Proposed development of Ivydale Private Hospital

Holding 92, Ivydale AH Extension 1,

Polokwane Municipality,

Limpopo Province

BASIC ASSESSMENT REPORT

June 2018

Ref. No. 12/1/9/1-C204

NEAS Ref: LIM/EIA/0000564 /2018

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LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
ECONOMIC DEVELOPMENT,
ENVIRONMENT & TOURISM

BASIC ASSESSMENT REPORT - EIA REGULATIONS, 2014

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

File Reference Number:	
	(For official use only)
NEAS Reference Number:	
Date Received:	
Due date for acknowledgement:	
Due date for acceptance:	
Due date for decision	

PROJECT TITLE

Basic Assessment Report for the proposed Ivydale Private Hospital, Holding 92 Ivydale Agricultural Holdings Extension 1, Polokwane Local Municipality, Limpopo Province.

Kindly note that:

1. The report must be compiled by an independent Environmental Assessment Practitioner.

2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.

3. Where applicable **tick** the boxes that are applicable in the report.

Cnr Suid & Dorp Streets, POLOKWANE, 0700, P O Box 55464, POLOKWANE, 0700
Tel: 015 290 7138/ 7167, Fax: 015 295 5015, website: http\\www.ledet.gov.za

4. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the Department of Economic Development, Environment and Tourism as the competent authority (Department) for assessing the application, it may result in the rejection of the application as provided for in the regulations.

5. An incomplete report may be returned to the applicant for revision.

6. Unless protected by law, all information in the report will become public information on receipt by the department. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.

7. The Act means the National Environmental Management Act (No. 107 of 1998) as amended.

8. Regulations refer to Environmental Impact Assessment (EIA) Regulations of 2014.

9. The Department may require that for specified types of activities in defined situations only parts of this report need to be completed. No faxed or e-mailed reports will be accepted.

10. This application form must be handed in at the offices of the Department of Economic Development, Environment and Tourism:-

Postal Address: Central Administration Office Environmental Impact Management P. O. Box 55464 **POLOKWANE** 0700	**Physical Address**: Central Administration Office Environmental Affairs Building Cnr Suid and Dorp Streets **POLOKWANE** 0699
Queries should be directed to the Central Administration Office: Environmental Impact Management:- **For attention:** Mr E. V. Maluleke **Tel:** (015) 290 7138/ (015) 290 7167 **Fax:** (015) 295 5015 **Email:** malulekeev@ledet.gov.za	

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

SECTION A: ACTIVITY INFORMATION

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

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

Any specialist reports must be contained in Appendix D.

A.1 ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail[1]:

Phelang Bonolo Health Care Properties proposes to construct a Private Hospital on Holding 92 of Ivydale Agricultural Holdings Extension 1 in Polokwane Municipality, in an area to be known as Ivypark Ext 59.

The site is situated to the south of Ivy Park and to the south west of Polokwane close to Mypark, Nirvana and Westenburg residential areas, within PolokIvypark AH Ext 1, at 23º55'21.53"S 29º 26'20.27"E. The site is ± 1286m above sea level and will be accessed by the following roads:

- Smuts Road to the north east;
- Holding 91 Ivydale Ext. 1 to the north west;
- Holding 93 Ivydale Ext. 1 to the south east; and
- Lawton Road to the south west.

The site for the hospital is approximately 4.3820 ha in extent. The proposed hospital development will comprise a total extent (footprint) of approximately 25,029m2 GLA with a floor area ratio (FAR) of approximately 0.6. The development will consist of two (2) large building complexes, each consisting out of three (3) floors. Each of these building complexes will have their own entrance with an admin/reception area. Furthermore, each building complex will host different medical fields with consulting rooms, staff facilities and stores.

The proposed new private hospital development (250 beds) will be a specialised hospital, to be known as the Phenang Bonolo HUB of Excellence, which will consist of four (4) components, namely:

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

- Heart and Kidney Hospital;
- Surgical Day Hospital;
- Psychiatric hospital; and a
- Stepdown hospital.

Apart from these hospital sections Building A will also contain an accident and emergency department and a radiology facility. These buildings will furthermore share theatres, a kitchen, a laundry room, waste disposal, storage rooms and staff facilities. It is important to note that each building will have consulting rooms for doctors. This allow for a shared usage between the hospital wards/theatres and the consultation rooms. Doctors will see patients which might also be hospitalised during the same visit or visit the hospital facilities (such as radiology) as part of the consultation with the doctor.

Land use component	GLA (m^2)
Hospital (250 beds)	20 808
Administration	1 039
Consulting Rooms	2 594
Maintenance	405
Coffee Shop	183
TOTAL	**25 029**

On-site parking will be provided as agreed with the Polokwane Local Municipality. The main access will be off Lawton Road; and an emergency / service access is proposed off Smuts Road. Lawton Road is currently a gravel road that travels between Thabo Mbeki Street and Kidds Drive. In order to properly link the hospital site and its access with the nearest formal road network it will be necessary to upgrade a section of approximately 380m of Lawton Road to proper council standards with formal stormwater drainage.

TOWN PLANNING		
STAND SIZE	43 820 m^2	
DESCRIPTION	**REQUIRED/ PERMISSIBLE**	**SUPPLIED**
COVERAGE	60%	33.6% (14 745 m^2)
FLOOR AREA	N/A	27 171 m^2
GLFA	43 820 m^2	25 029 m^2
FAR	1	0.6
HEIGHT	5 STOREYS	3 STOREYS (GROUND PLUS 2)

A. SITE IDENTIFICATION AND LINKAGE

Please indicate all the Surveyor-general 21 digit site (erf/farm/portion) reference numbers for all sites (including portions of sites) that are part of the application.

T	0	L	S	0	0	0	8	0	0	0	0	0	0	9	2	0	0	0	0	0

(These numbers will be used to link various different applications, authorisations, permits etc. that may be connected to a specific site) If there are more than 6, please attach a list with the rest of the numbers.

C. FEASIBLE AND REASONABLE ALTERNATIVES

1. ALTERNATIVES CONSIDERED

a) **Alternative Property**

There is no current property seller on the market with the required size in Polokwane that was willing to accept terms and conditions of sale dependant on receipt of Environmental Authorisation and Land Use change approvals, thus no alternative properties where evaluated.
The current property, Holding 92 Ivydale Agricultural Holdings Extension 1 is the preferred property option. Upon the Land Use application being successful the property will become a township known as Ivypark Extension 59.
The proposed site provides the particular status, context and environment that the Applicant has envisaged of the hospital development in that the Applicant wishes to develop a hospital that is atypical of general hospitals, to ensure a stress-free, open, healing and natural environment

b) **Activity Alternative**

The applicant for the Phelang Bonolo Centre of Excellence, Dr Rampedi, has a licence for a 250 bed hospital from the Department of Health. Thus no activity alternative was evaluated. The preferred alternative is thus for a private hospital.

A previous township approval for residential units proved unsuccessful and unsustainable as there was no uptake or finances available. The previous developers could not capatalise on the housing market which was booming in 2010 and 2011. Banks and financial institutions are still cynical of financing residential developments and have placed large onus on developers to provide their own capital as well as pre-sell 80% of the development.
The proposed hospital is easily financed and provides for an income generating facility.

c) **Design and Layout Alternative**

Design and site layout as well as facility design, entrances, loading and passenger areas, parking, building height where all evaluated. The design that is currently presented as the most cost effective and sustainable was developed based on the following criteria:

i. Ease of access with public transport and major rapid transport routes and arteries, current and future expansion evaluated. The reasoning was that the target market as well as trhe majority of staff will not be private vehicle owners.

ii. Maximum parking provision without the necessity of basement excavation. The presence of granite outcrops would add considerably to the expense of excavation.
iii. Accessibility of the proposed facility must be of such a nature that major arteries can be utilised for rapid emergency access without traffic disruptions. Lawton Road opens up access from the Pietersburg Township extensions along the Matlala Road/Westenburg axis. Lawton road has a bridge over the railway line other than the bridge at Nelson Mandela Avenue which grants access to Seshego residents.
iv. Residents from Flora Park, Burgersfort and southern Limpopo have quick access via Marshall Street as well as the proposed future extension and connection of Lawton Road with the R31 Burgersfort Road.
v. Mokopane, Zebedelia, Matlala and areas of west and north west Limpopo have access via the N1, R101, Gilead as well as Westenburg/Tibanefontein, Blouberg Road.
vi. The current design allows for a double story proposed development, thus maximising utilities and sharing of infrastructure such as laundry, kitchens, surgeries and operating theatres.

d) **Technology Alternative**

i. During the construction phase normal construction equipment which could include high lifting cranes, extended boom cranes, mobile cranes, heavy excavation machinery, trucks, ready mix cement trucks, tippers, heavy rollers, compaction equipment, poclan drills etc. could be utilised.
ii. During the operational phase, modern medical equipment that is suited to the various disciplines will be sourced. The installation of X-ray machines, scanners, autoclaves, laundry equipment, specialised theatre equipment, oxygen and gas stores, emergency generators etc. must all comply to the requirements as set out by the Hospital Design Principles of the IUSS and Gazetted under the National Health Act, (Act no. 61 of 2003) on 30 June 2014.
iii. As there are no alternatives to the requirements if this Act it remains is the preferred alternative with regard to technology to be utilised.

e) **Operational Alternative**

By the very nature of the requirements and strict control of medical facilities, day to day operational activities are set out and planned according to Health Care Management principles and systems which are evaluated by the Department of Health.
The proponents, Phenang Bonolo, operate and manage numerous facilities and are considered as leaders and experts in the field of bringing private health care to the masses of people with lower end medical aids. Phenang Bonolo is adept at managing Health Care Facilities in rural areas as well as high density urban areas.
As there systems are tried and tested and continuously updated with the latest in management principles, systems or health care advances, it would be superfluous to evaluate any alternative operational aspects.

