

TRANSNET



port terminals

Part C3

Scope of Services

SCOPE OF SERVICES FOR A GEOTECHNICAL INVESTIGATION

Document reference	Title	No of pages
C3.1	Cover pages, Contents and Glossary The Scope	8
	Total number of pages	41

Contents

C3.1: THE SCOPE	1
1 Introduction	1
1.1 Project Background.....	1
1.2 Scope Overview.....	1
2 Geotechnical Scope of Services.....	3
2.1 Description of the Works.....	3
2.2 The Key Professional Personnel Required for this Project	3
2.3 Geotechnical and Project Concerns that may be Encountered	4
2.4 Site Access Limitations	5
2.5 Constraints on how the Consultant Provides the Works.....	5
2.6 Daily Site Diaries	5
2.7 Deliverables.....	6
2.8 Site Services and Facilities.....	6
3 Meetings	9
3.1 Clarification Meeting	9
3.2 Management Meetings	9
4 Programme	11
4.1 Requirements for the Programme	11
4.2 Planning and Programming	11
5 Documentation	12
5.1 Documentation Control.....	12
5.2 Procedure for Submission and Acceptance of Consultant’s Documents	13
5.3 As-built Drawings, Operating Manuals and Data Packs	13
6 Management.....	15
6.1 Contract Management.....	15
6.2 Cost Management	15
6.3 Construction Management.....	16
6.4 Risk Management.....	18
6.5 Insurance	18
6.6 Consultant’s Management, Supervision and Key People	18
6.7 Sub-Contracting	18
7 Regulatory Requirements.....	20
7.1 Health & Safety Requirements.....	20

TRANSNET SOC Ltd
ENQUIRY NUMBER:
DESCRIPTION OF SERVICES: GEOTECHNICAL INVESTIGATION SERVICE
PROJECT:

7.2	<i>Environmental Constraints and Management</i>	31
7.3	<i>Quality Assurance Requirements</i>	32
7.4	<i>Code of Conduct</i>	32
8	Procurement	34
8.1	<i>Invoices</i>	34
8.2	<i>Payment Records</i>	34

List of Figures

Figure 1: Insert drawing/site plant/etc.....	2
--	---

List of Tables

Table 1: Facilities provided by the Employer for the <i>Consultant</i>	6
Table 2: Management meetings	9
Table 3: <i>Activity Schedule</i>	Error! Bookmark not defined.
Table 4: Professional fees	Error! Bookmark not defined.
Table 5: Disbursements.....	39

List Of Annexures

The following list of specifications is applicable:

- Project Health and Safety Specification – PHSS-0001 (**Annexure A**).
- ENV-STD-002 - Rev 00 - *Standard Environmental Specification (Annexure B)*.
- ENV-STD-001 - Rev 00 - *Construction Environmental Management Plan (Annexure C)*.
- DOC-STD-0001 - Rev 03 - *Consultant Documentation Submittal Requirements (Annexure E)*.
- ENG-STD-0001 - Rev 00 - *CAD Standards (Annexure G)*.
- HAS-P-0001 - Rev 0 - *Site Emergency Management (Annexure I)*.
- HAS-P-0002 - Rev 0 - *Occurrence Reporting and Investigation (Annexure J)*.
- HAS-GN-0001 - Rev 0 - *Guidelines for Managing Common Hazardous Activities and Tasks (Annexure K)*.
- Transnet Procedure Manual (2011/2012) - *Principal Controlled Insurance: Contract Works/Consultants Public Liability (Annexure M)*.
- *Transnet E7/1 (July 1998) - Specification for Works On, Over, Under or Adjacent to Railway Lines and Near High Voltage Equipment (Annexure N)*.
- QAL-STD-0001 - Rev 0 - *General Quality Requirements for Consultants and Suppliers (Annexure O)*.
- BS 5930:1999 - *Code of Practice for Site Investigations (Annexure P)*.
- SAICE, January 2010 – *Site Investigation Code of Practice (Annexure Q)*.
- SANRAL, 2010 – *Standards Specifications for Subsurface Investigations (Annexure R)*.
- TMH 1 – *Standard Methods of Testing Road Construction Materials*.
- BS 1377 – *Methods of Test for Soils for Civil Engineering Purposes*.

Glossary

The definitions listed below apply to this document.

Abbreviations	Definition
AASHTO	American Association of State Highway and Transportation Officials
BBBEE	Broad Based Black Economic Empowerment
BS	British Standard
CAD	Computer Aided Design
CDS	Consultant Documentation Schedule
CEMP	Construction Environmental Management Plan
CESA	Consulting Engineers South Africa
CM	Construction Manager
COIDA	Compensation for Occupational Injuries and Diseases Act
COLTO	Committee of Land Transport Officials
COTO	Committee of Transport Officials
CPM	Critical Path Method
CSHEO	Certified Safety, Health and Environmental Official
CTC	Central Train Control
CV	Curriculum Vitae
DCP	Dynamic Cone Penetrometer
ECSA	Engineering Council of South Africa
EMP	Environmental Management Plan
FBS	Facility Breakdown Structure
FEL	Front End Loading
FEL1	Front End Loading: Conceptual Study
FEL2	Front End Loading: Pre-feasibility Study
FEL3	Front End Loading: Feasibility Study
FEL4	Front End Loading: Execution and Commissioning Phase
H&S	Health and Safety
ISO	International Standards Organization
LDV	Light Delivery Vehicle
msl	Mean sea level
NEC3	New Engineering Contract
NEMA	National Environmental Management Act
OCR	Optical Character Recognition
OHS	Occupational Health and Safety
P&G	Preliminary and General
PCI	Principled Controlled Insurance

Abbreviations	Definition
PEP	Project Execution Plan
PES	Project Environmental Specification
PFMA	Public Finance Management Act
PIRP	Project Industrial Relations Policy
PM	Employer's Agent
PPE	Personal Protective Equipment
PPM	Procurement Procedure Manual
PQP	Project Quality Plan
PSC	Professional Services Contract
PSCM	Procurement and Supply Chain Management
QA	Quality Assurance
QC	Quality Control
QCP	Quality Control Procedure
QMP	Quality Management Plan
SACNASP	South African Council for Natural and Scientific Professions
SACPCMP	South African Council for Project and Construction Management Professions
SAICE	South African Institution Of Civil Engineering
SANAS	South African National Accreditation System
SANRAL	South African National Roads Agency SOC Ltd
SES	Standard Environmental Specification
SHEQ	Safety, Health, Environment and Quality (Management System)
SOQ	Schedule of Quantities
SPT	Standard Penetration Test
TEU	Twenty-Foot Equivalent Unit
TFR	Transnet Freight Rail
TLB	Tractor-mounted Loader Backhoe
TMH	Technical Methods for Highways
TNPA	Transnet National Ports Authority
TP	Transnet Property
TPT	Transnet Port Terminals
TRH	Technical Recommendations for Highways
UCS and E	Unconfined Compressive Strength and Elasticity
USCS	Unified Soil Classification System
VAT	Value-Added Tax
WBS	Work Breakdown Structure
WGS	World Geodetic System

C3.1: THE SCOPE

All *Works* and *Services* are to comply with:

- Safety arrangements and procedural compliance with the *Occupational Health and Safety Act* (Act 85 of 1993).
- All relevant Transnet policies.

1 Introduction

1.1 Project Background

- Transnet National Ports Authority (TNPA) intends to increase the Automotive capacity at the Point precinct and Container capacity at the Point, Maydon Wharf and Bayhead precincts within the Port of Durban. This is in line with the new port of Durban Master Plan which is aimed at creating capacity ahead of demand. The KZN segment strategy is to position the port of Durban as a premier container hub that will feed the Sub-Saharan African catchment through transshipments. This will also contribute to Transnet strategic intent of lowering the cost of logistics through economies of scale.
- As mentioned above, one of the precincts identified for containers and automotive is the Point precinct. To this end, the Point precinct handles a variety of cargo including automotive, fruit, general cargo (e.g., steel, project cargo and containers). It is also home to the Passenger Terminal.

1.2 Scope Overview

In terms of this appoint, the *Consultant* is required to:

- Plan and execute a comprehensive geotechnical investigation in the area(s)
- Provide geotechnical input/design recommendations for all elements related to the surfacing and pavement layerworks design for the parking of both LDV's and HDV's.
- Provide detailed designs for construction of all required.

Figure 1: Site Plan



2 Geotechnical Scope of Services

2.1 Description of the Works

The *Consultant's Scope of Services* is anticipated to include the following:

- Desktop study of geological maps and/or historical geotechnical investigations (if available).
- Fieldwork
- Laboratory testing
- Reporting. *Geotechnical Investigation and Design Report(s)* that include the following minimum requirements (if/where applicable):
 - General descriptions of various sites investigated (e.g. climate, general geology, etc.) and fieldwork conducted.
 - Description of existing sub-soil and/or rock conditions/types, including possible fault lines, areas of instability, problematic soils (e.g. soils with dispersive, highly erosive, collapsible, expansive or compressible properties), etc.
 - Data evaluation/interpretation of the field and laboratory test results.
 - Material classification and recommended use (e.g. COLTO/COTO, TRH14, USCS, AASHTO, S410).
 - Groundwater measurements and in-situ permeability.
 - Recommendations and designs for surface and sub-surface drainage.
 - Layerworks recommendations and pavement designs for access roads, service roads, pavements, both internal and external slabs (including track slabs, if/where required), as well as possible upgrades and/or rehabilitation work on existing pavement infrastructure.
 - Recommendations for excavation works.
- Documentation for construction/implementation of the *Consultant's* designs, including, but not limited to the following:
 - Construction drawings.
 - Detailed *Bill of Quantities*.
 - Technical Specifications.
 - *Works Information/Scope of Works* (detailing how the construction *Consultant* should go about executing/implementing the designs).

The *Consultant* is to carry out the *Scope of Services* in accordance with:

- The Engineering Council of South Africa (2007). *Fees for Persons Registered in terms of the Engineering Professions Act 2000*, ECSA Guidelines, Gov. Gazette, Vol 582 No 37102 dated 4 Dec 2013.

The soil and rock profiles are to be recorded in accordance with an accepted South African recommended method (e.g. Brink A.B.A. and Bruin R.M.H. (2002). *Guidelines for Soil and Rock Logging in South Africa*).

All laboratory testing is to be carried out by a South African National Accreditation System (SANAS) accredited laboratory. Laboratory tests are to be carried out in accordance with TMH 1, BS1377:1990 or other applicable standards. The laboratory must be experienced in carrying out geotechnical tests. The laboratory test results are to include all data that is required in the relevant standards. All results are to be fully typed, all graphs and charts are to be computer generated and presented in an electronic format.

2.2 The Key Professional Personnel Required for this Project

The key professional personnel required for this *Contract* are as follows:

- *Senior Engineer/Senior Engineering Geologist to review and take responsibility for the Geotechnical Investigation and Design Report(s). The Senior Engineer to be registered with the Engineering Council of South Africa (ECSA) as a professional engineer/engineering technologist (civil). The Senior Engineering Geologist to have an honors degree in engineering geology and be registered at the South African Council for Natural and Scientific Professions (SACNASP) as a Pr. Sci. Nat.*
- *Engineer/Engineering Geologist (Site Agent/Supervisor - fulltime on-site) will be responsible for fieldwork supervision, profiling/core logging, sampling and producing the Geotechnical Investigation and Design Report(s). The Engineer to be registered with the Engineering Council of South Africa (ECSA) as a professional engineer/engineering technologist (civil) with a minimum of two years geotechnical experience after registration. The Engineering Geologist to have an honors degree in engineering geology and be registered at the South African Council for Natural and Scientific Professions (SACNASP) as a Pr. Sci. Nat, with a minimum of two years geotechnical experience after registration.*
- *South African Council for Project and Construction Management Professions (SACPCMP) Registered SHE Officer who will ensure Health, Safety and Environmental compliance to all applicable legislation throughout the project duration and who will submit weekly statistical reports.*
- *Quality Assurance Representative.*

CVs of key personnel showing qualifications, proof of registration and geotechnical experience to be submitted. The *Consultant* to provide proof of holding professional indemnity cover and to provide proof of memberships of voluntary relevant associations, i.e. SAICE and CESA.

The *Consultant* is to make provision for providing security when doing any site-related *Work*.

2.3 Geotechnical and Project Concerns that may be Encountered

Some of the geotechnical problems and general risks that may be encountered are briefly described below:

- Relative shallow water table and/or perched water table.
- Problematic transported and residual soils (soils with dispersive, highly erosive, collapsible, expansive or compressible properties).
- Irregular occurrences as well as variability in thickness and consistency of the in-situ materials.
- Hard rock excavation that requires blasting (if applicable).
- Vegetation may have to be removed to conduct the *Works*. Environmental considerations should be taken into account.
- Potential shallow buried services.
- Working closely and/or adjacent other port operation activities, OHTE and live lines as well as potentially restricted access.

2.4 Site Access Limitations

As the site is located in the **Port of Durban**, specific security, permit and induction requirements are relevant to working on site. The details will be covered during the compulsory *Scope* clarification meeting and site inspection.

Investigation positions are expected to have drive-on access for a 2-wheel drive LDV and trailer.

The *Consultant* shall not drive vehicles off established access roads without the specific prior written instruction. Where sites cannot be accessed by vehicles, it shall be required of the *Consultant* to make alternative arrangements (i.e. carry equipment, etc.).

2.5 Constraints on how the *Consultant* Provides the Works

The position of the *Consultant's* laydown area for plant and equipment, as well as offices and latrine(s) will be covered during the *Scope* clarification meeting and site inspection. No camping is allowed on the site.

The *Consultant* will not have the exclusive use of the site for the duration of the *Contract*.

Unless otherwise stated by the *Employer's Agent*, the *Consultant* is to use existing roads in the port and remain on roads created by the *Consultant*.

Normal working hours are Mondays to Fridays, from 07h00 to 17h00. *Works* will not be permitted during the course of any weekend and public holiday without permission by the *Employer's Agent*. Permission to work is to be requested in writing at least 2 weeks before the particular weekend/days. Permission is not necessarily guaranteed and will be dependent on the nature of the *Works* to be done and availability of required staff.

There will be no other activities on site that will interfere with the execution of the requirements of this *Scope* other than normal port operation activities.

2.6 Daily Site Diaries

Daily progress diaries are to be submitted on a daily basis. These must be on pre-printed pro forma sheets and indicate as a minimum:

- List of equipment on Site, mobilised to Site or demobilised from Site on that day.
- List of staff from the *Consultant* and any Subconsultants on site and the man-hours worked by each staff member. The list shall include by name the *Consultant's* site representative/agent, supervisor in charge of the equipment, Safety Officer, Environmental Officer and Quality Assurance (QA) managers. Laboratory technicians, labourers and crew need not be listed by name. Man-hours for staff from Subconsultants under the control of the *Consultant* such as security staff, surveyors etc. shall also be included.
- List of major activities undertaken on that day.
- List of any Health and Safety or environmental incidents occurring on that day.
- List of any delays to the Project occurring on that day.
- List of any significant occurrences during that day.
- Weather conditions, e.g. wind, rain, etc.

The form to be used shall be submitted for approval prior to commencement of Services. All Daily Diaries shall be submitted as documents in accordance with the approved QA plan.

The Daily Site Diary shall be accepted as a substantial record of the operations on Site and it is in the *Consultant's* interest to ensure that these are as detailed as possible. Claims for extension of time (and any other claims) that the *Consultant* may have will be based on these records. Should the *Consultant* not supply Daily Site Diaries within the stipulated time period, the *Employer* shall have the right to instruct

the *Consultant* to stop Services with the particular unit of equipment until such time as all the outstanding Daily Site Diaries have been supplied. Additionally, the *Employer* has the right to reject any claim from the *Consultant* which cannot be substantiated by Daily Site Diaries in the *Employer's* possession.

2.7 Deliverables

The *Consultant's* returnables are as follows:

- The company's past experience of similar geotechnical work as well as the capacity and ability to handle projects.
- Method statement which includes a description of all the precautionary measures that will be taken to prevent damage to buried services, i.e. cables, sewers, drains on the site that may impact on the geotechnical investigation.
- Qualifications/proof of registration/CVs of all key professional personnel to be deployed to do the *Work*.
- Programme indicating capability to complete the *Work* as well as capacity and ability to meet the delivery schedule.
- Health and Safety returnable
- Environmental Management.

The deliverables of the *Consultant* are as follows:

- A safety file completed in terms of Transnet's health and safety requirements for *Consultants* working on Transnet property will be required for all investigative Services carried out on the sites by the *Consultant*. The safety file will be approved by a Transnet *Safety Practitioner/Manager* to ensure that it complies with the Transnet safety requirements. Similarly for the environmental matters related to the investigation. Site access certificates will only be issued once the safety file and environmental matters related to the investigation have been approved. The *Consultant* must make sure that he obtains access certificates and together with his personnel comply with any safety and environmental requirements imposed by Transnet and as arranged by the *Employer's Agent*.
- An approved programme for the various main activities up to the time of presentation of the *Geotechnical Investigation and Design Report(s)* and submission of all the required documentation for construction/implementation of the *Consultant's* designs is required. Cognisance of the proposed starting date and the impact of the normal end-of-year shutdowns are to be taken into account. The delivery date of the final *Geotechnical Investigation and Design Report(s)* and other documents must be included in the programme.
- Submit a priced draft *Schedule of Quantities*, execution time schedules, Project Execution Plan (PEP) and Quality Management Plan (QMP).
- Submit all drawings and documentation required for *Contract* management purposes.
- Submit all close-out and conformity certificates.
- Prepare and submit *Geotechnical Investigation and Design Report(s)* adhering to the minimum requirements as discussed in **Section 2.1**.
- Prepare and submit all the required documents for construction/implementation of the *Consultant's* designs, including, but not limited to, construction drawings, detailed *Bill of Quantities*, Technical Specifications, *Works Information/Scope of Works* (detailing how the construction *Consultant* should go about executing/implementing the designs), etc.

2.8 Site Services and Facilities

Facilities, services and other things provided by the *Employer*

Table 1: Facilities provided by the *Employer* for the *Consultant*

Item	Date by which it will be provided
------	-----------------------------------

Details related to water and electricity will be discussed at the <i>Scope</i> clarification meeting and site inspection	<i>Contract</i> commencement
Security will be for the <i>Consultant's</i> expense	<i>Contract</i> commencement
No as-built drawings are available of any subservices, i.e. cables, watermains, etc. The <i>Consultant</i> might need to make provision for a services' detector	<i>Contract</i> commencement

No facilities, equipment, plant or material will be provided by the *Employer*. The *Consultant* may, however, make arrangements with the relevant Transnet personnel to make use of ablution facilities that might be on or near the site.

Wherever the *Employer* provides facilities (including, *inter alia*, temporary power, water, waste disposal, telecommunications, etc.) for the *Consultant's* use within the working areas and the *Consultant* adapts such facilities for use, then the *Consultant* makes good and provides full reinstatement to the land (including all apparatus of the *Employer* and Others in, on or under the land) and surrounding areas to its original standard upon dismantling of such facilities and hand-back to the *Employer*.

The following information to be supplied to the *Consultant*:

- Annexure A to R document.
- Transnet specifications.
- Transnet environmental and safety requirements.

Facilities Provided by the *Consultant*

The *Consultant* is to provide a chemical toilet(s) and suitable facilities for all meetings to be held on site. No suitable connection to an existing sewerage system is feasible; chemical type toilets or similar must therefore be used throughout.

Toilet facilities of a sufficient number (as indicated in the *Project Health and Safety Specification*) are to be provided for the *Consultant's* staff by the *Consultant*. Portable toilets are to be provided at all sites where distances to the laydown area are great and it would be impractical for the *Consultant's* staff to use facilities at the laydown area during the working day. The *Consultant* shall move toilet facilities to new positions as required. Use of the veld for this purpose shall not, under any circumstances, be allowed.

Outside toilets should be provided with locks and doors and should be secured to prevent them from blowing over. The toilets should not be placed in areas susceptible to flooding. The *Consultant* should arrange for regular servicing of toilets and will be entirely responsible for enforcing their use and for maintaining such latrines in a clean, orderly and sanitary condition to the satisfaction of the *Employer's Agent*.

No connection points for electricity, potable water and landline telephones are available on site. The *Consultant* makes his own arrangements for the connection of such services to his work site, for his use when providing the *Works*.

The *Consultant* provides the required security measures on site and in his working areas until completion.

The *Consultant* shall provide, maintain, move to new positions as required and finally remove, proper shaded areas on the site for eating areas.

The *Consultant* is to provide office accommodation, laboratories, storage facilities, vehicles, office equipment, etc. as required to provide the *Works*.

TRANSNET SOC Ltd
ENQUIRY NUMBER:
DESCRIPTION OF SERVICES: GEOTECHNICAL INVESTIGATION SERVICE
PROJECT:

Wherever the *Consultant* provides facilities (either his own or for the *Employer's Agent* and/or *Supervisor*) and all items of equipment, involving, *inter alia*, offices, accommodation, laboratories, materials storage, compound areas, etc. within the working areas, then the *Consultant* makes good and provides full reinstatement to the land (including all apparatus of the *Employer* and Others in, on or under the land) and surrounding areas to its original standard, upon dismantling of such facilities and items of equipment.

Unless expressly stated as a responsibility of the *Employer*, site services and facilities, all residual requirements for the provision of facilities and all items of equipment necessary for the *Consultant* to provide the Services remains the responsibility of the *Consultant*.

3 Meetings

3.1 Clarification Meeting

The *Consultant* must be available for a *Scope* clarification meeting at the office in **Durban**. The *Senior Engineer/Senior Engineering Geologist* must be available for this meeting.

3.2 Management Meetings

It is the *Employer's* specific intention that the Parties and their agents use the techniques of partnering to manage the *Contract* by holding meetings designed to pro-actively and jointly manage the administration of the *Contract* with the objective of minimising the adverse effects of risks and surprises for both Parties.

Depending on the size and complexity of the Services, it is probably beneficial for the *Employer* to hold a weekly risk register meeting (Clause 15.2). This could be used to discuss safety, compensation events, Sub-consulting, overall co-ordination and other matters of a general nature. Separate meetings for specialist activities such as programming, engineering and design management, may also be warranted.

Regular meetings of a general nature may be convened and chaired by the *Employer's Agent* or his delegated representative as follows:

Table 2: Management meetings

Title and purpose	Approximate time and interval	Location	Attendance by:
Contract kick-off Meeting	Once off at the start of the <i>Contract</i>	Site office or as mutually agreed from time to time	<i>Employer's Agent</i> (and/or appropriate delegates), <i>Supervisor</i> , <i>Consultant</i>
SHE re-mobilisation Meeting	Once off at the start of the <i>Contract</i>	Site office or as mutually agreed from time to time	<i>Employer's Agent</i> (and/or appropriate delegates), <i>Supervisor</i> , <i>Consultant</i> , CSHEO
Overall <i>Contract</i> progress and feedback	Fortnightly	Site office or as mutually agreed from time to time	<i>Employer</i> , <i>Consultant's</i> representative, <i>Supervisor</i> , <i>Employer's Agent</i> and appropriate personnel
Risk register and compensation events	Weekly	Site office, as agreed by the <i>Employer's Agent</i> or as mutually agreed from time to time	<i>Employer's Agent</i> , <i>Supervisor</i> , <i>Consultant</i> and appropriate key persons
Safety action meetings	Weekly	Site office or as mutually agreed from time to time	CSHEO, CM, <i>Employer's Agent</i> , <i>Consultant's</i> representative, etc. (as appropriate)

Meetings of a specialist nature may be convened as specified elsewhere in this *Scope of Services* or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the Services. Records of these meetings shall be submitted to the *Employer's Agent* by the person convening the meeting within 5 days of the meeting.

All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register shall not be used for the purpose of confirming actions or instructions under the *Contract* as these shall be done separately by the person identified in the *Conditions of Contract* to carry out such actions or instructions.

TRANSNET SOC Ltd
ENQUIRY NUMBER:
DESCRIPTION OF SERVICES: GEOTECHNICAL INVESTIGATION SERVICE
PROJECT:

The *Consultant* will provide suitable facilities for all meetings held on site.

The *Consultant* attends management meetings at the *Employer's Agent's* request. At these meetings the *Consultant* presents all relevant data including safety, health and environmental issues, progress reports, quality plans, Subconsultant management reports, as may be required.

4 Programme

4.1 Requirements for the Programme

A programme is required to be submitted with the contract commencement, and thereafter in accordance with the intervals prescribed in the *NEC Contract* documentation.

4.2 Planning and Programming

After contract commencement, the *Consultant* shall be required to submit a fully integrated programme for acceptance, as project baseline, by the *Employer's Agent*.

The methodology envisaged in creation of the programme should take into account, but is not limited to, the following:

- All planning is done based on the Critical Path Method (CPM). The programme shows the critical path clearly.
- The programme layout takes into account the approved WBS, reflecting the manner the services are to be performed and how control data are to be summarised, reported and monitored.
- Time analysis:
Manipulation of “lags”, “overlaps”, “leads”, “relations” or “dummies” to cause the float to remain constant when updates are performed, is not acceptable.
- Planning networks:
The *Consultant* provides the programme logic in network format, together with a total float report for acceptance by the *Employer*. The calendar(s) used is/are based on agreed working hours per day and not exceeding agreed hours per week. Any changes to this are submitted to the *Employer* for acceptance.
- The *Consultant's* programme shall include, but not be limited to, the following in compliance with the *Contract* requirements:
 - The working days per week, shifts per working days and holidays.
 - Where multiple calendars are used, this information shall be provided for each of the calendars, accompanied by a schedule indicating the calendar applicable to each activity.
 - A native document to be submitted which explains the development of the project schedule e.g. risks, schedule opportunities, assumptions, etc.

The *Consultant* shall plan and provide both integrated programmes and contractually compliant programmes, including project s-curves throughout the project development and execution.

The software (MS Projects) used in developing the programmes shall be compatible with the Primavera P6 (version 8.2) planning tool. The *Consultant* is required to familiarize them with the details required at the various stages of the project to ensure timeous and complete reporting.

In compliance with the project management and reporting requirements the *Consultant* shall be required to adhere to the following submittal and reporting essentials during the life of the project:

- Monthly overall project schedule, reflecting the project baseline; current progress, performance and recovery proposals for delayed activities; 2 week look ahead schedule with forecast plans against future milestones.
- S-curve report.
- Bi-weekly project schedule update, reflecting project baseline of which the *Employer* may request the *Consultant* to issue this report on weekly basis (depending on the criticality of the project).
- Critical path schedule, showing current project critical path on monthly and bi-weekly basis.
- Project milestone schedule with major project milestones and *Employer* key dates on bi-weekly and monthly reporting cycles; this should include baseline, actual and forecast dates.

5 Documentation

5.1 Documentation Control

In undertaking the Scope of Services, all documentation requirements for the *Works* shall be dealt with in accordance with document DOC-STD-0001 - Rev03 (*Consultant Documentation Submittal Requirements*). The control, maintenance and handling of these documents and drawings, using a suitable document control system, remain the sole responsibility of the *Consultant*.

The *Consultant* Documentation Schedule (CDS) is as contemplated in DOC-STD-0001 - Rev 03, as contained in Annexure E.

The *Consultant* documentation "Starter kit", as contemplated in DOC-STD-0001 - Rev 03, will be issued at the kick-off meeting.

All contract correspondence is issued through document control. All hardcopy communication will be delivered to the *Employer* via the Lead Document Controller.

Each Supplier of documentation and data to the project is responsible for ensuring that all documentation and data submitted conforms to the project standards and data quality requirements in terms of numbering, uniqueness, quality, accuracy, format, completeness and currency of information. Data not meeting the project standards and data quality requirements will be rejected and returned to the *Consultant* for corrective action and re-submission.

Should any change be made to documentation or data, which has already been submitted to the project, then new or revised documentation or data shall be issued to replace the outdated information.

All drawings supplied shall comply with the CAD Standards, i.e. ENG-STD-0001 – Annexure G.

It is the responsibility of all project participants undertaking Services on the project to ensure they obtain and comply with the relevant requirements to suit their deliverables and Scope of Services.

The *Consultant* is to ensure that the latest versions of the required application software and a suitable "IT" infrastructure is in place to support the electronic transmission of documentation.

Electronic files submitted to the project shall be clear of known viruses and extraneous "macros". The Supplier of documentation is required to have, at all times, the latest generation of virus protection software and up-to-date virus definitions.

The *Consultant* shall be responsible for the supply of all Sub-Supplier/*Consultant*/Manufacturer, etc. documentation and data related to their package of Services, and shall ensure that these Sub-Suppliers have the capability to supply the necessary documentation and data in the required time-frame and quality as outlined in the specified standards prior to awarding sub-orders.

The required number of copies of documentation and data shall be as specified in the *Consultant* Documentation Schedule (CDS) - as a minimum three (3) (1 x original + 2 x hard copies), with the corresponding PDF and native file formats upon final submission.

The *Consultant* shall apply "wet signatures" to the original documentation before scanning the signed original and prior to formal submission to the project.

Final issues of all documentation shall be supplied to the project in "wet signature" format along with the associated corresponding electronic native files and PDF renditions.

The *Consultant* shall ensure adequate resources are available to manage and execute the document control function as per the requirements of the project. The *Consultant* shall ensure that a dedicated Document Controller is available for the project.

5.2 Procedure for Submission and Acceptance of *Consultant's* Documents

The *Consultant's* documentation shall be issued to the *Employer's Agent* via TPT Document Control using the group mailbox : DBNDocControl@transnet.net -under cover of the *Consultant's* transmittal note indicating all contract references (i.e. project number, contract number, etc.) as well as the *Consultant's* project document number, revision number, title and chronological listing of transmitted documentation. Formats of *Consultant* data submitted is dependent on the project procedure and shall be specified by the *Employer's Agent*, upon the notified request of the *Consultant*.

TPT's Project Document Controller will take the responsibility for the management of all technical and non-technical documentation throughout the life cycle of the Project. All documentation produced for and on behalf of the project will be registered with document control and its management thereof.

All electronic documentation shall be submitted by the *Consultant* in Adobe Acrobat (.PDF) and native file format.

The *Consultant* shall deliver both hard copies and electronic media copies using these methods, (Memory card, USB) or One drive transmission to the *Employer's Agent* and a designated Document Controller either at the address stated within the *Contract Data* or at the project site office.

This will include the registration, classification, managing, scanning ,tracking, filing, storing , distribution and filing of all hardcopy and electronic documentation generated for and on behalf of the project. All documentation and data created for the Project shall be numbered and named according to the TPT Codification Procedure. Such numbering is only available from the Project's Document Control Group.

Acceptance of documentation by the *Employer's Agent/* document control will in no way relieve the *Consultant* of is responsibility for the correctness of information, or conformance with his obligation to provide the Services. This obligation rests solely with the *Consultant*.

After review, a copy of the original reviewed/marked-up drawing/document, with the *Employer's Agent's* consolidated comments and document status marked on the *Consultant* review label, is scanned and the copy shall be returned to the *Consultant* under cover of the project's transmittal note for revision or re-submittal as instructed.

The *Consultant* shall allow the *Employer's Agent* 2 weeks (unless otherwise stated and agreed) to review and respond to the *Consultant's* submission of their documentation, i.e. from time of receipt to the time of despatch. However, Services shall proceed without delay in the event of late return of the documentation by the *Employer's Agent* with prior notification in writing by the *Consultant*.

On receipt of the reviewed documentation, the *Consultant* shall make any modifications requested/marked-up and resubmit the revised documentation to the *Employer's Agent* within 2 weeks. Queries regarding comments/changes should be addressed with the *Employer's Agent* prior to re-submittal.

Any re-submittals, which have not included the changes/comments identified, will be returned to the *Consultant* to be corrected. The *Consultant* shall re-issue the revised documentation incorporating all comments and other specified details not included in the previous issue within 2 working days of receipt of the marked-up document.

In undertaking the Services (including all incidental services required), the *Consultant* shall conform and adhere to the requirements of the *Contractor Documentation Submittal Requirements* standard included in Annexure E (Refer DOC-STD-0001 - Rev 03).

5.3 As-built Drawings, Operating Manuals and Data Packs

The *Consultant* provides the following:

- As-built/final documentation

- In undertaking the Services (including all incidental services required), the *Consultant* shall conform and adhere to the requirements of the *Consultant Document Submittal Requirements* standard included in Annexure E (Refer DOC-STD-0001 - Rev 03).
- All as-built information to be signed off by *Consultant's* responsible Pr. Eng before issue to Transnet.
- The address, phone numbers, fax numbers and reference numbers of all Subconsultants are provided.
- Where manuals include drawings that still need to be revised to "as-built" status, and such manuals are required prior to "as-built" status, the manual will not be considered to be in its final form until the "as-built" version of each such drawing has been incorporated.
- A typical example of what the binder/file(s) shall be marked with on the spine and the front cover is as follows:
 - Project name.
 - Design report title
 - FBS number and title.
 - Report numbering (e.g. volume 1 of 2, etc.).
 - Contract number.
 - *Consultant* name.
- Unless otherwise stated in the CDS, the required number of copies of all as-built/final/data packs shall be:
 - 3 x hard copies (Full size).
 - Electronic format

6 Management

6.1 Contract Management

The form of contract to be administered is *NEC (New Engineering Contract)*, therefore the *Consultant* is to appoint relevant resources with the right qualification to administer the *NEC* type of *Contract*.

It is the *Employer's* responsibility to set-up, facilitate and chair meetings with regards to project progress meetings and to discuss the *Employer's Agent's* instruction register, early warnings register, compensation events register, dispute register and risk reduction register. It is both the *Employer's* and *Consultant's* responsibility to give an early warning by notifying the other as soon as either becomes aware of a possible risk to the project.

In the event that the *Consultant* subconsults another Party in completing portions of the Services, the *Consultant* shall retain responsibility and accountability to the *Employer* as if the Services shall be done by the *Consultant*. This contract applies as if a *Subconsultant's* employees and equipment were the *Consultant's*. The *Consultant* shall submit the name of each proposed *Subconsultant* to the *Employer's Agent* for acceptance prior to appointing the *Subconsultant*.

Contract related issues shall be in the form of a letter addressed to the *Employer's* representative (*Employer's Agent*). In the event that there is a contract dispute that cannot be resolved in the meetings, it shall be resolved according to dispute resolution procedure option W1 of the *NEC*.

Upon contract commencement, the schedule of *Contract* related meetings shall be agreed by both Parties.

6.2 Cost Management

The *Consultant* shall manage and report on all contracts that it manages. The *Consultant* shall provide a cost management service that shall include (but not be limited to) budget allocation, forecasting, estimation to completion, displaying commitments (status and forecasts), actual spends, change, potential change, risk quantification and costing. The entire contract and project information shall provide the *Employer* with an accurate description of the project costs at any point in time. This information shall be reviewed and incorporated into other project systems/tools to improve the accuracy and auditing of reporting.

All cost assessment, evaluation, approvals and rejection shall be counter signed by a Transnet employee with the required delegation before being submitted to Finance for processing. In addition, all claims and certificates shall have supporting evidence attached before progressing to Finance.

The *Consultant* manages all costs applicable to this project in conjunction with the *Employer's* inputs. All changes or issues resulting in changes to the price of various contracts (construction *contracts* and Suppliers purchase orders) managed by the *Consultant* are to be discussed and agreed with the *Employer* prior to implementation.

The *Consultant* is responsible for the following:

- Submit a detailed cash flow forecast to the *Employer* within 14 days after contract commencement aligned to schedule and procurement activities. The cash flow must be updated and submitted monthly when submitting monthly claims to the *Employer*.

6.3 Construction Management

The *Consultant* adheres to the *Project Health and Safety Specification- PHSS-0001*.

In addition to his responsibilities under the OHS Act, the *Consultant* is responsible for the following:

- Attending progress meetings as determined by the *Employer's Agent* to monitor and report progress.
- Keeping and updating photographic records.
- Preparing and submitting quality method statement for *Employer's Agent's* approval.
- Carrying out fieldwork in an approach that will minimize disruption to other port activities.

The *Consultant* keeps daily records of his people engaged on the site and working areas (including Subconsultants) with access to such daily records available for inspection by the *Employer's Agent* at all reasonable times. Daily records should be agreed per diem with the *Employer's Agent's* delegate or agreed representative.

Use of existing provincial roads shall be limited to an absolute minimum and shall not be used by the *Consultant* as haul roads for fieldwork purposes.

The *Consultant* must exercise due care to avoid damage or disruption to existing services (*Consultant* to do assessment of adjacent properties before starting with the Services and submit to the *Employer*). The *Consultant* shall be liable for all claims arising out of any damage caused by such excavation if the *Consultant* fails to exercise the requisite care and attention in carrying out the excavation.

Where the *Consultant* encounters existing underground services/existing services cables/pipe trenches, the *Consultant* undertakes the following:

- Stop all operation processes and inform the *Employer's Agent*.

Work on, over, under or adjacent to railway lines or near high voltage equipment:

- All *Work on, over, under or adjacent to railway lines and near high voltage equipment* shall comply with *Employer* specification E7/1.
- The *Consultant* shall not have sole possession of the site. The *Consultant* shall co-operate with Others and common users of the site in regards to site occupation and access.

The existing railway lines are to be regarded as operational at all times and the fullest collaboration between the *Consultant* and the *Employer's Agent* is essential with regard to the operations and working of the railway lines.

The *Consultant* shall ensure that all his labour and equipment remain within the fenced off allocated fieldwork area.

All staff and labour working on site must comply with the *Employer's* operational safety requirements and be equipped with all necessary protective clothing, equipment and high visibility apparel whilst on site and not within 3m of the railway lines.

Notification must be given to the Central Train Control (CTC) every day before any Services commences within 5m of the operational railway lines by adhering to the procedures stipulated in the rules of the route.

Equipment used by the *Consultant* in providing the Services shall comply with the *General Machinery Regulation 4 of the Occupational Health and Safety Act (Act 85 of 1993)* and without prejudice to the aforesaid act, comply with the certification requirements of *Employer's Code of Practice No. 29*. Operators of equipment shall be in possession of a valid certificate in terms of this *Code of Practice*.

No labour accommodation shall be allowed within the rail servitude.

The *Consultant* complies with the *CEMP, SES and PES* in the execution of the Services.

Publicity and progress photographs:

- The *Consultant* provides a notice board with specific details such as *Employer* title, responsible person in charge, emergency contact numbers as well approved safety documentation such as risk assessment at each active working area.
- The *Consultant* provides progress photographs at intervals as requested by the *Employer's Agent*.
- The *Consultant* does not advertise the contract or the project to any third Party, nor communicate directly with the media (in any jurisdiction) whatsoever without the express written notification and consent of the *Employer's Agent*.

Overview of the processes for obtaining occupations, permits and items of operational impact:

- When work on or near the overhead track equipment, necessitating the isolation and earthing of the high voltage electrical equipment and involving the re-timing or cancellation of electric trains, it shall be arranged in advance and as prescribed in the E7/1 specification. In such a case, occupation of the line and a work permit is required, effecting the operations of Transnet Freight Rail (TFR).
- The *Consultant* is required to submit his formal application for occupations/permits, line-side work or other operational impacts via the *Employer's Agent* (or delegate). There may be no communication between the *Consultant* and Transnet Port Terminals representatives regarding these items.
- Application from the *Consultant* must include all relevant information, including:
 - Date.
 - Time.
 - Duration.
 - Electrical switching details.
 - Occupation type.
 - Specific limits of *Work*.
 - Description of the *Work* to be undertaken.
 - *Consultant* to apply for excavation permit (Identification and detection of existing services will be the *Consultant's* responsibility).
- Although the E7/1 specification indicates 21 days as the required notification period, two months prior notification is required to allow Transnet Freight Rail to follow their prescribed internal process. An official occupation/permit notice shall be issued to the requestor and serves as a prerequisite for the actual permit that shall be executed on the date, as approved.
- In order to be granted the occupation/permit it is necessary for the *Consultant* to demonstrate that there is suitable and sufficient planning in place.

Monitoring

- All occupations/permits are monitored by the *Employer's Agent*. *Consultants* are required to submit feedback and confirmation of the working times achieved for all occupations/permits on a weekly basis.

Once the *Consultant's* request has been validated by the *Employer's Agent* it is passed to the Transnet Freight Rail maintenance department. They shall then process the request and issue the notice not less than one week prior to the proposed date. If a notice request is submitted but later cancelled, a formal notification of the cancellation is required to be submitted.

The *Consultant* shall, on completion of his Services , completely remove from site all his equipment, material, foundations and other structures, erected stores and temporary office accommodation (or any other asset belonging to him) and leave the site in a tidy condition to the satisfaction of the *Employer's Agent*.

6.4 Risk Management

The *Consultant* to review the potential risk elements as per the *ISO 31000 Risk Management Standard* associated with the project. The *Consultant* to demonstrate the experience in identifying risk, measure risks, analyse risk, mitigate risk, monitor and control risk, assign risk owner and action plan dates. The documents should:

- Present Project Risk Management Plan.
- Present Project Risk Management Policy and Procedure.
- Present how Project risk management shall be implemented/executed in the project.

Notwithstanding this information, all costs related to risk elements (which are at the *Consultant's* risk) are deemed to be included in the *Consultant's* offered total of the prices.

6.5 Insurance

The insurance that shall be provided by the *Employer* is arranged on a Principled Controlled Insurance (PCI) basis. All Parties of this project is insured under this portfolio.

The insurance portfolio consists of a public liability policy and a professional indemnity for design and construction.

The *Consultant* shall maintain its own insurance for plant and equipment, own employee liability (COIDA), motor vehicle insurance and motor vehicle third Party insurance as stated in the *Contract*.

The Insurance procedure manual shall be issued within a reasonable time after the starting date. This manual shall contain the claim procedure, claim advice form as well as a more detailed description of each policy.

The *Consultant* follows the claims procedure and liaises with the *Employer* and the *Employer's Agent* when a claim is made and assists in completing the claims advice forms that is contained in the insurance procedure manual.

The *Consultant* shall supply the *Employer* with all required information to substantiate the claim.

The *Consultant* is liable for the deductible of each insurance claim as contained in the insurance procedure manual. The deductible can change from time to time.

The *Consultant* can purchase any other insurance in addition to the amount of insurance taken out by the *Employer* for the same risk to no cost to the *Employer*.

6.6 Consultant's Management, Supervision and Key People

The *Consultant* shall provide an organogram showing his key people and their lines of authority and communication.

6.7 Sub-Contracting

Subcontract documentation and assessment of Subcontract Tenders:

- The *Consultant* is required to appoint his *Subconsultants* under the *NEC3 Engineering Contract Sub-Contract* unless accepted otherwise by the *Employer's Agent* and all *Sub-Consultants* shall be required to conform to the requirements as set out herein as if they were employees of the *Consultant*. The *Consultant* ensure that the quality assurance, health and safety, industrial relations, environmental, documentation control and all other requirements placed on him under this *contract* are transferred into any *Subcontracts*.

Where the *Consultant* employs a *Subconsultant* who performs part of the Services or who supplies plant and materials for incorporation into the Services, which involves a *Subconsultant* operating on the site and/or working areas, then the *Consultant* ensures that any such *Subconsultant* complies with the *CEMP*, *SES* and *PES* environmental management requirements (*NEMA* and *Transnet*) as appropriate and that the *Subcontract* documentation places back-to-back obligations on the *Subconsultant* which reflect the *Consultant's* obligations under the *CEMP*, *SES* and *PES*, all within the *Consultant's* quality management system.

Where the *Consultant* employs a *Subconsultant* who performs part of the Services or who supplies plant and materials for incorporation into the Services, which involves a *Subconsultant* operating on the site and/or working areas, then the *Consultant* ensures that any such *Subconsultant* complies with the Project Industrial Relations Policy (*PIRP*) as appropriate and that the *Subcontract* documentation places back-to-back obligations on the *Subconsultant* which reflect the *Consultant's* obligations under the *PIRP*, all within the *Consultant's* quality management system.

The *Consultant* shall ensure that the quality assurance requirements placed on him under this *contract* are transferred onto all appointed *Subconsultants*.

7 Regulatory Requirements

7.1 Health & Safety Requirements

Health and Safety Standard

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

Consultant's General Requirements for Health and Safety

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

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

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

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

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

Consultant's Health and Safety Management

The *Consultant* must prepare, implement and maintain a project-specific Health and Safety Management Plan. The plan must be based on the requirements set out in this Project Health and Safety specification as well as all applicable legislation. It must cover all activities that will be carried out on the project site(s), from mobilisation and set-up through to rehabilitation and decommissioning.

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

- A copy of the *Consultant's* Health and Safety Policy; in terms of the OHS Act section 7;
- Procedures concerning Hazard Identification and Risk Assessment, including both Baseline and Task-Based Risk Assessments;

- Arrangements concerning the identification of applicable Legal and Other Requirements, measures to ensure compliance with these requirements, and measures to ensure that this information is accessible to relevant personnel;
- Details concerning Health and Safety Objectives – a process must be in place for setting objectives (and developing associated action plans) to drive continual improvement;
- Details concerning Resources, Accountabilities and Responsibilities – this includes the assignment of specific health and safety responsibilities to individuals in accordance with legal or project requirements, including the appointment of *Employer's Agent*, Health and Safety Officers, *Supervisors*, Health and Safety Representatives, and First Aiders;
- Details concerning Competence, Training and Awareness – a system must be in place to ensure that each employee is suitably trained and competent, and procedures must be in place for identifying training needs and providing the necessary training;
- Communication, participation and consultation arrangements concerning health and safety, including Toolbox Talks, Daily Safe Task Instructions, project health and safety meetings, and notice boards;
- Documentation and document control – project-specific documentation required for the effective management of health and safety on the project must be developed and maintained, and processes must be in place for the control of these documents;
- Processes and procedures for maintaining operational control, including rules and requirements (typically contained in safe work procedures) for effectively managing health and safety risks, particularly critical risks associated with working at heights, confined spaces, mobile equipment and light vehicles, lifting operations, hazardous chemical substances, etc.;
- Emergency preparedness and response procedures;
- Management of change – a process must be in place to ensure that health and safety risks are considered before changes are implemented;
- Subconsultant Alignment procedures – a process must be in place for the assessment of subconsultants and suppliers with regard to health and safety requirements and performance (before any contract or purchase order is awarded);
- Measuring and Monitoring plans, including a plan for the measuring and monitoring of employee exposure to hazardous substances or agents (e.g. noise, dust, etc.) in order to determine the effectiveness of control measures;
- Incident Reporting and Investigation procedures describing the protocols to be followed with regard to incident reporting, recording, investigation and analysis;
- Non-conformance and Action Management procedures concerning the management of corrective actions;
- Performance assessment and auditing procedures concerning health and safety performance reporting, monthly internal audits to assess compliance with the project health and safety requirements, and daily site health and safety inspections; and
- Details concerning the management review process followed to assess the effectiveness of health and safety management efforts. Site Supervision
- The *Consultant* shall comply with OH&S Act – Section 8, 9, 13 and 16 and the Construction Regulations 2014.

- The *Consultant* must nominate and appoint a responsible person on site to whom the *Employer's Agent* may refer in connection with the Services. Persons are nominated for all shifts worked or whilst any activity relating to the contract is being performed on site, and must have the authority to bind the *Consultant* with respect to the contract. (OH&S Act - 16 Section (2)).
- The *Consultant* must ensure that the performance of all specified *services* is supervised throughout by a sufficient number of qualified and competent appointed representatives of the *Consultant*, who have experience in the type of work specified. (OH&S Act – Construction Reg. 8 (1) and 8 (2).)
- Note: No work may commence and or continue without *Supervisory* Appointees present on site. The *Consultant's Site Supervisor* must be equipped with a mobile telephone with message bank and/or pager or an equivalent communication device so that communication throughout the contract can be maintained at all times.
- The *Consultant's Site Supervisor* must provide a list of names and contact telephone numbers of all *Consultants* and Subconsultant's contact persons on Site. This list is updated as a new *Consultant* or Subconsultant employee commences on Site.
- The *Consultant's Site Supervisor* must keep a record of all employees, including date of induction, relevant skills and licences, and be able to produce this list at the request of the Supervisor.
- The *Consultant's site supervisor* must complete manning sheets describing the day's activities, labour numbers and classifications and issue these to the supervisor prior to 9.00 am on a daily basis.
- The *Employer's Agent's* site safety representative is notified of any new starter with evidence of induction and site specific induction prior to commencement of work.

Consultant's Safety Officer

The *Consultant* must appoint a full-time health and safety officer for the duration of the contract who is registered with the SACPCMP (The South African Council for Project Construction Management Professions). If more than 100 employees are deployed on the project site(s) (directly or through subconsultants), at least two full-time Health and Safety Officers must be appointed, with an additional Health and Safety Officer appointed for every 100 additional employees thereafter.

The Health and Safety Officer must be on site when work commences at the start of the day and must remain on site until all activities for that day (including the activities of Subconsultants) have been completed. A Health and Safety Officer must be present during all shifts, so if work is carried out over more than one shift per day, the *Consultant* must make provision for an additional health and safety officer.

Each *Consultant* health and safety officer shall be responsible for:

- Reviewing all applicable legal and project health and safety requirements and providing guidance to *Consultant* and Sub-consultant personnel (particularly the *Consultant's Employer's Agent*) to help ensure compliance at all times;
- Assisting with the implementation of effective hazard identification and risk management processes for all work to be carried out by the *Consultant*;
- Participating in the Baseline Risk Assessment for the *Consultant's Scope* (prior to site establishment) and ensuring that identified control measures are implemented;

- Participating in all task-based risk assessments conducted for the work to be carried out by the *Consultant* and ensuring that identified control measures are implemented;
- Conducting *Consultant* health and safety induction training for all *Consultant* and Subconsultant personnel;
- Compiling and maintaining all health and safety related documents and records required of the *Consultant*;
- Communicating relevant health and safety information to *Consultant* and Subconsultant personnel (e.g. incidents and lessons learnt, leading practices, hazards, risks and control measures, etc.);
- Carrying out safety observations and coaching (one per day);
- Evaluating (on a daily basis) the content of the daily safe task instructions (DSTI's) conducted by the *Consultant's* appointed *Supervisors*, and attending at least one DSTI each day;
- Attending monthly *Consultant* and site health and safety meetings;
- Assisting with the implementation of the *Consultant's* health and safety management plan and associated safe work procedures;
- Carrying out planned task observations on an ad hoc basis;
- Assisting with the implementation, testing and maintenance of an effective emergency response plan for all *Consultant* and Subconsultant activities;
- Responding to workplace incidents (as appropriate);
- Participating in incident investigations;
- Maintaining accurate health and safety statistics (for the *Consultant* and all Subconsultants), and compiling health and safety performance reports as required;
- Auditing the health and safety management system and workplace activities of the *Consultant* and each *Subconsultant* on a monthly basis to assess compliance with the project health and safety requirements; and
- Tracking and reporting on the implementation of corrective actions (arising from incident investigations, audits, inspections, etc.).

The *Consultant* must ensure that they have made adequate provision of safety officers as per the Scope. The *Consultant* must ensure that the health and safety officer is adequately equipped to enable him to perform his duties effectively. Each health and safety officer must be provided with the following:

- A computer with access to all necessary systems, including access to e-mail and the internet;
- A mobile telephone on contract or with adequate pre-paid airtime; and
- A vehicle where required or instructed by a nominated project management representative (depending on the size and location of the project site(s)).
- A health and safety officer must be computer literate, fluent in English, and must have the following minimum qualifications, training and experience:
- At least 5 years' experience as a health and safety officer on construction, electrical and mechanical projects;

- SAMTRAC or NEBOSH or modern SHEQ Risk Management training course as a minimum qualification;
- Experience and appropriate training with regard to implementing and maintaining a health and safety management system compliant with national legislation or an international standard;
- Experience and appropriate training with regard to construction related hazard identification and risk management processes;
- Competence, experience and relevant training with regard to incident investigation procedures and causation analysis;
- Health and safety auditing experience and training;
- A valid First Aid certificate of competency;
- Fire prevention and protection training; and
- A valid Driving Licence (light motor vehicle).
- Registered as a health and safety officer with SACPCMP depending on the size of the project and on the risk.
- Before placing a health and safety officer on the project site(s), the *Consultant* must forward a copy of the person's CV to the nominated project management representative or to TPT health and safety manager for review and acceptance. A proposed candidate may be rejected should he not meet the experience and/or qualification requirements, or due to poor work performance on previous projects.

Consultant's Safety Manual

The *Consultant* must provide a hard copy of its safety manual, policies and procedures to the *Employer's Agent* for acceptance prior to the commencement of any site work. The *Consultant* must ensure that his personnel, at all times, strictly observe and comply with the procedures set out therein. The *Employer's Agent* or the *Employer's Agent's* nominated Representative may from time-to-time request safety procedures applicable to the area of operations. The *Consultant* must forward to the *Employer's Agent* any updates or revisions to its safety manuals, policies or procedures as soon as practicable following revision or update.

The *Employer's Agent* may require the *Consultant* from time to time to supplement its safety manual, policies and procedures with guidelines and/or operating standards provided to the *Consultant* by the *Employer's Agent*. The *Consultant* must comply with such requests where the request is consistent with the requirements of the contract. The *Consultant* must give prompt written notice to the *Employer's Agent* of any objection to the requested supplement, including the reasons for objection. The *Employer's Agent's* rights under this clause are not intended, and must not be construed, to relieve the *Consultant* from any obligations to ensure compliance with all provisions of this contract.

Performance Measurement and Reporting

7.1.1 Health and Safety Statistics

The *Consultant* and each of its Sub-*Consultants* must complete and submit Health and Safety statistics to the *Employer's Agent* or the *Employer's Agent's* nominated representative, or as amended by the *Employer's Agent*, before mid-day on the Friday of each week. The *Consultant* must submit monthly Health & Safety Statistics before mid-day on the last day of each month to the *Employer's Agent's* nominated representative.

7.1.2 Safety Management Records

The *Consultant* must submit to the *Employer's Agent* for acceptance a schedule of the specific health and safety records it intends to maintain for the contract. As a minimum, such records are as specified by applicable legislation. Copies are provided to the *Employer's Agent* or the *Employer's Agent's* nominated representative if requested.

7.1.3 Field Technical/Safety Audit by the *Employer's Agent*

The *Employer's Agent* or the *Employer's Agent's* nominated representative has the right to conduct audits/inspections of the *Consultant*, Professional Service Provider (PSP) and *Consultant* Safety Management Plan implementation, operations, equipment, emergency procedures, etc., at any time, and the *Consultant* must fully cooperate with the *Employer's Agent* or the *Employer's Agent's* nominated Representative during such audits/inspections. The *Employer's Agent's* rights under this clause does not, must not and will not relieve the *Consultant*, Professional Service Provider (PSP) and *Consultant* of its own obligations to conduct audits and reviews of its own Health and Safety performance.

Where such audits/inspections reveal deficiencies in the *Consultant* procedures, drills, training or equipment, or non-conformities with the *Consultant* accepted project Safety Management Plan, of a minor nature (Risk Rating of 6 or less), the *Consultant* must investigate the cause of the nonconformity and initiate corrective and preventive action to rectify such deficiencies and non-conformities and prevent recurrence as soon as practicable.

Where such audits/inspections reveal deficiencies of a major nature (Risk rating of 7 or greater), the *Consultant* must stop work on the operation/activity concerned, immediately investigate the cause of the non-conformity, and initiate corrective actions to rectify such deficiencies and non-conformities and to prevent recurrence. These corrective action plans are submitted to the *Employer's Agent* for review and comment within 24 hours of the audit finding.

Where such deficiencies include an unsafe practice or a breach of the statutory or the contract requirements, the *Employer's Agent* or the *Employer's Agent's* nominated representative may in accordance with the conditions of contract suspend the work associated with the unsafe practice or breach until the deficiency is rectified.

The *Employer's Agent* or the *Employer's Agent's* nominated representative will establish a schedule of regular field safety audits which will be based on an audit tool aligned to the *Consultant* Safety Management Plan and site operations and activities. The *Consultant* audit conformance will be assessed as a percentage and where conformance is better than 90% it will be considered satisfactory and the *Consultant* must develop and implement an action plan within 4 weeks, to be reviewed at the next regular audit. Where the *Consultant* level of conformance is between 80 – 90%, a corrective action plan will be required to be developed and implemented within 2 weeks, and a follow up audit will be carried out. Where the *Consultant* conformance is less than 80% the *Consultant* must stop work until an investigation of the cause/s has been completed and corrective actions have been developed and implemented by the *Consultant*.

The *Consultant* must provide to the *Employer's Agent* or the *Employer's Agent's* nominated representative, at a time to be agreed, but not to exceed monthly intervals, a regular status report on all outstanding corrective actions until they are successfully closed out.

7.1.4 Unsafe Act/Condition Auditing

The *Consultant* must implement a system to recognize, correct, and report unsafe acts/conditions (Unsafe Act/Condition Auditing) associated with all Site activities.

All such observations must be recorded and delivered to the TPT Health and Safety Manager.

7.1.5 Involvement, Communication and Motivation

The *Consultant* and Subconsultant's workforce must, through their supervision, safety notice boards, toolbox meetings and daily pre-start meetings be kept aware of safety related matters.

7.1.6 Safety Meetings

The *Consultant* must implement and comply with OH&S Act, Section 19

The *Consultant* must conduct weekly safety meetings with his employees to foster safety awareness. Copies of minutes and action items arising from such toolbox meetings is submitted or otherwise made available for review by the *Employer's Agent* or the *Employer's Agent's* nominated representative.

Such meetings should at least address:

- Accident / safety incidents
- Hazardous conditions
- Hazardous materials / substances
- Work procedures
- Protective clothing / equipment
- Housekeeping
- General safety topics
- Job or work look-ahead issues
- Safety statistics
- Significant Safety Occurrences (SSO)

The *Consultant* must conduct at least one formal safety meeting per month and must maintain appropriate records of attendance and meeting content. Such records are made available to the *Employer's Agent's* representative. In addition to Daily Safe Task Instructions, the *Consultant* must conduct at least weekly "tool box" meetings to discuss safety issues and procedures.

7.1.7 Pre-Start Safety Briefings

The *Consultant* must hold documented Daily Safe Task Instructions with each work team before the start of each shift. Attendance records and brief topic notes is kept for auditing and record purposes.
Safety Review Meetings

- The *Consultant* Site Manager and a Site Safety Representative must take part in weekly safety review meetings between the *Consultant* and the *Employer's Agent* or the *Employer's Agent's* nominated Representative.
- The *Consultant* must attend all project safety meetings as outlined in the Project Safety Management Plan.

7.1.8 Site Safety Review Committee

The *Consultant* complies with the requirements of the SSRC with respect to his own activities and others on the Site and Working Areas.

7.1.9 HAZOP Review

The *Consultant* participates in HAZOP reviews upon the instruction and direction of the *Employer's Agent*.

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

7.1.10 Job Safety Analysis

The *Consultant* completes a JSA prior to carrying out any operation on the Site and/or Working Area to the approval of the *Employer's Agent*.

7.1.11 Lines of Communication

The following personnel act on behalf of the *Employer's Agent* and may communicate directly with the *Consultant* and his key persons with respect to the SMP:

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

Roles and responsibilities

• The roles and responsibilities of the various personnel acting on behalf of the *Employer's Agent* with respect to the SMP and health and safety issues are as stated in the paragraphs following:

- Construction Manager
- The CM is responsible (in the context of the SMP only) for health and safety on the Site and Working Areas and reports to the *Employer's Agent*.
- The CM specific tasks (in the context of the SMP) are:
 - Implement the safety management system
 - Monitor compliance to the established safety management system
 - Ensure risk is at an acceptable level
 - Ensure Consultant Construction Management Team are competent
 - Provide for:
 - Planning, organisation, leadership and control
 - Particular technical competencies for critical work
 - Supervision and control on each shift
 - Regular monitoring and assessment
 - Workplace inspections
 - Project Site Safety Manager
- The PSSM is responsible for ensuring that the *Consultant* complies with the SMP. The PSSM acts on behalf of the *Employer's Agent*.
- The PSSM specific tasks (in the context of the SMP) are:
 - Define, in accordance with the HSSP, the:
 - Safety program (instructions, training, meetings, inspections, incentive)

- Health and medical program
- Checks that *Consultants* have issued their Health and Safety plans, PPSPS and procedures before the beginning of work
- Organizes safety awareness campaigns
- Promotes communication on all health and safety matters (awards, incentives, meeting/inspections/audits reports)
- Checks conformance of equipment to technical requirements and regulations.
- Issues and address the site EHS activities reports
- Promotes everybody's best efforts to keep accident frequency and severity ratios at their lowest level.
- Promotes a proper and continuous housekeeping of Plant and temporary facilities in order to create the most suitable conditions for workers to work and to be encouraged to follow HSE requirements.
- Conducts *Worksite* EHS walks with all *Consultants*, and directs appropriate corrective actions.
- Monitors that all factors likely to improve health and safety are taken into consideration, particularly those which lead to:
 - Promoting personnel protection as an absolute requisite
 - Investigating, identifying and neutralizing potential hazards
- Close coordination with all parties involved in construction in order to avoid overcrowded areas and dangerous operations.
- Thorough preparation of work critical phases
- Close contacts to local EHS authorities
- Continuous follow-up in order to correct immediately unsafe acts and situations.
- In case of accident, he takes actions necessary to:
 - Initiate quick interventions of the emergency means.
 - Check that first aid and evacuation of injured persons are properly carried out.
 - Obtain a clear accident report from the sub-*Consultant* concerned.
 - Report immediately to the Construction Manager.
 - Investigate to identify the root causes of all incidents and near misses.

Commissioning Safety Study

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

The Commissioning Safety Study will provide a final checkpoint for the completed work and is part of the process for ensuring that all necessary actions have been completed. The elements to be considered include:

- Electrical integrity systems are in place (e.g. equipment tests and inspections of critical equipment, quality control procedures, etc.) which will confirm that construction, equipment and materials are in accordance with design specifications
- Formal hazard analyses for pre-commissioning and commissioning activities have been completed, appropriately documented and communicated, and are available to all personnel.
- Punch-list work has been sufficiently completed so that installations are safe to apply hazardous energy.
- Documentation relevant to any modifications has been created/updated.
- Safe operating, maintenance and emergency procedures are in place.
- Operating and maintenance manuals are available and training of commissioning employees has been completed.
- As Built drawings are available.
- A Commissioning Permit (to apply hazardous energy) is developed and implemented.

The *Employer's Agent* will ensure that after commissioning there is a formal documented hand over to operations and maintenance personnel and others who will be impacted by hazards that have been identified during project activities. This will involve communication of any changes to the process hazards, procedures and operating philosophy. Safe systems of work will be established and updated throughout the project. Safe systems of work will be subject to on-going review to ensure their effectiveness. Site-wide permits to work will be used as the basis of safe systems of work for specified hazardous activities.

Working at Nights

A site specific health and safety management plan should be well documented and structured so that both *Employers* and employees can benefit from its use. The following are recommended components of a safety management plan for night time and working extended hours or weekends *Works*.

7.1.12 Site personnel responsibility

It should be determined and stated clearly in the site specific health and safety management plan the responsibility of each individual at construction site for night time work. *Employer's Agent*, Engineers, Designers, Safety Officer and Site *Supervisors* as well as workers each have their specific responsibility to make sure the highest level of priority is given towards safety and health issues.

The *Consultant* must ensure adequate provision of safety officer personnel are present whenever working at night activities are taking place.

7.1.13 Permission to work at night

The *Consultant* shall apply in writing for permission to work at night and should be obtained from the relevant authority in this case TPT *Employer's Agent*, before construction work at night is carried out. The *Consultants* should submit their application for work at night permit to TPT Client representative and it is advisable to follow all requirements enforced by the authority to executing night time construction work. It is recommended that TPT representative should also notify TPT responsible personnel about intended night shift work.

7.1.14 Housekeeping

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

Emergency Preparedness and Response (EPR)

Consultant should develop and implement the EPR that is specifically night time environment and submit for approval before work at night is carried out. A well-established EPR can help both *Consultants* and employees to prepare; response and recover should a disaster occur.

7.1.15 Public safety

When construction work involves public area, it is important to make sure the safety of the public. The *Consultant* must consider the following when planning for nighttime work; identify the hazards for example construction vehicle movement or too much glare from lighting equipment and plan for vehicular movement to not interrupt peak hours and make sure adequate supervision is provided for such movement.

Consultant must provide sufficient signage to warn the public and put barriers at a safe distance to keep the public away.

Set up a safe walkways where it is unavoidable to work near or in public vicinity.

Arrange noisy equipment or machinery at furthest point from the public or adopt an engineering control to reduce the noise.

When overhead crane is operating near the public, clear off the area and make sure adequate supervision is in place.

Schedule for daily cleaning of the adjacent public road and filling up holes as well as uneven surfaces.

7.1.16 Types of Risks and factors affecting nighttime work

In order to decide when to conduct nighttime work, factors (parameters) affecting night time work must be identified. The *Consultant* must ensure the following factors are identified:

- Risk
- Illumination
- Nuisances
- Productivity
- Cost
- Safety

The *Consultant* must ensure that they implement the following step in an effective risk management program as to identify possible risks. Specific concerns related to nighttime work zones include poor visibility and work quality, staffing issues, unwanted noise and glare, decreased worker and driver alertness, impaired drivers, higher vehicle speeds, increased labor costs, materials and traffic control, and problems in logistics and supervision. These risks are categorized broadly as safety, cost/production and schedule, quality, organizational relationships, technical, construction, economic and environmental.

7.1.17 Risk

Nighttime work introduces numerous risks to work in of a project. One clear set of examples is driver and worker fatigue and reduced visibility, which are factors that could increase safety risks. Other

major factors contributing to the risks of nighttime work are human factors such as sleep, stress, work, social or domestic issues, and psychological characteristics, such as appetite and safety. Additional factors associated with the risks of nighttime construction work zones are reduced work space for machinery and equipment movement, inadequate lighting, high speed of traffic during the night, and long working hours. Working at night does not supersede the requirements of the Project Health and Safety Specification requirements that enforces compliance during day shift.

Document Control

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

Medicals

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

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

7.2 Environmental Constraints and Management

All aspects of the Services must comply with the *Employer's* environmental management plan, statutory requirements and regulations made by relevant authorities and the *Consultant* must ensure compliance of site activities as well as the design of the equipment supplied.

The following documents included on the annexures provide the minimum acceptable standards that shall be adhered to:

- Transnet Minimum Environmental Requirements for Construction
- Transnet Standard Operating Procedure for Construction Environmental Management Programme
- Declaration of Understanding.
- Transnet Integrated Management System (TIMS)

The MERC describes the minimum requirements for environmental management to which the *Consultant* must comply. This document must be read in conjunction with the Transnet Construction Environmental Management Standard Operating Procedure (CEM SOP).

The CEM SOP defines how environmental management will be practiced on any construction site under the management of Transnet to ensure that the environment is considered, negative impacts avoided or minimized, and positive impacts are optimized and/or enhanced.

The *Consultant* must appoint a SHE Officer to monitor and manage compliance to Environmental Specification and all applicable environmental legislation.

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

The overarching obligations of the *Consultant* under the MERC before construction activities commence on the Site and/or Working Areas is to provide environmental method statements (as contained under section 5.10 of the MERC) for all construction operations at the Site and/or Working Area by the *Consultant* and where requested by the CM and to comply with the following:

The *Consultant* shall identify the kinds of environmental impacts that will occur as a result of their activities and accordingly prepare separate method statements describing how each of these impacts will be prevented or managed so that the standards set out in the CEM SOP document are achieved.

The method statements will be prepared in accordance with the requirements set out in the MERC. These method statements shall form part of the environmental file.

The *Consultant* shall ensure that his management, supervisor(s) and the general workforce, as well as all suppliers and visitors to site have attended the Environmental Induction Programme prior to commencing any work on site. If new personnel commence work on the site during the works, the *Consultant* shall ensure that these personnel undergo the Environmental Induction Programme and are made aware of the environmental specifications on site.

Where required, one of the first actions to be undertaken by the *Consultant* shall be to erect and maintain a temporary fence along the boundaries of the site and working areas as applicable, and around any no-go areas identified on the layout plans, to the satisfaction of the *Employer's Agent*.

During the works period, the *Consultant* complies with the following:

A copy of the MERC and CEM SOP shall be available on Site, and the *Consultant* shall ensure that all the personnel on Site (including Subconsultants and their staff) as well as suppliers are familiar with and understand the specifications.

Method statements need to be compiled by the *Consultant* throughout the site activities and close out phase of the project. These Method Statements must be approved by the *Employer's Agent* and TPT Environmental Manager or Environmental Officer. Approval must at least be two weeks prior to the proposed commencement of the activity. Emergency activity method statements may also be required. The activities requiring method statements cannot commence if they have not been approved by the TPT Environmental Manager or Environmental Officer.

Where applicable, the *Consultant* shall provide job-specific training on an ad hoc basis when workers are engaged in activities, which require method statements.

The *Consultant* shall be responsible for rehabilitating and or re-vegetating all areas to the satisfaction of the TPT Environmental Manager or Environmental Officer as detailed in the CEM SOP. Sufficient environmental budget must be allocated to achieve this.

The *Consultant* must ensure that its Subconsultants comply with the Environmental Specification

7.3 Quality Assurance Requirements

The onus rests entirely on the *Consultant* to produce Services, which shall conform in quality and accuracy of detail to the requirements of the Transnet quality specification: General Quality Requirements for Consultants and Suppliers including technical specifications and drawings. The *Consultant* must, at his own expense, institute a quality management system, instruments and equipment to ensure adequate quality supervision and control of the Services at all times.

The *Consultant* shall submit a Project Quality Plan (PQP), method statement, Quality Control Plans (QCP's) and a data pack index to the *Employer* for approval. The *Consultant's* quality plan shall include or reference the quality plans of *Sub-Consultants* if applicable (refer to QAL-STD-0001 - Rev 0 - *General Quality Requirements for Consultants and Suppliers* - Annexure O).

The *Consultant* develops and maintains a comprehensive register of documents that shall be generated throughout the contract for project deliverables, including all quality related documents, as part of the contract (refer to DOC-STD-0001 - Rev 03 - *Consultant Documentation Submittal Requirements* - Annexure E).

7.4 Code of Conduct

Transnet aims to achieve the best value for money when buying or selling goods and obtaining services. This however must be done in an open and fair manner that supports and drives a competitive economy. Underpinning our process are several acts and policies that any Supplier (dealing with Transnet) must understand and support. These are:

- The Transnet Procurement Procedures Manual (PPM)/Detailed Procurement Procedure (DPP).
- Section 217 of the Constitution - the five pillars of public PSCM (Procurement and Supply Chain Management): fair, equitable, transparent, competitive and cost effective.
- The Public Finance Management Act (PFMA).

- The Broad Based Black Economic Empowerment Act (BBBEE).
- The Anti-Corruption Act.

This code of conduct has been included in this contract to formally appraise Transnet Suppliers of Transnet's expectations regarding the behaviour and conduct of its Suppliers.

Prohibition of bribes, kickbacks, unlawful payments and other corrupt practices

Transnet is in the process of transforming itself into a self-sustaining state owned enterprise, actively competing in the logistics industry. Our aim is to become a world class, profitable, logistics organisation. As such, our transformation is focused on adopting a performance culture and to adopt behaviours that shall enable this transformation.

- Transnet shall not participate in corrupt practices and therefore expects its suppliers to act in a similar manner.
- Transnet and its employees shall follow the laws of this country and keep accurate business records that reflect actual transactions with and payments to our Suppliers.
- Employees must not accept or request money or anything of value, directly or indirectly, to:
 - Illegally influence their judgment or conduct or to ensure the desired outcome of a sourcing activity.
 - Win or retain business or to influence any act or decision of any decision stakeholders involved in sourcing decisions.
 - Gain an improper advantage.
- There may be times when a supplier is confronted with fraudulent or corrupt behaviour of Transnet employees. We expect our Suppliers to use our "Tip-offs Anonymous" hot line to report these acts (0800 003 056).
- Transnet is firmly committed to the ideas of free and competitive enterprise.
 - Suppliers are expected to comply with all applicable laws and regulations regarding fair competition and anti-trust.
 - Transnet does not engage with non-value adding agents or representatives solely for the purpose of increasing BBBEE spend (fronting).
- Transnet's relationship with Suppliers requires us to clearly define requirements, exchange information and share mutual benefits.
- Generally, suppliers have their own business standards and regulations. Although Transnet cannot control the actions of our suppliers, we shall not tolerate any illegal activities. These include, but are not limited to:
 - Misrepresentation of their product (origin of manufacture, specifications, intellectual property rights, etc.).
 - Collusion.
 - Failure to disclose accurate information required during the sourcing activity (ownership, financial situation, BBBEE status, etc.).
 - Corrupt activities listed above.
 - Harassment, intimidation or other aggressive actions towards Transnet employees.
- Suppliers must be evaluated and approved before any materials, components, products or services are purchased from them. Rigorous due diligence is conducted and the supplier is expected to participate in an honest and straight forward manner.
- Suppliers must record and report facts accurately, honestly and objectively. Financial records must be accurate in all material respects.

Conflicts of interest

- A conflict of interest arises when personal interests or activities influence (or appear to influence) the ability to act in the best interests of Transnet, such as:
 - Doing business with family members.
 - Having a financial interest in another company in our industry.

8 Procurement

8.1 Invoices

The invoice must correspond to the *Employer's Agent's* assessment of the amount due to the *Consultant* as stated in the payment certificate.

The invoice states the following:

- Invoice addressed to Transnet Limited.
- Transnet Limited's VAT no: 4720103177.
- Invoice number.
- The *Consultant's* VAT number.
- The *Contract* number:

The invoice contains the supporting detail:

- Description of Services completed and claimed for.
- Cost breakdown of Services previously claimed, currently claimed, and balance outstanding for each section of *Work*.
- Approved timesheets by *Employer's Agent*.

The invoice is presented as an original.

8.2 Payment Records

Records of Defined Cost, Payments & Assessments of Compensation Events to be kept by the Consultant.

The *Consultant* keeps the following records available for the *Employer* to inspect:

- Records of employee's location of work and people engaged by the *Consultant*.
- Records of people and Equipment within the Working Areas.
- Records of equipment used and people employed outside the working areas.
- Records of quotations, invoices and pay slips.