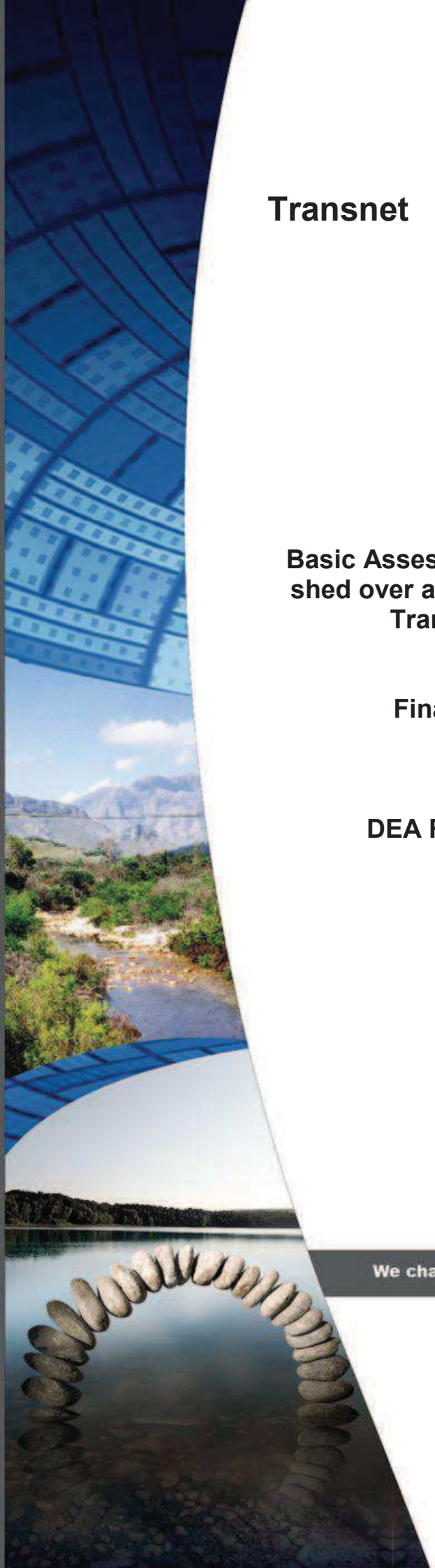

Transnet

Basic Assessment for the construction of a steel shed over an existing locomotive testing area at Transnet Engineering in Durban

Final Basic Assessment Report

DEA Reference: 14/12/16/3/3/1/839

June 2013
J33001

We change lives www.gibb.co.za

GIBB
ENGINEERING & SCIENCE

environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

(For official use only)

File Reference Number:	
Application Number:	
Date Received:	

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2010, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2010 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. This report format is current as of **1 September 2012**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
3. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
4. Where applicable **tick** the boxes that are applicable in the report.
5. An incomplete report may be returned to the applicant for revision.
6. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
7. This report must be handed in at offices of the relevant competent authority as determined by each authority.
8. No faxed or e-mailed reports will be accepted.
9. The signature of the EAP on the report must be an original signature.
10. The report must be compiled by an independent environmental assessment practitioner.
11. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
13. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.

14. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.
15. Shape files (.shp) for maps must be included on the electronic copy of the report submitted to the competent authority.

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?	~~YES~~	NO √

If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix I.

Note: due to the nature of the proposed site and the fact that it is within a brownfields site, specialists were not needed and were therefore not consulted with.

1. PROJECT DESCRIPTION

a) Describe the project associated with the listed activities applied for

1.1. Project Overview

Transnet Engineering (TE) intends to construct a steel shed over the rail tracks of an existing locomotive testing area at the TE premise, 311 Solomon Mahlangu Drive, Bluff, Durban, KwaZulu-Natal.

The TE premises are used for wreckage salvage, maintenance, repairs and upgrading of coaches, wagons, locomotives and connected elements of the rail components of Transnet. The existing 25 kilovolt Locomotive Testing Area (located on the TE premises) has been in use for many years and is utilised to perform brake tests and the commissioning of locomotives for Transnet. The site is provided with hard standing as it is tarred. Therefore although the rail tracks currently exist they are open to the elements as they are not enclosed. Locomotive testing and maintenance tasks are thus being performed in the open (see picture below).

As mentioned the site is already provided with hard standing (tarred surface) and runoff is currently directed to the existing stormwater system of the TE premises. Rainwater from the roof of the proposed new shed will tie into the existing stormwater system which has no discharge to the uMhlatuzana Canal that borders the proposed site.

Even though the uMhlatuzana Canal is considered an "artificial watercourse", in some sections, the Canal supports a large number of habitats for mainly wading birds and swamp- or marsh-loving species. It is for this reason that it is important to assess this system and the potential environmental impacts in the context of the proposed development.

Photo1: Photograph showing the existing Locomotive Testing Area

1.2. Location of the Study Area

The existing Locomotive Testing Area is situated within the TE premises at 311 Solomon Mahlangu Drive, approximately 10km southwest from the Durban City Centre. The TE premises link in with the local Transnet rail network. The premises are fenced with a 24-hour 7-day-per-week security access control.

Figure 5: Location of the Transnet Locomotive testing Shed.

Figure 6: Location of the Transnet Locomotive testing shed (close up)

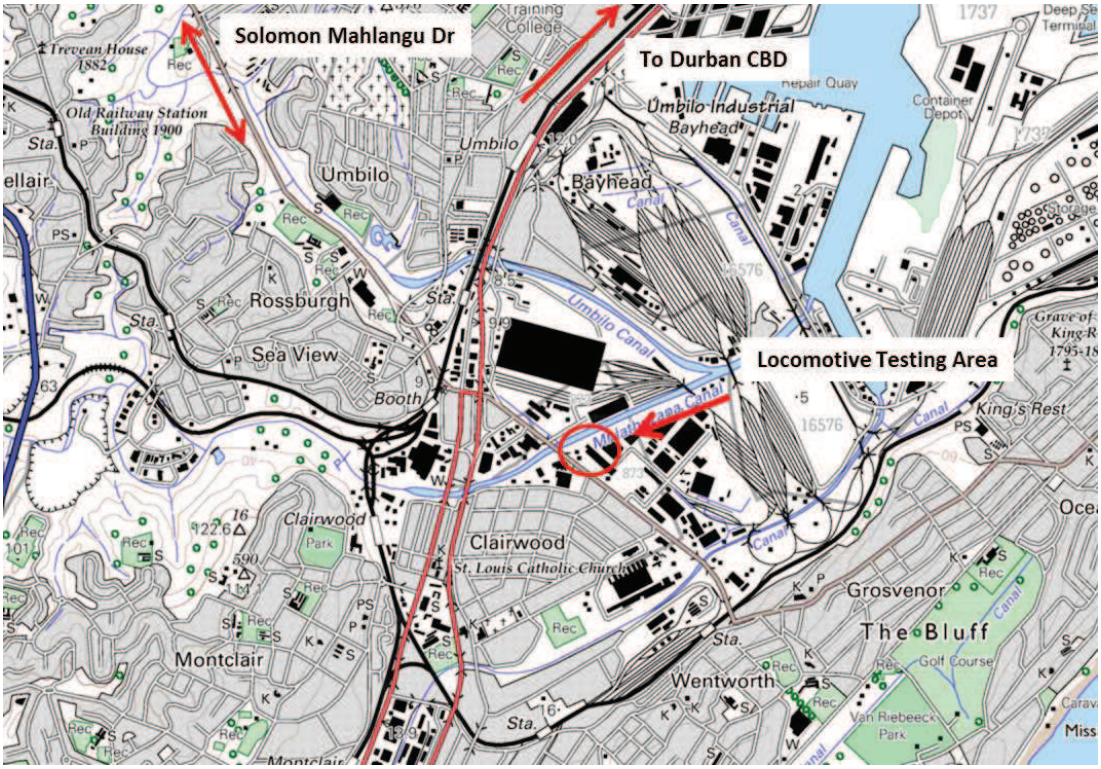

Figure 7: Showing the proposed location of the Locomotive Testing Shed.

The areas surrounding the site are briefly described as follows:

North: The Umhlatuzana Canal (artificial watercourse) and other industries (namely container storage yards)

East: Existing industrial operations of TE. Further east is the Port of Durban

South: Existing industrial operations of TE and further south is the residential area of Clairwood as depicted on the locality map

West: Solomon Mahlangu Drive and other industries (including a Shell Garage)

1.3. Site Description and Layout

The TE Premises occupies approximately 3.4300 hectares of land and is bordered by the Solomon Mahlangu Drive (Edwin Swales VC Drive) to the south west. The Locomotive Testing Area (where the proposed shed is to be constructed) lies in the south western corner of the TE premises next to other sheds used for rail maintenance operations. The shed will have a footprint of approximately 324m², and it will also be ±18m from the Umhlatuzana canal which runs parallel to the border fence, northwest of the property.

The proposed project is within the confines of TE's property, and is adjacent to properties that are also owned and operated by Transnet, it is therefore considered to be within a brownfields site, with little impact on the receiving environment (see pictures below).

Photo 2: Overlooking the Locomotive Testing Area in a westerly direction

Photo 3: Photo taken while standing on the site looking in a northeasterly direction

Photographs of the existing uncovered Locomotive Testing Area within the TE Premises, in Bayhead.

Note:

- The tarred surface
- This Testing Area within the TE Precinct is currently separately fenced due to the high voltage risk
- The uMhlatuzana Canal borders the TE Premises along the northwestern boundary of the area behind the concrete fence (seen on the left of the second photograph)

1.4. Motivation for the Project

The Locomotive Testing Area is currently used to perform brake tests and the commissioning of locomotives. Due to the absence of a building, Transnet employees working in this area, as well as the maintenance equipment they use, are constantly exposed to the elements such as rain, sun, dust and wind. This exposure directly affects productivity and may affect employee's health and safety. During the rainy season it becomes even more difficult to do the required maintenance operations as the rain and moisture results in work stoppages, damage to equipment and affects the general quality of the work.

It is for these reasons that Transnet proposes to build a shed over the testing area to shelter employees and equipment from the elements. Transnet states that "This will ensure that our most valuable assets, our employees as well as other assets are protected."

1.5. The Proponent: Transnet Engineering

Transnet engineering, an operating division of Transnet SOC Ltd, is the backbone of South Africa's railway industry with eight product-focused businesses, 150 depots, seven factories and 15, 000 employees countrywide. The organization is dedicated to in-service maintenance, repair, upgrade, conversion and manufacture of freight wagons, mainline and suburban coaches, diesel and electric locomotives as well as wheels, rotating machines, rolling stock equipment, castings auxiliary equipment and services.

With origins dating back more than a century to the mechanical engineering department of the former South African Railways and Harbours, this engineering organization has actively supported railways in the expansion of the country's economy and over the decades has developed some of the most innovative bogies and wagons ever built for 1067mm track. Through the years, Transnet engineering has become the key supplier of customised rolling stock for the coal, iron-ore, intermodal, agricultural, fuel and cement industries (http://www.transnet.net/Divisions/RailEngg.aspx).

b) Provide a detailed description of the listed activities associated with the project as applied for

Listed activity as described in GN R.544, 545 and 546	Description of project activity
GN R.544 Item 11: The construction within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, in respect of –	**The construction of a new shed (buildings exceeding 50 square metres in size) over an existing locomotive testing area at the Transnet Engineering premises in Bayhead,**

(i) canals **(ii) channels** **(iii) bridges** **(iv) dams** **(v) weirs** **(vi) bulk stormwater outlet structures** **(vii) marinas** **(viii) jetties exceeding 50 square metres in size;** **(ix) slipways exceeding 50 square metres in size;** **(x) buildings exceeding 50 square metres in size; or** **(xi) infrastructure or structures covering 50 square metres or more** **where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.**	**Port of Durban.** **The construction will also occur within 32 metres of an artificial watercourse (the uMhlatuzana Canal).**

2. FEASIBLE AND REASONABLE ALTERNATIVES

"alternatives", in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

(a) the property on which or location where it is proposed to undertake the activity;
(b) the type of activity to be undertaken;
(c) the design or layout of the activity;
(d) the technology to be used in the activity;
(e) the operational aspects of the activity; and
(f) the option of not implementing the activity.

Describe alternatives that are considered in this application as required by Regulation 22(2)(h) of GN R.543. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed.

The determination of whether site or activity (including different processes, etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the, competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

The identification of alternatives should be in line with the Integrated Environmental Assessment Guideline Series 11, published by the DEA in 2004. Should the alternatives include different locations and lay-outs, the co-ordinates of the different alternatives must be provided. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

In terms of the EIA regulations, attention needs to be given to all possible alternatives. The assessment of alternatives allows different approaches and ways of meeting the need, purpose and objectives of a proposed activity. Alternatives may include location or route alternatives, design/layout alternatives, activity alternatives and processes or technology alternatives, etc.

Note: For the purposes of this report, only Alternative A1/S1 has been assessed in detail, since the proposed project is for addressing a need for shelter at an existing facility, other alternatives are not considered.

However, the no-go alternative or option was considered, as it provides the baseline against which the impacts of the preferred alternative can be compared.

a) Site alternatives

Alternative 1 (preferred alternative)

Description	Lat (DDMMSS)	Long (DDMMSS)
Construct a steel shed over the rail tracks/hard surface of an existing locomotive testing area at the TE premises in Bayhead.	**29°54'26.17" S**	**30°59'18.61''E**
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
N/A		
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)
N/A		

In the case of linear activities:
N/A

Alternative:	**Latitude (S):**	**Longitude (E):**
Alternative S1 (preferred)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		
Alternative S2 (if any)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		
Alternative S3 (if any)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

In the case of an area being under application, please provide the co-ordinates of the corners of the site as indicated on the lay-out map provided in Appendix A.

b) Lay-out alternatives

Alternative 1 (preferred alternative)

Description	Lat (DDMMSS)	Long (DDMMSS)
The shed to be constructed will enclose the existing open tarred area at TE and will have a footprint of approximately 324m².	**29°54'26.17" S**	**30°59'18.61"E**
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
N/A		
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)
N/A		

c) Technology alternatives

N/A
Alternative 2
N/A
Alternative 3
N/A

d) Other alternatives (e.g. scheduling, demand, input, scale and design alternatives)

Alternative 1 (preferred alternative)

N/A		
Alternative 2		
N/A		
Alternative 3		
N/A		

e) No-go alternative

Without an alternative strategy to address the challenges currently experienced by the employees at TE, employees and equipment will continue to be exposed to the elements. This exposure therefore directly affects the productivity and may affect employee's health and safety.

The "no go option" is therefore not a viable option.

Paragraphs 3 – 13 below should be completed for each alternative.

3. PHYSICAL SIZE OF THE ACTIVITY

a) Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

Alternative:	**Size of the activity:**
Alternative A1[1] (preferred activity alternative)	**324 m² (approximately)**
Alternative A2 (if any)	**N/A m²**
Alternative A3 (if any)	**N/A m²**
Alternative A4 (if any)	**N/A m²**

or, for linear activities: **N/A**

Alternative:	**Length of the activity:**
Alternative A1 (preferred activity alternative)	**N/Am**
Alternative A2 (if any)	**N/Am**
Alternative A3 (if any)	**N/Am**

b) Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative:	**Size of the site/servitude:**
Alternative S1 (preferred activity alternative)	**±34300 m² Note this is the size of the entire Transnet Engineering site at 311 Solomon Mahlangu Drive.**
Alternative S2	**N/Am²**
Alternative S3	**N/Am²**

4. SITE ACCESS

Does ready access to the site exist?	**YES** √	~~NO~~
If NO, what is the distance over which a new access road will be built	**N/A**	

[1] "Alternative A.." refer to activity, process, technology or other alternatives.

Describe the type of access road planned:

Since the site lies alongside Solomon Mahlangu Drive and is within the confines of the Transnet Engineering's existing facilities, access to the site will be via Solomon Mahlangu Road. An existing access road is currently available through a security check point and will likely be used for this project.

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site. **(Refer to the Locality Map in Appendix A)**

5. LOCALITY MAP

An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.). The map must indicate the following:

- an accurate indication of the project site position as well as the positions of the alternative sites, if any;
- indication of all the alternatives identified;
- closest town(s;)
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- a legend; and
- locality GPS co-ordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection).

The Locality Map is attached in Appendix A.

6. LAYOUT/ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.

The site or route plans must indicate the following:

- the property boundaries and numbers of all the properties within 50 metres of the site;
- the current land use as well as the land use zoning of the site;
- the current land use as well as the land use zoning each of the properties adjoining the site or sites;
- the exact position of each listed activity applied for (including alternatives);
- servitude(s) indicating the purpose of the servitude;
- a legend; and

- a north arrow.

The Layout/Route Plan is attached in Appendix A.

7. SENSITIVITY MAP

The layout/route plan as indicated above must be overlain with a sensitivity map that indicates all the sensitive areas associated with the site, including, but not limited to:

- Watercourses **(the proposed site is in close proximity (approximately 18m) from the uMhlatuzana Canal shown on the Locality map)**;
- the 1:100 year flood line (where available or where it is required by DWA); **(N/A)**
- ridges **(N/A)**;
- cultural and historical features **(N/A);**
- areas with indigenous vegetation (even if it is degraded or infested with alien species) **(N/A – the only vegetated area is a very narrow strip of a landscaped lawn near the site)**; and
- critical biodiversity areas **(N/A)**.

The sensitivity map must also cover areas within 100m of the site and must be attached in Appendix A.

Given the scope of this project and that the proposed project site is located within a "Brownfields industrial site", and provided with a hard standing (tarred surface); there will be no impacts on the receiving environment. A Sensitivity Map has however been included in Appendix A.

8. SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this report. It must be supplemented with additional photographs of relevant features on the site, if applicable.

Plates / photographs of the proposed site are included in Appendix B. Photo's that were taken from various positions that overlook the site and surrounding areas are included to clearly illustrate the surrounding area.

Other plates were included and illustrate certain Public Participation Process activities.

9. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of at least 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

The facility illustration(s) are included in Appendix C.

10. ACTIVITY MOTIVATION

Motivate and explain the need and desirability of the activity (including demand for the activity):

1. Is the activity permitted in terms of the property's existing land use rights?	**YES** √	~~NO~~	Please explain
The property is currently zoned "Industry". The proposed activity will therefore be consistent with the zoning of the property's existing land use rights.			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	**YES** √	~~NO~~	Please explain
The activity which is located in Durban, KwaZulu-Natal will be in line with the Provincial Spatial Development Framework. Durban Port and surrounding areas has been identified as key physical infrastructure and communication facilities within a strategically located province as KwaZulu-Natal positioned to become a transport, trade and logistics gateway.			
(b) Urban edge / Edge of Built environment for the area	**YES** √	~~NO~~	Please explain

The proposed site is zoned 'Industry' and is surrounded by adjacent Port related industries and urban developments of the South Durban Basin Precinct. The construction of the steel shed over the existing locomotive testing area is therefore within the urban edge and will occur within an existing brownfields site.

(c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).	**YES** √	~~NO~~	Please explain

Note: The project is in line with the IDP and SDF however this project will not compromise the integrity of the existing approved and credible municipal IDP and SDF.

The Port of Durban and industrial surrounds lies within the Urban Development zone and an area which the eThekwini Municipality's SDF identifies for 'Major Investment' (see Figure 10 below).

Under the heading "Economic Development Nodes and Corridors" the SDF confirms the Port of Durban as a "Strategic Investment Area". It states that "The Port of Durban is the primary contributor to eThekwini's economy which is of provincial and national significance and has seen a steady increase in container traffic in recent times.

One of the serious constraints to development is the inefficiencies and congestion in the Durban port operations. Improving the Municipality's logistics infrastructure will ensure the maximization of port economic opportunities. In this sphere, rail linkages, port efficiency, back-of port operations to enhance capacity and range of business, inter-modal transport hubs in-port and inland and the newly-planned dug-out port are projects which will give life to KwaZulu-Natal's positioning as the Gateway to Africa."

(Reference: eThekwini Municipality Spatial Development Framework (SDF) Report 2012/13: June 2012)

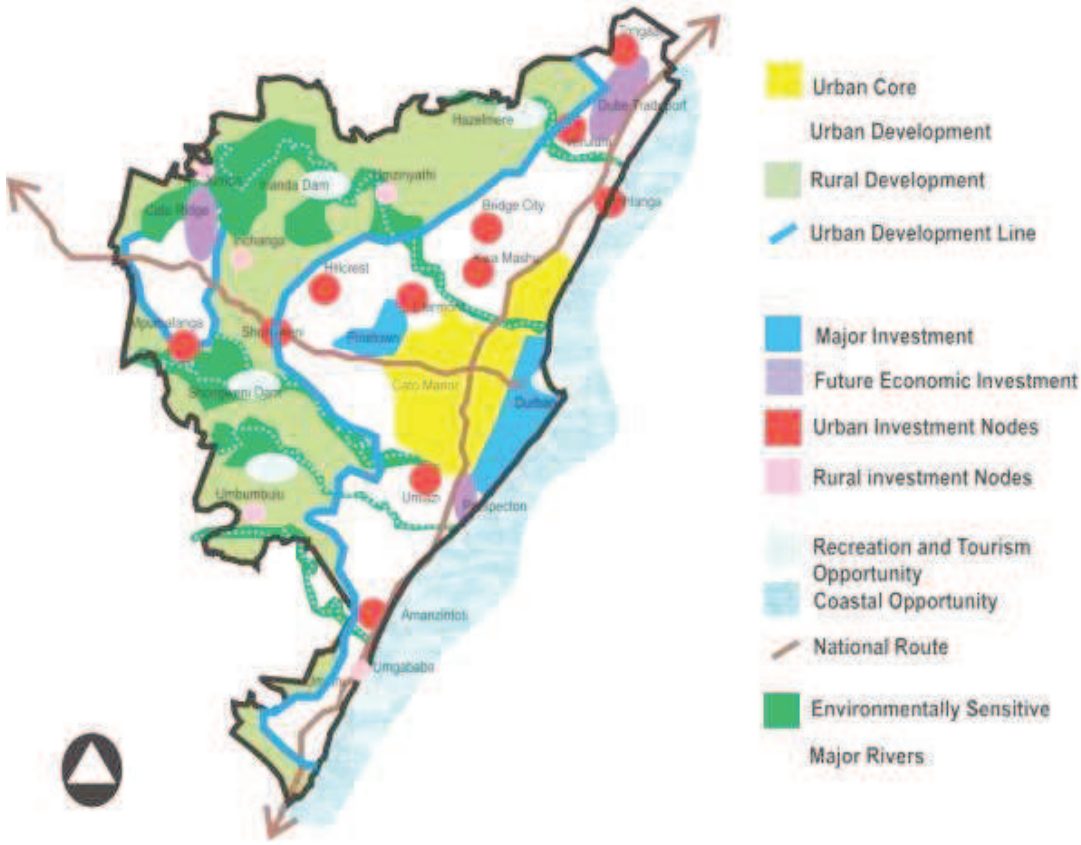

Figure 10: eThekwini Municipality Spatial Development Context (Reference: eThekwini Municipality Spatial Development Framework (SDF) Report 2012/13: June 201

(d) Approved Structure Plan of the Municipality	YES √	~~NO~~	Please explain
The proposed site is zoned 'Industry' and the proposed activities and infrastructure plans of the project are in line with the current zoning and that of the Municipality.			
(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	YES √	~~NO~~	Please explain
The project is in line with the EMF of the Department however, the approval of this application would not compromise the integrity of the existing environmental management priorities for the area. There are no particularly sensitive environments on the site.			
(f) Any other Plans (e.g. Guide Plan)	~~YES~~	NO √	Please explain
The project is not in line with any other plans.			
3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	YES √	~~NO~~	Please explain
Refer to 2(c) above.			
4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)	YES √	~~NO~~	Please explain

As mentioned, the Locomotive Testing Area is located in an industrial area, away from any sensitive or vulnerable community. It is currently used to perform brake tests and the commissioning of locomotives for the rail industry. With its many businesses and operation yards, Transnet Engineering is the backbone of South Africa's railway. However due to the absence of a building at their operations in Durban, Transnet employees working in this area, as well as the maintenance equipment they use, are constantly exposed to the elements such as rain, sun, dust and wind. This exposure therefore directly affects productivity and may affect employee's health and safety. By impacting on productivity and the health and safety of the employees it becomes a societal priority; decreased productivity can reflect badly for South African businesses reliant on Transnet Engineering and the economy as whole.			
5. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix E6.1.)	YES √	~~NO~~	Please explain
The existing 25 kilovolt Locomotive Testing Area has been in use for a number of years to perform brake tests and the commissioning of locomotives for Transnet. The rail tracks are thus already in place and the site is provided with hard standing as it is tarred. Rainwater from the roof of the new shed will tie into the existing stormwater system which has no discharge to the uMhlatuzana Canal that borders the proposed site. The project is not expected to need additional capacity, where possible existing infrastructure will be utilised.			
6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix E6.1.)	~~YES~~	NO √	Please explain
The project only entails constructing a steel shed over an existing locomotive testing area within the confines of the TE premises. Infrastructure planning of the municipality is therefore not applicable. Refer to the explanation provided in response to 5. above.			
7. Is this project part of a national programme to address an issue of national concern or importance?	~~YES~~	NO √	Please explain
This project is of small scale and aimed at addressing productivity and health and safety concerns of TE's existing local premises.			

8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)	YES √	~~NO~~	Please explain
Yes, locating the steel shed over the existing locomotive testing area is more favourable than having a covered shed at an alternative premise.			
9. Is the development the best practicable environmental option for this land/site?	YES √	~~NO~~	Please explain
Considering that the proposed site is fully developed with no natural biophysical habitats and falls outside any Conservation Area, the biophysical impacts of the proposed development will be insignificant provided that any potential pollution from site activities is mitigated (minimised). As mentioned, rainwater from the roof of the new shed will tie into the existing stormwater system which has no discharge to the uMhlatuzana Canal that borders the proposed site.			
10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	YES √	~~NO~~	Please explain
It is expected that the proposed development would ensure that the Transnet Engineering employees as well as their other assets are protected.			
11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	YES √	~~NO~~	Please explain
Employee's health and safety are a priority in terms of Transnet's activities and this may set a precedent for other industries.			
12. Will any person's rights be negatively affected by the proposed activity/ies?	~~YES~~	NO √	Please explain
It is highly unlikely that any person's right will be negatively affected. If anything the employees' rights for a safe and protected work environment are being met.			
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?	~~YES~~	NO √	Please explain
Refer to Figure 10, Section 2 (c) above.			

14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	~~YES~~	**NO** √	Please explain
This project is of small scale and is to address productivity and health and safety concerns of TE's local existing premises, thus the proposed activity will not contribute to any of the 17 SIPS.			
15. What will the benefits be to society in general and to the local communities?			Please explain
• **Employment opportunities will be created (mainly during the construction phase)** • **Employees health and safety concerns will be addressed** **Refer to 4. above.**			
16. Any other need and desirability considerations related to the proposed activity?			Please explain
Refer to 1.4 of Project Description in Section A.			
17. How does the project fit into the National Development Plan for 2030?			Please explain
For example: **One of the challenges that the NDP 2030 identified is "Infrastructure is poorly located, under-maintained and insufficient to foster growth." The proposed development directly addresses such challenges in the context that this proposed project will be located within the existing facilities of TE where infrastructure will be upgraded by providing a shelter over the existing facilities.**			

18. Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.

The proposed development has been adequately considered by trained and competent Environmental Assessment Practitioners (EAPs) and all potential impacts that may have a significant impact on the receiving environment have been considered and mitigated to acceptable levels as required by the NEMA 2010 EIA regulations. The conclusions of the environmental impact assessment have been concisely summarised to adequately inform decision-making by the competent authority. A comprehensive Public Participation Process has been undertaken, which conforms to requirements in Chapter 6 of the Environmental Impact Assessment Regulations. Further all Interested and Affected Parties were given ample time to review and comment on all documents and reports.

The EAP has thus endeavoured to integrate the principles of environmental management in all considerations for this application by:

- **identifying, predicting and evaluating the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management**
- **ensuring that the effects of activities on the environment receive adequate consideration before actions are taken in connection with them**
- **ensuring adequate and appropriate opportunity for public participation in decisions that may affect the environment**
- **ensuring the consideration of environmental attributes in management and decision-making which may have a significant effect on the environment; and**
- **identifying and employing the modes of environmental management best suited to ensuring that the activity is pursued in accordance with the principles of environmental management.**

Lastly it is assumed that the template for a Basic Assessment Report, as prepared by the Department, adheres to all provisions of the National Environmental Management Act in terms of Integrated Environmental Management (including the objectives and principles of NEMA) and the EAP has therefore endeavoured to provide as much detailed information as possible in the sections above and below.

19. Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account.
Section 2(2) – "Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably." **Section 2(3) – "Development must be socially, environmentally and economically sustainable."** **GIBB has carefully considered whether Transnet's proposed construction of a steel shed over their existing locomotive testing area would benefit people and contribute to sustainability. Since the proposed site is a full 'brownfield' site, biophysical impacts will be minimal, and any impacts related to potential pollution would be managed through appropriate management specifications and procedures. The proposed project will also improve the lives of the employees by providing a shelter to the elements, therefore placing people and their needs at the forefront of its concern.**

11. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
The Constitution of the Republic of South Africa, Section 24 (Environmental Right)	1) Everyone has the right a) to an environment that is not harmful to their health or well-being; and b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that: i) prevent pollution and ecological degradation; ii) promote conservation; and iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development."	National Government	1996
National Environmental Management Act 107 of 1998 (NEMA)	In terms of NEMA and associated Environmental Impact Assessment (EIA) Regulations published in August 2010, an Environmental Authorisation (Basic Assessment) must be obtained from the relevant decision-making authority, prior to the commencement of certain listed activities that may result in potential negative impacts on the environment. The environmental principals and requirements of NEMA were considered during the assessment of impacts and development of mitigation measures and in turn the EMP.	Department of Environmental Affairs	1998
National Water Act 36 of 1998 (NWA)	The applicant needs to ensure compliance with the requirements of the NWA	Department of Water Affairs	1998
National Environmental Management: Air Quality Act 39 of 2004	Background understanding during EIA. Since there will be no emission point sources as typical for heavy industrial operations, no Air Emission License will be required.	Department of Environmental Affairs	2004
National Environmental Management: Waste Act 59 of 2008	Waste will be generated through certain project activities. All waste management and disposal must be managed in	National & Provincial	2008

	accordance with the Waste Act, e.g. disposal to licensed waste disposal / recycling facilities.		
National Heritage Resources Act 25 of 1999 KwaZulu-Natal Heritage Act 10 of 1997	The site does not have any above ground heritage resources. The site is also already provided with a hard surface and artefacts are unlikely to be recovered during construction.	South African Heritage Resources Agency (SAHRA) Amafa-AkwaZulu-Natali / Heritage KwaZulu-Natal (Amafa)	1999
Hazardous Substances Act 15 of 1973	Storage and handling of small amounts of hazardous substances may potentially be applicable to the project during the construction phase.	Department of Environmental Affairs	1973
National Road Traffic Act 93 of 1996	Road (and rail) traffic is of relevance as the site is located at the interface between ocean and land transportation. If applicable, overland transport of Dangerous goods needs to be in accordance with the requirements of the relevant regulations under the Act. The regulations provide important measure to implement good management practices during receipt, transportation and delivery of dangerous goods, whereby environmental risk associated therewith is minimised.	Department of Transport	1996
Occupational Health and Safety Act 85 of 1993	A number of OHSA requirements are relevant to environmental control and were as such considered in the identified mitigation measures included in the EMP (e.g. bunding for flammable substances, Material Safety Data Sheets).	Department of Labour	1993
National Building Regulations and Building Standards Act 103 of 1977	The steel shed must meet the requirements of this Act	National Building Regulator	1977
All relevant Provincial regulations and Municipal bylaws	Since the proposed project will be at the port-city-interface, certain bylaws are relevant.	eThekwini Municipality	-

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

YES	~~NO~~
√	

If YES, what estimated quantity will be produced per month?

Unknown

How will the construction solid waste be disposed of (describe)?

Since the site is mostly vacant, only relatively small quantities of construction waste will be generated.

The construction phase of the proposed development will essentially entail the construction of a steel shed and stormwater infrastructure which will tie into the existing system. As such the waste generated will result from what can be considered as 'normal' construction activities. Most of this waste will likely fall in the category of 'general waste' but small quantities of 'hazardous waste' (e.g. oil rags; residues from use of paints, sealants, fuels and lubricating oil; contaminated soil from accidental spills) will/may also be generated.

Transnet will ensure that an Environmental Management Programme (EMP) forms part of the contractual agreement with all the contractors appointed to undertake the construction activities. The EMP includes mitigatory specifications, these include inter alia:

- **Segregation of general and hazardous waste at the construction site.**
- **Availing of dedicated and clearly marked waste bins or skips, located in strategic and convenient places at the construction camp for disposal of general waste. These bins or skips will be collected/ emptied regularly for disposal at licensed municipal landfill sites.**
- **Availing of dedicated and clearly marked hazardous waste bins as well as appropriately bunded hazardous waste storage areas for temporary storage of such wastes. Hazardous waste will be collected and removed from the site regularly and disposed to an appropriately licensed landfill site.**

Procedures to segregate recyclable material where reasonably feasible will be required. Segregated recyclables will be availed to suitably licensed recyclers for collection.

Where will the construction solid waste be disposed of (describe)?

A suitably registered/licensed municipal, privately owned disposal or recycling facility of the appointed contractor's choice.

Will the activity produce solid waste during its operational phase?

YES	~~NO~~
√	

If YES, what estimated quantity will be produced per month?

Unknown m^3

How will the solid waste be disposed of (describe)?

Firstly, it should be noted that since the project mostly comprises providing shelter for an existing locomotive testing areas, where activities already take place, operational waste would not increase as much as it would if it were an altogether new activity. In fact, operational waste type and quantity would initially be much the same.

During normal operations, quantities of waste generated on site will typically be associated with the day-to-day activities of the administration functions and routine maintenance activities.

Solid general waste produced during the operational phase will be placed in dedicated waste bins and skips located at convenient places. These bins or skips will be stored securely and safely on site and clearly labelled for the correct disposal of waste types. These bins or skips will be taken to the buildings central waste management facility, from where the waste will be collected for recycling and/or disposal by the appointed waste contractor(s) and either suitably recycled or disposed of at registered municipal landfill sites.

Small quantities of hazardous waste may arise, which will be segregated from the general waste and disposed of at an appropriately licensed disposal facility. This will be specified as such in the EMP and it is recommended that it be incorporated as part of the Transnet standard operating procedures for the site.

If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used.

A suitably registered/licensed municipal or privately owned disposal facility.

Where will the solid waste be disposed of if it does not feed into a municipal waste stream (describe)?

N/A

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the NEM:WA? **(Only small quantities of hazardous waste are anticipated, e.g. paints, oils, fluorescent tubes, etc.)**	~~YES~~	**NO** √

If YES, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.
N/A

Is the activity that is being applied for a solid waste handling or treatment facility?	~~YES~~	**NO** √

If YES, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application. **N/A**

b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	~~YES~~	**NO** √
If YES, what estimated quantity will be produced per month?		**N/A** m^3
Will the activity produce any effluent that will be treated and/or disposed of on site?	~~YES~~	**NO** √

If YES, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. **N/A**

Will the activity produce effluent that will be treated and/or disposed of at another facility?	~~YES~~	**NO** √

If YES, provide the particulars of the facility:

Facility name:	**N/A**		
Contact person:	**N/A**		
Postal address:	**N/A**		
Postal code:	**N/A**		
Telephone:	**N/A**	**Cell:**	**N/A**
E-mail:	**N/A**	**Fax:**	**N/A**

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

N/A

c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other than exhaust emissions and dust associated with construction phase activities?	~~YES~~	**NO** √
If YES, is it controlled by any legislation of any sphere of government?	~~YES~~	**NO** √

If YES, the applicant must consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. **N/A**
If NO, describe the emissions in terms of type and concentration:

There will be no point source (stack) emissions into the air from the proposed facilities.

Construction Phase:

During the construction phase, fume emissions would result from vehicles transporting construction material, machinery, hydraulic hammers, generators, etc. The emissions will however have short term impacts on the immediate surrounding areas and thus the authorisation of such emissions will not be required.

Dust may be generated as the result of exposed soil and cement dust. Fume and dust emission will be mitigated through measures incorporated in the EMP.

Operational Phase:

There will be no emissions from the proposed steel shed.

d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?	~~YES~~	**NO** √

If YES, please submit evidence that an application for a waste permit has been submitted to the competent authority

e) Generation of noise

Will the activity generate noise?	**YES** √	~~NO~~
If YES, is it controlled by any legislation of any sphere of government?	~~YES~~	**NO** √

If YES, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. **N/A**
If NO, describe the noise in terms of type and level:

Noise from site activities is considered of low significance considering the proposed project will be within an existing industrial area and will therefore not impact on residential or other sensitive areas.

Construction Phase

Construction noise will result from the movement of construction vehicle trafficking, generators, hydraulic/pressure hammers and winches, hammering of steel structures into position and other typical construction activities. Adjacent industries and businesses may potentially be impacted by construction noise, particularly at offices. However the noise associated with construction activities will be of short term, localised and will only last during the construction activities/phase of the project.

Operational Phase

During the operation phase, operating noise will result from *inter alia* the following:

- **Noise associated with maintenance operations and equipment**
- **Labourer voices**

It is considered unlikely that these noises would exceed the current background noises. Noise mitigation would be in the form of normal equipment maintenance.

Any public noise complaints would be dealt with through setting up a public complaints procedure for the construction phase and through Transnet's and eThekwini Municipal Health Department's normal complaints procedures.

13. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es):

Municipal √	Water board	Groundwater	River, stream, dam or lake	Other	The activity will not use water

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:	**N/A** litres
Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water Affairs?	~~YES~~ / **NO** √

If YES, please provide proof that the application has been submitted to the Department of Water Affairs. **N/A**

14. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

Benefits in energy saving and reducing the carbon footprint are as follows:

- **Close proximity to the port and interlinked with the rail networks**
- **Energy saving concepts in terms of energy efficiency, e.g. illumination.**

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

Energy saving concepts in terms of energy efficiency, e.g. illumination, air flow etc.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

1. For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section B and indicate the area, which is covered by each copy No. on the Site Plan.

Section B Copy No. (e.g. A): **1**

NOTE: Only Alternative S1, the preferred site is described as no other alternatives were further assessed.

2. Paragraphs 1 - 6 below must be completed for each alternative.

3. Has a specialist been consulted to assist with the completion of this section?

~~YES~~	NO √

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained in Appendix D. **N/A**

Property description/physical address:

Province	**KwaZulu-Natal**
District Municipality	**eThekwini Municipality**
Local Municipality	**eThekwini Municipality**
Ward Number(s)	**32**
Farm name and number	**1**
Portion number	**1**
SG Code	**N0FT00840000018000001**

Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application including the same information as indicated above. **N/A**

Current land-use zoning as per local municipality IDP/records:

Industry

In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to, to this application.

Is a change of land-use or a consent use application required?

~~YES~~	**NO** √

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat √	~~1:50 – 1:20~~	~~1:20 – 1:15~~	~~1:15 – 1:10~~	~~1:10 – 1:7,5~~	~~1:7,5 – 1:5~~	~~Steeper than 1:5~~

Alternative S2 (if any): N/A

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

Alternative S3 (if any): N/A

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

~~2.1 Ridgeline~~		~~2.4 Closed valley~~		~~2.7 Undulating plain / low hills~~	
~~2.2 Plateau~~		~~2.5 Open valley~~		~~2.8 Dune~~	
~~2.3 Side slope of hill/mountain~~		**2.6 Plain**	√	~~2.9 Seafront~~	

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Note: Impact on groundwater, soil and geological stability of the site is considered not an issue of environmental concern. The site is currently hard surfaced and will remain hard surfaced for the most part.

Is the site(s) located on any of the following?

	Alternative S1:		**Alternative S2 (if any): Not assessed**		**Alternative S3 (if any):Not assessed**	
Shallow water table (less than 1.5m deep)	~~YES~~	**NO** √	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Dolomite, sinkhole or doline areas	~~YES~~	**NO** √	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Seasonally wet soils (often close to water bodies) – **Site is located on an existing hard surface.**	~~YES~~	**NO** √	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Unstable rocky slopes or steep slopes with loose soil	~~YES~~	**NO** √	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Dispersive soils (soils that dissolve in water)	~~YES~~	**NO** √	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Soils with high clay content (clay fraction more than 40%)	~~YES~~	**NO** √	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Any other unstable soil or geological feature	~~YES~~	**NO** √	~~YES~~	~~NO~~	~~YES~~	~~NO~~
An area sensitive to erosion – **Note: The entire site is currently hard surfaced and most of the site will remain so.**	~~YES~~	**NO** √	~~YES~~	~~NO~~	~~YES~~	~~NO~~

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted.

4. GROUNDCOVER

Indicate the types of groundcover present on the site. The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

~~Natural veld - good condition~~ [E]	~~Natural veld with scattered aliens~~ [E]	~~Natural veld with heavy alien infestation~~ [E]	~~Veld dominated by alien species~~ [E]	~~Gardens~~
~~Sport field~~	~~Cultivated land~~	**Paved surface** √	**Building or other structure** √	~~Bare soil~~

If any of the boxes marked with an "[E] "is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn't have the necessary expertise.

5. SURFACE WATER

Indicate the surface water present on and or adjacent to the site and alternative sites?

Perennial River	~~YES~~	**NO** √	~~UNSURE~~
Non-Perennial River	~~YES~~	**NO** √	~~UNSURE~~
Permanent Wetland	~~YES~~	**NO** √	~~UNSURE~~
Seasonal Wetland	~~YES~~	**NO** √	~~UNSURE~~
Artificial Wetland – **uMhlatuzana Canal**	**YES**√	~~NO~~	~~UNSURE~~
Estuarine / Lagoonal wetland	~~YES~~	**NO**√	~~UNSURE~~

If any of the boxes marked YES or UNSURE is ticked, please provide a description of the relevant watercourse.

uMhlatuzana Canal - is a canal (artificial watercourse). The Umhlatuzana Canal is also known as Umbilo Canal, Umbilo Channel. In some sections, the uMhlatuzana Canal supports a large number of mainly wading birds and swamp- or marsh-loving species. The section of the uMhlatuzana canal which borders the proposed site is canalised with concrete infrastructure.

6. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

Natural area (artificial watercourse – no concern) √	Dam or reservoir	Polo fields
Low density residential	Hospital/medical centre	**Filling station** [H] √
Medium density residential √	School	Landfill or waste treatment site

High density residential	Tertiary education facility	Plantation
Informal residential[A]	Church	Agriculture
Retail commercial & warehousing √	Old age home	River, stream or wetland
Light industrial √	Sewage treatment plant[A]	Nature conservation area
Medium industrial [AN] √	**Train station or shunting yard [N] √**	Mountain, koppie or ridge
Heavy industrial [AN]	**Railway line [N] √**	Museum
Power station	Major road (4 lanes or more) [N]	Historical building
Office/consulting room √	Airport [N]	Protected Area
Military or police base/station/compound	Harbour	Graveyard
Spoil heap or slimes dam[A]	Sport facilities	Archaeological site
Quarry, sand or borrow pit	Golf course	Other land uses (describe)

If any of the boxes marked with an "[N] "are ticked, how will this impact / be impacted upon by the proposed activity?

Railway line [N] – Since the organization is dedicated to in-service maintenance, repair, upgrade, conversion and manufacture of freight wagons, mainline and suburban coaches, diesel and electric locomotives as well as wheels, rotating machines, rolling stock equipment, castings auxiliary equipment and services, railway lines traverse the site, but will not impact on or be impacted upon by the proposed project activity.

Train station or shunting yard [N] – A shunting yard is in close proximity to the site; this will however not be impacted on by the proposed project.

If any of the boxes marked with an "[An]" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

Medium Industrial[AN] - The proposed site/s are located within 500m of medium industries. Apart from TE itself, these industries will not be impacted on in any way by the proposed activity. However these industries have been notified about the proposed project.

If any of the boxes marked with an "[H]" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

A Shell Garage is located the west of the site on the opposite side of Solomon Mahlangu Drive. This garage will not be impacted on in any way.

Does the proposed site (including any alternative sites) fall within any of the following:

Critical Biodiversity Area (as per provincial conservation plan)	~~YES~~	**NO √**

Core area of a protected area?	~~YES~~	**NO** √
Buffer area of a protected area?	~~YES~~	**NO** √
Planned expansion area of an existing protected area?	~~YES~~	**NO** √
Existing offset area associated with a previous Environmental Authorisation?	~~YES~~	**NO** √
Buffer area of the SKA?	~~YES~~	**NO** √

If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix A**. N/A**

7. CULTURAL/HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including Archaeological or paleontological sites, on or close (within 20m) to the site? If YES, explain:	~~YES~~	**NO** √
	~~Uncertain~~	

N/A

If uncertain, conduct a specialist investigation by a recognised specialist in the field (archaeology or palaeontology) to establish whether there is such a feature(s) present on or close to the site. Briefly explain the findings of the specialist:

Due to the nature of the proposed site within a brownfields area, specialists were not required.

As explained the proposed steel shed will be constructed over an existing tarred surface. It is not anticipated that there will be extensive earthworks required and consequently there will be little to no impact on any heritage aspects.

However should any heritage artefact be discovered, mitigation measures have been provided in the EMP, Section 8.3.2 – Appendix G.

Will any building or structure older than 60 years be affected in any way?	~~YES~~	**NO** √
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	~~YES~~	**NO** √

If YES, please provide proof that this permit application has been submitted to SAHRA or the relevant provincial authority. **N/A**

8. SOCIO-ECONOMIC CHARACTER

a) Local Municipality

Please provide details on the socio-economic character of the local municipality in which the proposed site(s) are situated.

Level of unemployment:

"Statistics indicate that eThekwini has a high and increasing number of discouraged work seekers who leave the labour force, while there are still a growing number of jobless people" (eThekwini Municipality. 2012. *EDGE Economic Development & Growth in EThekwini*, Issue 4)

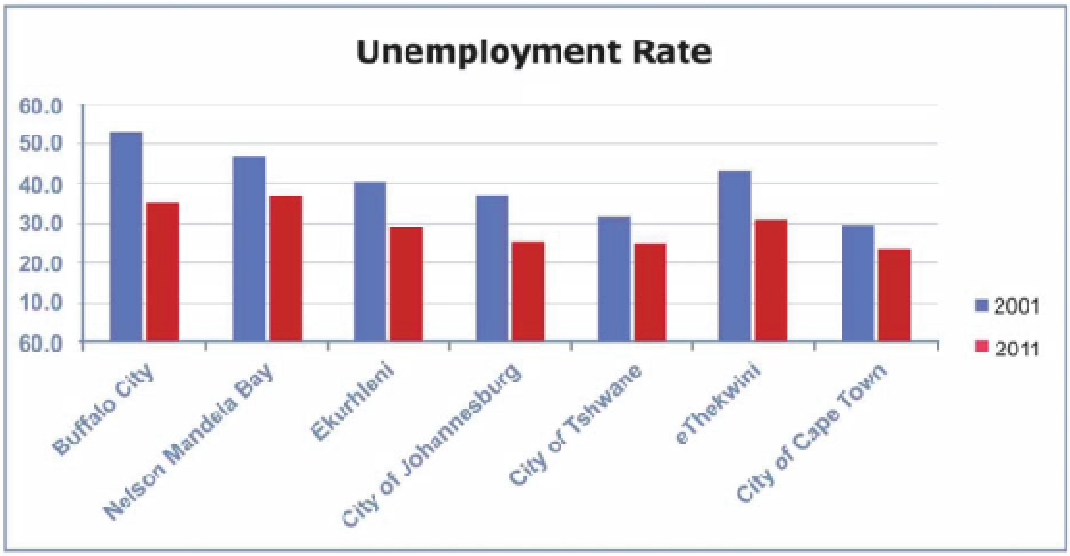

Figure 14: Unemployment Rate. (Reference: Statistics South Africa)

Economic profile of local municipality:

"Ethekwini has lagged slightly behind South Africa and was on a par with KwaZulu-Natal (KZN), when looking at the 15-year growth trend. However, by 2000 the annual growth was much higher than both KZN and South Africa, at 5.4% compared with the regional and national rates of 4.6% and 4.1% respectively. Overall, eThekwini followed the general growth trend of the country, and always maintained a slightly higher rate than KZN and South Africa until 2010 when it was on par with its regional counterparts. By 2011, eThekwini showed accelerated GDP growth (3.4%) when compared to KwaZulu-Natal (3.2%) and South Africa overall (3.1%). Despite the upturn in growth rates experienced by the City, the annual GDP growth rate is not yet at the level reached during 2007 of 6.4% before the economic downturn in 2008. Furthermore, this falls short of the target requirements contained in the National Development Plan." (eThekwini Municipality. 2012. *EDGE Economic Development & Growth in EThekwini*, Issue 4)

Figure 15 provides a summary of economic indicators for the eThekwini Municipality.

Indicator	2010	%	2011	%	% Change
Income and Expenditure					
Personal Income (current prices, R millions)	153,055		165,065		7.8
Disposable Income (constant prices, R millions)	100,307		104,389		4.1
Per Capita income (current prices, Rands)	44,221		47,221		6.8
Per household income (current prices, Rands)	167,805		182,435		8.7
Gini co-efficient	0.61		0.61		0.0
Retail sales (current prices, R millions)	49,555		54,741		10.5
Poverty Indicators					
Number of People Living in Poverty	1,130,128	32.6	1,093,372	31.3	-3.3
Human Development Index (1=highest)	0.60		0.61		1.7
Foreign Trade Indicators					
Merchandise Exports (current prices, R thousands)	37,257,393		44,268,564		18.8
Merchandise Imports (current prices, R thousands)	57,155,350		71,230,652		24.6
Tourism Indicators					
Tourism Spend as a Percentage of GDP	5.30%		4.80%		-9.4
Number of Trips	2,981,797		2,751,342		-7.7
Leisure/Holiday	475,769	16.0	448,743	16.3	-5.7
Business	261,094	08.8	251,272	09.1	-3.8
Visits to Friends and Relatives	2,067,219	69.3	1,880,315	68.3	-9.0
Other (Medical, Religious, etc.)	177,715	06.0	171,012	06.2	-3.8
Number of Bed Nights	17,441,673		17,269,287		-1.0
Domestic	15,023,921	86.1	14,633,403	84.7	-2.6
International	2,417,752	13.9	2,635,884	15.3	9.0

Figure 15: Economic indicators for the eThekwini Municipality (Source: eThekwini Municipality. 2012. EDGE Economic Development & Growth in EThekwini, Issue 4)

Level of education:

"In 2011, 31% of the eThekwini population over 15 years old had completed matric, 11% completed a higher level than matric and 58% did not complete up to the matric level of education. The eThekwini matric attainment level was 7% higher than in both KZN and South Africa, while the percentage of the eThekwini population who completed more than a matric level of education was 1% higher than in KZN and 3% higher than in South Africa." (eThekwini Municipality. 2012. *EDGE Economic Development & Growth in EThekwini*, Issue 4)

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	**R 4 Million**
What is the expected yearly income that will be generated by or as a result of the activity?	**N/A (existing operations)**
Will the activity contribute to service infrastructure?	**YES** √ / ~~NO~~
Is the activity a public amenity?	~~YES~~ / **NO** √

How many new employment opportunities will be created in the development and construction phase of the activity/ies?	**None**
What is the expected value of the employment opportunities during the development and construction phase?	**±1. 8 million**
What percentage of this will accrue to previously disadvantaged individuals?	**± 20%**
How many permanent new employment opportunities will be created during the operational phase of the activity?	**None (existing operations)**
What is the expected current value of the employment opportunities during the first 10 years?	**None (existing operations)**
What percentage of this will accrue to previously disadvantaged individuals?	**0%**

9. BIODIVERSITY

Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult http://bgis.sanbi.org or BGIShelp@sanbi.org. Information is also available on compact disc (cd) from the Biodiversity-GIS Unit, Ph (021) 799 8698. This information may be updated from time to time and it is the applicant/ EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as Appendix D to this report.

a) Indicate the applicable biodiversity planning categories of all areas on site and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category)

Systematic Biodiversity Planning Category				If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan
~~Critical Biodiversity Area (CBA)~~ **N/A**	~~Ecological Support Area (ESA)~~ **N/A**	~~Other Natural Area (ONA)~~ **N/A**	**No Natural Area Remaining (NNR)** √	**N/A**

b) Indicate and describe the habitat condition on site

Habitat Condition	Percentage of habitat condition class (adding up to 100%)	Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc).
~~Natural~~	**0%**	
~~Near Natural (includes areas with low to moderate level~~	**0%**	

~~of alien invasive plants)~~		
~~Degraded (includes areas heavily invaded by alien plants)~~	**0%**	
Transformed (includes cultivation, dams, **urban**, plantation, roads, etc)	**100%**	**The entire site at Transnet Engineering is covered by buildings and a hard standing surface.**

c) Complete the table to indicate:

(i) the type of vegetation, including its ecosystem status, present on the site; and

(ii) whether an aquatic ecosystem is present on site.

Note: There are no remaining natural habitats on the site itself.

Terrestrial Ecosystems		**Aquatic Ecosystems**						
Ecosystem threat status as per the National Environmental Management: Biodiversity Act (Act No. 10 of 2004)	Critical **N/A**	Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats, seeps pans, and **artificial wetlands)**			Estuary		Coastline	
	Endangered **N/A**							
	Vulnerable **N/A**							
	Least Threatened **N/A**	**YES** √	~~NO~~	~~UNSURE~~	~~YES~~	**NO** √	~~YES~~	**NO** √

d) Please provide a description of the vegetation type and/or aquatic ecosystem present on site, including any important biodiversity features/information identified on site (e.g. threatened species and special habitats)

The site is a 'brown fields' site on an existing industrial site and no natural features or habitats exist on the site. The only concern is the Umhlatuzana Canal (artificial watercourse) which borders the site to the North; however this will not be impacted on during the construction or operation of the facility.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	**Southern Star**	
Date published	**29 January 2013**	
Site notice position (Two notice boards visible by motorists using the Solomon Mahlangu Drive)	**Latitude**	**Longitude**
	Site Notice 1: **29°54'30.37" S** **Site Notice 2:** **29°54'27.06" S**	**30°59'16.56" E** **30°59'13.90" E (from GoogleEarth)**
Date placed	**30 January 2013**	

Include proof of the placement of the relevant advertisements and notices in **Appendix E1**.

2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 54(2)(e) and 54(7) of GN R.543.

GIBB conducted a Public Participation Process (PPP) with the following key features and associated milestones:

- **An Interested and Affected Parties (I&APs) Register/ Database was initiated and progressively populated as I&APs were identified or registered. (Refer to Appendix E5)**
- **Media notices which informed readers on the application to DEA and the proposed construction of the steel shed over the existing locomotive testing area, invited I&APs to register as I&APs and/or provide comment. This was placed in the Southern Star on the 29th January 2013 (Refer to Appendix E1)**
- **Notice boards were designed based on the specification of the NEMA EIA Regulations GNR 543, Section 54 (2) and (4), and displayed at conspicuous places at two points along Solomon Mahlangu Road (Refer to Appendix E1)**
- **A Background Information Document (BID), which provides background to the proposed construction of the steel shed over the existing locomotive testing area and an overview of the Basic Assessment Process and associated Public Participation Process was compiled and distributed to I&APs who registered by 1 March 2013. The BID also included an invitation for I&APs to comment and raise any issues and concerns they may have (Refer to Appendix E7)**
- **A Public Meeting was scheduled for 21 February 2013, 17h30 at the Admin B block, MPE Boardroom, 311 Solomon Mahlangu Drive, Durban. However, no one attended the public meeting, and the meeting was therefore closed (Refer to Appendix E6).**
- **A Comments and Response Report was compiled for the comment period on the BID (Refer to Appendix E3)**
- **The Draft Basic Assessment Report (BAR) was made available for a public comments period from 10 May 2013 to 19 June 2013 and all registered I&APs were**

either notified of the availability of the report at certain venues or provided with an electronic and/or paper copy of the report

- **All comments received on the Draft BAR were individually responded to and the responses are included in the Comments and Response Report of the Final BAR – Appendix E3**
- **All Correspondence with I&APs is included in Appendix E6.**

Key stakeholders (other than organs of state) identified in terms of Regulation 54(2)(b) of GN R.543:

Title, Name and Surname	Affiliation/ key stakeholder status	Contact details (tel number or e-mail address)
Ms Priya Pillay	**South Durban Community Environmental Alliance**	**Email: priya@sdceango.co.za Tel: 0314611991**
Mr Charles Fraser	**Bluff Action Group**	**Email: info@bluffaction.co.za Tel: 031 4664557**

Other key stakeholders are included in the I&AP Database in Appendix E5.

Include proof that the key stakeholder received written notification of the proposed activities as **Appendix E2**. This proof may include any of the following:

- e-mail delivery reports;
- registered mail receipts;
- courier waybills;
- signed acknowledgements of receipt; and/or
- or any other proof as agreed upon by the competent authority.