2. NO GO OPTION

The No-go Option would result in zero development occurring on the current property. The owners would not be able to add value to the land nor would they be able to unlock economic value. A township with 70 properties was previously approved but there was no uptake for residential property ownership.

Should the proposed development not proceed, Polokwane and the Limpopo Province would lose the opportunity of establishing a hospital which would specifically cater for the entry level and mid-level Medical Aids.
Additionally, apart from the construction value and lost construction jobs, medical personnel from the feeder medical training hospital would be lost to the province. Limpopo would be exporting its intellectual property and empowered residents as there would be no job opportunities within the province.
The no-go option would deny premier medical facilities to Limpopo residents as the developers would simply look for an opportunity elsewhere.

3. ACTIVITY POSITION

	Latitude (S):			Longitude (E):		
Alternative S1[2] (preferred or only site alternative)	23˚	55'	30.48"	29˚	26'	17.06"
Alternative S2 (if any)	°	'	"	°	'	"
Alternative S3 (if any)	°	'	"	°	'	"

Centre point 23°55'30.48"S 29°26'17.06"E
Corner points 23°55'28.81"S 29°26'22.70"E
23°55'24.63"S 29°26'21.06"E
23°55'32.47"S 29°26'11.13"E
23°55'35.60"S 29°26'14.26"E

In the case of linear activities:

Alternative:	**Latitude (S):**			**Longitude (E):**		
Alternative S1 (preferred or only route alternative)						
• Starting point of the activity	°	'	"	°	'	"
• Middle/Additional point of the activity	°	'	"	°	'	"
• End point of the activity	°	'	"	°	'	"
Alternative S2 (if any)						
• Starting point of the activity	°	'	"	°	'	"
• Middle/Additional point of the activity	°	'	"	°	'	"
• End point of the activity	°	'	"	°	'	"
Alternative S3 (if any)						
• Starting point of the activity	°	'	"	°	'	"
• Middle/Additional point of the activity	°	'	"	°	'	"
• End point of the activity	°	'	"	°	'	"

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

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

4. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:	**Size of the activity:**
Alternative A1[3] (preferred activity alternative)	43 821 m^2
Alternative A2 (if any)	m^2
Alternative A3 (if any)	m^2

or,
for linear activities:

Alternative:	**Length of the activity:**
Alternative A1 (preferred activity alternative)	n/a
Alternative A2 (if any)	m
Alternative A3 (if any)	m

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

Alternative:	**Size of the site/servitude:**
Alternative A1 (preferred activity alternative)	4.3820ha
Alternative A2 (if any)	m^2
Alternative A3 (if any)	m^2

5. SITE ACCESS

Does ready access to the site exist?	**YES X**	NO
If NO, what is the distance over which a new access road will be built		m

Describe the type of access road planned:

Access to the development will be from Lawton Road which is currently a gravel road. From the new traffic light intersection on the N1, the **road will be surfaced** to the entrance of the proposed development.

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.

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

6. SITE OR ROUTE PLAN

A Locality Map is appended in Appendix A 1
A Satellite Map is appended in Appendix A 2
A Surveyor General Diagram is appended in Appendix A 3
A Surrounding Land Use Map is appended in Appendix A 4
A Contour Plan and Township Layout is appended in Appendix A5

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity.

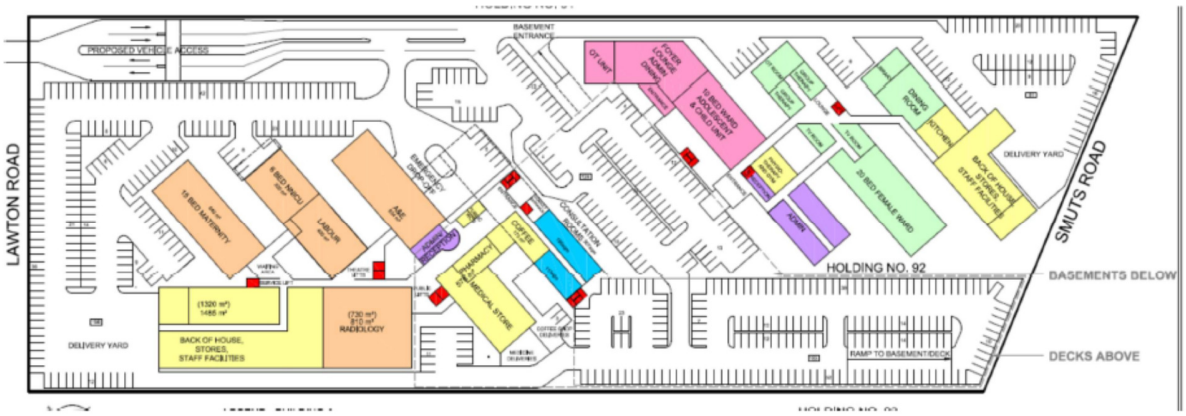
A Site Plan, Stand Layout, Amendment Scheme Annexure and Zoning Controls applied for Attached as Appendix C1 – C4 and A4 to this document.

7. SITE PHOTOGRAPHS

Colour photographs of the site under Appendix B

8. FACILITY ILLUSTRATION

Proposed site layout plans appended under Appendix C 4.



CONCEPT LAYOUT GROUND FLOOR PLAN

9. ACTIVITY MOTIVATION

(a) Socio-economic value of the activity

Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R100 000 000.00	
What is the expected yearly income that will be generated by or as a result of the activity?	Unknown	
Will the activity contribute to service infrastructure?	**YES X**	~~NO~~
Is the activity a public amenity?	**YES X**	~~NO~~
How many new employment opportunities will be created in the development phase of the activity?	125	
What is the expected value of the employment opportunities during the development phase?	R30 000 000.00	
What percentage of this will accrue to previously disadvantaged individuals?	85%	
How many permanent new employment opportunities will be created during the operational phase of the activity?	210	
What is the expected current value of the employment opportunities during the first 10 years?	Unknown	
What percentage of this will accrue to previously disadvantaged individuals?	80%	

(b) Need and desirability of the activity

NEED:			
i.	Was the relevant municipality involved in the application? Yes: Pre-application meetings to determine the availability of bulk services as well as requirements for the development of the roads, sidewalks and storm water reticulation was held with the Polokwane Local Municipality, with a Township Establishment application being submitted on the 24th November 2017.	**YESX**	NO

ii.	Does the proposed land use fall within the municipal Integrated Development Plan? **The Municipal IDP** The IDP is a strategic management tool, which aims to guide and align all planning, budgeting and operational decisions of the Municipality and other spheres of governments. The Polokwane Local Municipality has the following organisational goals outlined in its IDP and SDF: • A healthy citizenry with access to affordable, quality health care; • A safe city with low crime levels and quality living areas; .• An efficiently managed, financially viable and sustainable, city; • A well governed city underpinned by meaningful public participation; • A vibrant economic centre, attracting investment, supporting business development and creating jobs; • A city where all have access to habitable human settlements – decent houses, clean water and proper sanitation; • An environmentally sustainable and healthy city; and • A well planned, spatially integrated city. The development of the Phelang Bonolo Centre of Excellence hospital development is in line with the Polokwane Municipality's IDP in terms of job creation, attracting investment and skills development. The proposed hospital will also provide an essential, specialised public health care service to mothers and children. **Fernridge Healthcare Bed Demand Study** A desktop study undertaken by Fernridge Healthcare, specialists in medical facility needs and feasibility has determined that a 175 bed shortage already exists. This study was restricted to the immediate Polokwane area (50-100km). This study seems to agree with the World Health Organisation determination of 2,9 beds per/1000 ingabitants. Currently Limpopo is falling short of this supply by 1 bed per 1000 inhabitants. We thus have a shortage of close to 800 beds provincially. The facility will alleviate pressure on public hospitals and clinics, freeing up space for very low income and jobless inhabitants, by providing medical facilities to people with low benefit and entry level benefits.	**YESX**	NO
iii.	If the answer to questions 1 and / or 2 was NO, please provide further motivation / explanation:		
	N/A		

DESIRABILITY:			
i.	Does the proposed land use / development fit the surrounding area?	**YES X**	NO
ii.	Does the proposed land use / development conform to the relevant structure plans, Spatial development Framework, Land Use Management Scheme, and planning visions for the area?	**YESX**	NO

	SDF and LUMS According to the Limpopo Spatial Development Framework: "Development is only acceptable and in the public interest if it is ecologically justifiable, socially equitable and economically viable, i.e. environmentally sustainable. This means that the development needs of present generations should be met without the ability of future generations to meet their own needs, being compromised Phelang Bonolo Centre of Excellence development site falls within a Provincial Development Hub. Provincial Hubs can be defined as key centres and areas where all of the variety of economic sectors (agriculture, tourism, manufacturing, services) are prevalent and perceived to have good potential to be further expanded on. These areas are visibly linked to high accessibility areas with existing bulk infrastructure and relatively high population densities which would both contribute to the economic expansion and benefit from interventions in these areas. Polokwane is the administrative as well as economic capitol of the Limpopo Province, the need for the facility is long overdue. The establishment of the Phelang Bonolo Centre of Excellence hospital will address job creation and skills development, attract investment, and provide an essential specialised affordable public health care service, which is line with the goals of the Provincial SDF. In terms of the Polokwane SDF and TPS, the activity falls on a Agricultural Holding and must be rezoned for the specific Land Use. To this end an application has been submitted to the Polokwane Municipality and is under consideration.		
iii.	Will the benefits of the proposed land use / development outweigh the negative impacts of it? The proposed site usage benefit to the public as well as the local and provincial populace will far outweigh the loss of bio-diversity, or any other impact that may be caused, due to the heavily impacted nature of the current site. Rehabilitation for any ecological or other purpose will be a waste of resources as well as unsustainable due to the developmental pressures to the south-west of Polokwane.	**YESX**	NO
iv.	If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation:		
	N/A		
v.	Will the proposed land use / development impact on the sense of place? At a national, provincial, district and local Municipal level there is a need for the proposed Phelang Bonolo Centre of Excellence hospital development in that there is a serious lack of dedicated head trauma, mental wellness and child care facilities in South Africa. There are no specialist stand-alone hospitals of this type in the private sector in South Africa. Considering the lack of dedicated psychiatric facilities in the country, the hospital will also benefit the public at both the local and provincial levels.	YES	**NOX**
vi.	Will the proposed land use / development set a precedent? No. If approved, the hospital development will be located next to a residential area. The development of other, similar types of development will also require amendments to the Town Planning Scheme and rezoning applications. Therefore it is not anticipated that the proposed development will set a precedent for similar types of development in the area.	YES	**NOX**

vii.	Will any person's rights be affected by the proposed land use / development? No. The Public Participation Process has been fulfilled as required under NEMA, informing the public of the intended development. All neighbours were notified of the proposed development and given the opportunity to lodge any concerns / objections regarding the proposed development. Additionally jobless and below the breadline earners who cannot afford medical aid will have freer access to state and provincial facilities as more beds will be freed up due to salaried people with medical aid utilizing the private facility. This enhance the populations right to medical care.	YES	**NOX**
viii.	Will the proposed land use / development compromise the "urban edge"?	YES	**NOX**
ix.	If the answer to any of the question 5-8 was YES, please provide further motivation / explanation.		
	N/A		

