

BASIC ASSESSMENT PROCESS FOR THE PROPOSED DEVELOPMENT OF A RELIGIOUS FACILITY (TEMPLE) IN LAUDIUM, CITY OF TSHWANE, GAUTENG PROVINCE.

DRAFT BASIC ASSESSMENT REPORT

February 2019

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Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2014 (Version 1)

Kindly note that:

- 1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2014.
- 2. This application form is current as of 8 December 2014. It is the responsibility of the EAP to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
- 3. A draft Basic Assessment Report must be submitted, for purposes of comments within a period of thirty (30) days, to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken.
- 4. A draft Basic Assessment Report (1 hard copy and two CD's) must be submitted, for purposes of comments within a period of thirty (30) days, to a Competent Authority empowered in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended to consider and decide on the application.
- 5. Five (5) copies (3 hard copies and 2 CDs-PDF) of the final report and attachments must be handed in at offices of the relevant competent authority, as detailed below.
- 6. 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.
- 7. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
- 8. An incomplete report may lead to an application for environmental authorisation being refused.
- 9. Any report that does not contain a titled and dated full colour large scale layout plan of the proposed activities including a coherent legend, overlain with the sensitivities found on site may lead to an application for environmental authorisation being refused.
- 10. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the application for environmental authorisation being refused.
- 11. No faxed or e-mailed reports will be accepted. Only hand delivered or posted applications will be accepted.
- 12. Unless protected by law, and clearly indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.
- 13. Although pre-application meeting with the Competent Authority is optional, applicants are advised to have these meetings prior to submission of application to seek guidance from the Competent Authority.

DEPARTMENTAL DETAILS

Gauteng Department of Agriculture and Rural Development Attention: Administrative Unit of the of the Environmental Affairs Branch P.O. Box 8769 Johannesburg 2000

Administrative Unit of the of the Environmental Affairs Branch Ground floor Diamond Building

11 Diagonal Street, Johannesburg

Administrative Unit telephone number: (011) 240 3377 Department central telephone number: (011) 240 2500

	(For official use only	')		
NEAS Reference Number:				
File Reference Number:				
Application Number:				
Date Received:				

If this BAR has not been submitted within 90 days of receipt of the application by the competent authority and permission was not requested to submit within 140 days, please indicate the reasons for not submitting within time frame.

N/A –	This is a D	، raft Basic	Assessment	Report
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Is a closure plan applicable for this application and has it been included in this report?

No

if not, state reasons for not including the closure plan.

Decommissioning and closure phase has not been considered as part of this application as the end use of the site and required decommissioning activities are not known at this time. In addition, the current environmental baseline conditions may change overtime; it is therefore not possible to predict the potential environmental impacts. In addition, it is unlikely that decommissioning will be contemplated due to the nature of the development. However, closure and decommissioning would require a separate EIA process. If decommissioning is considered in future, the developer/ license holder will undertake the required actions by applying for decommissioning.

Has a draft report for this application been submitted to a competent authority and all State Departments administering a law relating to a matter likely to be affected as a result of this activity?

Is a list of the State Departments referred to above attached to this report including their full contact details and contact person?

Yes

If no, state reasons for not attaching the list.

Have State Departments including the competent authority commented?

N/A

If no, why?

This Report is still in a draft stage and is being released to the public and state departments for review and comments.

PROJECT DETAILS

Title	:	BASIC ASSESSMENT PROCESS FOR THE PROPOSED DEVELOPMENT OF A RELIGIOUS FACILITY (TEMPLE) IN LAUDIUM, CITY OF TSHWANE, GAUTENG PROVINCE	
Report compiled by	:	Envirolution Consulting (Pty) Ltd	
Client	:	Shri Muthu Mari Angalaeshwari TempleNPC	
Report Status	:	Draft Basic Assessment Report for Public Review	
Review Period	:	08 February 2019 – 11 March 2019	

DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

Environmental					
Assessment Practitioner	Karthigesan Govender				
(EAP):					
Contact person:	Thabang Sekele				
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Telephone:	(0861) 444499	Cell:	083 382 6091		
E-mail:	thabang@envirolution.co.za Fax: (086) 162 62 22				
EAP Qualifications	BSc (Hons)				
EAP Registrations/	Registered with the South African Council for Natural Scientific				
Associations	Professions (No: 400049/12)				

Details of the EAP's expertise to carry out Basic Assessment procedures

Envirolution Consulting Pty Ltd was contracted by Ruben Reddy Architects on behalf of Shri Muthu Mari Angalaeshwari Temple^{NPC} as the independent environmental consultant to undertake the Environmental Basic Assessment process for the proposed project. Envirolution Consulting Pty Ltd is not a subsidiary of, or affiliated to Shri Muthu Mari Angalaeshwari Temple^{NPC}. Furthermore, Envirolution Consulting does not have any interests in secondary developments that may arise out of the authorisation of the proposed project.

The EAPs from Envirolution Consulting who are responsible for this project are (refer to **Appendix I** for CVs):

- Karthigesan Govender The principle Environmental Assessment Practitioner (EAP) for this
 project is a registered Professional Natural Scientist and holds an Honours Degree in Botany. He
 has over 15 years of experience within the field of environmental management. His key focus is on
 strategic environmental assessment and advice; management and co-ordination of environmental
 projects, which includes integration of environmental studies and environmental processes into
 larger engineering-based projects and ensuring compliance to legislation and guidelines;
 compliance reporting; the identification of environmental management solutions and mitigation/risk
 minimising measures; and strategy and guideline development. He is currently responsible for the
 project management of EIAs for several diverse projects across the country.
- Thabang Sekele The principle author of this Basic Assessment Report holds a BA. Environmental Management degree from the University of South Africa. He has four years of experience in consulting within the environmental field. His key focus is on strategic environmental assessment and advice; management and co-ordination of environmental projects which includes integration of environmental studies and environmental processes into larger engineering-based projects and ensuring compliance to legislation and guidelines; environmental auditing and compliance reporting; the identification of environmental management solution and mitigation/ risk minimising

measures; environmental auditing, monitoring and reporting compliance. Thabang is currently a Project Manager and Environmental Consultant at Envirolution Consulting Pty Ltd.

ABBREVIATIONS

BAR	Basic Assessment Report
EAP	Environmental Assessment Practitioner
EMPr	Environmental Management Programme
EIA	Environmental Impact Assessment
EMM	Ekurhuleni Metropolitan Municipality
GDARD	Gauteng Department of Agriculture and Rural Development
GN	Government Notice
HIA	Heritage Impact Assessment
I&AP's	Interested and Affected Parties
IDP	Integrated Development Plan
NEMA	National Environmental Management Act (No. 107 of 1998) (as amended)
NHRA	National Heritage Resources Act (No. 25 of 1999)
NWA	National Water Act (No 36 of 1998)
SAHRA	South African Heritage Resources Agency
SDF	Spatial Development Framework
SMP	Stormwater Management Plan
WULA	Water Use License Application

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- Appendix G: Environmental Management Programme (EMPr)
- Appendix H: Project Team Expertise and Declarations
- Appendix I: Additional Information

SECTION A: ACTIVITY INFORMATION

1. PROPOSAL OR DEVELOPMENT DESCRIPTION

1.1 Project Title:

BASIC ASSESSMENT PROCESS FOR THE PROPOSED DEVELOPMENT OF A RELIGIOUS FACILITY (TEMPLE) IN LAUDIUM, CITY OF TSHWANE, GAUTENG PROVINCE.

1.2 Introduction and Background

The Shri Muthu Mari Angalaeshwari Temple organisation proposes the development of a temple on portion 1 of ERF 2813 in Laudium, City of Tshwane, Gauteng Province.

The current facility that is being utilised as the place of worship has outgrown the space required and thus there is a need to build a temple that will cater for the needs of the devotees and community. The current facility that is being utilised as the place of worship has outgrown the space required and thus there is a need to build a temple that will cater for the needs of the devotees and community. Also, to cater for youth and overall community upliftment. The youth and other Hindu based community members would have a place to go to and a sense of belonging; and have an avenue of exercising their right to religious practice.

The proposed facilities on site will include:

- Main Temple 325 m²
- Prayer Area 36 m²
- Dining Hall 216 m²
- Administration Building (i.e. Staff accommodation, ablutions, office/meeting room, kitchenette and storeroom) – 206 m²
- Guardhouse 15 m²
- Statue/Dome x 5 80 m²
- Parking 120 m²

The proposed development will be a place of daily worship which will entail the following primary activities:

- Traditional dance, music and vernacular classes (± 50 people)
- Monthly Prayers (± 200 people)
- Quarterly General Council Meetings
- 2 x Larger Annual Prayers (± 1000 3000 people)

1.3 Locality

The site proposed for the temple is situated on the most northern corner of Erf 2813 and is bordered to the north-west by Laudium cemetery and to the east by Brown Street Park. Brown Street forms the

north-eastern boundary of the site with residential areas beyond that. The sports complex and extensions or fields lies south of the site. The approximate central coordinates are 25° 47' 13.46" S 28° 5' 38.04" E (Figure 1: Locality Map). The site is 1 hectare in size and other than a small roofed structure and a shipping container, the site is vacant. The site is fenced along the northern boundary with locked gates and is currently used for religious purposes.

1.4 Triggered Listed Activities:

In terms of Sections 24(2) and 24D of the National Environmental Management Act (Act No. 107 of 1998), as amended, and as read with the Environmental Impact Assessment (EIA) Regulations of Government Notices R 982 to 985 (as amended), the development will trigger a Basic Assessment process as per the following activities:

Indicate the	Activity No (s)	Describe each listed activity as per the wording in the
number of the	(relevant notice):	listing notices:
relevant	e.g. Listing	
Government	notices 1, 2 or 3	
Notice:		
GN R985	Listing Notice 3 -	The clearance of an area of 300 square metres or more
	Activity 12	of indigenous vegetation except where such clearance of
		indigenous vegetation is required for maintenance
		purposes undertaken in accordance with a maintenance
		management plan.
		c. Gauteng
		ii. Within Critical Biodiversity Areas or Ecological
		Support Areas identified in the Gauteng Conservation
		Plan or bioregional plans

Table 1: Listed Activities

The nature and characteristic of the proposed project may not commence without an environmental authorisation from the competent authority, Gauteng Department of Agriculture and Rural Development (GDARD). It is for this reason that a Basic Assessment Process is being conducted and to ensure that:

- The potential environmental impacts associated with the proposed project are taken into consideration;
- Public Participation Process is conducted i.e. to afford any Interested and or Affected Parties (I&APs) sufficient opportunity to provide comments; and
- Sufficient information is provided to the competent authority for an informed record of decision.

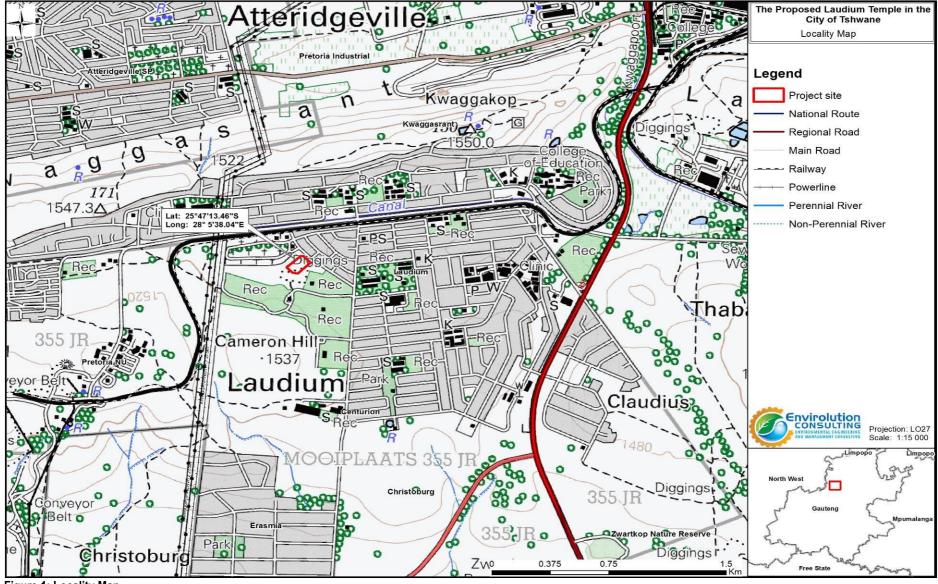


Figure 1: Locality Map

Select the appropriate box

The application is for an upgrade of an existing development



The application is for a new development

Other, specify

, y

Does the activity also require any authorisation other than NEMA EIA authorisation?



If yes, describe the legislation and the Competent Authority administering such legislation

If yes, have you applied for the authorisation(s)? If yes, have you received approval(s)? (attach in appropriate appendix)

2. 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:

Title of legislation, policy or guideline	Applicable Requirements	Administering Authority	Description of compliance
(Promulgation Date)			
National Environmental Management Act (Act No. 107 of 1998)	 NEMA requires, inter alia, that: Development must be socially, environmentally, and economically sustainable. Disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied. A risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions. EIA Regulations have been promulgated in terms of Chapter 5. Activities which may not commence without an environmental authorisation are identified within these Regulations. In terms of S24(1) of NEMA, the potential impact on the environment associated with these listed activities must be considered, investigated, assessed and reported on to the relevant environmental authorisation. 	 National Department of Environmental Affairs Gauteng Department of Agriculture and Rural Development 	The Basic Assessment is undertaken in accordance with the requirements of Government Notice R982 of December 2014, as required in terms of the National Environmental Management: Waste Act, 2008 (No. 59 of 2008)
National Environmental	A project proponent is required to consider a project holistically	 National Department of 	While no permitting or licensing
Management Act (Act No.	and to consider the cumulative effect of potential impacts.	Environmental Affairs	requirements arise directly, the holistic
107 of 1998)	In terms of the Duty of Care provision in S28(1) the project	•	consideration of the potential impacts of the
	proponent must ensure that reasonable measures are taken	Agriculture and Rural	proposed project has found application in
	throughout the life cycle of this project to ensure that any pollution	Development	the EIA Phase.

Title of legislation, policy	Applicable Requirements	<u> </u>	dministering Authority	Description of compliance
or guideline				
(Promulgation Date)	· · · · · · · · · · · · · · · · · · ·			
	or degradation of the environment associated with a project is			The implementation of mitigation measures
	avoided, stopped or minimised.			is included as part of the Project EMPr and
				will continue to apply throughout the life
				cycle of the project.
National Environmental	This Act provides management and conservation of South Africa's	•	Department of	While no permitting or licensing
Management: Biodiversity	biodiversity within the framework of the National Environmental		Environmental Affairs	requirements arise from this legislation, this
Act 2004 (Act 10 of 2004)	Management Act107 of 1998; the protection of species and		(DEA)	Act will find application during the
	ecosystems that warrant national protection and the sustainable			construction phase of the project in proper
	use of indigenous biological resources.			management of the sensitive area
			-	(wetland) identified on site.
National Environmental	The NEMA: WA came into effect on the on 1stJuly 2009. Section	•	Department of	No waste license activities are applicable to
Management: Waste Act	20 of the Environment Conservation Act 73 of 1989, under which		Environmental Affairs	this project. The developer will however be
(Act No. 59 of 2008)	waste management was previously governed, was repealed. In		(DEA)	required to store and manage waste in
	general, the act seeks to ensure that people are aware of the		National Dapartment of	accordance with the requirements of this
	impact of waste on their health wellbeing and the environment,	-	National Department of Environmental Affairs –	Act and associated Standards.
	and in the process giving effect to Section 24 of the constitution,		lead authority for	
	in ensuring an environment that is not harmful to health and		regulating hazardous	
	wellbeing.		waste.	
			Wasie.	
			Provincial	
			Environmental	
			Department – for	
			regulating general waste	
National Environmental	S18, S19 and S20 of the Act allow certain areas to be declared	•	National Department of	While no permitting or licensing
Management: Air Quality	and managed as "priority areas".		Environmental Affairs	requirements arise from this legislation for

<u>Title of legislation, policy</u> <u>or guideline</u> (Promulgation Date)	Applicable Requirements	Administering Authority	Description of compliance
Act (Act No. 39 of 2004)	The Act provides that an air quality officer may require any person to submit an atmospheric impact report if there is reasonable suspicion that the person has failed to comply with the Act. Dust Control Regulation Control Regulations, R. No. 827 of 1 November 2013.	 City of Tshwane Metropolitan Municipality 	the site, this Act will find application during the construction phase of the project. The implementation of dust mitigation measures are included as part of the project EMPr and will continue to apply throughout the life cycle of the project. Dust control regulations promulgated in November 2013 may require the implementation of a dust management plan
National Heritage Resource Act, 1999 (Act No. 25 of 1999)	Section 38 states that Heritage Impact Assessments (HIAs) are required for certain kinds of development including the construction of a road, exceeding 300m in length; In accordance with the NHRA, an independent heritage consultant is to conduct a cultural heritage assessment to determine any impact on any sites, features or objects of cultural heritage significance. If none are identified, any archaeological sites or graves to be exposed during construction work must immediately be reported to a heritage practitioner so that an investigation and evaluation of the finds can be made.	 South African Heritage Resources Association (SAHRA) The Provincial Heritage Resources Authority Gauteng (PHRAG) 	Should any heritage sites be unearthed during excavations, a permit would be required to be obtained from SAHRA.
Promotion of Access to Information Act, 2000 (Act No 2 of 2000):	Legislation that allows the public access to information about activities that influence their well-being and to make contributions to decision making	 Department of Environmental Affairs 	No permitting is required. The act finds applicability during the public participation process phase of the Basic Assessment process.
Occupational Health and Safety Act No. 85 of 1993:	The Occupational Health and Safety Act provides for the health and safety of persons at work and for the health and safety of persons in connection with the use of plant and machinery; the	 Department of Labour 	While no permitting or licensing requirements arise from this legislation, this Act will find application during the

Title of legislation, policy or guideline	Applicable Requirements	Administering Authority	Description of compliance
(Promulgation Date)			
	protection of persons other than persons at work, against hazards		construction phase of the project. Health
	to health and safety arising out of or in connection with the		and safety precautions measures must be
	activities of persons at work.		put in place for the construction crew and
			the general public. E.g. Protection of
			workers on site through provision of
			Personal Protective Equipment's; Training
			and other health and safety amenities.

3. ALTERNATIVES

Describe the proposal and alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished. The determination of whether the site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment.

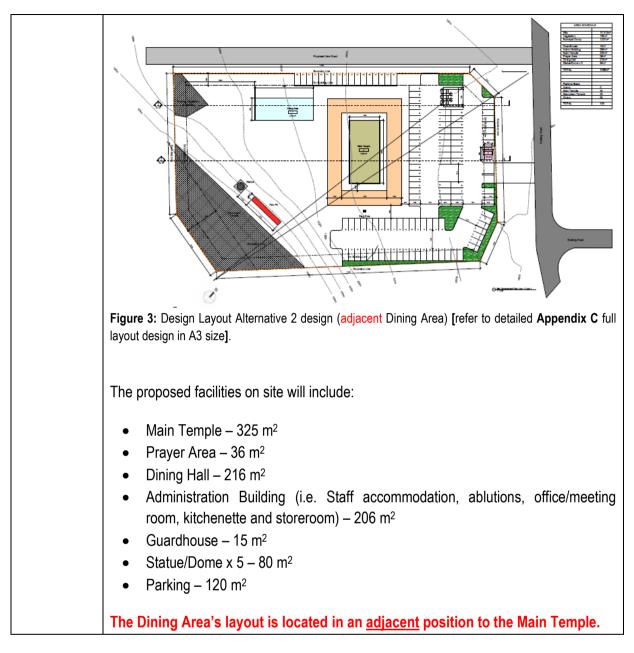
The no-go option must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. **Do not** include the no go option into the alternative table below.

Note: After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Provide a description of the alternatives considered

Alternative type, either alternative: site on property, properties, activity, design, technology, energy, operational or other(provide details of	Description
"other") Proposed Development	Proposed development of a temple on portion 1 of ERF 2813 in Laudium, City of Tshwane, Gauteng Province.
Proposed Design Layout Alternative 1 (preferred):	Layout Alternative 1 (parallel Dining Area) – preferred: Image: constraint of the second se

Proposed Design Layout Alternative 2:	Layout Alternative 2 (adjacent Dining Area):
	The current facility that is being utilised as the place of worship has outgrown the space required and thus there is a need to build a temple that will cater for the needs of the devotees and the community.
	 Surrounding human communities; Land use.
	The following observable environmental issues were taken into account:
	 The preferred design layout has catered for known topographical/terrain conditions of the foundation types to be used, and soil conditions for the foundations in terms of geotechnical suitability and costs.
	• A number of technically viable, cost effective, sustainable design layouts were identified of which a technically feasible, cost effective and environmental less intrusive design layout was selected as the preferred design layout (Design layout Option 1 – Preferred).
	The following selection process criteria were considered by the developer in the identification of the technically feasible design layout option/alternative for the establishment of the religious temple:
	Layout Alternative 1 (parallel Dining Area) is the preferred option as it is technically more feasible and cost effective considering the intended religious purposes of the proposed development as compared to Alternative 2. Additionally, this option is considered the better option due to known topographical/terrain conditions being considered.
	The Dining Area's layout is located in a <u>parallel</u> position to the Main Temple.
	 Guardhouse – 15 m² Statue/Dome x 5 – 80 m² Parking – 120 m²



In the event that no alternative(s) has/have been provided, a motivation must be included in the table below.

N/A

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the total physical size (footprint) of the proposal as well as alternatives. Footprints are to include all new infrastructu

infrastructure (roads, services etc.), impermeable surfaces and landscaped areas:	•
	Size of the activity
Layout Alternative 1 (parallel Dining Area) – preferred:	1428
Layout Alternative 2 (adjacent Dining Area):	1428

1428m² Ha/ m²

1428m²

or, for linear activities:

Proposed activity Alternative 1 Alternative 2 Alternative 3 Length of the activity:

m/km

Indicate the size of the site(s) or servitudes (within which the above footprints will occur):

Proposed activity Alternative 1 Alternative 2

5. SITE ACCESS

Does ready access to the site exist, or is access directly from an existing road?

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

Describe the type of access road planned:

No access road is planned. Maximum use of existing roads shall be made.

Include the position of the access road on the site plan. (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

PLEASE NOTE: Points 6 to 8 of Section A must be duplicated where relevant for alternatives

Section A 6-8 has been duplicated

Number of times

(only complete when applicable)

6. LAYOUT OR ROUTE PLAN

A detailed site or route (for linear activities) plan(s) must be prepared for each alternative site or alternative activity. It must be attached to this document. The site or route plans must indicate the following:

- > the layout plan is printed in colour and is overlaid with a sensitivity map (if applicable);
- > layout plan is of acceptable paper size and scale, e.g.
 - o A4 size for activities with development footprint of 10sqm to 5 hectares;
 - A3 size for activities with development footprint of > 5 hectares to 20 hectares;
 - A2 size for activities with development footprint of >20 hectares to 50 hectares);
 - A1 size for activities with development footprint of >50 hectares);

> The following should serve as a guide for scale issues on the layout plan:

- A0 = 1: 500
- A1 = 1: 1000
- A2 = 1: 2000
- A3 = 1: 4000
- A4 = 1: 8000 (±10 000)
- shape files` of the activity must be included in the electronic submission on the CD's;
- > the property boundaries and Surveyor General numbers of all the properties within 50m of the site;
- > the exact position of each element of the activity as well as any other structures on the site;
- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, sewage pipelines, septic tanks, storm water infrastructure;
- > servitudes indicating the purpose of the servitude;

1	4

m/km				
ur):				
Size of the site/servitude:				

YES	
	N/A

10 000m²

10 000m² Ha/m²

- sensitive environmental elements on and within 100m of the site or sites (including the relevant buffers as prescribed by the competent authority) including (but not limited thereto):
 - Rivers and wetlands;
 - o the 1:100 and 1:50 year flood line;
 - o **ridges**;
 - o cultural and historical features;
 - o areas with indigenous vegetation (even if it is degraded or infested with alien species);
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the position of the relevant buffer from the bank to be clearly indicated)

FOR LOCALITY MAP (NOTE THIS IS ALSO INCLUDED IN THE APPLICATION FORM REQUIREMENTS)

- the scale of locality map must be at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map;
- > the locality map and all other maps must be in colour;
- Iocality map must show property boundaries and numbers within 100m of the site, and for poultry and/or piggery, locality map must show properties within 500m and prevailing or predominant wind direction;
- for gentle slopes the 1m contour intervals must be indicated on the map and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the map;
- > areas with indigenous vegetation (even if it is degraded or infested with alien species);
- Iocality map must show exact position of development site or sites;
- > locality map showing and identifying (if possible) public and access roads; and

the current land use as well as the land use zoning of each of the properties adjoining the site or sites.
Please refer to Appendix A

7. SITE PHOTOGRAPHS

Colour photographs from the center of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under the appropriate Appendix. It should be supplemented with additional photographs of relevant features on the site, where applicable. **Please refer to Appendix B**

8. FACILITY ILLUSTRATION

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

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

Note: Complete Section B for the proposal and alternative(s) (if necessary)

Instructions for completion of Section B for linear activities

1) For linear activities (pipelines etc) it may be necessary to complete Section B for each section of the site that has a significantly different environment.

- 2) Indicate on a plan(s) the different environments identified
- 3) Complete Section B for each of the above areas identified
- 4) Attach to this form in a chronological order

5) Each copy of Section B must clearly indicate the corresponding sections of the route at the top of the next page.

Section B has been duplicated for sections of the 0 times

Instructions for completion of Section B for location/route alternatives

- 1) For each location/route alternative identified the entire Section B needs to be completed
- 2) Each alterative location/route needs to be clearly indicated at the top of the next page
- 3) Attach the above documents in a chronological order

Section	В	has	been	duplicated	for	location/route	tim	(complete	only
alternativ	/es						es	when appropria	te)

Instructions for completion of Section B when both location/route alternatives and linear activities are applicable for the application

Section B is to be completed and attachments order in the following way

All significantly different environments identified for Alternative 1 is to be completed and attached in a chronological order; then

All significantly different environments identified for Alternative 2 is to be completed and attached chronological order, etc.

Section B - Section of Route



(complete only when appropriate for above)

Section B – Location/route Alternative No.

(c ab

(complete only when appropriate for above)

1. PROPERTY DESCRIPTION

Property description:	Brown Street, Laudium
(Including Physical Address and Farm name, portion etc.)	Mooiplaats 355JR; Portion 1 of ERF 2813

2. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in decimal degrees. The degrees should have at least six decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

	Latitude (S):	Longitude (E):
Layout Alternative 1 (parallel Dining Area) -	25° 47' 13.46" S	28° 5' 38.04" E
preferred:		
Layout Alternative 2 (adjacent Dining Area):	25° 47' 13.46" S	28° 5' 38.04" E

In the case of linear activities:

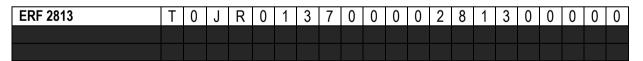
Alternative 1 (preferred):

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

For route alternatives that are longer than 500m, please provide co-ordinates taken every 250 meters along the route and attached in the appropriate Appendix. Please find attached in

Addendum of route alternatives attached

The 21 digit Surveyor General code of each cadastral land parcel



3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

4. LOCATION IN LANDSCAPE

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

Ridgeline	Plateau	Side slope of hill/ridge	Valley	Plain	Undulating plain/low hills	River front
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5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

a) Is the site located on any of the following?

Shallow water table (less than 1.5m deep) Dolomite, sinkhole or doline areas Seasonally wet soils (often close to water bodies) Unstable rocky slopes or steep slopes with loose soil Dispersive soils (soils that dissolve in water) Soils with high clay content (clay fraction more than 40%) Any other unstable soil or geological feature An area sensitive to erosion

	NO
YES	
	NO
	NO
	NO
YES	
	NO
	NO

NO

(Information in respect of the above will often be available at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

b) are any caves located on the site(s) NO If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s) Latitude (S): Longitude (E): c) are any caves located within a 300m radius of the site(s) NO If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s) Latitude (S): Longitude (E):

d) are any sinkholes located within a 300m radius of the site(s)

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S): Longitude (E):

If any of the answers to the above are "YES" or "unsure", specialist input may be requested by the Department

GEOLOGY AND SOIL

The study area is underlain by dolomite of the Malmani Subgroup of the Chuniespoort Group, as well as Shale (occasionally carbonaceuos shale) of the overlying Pretoria Group, Transvaal Supergroup. Weathered derivatives of these rock types overlie the bedrock across the entire site. In general, within the upper 3.00 m, the following soil horizons have been identified across the study area (Refer to Figure 4 within **Appendix I1**):

- Dry to slightly moist, dark red brown, very soft to soft, micro-shattered, gravelly sandy silty clay (with several chert boulders ranging from 2 cm to 30 cm wide) *FILL*.
- Slightly moist, dark red brown, very soft to soft, intact or micro-shattered, gravelly, sandy silty CLAY **COLLUVIUM**.
- Slightly moist, dark red brown to dark yellow brown, firm to stiff, sandy silty CLAY **RESIDUAL SHALE** (Residual soils are occasionally characterised by insitu boulders of parent rock).
- Light yellow brown to dark green brown/dark grey, stained/mottled orange, slightly to moderately weathered, fine grained, thinly to medium bedded, medium hard to hard rock – SHALE (CARBONACEOUS).

OR

• Light grey, residual soil/wad, medium to coarse grained, no bedding, highly to very highly fractured, hard rock – **DOLOMITE**.

GROUNDWATER CONDITIONS

The permanent water table was not encountered during the geotechnical field investigation; however data from the Council of Geoscience has been consulted in this regard. This data is a groundwater vulnerability map for South Africa (2011) and indicates that the anticipated groundwater levels within the study area can range from about 15 to 30 meters below existing ground level.

Please refer to **Appendix I1** – Detailed Geotechnical Investigation Report.

HYDROLOGY

According to the hydrology spatial layers of the Gauteng Conservation Plan v3 (2011), no waterbodies occur on or in proximity to the site.

6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 4)?



Please note: The Department may request specialist input/studies in respect of the above.

7. GROUNDCOVER

To be noted that the location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Indicate the types of groundcover present on the site and include the estimated percentage found on site

Natural veld - good condition % =	Natural veld with scattered aliens % = 0.5	Natural veld with heavy alien infestation % =	Veld dominated by alien species % =24	Landscaped (vegetation) % =75	
Sport field % =0.5	Cultivated land % =	Paved surface (hard landscaping) % =	Building or other structure % =	Bare soil % =	

Please note: The Department may request specialist input/studies depending on the nature of the groundcover and potential impact(s) of the proposed activity/ies.

LAND USE / COVER

According to the vegetation specialist, some natural vegetation remains, to the south-west of the site. The site includes some planted *Celtis africana* (white stinkwood), some naturally occurring *Vachellia karroo* (sweet thorn) and the invasive *Melia azedarach* (seringa). The grass layer was compacted and degraded.

A dirt road traverses the southern part of the site and provides access from Brown Street, through the park, towards the natural occurring vegetation to the south-west of the site. This also resulted in dumping, as well as access for persons harvesting soils from south-west of the site within an area found to comprise disturbed grassland (Figure 2). Directly south of this road is an embankment that supports an extension of a field. The sides of the embankment are dominated by exotic and invasive plant species.

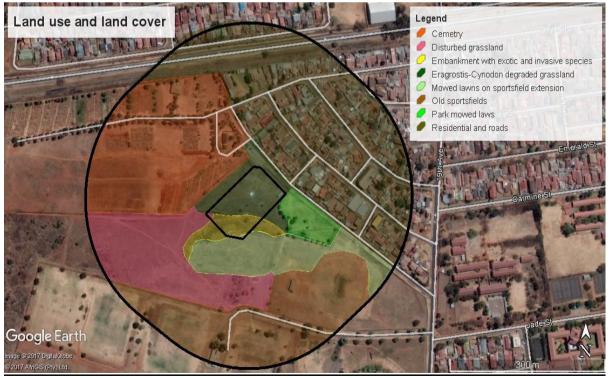


Figure 4: Land cover and land use on and within a 250m buffer of the site

GAUTENG CONSERVATION PLAN AND LISTED ECOSYSTEMS

According to the Gauteng Conservation Plan (Version 3.3) (GDARD, 2011); the site is situated within an area classified as Important (to reach the conservation targets), based on the potential presence of plant species of conservation concern and primary vegetation (Figure 3).

The proposed site is situated in a critically endangered listed ecosystem: the Witwaterberg Pretoria Mountain Bushveld.

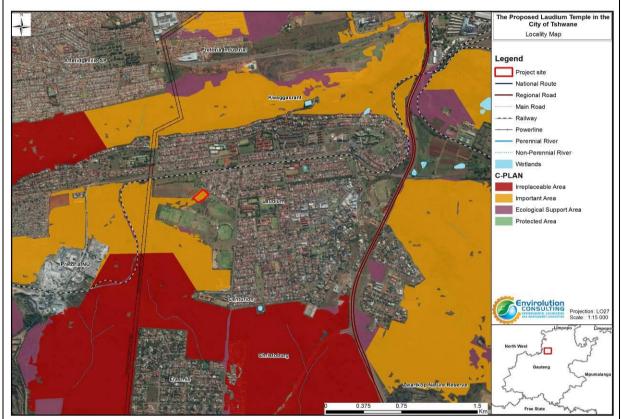


Figure 5: Gauteng Conservation Plan Map

OVERALL REGIONAL VEGETATION TYPE

The study area falls within the Grassland Biome of South Africa. This biome is dominated by grasslands wherein high summer rainfall, combined with dry winters, night frost and marked diurnal temperature variations are unfavourable to tree growth. The majority of plant species in grasslands are non-grassy herbs (forbs), most of which are perennial plants with large underground storage structures. Furthermore, the majority of Rare and Threatened plant species in the summer rainfall regions of South Africa are restricted to high-rainfall grasslands, making the Grassland Biome in most urgent need of conservation.

The study site is situated in the Dry Highveld Grassland of the Grassland Biome (Mucina & Rutherford, 2006). The extent of the Dry Highveld Grassland is climate-limited. The exclusion of fire in Dry Highveld Grassland results in an increase in tree density without a change in the grass species composition (Mucina & Rutherford, 2006). The Grassland Biome comprises a number of vegetation types. The site is situated within the historic extent of the Carletonville Dolomite Grassland vegetation type (Mucina & Rutherford, 2006). Carletonville Dolomite Grassland occurs on undulating plains bisected by rocky

ridges. This species-rich grassland forms a complex mosaic pattern dominated by many species. Only a small portion of the extent of Carletonville Dolomite Grassland is protected in statutory reserves, while close to a quarter is already transformed by human activities. The Carletonville Dolomite Grassland is classified as Vulnerable (Mucina & Rutherford, 2006).

The grassland on site is no longer representative of the reference state of Carletonville Dolomite Grassland and is classified as degraded with little conservation importance.

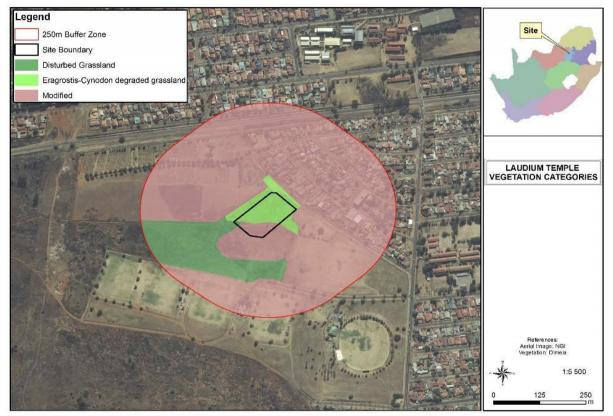


Figure 6: Vegetation Categories

PLANTS OF CONSERVATION IMPORTANCE

Threatened or Protected Plant Species (TOPS)

No TOPS species are expected to occur on the site.

Threatened Species or Plant Species of Conservation Concern

Sixteen (16) plants of conservation concern that were previously recorded in the quarter degree square that the site is situated in, or may potentially occur were listed (refer to **Appendix D1** – Ecological Assessment Report). Of these, only one species (*Hypoxis hemerocallidea*) classified as declining in Gauteng (recently reclassified nationally as Least Concern) was recorded about 255m south-west of the site in the disturbed grassland. Other species likely to occur in the area were not recorded on site or within the disturbed grassland, however, these species may be present south and south-westward of the site, towards the nearby ridge.

Provincially Protected Plants

The rare *Brachystelma barbarae* was recorded within the disturbed grassland, about 190m south-west of the site. Unless construction vehicles or activities extent beyond the site boundary, this species is

unlikely to be directly impacted on by the proposed development and must remain in situ.

VEGETATION SENSITIVITY

Although the site and surrounds are situated within an area classified by the Gauteng Conservation Plan as being Important, the site and much of its immediate surrounds has been significantly modified or degraded. These areas are thus considered to be of low conservation importance and vulnerability to the proposed development of a temple, and are not considered suitable habitat to plant species of conservation concern (see Figure 5 below and **Appendix A3**).

The disturbed grassland situated on the south western corner of the site and beyond, is disturbed. However, the grassland could rehabilitate if all current disturbances are halted and rehabilitation measures implemented. This area is also still important as a buffer to natural habitat south and southwest of thereof and was rated as being of medium importance and vulnerability. It must be noted that current human impact are degrading the grassland and although it is unlikely that the construction and operation of the proposed temple will impact directly on this grassland, it may lead to cumulative impacts during construction.

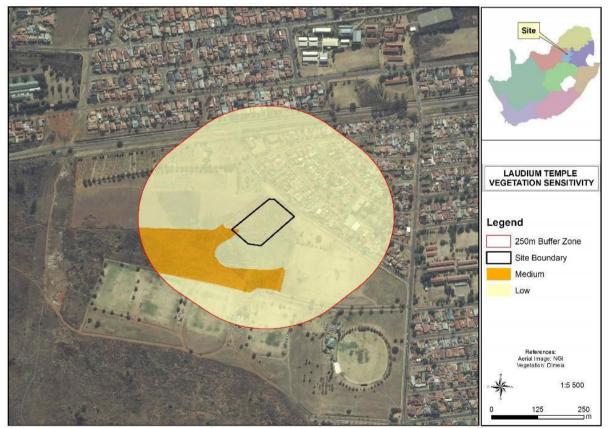


Figure 7: Vegetation sensitivity of the site and surrounds

FAUNA

According to the fauna specialist; diversity of vertebrates is extremely limited, partially as a result of the disturbed nature of the site itself and adjoining properties that are generally developed. However, burrows of burrowing rodents (most probably the common Highveld gerbil) were recorded in the red rocky substrate. Rodent moles are present. Typically of severely disturbed habitat in rural areas, species diversity has been dramatically curtailed to no more than a few common intruder species. As

such population densities are low and subjected to severe fluctuations, which often end up to the disappearance of one or more species as result of environmental stress. Vegetation of an area will largely determine the ecological sensitivity; in this case the vegetation was degraded and highly disturbed with little ecological function and was found to be species poor. Are there any rare or endangered flora or fauna species (including red list species) NO present on the site If YES, specify and explain: YES Are there any rare or endangered flora or fauna species (including red list species) present within a 200m (if within urban area as defined in the Regulations) or within 600m (if outside the urban area as defined in the Regulations) radius of the site. If YES, specify and explain: The rare Brachystelma barbarae was recorded within the disturbed grassland, about 190m south-west of the site. Unless construction vehicles or activities extent beyond the site boundary, this species in unlikely to be directly impacted on by the proposed development and must remain in situ. Are there any special or sensitive habitats or other natural features present on the site? NO If YES, specify and explain: YES Was a specialist consulted to assist with completing this section If yes complete specialist details Name of the specialist: Antoinette Eysell - Knox Qualification(s) of the specialist: • SACNASP Reg. No. 400019/11, • M.Sc Environmental Science University of Pretoria (2010); Dissertation: Land cover change and its effect on future land uses • B. Sc (Hons) Horticulture, University of Pretoria (1999-2000); Dissertation: Horticultural uses of the indigenous Barleria species • B. Sc (Agriculture) Horticulture, University of Pretoria (1993-1996) Postal address: Postal code: Cell: 083 642 6295 083 642 6295 Telephone: antoinette@dimela-E-mail: Fax: eco.co.za Are any further specialist studies recommended by the specialist? NO If YES. specify: If YES, is such a report(s) attached? NO If YES list the specialist reports attached below Hepel-knox Signature of specialist: Date: October 2017

Was a specialist consulted to assist with completing this section			YES		
If yes complete specialist de	tails				
Name of the specialist:	Ignatius Lourens Rautenbach				
Qualification(s) of the	B.Sc. (UP), T.H.E.D (Pta TTC), M.Sc. (UP),				
specialist:	Ph.D. (Un. Natal)				
	SACNASP Reg 400300/05				
Postal address:	45 Helgaard Street, Kilner Park, Pretoria				
Postal code:	0186				
Telephone:	012 333 4112	Cell:	082 335 1288		
E-mail:	naasrauten@mweb.co.za	Fax:			
Are any further specialist studies recommended by the specialist?				NO	
If YES,					
specify:					
If YES, is such a report(s) at	ttached?			NO	
If YES list the specialist repo	orts attached below				
Signature of specialist:	Date:		October 2017		

Please note; If more than one specialist was consulted to assist with the filling in of this section then this table must be appropriately duplicated

8. LAND USE CHARACTER OF SURROUNDING AREA

Using the associated number of the relevant current land use or prominent feature from the table below, fill in the position of these land-uses in the vacant blocks below which represent a 500m radius around the site

1. Vacant land	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge	
6. Dam or reservoir	7. Agriculture	8. Low density residential	9. Medium to high density residential	10. Informal residential	
11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	15. Light industrial	
16. Heavy industrial ^{AN}	17. Hospitality facility	18. Church	19. Education facilities	20. Sport facilities	
21. Golf course/polo fields	22. Airport ^N	23. Train station or shunting yard ^N	24. Railway line ^N	25. Major road (4 lanes or more) ^N	
26. Sewage treatment plant ^A	27. Landfill or waste treatment site ^a	28. Historical building	29. Graveyard	30. Archeological site	
31. Open cast mine	32. Underground mine	33.Spoil heap or slimes dam ^A	34. Small Holdings		
Other land uses (describe):					

NOTE: Each block represents an area of 250m X 250m, if your proposed development is larger than this please use the appropriate number and orientation of hashed blocks

			NORTH			
	9	9	9	9	9	
	9	9; 29	9; 19	9	9	
EST	9	29		4; 20	4; 20	EAST
	20	20; 29	20	20	20	
	20	20	20	20	20	
SOUTH					-	

WEST

Note: More than one (1) Land-use may be indicated in a block

Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity/ies. Specialist reports that look at health & air quality and noise impacts may be required for any feature above and in particular those features marked with an "A" and with an "N" respectively.

Have specialist reports been attached If yes indicate the type of reports below

NO

9. SOCIO-ECONOMIC CONTEXT

Describe the existing social and economic characteristics of the area and the community condition as baseline information to assess the potential social, economic and community impacts.

The City of Tshwane Local Municipality is situated in Gauteng province and covers an area of 6297.83 km². The City of Tshwane Local Municipality is divided into seven administrative and functional, designated numerically from 1 to 7. The proposed development is located within **Region 4**.



Population

The City of Tshwane has a population of approximately 2 921 488 people made up of t 71.9% of the working age (15-64) group. The total population translates into roughly 911 536 households with an average household size of 3 persons. At a regional level, Region 1 is the most densely populated region in the City with 28%.

In terms of gender, 50.25% of the population is female and 49.75% is male. Majority of the population are black (75.4%), followed by 20.08% white, 2.01% coloured, 1.84% Indian, and 0.67% other. The predominant languages within the City are Pedi (19.91%), followed by Afrikaans (18.83%) and Tswana (15.05%).

Laudium covers an area of 6.07 km² with a total population of approximately 19 102 inhabitants within 4 841 households. In terms of gender, 50.61% of the population is female and 49.39% is male. Majority of the population are indian (79.89%), followed by 16.12% black, 2.42% coloured, 1.13% other and 0.43% white. The predominant languages are English (77.44%), and Afrikaans (11.87%).

Economic Profile

The City of Tshwane is amongst the top five biggest city economies in South Africa making significant contributions to the national economy. Tshwane is the second wealthiest municipality in terms of GDP per capita. Pretoria, in the City of Tshwane, is the administrative capital of South Africa and houses the Union Buildings. Tshwane has positioned itself as Africa's leading capital city of excellence. Home to the City are the national government departments, three Gautrain stations, offices of major banks and financial services, the BMW Rosslyn Plant and much more. The City's economy is driven by community services (9.49%), finance (9.35%) and manufacturing (8.02%).

As one of the more affluent areas with the highest household income among Tshwane's regions, **Region 4** borders on the City of Johannesburg, Ekurhuleni and Mogale City. The region is an important corridor linking Midrand (Johannesburg) to the Centurion business district. It hosts the Aerosat and Centurion Aviation Village (CAV), and is dominated by activities in the finance and business services, government services, manufacturing and trade sectors, as well as smart industries and business tourism. Given its demographics, the region has attracted office and retail developments in the past few years. A key project for developing the region further is the African Gateway project. The economic concentration in the region is trade and finance. In this region the mining sector is marginally higher than in Tshwane due to the Lyttelton dolomite-mine situated on Botha Avenue just north of the N1.

Employment

The largest labour remuneration sector in the City of Tshwane is government and services (42.7%) as various tiers of government are situated within its borders. Finance, manufacturing and trade contribute approximately 45% of further labour remuneration in the City. Formal employment in Tshwane shows that the most significant contributors to employment is government, social and personal services (24.9%), wholesale and retail trade (16.4%), finance and business services (14.6%) and manufacturing (12.2%). Almost 90% of Tshwane's employment is in the formal sector.

The City has an overall unemployment rate of 24.2% and a youth unemployment rate of 32.6%. 12.5% of Laudium's population have no form of income.

Education

In terms of education within the City of Tshwane Local Municipality, 4.9% have completed primary school, 33.3% have some secondary education, 20.2% have completed matric, 6.1% have some form

of higher education, and 3.1% have no form of schooling.

The City of Tshwane is a national centre of research and learning with four universities and seven of the eight national science councils; the CSIR (Council for Scientific and Industrial Research), the HSRC (Human Sciences Research Council), the ARC (Agricultural Research Council), the NRF (National Research Foundation), the MRI (Medical Research Institute), the VRI (Veterinary Research Institute) and the SABS (South African Bureau of Standards). The City of Tshwane has the highest level of education in the country.

In terms of education within Laudium, 3.3% have completed primary school, 27.8% have some secondary education, 39.6% have completed matric, 14.7% have some form of higher education, and 6.7% have no form of schooling.

10. CULTURAL/HISTORICAL FEATURES

Please be advised that if section 38 of the National Heritage Resources Act 25 of 1999 is applicable to your proposal or alternatives, then you are requested to furnish this Department with written comment from the South African Heritage Resource Agency (SAHRA) – Attach comment in appropriate annexure

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-

- (a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- (b) the construction of a bridge or similar structure exceeding 50m in length;
- (c) any development or other activity which will change the character of a site-
 - (i) exceeding 5 000 m2 in extent; or
 - (ii) involving three or more existing erven or subdivisions thereof; or

(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or

(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources

authority;

- (d) the re-zoning of a site exceeding 10 000 m2 in extent; or
- (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

Are there any signs of culturally (aesthetic, social, spiritual, environmental) or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or palaeontological sites, on or close (within 20m) to the site? If YES, explain:



According to the heritage specialist; a number of structures relating to the Hindu religion occur on the site. These are of recent origin and are very modest and unassuming in nature. These features have High local significance – Grade IV-A.

If uncertain, the Department may request that specialist input be provided to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist if one was already appointed:

Identified heritage sites

A number of structures relating to the Hindu religion occur on the site. These are of recent origin and are very modest and unassuming in nature. These features have High local significance – Grade IV-A. <u>Impact assessment</u>

Impact analysis of cultural heritage resources under threat of the proposed development, is based on the present understanding of the development: According to a member of the Hindu congregation, the identified structures will probably be demolished once the construction of the new temple starts.

- Impact: the significance weighting for the impact on the identified sites is rated as high.
- Mitigation: The identified features form part of the living heritage of the site. As such it is the prerogative of the Hindu community to decide what to do with these features as and when the new temple is constructed.

Reasoned opinion as to whether the proposed activity should be authorised:

From a heritage point of view it is recommended that the proposed development be allowed to continue on acceptance of the proposed mitigation measures.

Conditions for inclusion in the environmental authorisation:

Should archaeological sites or graves be exposed during construction work, it must immediately be reported to a heritage practitioner so that an investigation and evaluation of the finds can be made.

For further details, please refer to the Heritage specialist report attached with **Appendix D2** of this report.

Will any building or structure older than 60 years be affected in any way? Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?



If yes, please attached the comments from SAHRA in the appropriate Appendix

SECTION C: PUBLIC PARTICIPATION (SECTION 41)

1. The Environmental Assessment Practitioner must conduct public participation process in accordance with the requirement of the EIA Regulations, 2014.

2. LOCAL AUTHORITY PARTICIPATION

Local authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least thirty (30) calendar days before the submission of the application to the competent authority.

Was the draft report submitted to the local authority for comment?

If yes, has any comments been received from the local authority?

If "YES", briefly describe the comment below (also attach any correspondence to and from the local authority to this application):

If "NO" briefly explain why no comments have been received or why the report was not submitted if that is the case.

The report is at a draft stage and is being submitted to the local authority for the 30 days legislated commenting period. Comments are anticipated during the 30-day review period.

3. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the activity, site or property, such as servitude holders and service providers, should be informed of the application at least **thirty (30) calendar days** before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?

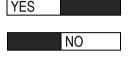
If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

If "NO" briefly explain why no comments have been received

The report is at a draft stage and is being released for the 30 days legislated public review period. Comments are anticipated during the 30-day review period.

4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

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



NO

The EAP must record all comments and respond to each comment of the public / interested and affected party before the application report is submitted. The comments and responses must be captured in a Comments and Responses Report as prescribed in the regulations and be attached to this application.

Throughout the BA process, public participation receives high priority. Public participation is one of the most important elements of the development process; therefore, Interested and Affected Parties (I&APs) were identified as part of the Public Participation Process, including occupiers of the property, owners and occupiers of land adjacent to the site, municipal officials and relevant State Departments. All respondents were then registered on the project database. This database was supplemented by I&APs that contacted our Public Participation consultant to be included on the database. The database was used throughout the process to inform all I&APs of the project and is attached within **Appendix E**.

In order to canvass the issues and concerns of the broader public and to ensure that all I&APs are afforded the opportunity to comment on the proposed development, the proposed project was announced as follows:

- Site notices (size A2) advertising the proposed development and displaying the contact details
 of the EAP were prepared and displayed on-site. The site notices served the purpose of
 informing potential I&APs of the project and therefore afforded them the opportunity to
 comment.
- Distribution of the notification letter with a Registration and Comment Sheet, and the locality map to state departments and other potential stakeholders through emails.
- Hand-delivered the notification letter with Registration and Comment Sheet to the adjacent landowners in close proximity of the boundary of the property.
- Published an advertisement in the newspaper.
- Communication with local authorities and stakeholders.
- Please note that any further comments received during the review period of the draft Basic Assessment as well as responses provided will be captured and recorded within the Comments and Response Report.

A copy of the Draft Basic Assessment Report for public review has been made available for public review at the nearest public library for a legislated 30-day commenting period.

5. APPENDICES FOR PUBLIC PARTICIPATION

All public participation information is to be attached in the appropriate Appendix. The information in this Appendix is to be ordered as detailed below:

Appendix 1 – Proof of site notice

- Appendix 2 Written notices to I&APs
- Appendix 3 Proof of newspaper advertisements
- Appendix 4 Authority Correspondence

Appendix 5 - Minutes of any public and/or stakeholder meetings - this is anticipated during the Draft BAR

review period

Appendix 6 – Comments and Responses Report

Appendix 7 - Comments from I&APs on Basic Assessment (BA) Report - Comments are anticipated during

the Draft BAR review period

- Appendix 8 Comments from I&APs on amendments to the BA Report N/A
- Appendix 9 Copy of the register of I&APs

SECTION D: RESOURCE USE AND PROCESS DETAILS

Note: Section D is to be completed for the proposal and alternative(s) (if necessary)

Instructions for completion of Section D for alternatives

- For each alternative under investigation, where such alternatives will have different resource and 1) process details (e.g. technology alternative), the entire Section D needs to be completed
- 4) Each alterative needs to be clearly indicated in the box below
- Attach the above documents in a chronological order 5)

Section D has been duplicated for alternatives	times	(complete only when
appropriate)		only when

Section D Alternative No.

(complete only when appropriate for above)

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase? If yes, what estimated quantity will be produced per month?

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

Construction rubble/ solid waste will be temporarily stored on site in designated waste skips and then removed by a licensed waste contractor appointed by the main construction contractor to an approved/licensed landfill site. This will be managed through the EMPr.

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

General waste removed from site will be disposed of at a suitably licensed disposal facility. The nearest licensed landfill site shall be utilised. Safe disposal certificates must be obtained and kept on site for the duration of the construction phase.

Will the activity produce solid waste during its operational phase? If yes, what estimated quantity will be produced per month?

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

General waste removed from site will be disposed of at a suitably licensed disposal facility via the municipal channels. Where necessary, external licenced waste service providers will be procured to dispose waste legally.

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity?

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

YES Could not be determined at this stage m³







General waste removed from site will be disposed of at a suitably licensed disposal facility via the municipal channels. Where necessary, external licenced waste service providers will be procured to dispose waste legally.

Note: 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, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation? If yes, inform the competent authority and request a change to an application for scoping and EIA.

NO

NO

Is the activity that is being applied for a solid waste handling or treatment facility? NO If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

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

During Construction and Operational phase, wastes must be separated at source and disposed at relevant suitably licensed facilities. Waste should be separated into recyclable and non-recyclable materials and distributed for recycling where applicable. During the construction phase, construction waste rubble should be used as fill material and as foundation for the proposed upgrade processes where possible. The re-use of construction waste materials will minimize the amount of waste that will need to be disposed of at registered municipal waste facilities.

Liquid effluent (other than domestic sewage)

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

If yes, what estimated quantity will be produced per month? If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)?

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

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

If yes describe the nature of the effluent and how it will be disposed.

Note that if effluent is to be treated or disposed on site the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA

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

If yes, provide the particulars of the facility:

n 300, provido dio para		
Facility name:		
Contact person:		
Postal address:		
Postal code:		
Telephone:	Cell:	
E-mail:	Fax:	

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





NO

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?

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

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity (ies)? Will the activity produce any effluent that will be treated and/or disposed of on site?

If yes describe how it will be treated and disposed off.

Chemical toilets are going to be used and the sewage waste will be collected by the Waste service provider for treatment at a treatment facility. During operation, the temple will have toilets linked to the municipal sewage system.

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

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

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

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

The activity itself will not contribute directly to emissions released into the atmosphere except possible short-term dust emissions during the construction phase. Emissions generated will be in the form of dust, and minimal gases e.g. carbon dioxide, carbon monoxide from construction vehicle emissions and other diesel powered machinery and during the construction phase. During operation phase, there will be a few occasions where coal and incents are lit during prayers, however these emissions are not significant and can be classified as negligible as they are not on an industrial scale.

2. WATER USE

Indicate the source(s) of water that will be used for the activity

Municipal	Directly from	groundwater	river, stream, dam or	other	the activity process itself
	water board		lake		will not use water

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

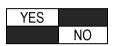
If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriat	e Appendix
Does the activity require a water use permit from the Department of Water Affairs?	NO
If yes, list the permits required	

If yes, have you applied for the water use permit(s)? If yes, have you received approval(s)? (attached in appropriate appendix)

3. POWER SUPPLY

Please indicate the source of power supply eg. Municipality / Eskom / Renewable energy source

YES	
-	own at s stage
	NO
	NO



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Municipal power supply will be utilised.

If power supply is not available, where will power be sourced from?

Please see above.

4. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient: No particular considerations of energy saving/ conservation were considered for this project as it generally uses low energy. However efforts such as using incandescent light bulbs, sensor lighting and geyser timers will be used. Also, the establishment of solar panels on roofs will be investigated.

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

Please see above.

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts as well as the impacts of not implementing the activity (Section 24(4) (b) (i).

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

Issue/ Comment/ Concern	Response
I understand that you invited comments for the	Your email below dated 11 October 2017 has
proposed development of a Religious Facility (Temple)	reference. Thank you for the comments/issues raised,
in Laudium. I do not have comments. However, I am	however it is worth noting that I cannot comment on
concerned that all the other religious facilities (mainly	the operation of other facilities and furthermore cannot
mosques operating from residential premises) in the	involve those concerns in this Environmental
Laudium area may not have the required Municipal	Authorisation application. Such concerns should be
approvals under NEMA and EIA Regulations.	taken up directly within the council for investigation
	It is also important to note that not all "development"
I appreciate uour effort to comply with the law in so far	triggers an impact assessment study, the reason why
as the proposed Temple development is concerned,	the proposed Laudium Temple has to follow the
while the other facilities show complete disregard for	Environmental Process is because the site is currently
the same environmental legal requirements and rights	flagged as an important area according to the Gauteng
of ratepayers in Laudium. The council turns a blind eye	Conservation – Plan, and in accordance with the
to those offenders. Perhaps you could highlight this	section 24 of the NEMA (1997), this activity requires an
comment to the council as part of your approval	environmental authorisation.
process.	
	Andrsiha Govender,
B.Diar	

Summary of response from the practitioner to the issues raised by the interested and affected parties (including the manner in which the public comments are incorporated or why they were not included). (A full response must be provided in the Comments and Response Report that must be attached to this report):

The report is at a draft stage and is being released for the 30 days legislated public review period. Comments and responses thereof are anticipated during the 30-day review period and will be included in the Final BAR

2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE

Briefly describe the methodology utilised in the rating of significance of impacts

The following methodology and criteria was used in assessing impacts related to the proposed development.

- > The **Nature**, a description of what causes the effect, what will be affected, and how it will be affected.
- > The **Extent**, wherein it is indicated whether:
 - 1 is limited to the immediate area or site of development
 - 2 is the local area
 - 3 is regional
 - 4 is national
 - 5 is international
- > The **Duration**, wherein it is indicated whether:
 - The lifetime of the impact will be of a very short duration (0–1 years) assigned a score of 1;
 - The lifetime of the impact will be of a short duration (2-5 years) assigned a score of 2;
 - Medium-term (5–15 years) assigned a score of 3;
 - Long term (> 15 years) assigned a score of 4; or;
 - Permanent assigned a score of 5.
- > The **Magnitude**, quantified on a scale from 0-10, where a score is assigned:
 - 0 is small and will have no effect on the environment;
 - 2 is minor and will not result in an impact on processes;
 - 4 is low and will cause a slight impact on processes;
 - 6 is moderate and will result in processes continuing but in a modified way;
 - 8 is high (processes are altered to the extent that they temporarily cease); and
 - 10 is very high and results in complete destruction of patterns and permanent cessation of processes.
- > The **Probability** of occurrence, which describes the likelihood of the impact actually occurring. Probability is estimated on a scale, and a score assigned:
 - Assigned a score of 1–5, where 1 is very improbable (probably will not happen);
 - Assigned a score of 2 is improbable (some possibility, but low likelihood);
 - Assigned a score of 3 is probable (distinct possibility);
 - Assigned a score of 4 is highly probable (most likely); and
 - Assigned a score of 5 is definite (impact will occur regardless of any prevention measures).
- The Significance, which is determined through a synthesis of the characteristics described above (refer formula below) and can be assessed as low, medium or high.
 - The status, which is described as **positive**, **negative** or **neutral**.
 - The degree to which the impact can be reversed.
 - The degree to which the impact may cause irreplaceable loss of resources.

• The degree to which the impact can be mitigated.

The significance is determined by combining the criteria in the following formula:

S= (E+D+M) P; where

- 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),</p>
- 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).

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the <u>construction phase</u> for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Layout Alternative 1 (parallel Dining Area) – preferred:

Table 2: Construction Impacts

	POTENTIAL IN	IPACTS	PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
			FLORA	
Nature of Impact	: Clearing of land	for construction and potenti	al Planning:	None
pollution of the soil			No construction camps or any construction related activity should be	
 may be temporar temporary staff fa include: Impacts on a Storage of m Increased ered 	y structures, mac cilities will be hou djacent disturbed g achinery, supplies a	and staff facilities	d <u>Construction:</u>	
Description	Without Mitigation	With Mitigation	in specifically designated and secured areas	
Probability	Probable (3)	Improbable (2)	• No vehicles may be washed on the property, except in suitably	
Duration	Medium - term (3)	Short - term (2)	designed and protected areas	
Extent	Local (2)	Site bound (1)	No vehicles may be serviced or repaired on the property, unless it is	
Magnitude	Moderate (6)	Minor (2)	an emergency situation in which case adequate spillage	
Significance	33 (Medium)	10 (Low)	containment must be implemented	
Status (positive or negative)	Negative	Negative		

POTENTIAL IMPACTS				PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
protected plant spectrumThe construction at and/or indirect imp grassland south-we• Construction vegetation• Construction vegetation• Construction • Dumping of c• Description Probability 	and operation of the act on the health a cest of the site e.g.: vehicles causing personnel harvesting	sturbed grassland an the temple could have and functioning of the compaction and ing /damaging plants al or excavated soils With Mitigation Improbable (2) Short - term (2) Site bound (1) Low (4) 14 (Low) Negative	ve a direct e disturbed	 <u>Planning:</u> Construction camps or related activities must not be planned outside of the site footprint <u>Construction:</u> A temporary fence or demarcation must be erected around the construction area (include areas where material is stored and the actual footprint of the development) to prevent access to sensitive environs such as the disturbed grassland. The site must be fenced prior to construction and access to the disturbed grassland and particular the protected <i>B barbarae</i> prevented. Construction workers may not tamper or remove these plants and neither may anyone collect seed from the plants without permission from the local authority. No open fires are permitted within naturally vegetated areas. No dumping of construction material or soils is allowed within the disturbed grassland or any other proximate natural veld. 	Degradation of disturbed grassland and loss of species
negative Negative Negative Nature of Impact: Potential increase in invasive vegetation The seed of alien invasive plant species that occur on and in the vicinity of the construction areas could spread into the disturbed and stockpiled soil. Also, the construction vehicles and equipment were likely used on various other sites and could introduce alien invasive plant seeds or indigenous plants not belonging to this vegetation unit			and in the turbed and ment were en invasive	 <u>Construction:</u> All alien seedlings and saplings must be removed as they become evident for the duration of construction. All construction vehicles and equipment, as well as construction material should be free of plant material. Therefore, all equipment and vehicles should be thoroughly cleaned prior to access on to the construction areas. This should be verified by the ECO. If filling material is to be used, this should be sourced from areas 	Due to the high occurrence of alien invasive plant species in the area, the residual risk is moderate to high.

	POTENTIAL IN	IPACTS		PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
to the construction			7	free of invasive species.	
Description	Without Mitigation	With Mitigation	-		
Probability	Highly probable (4)	Probable (3)	-		
Duration	Long - term (4)	Short - term (2)	_		
Extent	Local (2)	Site bound (1)			
Magnitude	High (8)	Low (4)			
Significance	56 (Medium)	21 (Low)			
Status (positive or negative)	Negative	Negative			
			-	FAUNA	
Nature of Impact: Direct impact on terrestrial vertebrate communities Spatially, the proposed temple will be insignificant. Construction will be disruptive to local dispersion and movement, but the duration will be so short that its effect will be minimal. No mitigation measures are possible. No			ruction will	minimal impact is expected and no impact on threatened species are thought to take place. The disruptive influence will be short and the surrounding terrestrial habitat should remain intact.	disturbance of the construction will be short lived.
Description	Without Mitigation	With Mitigation			
Probability	Highly probable (4)				
Duration	None (0)				
Extent	Site bound (1)				
Magnitude	None (0)]		
Significance	8 (Low)		1		
Status (positive or negative)	Negative				
				HERITAGE	·

	POTENTIAL IN	IPACTS		PROPOSED MITIGATION RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
Nature of the Impact: Loss and disturbance of heritage sites due to the development A number of structures relating to the Hindu religion were identified A number of structures relating to the Hindu religion were identified on site. These structures are likely to be demolished once the construction of the new temple starts.			identified	 The identified features forms part of the living heritage of the site. As such it is the prerogative of the Hindu community to decide what to do with these features as and when the new temple is constructed. Should archaeological sites or graves be exposed during construction work, it must immediately be reported to a heritage practitioner so that an investigation and evaluation of the finds can
Description	Without Mitigation	With Mitigation		be made.
Probability	Definite (5)	Highly Probably (4)		be made.
Duration	Permanent (5)	Short term (2)		
Extent	Site (1)	Site (1)		
Magnitude	High (8)	Moderate (6)		
Significance	70 (High)	36 (Medium)		
Status (positive or negative)	Negative	Negative		
				AIR QUALITY
Source of Impact:The increased dust, smoke and emissions resulting from construction activities (site preparation, earthworks, uncovered topsoil stockpiles and sand piles, loads on vehicles and the burning of waste); vehicles, plant and machinery poses a health hazard to construction staff and people living and working in the vicinity of the site.Excavated and stockpiled material that is vulnerable to wind has the potential to contribute to the influx of pollutants in the air.DescriptionWithout Mitigation Definite (5)Highly probable (4)			hazard to nity of the	 Dust suppression mitigation measures must be implemented A continuous dust monitoring process needs to be undertaken during construction. All vehicles transporting friable materials such as sand, rubble etc must be covered by a tarpaulin or wet down. Bare surfaces must be rehabilitated as soon as possible with indigenous vegetation that will be able to grow in the area. No burning of refuse or vegetation is permitted. A complaints register will be maintained, in which any complaints from the community will be logged. Complaints will be investigated and, if appropriate, acted upon

	POTENTIAL IN	IPACTS		PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
Duration	Short term (2)	Short term (2)			
Extent	Local (2)	Local (2)			
Magnitude	High (8)	Moderate (6)			
Significance	60 (Medium)	40 (Medium)			
Status (positive or negative)	Negative	Negative			
		•		VISUAL	
may result in a c Clearance of ve equipment and per	leterioration of the getation. Presence sonnel on site.	and illegal dumping aesthetic quality of ce of construction	of the site.	builders wastes generated on the premises be placed, dumped or deposited on adjacent or surrounding properties including road verges, roads or public places and open spaces during or after the construction period. All waste/litter/rubbish etc must be disposed of at an approved dumping site as approved by the Council.	development will be aesthetically unappealing during the construction phase.
Description Probability	Without Mitigation	With Mitigation	1		
Duration	Definite (5) Short term (2)	Highly probable (4) Short term (2)		 No wastes may remain on the construction site for more than two weeks. 	
Extent	Site (1)	Site (1)		 Supply sufficient garbage bins throughout the site and empty 	
Magnitude	High (8)	Moderate (6)		regularly.	
Significance	55 (Medium)	36 (Medium)		 Ensure good housekeeping is implemented at all times. 	
Status (positive or negative)	Negative	Negative		 Keep the property neat and litter free at all times and maintain the landscaped areas. 	
				 Vegetation to be removed from the footprint areas only Bare surfaces must be rehabilitated as soon as possible with indigenous vegetation that will be able to grow in the area; The landscape must be rehabilitated in such a way that it corresponds to the surrounding topography; Should overtime/night work be authorised, the Contractor shall be 	

POTENTIAL IMPACTS				PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
				responsible to ensure that lighting does not cause undue disturbance to neighbouring residents. In this situation low flux and frequency lighting shall be utilised.	
nuisance to neigh the area. Description Probability Duration Extent Magnitude Significance Status (positive or	used during const	ruction could potent areas and busines With Mitigation Highly probable (4) Short term (2) Local (2) Moderate (6) 40 (Medium) Negative		 Construction activities must be limited to normal working hours and according to municipal bylaws, i.e. working hours must be limited to weekdays only. If construction is required on the weekend; permission from adjacent landowners will be required prior to construction. No sound amplification equipment such as sirens, loud hailers or hooters are to be used on site except in emergencies and no amplified music is permitted on site. Equipment that is fitted with noise reduction facilities (e.g. side flaps, silencers etc) must be used as per operating instructions and maintained properly during site operations. 	High risk as construction vehicles and equipment causes noise pollution.
negative)		-		HEALTH AND SAFETY	
conditions on the c awareness and fire environment and lo	ers may be advers onstruction site. Ina e safety equipment oss of property.	ely affected by unsa adequate attention to could result in unsa	fire safety	 The Contractor shall make available safe drinking water fit for human consumption at the site offices and all other working areas. Adequate numbers of chemical toilets must be maintained in the Contractors camp to service the staff using this area. At least 1 toilet must be available per 20 workers. Toilet paper must be provided. 	High risk to personnel if safety measures are not put in place before construction commences.
Description Probability Duration Extent	Without MitigationProbable (3)Short Term (2)Site (1)	With MitigationProbable (3)Short term (2)Site (1)		 Healthy and Safety protective personal equipment such as safety boots, safety helmets, gloves, dust masks etc must be made available for workers on site No open fires will be allowed on site unless in a demarcated area identified by the ECO. 	

	POTENTIAL IN	IPACTS		PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED				
Magnitude	Moderate (6)	Low (4)							
Significance	27 (Low)	21 (Low)							
Status (positive or negative)	Negative	Negative							
				CRIME, SAFETY AND SECURITY					
Source of Impact: Construction sites by their nature act as a magnet to the unemployed, so large numbers of people may gather on or around the site. These people must be kept off the site for safety reasons. Furthermore criminals may also utilise the opportunity to steal items from the site and the surrounding communities.			nay gather he site for utilise the	 pose an ignition risk to the said substances Ensure all construction vehicles and machinery is under the control of competent personnel. Limit access to the construction site to the workforce only. Comply 	High risk to personnel as well as the construction site if safety measures are not put in place before construction commences.				
Description	Without Mitigation	With Mitigation		Construction footprints, including site offices, excavations, storage					
Probability	Probable (3)	Probable (3)		areas, materials lay-down areas, stockpile area, and workers rest					
Duration	Short Term (2)	Short Term (2)		areas should be clearly demarcated or fenced off before					
Extent	Local (2)	Local (2)					 construction commences. All construction activities should be limited to the demarcated 		
Magnitude	Moderate (6)	Moderate (6)					areas.		
Significance	30 (Medium)	30 (Medium)							
Status (positive or negative)	Negative	Negative							
				WASTE MANAGEMENT					
Source of Impact	Construction rubb	le and littering.		• Littering will not be permitted on the site and general housekeeping will be enforced.	Construction rubble left onsite may attract vermin,				

	POTENTIAL IN	IPACTS	PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
Description	Without Mitigation	With Mitigation	General waste bins must be readily available for litter disposal and	encourage the growth of
Probability	Definite (5)	Probable (3)	general housekeeping. The EMPr must be followed during	opportunistic alien
Duration	Short Term (2)	Short Term (2)	construction.	vegetation and become
Extent	Site (1)	Site (1)	 All solid waste generated during the construction process must be placed in a designated waste collection area within the construction 	
Magnitude	Moderate (6)	Low (4)	camp and must not be allowed to blow around the site, be	
Significance	45 (Medium)	21 (Low)		
Status (positive or negative)	Negative	Negative	 accessible to animals, or be placed in piles adjacent the waste kips / bins. All solid waste must then be disposed of at the nearest licensed subtributes obtained. Separate waste 	
			 skips/ bins for the different waste streams must be available on site The waste containers must be appropriate to the waste type contained therein and where necessary should be lined and covered. This will be managed through the site specific EMPr and monitored by the ECO. No waste (hazardous or general) will be disposed of in the trenches around the stormwater channel footprint. All excess material and rubble must be removed from the site sen not to restrict the rehabilitation process. Adequate toilet facilities must be provided for all staff members as standard construction practice. Monitor the sewerage facilities for spillages, and handle any spillages as hazardous waste; Chemical toilets must be placed within the construction camp and not in close proximity to the river/wetlands. The chemical toilets to be provided must be from a registered company and all sewage must be disposed of at an appropriate facility. Safe disposal certificates must be kept on record. All hazardous material must be carefully stored and then disposed of offsite at the licensed hazardous landfill site Machinery must be properly maintained to keep oil leaks in check 	

	POTENTIAL IMPA	стѕ		PROPOSED MITIGATION	MITIGA	OF THE IM TION NOT PLEMENTE	BEING
				TRAFFIC IMPACT			
 Nature of the Impact: Anticipated impacts on traffic during construction Potential traffic congestion due to slow construction vehicle movements and other construction related impacts. 				Vehicular movement beyond the property boundaries may not occur during peak hour traffic times (07h30 – 08h30 and 16h00 – 17h00). It must be ensured that a backlog of traffic does not develop at the access points during peak hours through the upgrade to the road system and the implementation of an efficient and effective access	Very congesti	High on in the ar	traffic ea
				control system.			
Description	Without Mitigation	With Mitigation	•	Speed restriction of 30km/h must be implemented for all			
Probability	Highly Probable (4)	Probable (3)		construction vehicles on the active construction site.			
Duration	Short-term (2)	Short-term (2)	•	Implement dust suppression measures (wetting or application of soil			
Extent	Local (2)	Local (2)		binding compound) in all areas that will be affected by construction activities and where dust will be generated.			
Magnitude	High (8)	Moderate (6)	•	Paved Sidewalks: In order to ease and formalize the movement of			
Significance	48 (moderate)	Low (24)		pedestrians to/from the nearest public transport facilities, a paved			
Status (positive or negative)	Negative	Negative	•	sidewalk of at least 1.8m are proposed along the site boundary on Market Street. <u>Site Access 1</u> : Two (2) inbound lanes and a single exit lane.			
			•	Minimum stacking distance of 7m, measured form the site boundary. In order to ensure adequate and safe sight distance for vehicles exiting the site, it is recommended that the first 20m (approx. 3 bays) from the access and in both direction, be kept clear from street parking. <u>Site Access 2</u> : Single inbound lane and a single exit lane. Minimum stacking distance of 7m, measured form the site boundary. To note is that the access is actually located on the adjacent property, which would normally require a right-of-way servitude. Since the adjacent			

	POTENTIAL IN	IPACTS		PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
Nature of Impact: Soil Contamination. Source of Impact: Hydrocarbon spillages from construction equipment e.g. (oils, fuels, cement etc) have a potential of contaminating soil. Description Without Mitigation With Mitigation Probability Probable (3) Probable (3) Duration Medium Term (3) Short term (2) Extent Local (2) Local (2) Magnitude Moderate (6) Low (4) Significance 33 (Medium) 24 (Low) Status (positive or negative				 property also belongs to the CoE, a servitude is not required. However, it is suggested to provide a clause in the title deed of the property to ensure that the 'right of way' is protected in the event of a future change in ownership. SOIL IMPACTS Any hazardous or dangerous goods utilized during the construction phase must be stored on an impermeable surface that is bunded, fenced, locked and covered. A spill kits must be clearly marked and visible when utilizing hazardous or dangerous materials to ensure all spills can be immediately cleaned. Spill kits must be regularly checked and maintained. Remediation of spillages must be conducted on a continual basis and within 24h of spillage; Contaminated soil will be considered to be hazardous waste and disposed of accordingly. 	High risk for soil degradation.
negative)				SOCIO - ECONOMIC	
Nature of Impact: Temporary job creation during the construction phase.		onstruction	 Enhancement Measures Job opportunities can be created during the construction phase. 	High risk to unemployment and poverty.	
Description	Without Enhancement	With Enhancement		• Surrounding neighbours must be consulted prior to construction to discuss the construction process and opportunities regarding	
Probability	Probable (3)	Highly Probable (4)		employment.	
Duration	Short term (2)	Short term (2)		 Local community members must be employed as far as possible for low- and semi-skilled jobs. 	
Extent	Local (2)	Local (2)		 Mechanisms must be implemented to deal with people seeking 	

	POTENTIAL IMPACTS			PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
Magnitude	Low (4)	Moderate (6)		employment in order to minimise any issues related to the influx of	
Significance	24 (Low)	40 (Medium)		people.	
Status (positive or negative)	Positive	Positive			

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the **operational phase** for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Layout Alternative 1 (parallel Dining Area) – preferred:

Table 3: Operational Impacts

POTENTIAL IMPACTS	PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
	FLORA	
Nature of Impact: Clearing of land for construction and potential	Maintenance:	Localised alien vegetation
pollution of the soil.	 Only indigenous plant species, naturally occurring in the area, should be used for the landscaping of the site. 	infestation
The development during operational phase will entail landscaped vegetation that will be prone to alien vegetation invasion.	 It must be ensured that alien invasive species do not dominate the indigenous species. 	
The sources of this impact include:	 Monitor landscaped vegetation for alien invasive vegetation and weeds. 	
• Non monitoring of alien invasion during vegetation maintenance.	 Inform residents that planting non indigenous vegetation is undesired 	
Equipment laces with alien vegetation seedlings.		

	POTENTIAL IN	MPACTS		PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
 Pilgrims p 	planting non indigen	ous vegetation			
Description	Without Mitigation	With Mitigation			
Probability	Improbable (2)	Improbable (2)			
Duration	Short term (2)	Temporary (1)			
Extent	Local (2)	Site (1)			
Magnitude	Low (4)	Minor (2)			
Significance	16 (Low)	8 (Low)			
Status (positive or negative)	Negative	Negative			
 Nature of Impact: Degradation of disturbed grassland and threat to protected plant species. The construction and operation of the temple could have a direct and/or indirect impact on the health and functioning of the disturbed grassland south-west of the site e.g.: Construction vehicles during maintenance could cause compaction and damage vegetation. Construction personnel harvesting /damaging plants during maintenance. Dumping of maintenance material. 			e a direct disturbed	 Operational activities should be restricted to the site. Ideally the temple site should be fenced off from the adjacent vegetation. If the adjacent vegetation is to be used for spiritual activities, no clearing of the veld or vehicle access must be allowed. No vegetation is to be removed from the disturbed grassland other than alien invasive plant species. The grassland should remain in a natural state and any intervention should be aimed at rehabilitation. Only indigenous plant species, naturally occurring in the area, should be used for the landscaping of the site. 	
Description	Without Mitigation	With Mitigation			
Probability	Probable (3)	Improbable (2)			
Duration	Medium term (3)	Short term (2)			
Extent	Local (2)	Site (1)			

	POTENTIAL IN	MPACTS		PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
Magnitude	Low (4)	Minor (2)			
Significance	27 (Low)	10 (Low)			
Status (positive or negative)	Negative	Negative			
Nature of Impact:	Potential increase	in invasive vegetatio	<u>n.</u>	 <u>Maintenance:</u> Only indigenous plant species, naturally occurring in the area, should be used for the landscaping of the site. 	Moderate risk
Description	Without Mitigation	With Mitigation		An alien eradication programme must be established and	
Probability	Probable (3)	Improbable (2)		maintained throughout operation.	
Duration	Long term (4)	Short term (2)			
Extent	Local (2)	Site (1)			
Magnitude	Moderate (6)	Minor (2)			
Significance	36 (Medium)	10 (Low)			
Status (positive or negative)	Negative	Negative			
				FAUNA	
communities.	Nature of Impact: <u>Direct impact on terrestrial vertebrate</u> communities.			• It is not possible to mitigate the maintenance impact on fauna as minimal impact is expected and no impact on threatened species are thought to take place. The disruptive influence will be short and the surrounding terrestrial habitat should remain intact.	The environmental disturbance of the construction will be short lived.
Description	Without Mitigation	With Mitigation			
Probability	Highly probable (4)				
Duration	None (0)				
Extent	Site bound (1)				
Magnitude	None (0)				
Significance	8 (Low)				
Status (positive or negative)	Negative				

	POTENTIAL IN	IPACTS		PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
Nature of the Impa	act: <u>Heritage.</u>			 HERITAGE The identified features forms part of the living heritage of the site. 	Moderate risk
Description Probability Duration Extent Magnitude Significance	Without Enhancement Improbable (2) Temporary (1) Site (1) Low (4) 12 (Low)	With Enhancement Probable (3) Long term (4) Site (1) Moderate (6) 33 (Medium)		As such it is the prerogative of the Hindu community to decide what to do with these features as and when the new temple is constructed and operational.	
Status (positive or negative)	Negative	Positive			
maintenance activit hazard to mainten	ties, vehicles, plant ance crew and pe e. Material that is	d emissions result t and machinery pose cople living and work s vulnerable to wind collutants in the air.	es a health ting in the	 AIR QUALITY Dust suppression and wet spraying should be implemented. Limit maintenance hours to daytime and weekdays. Speed limits should be enforced to ensure that the generation of dust by construction vehicles during maintenance are limited. 	Low risk
Description	Without Mitigation	With Mitigation			
Probability	Probable (3)	Improbable (2)			
Duration	Temporary (1)	Temporary (1)			
Extent	Local (2)	Local (2)			
Magnitude	Moderate (6)	Low (4)			
Significance	27 (Low)	14 (Low)			
Status (positive or negative)	Negative	Negative			
				VISUAL	-

	POTENTIAL IN	IPACTS		PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED		
The temple will b phase.	be aesthetically app	pealing during the o	operational	 Ensure that no litter, refuse, waste, rubbish, rubble, debris and builders wastes generated on the premises be placed, dumped 	The Laudium Temple will be aesthetically appealing		
Description	Without Mitigation	With Mitigation		or deposited on adjacent or surrounding properties including road verges, roads or public places and open spaces during or	during the operation phase.		
Probability	Probable (3)	Improbable (2)		after the construction period.			
Duration	Short-term (2)	Short-term (2)		 All waste/litter/rubbish etc. must be disposed of at an approved dumping site as approved by the Municipality. 			
Extent	Limited to Local Area (2)	Limited to Local Area (2)		Maintenance of temple, yard and parking area.			
Magnitude	Medium (6)	Low (4)		 Bare surfaces must be rehabilitated as soon as possible with indigenous vegetation that will be able to grow in the area; 			
Significance	30 (Medium)	20 (Low)		 The landscape must be rehabilitated in such a way that it corresponds to the surrounding topography; 			
Status (positive, negative or neutral)	Negative	Negative					
				NOISE			
prayers. Religious	Source of impact: Larger crowds will be attracted to the Temple for prayers. Religious events will attract more people. More cars will also result in more noise. Fireworks during Diwali. Maintenance works.			 Inform residents of planned religious events. Ensure that noise levels are to an acceptable level. Maintenance and the use of construction machinery should be limited between 06h00 and 18h00 on weekdays 	Moderate risk		
Description	Without Mitigation	With Mitigation		only.			
Probability	Definite (5)	Highly probable (4)	_	Institute noise control measures throughout maintenance			
Duration	Long term (4)	Long term (4)	_	periods.			
Extent	Local (2)	Local (2)	_	• Maintenance activities must abide by the national noise			
Magnitude	High (8)	Moderate (6)		laws and the municipal noise by-laws with regard to the			
Significance	70 (High)	48 (Medium)		abatement of noise caused by mechanical equipment.			

POTENTIAL IMPACTS			PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
Status (positive or negative)	Negative	Negative	Speed limits must be adhered to.	
			HEALTH AND SAFETY	
During maintenanc	e.		The Contractor shall make available safe drinking water fit for human consumption during maintenance.	Low
Description	Without Mitigation	With Mitigation	Adequate numbers of chemical toilets must be on site during	
Probability	Improbable (2)	Improbable (2)	maintenance.	
Duration	Temporary (1)	Temporary (1)	Toilet paper must be provided.Healthy and Safety protective personal equipment such as safety	
Extent	Site (1)	Site (1)	 Healthy and Salety protective personal equipment such as salety boots, safety helmets, gloves, dust masks etc must be utilized by 	
Magnitude	Low (4)	Minor (2)	maintenance workers.	
Significance	12 (Low)	8 (Low)		
Status (positive or negative)	Negative	Negative		
			CRIME, SAFETY AND SECURITY	
			Ensure that the contact details of the police or security	Moderate risk
Description	Without Mitigation	With Mitigation	company and ambulance services are available.	
Probability	Probable (3)	Improbable (2)	 Maintenance must comply with safety regulations. Security fencing. 	
Duration	Long term (4)	Long term (4)	 Security rending. Security guards. 	
Extent	Local (1)	Local (1)	 Boom-entrance (limit access). 	
Magnitude	Moderate (6)	Low (4)		
Significance	33 (Medium)	18 (Low)		
Status (positive or negative)	Negative	Negative		
			WASTE MANAGEMENT	F
Source of Impact:	Maintenance rubb	le and littering.	 Littering will not be permitted on the site and general housekeeping will be enforced. 	Moderate risk
Description	Without Mitigation	With Mitigation	General waste bins must be readily available for litter disposal and	
Probability	Highly probable (4)	Probable (3)	general housekeeping.	

	POTENTIAL IN	IPACTS		RISK OF THE IMPACT PROPOSED MITIGATION MITIGATION NOT BEING IMPLEMENTED
Duration	Long term (4)	Short Term (2)		All solid waste must be disposed of at the nearest licensed landfill
Extent	Site (1)	Site (1)		and safe disposal certificates obtained. Separate waste skips/ bins
Magnitude	Moderate (6)	Low (4)	-	 for the different waste streams must be available on site. Monitor the sewerage facilities for spillages, and handle any
Significance	44 (Medium)	21 (Low)		 Monitor the sewerage facilities for spillages, and handle any spillages as hazardous waste.
Status (positive or negative)	Negative	Negative		
Nature of Impact: Soil Contamination. Source of Impact: Hydrocarbon spillages from construction equipment during maintenance.				 A spill kits must be clearly marked and visible when utilizing hazardous or dangerous materials to ensure all spills can be
Description	Without Mitigation	With Mitigation		immediately cleaned.
Probability	Improbable (2)	Improbable (2)	1	 Spill kits must be regularly checked and maintained. Remediation of spillages must be conducted on a continual basis
Duration	Short term (2)	Short term (2)		 Reflectation of spillages must be conducted on a continual basis and within 24h of spillage.
Extent	Local (2)	Local (2)		 Contaminated soil will be considered to be hazardous waste and
Magnitude	Low (4)	Minor (2)		disposed of accordingly.
Significance	16 (Low)	12 (Low)		
Status (positive or negative)	Negative	Negative		
				TRAFFIC IMPACT
Nature of impact: Increase in traffic/ congestion The Temple would attract large crowds especially during Religious events.				 Sufficient parking spaces must be provided for private vehicles. All road safety and warning signs must be as stipulated by the Roads and Traffic Act (Act 93 of 1996). Traffic control measures must be put in place during events.
Description	Without Mitigation	With Mitigation		
Probability	Highly Probable (4)	Probable (3)		
Duration	Long-term (4)	Short-term (2)		

POTENTIAL IMPACTS				PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
Extent	Local (2)	Local (2)			
Magnitude	High (8)	Moderate (6)			
Significance	48 (Medium)	Low (24)			
Status (positive or negative)	Negative	Negative			
	•			SOCIO - ECONOMIC	-
Source of impact:				 Locals must be considered for employment opportunities. 	High risk
•	• Temple will enhance aesthetic value of the area and in turn attract more people.			 Local suppliers and retailers must also be considered for supplies. 	
 Job creati 	on for locals			Community involvement must be encouraged.	
 Job creati 	on for local supplie	rs.			
 Operation 					
-	oliftment of the area				
Locals would not have to travel far out for a Temple. Description Without Enhancement With Enhancement			le.		
Probability	Probable (3)	Definite (5)			
Duration	Long term (4)	Long term (4)			
Extent	Local (2)	Local (2)			
Magnitude	Moderate (6)	High (8)			
Significance	36 (Medium)	70 (High)			
Status (positive or negative)	Positive	Positive			

Layout Alternative 2 (adjacent Dining Area) – preferred:

Table 4: Construction Impacts

POTENTIAL IMPACTS				PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED			
				FLORA				
Nature of Impact	: Clearing of land	for construction and	potential	Planning:	None			
pollution of the soil				No construction camps or any construction related activity should be planned in areas of medium sensitivity – the disturbed grassland.				
		where necessary, s						
•	•	hinery, building sup	-	Construction:				
temporary staff facilities will be housed here. The impacts could include:Impacts on adjacent disturbed grassland				 Stay within demarcated temporary construction areas and strictly prohibit any off-road driving or parking of vehicles and machinery outside designated areas 				
Storage of m	achinery, supplies			• Prevent spillage of construction material and other pollutants,				
	Increased erosion andPotential of contamination of soil.			 contain and treat any spillages immediately, strictly prohibit any pollution/littering according to the relevant EMPr No open fires may be lit for cooking or any other purposes, unless 				
Description	Without Mitigation	With Mitigation		in specifically designated and secured areas				
Probability	Probable (3)	Improbable (2)		 No vehicles may be washed on the property, except in suitably 				
Duration	Medium - term (3)	Short - term (2)		designed and protected areas				
Extent	Local (2)	Site bound (1)		 No vehicles may be serviced or repaired on the property, unless it is 				
Magnitude	Moderate (6)	Minor (2)		an emergency situation in which case adequate spillage containment must be implemented				
Significance	33 (Medium)	10 (Low)						
Status (positive or negative)	Negative	Negative	1					
Nature of Impact: Degradation of disturbed grassland and threat to protected plant species The construction and operation of the temple could have a direct				 <u>Planning:</u> Construction camps or related activities must not be planned outside of the site footprint 	Degradation of disturbed grassland and loss of species			

	POTENTIAL IN	IPACTS		PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
 and/or indirect impact on the health and functioning of the disturbed grassland south-west of the site e.g.: Construction vehicles causing compaction and damaging vegetation Construction personnel harvesting /damaging plants Dumping of construction material or excavated soils 				 <u>Construction:</u> A temporary fence or demarcation must be erected around the construction area (include areas where material is stored and the actual footprint of the development) to prevent access to sensitive environs such as the disturbed grassland. The site must be fenced prior to construction and access to the disturbed grassland and particular the protected <i>B barbarae</i> 	
Description	Without Mitigation	With Mitigation]	prevented.	
Probability	Probable (3)	Improbable (2)		Construction workers may not tamper or remove these plants and	
Duration	Medium - term (3)	Short - term (2)		neither may anyone collect seed from the plants without permission	
Extent	Local (2)	Site bound (1)		from the local authority.	
Magnitude	Moderate (6)	Low (4)		No open fires are permitted within naturally vegetated areas.	
Significance	33 (Medium)	14 (Low)		• No dumping of construction material or soils is allowed within the disturbed grassland or any other proximate natural veld.	
Status (positive or negative)	Negative	Negative			
Nature of Impact: Potential increase in invasive vegetation The seed of alien invasive plant species that occur on and in the vicinity of the construction areas could spread into the disturbed and stockpiled soil. Also, the construction vehicles and equipment were likely used on various other sites and could introduce alien invasive plant seeds or indigenous plants not belonging to this vegetation unit to the construction site. Description Without Mitigation With Mitigation Probability Highly probable (4) Probable (3) Duration Long - term (4) Short - term (2) Extent Local (2) Site bound (1)				 <u>Construction:</u> All alien seedlings and saplings must be removed as they become evident for the duration of construction. All construction vehicles and equipment, as well as construction material should be free of plant material. Therefore, all equipment and vehicles should be thoroughly cleaned prior to access on to the construction areas. This should be verified by the ECO. If filling material is to be used, this should be sourced from areas free of invasive species. 	Due to the high occurrence of alien invasive plant species in the area, the residual risk is moderate to high.

POTENTIAL IMPACTS				PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
Magnitude	High (8)	Low (4)			
Significance	56 (Medium)	21 (Low)			
Status (positive or negative)	Negative	Negative			
				FAUNA	
Nature of Impact:Direct impact on terrestrial vertebratecommunitiesSpatially, the proposed temple will be insignificant. Construction will be disruptive to local dispersion and movement, but the duration will be so short that its effect will be minimal.No mitigation measures are possible.			ruction will	 It is not possible to mitigate the construction impact on fauna as minimal impact is expected and no impact on threatened species are thought to take place. The disruptive influence will be short and the surrounding terrestrial habitat should remain intact. 	The environmental disturbance of the construction will be short lived.
Description	Without Mitigation	With Mitigation]		
Probability	Highly probable (4)				
Duration	None (0)				
Extent	Site bound (1)				
Magnitude	None (0)				
Significance	8 (Low)				
Status (positive or negative)	Negative				
	•			HERITAGE	
Nature of the Impact: Loss and disturbance of heritage sites due to the development A number of structures relating to the Hindu religion were identified on site. These structures are likely to be demolished once the				 The identified features forms part of the living heritage of the site. As such it is the prerogative of the Hindu community to decide what to do with these features as and when the new temple is constructed. Should archaeological sites or graves be exposed during 	High risk anticipated unless mitigation measures are implemented correctly.

POTENTIAL IMPACTS				PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
construction of theDescriptionProbabilityDurationExtentMagnitudeSignificanceStatus (positive or negative)	new temple starts. Without Mitigation Definite (5) Permanent (5) Site (1) High (8) 70 (High) Negative	With Mitigation Highly Probably (4) Short term (2) Site (1) Moderate (6) 36 (Medium) Negative		construction work, it must immediately be reported to a heritage practitioner so that an investigation and evaluation of the finds can be made.	
Source of Impact: The increased dust, smoke and emissions resulting from construction activities (site preparation, earthworks, uncovered topsoil stockpiles and sand piles, loads on vehicles and the burning of waste); vehicles, plant and machinery poses a health hazard to construction staff and people living and working in the vicinity of the site. Excavated and stockpiled material that is vulnerable to wind has the potential to contribute to the influx of pollutants in the air. Description Without Mitigation Probability Definite (5) Highly probable (4) Duration Short term (2)				 AIR QUALITY Dust suppression mitigation measures must be implemented A continuous dust monitoring process needs to be undertaken during construction. All vehicles transporting friable materials such as sand, rubble etc must be covered by a tarpaulin or wet down. Bare surfaces must be rehabilitated as soon as possible with indigenous vegetation that will be able to grow in the area. No burning of refuse or vegetation is permitted. A complaints register will be maintained, in which any complaints from the community will be logged. Complaints will be investigated and, if appropriate, acted upon 	High risk as the amount of emissions into the air will be of high volumes.
Extent Magnitude Significance Status (positive or	Local (2) High (8) 60 (Medium) Negative	Local (2) Moderate (6) 40 (Medium) Negative			

POTENTIAL IMPACTS				PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED	
negative)						
				VISUAL		
Source of Impact: Inappropriate housekeeping, littering and illegal dumping on the site may result in a deterioration of the aesthetic quality of the site. Clearance of vegetation. Presence of construction vehicles, equipment and personnel on site.				 Ensure that no litter, refuse, waste, rubbish, rubble, debris and builders wastes generated on the premises be placed, dumped or deposited on adjacent or surrounding properties including road verges, roads or public places and open spaces during or after the construction period. All waste/litter/rubbish etc must be disposed of 	The development aesthetically during the phase.	proposed will be unappealing construction
Description	Without Mitigation	With Mitigation		at an approved dumping site as approved by the Council.		
Probability	Definite (5)	Highly probable (4)		• No wastes may remain on the construction site for more than two		
Duration	Short term (2)	Short term (2)		weeks.		
Extent	Site (1)	Site (1)		Supply sufficient garbage bins throughout the site and empty		
Magnitude	High (8)	Moderate (6)		regularly.		
Significance	55 (Medium)	36 (Medium)		Ensure good housekeeping is implemented at all times.		
Status (positive or negative)	Negative	Negative		 Ensure good nousekeeping is implemented at all times. Keep the property neat and litter free at all times and maintain the landscaped areas. Vegetation to be removed from the footprint areas only Bare surfaces must be rehabilitated as soon as possible with indigenous vegetation that will be able to grow in the area; The landscape must be rehabilitated in such a way that it corresponds to the surrounding topography; Should overtime/night work be authorised, the Contractor shall be responsible to ensure that lighting does not cause undue disturbance to neighbouring residents. In this situation low flux and frequency lighting shall be utilised. 		
Source of Import				NOISE	High rick of	opportunition
Source of Impact: Noise pollution caused during construction could potentially be a				Construction activities must be limited to normal working hours and	High risk as vehicles and	

	POTENTIAL IN	IPACTS		PROPOSED MITIGATION MITI	SK OF THE IMPACT IGATION NOT BEING IMPLEMENTED			
nuisance to neigh the area. Description Probability Duration Extent Magnitude Significance Status (positive or negative)	bouring residential Without Mitigation Definite (5) Short Term (2) Local (2) High (8) 60 (Medium) Negative	areas and busines With Mitigation Highly probable (4) Short term (2) Local (2) Moderate (6) 40 (Medium) Negative	ses within	 according to municipal bylaws, i.e. working hours must be limited to weekdays only. If construction is required on the weekend; permission from adjacent landowners will be required prior to construction. No sound amplification equipment such as sirens, loud hailers or hooters are to be used on site except in emergencies and no amplified music is permitted on site. Equipment that is fitted with noise reduction facilities (e.g. side flaps, silencers etc) must be used as per operating instructions and maintained properly during site operations. 	causes noise pollution.			
conditions on the c	ers may be advers onstruction site. Ina e safety equipment	ely affected by unsa adequate attention to could result in unsa	fire safety	 human consumption at the site offices and all other working areas. Adequate numbers of chemical toilets must be maintained in the put 	risk to personnel if ty measures are not in place before truction commences.			
Description	Without Mitigation	With Mitigation]	 Healthy and Safety protective personal equipment such as safety 				
Probability	Probable (3)	Probable (3)		boots, safety helmets, gloves, dust masks etc must be made				
Duration	Short Term (2)	Short term (2)		available for workers on site				
Extent	Site (1)	Site (1)		 No open fires will be allowed on site unless in a demarcated area identified by the ECO. 				
Magnitude	Moderate (6)	Low (4)						
Significance	27 (Low)	21 (Low)						
Status (positive or negative)	Negative	Negative						
	CRIME, SAFETY AND SECURITY							
		tes by their nature numbers of people n	All flammable substances must be stored in dry area which do not High pose an ignition risk to the said substances	risk to personnel as				

	POTENTIAL IN	IPACTS		PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED	
on or around the site. These people must be kept off the site for safety reasons. Furthermore criminals may also utilise the opportunity to steal items from the site and the surrounding communities. Description Without Mitigation With Mitigation Probability Probable (3) Probable (3) Duration Short Term (2) Short Term (2) Extent Local (2) Local (2) Magnitude Moderate (6) Moderate (6) Significance 30 (Medium) 30 (Medium) Status (positive or negative) Negative Negative			itilise the	 Ensure all construction vehicles and machinery is under the control of competent personnel. Limit access to the construction site to the workforce only. Comply with the requirements of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993). Construction footprints, including site offices, excavations, storage areas, materials lay-down areas, stockpile area, and workers rest areas should be clearly demarcated or fenced off before construction commences. All construction activities should be limited to the demarcated areas. Access to these demarcated areas strictly controlled. Entry points and access routes to the sites must be clearly marked and traffic limited to those areas as far as possible. Suitable warning and information signage should be erected before construction commences. Adequate sanitary and ablutions facilities must be provided for construction workers 		
				 Mechanisms will be implemented to deal with people seeking employment in order to minimise any issues related to the influx of people. 		
				WASTE MANAGEMENT		
Source of Impact	: Construction rubb	le and littering.		 Littering will not be permitted on the site and general housekeeping will be enforced. 	Construction rubble left onsite may attract vermin,	
Description	Without Mitigation	With Mitigation		General waste bins must be readily available for litter disposal and	encourage the growth of	
Probability	Definite (5)	Probable (3)		general housekeeping. The EMPr must be followed during	opportunistic alien	
Duration	Short Term (2)	Short Term (2)		 All solid waste generated during the construction process must be 	vegetation and become	
Extent	Site (1)	Site (1)		 All solid waste generated during the construction process must be placed in a designated waste collection area within the construction 	unsightly.	
Magnitude	Moderate (6)	Low (4)		camp and must not be allowed to blow around the site, be		
Significance	45 (Medium)	21 (Low)		accessible to animals, or be placed in piles adjacent the waste	Littering on site may attract	

POTENTIAL IMPACTS	PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
Status (positive or negative) Negative Negative	 skips / bins. All solid waste must then be disposed of at the nearest licensed landfill and safe disposal certificates obtained. Separate waste skips/ bins for the different waste streams must be available on site. The waste containers must be appropriate to the waste type contained therein and where necessary should be lined and covered. This will be managed through the site specific EMPr and monitored by the ECO. No waste (hazardous or general) will be disposed of in the trenches around the stormwater channel footprint. All excess material and rubble must be removed from the site so not to restrict the rehabilitation process. Adequate toilet facilities must be provided for all staff members as standard construction practice. Monitor the sewerage facilities for spillages, and handle any spillages as hazardous waste; Chemical toilets must be placed within the construction camp and not in close proximity to the river/wetlands. The chemical toilets to be provided must be from a registered company and all sewage must be disposed of at an appropriate facility. Safe disposal certificates must be kept on record. All hazardous material must be carefully stored and then disposed of offsite at the licensed hazardous landfill site Machinery must be properly maintained to keep oil leaks in check TRAFFIC IMPACT 	vermin, pollute the surrounding areas and become unsightly.
 Nature of the Impact: Anticipated impacts on traffic during construction Potential traffic congestion due to slow construction vehicle movements and other construction related impacts. 	 Vehicular movement beyond the property boundaries may not occur during peak hour traffic times (07h30 – 08h30 and 16h00 – 17h00). It must be ensured that a backlog of traffic does not develop at the access points during peak hours through the upgrade to the road system and the implementation of an efficient and effective access 	Very High traffic congestion in the area

	POTENTIAL IMPA	CTS		PROPOSED MITIGATION	MITIG	COF THE ATION N MPLEME	IOT BE	
DescriptionProbabilityDurationExtentMagnitudeSignificanceStatus(positive ornegative)	Without MitigationHighly Probable (4)Short-term (2)Local (2)High (8)48 (moderate)Negative	With MitigationProbable (3)Short-term (2)Local (2)Moderate (6)Low (24)Negative	•	control system. Speed restriction of 30km/h must be implemented for all construction vehicles on the active construction site. Implement dust suppression measures (wetting or application of soil binding compound) in all areas that will be affected by construction activities and where dust will be generated. <u>Paved Sidewalks</u> : In order to ease and formalize the movement of pedestrians to/from the nearest public transport facilities, a paved sidewalk of at least 1.8m are proposed along the site boundary on Market Street. <u>Site Access 1</u> : Two (2) inbound lanes and a single exit lane. Minimum stacking distance of 7m, measured form the site boundary. In order to ensure adequate and safe sight distance for vehicles exiting the site, it is recommended that the first 20m (approx. 3 bays) from the access and in both direction, be kept clear from street parking. <u>Site Access 2</u> : Single inbound lane and a single exit lane. Minimum stacking distance of 7m, measured form the site boundary. To note is that the access is actually located on the adjacent property, which would normally require a right-of-way servitude. Since the adjacent property also belongs to the CoE, a servitude is not required. However, it is suggested to provide a clause in the title deed of the property to ensure that the 'right of way' is protected in the event of a future change in ownership.				
				SOIL IMPACTS				
Nature of Impact:	Soil Contamination.		•	Any hazardous or dangerous goods utilized during the construction phase must be stored on an impermeable surface that is bunded,	High	risk	for	soil

	POTENTIAL IN	IPACTS		PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED	
Source of Impact:Hydrocarbon spillages from constructionequipment e.g. (oils, fuels, cement etc) have a potential of contaminating soil.DescriptionWithout MitigationWith Mitigation				 fenced, locked and covered. A spill kits must be clearly marked and visible when utilizing hazardous or dangerous materials to ensure all spills can be immediately cleaned. Spill kits must be regularly checked and maintained. Remediation of spillages must be conducted on a continual basis 	degradation.	
Probability	Probable (3)	Probable (3)		and within 24h of spillage;		
Duration	Medium Term (3)	Short term (2)		• Contaminated soil will be considered to be hazardous waste and		
Extent	Local (2)	Local (2)		disposed of accordingly.		
Magnitude	Moderate (6)	Low (4)				
Significance	33 (Medium)	24 (Low)				
Status (positive or negative)	Negative	Negative				
				SOCIO - ECONOMIC		
Nature of Impact phase.	: Temporary job c	reation during the co	onstruction	 <u>Enhancement Measures</u> Job opportunities can be created during the construction phase. 	High risk to unemployment and poverty.	
Description	Without Enhancement	With Enhancement		• Surrounding neighbours must be consulted prior to construction to discuss the construction process and opportunities regarding		
Probability	Probable (3)	Highly Probable (4)		employment.		
Duration	Short term (2)	Short term (2)		 Local community members must be employed as far as possible for low, and somi skilled isba 		
Extent	Local (2)	Local (2)		 low- and semi-skilled jobs. Mechanisms must be implemented to deal with people seeking 		
Magnitude	Low (4)	Moderate (6)		employment in order to minimise any issues related to the influx of		
Significance	24 (Low)	40 (Medium)		people.		
Status (positive or negative)	Positive	Positive				

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the **operational phase** for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Layout Alternative 2 (adjacent Dining Area) – preferred:

Table 5: Operational Impacts

POTENTIAL IMPACTS		PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
		FLORA	
Nature of Impact: <u>Clearing of land for constru</u> pollution of the soil.		 Maintenance: Only indigenous plant species, naturally occurring in the area, should be used for the landscaping of the site. 	Localised alien vegetation infestation
The development during operational phase will vegetation that will be prone to alien vegetation in	-	 It must be ensured that alien invasive species do not dominate the indigenous species. Monitor landscaped vegetation for alien invasive vegetation and 	
 The sources of this impact include: Non monitoring of alien invasion maintenance. 	during vegetation	 Inform residents that planting non indigenous vegetation is undesired 	
 Equipment laces with alien vegetation se Pilgrims planting non indigenous vegetation 	lion		
Description Without Mitigation With Mitiga	tion		
Probability Improbable (2) Improbable	(2)		
Duration Short term (2) Temporary (1)		
Extent Local (2) Site (1)			
MagnitudeLow (4)Minor (2)			
Significance16 (Low)8 (Low)			

	POTENTIAL IN	IPACTS		PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
Status (positive or negative)	Negative	Negative			
 Nature of Impact: Degradation of disturbed grassland and threat to protected plant species. The construction and operation of the temple could have a direct and/or indirect impact on the health and functioning of the disturbed grassland south-west of the site e.g.: Construction vehicles during maintenance could cause compaction and damage vegetation. Construction personnel harvesting /damaging plants during maintenance. Dumping of maintenance material. 			ve a direct e disturbed uld cause	 Operational: Operational activities should be restricted to the site. Ideally the temple site should be fenced off from the adjacent vegetation. If the adjacent vegetation is to be used for spiritual activities, no clearing of the veld or vehicle access must be allowed. No vegetation is to be removed from the disturbed grassland other than alien invasive plant species. The grassland should remain in a natural state and any intervention should be aimed at rehabilitation. Only indigenous plant species, naturally occurring in the area, should be used for the landscaping of the site. 	Low risk
Description	Without Mitigation	With Mitigation	-		
Probability	Probable (3)	Improbable (2)	-		
Duration	Medium term (3)	Short term (2)	-		
Extent	Local (2)	Site (1)	-		
Magnitude	Low (4)	Minor (2)			
Significance	27 (Low)	10 (Low)			
Status (positive or negative)	Negative	Negative			
Nature of Impact:	Nature of Impact: Potential increase in invasive vegetation.			 <u>Maintenance:</u> Only indigenous plant species, naturally occurring in the area, should be used for the landscaping of the site. 	Moderate risk
Description	Without Mitigation	With Mitigation			
Probability	Probable (3)	Improbable (2)]	An alien eradication programme must be established and	

	POTENTIAL IN	MPACTS		PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
Duration	Long term (4)	Short term (2)		maintained throughout operation.	
Extent	Local (2)	Site (1)			
Magnitude	Moderate (6)	Minor (2)			
Significance	36 (Medium)	10 (Low)			
Status (positive or negative)	Negative	Negative			
	•			FAUNA	
communities.	Nature of Impact: Direct impact on terrestrial vertebrate communities.			minimal impact is expected and no impact on threatened species are thought to take place. The disruptive influence will be short and	The environmental disturbance of the construction will be short lived.
Description	Without Mitigation	With Mitigation			
Probability	Highly probable (4)				
Duration	None (0)				
Extent	Site bound (1)				
Magnitude	None (0)				
Significance	8 (Low)				
Status (positive or negative)	Negative				
				HERITAGE	
Nature of the Imp			_	• The identified features forms part of the living heritage of the site. As such it is the prerogative of the Hindu community to decide what	Moderate risk
Description	Without Enhancement	With Enhancement		to do with these features as and when the new temple is constructed and operational.	
Probability	Improbable (2)	Probable (3)			
Duration	Temporary (1)	Long term (4)			
Extent	Site (1)	Site (1)			
Magnitude	Low (4)	Moderate (6)			

	POTENTIAL IN	IPACTS		PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
Significance	12 (Low)	33 (Medium)			
Status (positive or negative)	Negative	Positive			
		•		AIR QUALITY	
The increased dust, smoke and emissions resulting from maintenance activities, vehicles, plant and machinery poses a health hazard to maintenance crew and people living and working in the vicinity of the site. Material that is vulnerable to wind has the potential to contribute to the influx of pollutants in the air.			es a health king in the	 Limit maintenance hours to daytime and weekdays. Speed limits should be enforced to ensure that the generation. 	Low risk
Description	Without Mitigation	With Mitigation	1		
Probability	Probable (3)	Improbable (2)			
Duration	Temporary (1)	Temporary (1)			
Extent	Local (2)	Local (2)			
Magnitude	Moderate (6)	Low (4)			
Significance	27 (Low)	14 (Low)			
Status (positive or negative)	Negative	Negative			
				VISUAL	
The temple will b phase.	e aesthetically ap	pealing during the	operational	 Ensure that no litter, refuse, waste, rubbish, rubble, debris and builders wastes generated on the premises be placed, dumped on dependent on entry of the premises including 	The Laudium Temple will be aesthetically appealing during the operation
Description	Without Mitigation	With Mitigation		or deposited on adjacent or surrounding properties including road verges, roads or public places and open spaces during or	during the operation phase.
Probability	Probable (3)	Improbable (2)		after the construction period.	
Duration	Short-term (2)	Short-term (2)		All waste/litter/rubbish etc. must be disposed of at an approved dumping site as approved by the Municipality	
Extent	Limited to Local Area (2)	Limited to Local Area (2)		dumping site as approved by the Municipality.Maintenance of temple, yard and parking area.Bare surfaces must be rehabilitated as soon as possible with	

	POTENTIAL IM	IPACTS		PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
Magnitude	Medium (6)	Low (4)		indigenous vegetation that will be able to grow in the area;	
Significance	30 (Medium)	20 (Low)		• The landscape must be rehabilitated in such a way that it	
Status (positive, negative or neutral)	Negative	Negative		corresponds to the surrounding topography;	
				NOISE	
Source of impact: Larger crowds will be attracted to the Temple for prayers. Religious events will attract more people. More cars will also result in more noise. Fireworks during Diwali. Maintenance works.				 Inform residents of planned religious events. Ensure that noise levels are to an acceptable level. Maintenance and the use of construction machinery should be limited between 06h00 and 18h00 on weekdays 	Moderate risk
Description	Without Mitigation	With Mitigation		only.	
Probability	Definite (5)	Highly probable (4)		Institute noise control measures throughout maintenance	
Duration	Long term (4)	Long term (4)		periods.	
Extent	Local (2)	Local (2)		• Maintenance activities must abide by the national noise	
Magnitude	High (8)	Moderate (6)		laws and the municipal noise by-laws with regard to the	
Significance	70 (High)	48 (Medium)		abatement of noise caused by mechanical equipment.	
Status (positive or negative)	Negative	Negative		Speed limits must be adhered to.	
				HEALTH AND SAFETY	
During maintenanc	æ.			• The Contractor shall make available safe drinking water fit for human consumption during maintenance.	Low
Description	Without Mitigation	With Mitigation		• Adequate numbers of chemical toilets must be on site during	
Probability	Improbable (2)	Improbable (2)		maintenance.	
Duration	Temporary (1)	Temporary (1)		 Toilet paper must be provided. Healthy and Safety protective personal equipment such as safety 	
Extent	Site (1)	Site (1)		 Healthy and Salety protective personal equipment such as salety boots, safety helmets, gloves, dust masks etc must be utilized by 	

POTENTIAL IMPACTS			PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED
Magnitude	Low (4)	Minor (2)	maintenance workers.	
Significance	12 (Low)	8 (Low)		
Status (positive or negative)	Negative	Negative		
			CRIME, SAFETY AND SECURITY	
			Ensure that the contact details of the police or security	Moderate risk
Description	Without Mitigation	With Mitigation	company and ambulance services are available.	
Probability	Probable (3)	Improbable (2)	 Maintenance must comply with safety regulations. 	
Duration	Long term (4)	Long term (4)	Security fencing.	
Extent	Local (1)	Local (1)	Security guards.Boom-entrance (limit access).	
Magnitude	Moderate (6)	Low (4)		
Significance	33 (Medium)	18 (Low)		
Status (positive or negative)	Negative	Negative		
		L	WASTE MANAGEMENT	
Source of Impact:	Maintenance rubb	le and littering.	Littering will not be permitted on the site and general housekeeping will be enforced.	Moderate risk
Description	Without Mitigation	With Mitigation	General waste bins must be readily available for litter disposal and	
Probability	Highly probable (4)	Probable (3)	general housekeeping.	
Duration	Long term (4)	Short Term (2)	 All solid waste must be disposed of at the nearest licensed landfill and acfa disposed partificates abtained. Separate waste sking/ bigs 	
Extent	Site (1)	Site (1)	and safe disposal certificates obtained. Separate waste skips/ bins for the different waste streams must be available on site.	
Magnitude	Moderate (6)	Low (4)	 Monitor the sewerage facilities for spillages, and handle any 	
Significance	44 (Medium)	21 (Low)	spillages as hazardous waste.	
Status (positive or negative)	Negative	Negative		

	POTENTIAL IM	IPACTS			PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED	
Source of Impa	ProbabilityImprobable (2)Improbable (2)DurationShort term (2)Short term (2)ExtentLocal (2)Local (2)MagnitudeLow (4)Minor (2)Significance16 (Low)12 (Low)Status (positive orImprobable (2)		r k 	Any hazardous or dangerous goods utilized during maintenance must be stored on an impermeable surface that is bunded, fenced, ocked and covered. A spill kits must be clearly marked and visible when utilizing nazardous or dangerous materials to ensure all spills can be mmediately cleaned. Spill kits must be regularly checked and maintained. Remediation of spillages must be conducted on a continual basis and within 24h of spillage. Contaminated soil will be considered to be hazardous waste and disposed of accordingly.	Low risk		
negative)	Negative	Negative					
				TRAFFIC IMPACT			
Nature of impact: The Temple would events.		<pre>/ congestion ds especially during</pre>	Religious	• / F	Sufficient parking spaces must be provided for private vehicles. All road safety and warning signs must be as stipulated by the Roads and Traffic Act (Act 93 of 1996). Traffic control measures must be put in place during events.	Moderate risk	
Description	Without Mitigation	With Mitigation					
Probability	Highly Probable (4)	Probable (3)					
Duration	Long-term (4)	Short-term (2)					
Extent	Local (2)	Local (2)	Local (2)				
Magnitude	High (8)	Moderate (6)	Moderate (6)				
Significance	48 (Medium)	Low (24)	Low (24)				
Status (positive or negative)	Negative	Negative					
				S	SOCIO - ECONOMIC		

POTENTIAL IMPACTS				PROPOSED MITIGATION	RISK OF THE IMPACT MITIGATION NOT BEING IMPLEMENTED	
 Source of impact: Temple will enhance aesthetic value of the area and in turn attract more people. Job creation for locals Job creation for local suppliers. Operational opportunities for local retailers. Overall upliftment of the area. 		nd in turn	 Locals must be considered for employment opportunities. Local suppliers and retailers must also be considered for supplies. Community involvement must be encouraged. 	High risk		
Locals wo Description	uld not have to trav Without Enhancement	vel far out for a Temple With Enhancement).			
Probability	Probable (3)	Definite (5)				
Duration	Long term (4)	Long term (4)				
Extent	Local (2)	Local (2)				
Magnitude	Moderate (6)	High (8)				
Significance	36 (Medium)	70 (High)				
Status (positive or negative)	Positive	Positive				

Table 6: Potential impacts should the Development not be Approved "No-Go" Alternative

	Significance			
Potential impacts:	rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
Clearing of land for construction and potential	P – Medium	There are no mitigation measures.	P – Medium	Low risk
pollution of the soil – No-go would mean study site				
status quo is maintained.				
Degradation of disturbed grassland and threat to	P – Medium	There are no mitigation measures.	P – Medium	Low risk
protected plant species - No-go would mean study				
site status quo is maintained				
Potential increase in invasive vegetation - No-go	P – Medium	There are no mitigation measures.	P – Medium	Low risk
would mean study site status quo is maintained.				
Direct impact on terrestrial vertebrate communities –	P – Medium	There are no mitigation measures.	P – Medium	Low risk
No-go would mean study site status quo is maintained.				
Loss and disturbance of heritage sites due to the	P – High	There are no mitigation measures.	P – High	Low risk
development - No-go would mean study site status				
quo is maintained.				
Air Quality – No-go would mean study site status quo is maintained.	P – Medium	There are no mitigation measures.	P – Medium	Low risk
Visual – littering and dumping during construction –	P – Medium	There are no mitigation measures.	P – Medium	Low risk
No-go would mean study site status quo is	·			
maintained.				
Visual – during operation – No-go would mean no	P – Medium	The aesthetic value of the site as well	P – Medium	High risk
Temple.		as the area will not be enhanced as		-
		there would be no Temple.		
Noise- No-go would mean site status quo is	P – Medium	There are no mitigation measures.	P – Medium	Low risk

maintained.				
Health and safety – No-go would mean no health and	P – Medium	There are no mitigation measures.	P – Medium	Low risk
safety risks.				
Crime, safety and security – No-go would mean study	P – Medium	There are no mitigation measures.	P – Medium	Low risk
site status quo remains the same.				
Waste management – No-go would mean study site	P – Medium	There are no mitigation measures.	P – Medium	Low risk
remains undisturbed.				
Soil contamination - No-go would mean study site	P – Medium	There are no mitigation measures.	P – Medium	Low risk
status quo is maintained.				
Socio-economic impacts – during construction – No-	N – High	Construction of proposed	N – High	High risk
go would mean no added socio-economic impacts.		development would result in		
		temporary job creation and local		
		community development.		
Socio-economic impacts – during operation – No-go	N – High	The Temple will enhance aesthetic	N – High	High risk
would mean no added socio-economic impacts.		value of the area and in turn attract		
		more people. The operational phase		
		would result job creation for locals,		
		job creation for local suppliers,		
		operational opportunities for local		
		retailers and overall upliftment of the		
		area.		
Increase in Traffic/ Congestion – during operation –	P – High	There are no mitigation measures.	P – High	Low risk
No-go would mean status quo remains the same.				

In terms of the "**No-Go**" **Alternative**, if the activity is refused an approval there will be no impacts as a result of construction activities. If the no-go alternative is pursued, then the operational-related positive impacts will not be realized, no job creation, no local Temple and no overall upliftment of the community. This alternative will not be feasible as the applicant is providing a service to the local community. This is an undesirable option for the project as it will pose negative impacts on the social and economic perspective. The negative impacts of the no-go option alternative are considered to outweigh the positive impacts of this alternative. The no-go option is therefore not preferred.

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

- Ecological Assessment Report
- Heritage Impact Assessment Report

Describe any gaps in knowledge or assumptions made in the assessment of the environment and the impacts associated with the proposed development.

No gaps in knowledge have been identified at this stage.

The following assumptions are made:

- The information on which the report is based (i.e. project information) is correct.
- The construction, operation and management of this proposed development will be in line with the recommendations in this report, which will be enforced by the implementation of a detailed Environmental Management Programme. Much of the long-term success lies in the effective implementation of the measures prescribed in the Environmental Management Programme.

3. IMPACTS THAT MAY RESULT FROM THE DECOMISSIONING AND CLOSURE PHASE

Briefly describe and compare the potential impacts (as appropriate), +significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the decommissioning and closure phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Layout Alternative 1 (parallel Dining Area) - preferred & Layout Alternative 2 (adjacent Dining Area) -:

Potential impacts: Significance rating of impacts(positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
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Decommissioning and closure phase has not been considered as part of this application as the end use of the site and required decommissioning activities are not known at this time. It is therefore not possible to predict the potential environmental impacts. In addition. If decommissioning phase is considered in future, the developer will undertake the required actions as prescribed by the legislation at the time and comply with all relevant requirements administered by any relevant authority and competent authority at that time.

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

N/A

Where applicable indicate the detailed financial provisions for rehabilitation, closure and ongoing post decommissioning management for the negative environmental impacts.

- Post decommissioning management cost will not be determined at this stage as this phase of the development is not contemplated.
- Rehabilitation management costs are not available it this stage of the project.

4. CUMULATIVE IMPACTS

Describe potential impacts that, on their own may not be significant, but is significant when added to the impact of other activities or existing impacts in the environment. Substantiate response:

Cumulative impacts can result from an effect which in itself may not be significant but may become significant if added to other existing or potential impacts that may result from activities associated with the proposed development. The anticipated cumulative impacts of this development includes the following:

Destruction of vegetation

• If mitigation measures are adequately implemented, no cumulative impacts are expected.

Removal of alien invasive vegetation

• The removal and sustained low or no infestation with alien invasive species will have a positive cumulative impact as the seed source of these species within the area will be reduced.

Traffic

• Traffic impacts are expected to be low provided that mitigation measures are implemented.

Increased socio-economic upliftment as a result of the proposed development (Positive Impact)

• The project must increase the possibility that locals are employed and involved in the construction, rehabilitation and maintenance activities.

Noise

• No cumulative impacts expected

Visual

• The establishment of proposed development will not add negatively to the local area.

Generally, the cumulative impact for the development is rated as Low and with mitigations.

5. IMPACT SUMMARY OF THE PROPOSAL AND ALTERNATIVE

A summary of the impact assessments is presented in **Table 8 and 9**; the tables cover the construction and operational impacts. An overall weighted score is provided in each case. Thus far each of the environmental issues are assigned equal weighting (I.e. the weighted score is the average of each of the individual scores.

< 30	Low significance
30 to -60	Moderate significance
>60	High significance

	Construction		
Environmental Aspect	Without Mitigation	With Mitigation	
Destruction of vegetation	Moderate	Low	
Destruction of protected plants and plants of conservation concern	Moderate	Low	
Potential increase in invasive vegetation	Moderate	Low	
Impact on soil	Moderate	Low	
Direct impact on fauna habitat	Low		
Visual Impacts	Moderate	Low	
Noise Impacts anticipated	Moderate	Low	
Impact on heritage	High	Moderate	
Air Quality	Moderate	Moderate	
Impact on traffic	Moderate	Low	
Social impacts anticipated during the construction period (Positive)	Low	Low	
Social impacts anticipated during the construction period (Negative)	Moderate	Low	

Environmental Aspect		
	Without Mitigation	With Mitigation
Destruction of vegetation	Moderate	Low
Destruction of protected plants and plants of conservation concern	N/A	N/A
Alien invasive vegetation (positive)	Moderate	Moderate
Impact on soil	Moderate	Low
Direct impact on fauna habitat	Moderate	Low
Visual Impacts	Moderate	Low
Noise Impacts anticipated	N/A	N/A
Impact on heritage	Low	Low
Air Quality		
Impact on traffic	Moderate	Low
Social impacts anticipated during the construction period (Positive)	Moderate	Moderate
Social impacts anticipated during the construction period (Negative)	Moderate	Low

6. ENVIRONMENTAL IMPACT STATEMENT

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

The major findings of the negative impacts on the proposed development were the following:

Construction Phase:

It is most likely that all identified construction related impacts would be limited to the duration of the construction phase and can be adequately mitigated to have a low or insignificant impact. No "High" negative impact after mitigation was identified during the construction and operational phase on site.

A summary of all the potential impacts from the proposed project assessed above is included in the Impact Summary Table.

Operational Phase:

Potential operational phase related impacts were generally considered to be of low (negative) significance after mitigation measures are implemented.

Decommissioning Phase:

(Not applicable as detailed in this report).

The indentified impacts on site for both alternatives are similar with differences only on to the position of the dining area in relation to the Main Temple. The impacts are summarized below.

The following conclusions were drawn from the specialist studies undertaken within this Basic Assessment for all alternatives:

Vegetation Assessment:

The vegetation on site was found to be modified from the reference state of Carletonville Dolomite Grassland. The vegetation comprises mowed lawns with limited indigenous forbs, while a number of invasive species are present. The vegetation does not provide habitat to plant species of conservation concern and despite the fact that the site falls within and area classified as Important by the Gauteng Conservation Plan, the vegetation does not contribute to the conservation of good condition grassland in the province.

However, south-west of the site, disturbed grassland was present and included one provincially protected plant species. The disturbed grassland also falls within the Important area and currently act as a buffer to natural vegetation south and south-west of the site. The grassland could rehabilitate if all current disturbances are halted and rehabilitation measures implemented, however, this falls outside of the scope and land ownership of the current proposed temple. It must be noted that current human impacts are degrading the grassland and although it is unlikely that the construction and operation of the proposed temple will impact directly on this grassland, it may lead to cumulative impacts during construction.

Fauna assessment:

The conservation status of construction terrain is rated as Low, i.e. "Land that has little conservation value and that could be considered for development with little to no impact on the habitats or vertebrate fauna". The site is very small and as conservation asset is rated as "Insignificant". Super-imposed on that is the "Very Low" and "Abdominable" conservation rankings.

It is concluded that a few individuals of common species will be displaced from the diminutive development areas (viz. striped mice, mongooses, scrub hares, plovers). Sensitive or Red Data vertebrates are deemed entirely absent and will thus not be placed in jeopardy by the proposed development. It should also be emphasized that the small site under contention can under no circumstance be considered as a conservation asset.

It is clear from the specialist studies (**Appendix G**) undertaken for the project that there are some level of negative impacts associated with the project. For the majority of the site, the proposed development will be on previously transformed grassland and from a conservation perspective the development is considered to be acceptable as most of the vegetation on the site is in a poor ecological condition with no potential to conserve good condition, natural vegetation. No plant species of conservation concern were recorded, and none are expected to occur. There is also the element of positive socio-economic impacts such as job creation, housing provision and business opportunities associated to the project.

Overall, the significance levels of the majority of identified negative impacts can generally be reduced to acceptable levels by implementing the recommended mitigation measures. With reference to the information available at this planning approval stage in the project cycle, the confidence in the environmental assessment undertaken is regarded as acceptable with the implementation of the of practical and appropriate mitigation measures as detailed in this report and contained in the Environmental Management Programme in **Appendix H**.

Layout Alternative 2 (adjacent Dining Area)

See above, the environmental impacts are similar in relation to both alternative layout designs with no difference in environmental impacts and therefore summarised collectively.

No-go (compulsory)

This is the option of not undertaking the proposed Shri Muthu Mari Angalaeshwari Temple development at this site. This option will result in no impacts occurring on the biophysical environment (i.e. biodiversity, soils), and will result in no visual or social impact hence the project site status quo remains. The No-Go option will result in the situation where the current facility that is being utilised as the place of worship to continue to outgrow the space in which it operates. Thus the need to build a temple that will cater for the needs of the devotees and community will not be realised.

7. SPATIAL DEVELOPMENT TOOLS

Indicate the application of any spatial development tool protocols on the proposed development and the outcome thereof.

Provincial Spatial Development Framework (PSDF)

The Gauteng PSDF is a provincial and strategic planning policy that responds to and complies with in particular the National Development Plan vision 2030 and the National Spatial Development perspective (NSDP). This framework promotes a developmental state in accordance to the principals of global sustainability as is stated by among others, the South African constitution and enabling legislation. The Gauteng PSDF is based on six growth and development pillars, each of which has its onset of drivers with long term-programmes. Pillar 1 highlights the job creation by developing the proposed temple. The proposed development will create jobs opportunities during the construction phase, these employment opportunities will target local community members that are usually excluded from mainstream economic and formal employment. Therefore the development is in line with the Gauteng PSDF.

Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).

The implementation of the proposed development will not compromise the integrity of the City of Tshwane Metropolitan Municipality for 2016/2017 to 2021.

8. RECOMMENDATION OF THE 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 as bound by professional ethical standards and the code of conduct of EAPASA).

YES

If "NO", indicate the aspects that require further assessment before a decision can be made (list the aspects that require further assessment):

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

There are no insurmountable environmental or social constraint that prevents the establishment of the proposed temple. Therefore, it is recommended that **Layout Alternative 1** (parallel Dining Area) – preferred proposed development be considered for approval subject to the following general

recommendations:

- The EMPr should be a legal binding document and an extension of the Environmental authorisation once issued by GDARD.
- The appointed contractor should be contractually bound to comply with the conditions of the EMPr.
- An independent ECO should be present during construction to monitor the implementation of the EMPr and the environmental authorization once issued and compile monthly audit report for submission to the relevant authorities.
- Compliance with the mitigation measures outlined in this BA report and EMPr.
- All relevant legislation and requirement of other government departments (National, Provincial), in particular of Section 28 (duty of care) of NEMA, must be complied with.
- In the event of a major incident (e.g. fire causing damage to property and environment, major spill or leak of contaminants), the relevant authorities should be notified as per the notification of emergencies/ incidents, as per the requirements of section 30 of NEMA.
- Compliance with all legal requirements in relation to environmental management and conditions of the authorization issued by GDARD.
- Construction noise on site must not exceed 85DB as required by the Health and Safety Act.
- The site after construction must be rehabilitated to a state that conforms to the principles of sustainable development.

It must be noted that the implementation of Layout Alternative 2 (adjacent Dining Area) is equally endorsed for development as it too presents no fatal environmental flaws. The preference of Layout Alternative 1 (parallel Dining Area) is based on known topographical/terrain conditions of the foundation types to be used, and soil conditions for the foundations in terms of geotechnical suitability and costs. From an environmental point of view, both alternative layout designs can be implemented for development provided that recommended mitigation measures are implemented.

9. THE NEEDS AND DESIREBILITY OF THE PROPOSED DEVELOPMENT (as per notice 792 of 2012, or the updated version of this guideline)

The current facility that is being utilised as the place of worship has outgrown the space required and thus there is a need to build a temple that will cater for the needs of the devotees and community. The current facility that is being utilised as the place of worship has outgrown the space required and thus there is a need to build a temple that will cater for the needs of the devotees and community. Also, to cater for youth and overall community upliftment. The youth and other Hindu based community members would have a place to go to and a sense of belonging; and have an avenue of exercising their

right to religious practice.

10. THE PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED (CONSIDER WHEN THE ACITIVTY IS EXPECTED TO BE CONCLUDED)

Duration and Validity: The Environmental Authorisation is required for a period of 10 years from the date of issue. Should a longer period be required, the applicant/EAP will be required to provide a detailed motivation on what the period of validity should be.

11. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr) (must include post construction monitoring requirements and when these will be concluded.)

If the EAP answers "Yes" to Point 7 above then an EMPr is to be attached to this report as an Appendix

EMPr attached

YES

SECTION F: APPENDICES

LIST OF APPENDICES:

Appendix A: Site plan(s)

- Appendix A1: Locality Map
- Appendix A2: Sensitivity Maps
- Appendix A3: Layout Plan (overlain on site sensitivity)

Appendix B: Photographs

Appendix C: Facility illustration(s) (N/A)

Appendix D: Route position information (N/A)

Appendix E: Public participation information

- Appendix E1: Proof of site notice
- Appendix E2: Proof of Stakeholder Notifications
- Appendix E3: Proof of newspaper advertisements
- Appendix E4: Authority Consultation
- Appendix E5 Minutes of any public and/or stakeholder meetings
- Appendix E6 Comments and Responses Report
- Appendix E7 –Comments from I&APs on Draft Basic Assessment (BA) Report
- Appendix E8 –Comments from I&APs on amendments to the BA Report (N/A)
- Appendix E9 I&APs and Registered I&APs Database
- Appendix E10 Comments from I&APs on the application

Appendix F: Water use license(s) authorisation, SAHRA information, service letters from municipalities,

water supply information

Appendix G: Specialist reports

- Appendix G1: Ecological Biodiversity Assessment
- Appendix G2 Heritage Impact Assessment

Appendix H: EMPr

Appendix I: Other information

- I1: Geotech Investigation
- I2: Specialist expertise
- I3: EAP expertise
- I4: EAP Affirmation
- I5: Deed of donation

CHECKLIST

To ensure that all information that the Department needs to be able to process this application, please check that:

- o Where requested, supporting documentation has been attached;
- \circ All relevant sections of the form have been completed.