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES (please refer to Appendix E3 for detailed issues and responses)

Summary of main issues raised by I&APs	Summary of response from EAP
Waste Management • **Management of general and hazardous waste and contaminated hazardous waste** • **Identification of sensitive environments and possible pollution impacts and mitigation measures.** • **All waste areas must be demarcated and stored within a designated waste collection/storage area. Access control to this area must be properly managed and the removal and disposal of the waste to a permitted**	**Solid general waste produced during the operational phase will be placed in dedicated waste bins and skips located at convenient places. These bins or skips will be stored securely and safely on site and clearly labelled for the correct disposal of waste types. These bins or skips will be taken to the buildings' central waste management facility, from where the waste will be collected for recycling and/or disposal by the appointed waste contractor(s) and either suitably recycled or disposed of at registered**

waste disposal site must be carried out by a certified waste contractor or the eThekwini Municipality	municipal landfill sites. The contractor is required to develop and implement a detailed on-site Waste Management Plan, prior to the relevant waste generating activities commencing, covering inter alia: • Identification, classification and keeping of a register of type of waste generated • Planning for the construction / establishment / operation / decommissioning of a centralised waste management facility and/or designated waste management areas • Procedures to be followed for waste separation at source as well as reduce, re-use, recycle, recover and treatment of waste prior to the disposal option • Waste management procedures for waste disposal, e.g. storage, disposal, keeping of waste consignment certificates, etc. suitably registered/licensed municipal or privately owned disposal facility. Small quantities of hazardous waste may arise, which will be segregated from the general waste and disposed of at an appropriately licensed disposal facility. This will be specified as such in the EMP and it is recommended that it be incorporated as part of the Transnet standard operating procedures for the site. Note: The uMhlatuzana Canal will not be impacted on in any way.
Sewage and Wastewater Management • The use of temporary chemical toilets during the construction phase must not cause any pollution to water resources as well as pose a health hazard. The contents of these toilets must be emptied and safely disposed of. • The Department must be notified on	Noted, toilets (porta loos) will be located outside the 1:100 year floodline and preferably away and/or hidden from public roads, residential areas and other public places. Toilets (porta loos) will be firmly secured to prevent them from toppling over due to wind or any other cause. A service provider will be appointed to remove sewage

how sewage emanating from the ablution facilities of the proposed development will be managed.	from the chemical toilets and/or sewage sludge from package plants on a regular basis; and provide and ensure for this sewage / sewage sludge to be disposed of at a municipal sewage treatment plant or alternatively on an appropriately designed on-site sewerage treatment plant
• Water containing waste must not be discharged into the natural environment' • Measures to contain the water containing waste and safely dispose of it must be implemented	Noted, no waste water will be discharged into any natural environment. Rainwater from the roof of the new shed will tie into the existing storm water system which has no discharge to the uMhlatuzana Canal that borders the proposed site.
Stormwater Management • Stormwater management during and after construction • Sewage and wastewater treatment and disposal • Spill contingency Plans. • Contaminated water to be passed through oil/water traps prior to discharge to stormwater system • Clean and dirty water separation • Suggestion to collect roof runoff for reuse around the site.	*Refer to Stormwater Management in Section 8.4.9 of the EMP* The Umhlatuzana Canal will not be impacted on. The site is already provided with hardstanding (tarred surface) and runoff is currently directed to the existing stormwater system of the TE Premises. Rainwater from the roof of the new shed will tie into the existing stormwater system which has no discharge to the uMhlatuzana Canal that borders the proposed site.
Water courses and Water Uses • No wastewater may be discharged into uMhlatuzana canal during construction	Noted. Rainwater from the roof of the new shed will tie into the existing storm water system which has no discharge to the uMhlatuzana Canal that borders the proposed site.
• No water will be abstracted from water resources for the proposed project as water supplied by the municipality will be used for this purpose.	Yes this is correct. No water will be abstracted from water resources.
Biodiversity • Ezemvelo does not anticipate that the	Noted. The Umhlatuzana Canal will not be

	proposed activity would result in significant negative impacts upon local biodiversity, provided that best practice mitigation measures are implemented during the construction and operational phase.	**impacted on.**

4. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments received from I&APs and respond to each comment before the Draft BAR is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to the Final BAR as **Appendix E3**.

All comments received from I&APs during the PPP for the proposed project and associated GIBB or client responses, are incorporated in the Comments and Response Register (Appendix E3) and summarised above.

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

Authority/Organ of State	Contact person (Title, Name and Surname)	Tel No	Fax No	e-mail	Postal address
Department of Environmental Affairs	Ms Kim Balutto	012 395 1694	012 320 7539	kbalutto@ environment.gov.za	Private Bag X447 Pretoria 0001
Department of Environmental Affairs	Ms Lerato Mokoena	012 310 3137	012 320 7539	LMokoena@ environment.gov.za	Private Bag X447 Pretoria 0001
Department of Agriculture and Environmental Affairs	Ms Yugeshni Govender	031 302 2800 / 2862	031 302 2800	yugeshni.govender@kzndae.gov.za	Private Bag X006 Bishopsgate 4008
Department of Water Affairs	Ms Colleen Moonsamy	031 336 2700	031 305 9915	moonsamyc@ dwa.gov.za	PO Box 1018 Durban 4000
Ezemvelo KZN Wildlife	Mr Domenic Wieners	033 845 1455	033 845 1499	wienersd@ kznwildlife.com	PO Box 13053 Cascades 3202
Amafa KwaZulu-Natali	Ms Bernadet Pawandiwa	033 394 6543	033 342 6097	bernadetp@ amafapmb.co.za	PO Box 2685 Pietermaritzburg 3201
eThekwini Municipality	Ms Diane van Rensburg	031 311 7136	031 311 7859	vanrensburgd@ durban.gov.za	PO Box 680 Durban 4000

Include proof that the Authorities and Organs of State received written notification of the proposed activities as **Appendix E4**.

In the case of renewable energy projects, Eskom and the SKA Project Office must be included in the list of Organs of State. **(N/A)**

6. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for any activities (linear or other) where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that sub-regulation to the extent and in the manner as may be agreed to by the competent authority.

Proof of any such agreement must be provided, where applicable. Application for any deviation from the regulations relating to the public participation process must be submitted prior to the commencement of the public participation process.

A list of registered I&APs must be included as **Appendix E5**. **See Appendix E5.**

Copies of any correspondence and minutes of any meetings held must be included in **Appendix E6**.

Noted. See Appendix E6.

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2010, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

Provide a summary and anticipated significance of the potential direct, indirect and cumulative impacts that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed. This impact assessment must be applied to all the identified alternatives to the activities identified in Section A(2) of this report.

NOTES:

- **Key direct, indirect and cumulative impacts are listed in the tables below for the various project phases. References are provided to the Impact Assessment Report contained in Appendix F which provides a more detailed environmental description, assessment of impact significance and mitigation identification thereof.**
- **Only the preferred alternative A1 (site and layout) were assessed in detail. However, the No-Go alternative was briefly assessed.**

Activity	Impact summary	Significance - *without mitigation [with mitigation]*	Proposed mitigation *(Refer to the relevant Section in the Impact Assessment Report (IAR) of Appendix F)*
Alternative 1 (preferred alternative)			
Planning and Design Phase Impacts			
• Site surveys and inspections • Meetings with authorities and engineers • Advertise the project through the EIA and tendering process • Tender for Construction	*Direct impacts:* • Site survey and geotechnical investigations	Low	None
	Indirect impacts: • Advertising of the proposed project may potentially raise expectations amongst the community to receive social benefit (employment opportunities) from the proposed project.	Low	Refer to: • **IAR Subsection 2.2.5** (Good practice community relationship and management of influx of job seekers)
	Cumulative impacts: N/A	N/A	N/A
Construction Phase Impacts			
• Construction staff on site • Establish construction camp • Use of services (water, electricity, etc.) • Transport of construction plant, equipment and material • Use of construction plant and equipment (e.g. cranes, scaffolding, concrete batchers and mixers, hydraulic hammers, etc.) generators	*Direct impacts:* • Use of water in relatively small quantities • Impact on local traffic • Community relations and job creation	Low Low Low	Refer to: • **IAR Subsection 2.1.1, 2.2.3** (Minimise water use and pollution) • **IAR Subsection 2.2.4** (Minimise / control traffic impact) • **IAR Subsection 2.2.5** (Good practice community relationship and management of influx of job seekers) • **IAR Subsection 2.2.7** (Effective vehicle and equipment maintenance)

Activity	Impact summary	Significance - *without mitigation [with mitigation]*	Proposed mitigation *(Refer to the relevant Section in the Impact Assessment Report (IAR) of Appendix F)*
• Store material / substances (e.g. sand, stone, cement, fuel, oil, solvents, paints,, etc.) • Batch and mix concrete • Building construction • Storage and disposal of wastes • Storage and disposal of wastewater	• Emissions from construction vehicles and equipment • Noise from construction activities	Low Low	• **IAR Subsection 2.2.8** (E.g. refrain from noisy activities at night)
	Indirect impacts: • Potential erosion and dust due to exposure of soil and associated siltation and sedimentation of Umhlatuzana Canal • Potential Contamination of the Umhlatuzana Canal, soil and groundwater • Potential for rain and wind to dislodge soil and fine material (e.g. cement) particles from open stockpiles which can be carried away and deposited on surrounding properties, stormwater systems and the Umhlatuzana Canal • Potential spillage of hazardous materials such as oil, fuel, cement, sewage which may contaminate soil and Canal • Potential construction litter and poor management of construction waste • Potential public health and safety risk due to poor management of hazardous substances and or conducting construction activities that might pose a safety hazard	Low Low Low Low Low to Moderate [Low] Low	Refer to: • **IAR Subsection 2.1.1 and 2.2.6** (Minimise exposed soil) • **IAR Subsection 2.1.1, and 2.1.2** • **IAR Subsection 2.1.1** (Locate stockpiles away from the Canal's edge and provide berms) • **IAR Subsection 2.1.1** (Good management practice for hazardous substances) • **IAR Subsection 2.1.1, 2.1.2** (Good management practice for wastes) • **IAR Subsection 2.2.1** (Develop a Public Health and Safety Plan,

Activity	Impact summary	Significance - *without mitigation [with mitigation]*	Proposed mitigation *(Refer to the relevant Section in the Impact Assessment Report (IAR) of Appendix F)*
			take all necessary precautions)
	• Potential for Invasive Alien Plants to establish in areas where hardstanding surfaces are removed	Low	• **IAR Subsection 2.1.3** (Identify and manage all declared aliens)
	• Potential windblown dust generation from exposed soil and material stockpiles and construction vehicle trafficking	Low	• **IAR Subsection 2.2.7** (Minimise exposed soil and fine material, dust suppression through water sprinkling)
	• Potential impact on community relationships as a result of influx of temporary construction workers	Low	• **IAR Subsection 2.2.4** (Good practice community relationship and management of influx of job seekers)
	• Potential uncovering and impact on heritage artefacts, archaeological finds and/or human graves		• **IAR Subsection 2.3** (Monitor excavations to establish any heritage finds, place excavations on hold if such finds occur, report the finds to Amafa and follow their instructions)
	Cumulative impacts: Emissions from construction vehicles and equipment. Use of relative small quantities of water for construction purposes. Use of relatively small quantities of energy sources, mostly fuel for construction vehicles and equipment. Generation of building rubble and construction waste.	Low	• **Refer to IAR**
	Potential pollution of the Umhlatuzana Canal can impact users downstream.	Low	• **IAR Subsection Subsection 2.1.1**
Operational Phase Impacts			
• Operate the locomotive testing area	***Direct impacts:***		**Refer to:**

Activity	Impact summary	Significance - *without mitigation [with mitigation]*	Proposed mitigation *(Refer to the relevant Section in the Impact Assessment Report (IAR) of Appendix F)*
• Use of services (water, electricity, etc.) • Disposal of Waste • Building and premises maintenance	• Productivity increase • Improvements to health and safety • Use of water in relatively small quantities and electricity • Emissions from operational vehicles and equipment (small amounts) • Noise from operational activities	High (positive) High (positive) Low Low Low	• IAR Subsection 2.2.2 • IAR Subsection 2.2.1 (Public Health and Safety Plan, adhere to Building and Health & Safety legislation) • IAR Subsection 2.2.3 (minimise use) • IAR Subsection 2.2.7 (Effective vehicle and equipment maintenance) • IAR Subsection 2.2.8 (Meet city bylaws)
	Indirect impacts: • Potential Contamination of the Umhlatuzana Canal • Potential spillage of hazardous materials such as oil, fuel, cement, sewage which may contaminate soil and water resources • Potential litter and poor management of operational waste	 Low Low Moderate [Low]	Refer to: • IAR Subsection 2.1.2 • IAR Subsection 2.1.1, 2.1.2 (Good management practice for hazardous substances) • IAR Subsection 2.1.2 (Good management practice for wastes)
	Cumulative impacts: *N/A – since it is effectively remains at existing facilities.*	N/A	N/A
Decommissioning Phase Impacts			

Activity	Impact summary	Significance - *without mitigation [with mitigation]*	Proposed mitigation *(Refer to the relevant Section in the Impact Assessment Report (IAR) of Appendix F)*
	Direct impacts:		Similar to the Construction Phase refer to: • IAR Subsection 2.1.1
	• Sourcing and use of construction material, e.g. including soils, sand, aggregate, concrete, pipe etc.	Low	
	• Use of water in relatively small quantities	Low	• IAR Subsection 2.1.1, 2.2.3
	• Job creation for the demolition period	Low	• IAR Subsection 2.1.5
	• Emissions from use of vehicles and equipment as part of demolition activities	Low	• IAR Subsection 2.2.7
	• Noise from demolition activities	Moderate [Low]	• IAR Subsection 2.2.8
	Indirect impacts:		Similar to the Construction Phase refer to: • IAR Subsection 2.1.1
	• Potential enhancement of erosion due to exposure of soil through earth grading for site remediation and associated siltation and sedimentation of stormwater systems and the Umhlatuzana Canal	Low	
	• Potential for rain and wind to dislodge soil particles from open stockpiles which can be carried away and deposited in the Umhlatuzana Canal	Low	• IAR Subsection 2.1.1
	• Potential spillage of hazardous materials such as oil, fuel, sewage which may contaminate soil and water resources	Low	• IAR Subsection 2.1.1, 2.1.2
	• Potential litter and poor management of demolition waste	Low to Moderate [Low]	• IAR Subsection 2.1.1
	• Potential windblown dust generation from exposed soil, soil and material stockpiles	Low	• IAR Subsection 2.2.7

Activity	Impact summary	Significance - *without mitigation [with mitigation]*	Proposed mitigation *(Refer to the relevant Section in the Impact Assessment Report (IAR) of Appendix F)*
	and vehicle trafficking • Potential impact on community relationships as a result of influx of temporary demolition workers	Low	• IAR Subsection 2.2.5
	Cumulative impacts: N/A	N/A	N/A
No-go option			
• Continued use and operation of existing facilities	***Direct impacts:*** • Lack of job creation during construction • Continued limitation in productivity • Not addressing health and safety impacts of employees exposed to elements • Machinery malfunctioning and destruction	Moderate High High High	Refer to: • Following due process in accordance with the requirements of the NEMA EIA Regulations, as is done with this Basic Assessment Process.
	Indirect impacts: • Potential loss of economic sustainability • Potential loss of job security	Moderate Moderate	• Following due process in accordance with the requirements of the NEMA EIA Regulations, as is done with this Basic Assessment Process.
	Cumulative impacts: • Increase unemployment • Reduced socio-economic sustainability		• Following due process in accordance with the requirements of the NEMA EIA Regulations, as is done with this Basic Assessment Process.

Note: that the construction phase includes impacts associated with the decommissioning and demolition of existing buildings and structures. Impacts associated with the ultimate demolition have not been considered in detail, as this will likely only be necessary in many decades time.

A complete impact assessment in terms of Regulation 22(2)(i) of GN R.543 must be included as **Appendix F**.

2. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Alternative A1/S1 (preferred alternative) - A steel shed over the rail tracks of an existing locomotive testing area at the TE premises in Bayhead.

The proposed new steel shed over the existing locomotive testing area will adequately and efficiently cater for the needs of Transnet employees by providing them with shelter from the elements during their maintenance operations.

This assessment illustrates that while there would likely be significant benefits; there are identified impacts that may result from the proposed project. However, all identified negative impacts can be effectively mitigated provided the recommended mitigation measures contained in this Impact Assessment Report (Appendix F) and associated Environmental Management Programme are effectively implemented.

The negative impacts on natural and socio-economic resources are limited, mainly since the site is:

- **Located in a suitable urban setting**
- **Already disturbed with no natural habitats**
- **For all practical purpose vacant and available for the construction of the proposed steel shed.**

From an environmental perspective and with the consideration of the potential impacts detailed in this Basic Assessment Report, we are of the view that the preferred alternative A1/S1 will result in acceptably low impacts with suitable mitigation.

Alternative B – Not Applicable

No-go alternative (compulsory)

The No-Go Alternative will result in no new steel shed being constructed over the existing locomotive testing area at TE. The "no go option" is not a viable option for the following reasons:

- **The area which is existing and is currently used to perform brake tests and commissioning of locomotives for Transnet is exposed to the elements as it is not enclosed. Locomotive testing and maintenance tasks are therefore being performed in the open.**

- **Employees are currently exposed to the elements which is a health and safety risk**
- **This exposure therefore directly affects the productivity**
- **During the rainy season it becomes even more difficult to do the required maintenance operations as the rain and moisture result in work stoppages, damages equipment and affects the quality of the work.**

Without an alternative strategy to address the challenges currently experienced by the employees at TE, employees and equipment will continue to be exposed to the elements, which directly affect the productivity and employee's health and safety.

SECTION E. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?	YES √	~~NO~~

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment).

N/A

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application.

All conditions and recommendations contained within the EMP must be adhered to.

Is an EMPr attached?	YES √	NO

The EMPr must be attached as **Appendix G**.

The details of the EAP who compiled the BAR and the expertise of the EAP to perform the Basic Assessment process must be included as **Appendix H**.

If any specialist reports were used during the compilation of this BAR, please attach the declaration of interest for each specialist in **Appendix I**.

Any other information relevant to this application and not previously included must be attached in **Appendix J**.

_____

NAME OF EAP

_____ _____

SIGNATURE OF EAP DATE

SECTION F: APPENDIXES

The following appendixes must be attached:

Appendix A: Maps

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports (including terms of reference)

N/A

Appendix E: Public Participation

- Appendix E1: Media Notices and Notice Boards
- Appendix E2: Proof of Written Notice to Stakeholders
- Appendix E3: Comments and Response Register
- Appendix E4: Proof of Written Notice to Authorities
- Appendix E5: List of Registered Interested & Affected Parties
- Appendix E6: Correspondence and Minutes of Meetings
  - Appendix E6.1: Minutes of Meeting
  - Appendix E6.2: Correspondence

Appendix F: Impact Assessment

Appendix G: Environmental Management Programme (EMPr)

Appendix H: Details of EAP and expertise

Appendix I: Specialist's declaration of interest

Appendix J: Additional Information

DOCUMENT CONTROL SHEET
(FORM IP180/B)

CLIENT : Transnet Capital Projects

PROJECT NAME : Transnet Locomotive Testing Shed BA **PROJECT No. :** J33001

TITLE OF DOCUMENT : Transnet Locomotive Testing Shed Final Basic Assessment Report

ELECTRONIC LOCATION : **P:\J33001 – Transnet Locomotive Testing Shed BA \REPORTS\Final BAR**

	Approved By	Reviewed By	Prepared By
DRAFT1 for Public Review	NAME **Urishanie Govender**	NAME **Elisabeth Nortje**	NAME **Katherine de Jong**
DATE **May 2013**	SIGNATURE 	SIGNATURE 	SIGNATURE 

	Approved By	Reviewed By	Prepared By
Final	NAME **Urishanie Govender**	NAME **Elisabeth Nortje**	NAME **Katherine de Jong**
DATE **June 2013**	SIGNATURE 	SIGNATURE 	SIGNATURE 

	Approved By	Reviewed By	Prepared By
REVISION	NAME	NAME	NAME
DATE	SIGNATURE	SIGNATURE	SIGNATURE

GIBB (Pty) Ltd

Postal Address : P O Box 1365, Westville, 3630
Contact Person : Katherine de Jong
Telephone No. : 031 267 8567

Website : www.arcusgibb.co.za
Physical Address : 2nd Floor, IBM House, 54 Norfolk Terrace, Westville, 3630
Email Address : kdejong@gibb.co.za
Fax No. : 031 266 3310