BENEFITS:			
i.	Will the land use / development have any benefits for society in general?	**YES X**	NO
ii.	Explain: According to the Fernridge Health Care Market Report (February 2018) the benefits of the establishment of an additional private hospital are supported by the following assessed date: • Within the immediate Polokwane area there are only 2 private hospitals,(Netcare Pholoso Hospital and the Mediclinic) • The region has one private day clinic and one private psychiatric hospital. • The proposed development will provide a much needed healthcare service for people in and around Limpopo as a whole and is especially aimed at patients with an entry level medical aid or low end health care insurance packages. • The site is also ideally positioned amongst a few existing residential areas and new residential establishments within a 15km radius to enable patients to reach the facility and return home. • The proposed land use will create employment opportunities not only for the surrounding areas but for Medical Professionals in Limpopo as a whole. • The proposed development is to partially redress mental health service availability, especially in the lower-middle to middle income groups in Limpopo. The institution will specifically cater to patients who do not have expensive or high end medical aid by additionally providing maternity facilities, day care procedure facilities as well as emergency services. • The proposed development of the Phelang Benolo Hub of Excellence medical facility is an initiative by previously disadvantaged medical professionals to provide mother and child hospital care services in the greater area of Polokwane and in Limpopo as a whole. The key driver of this project Dr. Jackie Rampedi, founder of the Phelang Bonolo Group. • The proposed hospital facility will provide comprehensive mental, renal and cardiac care services as well as a step down recuperation facility. It has been identified that South Africa has a serious lack of dedicated mental health facilities, with no such private facility in the province. • The development and operation of an integrated health care facility that specifically aids patients with entry level medical aid and originating from lower income communities, is innovative and pioneering health care availability, under supervision of Phenang Benolo Hub of Excellence.		

	• Additionally jobless and below the breadline earners who cannot afford medical aid will have freer access to state and provincial facilities as more beds will be freed up due to salaried people with medical aid utilizing the private facility. • This enhance the populations right to medical care.		
iii.	Will the land use / development have any benefits for the local communities where it will be located?	**YES X**	NO
iv.	Explain: • The hospital will be closer to the low to medium income population, meaning that in cases of emergencies the patient will be able to have access to proper care and services without having to travel into and through the CBD to other facilities. • The proposed land use will create employment opportunities for the local population, in particular around Westenburg and Polokwane Ext 44, Greenside where there unemployment is evident. • The employment opportunities will also open opportunities for employees to augment their skills in the workplace. • Recent activities have already modified the natural vegetation and the habitat in general. Squatting, vagrancy and illegal dumping is the immediate historic activities, but is now replaced with neglect, overgrowth of alien invaders and the dumping of household and building refuse on site. The development brings along the "cleaning up" of the site, including removal of rubbish and litter, eradication of invasive plants, improving aesthetically by landscaping the area and reducing erosion risks via proper stormwater management. • Further development of the road network by the developer also ensure that quality transport is provided in the vicinity of the hospital and will upgrade the entire area between the R101 Polokwane/Pretoria link road and the hospital to the south. This will enhance the approaches to Polokwane City. • The secondary benefit will be for economic opportunities in the form of the hospitality industry, bed and breakfast, nursery schools, pre-schools and any other business that will be required to assist the working personnel.		

10. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline:

	Administering authority:	**Date:**
1. National Environmental Management Act, 1998 (Act No.107 of 1998) Environmental Impact Assessment (EIA) Regulations and associated Listing Notices.	**National Department of Environmental Affairs (DEA) and Provinces**	1998 2010 2014
The application for the proposed development triggers activities listed under Notice No. R327 of 2017 (Listing Notice No.1) therefore a Basic Assessment Report is being submitted to the LEDET for consideration		

2.The National Water Act, 1998 (Act No.36 of 1998	National Department of Water and Sanitation	1998
A healthcare facility will definitely use high amounts water of water on a daily basis which will be supplied by the local municipality.		
3. National Environmental Management Waste Act`: (Act No. 59 0f 2008)	National Department of Environmental Affairs (DEA) and Provinces	2008
The proposed development will generate hazardous and healthcare risk waste. The developer has an undertaking from a registered medical waste disposal company that products that are considered hazardous will be removed on a regular basis. The hospital operator has a standard waste management procedure for healthcare risk waste removal as well as hazardous waste as stipulated in the various SANS 10248 publications. The facility is also public convenience and general waste produced will feed into the municipal waste stream. An undertaking or proof of such service needs to be provided. **(See Appendix G for proof).**		
National Environmental Management: Waste Act, 2008 (Act No. 59 Of 2008) Waste Classification And Management Regulations	**National Department of Environmental Affairs (DEA) and Provinces**	**2013**
HCRW listed as hazardous waste that does not require classification.		
National Heritage Resources Act	**SAHRA**	**1999**
Guideline on Need and Desirability, Integrated Environmental Management Guideline Series 9, Department of Environmental Affairs (DEA), Pretoria, South Africa	**DEA**	**2014**
4. **Polokwane Local Municipality Spatial Development Framework (SDF)**	Polokwane Local Municipality	2010
The proposed Hospital will be implementing the principles set out in the SDF as it will act as a facilitator for future promotion and implementation of the SDF. The SDF furthermore strives to rebuild the fragments of the apartheid era, and the proposed activity is perceived as desirable in terms of the SDF.		
The National Building Regulations and Building Standards Act,	**Local Municipality to approve**	**1977**
The proposed Hospital will be implementing the principles set out in the By Laws of the Polokwane LM and Building Regulations		
Polokwane/Perskebult Town Planning Scheme	**Local Muncipality**	**2016**
Rezoning application submitted to the Polokwane Local Municipality for Township approval.		
Spatial Planning and Land Use Management Act	Local Municipality	2013
All Land Use applications are done in terms of SPLUMA although the Polokwane Local Muncipality has not adopted SPLUMA By-laws as yet.		
SABS-Building and Construction Standards	SABS (inspectors)	current
The proposed Hospital will be implementing these standards		2006
IEM Guideline Series: Guideline 5: Companion to the Environmental Impact Assessment Regulation 2010 & IEM Guideline Series: Guideline 7: Public Participation	**LEDET**	**2010**

in the EIA process		
The BA Process includes a Public Participation Process		

Activity No (s) (in the notice) e.g. 1	No. of Geographical Area and Description as per project	Describe each listed activity as per project description
Listing Notice GN 327 of 2017 **Activity 27** The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.		For the development less than 5ha will be cleared. The area is mostly covered by grass and scattered Acacia trees. The vegetation type associated with the study area is referred to as the Polokwane Plateau Bushveld (SVcb 23) (Mucina and Rutherford, 2006) Grassveld (Acocks, 1953) or Mixed Bushveld (Low and Rebelo, 1996). Most of the study site has already been transformed with urban activities so technically less than 2ha of indigenous vegetation (if any) will be cleared for development.

11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

11(a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	**YES X**	NO
If yes, what estimated quantity will be produced per month?		60m^3

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

The appointed contractor and sub-contractors will be responsible for the removal of solid waste during the construction phase.

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

All construction waste will feed into the registered municipal land fill site at the Polokwane Local Municipality Landfill site. A large amount of the construction waste such as rubble will and can be used as filling material during the construction phase

Will the activity produce solid waste during its operational phase?	**YES X**	NO
If yes, what estimated quantity will be produced per month?		50m^3

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

During the operational phase the disposal of all solid **general waste** feed into the municipal waste of Polokwane Local Municipality. All the waste will be collected and disposed of at the nearest land fill site in Polokwane.

General Waste:
Separation of General Waste into streams for re-cycling will be done as is standard practice at most private hospitals. Between 75% and 90% of the waste generated by similar health-care providers is general waste (HCGW), which is comparable to domestic waste, and mostly comes from the administrative and housekeeping function of the establishments, as well as garden refuse and building rubble.

Medical Waste (Health Care Risk Waste)
The remaining 10% to 25% is hazardous **or Health Care Risk Waste** (HCRW). **Medical waste (HCRW)** Medical waste will be stored in marked, specially lined, sealable and lidded, colour coded bins as per SANS 10248-1:2008. These specialised bins will be stored in the Medical Waste Store which will be locked and managed by the Hospital Services SHEQ Department.
A medical waste management service provider will remove the bins from the facility regularly (See attached registration and authorization of Clinx in Appendix G).
Clinix Has also provided a letter of undertaking to provide the medical waste disposal services (Appendix G3.8)
Power points are to be provided in the Medical Waste Store for the installation of Chest Freezers to store sensitive medical waste matter. The anticipated volume of medical waste is approximately 4500kg per month or 150kg per day. The anticipated volume of Sharps Waste is approximately 600kg per month or 20kg per day.

Mortuary
There will be no mortuary on the site. The deceased will be taken directly to the hearse which will take the body to an offsite mortuary or funeral parlor.

(See letter of intent and licenced waste removal supplier Appendix G).

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

All general waste will be disposed of at the Polokwane Municipal Landfill Site. HCWR will be transported off-site by a liceneced and approved transporter to be disposed of at a registered Hazardous Wasdte Site either by inv=cineration or by the appropriate measures as prescribed.

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

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?	~~YES~~	**NO X**

None of the construction solid waste is classified as hazardous

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

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

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

11(b) Liquid effluent

The proposed development will be connected to the existing sewer network below Smuts road and **100% of sewerage** will be discharged into the existing sewer network below Smuts road.

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

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

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

If yes, provide the particulars of the facility:

Facility name:	CLINX MEDICAL WASTE MANAGEMENT		
Contact person:	Mr Andy Bowman		
Postal address:	330 Dame Street, Ext 3 Wadeville, Johannesburg		
Postal code:	1428		
Telephone:	011 902 9700	Cell:	
E-mail:	belinda@clinx.co.za	Fax:	011 902 4660

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

Due to the nature of the operation, no grey water will be recycled. The facility will be required to install emergency water tanks for firefighting as well as in the case of water supply disruptions.
These developments will form part of the architectural and engineering design and layout.

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?	~~YES~~	**NO X**
If yes, is it controlled by any legislation of any sphere of government?	~~YES~~	**NO X**

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.
If no, describe the emissions in terms of type and concentration:

The proposed development will not generate any emissions. Only the additional vehicle traffic and exhaust fumes may have an influence, however it is regarded as **insignificant**. It can be expected that a certain amount of dust will be generated due to earth moving vehicles during construction. It should be noted that dust generation is short term and will only be during the construction phase. Dust generation will be mitigated as per the EMP, by dampening the site area so that the generating of dust can be prevented. As the site will be surfaced with impermeable material, no dust is expected during the operational phase.
Operation of the facility is likely to result in a localised (and insignificant) increase in exhaust emissions from client vehicles visiting patients or attending day clinic facilities.

11(d) Generation of noise

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

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.
If no, describe the noise in terms of type and level:

Noise during construction will consist of vehicular noise and that of machinery for earth works and transport of building materials. During operation, noise will be insignificant, and consist mainly of the sound of motorists travelling to and from the facility. A hospital is not a noise generating facility in itself.

12. WATER USE

Water Source

Municipal (Preferred option)	water board	groundwater	river, stream, dam or lake	other	the activity will not use water
The Engineering Bulk Services Report as undertaken by SADECON Africa Consulting Engineers (2017) is attached as Appendix D1.					

The municipality has indicated that there is enough capacity to supply potable water and electricity and handle sewerage. The developers are required to ensure that all the connecting infrastructure is laid on up to the municipal connection points.
The Municpal Electrical Engineer has indicated that enough capacity exists to supply the hospital but an application for electrical supply must be made at the municipality by the developer.
This application will be done once approval for Environmental Authorisation and Town Planning has been done.

Zone / Reservation	No. of Erven /Area/Units	Calculation	Demand (kl/day)
Institutional : • Day Surgical Centre and Primary Health Care Hospital • Heart and Kidney Hospital • Psychiatric Hospital • Stepdown Hospital	 30 Beds 100 Beds 80 Beds 40 beds	 400 l/Bed/day 400l/Bed/day 400l/Bed/Day 400 l/Bed/Day	 12.0 40.0 32.0 16.0
Special	1	500 l/Day	0.5
TOTAL:			**100.5**

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

	N/A	
Does the activity require a water use permit from the Department of Water Affairs?	YES	**NO X**

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

13. ENERGY EFFICIENCY

A total MD of 2MVA is anticipated. The design intent of SANS204 will be followed

Architects will consider all applicable tools or measures as outlined in the Green Building Convention South Africa (GBCSA) categories to raise awareness of green building benefits and reduce the environmental impact of development. These categories include: management; indoor environment quality; energy; transport; water; materials; land use and ecology; emissions and innovation.

Alternative Energy Sources

A generator is proposed at the facility, to provide a back-up power supply in the event of a power cut or load shedding. Due to the nature of the proposed development, the locality as well as the physical requirements for alternative energy sources, no renewable energy use is viable.
Standard low wattage bulbs, low energy geysers, energy efficient ventilation systems and the latest power saving equipment will be installed.
Hospital by their very nature of 24 hour operations and stability of energy supply required are large consumers of electricity.
Cardiovascular machines, operating theatre lights, autoclaves, washing machines, computer systems, emergency handling etc all require stable and consistent power supply. These can currently only be obtained through conventional energy sources such as electrical supply from Eskom.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

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

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

All **specialist reports are contained in Appendix D**.

Property description/physical address:	Holding 92, Ivydale Agricultural Holdings Extension 1, Polokwane Local Municipality.
	Proposed Township to be known as : **Ivydale Extension 59**, consisting of 2 erven which is the minimum requirement for a township.
	In instances where there is more than one town or district involved, please attach a list of towns or districts to this application.

Current land-use zoning:	The land is Agricultural Holding but an Application for Township Establishment has been submitted. The properties will be zoned applicably to ("Institutional") 1 erf, for a Heart and Kidney Hospital; Surgical Day Hospital; Institute of Wellness and Emotional Stability and a Sub-acute Hospital, as well as in terms of Clause 32, a tea garden, and in terms of Clause 33, a Cafeteria to "Special" for access control: 1 erf. The application will include the reducing of the parking ratio, subject to certain conditions. The land use is similar to that of surrounding agricultural holdings that are under development in Ivydale south of Polokwane city centre. The land-uses impacting on the habitat include infrastructure development (roads, electricity supply and telephones lines), development of residential townships, houses, schools and small and large businesses. **Agricultural activities (grazing and cultivation) have all ceased, as the area is now considered as part of the larger city urban area.**

Is a change of land-use or a consent use application required?	**YES X**	NO
Must a building plan be submitted to the local authority?	**YES X**	NO

Locality map: A Locality map is appended under Appendix A

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat X	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

The site has a gentle to flat slope, with slope draped towards the north and south on the other side. The area exhibits an average slope of between 1° and 1.5° west.

Alternative S2 (if any):

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

Alternative S3 (if any):

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

2. LOCATION IN LANDSCAPE

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

No prominent regional topographical features occur within the boundaries of the study area.

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

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

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

The study area is located in the Limpopo Catchment Management Area. The site is drained by means of surface run off, with storm water collecting towards the north and south of the site. No prominent surface drainage features are developed within the property boundaries. No stream was noticed within the vicinity of the proposed area.

- **Erosion potential is low** and of least concern on the site (AGES: Geotechnical Study 2017).
- Excavatibility problems are foreseen in the depth of excess of 1 meter due to hard weathered Hout River Gneiss covering the site.
- Some granite rock outcrops were noticed on site.
- No groundwater seepage expected on site.
- Adequate subsurface drainage must be installed upstream of any retained cut to fill too prevent the build-up of moisture behind the face of retaining walls.
- The sanitary type to be used is water borne system, therefore minimal groundwater pollution expected.

- The site does not reflect any risk for the formation of sinkholes or subsidence caused by the presence of water-soluble rocks (dolomite or limestone), and no evidence of mining activity beneath the study area has been revealed.
- The area classifies as C1 according to NHBRC
- It is recommended that the loading foundation must not exceed 500kPa.

4. GROUNDCOVER

Indicate the types of groundcover present on the site:

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

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.

A field survey was done by Dr Wynand Vlok of Bio-Assets (2017) to evaluate the current ecological status at the study site. This included a habitat assessment, rapid botanical survey and a rapid survey to determine if any red data plants occur on site. The vegetation type associated with the study area is referred to as the Polokwane Plateau Bushveld (SVcb 23) (Mucina and Rutherford, 2006). Earlier it was known as the Pietersburg Plateau Grassveld (Acocks, 1953) or Mixed Bushveld (Low and Rebelo, 1996). Although it is an extensive veld type, little of it has formal protection and about 17% is transformed.

About 7% is transformed due to urban development and 10% by agricultural activities. **Various exotic invaders are present** and include *Jacaranda mimosifolia, Melia azedarach and Opuntia ficus-indica*. According to the National Environmental Management Biodiversity Act (Act 10 of 2004) (NEMBA) the vegetation type is not listed as vulnerable (NEMBA, 2004).

The land-uses impacting on the habitat include infrastructure development (roads, electricity supply and telephones lines), development of houses, schools and small and large businesses. Agricultural activities (grazing and cultivation) have all but ceased, as the area is now considered as part of the larger city area.

From the field assessment and specialist knowledge of the area it is clear that the natural vegetation in the area in **severely modified and invasive alien vegetation is the norm** in the area (Figure 5 of the Ecological Assessment: Appendix D). The activity will have very little impact on the natural vegetation as there is "No Natural Remaining" according to the Limpopo C-Plan Vers 2. None of the twelve possible red data plants listed for the quarter degree square (2329CD – SANBI Precis, 2018) was found on site during the survey.

5. LAND USE CHARACTER OF SURROUNDING AREA

5.1 Natural area		**5.2 School** There is Ivydale Primary school within 500m vicinity of the proposed site. There might be minor noise disturbances only during the construction phase. The access to the proposed hospital is not on the same road as the school access so no potential traffic congestion is expected, nor are ambulance or emergency vehicle interference with school activities expected.	**X**
5.2 Low density residential Numerous properties in the area are agricultural holdings with one or two residences. However, the majority of the Ivydale Ext 1 Agricultural Holdings have been modified by illegal business operations such as scrapyards and transport business, as well as high density townships established in the immediate vicinity. The proposed Private Hospital will not impact on any sense of agricultural or residential ambiance that may have existed in the past and will serve as an upgrading of an area prone to land use abuse.	X	5.23 Tertiary education facility	
5.3 Medium density residential An existing residential area in the Ivydale AH zone might be affected during both the construction and the operational phase of the project but the impacts will be minimal and mitigation measures will be implemented accordingly. Road widening of Lawton Road as well as dedicated loading and off-loading pedestrian facilities are proposed at the hospital entrance	**X**	**5.24 Church** The church in holding 91 which is just adjacent to the proposed site only operates on Sundays and it will not be affected in any way during the construction phase since the workers will be busy only from Monday to Friday**.**	**X**
5.4 High density residential	**X**	5.25 Old age home	

The proposed hospital and surgery for consultation will service the communities in close proximity who mostly have entry level and lower benefit medical aid. The hospital is aimed at the lower middle and lower income group population demographic.			
5.5 Medium industrial [AN]		5.26 Museum	
5.6 Office/consulting room		5.27 Historical building	
5.7 Military or police base/station/compound		5.28 Protected Area	
5.8 Spoil heap or slimes dam [A]		5.29 Sewage treatment plant [A]	
5.9 Light industrial The businesses in close vicinity will not have any negative impacts during both the construction and operational phases.	**X**	5.30 Train station or shunting yard [N]	
5.10 Heavy industrial [AN]		5.31 Railway line [N]	
5.11 Power station		**5.32 Major road (4 lanes or more)** According to the Traffic Impact Assessment, a dedicated left turn lane and signalised intersection will have to be installed at the R101 Pretoria Road/Lawton Road intersection (See Appendix D3). No further functional impacts of the signalised Lawton Rd/R101 intersection is expected during peak hours.	**X**
5.12 Sport facilities		5.33 Airport [N]	
5.13 Golf course		5.34 Harbour	
5.14 Polo fields		5.35 Quarry, sand or borrow pit	
5.15 Filling station [H]		5.36 Hospital/medical centre	
5.16 Landfill or waste treatment site		5.37 River, stream or wetland	
5.17 Plantation		5.38 Nature conservation area	
5.18 Agriculture		5.39 Mountain, koppie or ridge	
5.19 Archaeological site The site was previously excavated and a Phase One heritage assessment done during the	**X**	5.40 Graveyard	

previous land use application for a residential township. The recommendation of the archaeologist was that a specific Phase 2 Heritage Assessment be undertaken prior to construction commencing. Due to the previous development not commencing, the Phase 2 Assessment was not undertaken. It is thus explicitly recommended that a Phase 2 Heritage Assessment, which includes a site archaeologist be undertaken prior to commencement and permission obtained from SAHRA that the construction may commence.			
5.20 Quarry, sand or borrow pit		5.41 River, stream or wetland	
5.21 Dam or Reservoir		5.42 Other land uses (describe)	

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

N/A

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

If YES, specify and explain:	N/A
If NO, specify:	N/A

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

If YES, specify and explain:	N/A
If NO, specify:	N/A

6. CULTURAL/HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including	**YES X**	~~NO~~
Archaeological or palaeontological sites, on or close (within 20m) to the site?	**YES**	
If YES, explain:	**See attached letter from heritage consultants Appendix D7**	

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

Briefly explain the findings of the specialist:	According to the Specialist a Phase 2 Heritage Assessment must be undertaken. Prior to commencement of excavation and construction activities. The letter explaining the timing of the Phase 2 assessment is attached as Appendix D 7.2 The developer is only willing to undertake the expense of a Phase 2 Heritage Assessment upon granting of an Environmental Authorisation which explicitly stipulates that that it is a condition of the EA. No developer will undertake any such expense if there is no financial gain. As a condition of the Environmental Authorisation the EAP is recommending the receipt of a Destruction Permit by SAHRA prior to any construction activities commencing.

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

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

SECTION C: PUBLIC PARTICIPATION

FROX appointed **ACES** to conduct the Public Participation of this application. Mz Lethabo Mangale (see attached CV, Appendix G) is a specialist in Public Participation.

1. ADVERTISEMENT

(a) Site Notices attached as Appendix E1 and E2

(b) Stakeholder and I and AP Notification Letter and Registration Document attached as Appendix E3 and E4

(c) Newspaper Notification Appendix E5

(d) Public Participation Report attached as Appendix E8

2. CONTENT OF ADVERTISEMENTS AND NOTICES

The Advertisements and notices indicated that an application will be submitted to the competent authority in terms of the NEMA regulations, the nature and location of the activity, where further information

regarding the proposed activity can be obtained and the manner in which representations in respect of the application can be made. (Refer to **Annexure E1** of the Public Participation Section)

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

See Appendix E1 and E2 for placement on site.

4. DETERMINATION OF APPROPRIATE MEASURES

Due to the high level of literacy and community interest in Ivypark, site notices, newspaper advertisements as well as delivery of letter of notification to the immediate neighbours within 800m radius was deemed sufficient notification for the immediate community.

The Ward Councillor was informed of the proposed development but apart from verbal agreement no written correspondence has been received. The Ward Councillor is Mz Mariette Pretorius.

Letters were delivered to the various Government Departments deemed as direct Stakeholders. Appendix E2 contains correspondence from the Stakeholders either indicating no objection to the development or requesting that they be registered as I and AP's.

Electronic copies of the Draft Basic Assessment Report will be delivered to those Departments wishing to be more involved and a thirty day (30) period for comments allowed. This will coincide with the submission of the DBAR to LEDET and proof of delivery as well as any comments received will be included in the final BAR.

5. COMMENTS AND RESPONSE REPORT

The comments and response report misattached under Appendix E9.

6. AUTHORITY PARTICIPATION

Name of Authority informed:	Comments received (Yes or No)	Response
1. The Manager Capricorn District Municipality	Registered as IAP Request copy of DBAR	DBAR electronic copy to be delivered upon submission to LEDET
2. The Environmental Officer, Polokwane Local Municipality	No	The Environmental Officer will also have opportunity to comment during the Town Planning process. Copies of the DBAR will be submitted as well as proof of delivery to the Town Planning Department.
3. Department of Water and Sanitation (Water Affairs)	No	
4. Department of Education	No objection	See Appendix E6.2
5. The Ward Councillor Ward 19, Mz M Pretorius	No objection	Mz M Pretorius verbally indicated that no constituent had approached her to complain. Requested an electronic copy of the DBAR. She is also aware of the rezoning application that has been submitted to the Polokwane Municipality.
6. The Department of Health	No	

Name of Authority informed:	Comments received (Yes or No)	Response
7. Limpopo Department of Agriculture (See Appendix E6.3	Registered as IAP Any impact that will reduce agricultural value of the ground.	Ivydale Agricultural Holdings have been incorporated in the urban edge of the Polokwane Municipality and thus excised from the Provisions of the Subdivision of Agricultural Land Act (Act 7 of 1970).
8. National Department of Agriculture, Forestry and Fisheries Private Bag X120/ PRETORIA 0001 012 319 7580/ 7634	No	
9. LEDET(Tourism Department)	No	Comments on Basic Assessment Report pending
10. Dept of Sports, Art and Culture - Limpopo Heritage Authority Donald 072 397 7282/015 291 5628/ 086 607	No	
11. ESKOM Department of Land Development & Environmental Management Limpopo Operating Unit MavundNT@eskom.co.za	Yes, no objection.	See attached map as provided by Eskom
12. Limpopo Land Claims Commissioner	Yes, no objection.	Letter received from Land Claims Commissioner Appendix E 6.6 and 6.7
13. Department Mineral Resources (Limpopo Office)	No	

7. CONSULTATION WITH OTHER STAKEHOLDERS

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

Has any comment been received from stakeholders?	**YES X**	~~NO~~	

None to date	

Name of IAP/ Stakeholder informed:	Comments received (Yes or No)	Response
1. Holding 91-The Potters House Church	No	
2. Holding 93-Barry Strydom Xfuels Watermelon Street Platinum Park	Yes, verbal affirmation of no objection.	
3. Holding 954-Zanna Bird and Reptile Park	No	
4. Holding 955	No	
5. Mr Hannes Lerm (Hannes Lerm and Associates Ivypark Ext 44)	No	
6. Ivypark Primary School	No	
7. TT Services and Plant Hire Ptn 223/688 LS	Registered as IAP See Appendix E6.8	Placed on register
15. Northern Muslim School	No	

SECTION D: IMPACT ASSESSMENT

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

Dept of Agriculture - Will there be an impact on agricultural land? Capricorn District Municipality - Job opportunities? Dept of Education - Might there be a necessity for new schools?

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

Also See Annexure E No agricultural land will be impacted upon. Ivydale Agricultural holdings have been incorporated within the Polokwane Urban Edge. Job as well as other economic opportunities will arise after the Land Use and Environmental Authorisation processes are completed and the developer starts implementing design and construct ion phase. The possibility of extending the current Ivypark school may be necessary as well as the economic opportunity for day care and pre-school enterprises.

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed.

1. METHODOLOGY IN ASSESSING IMPACTS

The purpose of impact assessment is to assign relative significance to predicted impacts associated with the project, and to determine the manner in which impacts are to be avoided, mitigated or managed. The potentially significant environmental impacts were identified based on the nature of the receiving environment, a review of the proposed activities, and the issues raised in the public participation process. The potential impacts of the proposed development were identified through a site visit, the Environmental Assessment Practitioners experience and expertise in the field and specialist study report. In the Basic Assessment Report, the potential impacts are broadly identified and outlined. An assessment of the potential impacts is provided, identifying the impacts that are potentially significant and recommending management and mitigation measures to reduce the impacts.

In general, it is recognized that every development has the potential to pose various risks to the bio-physical environment as well as to the residents or businesses in the surrounding area. Therefore, it is important that these possible risks are taken into account during the planning phase of the development. Risks and key issues were identified and addressed through an internal process based on similar developments, and an environmental

evaluation. Previous experience has shown that it is often not feasible or practical to only identify and address possible impacts. The rating and ranking of impacts is often a controversial aspect because of the subjectivity involved in attaching values to impacts.

