



LIMPOPO

PROVINCIAL GOVERNMENT

REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF ECONOMIC DEVELOPMENT, ENVIRONMENT & TOURISM

BASIC ASSESSMENT REPORT - EIA REGULATIONS, 2014

Basic Assessment report in terms of the Environmental Impact Assessment Regulations, 2014, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

File Reference Number:

--

NEAS Reference Number:

Date Received:

Due date for acknowledgement:

Due date for acceptance:

Due date for decision

Kindly note that:

(For official use only)

1. The report must be compiled by an independent Environmental Assessment Practitioner.
2. 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.
3. Where applicable **tick** the boxes that are applicable in the report.
4. 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 Department of Economic Development, Environment and Tourism as the competent authority (Department) for assessing the application, it may result in the rejection of the application as provided for in the regulations.
5. An incomplete report may be returned to the applicant for revision.
6. Unless protected by law, all information in the report will become public information on receipt by the department. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.

7. The Act means the National Environmental Management Act (No. 107 of 1998) as amended.
8. Regulations refer to Environmental Impact Assessment (EIA) Regulations of 2014.
9. The Department may require that for specified types of activities in defined situations only parts of this report need to be completed. No faxed or e-mailed reports will be accepted.
10. This application form must be handed in at the offices of the Department of Economic Development, Environment and Tourism:-

<u>Postal Address:</u> Central Administration Office Environmental Impact Management PO Box 55464 POLOKWANE 0700	<u>Physical Address:</u> Central Administration Office 20 Hans van Rensburg Street POLOKWANE 0699
<p>Queries should be directed to the Central Administration Office: Environmental Impact Management:-</p> <p>For attention: Mr E. V. Maluleke</p> <p>Tel: (015) 290 7138/ (015) 290 7167</p> <p>Fax: (015) 295 5015</p> <p>Email: malulekeev@ledet.gov.za</p>	

View the Department's website at <http://www.ledet.gov.za/> for the latest version of the documents.

SECTION A: ACTIVITY INFORMATION

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

<input checked="checked" type="checkbox"/>	NO
--	----

If YES, please complete the form entitled "Details of specialist and declaration of interest" or appointment of a specialist for each specialist thus appointed:

Any specialist reports must be contained in Appendix D.

1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail¹:

Township establishment for higher education purposes with associated uses and amenities. The township will consist of the following erven:

- 3 erven for student accommodation providing 4 700 beds
- 2 erven for place of instruction (vocational facilities)
- 1 erf for access and access control and engineering services
- 1 erf for private open space

There will be limited retail for the campuses, canteens, post & copy shop and bookstore.

Services will be provided by Polokwane Municipality

¹ Please note that this description should not be a verbatim repetition of the listed activity as contained in the relevant Government Notice, but should be a brief description of activities to be undertaken as per the project description.

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;

The property is adjacent to the existing Northern Academy Curro School and fits in well with the development pattern and guidelines provided in the SDF.

The site is strategically located in close to the R81 road and N1 highway and accessible for private and public transport.

Engineering services connection points for water, sewerage and electricity is available.

(b) the type of activity to be undertaken;

The need and desirability for student accommodation is exemplified by the increase in numbers of eligible candidates each year who wish to enrol in graduate courses.

Currently the tertiary facilities within Polokwane have limited spaces in its residences. Off-campus accommodation can be more affordable but is not always academically conducive or well regulated.

The development will cater for two tertiary vocational facilities with accommodation.

(c) the design or layout of the activity;

The layout of the development fits in with the environmental sensitivities of the site and can be supported. The proposed site layout plan is included in Appendix A.

The following Environmental criteria were taken into consideration during design process:

- Ecological sensitivity of the site
- Heritage sensitivity of the site

(d) the technology to be used in the activity;

It is envisaged to use environmentally sustainable building and operational principles in the building of the new facilities as opposed to old school building principles.

(e) the operational aspects of the activity;

The tertiary institution that will occupy the site will manage and operate the facilities in a professional and profitable way.

(f) the option of not implementing the activity.

If the activity is not implemented, the status quo will remain with the site being not developed. Because of the development drive in this part of the city this property will sometime be developed.

Describe alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity 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 Department 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.

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

3. ACTIVITY POSITION

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, minutes and seconds. The projection that must be used in all cases is the Hartebeeshoek 94 WGS84 spheroid in a national or local projection.

List alternative sites, if applicable.

Latitude (S):

Longitude (E):

Alternative:

Alternative S1² (preferred or only site alternative)

23°	52'	30.3"	29°	31'	47.7"
°	'	"	°	'	"
°	'	"	°	'	"

Alternative S2 (if any)

Alternative S3 (if any)

In the case of linear activities:

Alternative:

Latitude (S):

Longitude (E):

Alternative S1 (preferred or only route alternative)

- 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.

4. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:

Size of the activity:

Alternative A1 (preferred activity alternative)

126 470 m²

² "Alternative S.." refer to site alternatives.

Alternative A2 (if any)

Alternative A1 (if any)

or,

for linear activities:

Length of the activity:

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

	m
	m
	m

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

Size of the site/servitude:

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

	m ²
	m ²
	m ²

5. SITE ACCESS

Does ready access to the site exist?

YES	<input type="checkbox"/>
<div style="border: 1px solid black; height: 30px; width: 100%;"></div>	

If NO, what is the distance over which a new access road will be built

m

Describe the type of access road planned:

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.

6. SITE OR 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:

- 6.1 the scale of the plan which must be at least a scale of 1:500;
- 6.2 the property boundaries and numbers of all the properties within 50 metres of the site;
- 6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 6.4 the exact position of each element of the application as well as any other structures on the site;
- 6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 6.6 all trees and shrubs taller than 1.8 metres;
- 6.7 walls and fencing including details of the height and construction material;
- 6.8 servitudes indicating the purpose of the servitude;
- 6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
 - rivers;
 - the 1:100-year flood line (where available or where it is required by Department of Water and Sanitation);
 - ridges;
 - cultural and historical features;
 - areas with indigenous vegetation (even if it is degraded or invested with alien species);
- 6.10 for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- 6.11 the positions from where photographs of the site were taken.

7. 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 form. It must be supplemented with additional photographs of relevant features on the site, if applicable.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 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.

11. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?

What is the expected yearly income that will be generated by or as a result of the activity?

Will the activity contribute to service infrastructure?

Is the activity a public amenity?

How many new employment opportunities will be created in the development phase of the activity?

What is the expected value of the employment opportunities during the development phase?

What percentage of this will accrue to previously disadvantaged individuals?

How many permanent new employment opportunities will be created during the operational phase of the activity?

What is the expected current value of the employment opportunities during the first 10 years?

What percentage of this will accrue to previously disadvantaged individuals?

	NO
	NO

9(b) Need and desirability of the activity

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

NEED:			
i.	Was the relevant municipality involved in the application?	YES	<input type="checkbox"/>
ii.	Does the proposed land use fall within the municipal Integrated Development Plan?	YES	<input type="checkbox"/>
iii.	If the answer to questions 1 and / or 2 was NO, please provide further motivation / explanation:		

DESIRABILITY:			
i.	Does the proposed land use / development fit the surrounding area?	YES	<input type="checkbox"/>
ii.	Does the proposed land use / development conform to the relevant structure plans, Spatial development Framework, Land Use Management Scheme, and planning visions for the area?	YES	<input type="checkbox"/>
iii.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	YES	<input type="checkbox"/>
iv.	If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation:		
v.	Will the proposed land use / development impact on the sense of place?	<input type="checkbox"/>	NO
vi.	Will the proposed land use / development set a precedent?	<input type="checkbox"/>	NO
vii.	Will any person's rights be affected by the proposed land use / development?	<input type="checkbox"/>	NO
viii.	Will the proposed land use / development compromise the "urban edge"?	<input type="checkbox"/>	NO
ix.	If the answer to any of the question 5-8 was YES, please provide further motivation / explanation.		

BENEFITS:			
i.	Will the land use / development have any benefits for society in general?	YES	<input type="checkbox"/>
ii.	Explain:		
iii.	Will the land use / development have any benefits for the local communities where it will be located?	YES	<input type="checkbox"/>
iv.	Explain:		

10. 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:	Administering authority:	Date:
Constitution of South Africa	Minister	1996
National Environmental Management Act (NEMA)	Environmental Affairs	1998
Environmental Impact Assessment Regulations	Environmental Affairs	2014

National Heritage Resources Act	LIHRA	1999
Occupational Health and Safety Act	Department of Labour	1993
National Veld and Forest Fires Act	DWAF	1998
National Water Act	DWA	1998
Health Act	Department of Health	1977
National Forest Act	Department of Forestry	1998
National Environmental Management: Biodiversity Act	Environmental Affairs	2004

11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

11(a) Solid waste management

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

YES	<input type="checkbox"/>
30 m ³	

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

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

Construction waste will be disposed of at the Polokwane Landfill site

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

Construction waste will be disposed of at the Polokwane Landfill site

Will the activity produce solid waste during its operational phase?

YES	<input type="checkbox"/>
24 m ³	

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

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

Solid waste will be collected by Polokwane municipality on a weekly basis.

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

Solid waste will be disposed of at the Polokwane Landfill site.

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 department 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 relevant legislation?

<input type="checkbox"/>	NO
--------------------------	----

If yes, inform the department and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility?

<input type="checkbox"/>	NO
--------------------------	----

If yes, then the applicant should consult with the Department to determine whether it is necessary to change to an application for scoping and EIA.

11(b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?

<input type="checkbox"/>	NO
--------------------------	----

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

m ³	
----------------	--

Will the activity produce any effluent that will be treated and/or disposed of onsite?

<input type="checkbox"/>	NO
--------------------------	----

If yes, the applicant should consult with the Department to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility?

<input type="checkbox"/>	NO
--------------------------	----

If yes, provide the particulars of the facility:

Facility name:

--

Contact person:

--

Postal address:

--

Postal code:

--

Telephone:

	Cell:	
--	-------	--

E-mail:

	Fax:	
--	------	--

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

--

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

<input type="checkbox"/>	NO
YES	<input type="checkbox"/>

If yes, is it controlled by any legislation of any sphere of government?

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.

If no, describe the emissions in terms of type and concentration:

--

11(d) Generation of noise

Will the activity generate noise?

YES	<input type="checkbox"/>
<input type="checkbox"/>	NO

If yes, is it controlled by any legislation of any sphere of government?

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.

If no, describe the noise in terms of type and level:

Residential noise from the students

12. WATER USE

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

municipal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-----------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

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:

<input type="checkbox"/> NO

Does the activity require a water use permit from the Department of Water Affairs?

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

--

13. ENERGY EFFICIENCY

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

Energy *i.e.* electricity is becoming a very expensive commodity and it has become a necessity to implement as much energy saving measures as possible. From the start, this will be incorporated in the design and include *inter alia*,

- All new appliances (e.g. bar fridges, kettles, etc.) will be energy efficient appliances.
- All light bulbs and light fittings will be energy saving bulbs and fittings.
- Buildings will be well insulated in order to conserve heat in the colder times and to keep rooms and spaces cool during warmer months of the year.
- Geysers and water heating equipment can be set to an optimum temperature.
- Increase use of natural light as opposed to artificial lighting.

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

Solar energy for heating of water.
Stoves can be fueled by gas as opposed to electricity.

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 C and indicate the area, which is covered by each copy No. on the Site Plan.

Section C Copy No.
(e.g. A):

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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
-----	-------------------------------------	--------------------------

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed:

All specialist reports must be contained in Appendix D.

Where possible the specialist declarations were included either in the report or attached in the various sub-appendices. The ones still required will be included in the final Basic Assessment Report.

Property
description/physical
address:

Portion 191 of the farm Tweefontein 915 LS

(Farm name, portion etc.) Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application.

Current land-use zoning:	In instances where there is more than one town or district involved, please attach a list of towns or districts to this application.
	Agriculture

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 this application.

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

YES	<input type="checkbox"/>
YES	<input type="checkbox"/>

Must a building plan be submitted to the local authority?

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 indication of the project site position as well as the positions of the alternative sites, if any;
- 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, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection)

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

<input type="checkbox"/>	1:50 – 1:20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Alternative S2 (if any):

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):

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		2.6 Plain	
2.2 Plateau		2.7 Undulating plain / low hills	
2.3 Side slope of hill	X	2.8 Dune	
2.4 Closed valley		2.9 Seafront	
2.5 Open valley			

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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







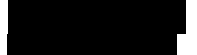

	Alternative S1:	Alternative S2 (if any):	Alternative S3 (if any):
Shallow water table (less than 1.5m deep)	<input type="checkbox"/> NO	YES NO	YES NO
Dolomite, sinkhole or doline areas	<input type="checkbox"/> NO	YES NO	YES NO
Seasonally wet soils (often close to water bodies)	<input type="checkbox"/> NO	YES NO	YES NO
Unstable rocky slopes or steep slopes with loose soil	<input type="checkbox"/> NO	YES NO	YES NO
Dispersive soils (soils that dissolve in water)	<input type="checkbox"/> NO	YES NO	YES NO
Soils with high clay content (clay fraction more than 40%)	<input type="checkbox"/> NO	YES NO	YES NO
Any other unstable soil or geological feature	<input type="checkbox"/> NO	YES NO	YES NO
An area sensitive to erosion	<input type="checkbox"/> 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			
				

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.

The following is an extract from the Ecological report in appendix D.1:

The most recent classification of the area by Mucina & Rutherford shows that the site is classified as Polokwane Plateau Bushveld. The following vegetation units was documented on site:

- *Vachellia tortilis* – *Dichrostachys cinerea* woodland
This vegetation unit is classified as having a Medium Sensitivity due to the state of the vegetation and distribution of this vegetation entity through the area. The development in this area is considered suitable from an ecological point of view, if mitigation measures are implemented.
- *Open Vachellia tortilis* – *Gymnosporia senegalensis* – *Aloe marlothii* woodland
The vegetation unit is classified as having a Medium Sensitivity due to the state of the vegetation and distribution of this vegetation entity through the area. The development in this area is considered suitable from an ecological point of view, if mitigation measures are implemented.
- *Combretum molle* – *Searsia leptodicta* – *Aloe marlothii* rocky ridge
The rocky ridge is classified as having a High Sensitivity due to the rocky nature of the soils, potential red data species habitat and unique plant species composition as part of the larger landscape. The development should aim to conserve this area as part of the educational facility for hiking trails and environmental awareness excursions.

No red data species or sensitive species flagged by the screening report were observed. There are a few scattered marula trees that is protected in terms of the National Forest Act. A permit from Forestry is required for the removal of any of these trees.

The site represents no suitable habitat for the listed red data animal species. The fact that more than a third of the site will not be developed, will ensure that there is still habitat available for animal species.

5. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that does 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:

5.1 Natural area	X	5.22 School	X
5.2 Low density residential		5.23 Tertiary education facility	
5.3 Medium density residential	X	5.24 Church	
5.4 High density residential		5.25 Old age home	
5.5 Medium industrial ^{AN}		5.26 Museum	
5.6 Office/consulting room		5.27 Historical building	
5.7 Military or police base/station/compound		5.28 Protected Area	
5.8 Spoil heap or slimes dam ^A		5.29 Sewage treatment plant ^A	
5.9 Light industrial		5.30 Train station or shunting yard ^N	
5.10 Heavy industrial ^{AN}		5.31 Railway line ^N	
5.11 Power station		5.32 Major road (4 lanes or more)	
5.12 Sport facilities		5.33 Airport ^N	

5.13 Golf course		5.34 Harbour	
5.14 Polo fields		5.35 Quarry, sand or borrow pit	
5.15 Filling station ^H		5.36 Hospital/medical centre	
5.16 Landfill or waste treatment site		5.37 River, stream or wetland	
5.17 Plantation		5.38 Nature conservation area	
5.18 Agriculture		5.39 Mountain, koppie or ridge	X
5.19 Archaeological site		5.40 Graveyard	
5.20 Quarry, sand or borrow pit		5.41 River, stream or wetland	
5.21 Dam or Reservoir		5.42 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?

--

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

If YES, specify and explain:	
If NO, specify:	

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity.

If YES, specify and explain:	
If NO, specify:	

6. 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 palaeontological sites, on or close (within 20m) to the site?

YES	<input checked="" type="checkbox"/>
Yes	

If YES, explain:

--

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

Briefly explain the findings of the specialist:

A Late Iron Age stone walled site was recorded in the north-eastern corner of the proposed project area. The site consisted of stone walls around and on the slight rise. No other associated materials such as ceramics or grinding stones could be located. This may attest to the possibility that the area was used as a cattle outpost.

The site in question, is severely degraded, with only foundations and some infill of stone walling remaining.

The area in the north-eastern corner should be excluded from development.

Will any building or structure older than 60 years be affected in any way?

Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

<input type="checkbox"/>	NO
<input type="checkbox"/>	NO

If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

- (a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the department) at a place conspicuous to the public at the boundary or on the fence of—
 - (i) the site where the activity to which the application relates is or is to be undertaken; and
 - (ii) any alternative site mentioned in the application;
- (b) giving written notice to—
 - (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
 - (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
 - (v) the municipality which has jurisdiction in the area;
 - (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
 - (vii) any other party as required by the department;
- (c) placing an advertisement in—
 - (i) one local newspaper; or
 - (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
- (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and
- (e) using reasonable alternative methods, as agreed to by the department, in those instances where a person is desiring of but unable to participate in the process due to—
 - (i) illiteracy;
 - (ii) disability; or
 - (iii) any other disadvantage.

2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

- (a) indicate the details of the application which is subjected to public participation; and
- (b) state—
 - (i) that the application has been submitted to the department in terms of these Regulations, as the case may be;
 - (ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;
 - (iii) the nature and location of the activity to which the application relates;
 - (iv) where further information on the application or activity can be obtained; and
 - (v) the manner in which and the person to whom representations in respect of the application may be made.

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the department in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of these Regulations.

Advertisements and notices must make provision for all alternatives.

4. DETERMINATION OF APPROPRIATE MEASURES

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later stage that should have been addressed may cause the department to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in these Regulations and be attached to this application. The comments and response report must be attached under Appendix E.

6. AUTHORITY PARTICIPATION

Please note that a complete list of all organs of state and or any other applicable authority with their contact details must be appended to the basic assessment report or scoping report, whichever is applicable.

Authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input.

Name of Authority informed:	This CBAR has been made available on 21 May 2021 to adjacent landowners and I&AP's. Comments will be included in the FBAR.
LEDET	
Department of Water and Sanitation	
Polokwane Municipality	
Capricorn District Municipality	
Department of Agriculture Limpopo	
Department of Agriculture, Rural Development and Land Reform	
Land Claims Commissioner	

7. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for linear activities, or 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 department.

Proof of any such agreement must be provided, where applicable.

Has any comment been received from stakeholders?

<input checked="" type="checkbox"/>	NO
-------------------------------------	----

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

This CBAR has been made available on 21 May 2021 to adjacent landowners and I&AP's. Comments will be included in the FBAR.

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014, 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. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

--

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report as Appendix E):

--

2. 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

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) 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.

Alternative (preferred alternative)

Planning and design Phase

Direct impacts:

- No impacts are expected during the design and planning phase for the proposed development.

Indirect impacts:

- No impacts are expected during the design and planning phase for the proposed development.

Cumulative impacts:

- No impacts are expected during the design and planning phase for the proposed development.

Alternative (preferred alternative)

IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION PHASE

Direct impacts:

- **Air Quality and Noise:**
- Air Pollution caused by excessive dust formation in and around construction zones as a result of earthworks (breaking up, digging, vegetation clearance and dumping large quantities of dry material).
- Air Pollution caused by excessive emissions due to the movement of construction vehicles on site and during the use of construction machinery.
- Air pollution caused by excessive smoke due to the burning of vegetation, litter and solid waste as well as the use of open fires by construction workers for cooking and heating on site.
- Noise pollution caused by construction activities (like drilling, bulk earthworks and compaction of pavement layers). This also includes noise that can be generated along the access road.

2) Surface and Groundwater Sources:

- Spillages or seepage from temporary sanitation facilities (chemical toilets used at the construction site).
- Spillage of fuel and lubricants from vehicles and temporary fuel or storage containers which can cause surface or ground water pollution.
- Solid waste disposal (inappropriate measures/littering) which can cause surface and ground water pollution.
- Handling/use of dangerous substances.
- Spillages of cement and paints.

3) Water Use (Available resources):

- Possible wastage of available water resources (water use for construction purposes & human consumption)

4) Archaeological and Cultural:

- Possibility that archaeological site may be damaged during construction.

5) Ecology (Impacts on flora and fauna):

- Loss of indigenous and protected plant species and unnecessary damage to sensitive habitat sections due to the clearing of vegetation.
- Loss of indigenous flora due to the use of ecologically unfriendly herbicides.
- Loss/death of indigenous fauna due to littering on and close to the site.
- Loss of indigenous fauna to the area due to use of poison and capturing and intentional killing of animals moving through area.
- Killing, snaring or collection of fauna.
- Loss of biodiversity due to destruction of indigenous vegetation and loss of fauna due to accidental fires.
- Cutting and collection of firewood-loss of indigenous vegetation.

6) Soils:

- Spillage from temporary sanitation facilities (chemical toilets).
- Contamination of topsoil due to the spillage of fuel and lubricants from vehicles and temporary fuel or storage containers as well as the mixing of cement, paints and other products on exposed soils.
- Use of insecticides and herbicides can cause soil pollution.
- Soil pollution and public nuisance due to inappropriate management of solid waste and litter.
- Soil erosion and loss of topsoil and during the excavation of service trenches and foundations due to the transportation of stockpiled material (soil) by wind or rain.
- Increase in the soil degradation by erosion occurring on site, especially along steeper slopes and cleared sections.
- Handling, use & spillages of dangerous substances.

7) Visual/Aesthetics and landscape character

Visual impacts caused by:

- The presence of heavy vehicles and equipment, temporary structures, foundations and material and soil stockpiles)
- The loss of trees and other vegetative cover.
- Construction of 4 story buildings.
- Litter and solid construction waste generated at the construction site.
- Construction camp & security lights.

9) Health, Safety and Security:

- Accidents and injuries to construction workers during the construction phase
- Destruction of adjacent property (businesses) and danger to human life due to accidental fires
- Increased crime level
- Safety risk because of increase in traffic volume

8) Socio – Economic:

- Disruptions to traffic, adjacent residents, students at Curro school during the construction phase
- Positive impact of providing job opportunities in the area
- Positive impact of the supply of building materials from local businesses

Indirect impacts:

- The creation of short-term job opportunities for local labour
- The opportunity for skills development and training of local labour during the construction phase

Cumulative impacts:

- Adding to the traffic load and volumes on the roads in the area.
- Increased change in visual attributes of the area.

NO-GO ALTERNATIVE**Direct impacts:**

- The loss of indigenous and or endemic plant species occurring on site during the construction phase will be prevented.
- No extra pressure on the water resources in the area during the construction phase.
- The possible loss/damage of adjacent property and danger to human life because of accidental fires caused during the construction phase will be reduced.
- No improvement in the supply of tertiary institutions and student's accommodation in Polokwane.

Indirect impacts:

- The creation of short-term job opportunities for local labor will be lost.
- The opportunity for skills development and training of local labor during the construction phase will be lost.

Cumulative impacts:

- The proposed development that can stimulate the demand for secondary services and broaden the economic base of the area will be lost.
- The opportunity to cater for tertiary institutions and students will be lost.

PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES**CONSTRUCTION PHASE****Air Quality and Noise:**

- Dust suppression measures must take place in recently exposed sections. This must include dampening areas where vegetation has been cleared as well as during severely dry and or windy conditions. This measure will be important since the proposed construction site is situated close to the Curro School.
- The clearing of the site should be done in phases as the construction progresses. The unnecessary removal of vegetation must be avoided, and no vegetation clearance must take place beyond the planned perimeters of the proposed development site.
- Construction vehicles and machinery must be well serviced and maintained on a regular basis to reduce emissions release during construction periods.
- The speed of construction vehicles moving on to the site and on site should be kept as low as possible to reduce the generation of dust and noise.
- No solid waste, litter or cleared vegetation may be burned on or near the site. Cleared vegetation from construction activities must not be stockpiled for extensive periods and must be removed together with accumulated solid waste and litter to a licensed landfill site once a week.
- Enough wind and animal proof waste bins must be placed at strategic places at the construction site. A bulk waste collection area (waste drum) must also be designated which must be cleared regularly by a recognized waste collector. The contractor must ensure that these waste bins are available at the appropriate places and used and emptied in the appropriate way.
- No open fires for cooking or heating must be allowed on the site.

- Contractors must comply with provincial noise regulations. The construction machinery must be fitted with noise mufflers and be maintained properly.
- The contractor must ensure that construction activities are limited to the hours of daylight (06H00 – 18H00), Mondays to Saturdays. No construction activities should be allowed on Sundays unless an agreement has been reached with the surrounding residents.
- Proper equipment and vehicle maintenance should be implemented on a regular basis to keep noise levels to acceptable levels.

Surface and Groundwater and soils: (pollution)

- Chemical sanitation facilities that do not rely on seepage of liquids must be used on site. These toilets must be serviced and emptied on a weekly basis by an appropriate company so that no spills or leaks take place from these toilets to surface and groundwater.
- Chemical toilets must be placed on level sections.
- The ratio of one chemical toilet for every 15 construction workers on site must be maintained.
- Any leaks or spillages that do occur must be cleaned up in the appropriate manner immediately.
- Construction workers must be informed to report any damage of or leakages from chemical toilets immediately to the site foreman.
- Construction vehicles and machinery must be well serviced and maintained to prevent oil and fuel leaks.
- The servicing (oil, fuel) of construction vehicles or machinery must not be done on site but rather at an approved servicing station in town.
- No fuel, oil or other lubricants or chemicals must be stored on site. An appropriate and existing storage facility should be identified for this purpose.
- Spill trays or protective lining must be placed under construction vehicles when parked at one place for longer periods. This measure is especially important when leakages or damage is suspected.
- Any solid waste generated during the construction phase (including packets, plastic, rubble, cut plant material, waste metals, waste concrete, etc.) must be collected and kept in adequate containers. These materials must not be allowed to stockpile for extensive periods and must be removed on a weekly basis to Polokwane landfill site.
- Any leaks or spillages from vehicles or machinery must immediately be reported to the on-site contractor and be cleaned in the appropriate manner.
- Adequate waste bins (wind and animal proof) must be placed at strategic places at the construction site. A bulk waste collection area must also be designated, and waste must be removed and disposed of at the licensed Polokwane landfill site.
- The excavation of rubbish pits for the dumping of waste material on site is not allowed.
- Ensure that no solid or liquid waste, including building rubble end up in trenches. All backfilling to be with original and clean material only.
- Any dangerous substances that might be used during the construction phase must be handled with care and stored in a safe place behind a lock. All spillages must be cleaned up immediately.
- Large spillages must be reported and cleaned by a spill's response team.
- Drip pans should be used during re-fuelling and servicing of construction vehicles. Used parts like filters should be contained and disposed of at a site licensed for dumping of these waste products.
- Diesel storage must not exceed 30 000 litres at the construction camp. Diesel tanks and other harmful chemicals and oils must be stored within a bunded area behind a lock. Any water from out of this bunding must flow through an oil/water skimmer.
- Machinery to be checked, serviced and maintained regularly to prevent oil and fuel leaks. Machinery should as far as possible NOT be serviced or refuelled on the construction site or if not possible be serviced/parked on an area that will be covered by a plastic lining. Any fuel or oil must be taken together with the plastic lining to an approved site that handles hazardous waste. Any spills must be treated and removed by a qualified agent.
- The mixing of cement and paints must be done at designated areas on a protective plastic lining to contain any spillages into surface and groundwater resources.

- Regular clean-up programs should be put into effect through-out the premises to limit the impact of littering caused by construction activities.
- No contaminants (soaps, detergents, lime, glues, paints, cement or fuels) may be disposed of on the site.
- Keep construction areas clean so that storm water is not polluted.
- Berms must be constructed to limit flow of water over cleared areas to limit erosion.
- Clearance of vegetation must be restricted to footprint area.
- Construction activities must be restricted to the proposed footprint area.
- Slopes must be kept to the minimum. Erosion control measures must also be implemented to control the amount of soil loss.
- The stockpiled topsoil during construction activities must be managed in such a way that the material is not transported by wind or rain. This can be done by restricting the height of the stockpiles to 1.2 m. covering them by plastic sheeting or sandbagging.
- Minimise bare areas-revegetate or pave as soon as possible to prevent soil erosion.
- Repair all erosion damage as soon as possible to allow for sufficient rehabilitation growth.
- Slopes produced by removing of soil must be kept to a minimum to reduce erosion damage to the area.
- Efficient and appropriate surface drainage management systems should be implemented and maintained. Foundational design should be according to recommendations in the Geo-Technical report (See Appendix D.4).

Water Use (Available resources):

- Water for construction purposes should not be wasted and construction workers must be educated on the value and importance of available water sources. Taps or water pipes that are used must be regularly inspected for any leaks.

Archaeological and Cultural:

- The heritage no-go area should be fenced off together with the ecological sensitive area as a no-go area.
- In the event of a heritage object being unearthed, construction work that could impact on the object should be stopped and the discovery must be reported to SAHRA or the appropriate archaeologist/s and may require further mitigation measures. Heritage objects are not to be moved or destroyed without the necessary permits in place.

Ecology (Impacts on flora and fauna):

- The ecological sensitive area should be fenced off as a no-go area.
- Clearance of vegetation must be restricted to actual construction sections and construction machines must not be allowed to move outside the demarcated areas.
- Protected marula trees as well as other larger individuals of indigenous tree species should be incorporated into the landscaping features of the site as far as possible. Any eradication of marula trees must not be done without a permit from Forestry.
- The selection and usage of herbicides for weed and alien plant control must only take place after the necessary advice and guidance has been obtained from a qualified ecologist. Only selective (species specific) and environmentally friendly herbicides must be used for this purpose.
- Chosen herbicides should if possible, not be used during extremely windy or rainy conditions. (See Ecological Report for recommendations regarding alien plant control)
- Monitor for alien invasive species regularly.
- No trees outside the development footprint may be cut for firewood. Only removed vegetation (wood) during site clearance can be used for this purpose. Fires may only be made on designated areas on site.
- Cleared areas should be rehabilitated by reintroducing a grass layer/paving as soon as possible to limit erosion.
- Litter and other waste must not be allowed to lie around at the construction site.
- Regular clean-up programs must be put into effect and enough wind and animal proof waste containers must be provided. These containers must be removed on a regular basis to the licensed landfill site.

- All measures must be taken to prevent veld fires from occurring on site during construction activities or as a result of negligence. The necessary safety measures must be in place on site. This includes fire extinguishers, backup water tanks and the regular removal of stockpiled plant material.
- The burning on site of collected waste, litter or piled plant material is strictly forbidden.
- General firefighting equipment (portable fire extinguishers or fire hoses) must be available at the construction site. Personnel must be given the appropriate training in the use of the firefighting equipment and other emergency procedures until professional services arrive on the site.
- No animals may be captured or intentionally be killed during the construction phase.
- No poison of any kind must be used to control any animals without the input of an approved ecologist/zoologist since the wrong use thereof can have disastrous consequences for the raptors in the area.
- Limit pesticide use to non-persistent, immobile pesticides and apply in accordance with label and application permit directions and stipulations for terrestrial and aquatic applications.
- Yellow lighting should be used to reduce number of insects being attracted for insectivorous animals.

Visual/Aesthetics and landscape character:

- Construction equipment must be organised neatly on site.
- Equipment not in use must be removed from site.
- Large trees contributing to the aesthetic value of the site should be protected as far as possible. (See ecological report – Appendix D1).
- Re-vegetation of cleared/eroded areas with indigenous plant species must take place as soon as possible after the disturbance has ceased.
- Litter and solid construction waste must not be allowed to generate for extensive periods and must be removed and disposed of at the Polokwane landfill site.
- No refuse may be buried or burned on site.
- Animal proof refuse bins must be provided on site and contents can be emptied in a refuse cage before removal to the registered dumping site.
- Install light fixtures that provide precisely directed illumination to reduce light “spillage” beyond the immediate surrounds of the project site.

Health, Safety & Security:

- The contractor shall conform to all the stipulations of the Occupational Health and Safety act (Act 85 of 1993) and the Regulations applicable at the time of the tender. The Act requires the designation of a Health and Safety representative when more than 20 employees are employed.
- A first-aid kit must be available at the site office.
- All personnel must be informed of emergency procedures and emergency contact numbers must be displayed prominently.
- Personal Protective Equipment (PPE) and safety gear must be provided to all site personnel (hard hats, safety boots, masks etc.).
- Workplaces must be kept clean to ensure hygienic working conditions.
- All measures must be taken to prevent veld fires from occurring on site during construction activities or as a result of negligence:
- The burning on site of collected waste, litter or piled plant material is strictly forbidden.
- General firefighting equipment (portable fire extinguishers or fire hoses) must be available at the construction site. Personnel must be given the appropriate training in the use of the firefighting equipment and other emergency procedures.
- Warning signs must be displayed close to construction site while safety measures like barrier tape and safety signs at trenches, embankments or diggings must be provided.
- Open trenches or excavations must be marked with danger tape.
- A security officer may be employed to protect the property from theft.

Socio – Economic:

- Local people must be used wherever possible for jobs created during the project.
- Support local businesses whenever possible.

Alternative (preferred alternative)**IMPACTS THAT MAY RESULT FROM THE OPERATIONAL PHASE****Direct impacts:****Air Quality and Noise:**

- Air pollution caused by accidental fires and the burning of garden waste and litter.
- Movement of vehicles on site – noise.
- Operation of the educational facility – noise.

Energy Usage:

- Electricity use.

Surface and Groundwater Sources:

- Surface and ground water pollution due to inappropriate storage and disposal of solid waste and litter.
- Surface and ground water pollution from leakages at sanitation system.
- Surface and ground water pollution due to spillages through the use of chemicals and detergents.
- Surface and ground water pollution due to inappropriate use of pesticides and herbicides on site.
- Siltation of surface streams through erosion.

Water Use (Available resources):

- Reduction in available water resources.

Archaeology impacts:

- Destroy archaeological evidence and heritage resources.

Ecology (Impacts on flora and fauna):

- Damage of fauna and flora on private open space.
- Loss of fauna due to the use of inappropriate pesticides
- Loss of indigenous vegetation due to the use of inappropriate herbicides
- Animal deaths due to littering on site.
- Alien invasive plants cause problem for indigenous vegetation in the area.
- Catching of reptiles, birds and small mammals.

Soils:

- Soil pollution and public nuisance through the inappropriate storage and removal of solid waste and litter.
- Soil erosion caused by storm water.
- Soil pollution caused by spillages of chemicals, oils and other detergents.
- Malfunctioning or leaking from sanitation system.
- Use of fertilizers, insecticides and herbicides.

Visual/Aesthetics and Landscape Character:

- Visual impacts from lighting on site.
- Visual impacts from littering on site.
- Visual impacts from buildings that are not well maintained.

Health and Safety:

- Destruction of property and danger to human life due to accidental fires.
- Loss of property and danger to human life due to crime
- Traffic – increased volume of vehicles entering and leaving the site.

Socio Economic:

- Reduction of unemployment through job creation during construction and operation.
- Provision of tertiary facilities and accommodation for 4 000+ students.

Indirect impacts:

- The provision of facilities that are currently in short supply in Polokwane.
- Provision of job opportunities and skills development.

Cumulative impacts:

- Extension of urbanization.
- Increased pressure on water supply.

NO-GO ALTERNATIVE

Direct impacts:

- The destruction of fauna and flora will not happen.
- Surface and ground water pollution due to spillages and use of chemicals, detergents, etc. will not happen.
- There will be no extra pressure on water & electrical supply, sanitation, and traffic.
- Opportunities for many students to obtain qualifications will be lost.

Indirect impacts:

- The provision of amenities that are limited, are desirable and are needed in a growing city like Polokwane will be lost.
- Provision of job opportunities and skills development for local people will be lost.

Cumulative impacts:

- The proposed development that can stimulate the demand for tertiary education will be lost.

PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

OPERATIONAL PHASE

Air Quality and Noise:

- The necessary pre-cautionary and safety measures must be implemented by staff for operational activities that has a high risk of resulting in fires.
- All staff must be trained and educated to prevent unnecessary outbreaks of fire, but also in emergency procedures when such outbreaks do occur.
- No solid waste or garden refuse may be burnt on site but must be removed to the municipal waste disposal site on a weekly basis.
- Adequate waste containers must be available at strategic places on the site for this purpose.
- Carbon dioxide emissions (footprint) from the development should be managed and can be reduced by the following methods:
 - Solar water heating systems
 - Energy efficient lighting
 - Digital controls of ventilation, cooling and heating
 - Vegetation refuse should be composted if possible and re-used.
 - Speed of vehicles on site should be controlled by speed bumps and speed restrictions.
 - Loud music at the site must be controlled by rules.

Surface and Ground Water Pollution:

- Solid waste and litter must be collected on a regular basis and be disposed of at the Polokwane licensed landfill site.
- Sort and recycle waste as far as possible by supplying correct bins on site.
- "A direct return to supplier" packaging waste agreement could be considered for the sustainable re-use of bulk containers such as juice bottles and canisters, glass bottles, jam jars, cooking oil buckets and carton boxes.
- The sanitation system must be inspected on a regular basis for malfunctions. Any damage to piping, causing leaks must be reported and be repaired by an approved contractor as soon as possible.
- Preferably use certified "green" chemicals that are petro-chemical free and or eco labeled.
- Grease traps (for fats, oils, and grease) must be provided at kitchens and must be cleaned and inspected on a

regular basis. Damaged grease traps must be replaced immediately.

- Use biodegradable soaps and laundry detergent that is low in phosphorous.
- Herbicides used to control the invasive plant species should be chosen in consultation with an ecologist, as some of the agents might be detrimental to the surrounding indigenous fauna and flora.
- Poisons for control of problem animals must be avoided since the wrong use thereof can have disastrous consequences for the raptors in the area. The use of poisons for the control of vermin should only be used after approval from an ecologist.
- Cover or revegetate cleared areas on site as soon as possible to limit erosion of the soils and siltation of streams in the area.

Water Use:

The following measures must be considered by management in order to save and effectively use water on site:

Gardens:

- Planting indigenous vegetation that is adapted to local soil and climatic conditions.
- Making use of drip irrigation systems that uses less water.
- Watering early in the day or later in the afternoon when the evaporation rate is lower. Supplying less water to plants during the winter period
- Introducing compost/mulch for soils to enhance the water retention capabilities thereof.
- Grouping of plants that have different watering needs. Plant ground covers between other planting to retain as much as possible moisture within the soil.
- Install rainwater catchment tanks for irrigation.

Facilities operation:

- Consider smaller baths.
- Install water wise shower heads.
- Install dual flush toilets.
- Install aerators in taps.
- Repair leaking taps immediately.

Archaeology and Heritage resources

- The archaeological site is rated as a local grade C site, and research will assist with the archaeological history of the wider area.
- Although a wide buffer zone has been included, monitoring should still be done, when heritage remains are uncovered during excavations.
- A management plan for the archaeological site is recommended, to protect the site and to determine a way that the tertiary institutions can utilize the resources to complement what is learnt in the classroom.

Ecology:

- The spread of veld fires should be controlled by means of firebreaks (National Veld and Forest Fire Act) around the perimeter of the development site.
- No waste may be burned, or fires made on site.
- Fire extinguishers should be placed in halls as well as at high-risk sections such as kitchens. Staff and students should also be educated on the proper use of fire extinguishers.
- Only ecologically friendly products must be used to control vermin.
- An integrated pest control management system should be adopted.
- Only ecologically friendly and selective weed control products and methods must be used in gardens.
- Solid waste and litter must be collected on a regular basis and be disposed of at the Polokwane licensed landfill

site.

- Alien invasive species must be eradicated when and where they occur.
- Endemic plant species that had to be removed during the construction phase should be incorporated into appropriate sections of the garden.
- Staff and students must be educated on the value and importance to protect local fauna which might occur in the area.

Soils:

- Solid waste must be collected and disposed of on a weekly basis. Collected waste must be taken to Polokwane licensed landfill site.
- There must be an active program to separate the metals, bottles and plastics in the solid waste and send it to a reputable recycling program.
- Waste containers must be always covered.
- Exposed sections must be stabilized against erosion.
- The sanitation system should be inspected regularly to ensure proper operation.
- Spillages must be cleaned up immediately and the system must be repaired when necessary.
- Only ecologically friendly products (not containing organophosphates) must be used to control vermin and other pests.
- Only ecologically friendly and selective weed control products and methods must be used in gardens.

Visual/Aesthetics and Landscape Characteristics:

- Energy efficient lighting must be used.
- The site must be kept neat at all times.
- Littering must be prevented by provision of enough waste bins and daily cleaning of the site.
- No refuse may be buried on site.

8) Socio – Economic:

- Local people must be used wherever possible for maintenance.
- Materials should be sourced locally wherever possible.

9) Health and Safety and Fire hazards:

- The spread of veld fires should be managed by means of firebreaks (National Veld and Forest Fire Act) around the perimeter of the development site.
- The necessary safety measures must be in place when an accidental fire does occur.
- Fire extinguishers and fire-fighting equipment must be available.
- Staff and students must be trained with regards to emergency procedures to be followed as well as in proper and safe use of fire extinguishers.
- Visible information boards must be provided within each room and at selective places of the facilities on how to respond during a fire emergency.
- Security personal must be available to monitor and control vehicle entrance, while proof of identity must be provided by lecturers, workers and students.
- Camera surveillance monitors could be supplied at strategic points as an additional precaution against crime.
- Accesses and roads to and on site must be well marked to ensure safe traffic management.
- Speed of vehicles on site must be controlled by signage and speed humps

Alternative (preferred alternative)

IMPACTS THAT MAY RESULT FROM THE DECOMMISSIONING AND CLOSURE PHASE

Direct impacts:

The decommissioning or closure of the proposed activity is not likely to occur because the demand for tertiary institutions and student accommodation will continue to increase.

Indirect impacts:

The decommissioning or closure of the proposed facility is not likely to occur because it will be important to serve the needs of students for the short, medium and long term.

Cumulative impacts:

The decommissioning or closure of the proposed activity is not likely to occur because the demand for tertiary institutions and student accommodation will continue to increase.

PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

DECOMMISSIONING AND CLOSURE PHASE

NO MITIGATION MEASURES PROPOSED AT THIS STAGE BECAUSE DECOMMISSIONING CANNOT BE SEEN AS AN OPTION IN FUTURE. IF THE TERTIARY FACILITIES WILL BE CLOSED DOWN THE FACILITY CAN BE USED FOR ACCOMMODATION.

--

3. 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 A (preferred alternative)

The most significant impacts will occur during the construction period but can be mitigated to a large extent. With the implementation of the mitigation measures the severity of the impacts can be limited to an acceptable level. The extent of the impacts during the construction period is limited to the development footprint and will not extend beyond the footprint of P191.

The duration of the impacts is foreseen to be more than 30 years. The extent of the possible impacts will be restricted to P191 and surroundings.

No-go alternative (compulsory)

This option would mean that the following benefits regarding the proposed development will be lost:

- 1) The important function of the educational facility to serve the needs of students.
- 2) Amenities will be lost that are currently in short supply, are desirable and are needed in Polokwane.
- 3) Additional employment that could have been generated, the demand for secondary services that could have been stimulated and the economic base of the area that could have been broadened by the proposed development will be lost.

Alternative B

Alternative C

For more alternatives please continue as alternative D, E, etc.

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	<input checked="" type="checkbox"/>
-----	-------------------------------------

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):

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 department in respect of the application:

1. Local labour should be used as far as possible.
2. Services and products should be locally sourced as far as possible.
3. Noise must be controlled at all times.
4. Energy saving appliances should be acquired and management should be geared towards any possible means of ways to save energy.
5. Water must always be used with great care whilst taking other water users in the vicinity into consideration.
6. No waste must be left to accumulate, on site and must be removed and taken to Polokwane municipal landfill site, weekly.
7. Environmental Compliance Monitoring must be done on a monthly basis during the construction period and at least once a year during the operational phase.

Is an EMPr attached?

The EMPr must be attached as Appendix F.

YES	<input checked="" type="checkbox"/>
-----	-------------------------------------

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

- Appendix A: Site plan(s)
- Appendix B: Photographs
- Appendix C: Facility illustration(s)
- Appendix D: Specialist reports
- Appendix D1: Ecological Impact Assessment
- Appendix D2: Agricultural Potential Report
- Appendix D3: Heritage Impact Assessment
- Appendix D4: Geo-Technical Report
- Appendix D5: Services Report
- Appendix D6: Traffic Report
- Appendix E: Comments and responses report
- Appendix E1: Proof – placement of relevant advertisements and notices
- Appendix E2: Written notifications to authorities and organs of state
- Appendix E3: I&AP Register
- Appendix F: Environmental Management Program (EMPr)
- Appendix G: Screening Report

SECTION G: DECLARATION BY THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

I, **Johan Botha**

declare that I –

- (a) act as the independent environmental practitioner in this application;
- (b) do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014;
- (c) do not have and will not have a vested interest in the proposed activity proceeding;
- (d) have no, and will not engage in, conflicting interests in the undertaking of the activity;
- (e) undertake to disclose, to the competent authority, any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the Environmental Impact Assessment Regulations, 2006;
- (f) will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- (g) will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the Department in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the Department may be attached to the report without further amendment to the report;
- (h) will keep a register of all interested and affected parties that participated in a public participation process; and
- (i) will provide the Department with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not.

Signature of the Environmental Assessment Practitioner:

AGES Limpopo (Pty) Ltd

Name of company:

21/05/2021

Date: