other personnel performing protection duties. The Contractor shall consult with the Contract Supervisor, whenever he considers that protection will be necessary, taking into account the minimum permissible clearances set out in the Manual for Track Maintenance (Document no. BBB0481):
- Drawing no. BE-97 Sheet 1: Horizontal Clearances: 1065mm gauge (Annexure 1 sheet 1)
 - Drawing no. BE-97 Sheet 2: Vertical Clearances: 1065mm gauge (Annexure 1 sheet 2)
 - Drawing no. BE-97 Sheet 3: Clearances: Platform (Annexure 1 sheet 3)
 - Drawing no. BE-97 Sheet 5: Clearances: 610mm Gauge (Annexure 1 sheet 5)
- 6.3 The Contractor shall appoint a Responsible Representative to receive and transmit any instruction which may be given by the network operator personnel providing protection.

7.0 ROADS AND ROADS ON THE NETWORK OPERATOR'S PROPERTY

- 7.1 The Contractor shall take every reasonable precaution to prevent damage to any roads or bridges used to obtain access to the site, and shall select routes, use vehicles, and restrict loads so that any extraordinary traffic as may arise from the moving of plant or material to or from the site shall be limited as far as is reasonably possible.
- 7.2 The Contractor shall not occupy or interfere in any way with the free use of any public or private road, right-of-way, path or street unless the Contract Supervisor has obtained the approval of the road authority concerned.

8.0 CLEARANCES

- 8.1 No temporary works shall encroach on the appropriate minimum clearances set out in the Manual for Track Maintenance (Document no. BBB0481):
- Drawing no. BE-97 Sheet 1: Horizontal Clearances: 1065mm gauge (Annexure 1 sheet 1)
 - Drawing no. BE-97 Sheet 2: Vertical Clearances: 1065mm gauge (Annexure 1 sheet 2)
 - Drawing no. BE-97 Sheet 3: Clearances: Platform (Annexure 1 sheet 3)
 - Drawing no. BE-97 Sheet 5: Clearances: 610mm Gauge (Annexure 1 sheet 5)

9.0 STACKING OF MATERIAL

- 9.1 The Contractor shall not stack any material closer than 3m from the centre line of any railway line without prior approval of the Contract Supervisor.

10.0 EXCAVATION, SHORING, DEWATERING AND DRAINAGE

- 10.1 Unless otherwise approved by the Contract Supervisor any excavation adjacent to a railway line shall not encroach on the hatched area shown in Figure 1.

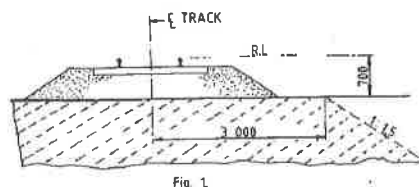


Fig. 1

- 10.2 The Contractor shall provide, at his own cost any shoring, dewatering or drainage of any excavation unless otherwise stipulated elsewhere in the Contract.
- 10.3 Where required by the Contract Supervisor, 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.
- 10.4 The Contractor shall prevent ingress of water to the excavation but where water does enter, he shall dispose of it as directed by the Contract Supervisor.
- 10.5 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.

11.0 FALSEWORK FOR STRUCTURES

- 11.1 Drawings of falsework for the construction of any structure over, under or adjacent to any railway line shall be submitted to the Contract Supervisor 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.
- 11.2 After the falsework has been erected and before any load is applied, the Contractor shall submit to the Contract Supervisor 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 Contract Supervisor to proceed, the Contractor shall be entirely responsible for the safety and adequacy of the falsework.

12.0 PILING

- 12.1 The Contract Supervisor will specify the conditions under which piles may be installed on the network operator's property.

13.0 UNDERGROUND SERVICES

- 13.1 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.
- 13.2 Any damage shall be reported immediately to the Contract Supervisor, or to the official in charge at the nearest station, or to the traffic controller in the case of centralised traffic control.

14.0 BLASTING AND USE OF EXPLOSIVES

- 14.1 When blasting within 500m of a railway line, the Contractor shall observe the requirements stipulated in this specification.
- 14.2 No blasting shall be carried out except with the prior written permission of the Contract Supervisor and under such conditions as he may impose.
- 14.3 On electrified lines the Contractor shall also obtain the permission of the Electrical Officer (Contracts) before blasting, and shall give at least 21 days notice of his intention to blast. No blasting shall be done in the vicinity of electrified lines unless a member of the network operator's electrical personnel is present.
- 14.4 The Contractor shall arrange for the supply, transport storage and use of explosives.
- 14.5 The Contractor shall have labour, tools and plant, to the satisfaction of the Contract Supervisor, available on the site to clear immediately any stones or debris deposited on the track or formation by blasting, and to repair any damage to the track or formation immediately after blasting. Repairs to the track shall be carried out only under the supervision of a duly authorised representative of the network operator.
- 14.6 The Contractor shall notify the Contract Supervisor of his intention to blast at least 21 days before the commencement of any blasting operations.
- 14.7 Before any blasting is undertaken, the Contractor and the Contract Supervisor shall jointly examine and measure up any buildings, houses or structures in the vicinity of the proposed blasting to establish the extent of any existing cracking or damage to such structures, etc. The Contractor, shall, subject to the provisions stipulated in the Contract Insurance Policy, make good any deterioration of such buildings, houses, or structures, which, in the opinion of the Contract Supervisor, was directly caused by the blasting.
- 14.8 After completion of the blasting the Contractor shall obtain a written clearance from each landowner in

- the vicinity of the blasting operations to the effect that all claims for compensation in respect of damage caused by the blasting operations to their respective properties, have been settled.
- 14.9 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).
- 14.10 Blasting within 500m of a railway line will only be permitted during intervals between trains. A person appointed by the Contract Supervisor, 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.
- 14.11 The flagmen described in clause 14.10, where provided by the network operator, are for the protection of trains and the network operator's 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.
- 14.12 The person described in clause 14.10 will record in a book provided and retained by the network operator, 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.
- 14.13 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 Contract Supervisor and the person who will do the blasting shall both sign the book whenever an entry described in clause 14.12 is made.
- 15.0 RAIL TROLLEYS**
- 15.1 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 Contract Supervisor and under the conditions stipulated by him.
- 15.2 All costs in connection with trolley working and any train protection services requested by the Contractor shall, be borne by the Contractor, unless otherwise agreed.
- 16.0 SIGNAL TRACK CIRCUITS**
- 16.1 Where signal track circuits are installed, the Contractor shall ensure that no material capable of conducting an electrical current makes contact between rails of railway line/lines.
- 16.2 No signal connections on track-circuited tracks shall be severed without the Contract Supervisor's knowledge and consent.
- 17.0 PENALTY FOR DELAYS TO TRAINS**
- 17.1 If any trains are delayed by the Contractor and the Contract Supervisor is satisfied that the delay was avoidable, a penalty will be imposed on the Contractor as stipulated in the contract, for the period and number of trains delayed.
- 18.0 SURVEY BEACONS AND PEGS**
- 18.1 The Contractor shall not on any account move or damage any beacon, bench mark, reference mark, signal or trigonometrical station in the execution of the Works without the written approval of the Contract Supervisor.
- Should the Contractor be responsible for any such occurrence, he shall report the circumstances to the Contract Supervisor who will arrange with the Director-General of Surveys for replacement of the beacon or mark at the cost of the Contractor.
- 18.2 The Contractor shall not move or damage any cadastral or mining beacon without the written approval of the Contract Supervisor and before it has been referenced by a registered land surveyor. Any old boundary beacon, which becomes an internal beacon on creation of new boundaries, shall not be moved without the written approval of the Contract Supervisor.

Should the Contractor move or damage any cadastral or mining beacon without authority, he shall be responsible for having it replaced, at his cost, by a land surveyor.

- 18.3 The Contractor shall preserve all pegs and bench marks. Such survey points shall not be removed without the written approval of the Contract Supervisor. Should any peg or benchmark be removed without authority, the Contract Supervisor will arrange for its replacement and the cost will be recovered from the Contractor. No claim will be considered for delay in replacing any such peg or bench mark. Each peg replaced shall be checked by the Contractor.
- 18.4 Where a new boundary has been established, beacons on the fence line shall not be disturbed, and fence posts or anchors may not be placed or excavations made within 0,6 m of any beacon without the prior written approval of the Contract Supervisor.

19.0 TEMPORARY LEVEL CROSSINGS

- 19.1 The Contract Supervisor may, on request of the Contractor, and if necessary for the purpose of execution of the Works, permit the construction of a temporary level crossing over a railway a line at a position approved by the Contract Supervisor and at the Contractor's cost. The period for which the temporary level crossing is permitted will be at the discretion of the Contract Supervisor.

- 19.2 The Contractor will provide protection and supervise the construction of the road over the track(s) and within the railway servitude at the level crossing, as well as the erection of all road signs and height gauges. All cost to be borne by the applicant.

The Contractor shall exercise extreme caution in carrying out this work, especially in respect of damage to tracks, services, overhead power and communications routes and prevent contact with "live" overhead electrical equipment.

Unless otherwise agreed, the Contractor will provide the service deviations or alterations to the network operator's track-, structure-, drainage-, electrical-, telecommunications- and train authorisation systems to accommodate the level crossing.

- 19.3 The Contractor shall take all necessary steps including the provision of gates, locks and, where necessary, watchmen to restrict the use of the temporary level crossing to himself and his employees, his subcontractors and their employees, the staff of the network operator and to such other persons as the Contract Supervisor may permit and of whose identity the Contractor will be advised. If so ordered by the Contract Supervisor, the Contractor shall provide persons to control road traffic using the temporary level crossing. Such persons shall stop all road traffic when any approaching train is within seven hundred and fifty (750) metres of the temporary level crossing, and shall not allow road traffic to proceed over it until the lines are clear.
- 19.4 The Contractor shall maintain the temporary level crossing within the railway servitude in good condition for the period it is in use. A temporary agreement with the road authority to be concluded for the maintenance of the level crossing outside the railway servitude.
- 19.5 When the temporary level crossing is no longer required by the Contractor, or permitted by the network operator, the Contractor shall at his own cost remove it and restore the site and the network operator's track-, structure-, drainage-, electrical-, telecommunications- and train authorisation systems to its original condition. Work over the tracks and within the railway servitude will be supervised by the network operator.

20.0 COMPLETION OF THE WORKS

- 20.1 On completion of the works, the Contractor shall remove all the remaining construction plant and material from the site, other than material which is the property of the network operator, and leave the site in a clean, neat and tidy condition. If material and plant is required for the liability and maintenance period the Contract supervisor must authorise it's retention on site.

21.0 PROTECTION OF PERSONS AND PROPERTY

- 21.1 The Contractor shall provide and maintain all lights, guards, barriers, fencing and watchmen when and where necessary or as required by the Contract Supervisor or by any statutory authority, for the protection of the Works and for the safety and convenience of the public.

Red, yellow, green or blue lights may not be used by the Contractor as they can be mistaken for signals. Red, yellow, green or white flags shall only be used for protection by the Contractor. Within the precincts of a port the Contractor shall obtain the permission of the Port Captain before installing any light.

- 21.2 The Contractor shall take all the requisite measures and precautions during the course of the Works to:
- (i) protect the public and property of the public,
 - (ii) protect the property and workmen of both the network operator and the Contractor,
 - (iii) avoid damage to and prevent trespass on adjoining properties, and
 - (iv) ensure compliance with any instruction issued by the Contract Supervisor or other authorised person, and with any stipulation embodied in the contract documents which affects the safety of any person or thing.
- 21.3 The network operator will provide, at its own cost, protection for the safe working of trains during such operations as the Contract Supervisor may consider necessary. Protection by the network operator for any purpose whatsoever, does not absolve the Contractor of his responsibilities in terms of the Contract.
- 21.4 The Contractor shall take all precautions and appoint guards, watchmen and compound managers for prevention of disorder among and misconduct by the persons employed on the Works and by any other persons, whether employees or not, on the work site and for the preservation of the peace and protection of persons and property in the direct neighbourhood. Any relocation of camps because of disorder shall be at the Contractor's expense.
- 21.5 All operations necessary for the execution of the Works, including the provision of any temporary work and camping sites, shall be carried out so as not to cause veldt fires, ground and environmental pollution, soil erosion or restriction of or interference with streams, furrows, drains and water supplies.
- If the original surface of the ground is disturbed in connection with the Works, it shall be made good by the Contractor to the satisfaction of the land owner, occupier or responsible authority.
- 21.6 The Contractor shall take all reasonable steps to minimise noise and disturbance when carrying out the Works, including work permitted outside normal working hours.
- 21.7 Dumping of waste or excess materials by the Contractor shall, in urban areas, be done under the direction and control of, and at sites made available by the local authority. Dumping outside local authority boundaries shall be done only with the express permission and under the direction and control of the Contract Supervisor.
- 21.8 The Contractor shall comply with environmental protection measures and specifications stipulated by the Contract Supervisor and/or local and environmental authorities.
- 22.0 INTERFERENCE WITH THE NETWORK OPERATOR'S ASSETS AND WORK ON OPEN LINES**
- 22.1 The Contractor shall not interfere in any manner whatsoever with an open line, nor shall he carry out any work or perform any act which affects the security, use or safety of an open line except with the authority of the Contract Supervisor and in the presence of a duly authorised representative of the network operator.
- 22.2 The Contractor shall not carry out any work or operate any plant, or place any material whatsoever nearer than three metres from the centre line of any open line except with the written permission of the Contract Supervisor and subject to such conditions as he may impose.
- 22.3 Care must be taken not to interfere with or damage any services such as overhead wire routes, cables or pipes and optical fibre cable, except as provided for the work specified. The Contractor will be held responsible for any damage to or interruption of such services arising from any act or omission on his part or of any of his employees, or persons engaged by him on the Works. The cost of repairing, replacing or restoring the services, as well as all other costs arising from any damage to services, shall be borne by, and will be recovered from the Contractor.
- 22.4 Authority granted by the Contract Supervisor and the presence of an authorised representative of the network operator in terms hereof, shall not relieve the Contractor of his duty to comply with this specification.
- 23.0 ACCESS, RIGHTS-OF-WAY AND CAMPSITES**
- 23.1 Where entry onto the network operator's property is restricted, permission to enter will be given only for the purpose of carrying out the Works and will be subject to the terms and conditions laid down by the network operator.
- 23.2 The Contractor shall arrange for campsites, workplaces and access thereto as well as for any right-of-

way over private property to the site of the Works, and for access within the boundaries of the network operator's property. The owners of private property to be traversed shall be approached and treated with tact and courtesy by the Contractor, who shall, if necessary, obtain a letter of introduction to such property owners from the Contract Supervisor.

The Contractor shall be responsible for the closing of all gates on roads and tracks used by him or his employees. Except with the prior approval of the Contract Supervisor and the owner or occupier of any private land to be traversed, the Contractor shall not cut, lower, damage, remove or otherwise interfere with any fence or gate which is either on the network operator's property or on private property and which restricts access to the Works. Where such approval has been given, the Contractor shall prevent entry of animals or unauthorised persons onto the network operator's or private property, and shall make the fences safe against trespass at the close of each day's work.

- 23.3 The Contractor shall take all reasonable steps to confine the movement of vehicles and plant to the approved right-of-way to minimise damage to property, crops and natural vegetation.

- 23.4 When access is no longer required, and before completion of the Works, the Contractor shall repair, restore or replace any fence or gate damaged during execution of the Works to the satisfaction of the Contract Supervisor and shall furnish the Contract Supervisor with a certificate signed by the owner and occupier of land over which he has gained access to a campsite, workplace and the Works, certifying that the owner and occupier have no claim against the Contractor or the network operator arising from the Contractor's use of the land. Should the Contractor be unable to obtain the required certificate, he shall report the circumstances to the Contract Supervisor.

24.0 SUPERVISION

- 24.1 The Contract Supervisor will provide overall technical superintendence of the Works, and may direct the Contractor in terms of the provisions of the Contract or in respect of any measures which the Contract Supervisor may require for the operations of the network operator, the safety of trains, property and workmen of the network operator, and for the safety of other property and persons. The Contractor shall carry out the directions of the Contract Supervisor. The superintendence exercised by the Contract Supervisor, including any agreement, approval, refusal or withdrawal of any approval given, shall not relieve the Contractor of any of his duties and liabilities under the Contract, and shall not imply any assumption by the network operator or by the Contract Supervisor of the legal and other responsibilities of the Contractor in carrying out the Works.

- 24.2 The Contract Supervisor may delegate to any deputy or other person, any of his duties or functions under the Contract. On receiving notice in writing of such delegation, the Contractor shall recognise and obey the deputy or person to whom any such duties or functions have been delegated as if he were the Contract Supervisor.

- 24.3 The Contractor shall exercise supervision over the Works at all times when work is performed or shall be represented by an agent having full power and authority to act on behalf of the Contractor. Such agent shall be competent and responsible, and have adequate experience in carrying out work of a similar nature to the Works, and shall exercise personal supervision on behalf of the Contractor. The Contract Supervisor shall be notified in writing of such appointment which will be subject to his approval.

- 24.4 The Contractor or his duly authorised agent shall be available on the site at all times while the Works are in progress to receive the orders and directions of the Contract Supervisor.

25.0 HOUSING OF EMPLOYEES

- 25.1 The Contractor shall, where necessary, make his own arrangements for suitable housing of his employees. Where temporary housing is permitted by the Contract Supervisor on any part of the site, the Contractor shall provide suitable sanitation, lighting and potable water supplies in terms of the requirements of the local authority or the current network operator's specification; Minimum Communal Health Requirements in Areas outside the Jurisdiction of a Local Authority - E.4B, as applicable.

- 25.2 Fouling the area inside or outside the network operator's boundaries shall be prevented. The Contractor will be called upon by the Contract Supervisor to dispose of any foul or waste matter generated by the Contractor.

26.0 OPTICAL FIBRE CABLE ROUTES

- 26.1 The Contractor shall not handle, impact, move or deviate any optical fibre cable without prior approval.
- 26.2 Works that in any way affect the optical fibre cable requires prior approval from the Contract Supervisor

who will determine the work method and procedures to be followed.

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

27.0 GENERAL

- 27.1 This specification is based on the contents of Transnet's publication ELECTRICAL SAFETY INSTRUCTIONS, 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 the network operator, and the onus rests on the Contractor to ensure that he obtains a copy.

- 27.2 This specification must be read in conjunction with and not in lieu of the Electrical Safety Instructions.
- 27.3 The Contractor's attention is drawn in particular to the contents of Part I, Sections 1 and 2 of the Electrical Safety Instructions.
- 27.4 The Electrical Safety Instructions 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).
- 27.5 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.
- 27.6 The Contractor shall regard all high-voltage equipment as "live" unless a work permit is in force.
- 27.7 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 the network operator's staff where this is necessary.
- 27.8 No barrier shall be removed unless authorised by the Electrical Officer (Contracts).

28.0 WORK ON BUILDINGS OR FIXED STRUCTURES

- 28.1 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.
- 28.2 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.
- 28.3 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.

29.0 WORK DONE ON OR OUTSIDE OF ROLLING STOCK, INCLUDING LOADING OR UNLOADING

- 29.1 No person may stand, climb or work, whilst on any platform, surface or foothold:
- 29.1.1 higher than the normal unrestricted access way, namely -
 - 29.1.1.1 external walkways on diesel, steam and electric locomotives, steam heat vans, etc. and
 - 29.1.1.2 walkways between coaches and locomotives.
 - 29.1.2 of restricted access ways in terms of the Electrical Safety Instructions namely -
 - 29.1.2.1 the floor level of open wagons
 - 29.1.2.2 external walkways or decks of road-rail vehicles, on-track maintenance machines and material trains.
 - 29.1.3 Unauthorised staff working on these platforms must be directly supervised by duly authorised persons in terms of clause 607.1.3 of the Electrical Safety Instructions. These persons must attend the relevant electrical safety module training. A letter of training must then be issued by an accredited training authority. A Category C Certificate of Authority must be obtained from the

local depot examining officer.

- 29.2 When in the above positions no person may raise his hands or any equipment he is handling above his head.
- 29.3 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.
- 29.4 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.
- 29.5 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.
- 29.6 Where the conditions in clauses 30.1 to 30.4 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 the network operator and at the Contractor's cost, 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 of the network operator.

30.0 USE OF EQUIPMENT

30.1 Measuring Tapes and Devices

- 30.1.1 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.
- 30.1.2 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.
- 30.1.3 Special measuring devices longer than 2 metres such as survey sticks and rods may be used if these are of non-conducting material and approved by the responsible Electrical Engineer of the network operator, but these devices must not be used within 3 metres of "live" high-voltage equipment in rainy or wet conditions.
- 30.1.4 The assistance of the Electrical Officer (Contracts) shall be requested when measurements within the limits defined in clauses 31.1.1 to 31.1.3 are required.
- 30.1.5 The restrictions described in 31.1.1 to 31.1.3 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.

30.2 Portable Ladders

- 30.2.1 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.

31.0 CARRYING AND HANDLING MATERIAL AND EQUIPMENT

- 31.1 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 such material should be carried by two or more persons so as to maintain it as nearly as possible in a horizontal position. The utmost care must be taken to ensure that no part of the material comes within 3 metres of any "live" high-voltage equipment.
- 31.2 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.
- 31.3 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.

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

- 32.1 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.

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

32.3 The provisions of clauses 33.1 and 33.2 shall also apply to the erection or removal of columns, antennae, trees, posts, etc.

33.0 USE OF WATER

33.1 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.

34.0 USE OF CONSTRUCTION PLANT

34.1 "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.

34.2 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.

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

34.4 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.

34.5 Clauses 35.1 to 35.4 shall apply *mutatis mutandis* to the use of maintenance machines of any nature.

35.0 WORK PERFORMED UNDER DEAD CONDITIONS UNDER COVER OF A WORK PERMIT

35.1 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.

35.2 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.

36.0 TRACTION RETURN CIRCUITS IN RAILS

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

36.2 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 the network operator personnel.

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

36.4 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.

37.0 HIGH-VOLTAGE ELECTRICAL EQUIPMENT NOT MAINTAINED AND/OR OPERATED BY THE NETWORK OPERATOR

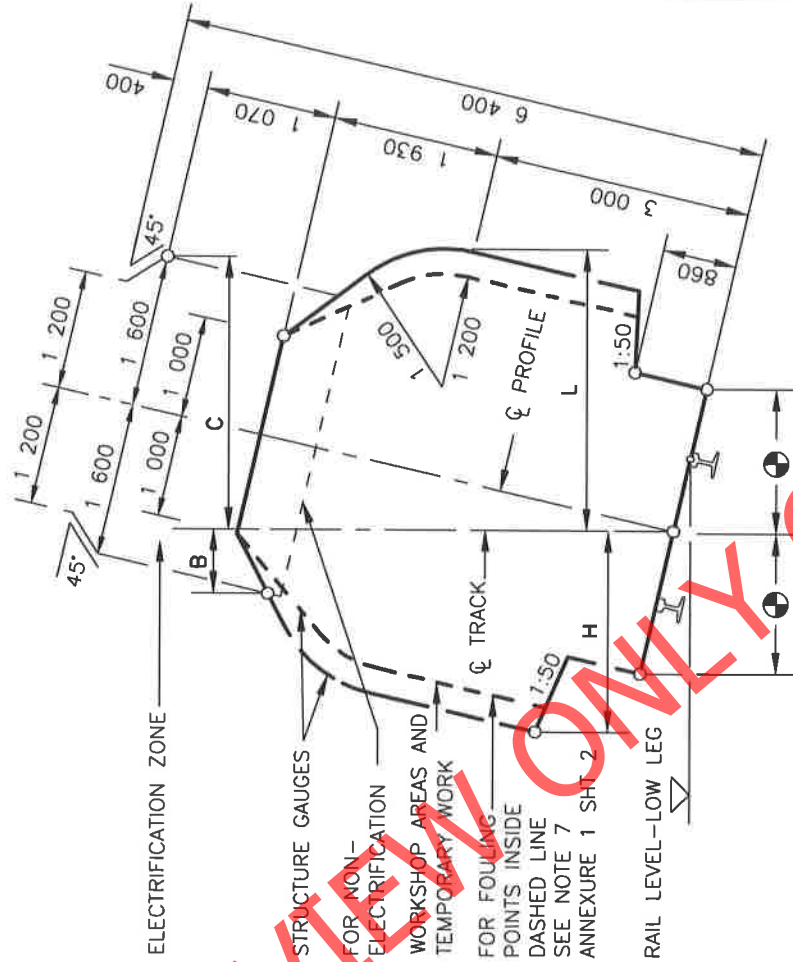
Where the work is undertaken on or near high-voltage electrical equipment which is not maintained and/or operated by the network operator, the Occupational Health and Safety Act No. 85 of 1993, and Regulations and Instructions, or the Mines Health and Safety Act (Act 29 of 1996), shall apply.

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.

END

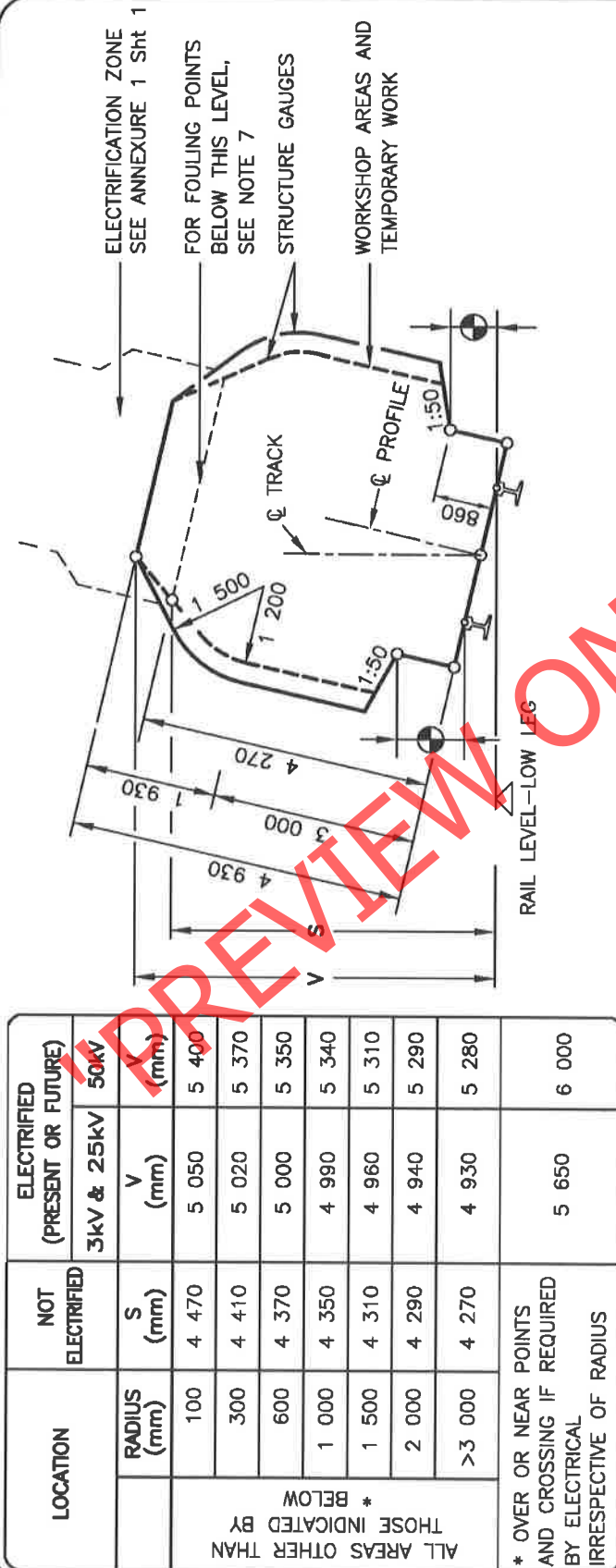
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RADIUS (m)	WITH CANT		NO CANT	WITH CANT	
	H (mm)	L (mm)		B (mm)	C (mm)
90	2 730	3 090	2 780	1 130	2 100
100	2 700	3 030	2 750	1 140	2 050
120	2 650	2 970	2 700	1 160	2 010
140	2 620	2 920	2 660	1 175	1 990
170	2 590	2 870	2 630	1 190	1 970
200	2 570	2 820	2 600	1 205	1 950
250	2 550	2 790	2 580	1 230	1 920
300	2 540	2 760	2 560	1 250	1 900
350	2 530	2 730	2 540	1 270	1 890
400	2 520	2 710	2 530	1 290	1 875
500	2 510	2 680	2 520	1 320	1 850
600	2 500	2 660	2 510	1 340	1 830
800	2 490	2 620	2 500	1 365	1 790
1 000	2 480	2 600	2 490	1 380	1 760
1 200	2 480	2 580	2 490	1 200	1 730
1 500	2 480	2 550	2 480	1 415	1 700
2 000	2 480	2 500	2 480	1 440	1 660
3 000	2 470	2 470	2 470	1 500	1 600
>5 000	2 460	2 460	2 460	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.

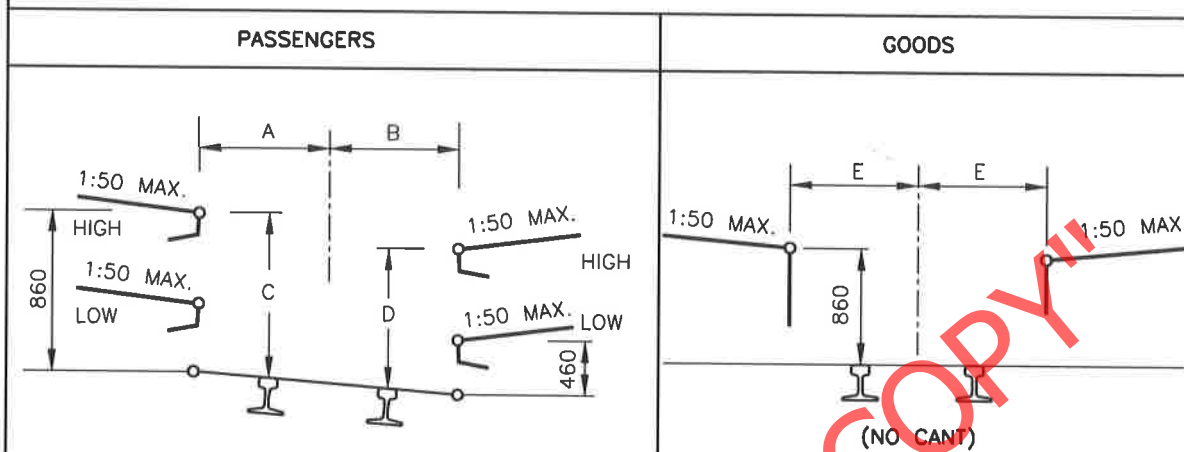


REMARKS:

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

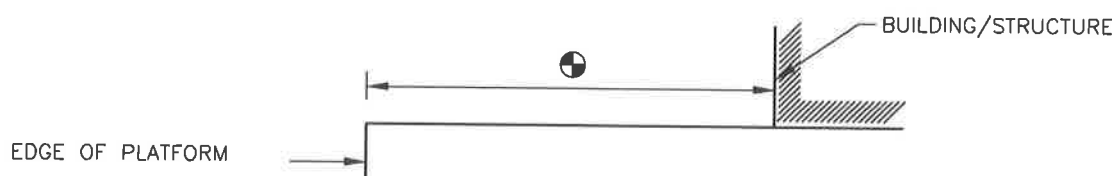


RADIUS (m)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
90	1 690	1 820	890	810	1 840
100	1 650	1 790	890	810	1 810
120	1 610	1 740	890	810	1 760
140	1 580	1 700	890	810	1 720
170	1 550	1 660	890	810	1 690
200	1 530	1 630	890	820	1 670
250	1 520	1 600	890	820	1 640
300	1 520	1 580	890	830	1 620
350	1 520	1 560	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

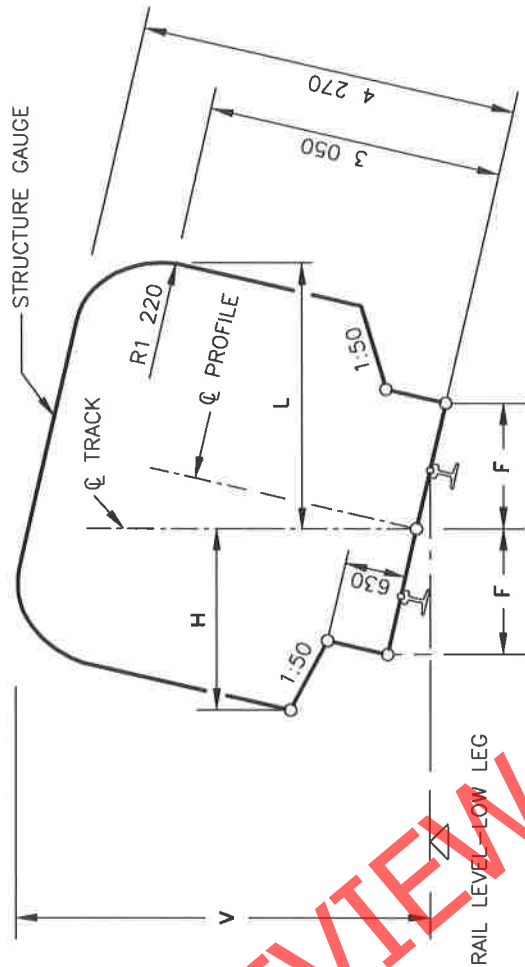
REMARKS:

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

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



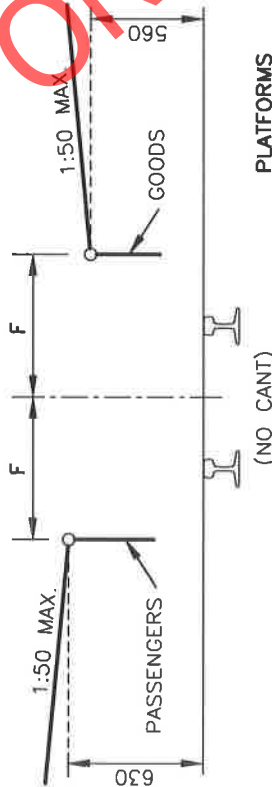
CLEARANCES : 610mm TRACK GAUGE



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

RADIUS (m)	F (mm)
50	1 550
60	1 510
80	1 460
100	1 430
120	1 410
140	1 390
170	1 380
200	1 370
250	1 360
300	1 350
600	1 330
1 000	1 320
>2 000	1 320
STRAIGHT	1 310

CLEARANCES



PLATFORMS

REMARKS:

1. H IS THE MINIMUM HORIZONTAL CLEARANCE ON THE OUTSIDE OF THE CURVE BASED ON MINIMUM CANT.
2. L IS THE MINIMUM HORIZONTAL CLEARANCE ON THE INSIDE OF THE CURVE BASED ON MAXIMUM CANT.
3. V IS THE MINIMUM VERTICAL CLEARANCE.
4. FOR APPLICATION AT CURVES:
 - 4.1 APPLY INCREASED CLEARANCES FOR CURVES TO POINTS 2m 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 18m ALONG STRAIGHTS.
5. INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
6. ALSO REFER TO REMARKS 5, 6 AND 7 OF ANNEXURE 1 SHEET 2.
7. CLEARANCES ARE BASED ON 9 700mm BOGIE CENTRES AND 13 700mm VEHICLE BODY LENGTH.
8. SEE ANNEXURE 1 SHEET 3 FOR STRUCTURES ON PLATFORMS.