In the impact assessment stage of a Basic Assessment, identified issues are analysed and expected impacts are defined. This analysis identifies:

(i) The nature of the impact - provides a brief description of the impact
(ii) The extent of the impact - This refers to the geographic area on which the activity will have an influence and can include the following extents:

- site = 1
- immediate surroundings, = 2
- municipal = 3
- provincial = 4
- country and international. = 5

(iii) Magnitude of the impact (S) - This provides an order of magnitude of whether or not the intensity (magnitude/size/frequency) of the impact would be high, medium, low or negligible (no impact).

- High.= 4/5
- Medium.= 3
- Low.= 1/2
- Negligible (no impact).= 0

(iv) The duration of the impact (D)- This refers to the expected timeframe of an impact and can be expressed as:

- Short term (0 – 5 years); = 1
- Medium (5 – 15 years); = 2/3
- Long term (15 – 40 years, but where the impact ceases after operation); = 3/4
- Permanent (over 40 years and resulting in a permanent and lasting change that will always be there). = 5

(v) Probability of the impact (P) – The likelihood that the impact will occur and is described as:

- Unlikely = (0-1)
- Likely (where there is a good probability, =(2-3);
- Highly likely (where it is most likely, =(4); or
- Definite (where the impact will occur =(5)

The **significance** is calculated by combining the criteria in the following formula:
S=(E+D+M)P
S = Significance weighting
E = Extent
D = Duration
M = Magnitude
P = Probability

The **significance weightings** for each potential impact are as follows:
< 30 points: Low (i.e. where this impact would not have a direct influence on the decision to develop in the area),
30-60 points: Medium (i.e. where the impact could influence the decision to develop in the area unless it is effectively mitigated),
> 60 points: High (i.e. where the impact must have an influence on the decision process to develop in the area).

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

Impacts during Planning Phase						**Significance following mitigation**					
Nature of Impact	**Direct**	**Indirect**	**Cumulative**	**Pos/Neg**	**Proposed Mitigation**	**Probability Rating**	**Intensity**	**Duration**	**Extent**	**Magnitude**	**Significance rating**
PLANNING PHASE											
Increased number of people and vehicles around the site	X			-	• All meetings and activities to be held initially off the property.	2	1	2	1	0	8 Very Low
Job creation within the community	X	X	X	+	• It is anticipated that the hospital will create approximately 335 jobs during the construction and operational phases. The construction phase is anticipated to last 18 months and will create 125 jobs. The operation phase will create approximately 185 permanent jobs and 25 non-permanent jobs. • No mitigation required	5	4	5	2	2	65 High Positive

Accessibility of the site.	X			-	• Site access to conform to municipal standards and road traffic legislation • Appropriate warning signs must be erected.	2	1	1	1	1	8 Very Low
Increased fossil fuel use by professional team members and therefore increased greenhouse gas emissions		X		-	• The professional team will limit the trips to site during the planning and design phase.	2	1	1	1	0	6 Very Low
Storm water management issues.				-	• A storm water management plan should be finalised before the construction commences.	1	2	1	1	2	6 Very Low

Impacts during Construction Phase						**Significance following mitigation**					
Nature of Impact	**Direct**	**Indirect**	**Cumulative**	**Pos/Neg**	**Proposed Mitigation**	**Probability Rating**	**Intensity**	**Duration**	**Extent**	**Magnitude**	**Significance Rating**
CONSTRUCTION PHASE											

Cultural, Historical And Archaeological Resources	X			-	• A Phase 2 Heritage Assessment has been undertaken by the developers on the adjacent holdings and on a portion of the subject property. • The Heritage Assessor has stipulated that a Phase 2 be performed prior to construction and a Heritage Specialist be appointed on site during excavation period. • Permission must be obtained from SAHRA after the Phase 2 Assessment has been completed and a Destruction Permit issued prior to construction commencing.	5	5	2	1	1	45 Medium
Air quality Health risks due to dust caused by construction vehicles and machinery. Dust from access roads. Dust from area cleared for construction. Emissions from construction machinery and equipment. Trucks transporting spoil and fill material.	X		X	-	• Measures to dust bust be implemented on access roads and working areas during dry periods. • Water used for this purpose must be in quantities that do not result in the generation of run-off. • Site workers will need to wear the appropriate Personal Protective Equipment (PPE). • Transported material that can be blown off as dust must be covered to limit dust generation.	2	1	1	1	1	8 Very Low

Noise Increase in noise pollution due to excavations and site clearing, noise from construction vehicles and construction staff and or drilling activities.	X			-	· All equipment and activities to comply with noise regulations. · Workers working in the area must ensure that they wear appropriate Personal Protective Equipment. · Any blasting to be carried out as per the applicable laws.	2	1	1	2	1	10 Very Low
Social Impacts An influx of people through construction workers and job seekers resulting in social tensions.	X	X	X	-	Clear communication of all available employment positions to minimise population influx.	3	2	1	2	2	21 Low
Traffic Increase in traffic and safety hazards to the local population and construction workers. Additional traffic caused by construction vehicles and heavy vehicles delivering materials to the site.	X			-	• Construction vehicles are not to be parked on the roads thereby blocking the way into the village since the site is located right at the entrance of the village. • Clear signs should be displayed and entrance to the site indicating a construction site and turning construction vehicles.	3	2	1	2	2	21 Low
Topsoil: Stockpiled during the construction phase, has the potential to be wind-blown, causing dust. Sediment rich storm water runoff may be washed across Smuts Road, causing traffic and traction problems for motorists .Potential exists for high intensity rainstorm events to cause severe erosion at the construction site. Uncontrolled stormwater runoff from the site may worsen surface drainage towards the eastern section and neigbouring properties**.**		X	X	-	• Earth dikes and diversions should be used to direct all storm flows away from the bare soils to reduce the risks of sedimentation. • Sediment management during the construction phase of the development will be important. Sediment control devices such as sediment fences should be used. • Soil stabilisation practises, such as sediment blankets, should be introduced onsite. • A site specific storm water management system that meets	3	2	1	1	1	15 LOW

					Municipal requirements for stormwater attenuation and management must be implemented. • The stormwater management plan must ensure that wherever possible the frequency of discharge rates from the new development is similar to that of the run-off from the current natural area.						
Soil erosion Potential erosion, degradation and loss of topsoil due to construction activities as well as stormwater runoff	X			-	· Topsoil should only be exposed for minimal periods of time. The soil is to be used during rehabilitation or within the site. · Areas prone to erosion must be protected by installing the necessary temporary and/or permanent drainage works to prevent surface water from being concentrated in streams. · Any tunnels or erosion channels developing during the construction period shall be backfilled and compacted. · Cleared areas to be effectively stabilised to prevent and control soil erosion.	2	1	1	1	1	8 Very Low

Nature of Impact	Direct	Indirect	Cumulative	Pos/Neg	Proposed Mitigation	Probability Rating	Intensity	Duration	Extent	Magnitude	Significance Rating
.Geology **The area is susceptible to sheet flow during stormy conditions.** **Moderate excavatability constraints are expected on the site.** **Soils revealed dense consistency with coarse grain structure indicative of a collapsible potential and compressible** **The soils underlying the area are prone to dispersion**	X	X X		_ _	Each platform to be shaped in a way that will ensure that storm water will be directed away from the top structure The site poses no risk of sink holes or subsidence to the proposed development. An engineering geologist inspects all founding trenches prior to construction in order to identifying and evaluate any soil characteristics in variance with that found during the investigations. No prominent surface drainage features are developed within the property boundaries Site soils have a **low heave potential** Ground water seepage was not encountered in any of the test pits profiled and no signs of temporary perched water tables were noted in the soil profile. Material required for the construction of the hall will be sourced from commercial sources. Regular concrete samples and test cubes should be taken and tested at an approved and accredited laboratory to ensure that the required strengths are obtained.	1 4 5	1 1 1	1 4 1	1 1 1	1 1 1	1 (Extremely low negative) 28 Low positive 20 (Low positive) Low Positive Positive Positive

					Imported material for platforms and ground work must be at least of Class G4 and higher to ensure compaction and the correct densities up to 93% MoD AASHTO are obtained. Appropriate engineering tests must be done to determine the correct compaction and densities of all platforms roads and parkings. It is further recommended that all inner walls be constructed with butt joints with the outer walls, tied together with concertina ties to form articulation joints that will allow some differential movement without causing serious damage to the masonry brickwork.						Low negative Neutral Low negative
Creation of job opportunities as a result of construction activities.	X	X	X	+	No mitigation required · Employment of local labourers to be encouraged	5	0	2	2	3	35 Medium **Positive impact**
Safety and security A construction site poses safety risks and can also attract unemployed people seeking work, thus resulting in large numbers of people gathering around the site.	X	X	X	-	· The construction site to be fenced off to prohibit unauthorised entry. · Health and Safety Officer to be appointed to continuously monitor the safety conditions during construction. · All construction staff must have the appropriate PPE. · Signs should be erected to warn of construction activities.	2	1	1	2	2	12 Low

					· Emergency services must be available on site and communicated to all.						
Biodiversity Plants and animals will be destroyed by construction activities at the site. However, recent activities have already modified the natural vegetation and the habitat in general. Wood harvesting and vagrancy was the historic activities, but is now replaced with neglect, overgrowth of alien invaders and the dumping of household and building refuse on site.	X	X		-	· All temporary stockpile areas including litter and rubble must be removed when construction is completed. Although not expected, any small mammals, amphibians, birds nesta and chicks must be reported and carefully removed under the supervision of a specialised animal husband. · Invasive and alien plants should be removed and ensure that none is introduced during the construction	2	1	1	2	1	10 Very Low negative 10 Low **Positive** impact The development brings along the "cleaning up" of the site, including removal of rubbish and litter, eradication of invasive plants, improving aesthetically by landscaping the area and reducing erosion risks via proper stormwater management.
Ground and surface water contamination	X		X	-	· Vehicles and machines on site must be maintained properly to ensure that oil leaks are kept at a minimum. · No uncontrolled discharges from the construction camp should be allowed. · All vehicles shall be properly maintained and	3	2	1	2	1	12 Low

					serviced so that no oil leaks occur on site.							
Construction Waste The generation of waste could have negative impacts on the environment if not controlled properly. Types of waste will include domestic waste, spent grinding material, mixed concrete, paint cans and brushes, construction rubble and other construction waste	X			-	· General waste should be placed in a water tight container and disposed of on a regular basis. · Where possible construction waste should be recycled or reused. · Waste should be temporarily stored on site before being disposed of appropriately. · Records of all waste taken off site and disposed of must be kept as evidence. · Building rubble must be re-used, where possible, where this is not possible, the rubble will be disposed of at an appropriate site. · Burning of waste material will not be permitted.	3	1	1	1	1	12 Low Waste can be successfully disposed of off-site
Topography and slopes Change in topography due to stockpiling of soil, building material, debris and waste material on site. Stability of slopes created through excavations	X			-	· placing of stockpiles and other services on areas likely to pose obtrusive visual impact must be avoided.	2	1	1	1	1	8 Very Low The slope is flat, and the topography suited for the development

Site Access Site access to utilise existing access roads	X			-	• Access to the site to be through existing roads from both Lawton road and Smuts road. • Lawton Road up to the entrance of the facility must be paved (tarred)	2	1	1	1	1	8 Very Low Good Access exists

Impacts during Operation

Nature of Impact	Direct	Indirect	Cumulative	Pos/Neg	Proposed Mitigation	Probability Rating	Intensity	Duration	Extent	Magnitude	Significance Rating
OPERATIONAL PHASE											
Potential pollution due to non-timely waste disposal	X		X	-	Ensure contractual agreements with waste removal companies, and have emergency plan in place in instances of problems with primary service providers	3	2	1	2	2	21 Low
Waste management Medical waste, hazardous and general wastes generated during operational activities could cause pollution on site.	X			-	To lower the potential for pollution domestic waste must be placed in a water tight container and disposed of on a regular basis. Medical and hazardous waste must be disposed of properly by a registered company and be taken to a designated waste site for the type of waste. All documentation and registration on SAWIS must be in order and completed prior to operations commencing. The Health Care Waste Contractor licence copies for all facets of their involvement must be in place and copies kept at the SHEQ offices of the hospital. Hospital personnel must be trained according to the Health Care Risk Waste Protocol of the institution.	2	1	1	1	1	8 Very Low

Traffic Impacts	X	X	X	-	Peak hour traffic will not be affected by shift changes as these occur before and after peak hours.	2	1	1	1	1	8 Very Low
Traffic could pose danger for schoolchildren	X			X	Keeping entrances at Lawton Road will minimise impact on school and children.	2	5	2	1	5	26 Low
Although the development will generate additional pedestrian traffic it is expected they will use public transport. Employees of the proposed development may also utilize public transport, predominately taxis**.**	X		X	-	• Pedestrian traffic along Lawton Road should remain low as lay-bys are installed in the accesses stand of the development. • Sidewalks with lights are to be installed by the developer with dedicated pedestrian lane for the entire width of the development along Lawton Rd up to the R101 intersection. • Signalised traffic lights with pedestrian crossing facilities will be installed by the developer. • 40km/h speed limit in the vicinity of the access • 10km/h speed limit inside the facility grounds. • It is recommended that the traffic calming measures on Lawton Rd be installed and appropriate signage be erected at the approaches to the accesses. • It is recommended that public transport needs be accommodated inside the development with lay-buys at the entrance erf.	2	1	5	2	2	20 Low

Risks of fires and explosions	X			-	• Fire extinguishers must be easily accessible. • Employees should be trained on fire safety and there should be Fire Marshals. • Local emergency fire brigade number should be known to everybody • The prescribed fire safety precautions in terms of the Occupational Health and Safety Act must be adhered to.	3	4	1	2	3	30 Low
Air quality	X			-	None	2	1	1	1	1	8 Very Low
Safety	X			-	Environmental Health and Safety Regulations to be implemented	3	3	1	2	2	24 Low
Noise	X			-	None recommended	3	1	1	2	1	12 Low

Decommissioning Phase						**Significance following mitigation**					
Nature of Impact	**Direct**	**Indirect**	**Cumulative**	**Pos/Neg**	**Proposed Mitigation**	**Probability Rating**	**Intensity**	**Duration**	**Extent**	**Magnitude**	**Significance Rating**
To be determined, and new impact assessment process to be followed	**-**	**-**	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**Unknown at this stage-**

a) Evaluation of the Direct, Indirect and Cumulative Impacts

Planning Phase

Alternative (preferred alternative)

Direct impacts:

- Recognition of concerns raised by IAPs.
- Specialist Studies have been conducted to inform the developers and project team as to the specific conditions of the site.

Indirect impacts: High Positive

- The proposed property was previously approved by the Municipality as a residential township and an Environmental Authorisation granted. Both authorisations lapsed due to economic constraints by the banks. Re-applying and re-assessing the property for the current proposed hospital development ensures that a sustainable and widely usable facility is being constructed and not just housing for those with economic means.
- The hospital demographic is to be entry level and medium level medical aid patients whom are mostly earning below R20 000.00 per month. The target market thus covers a larger portion of the Limpopo population as indicated in the Market Study undertaken.
- Skilled jobs will be created during the Planning and Design Phase such as engineers, architects etc.
- The construction phase will provide approximately 125 employment opportunities for the residents / community within the immediate Polokwane Municipal area.
- Local businesses and unemployed people in the immediate area must be considered first, before employing labour and services from further afield.
- Local and potentially provincially - Short-term during Construction. Medium/Long-term during Operation.
- The proposed development will provide an essential public service in the form of specialized, dedicated health care for emotional and psychological wellness, cardio-vascular and renal operations and care, children and neo-natal care as well as emergency services.
- The project will result in job creation and skills training during the construction and operational phases.
- It will provide additional associated business opportunities such as recycling, hospitality, transport and maintenance which will create additional revenue for the local and provincial population as well as for the city.

Cumulative impacts:

- The operational phase will provide approximately 185 permanent and 25 non-permanent jobs from the hospital development. This does not include the additional jobs that will be created by any other secondary business which feeds into or from the hospital.. The development will attract visitors from outside of Pietermaritzburg which will create additional revenue for the city.
- The proposed development complies with the Planning Initiatives of job creation, skills development and economic growth.

Mitigation measures to manage the potential impacts listed above

- Due measures must be taken to mitigate concerns raised by the IAPs. None of the concerns raised where of any direct consequence to the Basic Assessment Process nor where the points raised of any impact on the continuity of the proposed project.
- All necessary Specialist Studies have been identified and carried out to inform the project team and developers as well as the Stakeholders as to any specific conditions on the site that need to be mitigated. Most of the Specialist inputs are to do with direct design and infrastructure required which will be controlled through the Development Controls applied for in the Town Planning Process as well as by the building inspectors of the Polokwane Municipality.
- All requirements and bulk infrastructure projects to be undertaken by the developer have been clarified with the Polokwane Municipality prior to the rezoning application.
- During Design Phase for buildings, the findings of the Geotechnical Assessment as indicated in Section 2 (above) must be strictly adhered to.

Construction Phase

Alternative (preferred alternative)

Direct impacts: High Negative

- The area is part of a known cultural landscape
- There are no buildings of heritage significance located on the proposed development site.
- Previous studies of the heritage resources have been identified on the proposed development site.
- The potential heritage knowledge of past civilisation or cultural grouping could potentially be lost if the Phase 2 Heritage Assessment is not undertaken.

Medium Negative

- There is potential for the site and surrounding areas to become polluted if construction activities are not properly managed (e.g. oil spills from machinery, litter from personnel on site, sewage from ablutions and packaging from materials).
- Dust and noise will be created during the Construction Phase.
- Visual disturbance to surrounding residents.
- Slow-moving construction vehicles on the surrounding roads may cause congestion and / or accidents.
- The location of the material storage area could cause damage to sensitive areas.
- Spillages of hazardous waste could cause contamination of soil, groundwater and subsequently surface water.

Indirect impacts: Medium Positive

- Skilled and semi-skilled jobs will be created
- Revenue for local businesses supplying the contractors (i.e. construction materials).
- An Increased use of the surrounding businesses.
- If the workers are not trained in environmental issues, there is potential for damage to surrounding areas

Cumulative impacts: Very Low Negative

- Downstream pollution due to spillages and erosion on construction site

Mitigation measures to manage the potential impacts listed above

- A full Phase 2 Heritage Assessment must be undertaken by the developer and an application for permission to continue with the development on completion must be obtained from SAHRA.
- A Destruction Permit must be obtained after the Heritage Specialist has concluded the Phase 2 Assessment.
- A competent and suitably qualified Heritage Assessor must be appointed to be present during the excavation phase of the construction activities in the case of human remains or articles of cultural/historical importance being uncovered.
- The EMPr in Appendix F must be implemented and monitored by an Environmental Control Officer (ECO).
- Site personnel must undergo Environmental Training and be educated on identifying any heritage and cultural artefacts. Operations in the immediate vicinity must be immediately halted and an appropriately qualified Heritage expert contacted.
- Personnel must be trained on the separation and correct disposal of different types of waste.
- During demolition of any existing structures on site, all waste material should be stacked separately and responsibly disposed on or sold / donated to needy communities. Recycling or repurposing must be undertaken with all old building material where possible.

- All construction machinery and equipment must be regularly serviced and maintained to keep noise, dust and possible leaks to a minimum.
- Construction hours should be limited to normal working hours.
- An appropriate number of toilets (1 toilet for every 20 workers) must be provided for labourers during the
- All waste generated on site during operation must be adequately managed. Separation and recycling of different waste materials must be implemented.
- Any leftover material must be appropriately disposed of (i.e. at a permitted landfill site, recycled, used by the community).
- Appropriate stormwater / surface water management measures must be put in place before construction commences and maintained throughout the lifetime of the development.
- Local residents (e.g. from Ivy Dale) should be employed where possible and construction workers should be employed / appointed from an off-site location, to prevent criminals posing as job seekers on the site.
- Appropriate temporary traffic control and warning signage must be erected and implemented on all affected roads in the vicinity.
- Hazardous substances e.g. fuel for machinery must be appropriately stored in bunded areas and/or access controlled areas on impermeable surfaces. Emergency contact numbers should be kept on site in case of spillages.
- The site should be fenced and screened to prevent uncontrolled access onto the site, or onto neighbouring properties

Operational Phase

Alternative (preferred alternative)

Direct impacts: Low Negative

- The operation of the hospital Hub at this location will be easily accessible to prospective patients.
- Additional vehicles travelling to and from the site may cause congestion on the surrounding roads.
- If the sewage system is not properly maintained, leaks may occur and contaminate ground water
- If not correctly managed and disposed of, medical waste could pose a threat to the environment.
- Increased activity in the area could slightly increase existing noise levels in Ivydale although not past ambient levels.
- Loss of agricultural land (open space).

Indirect impacts: Medium Positive

- Local businesses in Polokwane and specifically the Ivydale area would benefit from the increased activity in the area when patients and their families from the region visit the facility
- Jobs will be made available for receptionists, cleaners, security personnel, caterers etc.

Cumulative impacts: Medium Positive

- Residents of Polokwane and further afield, Limpopo Province, will have access to a well-equipped health care facility.
- Improved economy for Polokwane due to people travelling from outside of Polokwane to receive specialist health care.

Mitigation measures to manage the potential impacts listed above

- Appropriate traffic signage must be installed to alert road users to the vehicles turning into the hospital hub.
- The road network alterations and improvements as recommended in the Traffic Assessment as well as approved by the Municipality must be undertaken at the developers' expense.
- Stormwater attenuation and erosion control measures must be implemented and maintained throughout the lifetime of the facility.
- In the event of a spill of pollutants, the source of the spill must be stopped, the spill must be contained and all significant spills must be reported
- The responsibilities and conditions stated in the EMPr must be strictly adhered to as well as the recommendation of the Environmental Practitioner.
- All waste generated on site during operation must be adequately managed. Separation and recycling of different waste materials must be implemented.
- Medical waste (Medical Health Care Waste) needs to be regularly collected from site and disposed of correctly at a registered waste facility by an accredited hazardous waste handler.
- The current Ivydale Agricultural Holdings have not been utilised for a number of years for any Agricultural purposes.

NO GO Alternative

Direct impacts:

- There will be no change to the existing conditions on site. **This would be negative**, since the conditions at present are not ideal. The site has been defaced by littering and alien vegetation.

Indirect impacts:

- No jobs will be created, emergency services will be further from this area of Polokwane

Cumulative impacts:

- Lost economic opportunity, squatting, land degradation.

3. ENVIRONMENTAL IMPACT STATEMENT

Alternative A (preferred alternative)

The site is considered to be appropriate for the proposed development of a hospital hub, as it is previously transformed, flat, easily accessible by vehicles and pedestrians, and is not likely to cause any adverse impacts provided the EMPr is implemented and regularly monitored.

The proposed development is beneficial to Polokwane and the immediate region as well as provincially due to the unique and specialised medical care that will be provided.

The site was previously approved for a residential township and a previous Environmental Authorisation has lapsed, thus supporting the current proposed hospital development.

Negotiations with the Polokwane Municipality have indicated from a Town Planning perspective that no objections exist as the proposed hospital will be fulfilling a regional function.

The study site is dominated by illegal and fallow land use and no formal activities takes place on the site, except 2 small residences. There is some indication that material was collected on site for a brick making operation (small scale). The site is used as an illegal dumping site for building refuse and there is evidence that the last remaining trees are harvested for building or cooking material.

The modified and **sparse natural vegetation** on site is dominated by *Aloe marlothii, A. greatheadii, Vachellia tortilis, Senegalia caffra* and *Dichrostachys cinerea*. The numerous **alien invasives** include *Jacaranda mimosifolia, Schinus molle, Melia azedarach* and *Opuntia ficus-indica*. The **grass layer** in dominated by *Digitaria eriantha subsp. eriantha, Eragrostis curvula, Themeda triandra* and *Cynodon dactylon* dominating in the overgrazed/cultivated areas. The development brings along the "cleaning up" of the site, including removal of rubbish and litter, eradication of invasive plants, improving aesthetically by landscaping the area and reducing erosion risks via proper stormwater management.

Although the Phase One Heritage Assessment indicates that a Phase Two assessment must be undertaken, the continuity of the site with Holding 91, where a Phase Two assessment has already been undertaken, suggests that any remnants of a cultural and historical significance have already been assessed.

The Phase Two Assessment must be undertaken before the commencement of any construction activities.

A Destruction Permit must be obtained from SAHRA after the full Phase Two assessment has been undertaken and presented for assessment to SAHRA.

A Traffic Impact Assessment has been conducted which provides an assessment of current traffic conditions and the mitigation of forecast increases in traffic volumes. It shows that with its own access, the proposed hospital hub will have little impact on the operation of surrounding access routes and traffic volumes during peak hours.

A Services Report has been compiled and provides recommendations for the design and requirements for electricity, water and sewer connections. The content and requirements assessed within the Service Report has been consulted with the Polokwane Local Municipality Engineering Department.

A Geotechnical Assessment has determined that the site will be suitable for the proposed development provided the founding and compacting recommendations are implemented.
A competent Engineering Geologist must inspect all foundings to confirm the compactable characteristics of the soils and determine the class of import material.

The development will not impact on any surface water resources, and is located far from 1:50 or 1:100 year flood events

Economic activity and job opportunities in the Ivydale, Polokwane and Limpopo area are likely to increase as a result of such a facility being established at this location.

An EMPr has been compiled and must be used to monitor the construction of the hospital hub to ensure that the mitigation of potential impacts is effected, e.g. construction noise, visual disturbance, pollution of soil and ground/surface water from spillages and environmental training of the workforce.

Emergency diesel generator will have an installed tank of 2000 litres. The capacity of 2000 litres does not trigger any environmental activities in the 2014 regulations.

No-go alternative (compulsory)

Economic activity and employment opportunities in the Ivy Dale area will not increase.
There will be no change to existing traffic volumes in this particular area.
The city and regions residents will not benefit from a specialised medical institution.
The area (used as illegal dumping site) will not improve aesthetically as would have been the case when development would have taken place, along with the clearance of the site and beautification by landscaping.

Alternative B

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

SECTION E. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?	**YES** **X**	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 department in respect of the application:

- A Phase Two Heritage Assessment must be submitted to SAHRA for consideration prior to commencement of construction activities as confirmed by the letter from the Heritage Practitioner.
- A destruction Permit must be obtained from SAHRA prior to any construction activities commencing.
- An independent Heritage and Archaeologist Specialist must be appointed during the excavation process.
- All activity in the immediate vicinity must cease in the case of the identification of human remains or artefacts.
- No construction activities can commence without the destruction permit and Phase 2 Assessment being completed.
- A copy of the Phase 2 assessment must be lodged with LEDET as part of the Environmental Authorisation conditions.
- The Environmental Authorisations validity is dependent on the completion of the Phase 2 Heritage Assessment and the Destruction Permit being issued by SAHRA. Failure to obtain the destruction permit will result in the Authorisation being invalid.
- Competent Geological Engineers must be consulted during the construction of the foundings and building platforms. All imported material must have the correctly certified G rating as per soil laboratory tests required to determine compaction characteristics.
- Copies of the Health Care Risk Waste Contractor certificates of competency, registration, disposal facility, transport and transfer stations must be kept at the hospital SHEQ offices.
- An application for Water and Electricity Services from the Polokwane Municipality must be done on granting of the Environmental Authorisation and the Rezoning approval has been issued.
- All staff must be trained in the Health Care Risk Waste Protocols of the hospital operator.
- All HCRW removed must be reconciled with destruction and incineration receipts and affirmations from the HCWR contractor. These receipts must be audited on a 6monthly basis by an independent Environmental Auditor.
- All aspects of the EMPr must be implemented on site for all phases of the development.
- The Applicant must appoint an Independent Environmental Control Officer (ECO) to undertake regular monitoring of the construction activities.
- The ECO must compile environmental compliance reports for submission to the LEDET
- Site personnel must undergo Environmental Training and be educated on the sensitivities of the site, the existence of the EMPr and the role of the ECO.
- The recommendations of all Specialist Studies contained in Appendix D of this report must be implemented in the Design, Construction and Operational Phases as per the EMPr. i.e. the Geotechnical Report, Traffic Report and Services Reports.
- When landscaping the area, use of water wise vegetation and indigenous plants/trees must be incorporated.

Is an EMPr attached?	**YES X**	NO

The EMPr must be attached as Appendix F.

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

Appendix E: Comments and responses report

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Other information

SECTION G: DECLARATION BY THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

I, **Marinda le Roux** declare that I –

(a) act as the independent environmental practitioner in this application;

(b) do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014;

(c) do not have and will not have a vested interest in the proposed activity proceeding;

(d) have no, and will not engage in, conflicting interests in the undertaking of the activity;

(e) undertake to disclose, to the competent authority, any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the Environmental Impact Assessment Regulations, 2006;

(f) will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;

(g) will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the Department in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the Department may be attached to the report without further amendment to the report;

(h) will keep a register of all interested and affected parties that participated in a public participation process; and

(i) will provide the Department with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not.

Signature of the Environmental Assessment Practitioner:

Frox Earth Impact Consultants
Name of company:

29 June 2018
Date: