



**TURN180**  
ENVIRONMENTAL CONSULTANTS

REGISTRATION NUMBER: 2018/110720/07

# FINAL BASIC ASSESSMENT REPORT

PROPOSED EXPANSION OF STRUCTURES AND INFRASTRUCTURE ON  
PLOT 27, RAYTON, BLOEMFONTEIN

November 2019

**Applicant:**

**Jenn Training College (Pty) Ltd**

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## BASIC ASSESSMENT REPORT

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**destea**

department of  
economic, small business development,  
tourism and environmental affairs  
FREE STATE PROVINCE

(For official use only)

**File Reference Number:**

**Application Number:**

**Date Received:**


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.

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### 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, 2014 as amended 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 **07 April 2017**. 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.

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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 in 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.

### 1. PROJECT DESCRIPTION

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

##### **Background**

The proposed project will involve the expansion of facilities and infrastructure for the establishment of a college to accommodate students for the college on Plot (i.e. smallholding) 27, Rayton, Bloemfontein ("Site"). The site is situated on the corner of Frans Kleynhans Road and Floors Coetzee Street in Rayton.

The property has a footprint of 8.57 ha. The footprint of the expansion which will result in the clearance of vegetation will be 1.32 ha. There will be entrances to Site 1, in Floors Coetzee Street. The development on Site 1 will include the construction of the College and offices which cater for 10 - 15 classes. Also, a parking lot will be built around the college building connected to an entrance, together with installation of services. Site 1 will also involve the expansion of existing buildings into dormitories (i.e. housing) for students. Water from an existing borehole, located on Site 1, will be abstracted for the purpose of irrigating gardens and natural vegetation. The Construction phase of the development will necessitate clearing of vegetation and levelling of the site where necessary. Site 2 will be left undisturbed as an additional clearing for possible future expansion. An old house is located on Site 2 of Plot 27.

The rest of the site consists of the Winburg Grassy Shrubland which is classified as of least concern with several scattered trees around the plot. An Ecological and Wetland Assessment report was done and included into the Basic Assessment Report. It was also indicated that an onsite borehole will be utilized for the purpose of irrigating only the gardens and natural vegetation on the site. Note that there is an artificial wetland located on Site 2 of the large Plot 27. It was indicated that this artificial wetland will not be disturbed in any way as the lower part of the site bordering Frans Kleynhans road will be kept undetermined. Although the artificial wetland is classified by the ecologist as being not of any significant value, but the wetland does contain a significant population of endangered juvenile giant bullfrogs, which will be relocated by a specialist if the wetland is levelled.

**Services and infrastructure:** (Please refer to Civil Services report in Appendix D)

**Sanitation** - According to a study done by Thusabatho Civil Services it was established that the water network cannot accommodate the future development. "There is however future planning in the pipeline with the new Emoya development. There will be a bulk distribution pipeline constructed under the Emoya Development that will accommodate and include this proposed development on Plot 27. Therefore, when the proposed pipeline is completed under the Emoya Project, no additional external infrastructure will be required for this development. If the development is before the mentioned future development of Emoya they will have to upgrade the bulk water systems." (Civil Services Report, 2017). According to the study done the new development will require a water supply of 4.166 L/s. An

existing 110 mm pipeline serves the proposed development area in front of the site and lies within the Mangaung Local Municipality District in Groenvlei. There is sufficient water pressure but insufficient water supply and will have to be upgraded before it will be able to accommodate the future development. The development will be provided with water by constructing and connecting an internal 110 mm water network with the new water distribution lines from the water reticulation system situated around the development. A 110mm water pipe will be installed from the development, connecting to the 110 mm municipal main in Frans Kleynhans Road.

**Sewage** - No sewage lines exist on the proposed site. There are however a 6 061 km gravity sewer line running to the Western Sewer Treatment Works that are being planned and are already under construction. A 0.955 L/s average flow and a 2.6991 L/s during peak flow is estimated. A new internal 160 mm pipeline will be connected to the new external 200 mm diameter sewer network. The study also revealed that during peak flow the capacity of the sewage lines to be at 40% and is rated to be sufficient for the proposed project.

**Roads** - There is only one proposed entrance to the Site consisting of an entrance lane and an exit lane. The entrance connects to the Floors Coetzee Street. There are no new major tarred internal roads to be constructed for the development and all will be normal block paving layout as per the site development plan. All paving will be done in such a manner to allow for storm water management. (Please refer to the Traffic Impact Study in Appendix D)

**Traffic** – The traffic study concluded that 160 -246 new trips during the morning and afternoon will be made. It was also concluded that due to extensive latent rights in the area, that capacity problems will arise at intersection whether the project is introduced or not. Due to the increase in traffic it is also recommended that Floors Coetzee Road be upgraded with turning lanes. The study concluded that the project is suitable from a traffic point of view. (Please refer to the Traffic Impact Study in Appendix D)

**Electricity** – Plot 27 has no electrical connections. CENTLEC will supply a medium voltage miniature substation and facilitate a 750kVA medium voltage connection. The applicant will be responsible for all the internal infrastructure as well as the equipment necessary for sub-metering for different dwellings. The proposed development is situated within the urban edge. This development will be permanently supplied from the proposed New Market 2/2946 substation, with the relevant primary cable feeder from the Groenvlei distribution centre (Please refer to the Service Provision Letter in Appendix J).

### **Specialist Reports**

**Heritage Assessment** - The property footprint was surveyed, and it was concluded by Dr. Rossouw that there were no heritage or artefacts present and that no further study on the area is required.

**Ecological Assessment** – “The site is considered as mostly natural but with some significant disturbance of the natural vegetation. The vegetation type on the site, Winburg Grassy Shrubland (Gh 7), is currently listed as being of Least Concern (LC) which does not contribute to the conservation value. This is also reflected by the Free State Biodiversity Management Plan which does not consider the site to be a Critical Biodiversity Area. Although the site is not considered to be of high conservation value in terms of the vegetation type a few protected species do still occur in significant numbers and are considered to be of significant conservation value and should be mitigated as recommended” (Van Rensburg, 2019).

The Ecological Assessment concluded that there were no watercourses, drainage lines or naturally

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occurring wetlands on the site. Two artificial wetlands formed as a result of the alteration in the topography by means of a berm and an excavation which caused the accumulation of surface runoff. The impoundments and wetland conditions formed by the artificial berm, excavation and concrete dam are not considered to form part of any surface water systems and are consequently of low conservation value. "As a result, should development require the removal of any of these features it will not result in any significant ecological impact. However, the shallow excavation contains a significant juvenile population of the protected Giant Bullfrog (*Pyxicephalus adspersus*). Although it is a relatively widespread and common species and Red Listed as being of Least Concern (LC) it is protected and as such does retain a significant conservation value which will require adequate management and mitigation" (Van Rensburg, 2019).

**Storm water** – No on-site storm water retention will be required for the proposed development with a sufficient open drain system located adjacent the Frans Kleynhans Road and Floors Coetzee Street.

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

Listed activity as described in GN 327,325 and 324	Description of project activity
<p><b>Example:</b>  <b>GN 327 Item xx xx): The construction of a bridge 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.</b></p>	<p><b>A bridge measuring 5 m in height and 10m in length, no wider than 8 meters will be built over the Orange river</b></p>
<p>GN 327 Activity 27: "The clearance of an area of 1 ha or more, but less than 20 ha of indigenous vegetation".</p>	<p>An application to remove approximately 1.32 ha of indigenous vegetation of the Winburg Grassy Shrubland on Plot 27 for the expansion of existing facilities for the establishment of a tertiary education facility and associated infrastructure.</p>
<p>GN 324 Activity 12 (b)(iv): "The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan –(b) Free State – (iv) Areas within a watercourse or wetland; or within 100 metres from the edge of a watercourse or wetland".</p>	<p>This project will involve the clearance of more than 300 square metres (approximately 1.32 ha) of indigenous vegetation for the expansion of existing facilities. The development footprint, including existing structures and infrastructure will be 3.36 ha. This development falls within 100 m of a man-made artificial impoundment (i.e. wetland).</p>

**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 Appendix 1 (3)(h) of GN 326, Regulation 2014 as amended. 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.

**a) Site alternatives**

Note:

No alternatives in terms of the site (i.e. property) were proposed and/or assessed. Focus was however placed on the site layout using the proposed site to limit or prevent potential impacts on the environment.

The applicant is the landowner and the use of the proposed site will therefore be more economically feasible. Furthermore, the proposed site is located on a main road with more advertising potential and visibility from the road. In terms of environmental suitability, the proposed site has no natural watercourses within 100 m of the site apart from two artificial impoundments. The indigenous vegetation of the site is located in the Winburg Grassy Shrubland and not a Critical Biodiversity Area according to the Free State Biodiversity Management Plan (Please refer to the Ecological Assessment in Appendix D).

<b>Alternative 1 (preferred alternative)</b>			
Description	Coordinate	Lat (DDMMSS)	Long (DDMMSS)



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		Points		
Plot 27: This is the preferred (only) location for the proposed project as the applicant owns this land and wants to develop only this area.		A	29° 3'57.68"S	26°11'7.85"E
		B	29° 4'1.19"S	26°11'14.33"E
		F	29° 4'6.44"S	26°10'58.89"E
		E	29° 4'10.06"S	26°11'5.11"E
<b>Alternative 2</b>				
Description			Lat (DDMMSS)	Long (DDMMSS)
<b>Alternative 3</b>				
Description			Lat (DDMMSS)	Long (DDMMSS)

In the case of linear activities:

**Alternative:**

Alternative S1 (preferred)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

**Latitude (S):**

**Longitude (E):**

N/A	N/A
N/A	N/A
N/A	N/A

Alternative S2 (if any)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

N/A	N/A
N/A	N/A
N/A	N/A

Alternative S3 (if any)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

N/A	N/A
N/A	N/A
N/A	N/A

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 of this form.

**b) Lay-out alternatives**

<b>Alternative 1 (preferred alternative)</b>				
Description	Site:	Coordinate points	Lat (DDMMSS)	Long (DDMMSS)
Plot 27: Refer to the Layout Map for the proposed layout in Appendix A. This layout is preferred since the College and all associated activities	Plot 27	A	29 °3'57.68"	26 °11'7.85"

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<p>are located in one area on the north eastern boundary of the site. This places the proposed expansion the furthest away from the artificial impoundments located on the south western boundary and the centre of the property. Site 2 will be left undisturbed with larger areas containing indigenous vegetation and the impoundments will be left undisturbed. (Please refer to the maps in Appendix A). Site 1: College and Offices Site 2: Left undisturbed</p>		B	29 °4'1.19"	26 °11'14.33"
		C	29 °4'5.06"	26 °11'10.23"
		D	29 °4'0.66"	26 °11'4.69"
<b>Alternative 2</b>				
Description	Site:	Coordinate Points	Lat (DDMMSS)	Long (DDMMSS)
<p>Plot 27: For Alternative 2, the layout of the existing infrastructure and structures is the same and the expanded area will move to the centre of the site. This will increase the building space for future expansion but will result in disturbance and potentially the loss of more indigenous vegetation. The artificial impoundment in the centre of the site will furthermore be demolished. However, it is considered that the ecological significance of this impoundment is low. Site 1: College and Offices Site 2: Left undisturbed</p>	Plot 27	A	29 °3'57.68"	26 °11'7.85"
		B	29 °4'1.19"	26 °11'14.33"
		G	29 °4'7.67"	26 °11'7.71"
		H	29 °4'3.31"	26 °11'2.15"
<b>Alternative 3</b>				
Description	Site:	Coordinate Points	Lat (DDMMSS)	Long (DDMMSS)
<p>Plot 27 Alternative 3: The expanded area will be constructed on the south western boundary while the existing structures remain on the north eastern boundary. The space between the two areas will be left undisturbed. The artificial impoundment on the south western boundary will be demolished to make</p>	Plot 27	E	29 °4'10.06"	26 °11'5.11"
		F	29 °4'6.44"	26 °10'58.89"
		I	29 °4'6.14"	26 °11'9.16"

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<p>way for parking areas and buildings. This will result in the disturbance of habitat of the Gian Bullfrogs. It is furthermore expected that the centre portion will be disturbed through movement of people from the northern part to the southern part of the site.</p> <p>Site 1: Left undisturbed Site 2: College and Offices</p>		J	29 °4'2.65"	26 °11'2.75"
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### c) Technology alternatives

<b>Alternative 1 (preferred alternative)</b>
Preferred alternative: As far as possible, new modern methods will be used to construct the buildings themselves to insulate the building and help conserve energy on air conditioning. Where possible, recycling will also be implemented during the construction phase. Secondly energy efficient technology (energy saving light bulbs, geysers and computers) will be used were applicable. Lastly, if the project demands more energy to be saved, solar planes will be installed on the roof and on the geysers themselves to generate and save energy. It was indicated by the client that recycling of paper will occur during the operational phase and that solar panels will be installed on geysers. Rainwater harvesting will also be implemented where possible to collect water for use in gardens.
<b>Alternative 2</b>
Conventional construction methods will be used which did not focus on sustainable development and the implementation of water and energy efficient measures such as solar geysers, solar energy and water saving taps and toilets.
<b>Alternative 3</b>
None

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

<b>Alternative 1 (preferred alternative)</b>
The design layout for the preferred alternative is the optimal design for the area as designed by the architects. The design is made to encompass the whole area of site 1 for optimal land use. Concerning scheduling, working hours during both the construction- and operational phase will be that of normal operating hours (07:00 -17:00). The geysers in the student housing and college building will have timers to conserve energy. No through way will be built on Site 2 connecting traffic towards the undisturbed site 2 to preserve the natural state of the environment.
<b>Alternative 2</b>
The design of the building will change to accommodate the move to lower ground, but the scale and size of the area will not change. As mentioned above in Alternative 1, the same factors will be applied in Alternative 2.
<b>Alternative 3</b>
As in Alternative 2 the design of the building will have to change for Alternative 3 as the wetland is situated there and will be destroyed as a result.

**e) No-go alternative**

If a no-go alternative is introduced the following will apply:  
 Negative impacts:  
 (1) Loss of potential contract work during the construction phase.  
 (2) Loss of potentially permanent job opportunities in the education sector during the operational phase.  
 (3) Loss of tertiary education opportunities and new skills development for students during the operational phase.  
 Positive impacts:  
 (4) The natural state of the environment on the expansion area will be kept intact and no alterations thereof will occur.

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:**

Alternative A1<sup>1</sup> (preferred activity alternative)  
 Alternative A2 (if any)  
 Alternative A3 (if any)

**Size of the activity:**

	13 200 m <sup>2</sup>
	13 200 m <sup>2</sup>
	13 200 m <sup>2</sup>

or, for linear activities:

**Alternative:**

Alternative A1 (preferred activity alternative)  
 Alternative A2 (if any)  
 Alternative A3 (if any)

**Length of the activity:**

	N/A m
	N/A m
	N/A m

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

**Alternative:**

Alternative A1 (preferred activity alternative)  
 Alternative A2 (if any)  
 Alternative A3 (if any)

**Size of the site/servitude:**

	N/A m <sup>2</sup>
	N/A m <sup>2</sup>
	N/A m <sup>2</sup>

**4. SITE ACCESS**

Does ready access to the site exist?

YES	NO
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<sup>1</sup> "Alternative A.." refer to activity, process, technology or other alternatives.

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

N/A m

Access will be obtained from Floors Coetzee Street.

Describe the type of access road planned:

Note that no construction of a road will be implemented, but rather pavement will be laid across the site to gain access to the buildings and will also act as parking lots.

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.

### 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.

### 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.

## 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 1:100 year flood line (where available or where it is required by DWS);
- ridges;
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or infested with alien species); and
- critical biodiversity areas.

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

## 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.

## 10. ACTIVITY MOTIVATION

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

<b>1. Is the activity permitted in terms of the property's existing land use rights?</b>	YES	NO	Please explain
The area is classified as being vacant/unspecified land use situated on small holdings within the defined urban edge. The developer is in the process of applying for rezoning for township establishment.			

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<b>2. Will the activity be in line with the following?</b>											
<b>(a) Provincial Spatial Development Framework (PSDF)</b>	YES	NO	Please explain								
<p>According to the PSDF this project fulfils the following criteria set out in the PSDF:</p> <p><b>PILLAR 2: EDUCATION, INNOVATION AND SKILLS DEVELOPMENT.</b></p> <p><b>Driver 6:</b> This project (if authorised) will ensure an appropriate skill base for growth and development. Jenn Training College use flexible and specialised learning systems (through modern methods and technology) in line with knowledgeable educators which teach skills that are relevant and in demand for South Africa's growth and development needs. The area selected to construct the college is also conducive to learning as it is a quiet area with little to no distractions (as to their current location, situated in the busy Westdene area).</p> <p><b>PILLAR 5: BUILD SOCIAL COHESION.</b></p> <p><b>Driver 14:</b> This project will boost the sector of sports and recreation by building appropriate sport and recreation facilities. Also, if the project authorised it aims on developing skills (through set learning course), creating jobs (permanent educator positions) and supporting education and recreation.</p> <p><b>PSDF PILLAR 1: BIOPHYSICAL, SOCIAL, ECONOMIC AND TECHNICAL SUSTAINABILITY OF ALL LAND-USE PROGRAMMES AND PROJECTS.</b></p> <p><b>Driver 1:</b> The proposed project will conserve any natural resources, biodiversity and landscape by leaving a portion of the site (Site 2) undisturbed and maintaining its natural state. Although there are no sensitive landscapes on site, the emphasis will be on not disturbing Site 2 as it creates a scenic environment and an old building on Site 2 will be left alone. As far as possible, new modern techniques in the construction of the buildings will be used to minimize the use of material and waste generated. Due to the location of the proposed project the site will be in a healthy non-toxic environment which is beneficial to the students learning capabilities.</p> <p><b>Driver 4:</b> The proposed project will support conservation initiatives in the private sector (Jenn Training College) which in turn will keep Site 2 undisturbed and clear of any activities in an effort to preserve the natural environment and scenic value of the area.</p> <p><b>Driver 5:</b> This project will ensure spatial sustainability through the following:</p> <ul style="list-style-type: none"> <li>a) Promote land development that is within the fiscal, institutional and administrative means of the Free State (Private educational institution).</li> <li>b) Ensure that special consideration is given to the protection of high-potential farm land (On small holdings within the Urban-edge).</li> <li>c) Uphold consistency of land-use measures in accordance with environmental requirements and associated management instruments.</li> <li>d) Consider all current and future costs to all parties for the provision of infrastructure and social services in land developments (Specialist studies conducted).</li> <li>e) Limit urban development to locations where such development can be sustainable, where urban sprawl can be limited, and where such development can result in sustainable communities.</li> </ul>											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%; padding: 5px;"><b>(b) Urban edge / Edge of Built environment for the area</b></th> <th style="width: 10%; padding: 5px;">YES</th> <th style="width: 10%; padding: 5px;">NO</th> <th style="width: 20%; padding: 5px;">Please explain</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="padding: 5px;">The area falls within Rayton Small Holdings, Ward 48, Bloemfontein.</td> </tr> </tbody> </table>				<b>(b) Urban edge / Edge of Built environment for the area</b>	YES	NO	Please explain	The area falls within Rayton Small Holdings, Ward 48, Bloemfontein.			
<b>(b) Urban edge / Edge of Built environment for the area</b>	YES	NO	Please explain								
The area falls within Rayton Small Holdings, Ward 48, Bloemfontein.											

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<p><b>(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?).</b></p>	YES	NO	Please explain
<p>All the activities related to the proposed project (College), will enhance rather than negatively affect the SDF and IDP by increasing the opportunity for tertiary education after Grade 12. Also, numerous job opportunities will be created in the education sector as well as other small permanent jobs.</p>			
<p><b>(d) Approved Structure Plan of the Municipality</b></p>	YES	NO	Please explain
<p>The municipality was consulted, and the proposed construction plan was approved.</p>			
<p><b>(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?)</b></p>	YES	NO	Please explain
<p>This proposed project's objectives are in-line with those of the EMF. The project will leave a portion of the site undisturbed (Site 2) to help conserve the natural state of the area and appoint Environmental practitioners to assist and consult in all environmental issues. No potentially hazardous waste or activities that will negatively influence the area will take place.</p>			
<p><b>(f) Any other Plans (e.g. Guide Plan)</b></p>	YES	NO	Please explain
<p>Every aspect is discussed.</p>			
<p><b>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)?</b></p>	YES	NO	Please explain
<p>Yes, as tertiary education, new modern facilities and improved updated educators will be supplied by the project.</p>			
<p><b>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.)</b></p>	YES	NO	Please explain
<p>This project is classified as being a private tertiary institution. This will be a new development for the Rayton area and will benefit not only the surrounding communities but also tertiary needs on a local scale.</p>			



## BASIC ASSESSMENT REPORT

<p><b>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 I.)</b></p>	YES	NO	Please explain
<p>The site's internal services are not developed, but municipal services are available and can be connected to through the Frans Kleynhans Road. Certain services are not adequate and will be addressed before the project proceeds with its construction phases.</p>			
<p><b>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 I.)</b></p>	YES	NO	Please explain
<p>Although municipal services are available, the water supply capabilities are inadequate to supply the new development and a new electrical connection needs to be established and supplied from the proposed New Market 2/2946 substation.</p>			
<p><b>7. Is this project part of a national programme to address an issue of national concern or importance?</b></p>	YES	NO	Please explain
<p>Education is not only a provincial problem but is also of national concern. This project will create more learning opportunities in the tertiary education sector as well as addressing unemployment by creating permanent educator job opportunities.</p>			
<p><b>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.)</b></p>	YES	NO	Please explain
<p>The site is located within the urban edge on the Rayton small holdings in Bloemfontein. The area is also the ideal location for education as it is quiet. There will also be minimal environmental concerns as the project will have minimal impacts on the environment.</p>			
<p><b>9. Is the development the best practicable environmental option for this land/site?</b></p>	YES	NO	Please explain
<p>The proposed project area has no discernible environmental features that require special attention. The vegetation is classified as that of least concern according to Darius van Rensburg (March 2019). The area contains no natural watercourses within 100 m of the site. Site 2 will also be left undisturbed to keep a portion of the environment intact.</p>			

## BASIC ASSESSMENT REPORT

<b>10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?</b>	YES	NO	Please explain
<p>The only negative impacts are those of loss of indigenous vegetation, where protected species will be relocated, and an increase in traffic. The man-made wetland, which is insignificant, will be destroyed and important aquatic species will be relocated. The positive effects will be far reaching for Bloemfontein and the Free State as tertiary education and their facilities are in need for the Province. Student housing will also be supplied. This project will also create new job opportunities in the education sector.</p>			
<b>11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?</b>	YES	NO	Please explain
<p>A precedent will be created for this municipality as no private tertiary institutions are present in this area. This development might encourage other educational institutions to follow the same route which on the hand increases the level of education for students and increases job opportunities.</p>			
<b>12. Will any person's rights be negatively affected by the proposed activity/ies?</b>	YES	NO	Please explain
<p>There is no infringement on any person's rights as this development will take place on private land and will depend on comments received during the public participation process.</p>			
<b>13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?</b>	YES	NO	Please explain
<p>No, the site is within the urban edge as defined by the local municipality.</p>			
<b>14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPs)?</b>	YES	NO	Please explain
<p>This project doesn't fall under any of the SIP's.</p>			
<b>15. What will the benefits be to society in general and to the local communities?</b>	Please explain		
<p>The benefits will include the following:                  Creating the opportunity for people to study further and raise the level of education for local communities.                  Creating job opportunities in both the construction sector and education sector.</p>			
<b>16. Any other need and desirability considerations related to the proposed activity?</b>	Please explain		
<p>Besides tertiary education, student housing, recreation and sport there are no other need and desirability for this project.</p>			

## BASIC ASSESSMENT REPORT

<b>17. How does the project fit into the National Development Plan for 2030?</b>	Please explain
<p><b><u>Improving education, training and innovation:</u></b></p> <ol style="list-style-type: none"><li>1. The priorities in basic education are human capacity, school management, district support, infrastructure and results-oriented mutual accountability between schools and communities.</li><li>2. Further Education and Training colleges, public adult learning centres, sector education and training authorities, professional colleges and Community Education and Training Centres are important elements of the post-school system that provide diverse learning opportunities.</li><li>3. Distance education, aided by advanced information communication technology, will play a greater role in expanding learning opportunities for different groups of learners and promote lifelong learning and continuous professional development. Private providers will continue to be important partners in the delivery of education and training at all levels.</li><li>4. Research and innovation by universities, science councils, departments, NGOs and the private sector has a key role to play in improving South Africa's global competitiveness. Coordination between the different role-payers is important.</li></ol>	
<b>18. Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.</b>	
<p>An EAP has been appointed to the project to ensure that all activities that will have a significant effect on the environment will be addressed. Also, the BAR will be sent to the competent authority for their evaluation of the environmental factors that needs to be addressed. To identify, predict and evaluate the actual and potential impacts on all the factors related to the environment; specialists have been employed to address all these factors and comply with the environmental legislation in an appropriate manner. To ensure the effects of activities receive adequate consideration before actions are taken an Environmental Management Program will be drawn up. All public participation will follow the prescribed regulations and enough time will be given for public commentary so that all issues raised can be addressed and considered before further actions are taken.</p>	
<b>19. Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account.</b>	
<p>This project will be referred to the most competent authority for their approval and any issues raised concerning interpretation, administration and implementation of this Act will be addressed before environmental authorisation is approved. This development will take into account the social, environmental and economic factors associated with this development by appointing specialists to conduct studies concerning the environment, public participation and civil engineering parameters. All relevant factor as described in Section 2 (4)(a – r) of NEMA Act 107 have been taken into account to sustainably promote this development economically, environmentally and socially.</p>	

### 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:

## BASIC ASSESSMENT REPORT

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
National Water Act 36 of 1998	The area will be assessed to determine the impact (if any) on water resources. DWS is included in the PPP.	Department of Water and Sanitation	1998
National Building Regulations and Building Standards Act 103 of 1977	The developer must comply with building regulations during the construction phase of the project.	National Regulator for Compulsory Specifications	1977
National Environmental Management Act 107 of 1998	Competent authority on the project. Consultation with DESTEA regarding the project.	Department of Economic Small business development, Tourism and Environmental Affairs	1998
Occupational Health and Safety Act 85 of 1993	Comply to OHSA during construction phase	Department of Labor	1993

### 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
	3 m <sup>3</sup>

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

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

The contractor which is appointed for the construction of the college and the expansion to dormitories, will be responsible for the regular cleaning and removal of waste from the site to an approved landfill site. Construction solid waste will be used for filling material where possible.

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

Noordstort- Bloemfontein, next to Northridge Mall in Christo Groenewald Street

Will the activity produce solid waste during its operational phase?

YES	NO
	2 m <sup>3</sup>

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

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

Solid waste not used for recycling will be dumped in a skip and disposed of on the Noordstort landfill site. The applicant will appoint a contractor for the removal and disposal of the waste.

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

Noordstort: Bloemfontein  
P.O Box 3704, Bloemfontein, 9300

## BASIC ASSESSMENT REPORT

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

N/A The remaining waste that is not dumped on the landfill site will be recycled.

*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? 

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.

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.

### 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?

m<sup>3</sup>

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.*

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:

<b>Facility name:</b>		
<b>Contact person:</b>		
<b>Postal address:</b>		
<b>Postal code:</b>		
<b>Telephone:</b>	<b>Cell:</b>	
<b>E-mail:</b>	<b>Fax:</b>	

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

N/A. The only effluent that will be produced is that of sewage, which will go directly into the municipal pipes to a treatment plant.

### 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
-----	----

## BASIC ASSESSMENT REPORT

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.

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

The emission will be related to dust generated from the construction of the buildings and fuel emissions by construction vehicles.

### 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
YES	NO

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

Describe the noise in terms of type and level:

There will only be noise generated through the construction process (machinery and vehicles). Construction will only take place during normal working hours. Most of the noise will be generated during the preparation of the land (levelling) and construction. During the operational phase the noise associated with the activity will be that of people and vehicles. However, the development is located next to a busy road (i.e. Frans Kleinhans Road) and the vehicles on the site will be driven at low speeds due to the area/distance limitations of the site.

## 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
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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:

Approximately  
50 000  
litres/month  
from borehole

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.

**NOTE:**

**The applicant uses groundwater for the irrigation of gardens at the guesthouse which is considered as a Schedule 1 water use in terms of the National Water Act, 1998 (Act No. 36 of 1998). An application will therefore not be submitted to the DWS.**

**The DWS was also notified of the project and is supplied with a copy of this report to comment on the project.**

#### 14. ENERGY EFFICIENCY

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

As far as possible, only modern construction techniques will be used to minimize the use of energy for both electrical and fuel. During the operational phase, energy efficient technology will be used for lighting the building, computers, air conditioning for the rooms and the geysers for the dormitories.

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

Solar panels on the roof and on the geysers themselves, will be considered to conserve energy. The building will also be designed and use insulating materials to optimize the ambient temperature and keep the building at a constant temperature so that the dependence on air conditioning can be minimized.

## SECTION B: SITE/AREA/PROPERTY DESCRIPTION

**Important notes:**

- 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): A

**NOTE:**  
The different alternative layouts are located on the same property with a footprint of 8.56 ha. The property is therefore small and does not vary in terms of environmental conditions, sensitive receptors or sensitive features.

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

- 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.

**Property description/physical address:**

<b>Province</b>	Free State
<b>District Municipality</b>	Mangaung Metropolitan Municipality
<b>Local Municipality</b>	Mangaung Metropolitan Municipality
<b>Ward Number(s)</b>	48
<b>Farm name and number</b>	Plot 27, Rayton, Bloemfontein
<b>Portion number</b>	Plot 27
<b>SG Code</b>	

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.

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

Vacant and Unspecified - Smallholding

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



## BASIC ASSESSMENT REPORT

### 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
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#### 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
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#### 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
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### 2. LOCATION IN LANDSCAPE

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

2.1 Ridgeline	<input checked="" type="checkbox"/>	2.4 Closed valley	<input type="checkbox"/>	2.7 Undulating plain / low hills	<input checked="" type="checkbox"/>
2.2 Plateau	<input type="checkbox"/>	2.5 Open valley	<input type="checkbox"/>	2.8 Dune	<input type="checkbox"/>
2.3 Side slope of hill/mountain	<input type="checkbox"/>	2.6 Plain	<input type="checkbox"/>	2.9 Seafront	<input type="checkbox"/>
2.10 At sea	<input type="checkbox"/>				<input type="checkbox"/>

### 3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

	Alternative S1:		Alternative S2 (if any):		Alternative S3 (if any):	
	YES	NO	YES	NO	YES	NO
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)	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	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

## BASIC ASSESSMENT REPORT

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. GROUND COVER

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 <sup>E</sup>	Natural veld with scattered aliens <sup>E</sup>	Natural veld with heavy alien infestation <sup>E</sup>	Veld dominated by alien species <sup>E</sup>	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	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.

At the bottom (i.e. south western boundary) of Plot 27 there is a shallow excavation which collects water during the summer rainfall months. This man-made dam has no inflows or outflows and as a result, the water ponding in the area, caused an artificial wetland to form as it is the lowest point in the area, next to the Frans Kleynhans Road. The wetland itself is insignificant, but protected species of juvenile giant bullfrogs were noticed in this artificial wetland. The college will be built approximately 150 m north of this wetland, for the preferred alternative and no activities will take place there.

## BASIC ASSESSMENT REPORT

### 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	Dam or reservoir	Polo fields
Low density residential	Hospital/medical centre	Filling station <sup>H</sup>
Medium density residential	School	Landfill or waste treatment site
High density residential	Tertiary education facility	Plantation
Informal residential <sup>A</sup>	Church	Agriculture
Retail commercial & warehousing	Old age home	River, stream or wetland
Light industrial	Sewage treatment plant <sup>A</sup>	Nature conservation area
Medium industrial <sup>AN</sup>	Train station or shunting yard <sup>N</sup>	Mountain, koppie or ridge
Heavy industrial <sup>AN</sup>	Railway line <sup>N</sup>	Museum
Power station	Major road (4 lanes or more) <sup>N</sup>	Historical building
Office/consulting room	Airport <sup>N</sup>	Protected Area
Military or police base/station/compound	Harbour	Graveyard
Spoil heap or slimes dam <sup>A</sup>	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? Specify and explain:

The N1 is located approximately 130 m to the east of Plot 27. It will not have a significant impact as the N1 in this area is in the form of an overpass and the Frans Kleynhans Road which runs directly beneath it, has no direct on ramp to the highway.

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:

N/A

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:

N/A

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

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If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix 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:

A specialist was appointed to do a Phase 1 Heritage Impact Assessment on the site which included an Archaeological and Paleontological Assessment of the site. It was concluded that no buildings older than 60 years are on the site and no archaeological and paleontological artefacts of significant value were recorded.

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)?

YES	NO
YES	NO

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

### 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:

12.2 %

Economic profile of local municipality:

Income	Percentage
No income	12.2 %
R1-4 800	4.2 %
R4 801-9 600	6.1 %
R9 601-19 000	18.1 %
R 19 601 – 38 200	22.3%
R38 201 – 76 400	17.4 %

## BASIC ASSESSMENT REPORT

R76 401 – 153 800	11.4 %
R 153 800 – 307 600	5.7 %
R 307601 – 614 400	2 %
R 614 401 – 1 228 800	0.3%
R 1 228 801 – 2 457 600	0.2%
R 2457 600 +	0.2%

Level of education:

Group	Percentage
No Schooling	4 %
Some Primary	12.9 %
Completed Primary	4.8 %
Some Secondary	36.4 %
Matric	31.9 %
Higher Education	9.9 %

### b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R 52 000 000.00
What is the expected yearly income that will be generated by or as a result of the activity?	R 5 000 000.00
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?	12
What is the expected value of the employment opportunities during the development and construction phase?	R10 000 000
What percentage of this will accrue to previously disadvantaged individuals?	90 %
How many permanent new employment opportunities will be created during the operational phase of the activity?	20
What is the expected current value of the employment opportunities during the first 10 years?	R50 000 000
What percentage of this will accrue to previously disadvantaged individuals?	90 %

## 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](mailto: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.

**BASIC ASSESSMENT 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)	Ecological Support Area (ESA)	Other Natural Area (ONA)	No Natural Area Remaining (NNR)	Close to the nature reserve and Seven Dams area

- 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	35 %	Natural vegetation with rare species. The area is in a relatively good state.
Near Natural (includes areas with low to moderate level of alien invasive plants)	15 %	Natural vegetation but slightly transformed by an infrastructure foundation and man-made wetland. Some invasive species due to a small lack in natural vegetation.
Degraded (includes areas heavily invaded by alien plants)	15 %	As a result of transformed areas where construction took place. In this case the man-made wetland, berm, construction zones to the North West (Site 3) and existing building on Site 2
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	35 %	These areas are void of vegetation as a direct result of construction and gravel roads.

Please refer to the Ecological Report in Appendix D

- 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.

Terrestrial Ecosystems		Aquatic Ecosystems		
Ecosystem threat status as per the	Critical	Wetland (including rivers, depressions, channelled and	Estuary	Coastline
	Endangered			

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Terrestrial Ecosystems		Aquatic Ecosystems							
National Environmental Management: Biodiversity Act (Act No. 10 of 2004)	Vulnerable	unchanneled wetlands, flats, seeps pans, and artificial wetlands)							
	Least Threatened	YES	NO	UNSURE	YES	NO	YES	NO	

Note:

A wetland was selected in the table above. This is a man-made wetland caused by shallow excavation being dug in the past. As a result, water started to collect in the depression. This wetland is very small and has no in- or outflows.

**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 vegetation type is classified as being the of the Winburg Grassy Shrubland and is least threatened according to the Ecological Assessment report done by Darius van Rensburg in March 2019 for this project. Although there is a man-made wetland of insignificant importance, significant juvenile population of the protected Giant Bullfrog (*Pyxicephalus adspersus*), makes the wetland significant. There are also important and protected species on site. According to Darius van Rensburg (March 2019) the protected species occurring on the site are *Olea europaea* subsp. *africana*, *Brunsvigia radulosa* and *Raphionacme hirsuta*. The Wild Olive Tree (*O. europaea* subsp. *africana*) should be kept intact where possible and where development will affect them the necessary permits should be obtained to remove them. Where specimens were removed this can also be offset by using saplings in the landscaping of the development. Where *B. radulosa* and *R. hirsuta* will be affected by the development the necessary permits must be obtained to transplant them to those areas which will remain undeveloped (*van Rensburg, 2019*)

## SECTION C: PUBLIC PARTICIPATION

### 1. ADVERTISEMENT AND NOTICE

<b>Publication name</b>	Volksblad and BloemNuus	
<b>Date published</b>	25 April 2019	
<b>Site notice position</b>	<b>Latitude</b>	<b>Longitude</b>
	29° 4'6.98"S	26° 10'58.13"E
	29° 3'57.80"S	26° 11'7.44"E
<b>Date placed</b>	23/04/2019	

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 41(2)(e) and 41(6) of GN 326

Key stakeholders (other than organs of state) identified in terms of Regulation 41(2)(b) of GN 326

<b>Title, Name and Surname</b>	<b>Affiliation/ key stakeholder status</b>	<b>Contact details (tel number or e-mail address)</b>
Jacob Selesho	Applicant/Director	083 728 5598

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

<b>Summary of main issues raised by I&amp;APs</b>	<b>Summary of response from EAP</b>
How long will it take before the construction of the college takes place.	Difficult to determine when construction will start as Environmental Authorisation will first have to be obtained and the rezoning of the site needs to be authorised.
How is the project going to implement the services (electricity, water supply and sewage)?	Explained that a detailed Civil Services report has been done on all the services required for the



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	project.
What will happen to the Floris Coetzee Street and Frans Kleynhans Road.	Elaborate on the Traffic Impact Study that was done and what they recommended.
Mr. von Maltitz commented (adjacent landowner).	Due to the size and numerous comments from Mr. von Maltitz his comments and response to his comments are attached in Appendix E3.

#### 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.

#### 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
Mangaung Metropolitan Municipality	Adv Tankiso Mea (Municipal Manager)	051 405 8911		<a href="mailto:citymanager@mangaung.co.za">citymanager@mangaung.co.za</a>	PO Box 3704 Bloemfontein 9300 Bram Fischer Building, Nelson Mandela Drive & Markgraaff Street Bloemfontein
Department of Agriculture	Mr. Jack Morton (Director Land Use and Soil Management).	051 409 2624		<a href="mailto:jack@fs.agric.za">jack@fs.agric.za</a>	Landcare building Glen Agricultural College Gielie Joubert Street Glen 9360 P.O. Box 34521 Faunasig 9325
Mangaung Metropolitan Municipality	Mr. J. Pretorius (Ward 48)	072 226 0222		<a href="mailto:xgrafies@gmail.com">xgrafies@gmail.com</a>	7 Dias Crescent Dan Pienaar Bloemfontein

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	Ward Councillor)				9301
Mangaung Metropolitan Municipality: Environmental Department	Ms. Mpolokeng Kolobe	051 405 8577	051 8883 405	<a href="mailto:Mpolokeng.kolobe@mangaung.co.za">Mpolokeng.kolobe@mangaung.co.za</a>	PO Box 3704 Bloemfontein 9300 Bram Fischer Building, Nelson Mandela Drive & Markgraaff Street Bloemfontein
Mangaung Metropolitan Municipality: Planning Department	Mr. Collin Dihemo	051 405 8740		<a href="mailto:collin.dihemo@mangaung.co.za">collin.dihemo@mangaung.co.za</a>	PO Box 3704 Bloemfontein 9300
DESTEА	Ms. G. Mkhosana	051 400 4812		<a href="mailto:mkhosana@detea.fs.gov.za">mkhosana@detea.fs.gov.za</a>	Private Bag X20801 Bloemfontein 9300 113 St. Andrews Street Bloemfontein 9301
SAHRA	Ms. Ragna Redelstorff	021 462 4502		<a href="mailto:rredelstorff@sahra.org.za">rredelstorff@sahra.org.za</a>	P.O. Box 4637 Cape Town 8000
Free State Heritage Authority	Ms. L. Philips	078 448 9307 051 447 9609		<a href="mailto:loulinep@gmail.com">loulinep@gmail.com</a>	National Museum Bloemfontein 9301
Department of Water and Sanitation	Mr. Willem Grobler Cc. Dr Ntili	051 405 9000 082 878 5707		<a href="mailto:groblerw@dwaf.gov.za">groblerw@dwaf.gov.za</a>	Bloem Plaza 2nd Floor, c/o Charlotte Maxeke & East Burger Streets Bloemfontein 9300 P.O. Box 528 Bloemfontein 9300

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.

### **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.

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

**A comments and response register with a list of all potential and registered I&AP is attached in Appendix E.**

**SECTION D: IMPACT ASSESSMENT**

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014 as amended 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.

Activity	Impact summary	Significance	Proposed mitigation
<b>Alternative 1 (preferred layout alternative)</b>			
<b>Construction Phase</b>			
1. Clearance of vegetation and removal and stockpiling of topsoil.	<p><b>Direct impacts:</b></p> <ul style="list-style-type: none"> <li>- Vegetation clearance and loss thereof</li> <li>- Removal of topsoil and potential loss thereof</li> <li>- Possible change in the natural storm water drainage pattern</li> <li>- Noise elevation due to clearance of vegetation through the use of machinery</li> <li>- Nuisance due to dust generation</li> </ul>	Low Negative	<ul style="list-style-type: none"> <li>- Clearance of Vegetation will be limited to the site under construction.</li> <li>- The surface of the site will be levelled to ensure free draining to prevent ponding of surface water.</li> <li>- Storm water measures such as channels, diversion berms, etc will be constructed around the site in order to limit and/or prevent erosion.</li> </ul>
	<p><b>Indirect impacts:</b></p> <ul style="list-style-type: none"> <li>- Potential erosion of exposed soil</li> <li>- Potential burning of waste vegetation</li> <li>- Possible dumping of construction rubble and general waste on site</li> <li>- Petrochemical spills may take place that may lead to contamination of surface and groundwater</li> <li>- Deterioration of the access</li> </ul>	Low Negative	<ul style="list-style-type: none"> <li>- A speed limit will be enforced on construction vehicles.</li> <li>- Construction will be limited to daytime to limit any disturbance to neighbouring landowners.</li> <li>- Dust control measurements will be investigated if nuisance dust generation proves to be problematic</li> <li>- No burning of vegetation</li> </ul>

## BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
	<p>road as a result of an increase of construction vehicles to the site.</p> <ul style="list-style-type: none"> <li>- Loss of archaeological significant artefacts</li> </ul>		<p>waste will be allowed on site.</p> <ul style="list-style-type: none"> <li>- SAHRA will be notified should traces of any paleontological heritage be found during construction.</li> <li>- All building rubble will be removed by the contractor on a regular basis and disposed of at an authorised landfill site in the area or used as filling material.</li> <li>- Receptacles should be placed on site for the collection of general waste. These receptacles should be emptied on a regular basis and waste be disposed of at the authorised landfill site in the area.</li> </ul>
	<p><b>Cumulative impacts:</b> Deterioration of the site's natural vegetation and exposure to erosion factors.</p>	<p>Medium Negative</p>	<ul style="list-style-type: none"> <li>- It is imperative that topsoil be stockpiled correctly and protected and returned to the site after construction to be used in gardens</li> <li>- All personnel should be informed of the environmental conditions and urged to keep to the environmental management plan.</li> </ul>
<p>2. Construction of infrastructure and buildings</p>	<p><b>Direct impacts:</b></p> <ul style="list-style-type: none"> <li>- Possible change in the natural storm water drainage pattern</li> <li>- Noise elevation due to construction activities</li> <li>- Nuisance due to dust generation</li> <li>- Unearthing of significant heritage artefacts</li> </ul>	<p>Low Negative</p>	<ul style="list-style-type: none"> <li>- The site will be levelled in such a manner to allow storm water to be diverted around the site and drain into the surrounding storm water channels.</li> <li>- Storm water measures such as channels, diversion berms, etc will be constructed on the site in order to limit and/or prevent erosion.</li> </ul>
	<p><b>Indirect impacts:</b></p> <ul style="list-style-type: none"> <li>- Construction noise and dust fallout could adversely affect the immediate environment through the deterioration of</li> </ul>	<p>Low Negative</p>	<ul style="list-style-type: none"> <li>- A speed limit will be enforced on construction vehicles.</li> </ul>

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Activity	Impact summary	Significance	Proposed mitigation
	<p>vegetation density and the animals abandoning the immediate site.</p>		<ul style="list-style-type: none"> <li>- Construction will be limited to daytime to limit any disturbance to neighbouring landowners.</li> <li>- Dust control measurements will be investigated if nuisance dust generation proves to be problematic</li> <li>- SAHRA will be notified should traces of any paleontological heritage be found during construction.</li> <li>- All building rubble will be removed by the contractor on a regular basis and disposed of at an authorised landfill site in the area or used as filling material.</li> <li>- Receptacles should be placed on site for the collection of general waste. These receptacles should be emptied on a regular basis and waste be disposed of at the authorised landfill site in the area.</li> <li>- Keep construction to the designated areas.</li> <li>- Operate during normal working hours.</li> <li>- No hunting or bewildering of animals and no removing of vegetation outside the designated construction zones.</li> </ul>
<b>Operational Phase</b>			
<p>Activities associated with tertiary education and guesthouse</p>	<p><b>Direct impacts:</b></p> <ul style="list-style-type: none"> <li>- Potential pollution to storm water if proper storm water management measures are not maintained.</li> <li>- Potential pollution to the groundwater due to seepage of the untreated effluent to the</li> </ul>	<p>Low Negative -</p>	<ul style="list-style-type: none"> <li>- The storm water management measures that will be constructed and implemented during construction will be maintained, repaired and cleaned when necessary.</li> <li>- General waste (i.e.</li> </ul>

## BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
	<p>groundwater aquifer in the event of any spillage and / or failure of the system.</p> <ul style="list-style-type: none"> <li>- Possible dumping of general waste on site and open properties close to the site.</li> </ul>		<p>paper, plastic, glass etc.) will be collected and disposed of at an authorised landfill site in Bloemfontein.</p> <ul style="list-style-type: none"> <li>- The access road will have to be upgraded when necessary.</li> </ul>
	<p><b>Indirect impacts:</b></p> <ul style="list-style-type: none"> <li>- Accumulation of waste that may pose health risks if not managed properly and not removed on a regular basis.</li> <li>- Deterioration of the access road as a result of increased traffic to the site.</li> <li>- Increase in noise due to the high number of people visiting and staying on site.</li> </ul>	<p>Low - Negative</p>	<ul style="list-style-type: none"> <li>- The sewer reticulation, together with its connection to the sewer outfall, will be a prerequisite for the erection of any buildings.</li> <li>- Enforce noise restrictions after a certain time during the night.</li> </ul>
	<p><b>Cumulative impacts:</b></p> <ul style="list-style-type: none"> <li>- Increase in traffic on the access road may lead to the deterioration of the road and congestion.</li> </ul>	<p>Low - Negative</p>	<ul style="list-style-type: none"> <li>- Upgrading the road to accommodate the additional traffic.</li> </ul>
<b>Alternative 2 – Layout Alternative</b>			
<b>Construction Phase</b>			
<p>1. Clearance of vegetation and removal and stockpiling of topsoil.</p>	<p><b>Direct impacts:</b></p> <ul style="list-style-type: none"> <li>- Vegetation clearance and loss thereof</li> <li>- Removal of topsoil and potential loss thereof</li> <li>- Possible change in the natural storm water drainage pattern</li> <li>- Noise elevation due to clearance of vegetation through the use of machinery</li> <li>- Nuisance due to dust generation.</li> <li>- Destruction of artificial impoundment.</li> </ul>	<p>Low - Negative</p>	<ul style="list-style-type: none"> <li>- Clearance of Vegetation will be limited to the site under construction.</li> <li>- The surface of the site will be levelled to ensure free draining to prevent ponding of surface water.</li> <li>- Storm water measures such as channels, diversion berms, etc will be constructed around the site in order to limit and/or prevent erosion.</li> <li>- A speed limit will be enforced on construction vehicles.</li> <li>- Construction will be limited to daytime to limit any</li> </ul>

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Activity	Impact summary	Significance	Proposed mitigation
			<p>disturbance to neighbouring landowners.</p> <ul style="list-style-type: none"> <li>- Dust control measurements will be investigated if nuisance dust generation proves to be problematic</li> <li>- No burning of vegetation waste will be allowed on site.</li> <li>- SAHRA will be notified should traces of any paleontological heritage be found during construction.</li> <li>- All building rubble will be removed by the contractor on a regular basis and disposed of at an authorised landfill site in the area or used as filling material.</li> <li>- Receptacles should be placed on site for the collection of general waste. These receptacles should be emptied on a regular basis and waste be disposed of at the authorised landfill site in the area.</li> <li>- The impoundment will be lost.</li> </ul>
	<p><b>Indirect impacts:</b></p> <ul style="list-style-type: none"> <li>- Potential erosion of exposed soil</li> <li>- Potential burning of waste vegetation</li> <li>- Possible dumping of construction rubble and general waste on site</li> <li>- Petrochemical spills may take place that may lead to contamination of surface and groundwater</li> <li>- Deterioration of the access road as a result of an</li> </ul>	<p>Low Negative</p>	



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Activity	Impact summary	Significance	Proposed mitigation
	<p>increase of construction vehicles to the site.</p> <ul style="list-style-type: none"> <li>- Loss of archaeological significant artefacts</li> </ul> <p><b>Cumulative impacts:</b> Deterioration of the site's natural vegetation and exposure to erosion factors.</p>	<p>Medium Negative</p>	<ul style="list-style-type: none"> <li>- It is imperative that topsoil be stockpiled correctly and protected and returned to the site after construction to be used in gardens</li> </ul> <p>All personnel should be informed of the environmental conditions and urged to keep to the environmental management plan.</p>
<p>2. Construction of infrastructure and buildings</p>	<p><b>Direct impacts:</b></p> <ul style="list-style-type: none"> <li>- Possible change in the natural storm water drainage pattern</li> <li>- Noise elevation due to construction activities</li> <li>- Nuisance due to dust generation</li> <li>- Unearthing of significant heritage artefacts</li> </ul>	<p>Low Negative</p>	<ul style="list-style-type: none"> <li>- The site will be levelled in such a manner to allow storm water to be diverted around the site and drain into the surrounding storm water channels.</li> <li>- Storm water measures such as channels, diversion berms, etc will be constructed on the site in order to limit and/or prevent erosion.</li> <li>- A speed limit will be enforced on construction vehicles.</li> <li>- Construction will be limited to daytime to limit any disturbance to neighbouring landowners.</li> <li>- Dust control measurements will be investigated if nuisance dust generation proves to be problematic</li> <li>- SAHRA will be notified should traces of any paleontological heritage be found during construction.</li> <li>- All building rubble will be removed by the contractor on a regular basis and disposed</li> </ul>

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Activity	Impact summary	Significance	Proposed mitigation
			<p>of at an authorised landfill site in the area or used as filling material.</p> <ul style="list-style-type: none"> <li>- Receptacles should be placed on site for the collection of general waste. These receptacles should be emptied on a regular basis and waste be disposed of at the authorised landfill site in the area.</li> <li>- Keep construction to the designated areas.</li> <li>- Operate during normal working hours.</li> <li>- No hunting or bewildering of animals and no removing of vegetation outside the designated construction zones.</li> </ul>
<b>Operational Phase</b>			
Activities associated with tertiary education and guesthouse	<p><b>Direct impacts:</b></p> <ul style="list-style-type: none"> <li>- Potential pollution to storm water if proper storm water management measures are not maintained.</li> <li>- Potential pollution to the groundwater due to seepage of the untreated effluent to the groundwater aquifer in the event of any spillage and / or failure of the system.</li> <li>- Possible dumping of general waste on site and open properties close to the site.</li> </ul>	Low Negative -	<ul style="list-style-type: none"> <li>- The storm water management measures that will be constructed and implemented during construction will be maintained, repaired and cleaned when necessary.</li> <li>- General waste (i.e. paper, plastic, glass etc.) will be collected and disposed of at an authorised landfill site in Bloemfontein.</li> <li>- The access road will have to be upgraded when necessary.</li> <li>- The sewer reticulation, together with its connection to the sewer outfall, will be a prerequisite for the erection of any buildings.</li> <li>- Enforce noise restrictions after a certain time during the night.</li> </ul>
	<p><b>Indirect impacts:</b></p> <ul style="list-style-type: none"> <li>- Accumulation of waste that may pose health risks if not</li> </ul>		

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Activity	Impact summary	Significance	Proposed mitigation
	<p>managed properly and not removed on a regular basis.</p> <ul style="list-style-type: none"> <li>- Deterioration of the access road as a result of increased traffic to the site.</li> <li>- Increase in noise due to the high number of people visiting and staying on site.</li> </ul>		
	<p><b>Cumulative impacts:</b> Increase in traffic on the access road may lead to the deterioration of the road and congestion.</p>	Low Negative	- Upgrading the road to accommodate the additional traffic.
Alternative 3			
Construction Phase			
1. Clearance of vegetation and removal and stockpiling of topsoil.	<p><b>Direct impacts:</b></p> <ul style="list-style-type: none"> <li>- Vegetation clearance and loss thereof</li> <li>- Removal of topsoil and potential loss thereof</li> <li>- Possible change in the natural storm water drainage pattern</li> <li>- Noise elevation due to clearance of vegetation through the use of machinery</li> <li>- Nuisance due to dust generation.</li> <li>- Destruction of artificial impoundment.</li> </ul>	Low Negative	<ul style="list-style-type: none"> <li>- Clearance of Vegetation will be limited to the site under construction.</li> <li>- The surface of the site will be levelled to ensure free draining to prevent ponding of surface water.</li> <li>- Storm water measures such as channels, diversion berms, etc will be constructed around the site in order to limit and/or prevent erosion.</li> <li>- A speed limit will be enforced on construction vehicles.</li> <li>- Construction will be limited to daytime to limit any disturbance to neighbouring landowners.</li> <li>- Dust control measurements will be investigated if nuisance dust generation proofs to be problematic</li> <li>- No burning of vegetation waste will be allowed on site.</li> <li>- SAHRA will be notified should traces of any paleontological heritage be found during construction.</li> </ul>

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Activity	Impact summary	Significance	Proposed mitigation
			<ul style="list-style-type: none"> <li>- All building rubble will be removed by the contractor on a regular basis and disposed of at an authorised landfill site in the area or used as filling material.</li> <li>- Receptacles should be placed on site for the collection of general waste. These receptacles should be emptied on a regular basis and waste be disposed of at the authorised landfill site in the area.</li> <li>- The impoundment will be lost.</li> </ul>
	<p><b>Indirect impacts:</b></p> <ul style="list-style-type: none"> <li>- Potential erosion of exposed soil</li> <li>- Potential burning of waste vegetation</li> <li>- Possible dumping of construction rubble and general waste on site</li> <li>- Petrochemical spills may take place that may lead to contamination of surface and groundwater</li> <li>- Deterioration of the access road as a result of an increase of construction vehicles to the site.</li> <li>- Loss of archaeological significant artefacts</li> </ul>	<p>Low Negative</p>	
	<p><b>Cumulative impacts:</b> Deterioration of the site's natural vegetation and exposure to erosion factors.</p>	<p>Medium Negative</p>	<ul style="list-style-type: none"> <li>- It is imperative that topsoil be stockpiled correctly and protected and returned to the site after construction to be used in gardens.</li> <li>- All personnel should be informed of the environmental conditions and urged to keep to the</li> </ul>

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Activity	Impact summary	Significance	Proposed mitigation
			environmental management plan.
2. Construction of infrastructure and buildings	<p><b>Direct impacts:</b></p> <ul style="list-style-type: none"> <li>- Possible change in the natural storm water drainage pattern</li> <li>- Noise elevation due to construction activities</li> <li>- Nuisance due to dust generation</li> </ul> <p>Unearthing of significant heritage artefacts</p>	Low - Negative	<ul style="list-style-type: none"> <li>- The site will be levelled in such a manner to allow storm water to be diverted around the site and drain into the surrounding storm water channels.</li> <li>- Storm water measures such as channels, diversion berms, etc will be constructed on the site in order to limit and/or prevent erosion.</li> <li>- A speed limit will be enforced on construction vehicles.</li> <li>- Construction will be limited to daytime to limit any disturbance to neighbouring landowners.</li> <li>- Dust control measurements will be investigated if nuisance dust generation proves to be problematic</li> <li>- SAHRA will be notified should traces of any paleontological heritage be found during construction.</li> <li>- All building rubble will be removed by the contractor on a regular basis and disposed of at an authorised landfill site in the area or used as filling material.</li> <li>- Receptacles should be placed on site for the collection of general waste. These receptacles should be emptied on a regular basis and waste be disposed of at the authorised landfill site in the area.</li> <li>- Keep construction to the designated areas.</li> <li>- Operate during normal</li> </ul>

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Activity	Impact summary	Significance	Proposed mitigation
			working hours. - No hunting or bewildering of animals and no removing of vegetation outside the designated construction zones.
<b>Operational Phase</b>			
Activities associated with tertiary education and guesthouse	<b>Direct impacts:</b> <ul style="list-style-type: none"> <li>- Potential pollution to storm water if proper storm water management measures are not maintained.</li> <li>- Potential pollution to the groundwater due to seepage of the untreated effluent to the groundwater aquifer in the event of any spillage and / or failure of the system.</li> <li>- Possible dumping of general waste on site and open properties close to the site.</li> </ul>	Low Negative	<ul style="list-style-type: none"> <li>- The storm water management measures that will be constructed and implemented during construction will be maintained, repaired and cleaned when necessary.</li> <li>- General waste (i.e. paper, plastic, glass etc.) will be collected and disposed of at an authorised landfill site in Bloemfontein.</li> <li>- The access road will have to be upgraded when necessary.</li> <li>- The sewer reticulation, together with its connection to the sewer outfall, will be a prerequisite for the erection of any buildings.</li> <li>- Enforce noise restrictions after a certain time during the night.</li> </ul>
	<b>Indirect impacts:</b> <ul style="list-style-type: none"> <li>- Accumulation of waste that may pose health risks if not managed properly and not removed on a regular basis.</li> <li>- Deterioration of the access road as a result of increased traffic to the site.</li> <li>- Increase in noise due to the high number of people visiting and staying on site.</li> </ul>	Low Negative	
	<b>Cumulative impacts:</b> Increase in traffic on the access road may lead to the deterioration of the road and congestion.	Low Negative	<ul style="list-style-type: none"> <li>- Upgrading the road to accommodate the additional traffic.</li> </ul>
<b>Technology Alternatives</b>			
<b>Preferred Alternative – Connecting of services to municipal lines</b>			
<b>Construction Phase</b>			

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Activity	Impact summary	Significance	Proposed mitigation
Activities will be the same as the site alternatives	<p><b>Impacts:</b> Potential impacts will be the same as indicated in the site alternatives as the activities will occur simultaneously</p>		Please refer to site alternative mitigation.
<b>Alternative 2 – Solar energy and rain water tanks</b>			
Activities will be the same as the site alternatives	<p><b>Direct impacts:</b> Impacts associated will be the same as indicated at the site alternatives with the addition of the following impacts:</p> <ul style="list-style-type: none"> <li>- To harness and use solar energy the initial investment in all the equipment is extremely high. To be economically viable, a large investment needs to be made.</li> <li>- Solar panels also have a negative aesthetic impact which will directly clash with the building's incorporation with the environment.</li> <li>- Rain water collection through the gutters on the buildings has a high contamination rate through dust and animal faeces. Regular treatment of the water through the addition of chloride is needed and as an educational institution the project doesn't have the necessary programs in place to maintain such infrastructure.</li> </ul>	Moderate - Negative	
	<p><b>Indirect impacts:</b></p> <ul style="list-style-type: none"> <li>- As mentioned, solar panels are expensive and will require additional funds that the client doesn't want to invest.</li> <li>- Solar panels also cause a high amount of glare</li> </ul>	Moderate - Negative	

## BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
	<p>which can be distracting to motorists on the Frans Kleynhans Road.</p> <ul style="list-style-type: none"> <li>- Rain water collection in tanks can be supplemented to water gardens and natural vegetation.</li> </ul>		
	<p><b>Cumulative impacts:</b> The cumulative impacts of implementing solar panels and a rain water collection system will be positive in terms of reducing the carbon footprint and re-leaving pressure on dwindling water supply.</p>	Moderate - positive	
<b>Alternative 3</b>			
Activities will be the same as the site alternatives	<p><b>Impacts:</b> <i>Potential impacts will be the same as that of the Preferred Alternative and Alternative 2.</i></p>		
<b>No-go Option</b>			
<b>No-go option (For Alternatives 1, 2 and 3)</b>	<p><b>Direct impacts:</b></p> <ul style="list-style-type: none"> <li>- Loss of a potential business opportunity</li> <li>- Loss of an additional tertiary education system</li> </ul>		
	<p><b>Indirect impacts:</b></p> <ul style="list-style-type: none"> <li>- Potential jobs created during the construction phase will be lost</li> <li>- An opportunity to accommodate the increasing secondary education population will be lost.</li> </ul>		
	<p><b>Cumulative impacts:</b></p> <ul style="list-style-type: none"> <li>- Loss of land-use.</li> </ul>		

A complete impact assessment in terms of Regulation 19(3) of GN 326 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 A (preferred alternative)

The impact assessment concluded that the impacts will be lower at Alternative layout 1. This relates to the impacts on surface water, land use, vegetation clearance and disturbance, impact on animals and habitat of protected species and aesthetics.

It is expected that most of the impacts will occur during the construction phase as the vegetation will be cleared, topsoil removed, construction will be undertaken, and hazardous materials and substances used. However, with the implementation of mitigation and management measures during the construction phase the impacts can be avoided and/or reduced significantly. Furthermore, the construction of the structures and infrastructure will be temporary in nature where after. Impacts which may occur during construction can be mitigated and repaired. It is therefore not expected that the impacts will be significant.

Impacts associated during the operational phase relates to the management of waste at the facility which may result in pollution through littering if the waste is not managed properly and disposed of at regular intervals. Furthermore, leaking sewage pipes may cause soil and groundwater pollution.

With the implementation of mitigation and management measures it is unlikely that significant impacts will occur as a result of the activities at the preferred layout. The significance of the impacts after mitigation is expected to be low.

Although it is expected that the impacts will be more significant during the construction phase of the project it is not expected that they will be Moderate or High. It is expected that the significance of the impacts will be Low or Low – Moderate.

### Alternative B

Alternative B is the same as Alternative A with the exception of the destruction of an artificial impoundment in the centre of the site and the presence of endangered vegetation which will have to be removed. The significance of the impact on the impoundment will be low as the impoundment is not regarded as ecologically significant due to the lack of in- and outlet and the degraded state thereof. There may an additional impact and loss of endangered plant species with the removal of the Wild Olive Trees.

The vegetation to be cleared will be the same with the exception of an internal road connecting the site and the existing structures to the north.

It is expected that there will be additional impacts if Alternative 2 is chosen.

### **Alternative C**

Alternative C is the same as Alternative B as it also contains an artificial impoundment which is regarded as an artificial wetland on the south western boundary. However, the significance of this impact will also be Low as the impoundment is not regarded as ecologically significant due to the lack of in- and outlet and the degraded state thereof. If Alternative C is chosen however, the significance of the impact on the protected Giant Bullfrogs may be Moderate after mitigation. Although they will have to be relocated their habitat will be demolished and they will be lost to this impoundment which will have an additional cumulative impact on the species.

The vegetation to be cleared will be the same. This site also contains the Wild Olive Trees which will have to be removed for the construction of the infrastructure.

### **No-go alternative (compulsory)**

If a no-go alternative is enforced the following will apply:

- The site will remain as it is, and no further development will take place as to what is already on site.
- Vegetation and animals will not be disturbed by construction activities.
- No protected or endangered species will be removed or destructed.
- There will be no additional impacts on the environment.

However, the no-go option will result in the loss of business opportunity which will create employment during the construction and operational phase. The no-go option will also result in a missed opportunity to provide tertiary education to more people which is of national importance. The main focus of the applicant currently is the training and education of people in the educational sector. Thus, the applicant intends to provide further training to teachers. It is planned that the expansion will include other additional courses in various other fields. Should the no-go option be decided on the facility will not be able to expand.

## 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.

- A fence should be erected around the construction area before any construction occurs to prevent disturbance to the surrounding environment. The erection of the fence should occur with minimal disturbance to the areas outside the construction site.
- All construction activities must be kept within the designated areas to preserve the natural state of the surrounding environment.
- If protected species of both plant and animal life is encountered during construction, a permit must be obtained to remove such species from the area and relocate it to an appropriate area by a qualified professional. These species include the Wild Olive Trees and the Giant Bullfrogs.
- If the man-made wetland is deemed significant and worthy of protection all efforts will be implemented to maintain the wetland in a pristine condition.
- If any artefacts of heritage significance are unearthed all activities should cease, the area fenced, and a specialist contacted to investigate. SAHRA should also be notified.
- A Dedicated Environmental Officer should be appointed by the contractor to do daily inspection and monitoring during the construction to ensure compliance to the contents of this report, the EMPr and the Environmental Authorisation if the project is authorised.
- An independent Environmental Compliance Officer will be appointed to conduct an audit on the implementation of the conditions of the environmental authorisation, if the project is authorised, the content of the BAR and the EMPr. This audit will be conducted at least once during the construction phase and once during the operational phase.
- Induction will be given to all contractors and employees on site before construction commences. The induction will focus on the importance of implementation of mitigation and management measures relating to the environmental aspects and the conditions of all reports and authorisations and the induction will be provided by a person with knowledge of environmental legislation and best practices.
- Should any other water resources be used apart from what is indicated in this report the Department of Water and Sanitation will be notified and consulted to confirm if a water use license is required.
- It is advised that noise restriction be implemented to reduce noise levels after 21:00 at night to prevent disturbance to neighbours and other adjacent land users.
- A turning lane should be implemented and constructed at the Frans Kleinhans /

Floors Coetzee intersection to accommodate the increase in traffic before commencement with the operational phase.

- The water distribution supply will have to be upgraded and secured before commencement with the project to ensure that water is available for the project.

Is an EMPr attached?

YES	NO
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The EMPr must be attached as Appendix G.

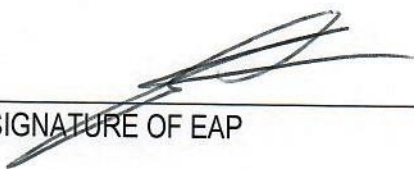
The details of the EAP who compiled the BAR and the expertise of the EAP to perform the Basic Assessment process must be included as Appendix H.

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.

Louis de Villiers

NAME OF EAP

  
SIGNATURE OF EAP

20/11/2019  
DATE

  
N. ENGELBRECHT  
04528786 W/O  
COMMISSIONER OF OATH

2019-11-20  
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)

Appendix E: Public Participation

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