

	IMPACTS				CONSEQUENCE			PROBABILITY	RANKING WITHOUT MITIGATION	CONFIDENCE	IMPLEMENTATION OF MANAGEMENT MEASURES	RANKING WITH MITIGATION	DEGREE REVERSABILITY & LOSS OF RESOURCE (AFTER MITIGATION)			
	Nature	Description	Alternative	Cumulative	Type	Extent (A)	Duration (B)	Intensity (C)	Probability (P)	Significance (A + B + C) X P	Confidence	Description and/or Mitigation and Management Measures (if applicable)	Mitigation Effectiveness	Significance	Loss of Resources	Reversibility
CONSTRUCTION PHASE																
Atmospheric Emissions	Negative	Dust emissions	Proposal	Yes	Direct	Site	Short-term	Low-Medium	Likely	Low	High	<ul style="list-style-type: none"> A speed limit of 20km/h must be maintained on all dirt roads. Dust suppression by means of either water or biodegradable chemical agent is required. 	High	Low	No Loss	Reversible
			Alternative 1			Site	Short-term	Low-Medium	Likely	Low	High		High	Low	No Loss	Reversible
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	None	High	None required	Not Applicable	None
	Negative	Emissions from vehicles and equipment (CO ₂ , NO _x , SO _x , VOC's etc.)	Proposal	Yes	Direct	Local	Short-term	Low-Medium	Likely	Low	High	<ul style="list-style-type: none"> In terms of transportation of workers and materials, collective transportation arrangements should be made to reduce individual car journeys where possible. All vehicles used during the project should be properly maintained and in good working order. All vehicles and other machinery should comply with road worthy requirements and comply with legislation in terms of allowable emissions. Preference should be given to local labour so to reduce travel requirements 	Medium	Low	No Loss	Reversible
			Alternative 1			Local	Short-term	Low-Medium	Likely	Low	High		Medium	Low	No Loss	Reversible
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	None	High	None required	Not Applicable	None
	Negative	Noise	Proposal	No	Direct	Neighbouring	Short-term	Low-Medium	Possible	Low	High	<ul style="list-style-type: none"> Equipment and/or machinery which will be used must comply with the manufacturer's specifications on acceptable noise levels. Construction activities should be limited to daytime only. 	High	Low	No Loss	Reversible
			Alternative 1	No	Direct	None	Short-term	Low-Medium	Possible	Low	High		High	Low	No Loss	Reversible
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	None	High	None required	Not Applicable	None
	Negative	Sewage	Proposal	No	Direct	Site	Incidental	Low	Improbable	Low	High	<ul style="list-style-type: none"> The proposed development is not in close proximity to any watercourses or wetlands as such minimal impacts apply. Further, as a precaution, the following measures should be implemented: Chemical toilets must be supplied and maintained during the construction phase Ablution facilities (chemical toilets) are to be provided by the Contractor, at a ratio of 1:10. Ablution facilities (chemical toilets) must be erected within 100m from all workplaces but within the development footprint. Toilets are to be secured to the ground, and must have a closing mechanism. Toilet paper must be provided at these facilities and must be serviced once per week. Certified contractors to maintain and remove chemical toilets regularly. The contractor must ensure that spillage does not occur when toilets are cleaned/serviced and contents must be properly stored and disposed of. Discharge of waste into the environment and/or burial of waste are strictly prohibited. Sanitary arrangements must be to the satisfaction of the PM, ECO, the local authorities and the applicable legal requirements. 	Very High	Low	No Loss	Reversible
			Alternative 1			Site	Incidental	Low	Improbable	Low	High		Very High	Low	No Loss	Reversible
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	None	High	None required	Not Applicable	None
	Negative	Silt	Proposal	No	Indirect	Site	Incidental	Low	Improbable	Low	High	<ul style="list-style-type: none"> The proposed development is not in close proximity to any watercourses or wetlands as such minimal impacts apply. Further, as a precaution, the following measures should be implemented: Instability and erosion of steep slopes must be stabilised immediately. Re-vegetation in consultation with landscape architect and ECO should be done if and where required. To reduce the loss of material by erosion, disturbance must be kept to a minimum. Where possible, natural vegetation should be retained to reduce the risk of erosion. Erosion control measures must be implemented. 	High	Low	No Loss	Reversible
			Alternative 1			Site	Incidental	Low	Improbable	Low	High		High	Low	No Loss	Reversible
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	None	High	None required	Not Applicable	None
			Proposal			Neighbouring	Short-term	Low-Medium	Improbable	Low	High	<ul style="list-style-type: none"> Storm water management during construction will be implemented however, as the proposed development does not cross any watercourses and is not in close proximity to any wetlands, minimal impacts are expected. Further, as a precaution, the following measures should be implemented: Increased run-off during construction should be managed using berms, temporary cut-off drains, attenuation ponds or other suitable structures, in consultation with the ECO and resident Engineer. Stormwater management system is to be installed as soon as possible 	High	Low	No Loss	Reversible

	IMPACTS				CONSEQUENCE			PROBABILITY	RANKING WITHOUT MITIGATION	CONFIDENCE	IMPLEMENTATION OF MANAGEMENT MEASURES	RANKING WITH MITIGATION	DEGREE REVERSABILITY & LOSS OF RESOURCE (AFTER MITIGATION)			
	Nature	Description	Alternative	Cumulative	Type	Extent (A)	Duration (B)	Intensity (C)	Probability (P)	Significance (A + B + C) X P	Confidence	Description and/or Mitigation and Management Measures (if applicable)	Mitigation Effectiveness	Significance	Loss of Resources	Reversibility
Surface and Ground Water	Negative	Surface water run-off	Alternative 1	Yes	Indirect	Neighbouring	Short-term	Low-Medium	Improbable	Low	High	following site establishment, to attenuate stormwater during the construction phase, as well as during the operational phase. • Surface-water run-off and stormwater must be directed away from trenches and areas of excavation. • The Stormwater Management Plan compiled for the development must be implemented including Grey Water Recycling and grease traps.	High	Low	No Loss	Reversible
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable
	Negative	Contamination of surface and/or ground water from hazardous substances	Proposal	No	Indirect	Site	Incidental	Low-Medium	Improbable	Low	High	• The proposed development does not cross any watercourses and is not in close proximity to any wetlands as such minimal impacts apply. Further, the following measures must be implemented: • Drip trays must be placed under all vehicles when immobile for longer than 24 hours. Vehicles suspected of leaking must be monitored and conduct a pre start-up inspection checklist. • Drip trays must be checked and replaced for vehicles standing (parked) for prolonged periods. • Drip trays must be of a sufficient size and volume to collect any hydrocarbon leakages from a stationary vehicle. • Spill kits (absorbent material) must be available on site and in all vehicles that transport hydrocarbons for dispensing to other vehicles on the construction site. • Spilled substances must be contained in impermeable containers for removal to a licensed hazardous waste site. • Significant spills should be reported to the Project Manager or Contractors Manager and ECO who should report this to the relevant authority	Very High	Low	No Loss	Reversible
			Alternative 1			Site	Incidental	Low-Medium	Improbable	Low	High	Very High	Low	No Loss	Reversible	
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable
	Negative	Impact on groundwater availability and flow	Proposal	No	Direct	Local	Short-term	Low	Likely	Low	Medium	During construction, water will be abstracted from the borehole until such time that the municipal connection is put in place. Geohydrological Baseline Assessment found that impacts are likely to be insignificant w.r.t the shallow weathered and fractured aquifers of the Swazian age rocks/ basement aquifer system, unlikely to impact third party groundwater users, should a 12-hour pump schedule be followed, and based on the expected drawdown extent not likely to impact on groundwater contribution to baseflow. In order to ensure this is the case: • Enforce water saving strategies. • Environmental awareness training. • 12-hour pump schedule to be adhered to. • Existing borehole on site should be monitored for water levels (monthly) and qualities (quarterly). • Recommended abstraction rate for the borehole should not be exceeded (0.45 L/s)	High	Low	No Loss	Reversible
			Alternative 1			Local	Short-term	Low	Likely	Low	Medium	High	Low	No Loss	Reversible	
			No-Go Option			Not Applicable	Not Applicable	None	None	None	None	None	None	Not Applicable	None required	Not Applicable
	Negative	Domestic waste	Proposal	Yes	Direct	Local	Short-term	Low-Medium	Likely	Low	High	• Waste recycling to be put in place. • Solid waste shall only be stored in the designated general waste storage area which must be enclosed and impermeable. • All solid waste shall be disposed of by a certified contractor, off-site, at an approved landfill site. The Contractor shall supply the ECO with a certificate of disposal for auditing purposes.	Medium	Low	No Loss	Reversible
			Alternative 1			Local	Short-term	Low-Medium	Likely	Low	High	Medium	Low	No Loss	Reversible	
			No-Go Option			Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable
	Negative	Construction waste	Proposal	Yes	Direct	Local	Short-term	Low-Medium	Likely	Low	High	• Litter (from outside the camp included) and concrete bags etc. must be collected and put into suitable closed bins on a daily basis. • Construction rubble must be disposed of at a registered site • No Construction rubble may be used for infilling.	Medium	Low	No Loss	Reversible
Alternative 1			Local			Short-term	Low-Medium	Likely	Low	High	Medium	Low	No Loss	Reversible		
No-Go Option			Not Applicable			Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None

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	Nature	Description	Alternative	Cumulative	Type	Extent (A)	Duration (B)	Intensity (C)	Probability (P)	Significance (A + B + C) X P	Confidence	Description and/or Mitigation and Management Measures (if applicable)	Mitigation Effectiveness	Significance	Loss of Resources	Reversibility
Waste Generation	Negative	Hazardous waste	Proposal	Yes	Direct	Local	Short-term	Low-Medium	Likely	Low	High	<ul style="list-style-type: none"> The classification of waste determines the handling methods and the ultimate disposal of the material. The contractor shall manage hazardous waste that are anticipated to be generated by his operations as follows: Characterise the waste to determine if it is general or hazardous. Obtain and provide an acceptable container with a label. Place hazardous waste material in the container. Inspect the container on a regular basis Haul the full container to the licenced and correct disposal site. Provide documentary evidence of proper disposal of the waste. Only temporary storage of waste is allowed (once of storage of waste for a period less than 90 days). The volume of material should be limited to less than 80m3 of hazardous waste. Should this be exceeded the Norms and Standards for the Storage of Waste will need to be complied with. 	Medium	Low	No Loss	Reversible
			Alternative 1	Yes	Direct	Local	Short-term	Low-Medium	Likely	Low	High		Medium	Low	No Loss	Reversible
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None		High	None required	Not Applicable	None
Soil Alteration	Negative	Loss of topsoil	Proposal	Yes	Direct	Site	Permanent	Medium	Definite	Medium	High	<ul style="list-style-type: none"> Top soil should be separated and re-used where possible. 	Low	Low-Medium	Partial	High Degree
			Alternative 1			Site	Permanent	Medium	Definite	Medium	High		Low	Low-Medium	Partial	High Degree
			No-Go Option	Yes	Direct	Site	Long-term	Low	Possible	Low	High	<ul style="list-style-type: none"> The site is impacted by historic land use and some sections are bare due to informal roads and pathways, whilst others are vegetated by grassland and disturbed grassland habitat. Some loss of topsoil is likely in the existing bare areas. It is likely that there will be a continued loss of topsoil should the development not proceed as the site will remain in its degraded state. 	None	Low	Partial	High Degree
	Negative	Loss of land capability	Proposal	Yes	Direct	Site	Permanent	Low-Medium	Definite	Medium	High	<ul style="list-style-type: none"> The proposed site does not have a high agricultural potential nor is currently used for agriculture (although historically it was). Further, the site falls within Zone 1 of the GPEMF and the Lanseria Node of the RSDP and is thus not planned for agriculture. No mitigation measures are therefore recommended or required. 	None	Medium	Partial	High Degree
			Alternative 1			Site	Permanent	Low-Medium	Definite	Medium	High		None	Medium	Partial	High Degree
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable
	Negative	Alteration of topography	Proposal	No	Direct	Site	Permanent	Low-Medium	Definite	Medium	High	<ul style="list-style-type: none"> Some of the Topography within the development footprint will be altered as part of the development. In order to ensure the change in topography does not impact stormwater, the following must be implemented: Stormwater management measures must be implemented to ensure these designs do not impact on stormwater. 	Low	Low-Medium	Partial	High Degree
			Alternative 1			Site	Permanent	Low-Medium	Definite	Medium	High		Low	Low-Medium	Partial	High Degree
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable
	Negative	Soil pollution	Proposal	No	Direct	Site	Incidental	Low-Medium	Likely	Low	High	<ul style="list-style-type: none"> Drip trays must be placed under all vehicles when immobile for longer than 24 hours. Vehicles suspected of leaking must be monitored and conduct a pre start-up inspection checklist. All vehicle/equipment maintenance and washing must be done in the workshop area, equipped with a bund wall and grease trap oil separator. Workshop area must be monitored for fuel and oil spills. Drip trays must be checked and replaced for vehicles standing (parked) for prolonged periods. Drip trays must be of a sufficient size and volume to collect any hydrocarbon leakages from a stationary vehicle. Spill kits (absorbent material) must be available on site and in all vehicles that transport hydrocarbons for dispensing to other vehicles on the construction site. Spilled substances must be contained in impermeable containers for removal to a licensed hazardous waste site. Significant spills should be reported to the Project Manager or Contractors Manager and ECO who should report this to the relevant authority. Waste must be managed in line with the requirements of the EMPr (see above). 	High	Low	No Loss	Reversible
			Alternative 1			Site	Incidental	Low-Medium	Likely	Low	High		High	Low	No Loss	Reversible
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable
Negative	Electricity consumption	Proposal	Yes	Direct	Local	Short-term	Low-Medium	Definite	Low-Medium	High	<ul style="list-style-type: none"> Enforce electricity saving strategies. Environmental awareness training. 	Low	Low	No Loss	Reversible	
		Alternative 1			Local	Short-term	Low-Medium	Definite	Low-Medium	High		Low	Low	No Loss	Reversible	
		No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable	
		Proposal			Local	Short-term	Low-Medium	Definite	Low-Medium	High	<ul style="list-style-type: none"> During construction, water will be abstracted from the borehole until such time that the municipal connection is put in place. Geohydrological Baseline Assessment found that impacts are likely to be insignificant w.r.t the shallow weathered and fractured aquifers of the Swazian age rocks/ basement aquifer system, unlikely to impact third party groundwater users, should a 12-hour pump schedule be followed, and based on the expected drawdown extent not likely to impact on groundwater contribution to baseflow. In order to ensure this is the case: Enforce water saving strategies. 	High	Low	Partial	High Degree	

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Resource Consumption	Negative	Water consumption	Alternative 1	Yes	Direct	Local	Short-term	Low-Medium	Definite	Low-Medium	High	<ul style="list-style-type: none"> Environmental awareness training. 12-hour pump schedule to be adhered to. Existing borehole on site should be monitored for water levels (monthly) and qualities (quarterly). Recommended abstraction rate for the borehole should not be exceeded (0.45 L/s) 	High	Low	Partial	High Degree
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable
	Negative	Fuel consumption	Proposal	Yes	Direct	Local	Incidental	Low-Medium	Definite	Low-Medium	High	<ul style="list-style-type: none"> Record and monitor fuel consumption regularly Reduce theft of fuel (increase security) 	Low	Low	No Loss	Reversible
			Alternative 1			Local	Incidental	Low-Medium	Definite	Low-Medium	High		Low	Low	No Loss	Reversible
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable
	Negative	Raw materials consumption	Proposal	Yes	Direct	Local	Incidental	Low-Medium	Definite	Low-Medium	High	<ul style="list-style-type: none"> Promote effective use of raw material. 	Low	Low	No Loss	Reversible
			Alternative 1			Local	Incidental	Low-Medium	Definite	Low-Medium	High		Low	Low	No Loss	Reversible
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable
	Effects on Biodiversity	Negative	Loss of Habitat due to loss of vegetation - clearing due to digging and laying foundations	Proposal	Yes	Direct	Site	Permanent	Low-Medium	Definite	Medium	High	Both layouts will result in a similar impact. The Ecological Specialist noted the following mitigation measure must be implemented: *It is recommended that all <i>Hypoxis hemerocallidea</i> species should be removed prior to construction activities and either relocated to a similar type of environment or implemented within the landscaping plan of the proposed development.	High	Low	Partial
Alternative 1				Site			Permanent	Low-Medium	Definite	Medium	High	High		Low	Partial	High Degree
No-Go Option				Not Applicable	Not Applicable	Local	None	None	None	None	None	High	None required. However, please note that the site is highly disturbed and developed in parts.	Not Applicable	None	Not Applicable
Negative		Loss of Habitat due to loss of vegetation - construction laydown areas	Proposal	Yes	Direct	Site	Medium-term	Medium-High	Likely	Low-Medium	High	Both layouts will result in a similar impact. The Ecological Specialist noted the following mitigation measure must be implemented: *It is recommended that the construction camp should not be in the low-medium sensitivity area. If not possible, <i>Hypoxis</i> species should be removed prior to clearing of vegetation.	High	Low	Partial	#N/A
			Alternative 1			Site	Medium-term	Medium-High	Likely	Low-Medium	High		High	Low	Partial	#N/A
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable
Negative		Loss of Habitat due to loss of vegetation - stochastic events such as fire	Proposal	Yes	Direct	Site	Incidental	Medium-High	Likely	Low	High	Fires shall only be permitted in specially designated areas and under controlled circumstances	High	Low	No Loss	#N/A
			Alternative 1			Site	Incidental	Medium-High	Likely	Low	High		High	Low	No Loss	#N/A
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable
Negative		Direct mortality of fauna and flora - Staff or construction workers poaching and hunting	Proposal	No	Direct	Site	Short-term	Low-Medium	Possible	Low	High	Snaring and hunting of fauna by construction workers on or adjacent to the study area are strictly prohibited	High	Low	No Loss	#N/A
			Alternative 1			Site	Short-term	Low-Medium	Possible	Low	High		High	Low	No Loss	#N/A
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable
Negative		Direct mortality of fauna and flora- Intentional killing of fauna	Proposal	No	Direct	Site	Incidental	Low-Medium	Likely	Low	High	Killing of fauna on or adjacent to the study area are strictly prohibited. Should any fauna species be found on site, the ECO should be conducted asap to provide recommendation or mitigation measures.	High	Low	No Loss	#N/A
			Alternative 1			Site	Incidental	Low-Medium	Likely	Low	High		High	Low	No Loss	#N/A
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable
Negative		Direct mortality of fauna and flora- Vegetation and ground clearing resulting in loss of sensitive species	Proposal	Yes	Direct	Site	Long-term	Medium-High	Definite	Medium	High	It is recommended that all <i>Hypoxis hemerocallidea</i> species should be removed prior to construction activities and either relocated to a similar type of environment or implemented within the landscaping plan of the proposed development. No known sensitive fauna were identified on site.	High	Low	No Loss	#N/A
			Alternative 1			Site	Long-term	Medium-High	Definite	Medium	High		High	Low	No Loss	#N/A
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable
Negative		Disruption of ecological life cycles due to the restriction of species movement - Open trenches and other linear barriers	Proposal	Yes	Direct	Site	Short-term	Low-Medium	Highly Likely	Low	High	Trenches and other linear barriers should not be kept open for too long, especially not staying open overnight.	High	Low	No Loss	#N/A
			Alternative 1			Site	Short-term	Low-Medium	Highly Likely	Low	High		High	Low	No Loss	#N/A
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable
Negative		Disruption of ecological life cycles due to the restriction of species movement - Infrastructure	Proposal	Yes	Direct	Site	Permanent	Low-Medium	Definite	Medium	High	Stormwater, sewer and road infrastructure should be designed in such a way that it will have minimal impact on the environmental features	Medium	Low	No Loss	#N/A
			Alternative 1			Site	Permanent	Low-Medium	Definite	Medium	High		Medium	Low	No Loss	#N/A
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable
Negative	Disruption of ecological life cycles due to noise and lighting - Noise during construction	Proposal	No	Direct	Site	Short-term	Low-Medium	Highly Likely	Low	High	Construction must be restricted to hours of 07:00 and 17:00. Should construction activities need to continue after hours is, all Interested and Affected Parties and the ECO must be notified in advance.	Medium	Low	No Loss	#N/A	
		Alternative 1			Site	Short-term	Low-Medium	Highly Likely	Low	High		Medium	Low	No Loss	#N/A	
		No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable
Negative	Disruption of ecological life cycles due to noise and lighting - Lighting during construction	Proposal	Yes	Direct	Site	Short-term	Medium-High	Highly Likely	Low-Medium	High	Construction must be restricted to hours of 07:00 and 17:00. Should construction activities need to continue after hours is, all Interested and Affected Parties and the ECO must be notified in advance. Excessive lighting during construction should be avoided.	Medium	Low	No Loss	#N/A	
		Alternative 1			Site	Short-term	Medium-High	Highly Likely	Low-Medium	High		Medium	Low	No Loss	#N/A	
		No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable
		Introduction of alien flora affecting native	Proposal			Site	Short-term	Medium	Likely	Low	High	Alien, invasive species found within the construction area should be eradicated as far as possible and disposed of at a registered site.	High	Low	No Loss	#N/A

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	Nature	Description	Alternative	Cumulative	Type	Extent (A)	Duration (B)	Intensity (C)	Probability (P)	Significance (A + B + C) X P	Confidence	Description and/or Mitigation and Management Measures (if applicable)	Mitigation Effectiveness	Significance	Loss of Resources	Reversibility	
Incidents, accidents and potential emergency situations	Negative	faunal assemblages - Vehicles and machinery	Alternative 1	Yes	Direct	Site	Short-term	Medium	Likely	Low	High	eradicated as far as possible and disposed of at a registered site.	High	Low	No Loss	#N/A	
			No-Go Option			None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable	
	Negative	Introduction of alien flora affecting native faunal assemblages - Soil Disturbance	Proposal	Yes	Direct	Site	Short-term	Medium-High	Highly Likely	Low-Medium	High	Soil disturbance should be kept to a minimum during the construction phase	High	Low	Partial	Medium Degree	
			Alternative 1			Site	Short-term	Medium-High	Highly Likely	Low-Medium	High		High	Low	Partial	Medium Degree	
			No-Go Option			None	None	None	None	None	None		None	High	None required	Not Applicable	None
	Negative	Pollution incidents	Proposal	No	Direct	Site	Incidental	Low-Medium	Possible	Low	High	<ul style="list-style-type: none"> Spill kits to be located in strategic areas for when needed Regular site and plant inspection must be conducted Environmental awareness training 	Low	Low	No Loss	Reversible	
			Alternative 1			Site	Incidental	Low-Medium	Possible	Low	High		Low	Low	No Loss	Reversible	
			No-Go Option			None	None	None	None	None	None		None	High	None required	Not Applicable	None
	Negative	Health and safety	Proposal	No	Direct	Site	Incidental	Low-Medium	Possible	Low	High	<ul style="list-style-type: none"> 24 hour security and access control. Health and Safety awareness training. Contractor to submit a Health and Safety Plan, prepared in accordance with the Health and Safety Specification, for approval prior to the commencement of work. A Safety Agent should be appointed A Dedicated Occupational Health and Safety system to be implemented by Contractor's Safety Officer. To be monitored and audited by the Client's Safety Agent, in terms of the Construction Regulations (2003). 	Low	Low	No Loss	Reversible	
			Alternative 1			Site	Incidental	Low-Medium	Possible	Low	High		Low	Low	No Loss	Reversible	
			No-Go Option			None	None	None	None	None	None		None	High	None required	Not Applicable	None
	Negative	Storage of hydrocarbons	Proposal	No	Direct	Site	Incidental	Low-Medium	Possible	Low	High	<ul style="list-style-type: none"> Best practice regarding storage of substances Spill kits to be located in strategic areas for when needed Environmental awareness training Firefighting equipment must be accessible on site at all times. Display of emergency numbers 	Low	Low	No Loss	Reversible	
	Alternative 1		Site			Incidental	Low-Medium	Possible	Low	High	Low		Low	No Loss	Reversible		
	No-Go Option		None			None	None	None	None	None	None		High	None required	Not Applicable	None	Not Applicable
Negative	Fire	Proposal	No	Direct	Neighbouring	Incidental	Low-Medium	Possible	Low	High	<ul style="list-style-type: none"> Adhere to the appropriate emergency procedures Firefighting equipment must be accessible on site at all times. Display of emergency numbers In addition, designated smoking areas should be provided and there should be zero tolerance to smoking outside these areas. Cooking over open flames is not allowed. 	Low	Low	No Loss	Reversible		
		Alternative 1			Neighbouring	Incidental	Low-Medium	Possible	Low	High		Low	Low	No Loss	Reversible		
		No-Go Option			None	None	None	None	None	None		None	High	The site is currently unoccupied but historically an informal settlement occurred on site. Should the develop not take place, the potential for illegal settlements once again occurring is high and may result in fires on site and on neighbouring properties.	None	Low	No Loss
Social	Negative	Visual impact	Proposal	Yes	Direct	Neighbouring	Short-term	Low	Possible	Low	High	<ul style="list-style-type: none"> According to the Heritage Impact Assessment, visual impacts to scenic routes and sense of place are considered low due to the extensive developments that already occur in the area. Suitable screening to be put in place during construction to minimise visual impacts. No littering to be allowed. Good housekeeping practices to be followed 	Low	Low	No Loss	Reversible	
			Alternative 1			Neighbouring	Short-term	Low	Possible	Low	High		Low	Low	No Loss	Reversible	
			No-Go Option			None	None	None	None	None	None		None	High	None required	Not Applicable	None
	Negative	Safety and security	Proposal	No	Direct	Neighbouring	Short-term	Low-Medium	Possible	Low	High	<ul style="list-style-type: none"> 24 hour access control to the site and 24 hour security. Workers found to be engaging in activities such as excessive consumption of alcohol, drug use or selling of any such items on site must be disciplined. 	Medium	Low	No Loss	Reversible	
			Alternative 1			Neighbouring	Short-term	Low-Medium	Possible	Low	High		Medium	Low	No Loss	Reversible	
			No-Go Option			None	None	None	None	None	None		None	High	None required	Not Applicable	None
	Negative	Traffic disruptions	Proposal	No	Direct	Neighbouring	Short-term	Low-Medium	Highly Likely	Low	High	<ul style="list-style-type: none"> Traffic calming measures and appropriate signage to be implemented. Speed limits on all existing roads must be adhered to at all times. 	Low	Low	No Loss	Reversible	
			Alternative 1			Neighbouring	Short-term	Low-Medium	Highly Likely	Low	High		Low	Low	No Loss	Reversible	
			No-Go Option			None	None	None	None	None	None		None	High	None required	Not Applicable	None
				Proposal		Direct	Site	Incidental	Low	Improbable	Low	High	A Heritage Impact Assessment was undertaken and found one isolated Early Stone Age stone tool was found during the survey; the artefact is out of context, broken by ploughing activities and has no significance. Based on the SAHRIS Paleontological Sensitivity Map, the area is of insignificant paleontological sensitivity and no further mitigation prior to construction is recommended in terms of Section 35 for the proposed development to proceed. In terms of the built environment, one structure (Feature 1) was recorded that could be older than 60 years and would then be protected by the NHRA. If the structure is older than 60 years and impacted on a destruction permit will be required from the PHRAG. The specialist therefore	Medium	Low	Partial	High Degree

	IMPACTS				CONSEQUENCE			PROBABILITY	RANKING WITHOUT MITIGATION	CONFIDENCE	IMPLEMENTATION OF MANAGEMENT MEASURES	RANKING WITH MITIGATION	DEGREE REVERSABILITY & LOSS OF RESOURCE (AFTER MITIGATION)						
	Nature	Description	Alternative	Cumulative	Type	Extent (A)	Duration (B)	Intensity (C)	Probability (P)	Significance (A + B + C) X P	Confidence	Description and/or Mitigation and Management Measures (if applicable)	Mitigation Effectiveness	Significance	Loss of Resources	Reversibility			
	Negative	palaeontological heritage	Alternative 1		Direct	Site	Incidental	Low	Improbable	Low	High	Permit will be required from the PHRAG. The applicant therefore recommended that the proposed project can commence on the condition that the following recommendations are implemented as part of the EMPr and based on approval from SAHRA: • Implementation of a chance find procedure; • If impacted on the age of Feature 1 should be confirmed and if greater than 60 years of age a destruction permit will be required from the PHRAG	Medium	Low	Partial	High Degree			
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable		
	Negative	Loss of sense of place	Proposal	No	Direct	Neighbouring	Short-term	Low	Possible	Low	High	According to the Heritage Impact Assessment, visual impacts to scenic routes and sense of place are considered low due to the extensive developments that already occur in the area. • Suitable screening to be put in place during construction to minimise visual impacts. • No littering to be allowed. • Good housekeeping practices to be followed	Low	Low	No Loss	Reversible			
			Alternative 1			Neighbouring	Short-term	Low	Possible	Low	High	Low	High	Low	Low	No Loss	Reversible		
			No-Go Option			Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable
	Positive	Change of land use	Proposal	Yes	Direct	Site	Permanent	Low-Medium	Definite	+ Medium	High	A Townplanning process is currently being undertaken to change the land use associated with the site. The proposed change in land use is in line with the Region A Spatial Development Plan and the Gauteng Spatial Development Framework. The development of the Lanseria node will assist in the furthering of the objectives of the Gauteng Provincial Government and City of Johannesburg and as such will have a positive impact. No mitigation measures other than the townplanning process is required.	Low	+ Medium	No Loss	Reversible			
			Alternative 1			Site	Permanent	Low-Medium	Definite	+ Medium	High	Low	High	+ Medium	No Loss	Reversible			
			No-Go Option			Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable
	Economic	Positive	Decline/increase in economy	Proposal	Yes	Direct	Local	Short-term	Medium-High	Definite	+ Medium	High	The proposed CAPEX value of the development is R80 000 000.00. This will have numerous multiplier effects in the local community. In order to ensure that this benefits the local community, it is recommended that local labour and suppliers are used where possible.	Low	+ Medium	No Loss	Reversible		
				Alternative 1			Local	Short-term	Medium-High	Definite	+ Medium	High	Low	+ Medium	No Loss	Reversible			
No-Go Option				Local			Long-term	Medium	Definite	Medium	High	None	Medium	High	None	Medium	Partial	High Degree	
Positive		Decline/increase in property value	Proposal	No	Direct	Neighbouring	Permanent	Medium	Definite	+ Medium	High	The development of the proposed truck dealership will increase the property value of the site overall. Further, it will have a knock on effect and is likely to increase the value of neighbouring properties as well. No mitigation measures are required.	None	+ Medium	No Loss	Reversible			
			Alternative 1			Neighbouring	Permanent	Medium	Definite	+ Medium	High	None	+ Medium	No Loss	Reversible				
			No-Go Option			Neighbouring	Long-term	Medium	Definite	Medium	High	None	Medium	High	None	Medium	No Loss	Reversible	
Positive		Employment	Proposal	Yes	Direct	Local	Short-term	Medium-High	Definite	+ Medium	None	The proposed development will result in approximately 80 construction related employment opportunities for the local community. Local labour should be utilised as far as possible.	None	+ Medium	No Loss	Reversible			
			Alternative 1			Local	Short-term	Medium-High	Definite	+ Medium	None	None	+ Medium	No Loss	Reversible				
			No-Go Option			Local	Long-term	Medium	Definite	Medium	None	None	Medium	None	None	Medium	No Loss	Reversible	
OPERATIONAL PHASE																			
Atmospheric Emissions	Not Applicable	Dust emissions	Proposal	Not Applicable	Not Applicable	None	None	None	Highly Likely	None	High	Impacts not applicable to the operational phase. No mitigation required.	Not Applicable	None	No Loss	Reversible			
			Alternative 1			None	None	None	Highly Likely	None	High	Not Applicable	None	No Loss	Reversible				
			No-Go Option			None	None	None	Highly Likely	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable			
	Negative	Emissions from vehicles and equipment (CO2, NOx, SOx, VOC's etc.)	Proposal	Yes	Direct	Local	Long-term	Low-Medium	Likely	Low-Medium	High	• All vehicles and equipment used by the dealerships should be properly maintained and in good working order. • All vehicles and other machinery should comply with road worthy requirements and comply with legislation in terms of allowable emissions. • Energy efficient measures should be undertaken to reduce electricity consumption (which has indirect benefits in terms of emissions).	Low	Low	No Loss	Reversible			
			Alternative 1			Local	Long-term	Low-Medium	Likely	Low-Medium	High	Low	Low	No Loss	Reversible				
			No-Go Option			Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable
	Negative	Noise	Proposal	No	Direct	Neighbouring	Long-term	Low-Medium	Possible	Low	High	• The dealerships should comply with acceptable noise levels for businesses as required by the Noise Control Regulations of Gauteng, 1999. • Operational activities should be limited to daytime only.	High	Low	No Loss	Reversible			
			Alternative 1			Neighbouring	Long-term	Low-Medium	Possible	Low	High	High	Low	No Loss	Reversible				
			No-Go Option			Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable

IMPACTS					CONSEQUENCE			PROBABILITY	RANKING WITHOUT MITIGATION	CONFIDENCE	IMPLEMENTATION OF MANAGEMENT MEASURES	RANKING WITH MITIGATION	DEGREE REVERSABILITY & LOSS OF RESOURCE (AFTER MITIGATION)				
Nature	Description	Alternative	Cumulative	Type	Extent (A)	Duration (B)	Intensity (C)	Probability (P)	Significance (A + B + C) X P	Confidence	Description and/or Mitigation and Management Measures (if applicable)	Mitigation Effectiveness	Significance	Loss of Resources	Reversibility		
Impacts to Surface and Ground Water	Negative	Sewage	No	Direct	Proposal	Site	Incidental	Low-Medium	Possible	Low	High	<ul style="list-style-type: none"> The proposed development is not in close proximity to any watercourses or wetlands as such minimal impacts apply. A Water and Sanitation Services study has been undertaken and noted that sewer will be reticulated with 110 mm pipes which will feed into the main 160 mm pipe, which will connect to the necessary sewer conservancy tanks which is designed to have a 7 day storage capacity (based on average flow) before requiring emptying. The following mitigation applies: Management and maintenance of the Sewer Conservancy Tank must be by an experienced and competent person. Collection and disposal of sewer must be by an appropriate and registered third party collector. Disposal of sewer collected from the conservancy tank must take place at an appropriate and licenced facility. 	Very High	Low	No Loss	Reversible	
					Alternative 1	Site	Incidental	Low-Medium	Possible	Low	High		Very High	Low	No Loss	Reversible	
					No-Go Option	None	None	None	None	None	None		None	None	None	Not Applicable	None
	Not Applicable	Silt	No	Not Applicable	Not Applicable	Proposal	None	None	None	Highly Likely	None	High	Impacts not applicable to the operational phase. No mitigation required.	High	Low	No Loss	Reversible
						Alternative 1	None	None	None	Highly Likely	None	High		High	Low	No Loss	Reversible
						No-Go Option	None	None	None	Highly Likely	None	High		None	None	Not Applicable	None
	Negative	Surface water run-off	Yes	Indirect	Proposal	Neighbouring	Permanent	Low-Medium	Highly Likely	Low-Medium	High	<ul style="list-style-type: none"> A Stormwater management system to be implemented in line with the requirements of City of Johannesburg and the Stormwater Management Plan. 	High	Low	No Loss	Reversible	
					Alternative 1	Neighbouring	Permanent	Low-Medium	Highly Likely	Low-Medium	High		High	Low	No Loss	Reversible	
					No-Go Option	None	None	None	None	None	None		None	None	None	Not Applicable	None
	Negative	Contamination of surface and ground water from hazardous substances	No	Indirect	Proposal	Site	Incidental	Low-Medium	Improbable	Low	High	<ul style="list-style-type: none"> The proposed development does not cross any watercourses and is not in close proximity to any wetlands. An existing borehole is in place. The following measures must be implemented to ensure minimal impacts: Hazardous substances must be stored and handled in accordance with the appropriate legislation and standards, which include the Hazardous Substances Act (Act No. 15 of 1973), the Occupational Health and Safety Act (No. 85 of 1993), relevant associated Regulations, and applicable SANS and international standards. Any hazardous materials (apart from fuel) must be stored within a lockable store with a sealed floor. All storage tanks containing hazardous materials must be placed in bunded containment areas with impermeable surfaces. The bunded area must be able to contain 110% of the total volume of the stored hazardous material. In the event of spillages of hazardous substances, the appropriate clean up and disposal measures are to be implemented. Necessary materials and equipment must be available on site to deal with spills of any hazardous materials present. 	Very High	Low	No Loss	Reversible	
					Alternative 1	Site	Incidental	Low-Medium	Improbable	Low	High		Very High	Low	No Loss	Reversible	
					No-Go Option	None	None	None	None	None	None		None	None	None	Not Applicable	None
	Not Applicable	Disturbance of natural drainage lines	No	Not Applicable	Not Applicable	Proposal	None	None	None	None	None	Medium	Impacts not applicable to the operational phase. No mitigation required.	Not Applicable	None	No Loss	Reversible
						Alternative 1	None	None	None	None	None	Medium		Not Applicable	None	No Loss	Reversible
						No-Go Option	None	None	None	None	None	None		None	None	Not Applicable	None
Negative	Disturbance/pollution of groundwater	No	Indirect	Proposal	Local	Incidental	Low-Medium	Improbable	Low	High	<ul style="list-style-type: none"> The following measures must be implemented: Hazardous substances must be stored and handled in accordance with the appropriate legislation and standards, which include the Hazardous Substances Act (Act No. 15 of 1973), the Occupational Health and Safety Act (No. 85 of 1993), relevant associated Regulations, and applicable SANS and international standards. Any hazardous materials (apart from fuel) must be stored within a lockable store with a sealed floor. All storage tanks containing hazardous materials must be placed in bunded containment areas with impermeable surfaces. The bunded area must be able to contain 110% of the total volume of the stored hazardous material. In the event of spillages of hazardous substances, the appropriate clean up and disposal measures are to be implemented. Necessary materials and equipment must be available on site to deal with spills of any hazardous materials present. 	High	Low	No Loss	Reversible		
				Alternative 1	Local	Incidental	Low-Medium	Improbable	Low	High		High	Low	No Loss	Reversible		
				No-Go Option	None	None	None	None	None	None		None	None	None	Not Applicable	None	Not Applicable
					Proposal	Local	Long-term	Low	Likely	Low-Medium	Medium	<ul style="list-style-type: none"> During operation, water will be abstracted from the borehole to supplement municipal water supply. The Geohydrological Baseline Assessment found that impacts are likely to be insignificant w.r.t the shallow weathered and fractured aquifers of the Swazian age rocks/ basement aquifer system, unlikely to impact third party groundwater users, should a 12-hour pump schedule be followed, and based on the expected drawdown extent not likely to impact on groundwater contribution to baseflow. In order to ensure this is the case: Enforce water saving strategies. Environmental awareness training. 	High	Low	No Loss	Reversible	

	IMPACTS					CONSEQUENCE			PROBABILITY	RANKING WITHOUT MITIGATION	CONFIDENCE	IMPLEMENTATION OF MANAGEMENT MEASURES	RANKING WITH MITIGATION	DEGREE REVERSABILITY & LOSS OF RESOURCE (AFTER MITIGATION)				
	Nature	Description	Alternative	Cumulative	Type	Extent (A)	Duration (B)	Intensity (C)	Probability (P)	Significance (A + B + C) X P	Confidence	Description and/or Mitigation and Management Measures (if applicable)	Mitigation Effectiveness	Significance	Loss of Resources	Reversibility		
	Negative	Impact on groundwater availability and flow	Alternative 1		Direct	Local	Long-term	Low	Likely	Low-Medium	Medium	<ul style="list-style-type: none"> 12-hour pump schedule to be adhered to. Existing borehole on site should be monitored for water levels (monthly) and qualities (quarterly). Recommended abstraction rate for the borehole should not be exceeded (0.45 L/s) 	High	Low	No Loss	Reversible		
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	Not Applicable	None required	Not Applicable	None	Not Applicable	Not Applicable	
Waste Generation	Negative	Domestic waste	Proposal	Yes	Direct	Local	Long-term	Low-Medium	Definite	Medium	High	<ul style="list-style-type: none"> Recyclable waste streams must be separated from other waste streams. Waste to be separated into recyclable and non-recyclable waste. Waste separation needs to occur before waste is collected. Solid waste shall only be stored in the designated general waste storage area which must be enclosed and impermeable. All solid waste shall be disposed of by a certified contractor, off-site, at an approved landfill site if no municipal services are available. Avoidance, reduction, re-use and recycling should be practiced wherever possible. 	Medium	Low	No Loss	Reversible		
			Alternative 1			Local	Long-term	Low-Medium	Definite	Medium	High	<ul style="list-style-type: none"> Recyclable waste streams must be separated from other waste streams. Waste to be separated into recyclable and non-recyclable waste. Waste separation needs to occur before waste is collected. Solid waste shall only be stored in the designated general waste storage area which must be enclosed and impermeable. All solid waste shall be disposed of by a certified contractor, off-site, at an approved landfill site if no municipal services are available. Avoidance, reduction, re-use and recycling should be practiced wherever possible. 	Medium	Low	No Loss	Reversible		
			No-Go Option			Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable
	Not Applicable	Construction waste	Proposal	Not Applicable	Not Applicable	None	None	None	None	None	None	High	Impacts not applicable to the operational phase. No mitigation required.	Not Applicable	None	No Loss	Reversible	
			Alternative 1			None	None	None	None	None	None	None	High	Impacts not applicable to the operational phase. No mitigation required.	Not Applicable	None	No Loss	Reversible
			No-Go Option			None	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable
	Negative	Hazardous waste	Proposal	Yes	Direct	Local	Long-term	Low-Medium	Definite	Medium	High	<ul style="list-style-type: none"> The only hazardous waste expected is empty containers which were used to store hazardous material as well as potentially used parts/oil from car and truck servicing. All hazardous material will be collected by a third party contractor and disposed of at a licenced hazardous facility. Any hazardous waste will be stored in a designated waste storage container with appropriate labelling. 	Medium	Low	No Loss	Reversible		
			Alternative 1	Yes	Direct	Local	Long-term	Low-Medium	Definite	Medium	High	<ul style="list-style-type: none"> The only hazardous waste expected is empty containers which were used to store hazardous material as well as potentially used parts/oil from car and truck servicing. All hazardous material will be collected by a third party contractor and disposed of at a licenced hazardous facility. Any hazardous waste will be stored in a designated waste storage container with appropriate labelling. 	Medium	Low	No Loss	Reversible		
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable	
	Soil Alteration	Negative	Loss of topsoil	Proposal	Not Applicable	Not Applicable	None	None	None	None	None	High	Impacts not applicable to the operational phase. No mitigation required.	Not Applicable	None	No Loss	Reversible	
Alternative 1				None			None	None	None	None	None	High	Impacts not applicable to the operational phase. No mitigation required.	Not Applicable	None	No Loss	Reversible	
No-Go Option				Yes			Direct	Site	Long-term	Low-Medium	Definite	Low-Medium	High	The site is highly degraded by historic land use. It is likely that there will be a continued loss of topsoil should the development not proceed as the site will remain in its degraded state.	None	Low-Medium	Partial	High Degree
Not Applicable		Loss of land capability	Proposal	Not Applicable	Not Applicable	None	None	None	None	None	None	High	Impacts not applicable to the operational phase. No mitigation required.	None	Medium	No Loss	Reversible	
			Alternative 1			None	None	None	None	None	None	None	High	Impacts not applicable to the operational phase. No mitigation required.	None	Medium	No Loss	Reversible
			No-Go Option			None	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable
Not Applicable		Alteration of topography	Proposal	Not Applicable	Not Applicable	None	None	None	None	None	None	High	Impacts not applicable to the operational phase. No mitigation required.	None	None	No Loss	Reversible	
			Alternative 1			None	None	None	None	None	None	None	High	Impacts not applicable to the operational phase. No mitigation required.	None	None	No Loss	Reversible
			No-Go Option			None	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable
Negative		Soil pollution	Proposal	No	Direct	Site	Long-term	Low-Medium	Improbable	Low	High	The site will be paved and as such soil pollution related to the storage of vehicles and trucks will be minimal. No mitigation measures are applicable.	None	Low	No Loss	Reversible		
	Alternative 1		Site			Long-term	Low-Medium	Improbable	Low	High	The site will be paved and as such soil pollution related to the storage of vehicles and trucks will be minimal. No mitigation measures are applicable.	None	Low	No Loss	Reversible			
	No-Go Option		Not Applicable			Not Applicable	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable	
Resource Consumption	Negative	Electricity consumption	Proposal	Yes	Direct	Local	Long-term	Low-Medium	Definite	Medium	High	<ul style="list-style-type: none"> Promote effective electricity consumption. The following energy efficient measures in line with SANS 10400 will be implemented: <ul style="list-style-type: none"> Energy saving measures for water heating (for example heat pumps or solar); LED lamps; General control switching (to minimise use of lights when not needed); and Energy saving appliances. 	Low	Low-Medium	No Loss	Reversible		
			Alternative 1			Local	Long-term	Low-Medium	Definite	Medium	High	<ul style="list-style-type: none"> Promote effective electricity consumption. The following energy efficient measures in line with SANS 10400 will be implemented: <ul style="list-style-type: none"> Energy saving measures for water heating (for example heat pumps or solar); LED lamps; General control switching (to minimise use of lights when not needed); and Energy saving appliances. 	Low	Low-Medium	No Loss	Reversible		
			No-Go Option			Not Applicable	Not Applicable	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable
	Negative	Water consumption	Proposal	Yes	Direct	Local	Long-term	Low-Medium	Definite	Medium	High	<ul style="list-style-type: none"> During operation, water will be abstracted from the borehole to supplement municipal water supply. The Geohydrological Baseline Assessment found that impacts are likely to be insignificant w.r.t the shallow weathered and fractured aquifers of the Swazian age rocks/ basement aquifer system, unlikely to impact third party groundwater users, should a 12-hour pump schedule be followed, and based on the expected drawdown extent not likely to impact on groundwater contribution to baseflow. In order to ensure this is the case: <ul style="list-style-type: none"> Enforce water saving strategies. Environmental awareness training. 12-hour pump schedule to be adhered to. 	Medium	Low	No Loss	Reversible		
			Alternative 1			Local	Long-term	Low-Medium	Definite	Medium	High	<ul style="list-style-type: none"> During operation, water will be abstracted from the borehole to supplement municipal water supply. The Geohydrological Baseline Assessment found that impacts are likely to be insignificant w.r.t the shallow weathered and fractured aquifers of the Swazian age rocks/ basement aquifer system, unlikely to impact third party groundwater users, should a 12-hour pump schedule be followed, and based on the expected drawdown extent not likely to impact on groundwater contribution to baseflow. In order to ensure this is the case: <ul style="list-style-type: none"> Enforce water saving strategies. Environmental awareness training. 12-hour pump schedule to be adhered to. Existing borehole on site should be monitored for water levels (monthly) and qualities (quarterly). Recommended abstraction rate for the borehole should not be exceeded (0.45 L/s) Greywater treatment and reuse in the vehicle washing facilities to be implemented as described in the Water and Sewer Report. 	Medium	Low	No Loss	Reversible		
			No-Go Option			Not Applicable	Not Applicable	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable

	IMPACTS				CONSEQUENCE			PROBABILITY	RANKING WITHOUT MITIGATION	CONFIDENCE	IMPLEMENTATION OF MANAGEMENT MEASURES	RANKING WITH MITIGATION	DEGREE REVERSABILITY & LOSS OF RESOURCE (AFTER MITIGATION)				
	Nature	Description	Alternative	Cumulative	Type	Extent (A)	Duration (B)	Intensity (C)	Probability (P)	Significance (A + B + C) X P	Confidence	Description and/or Mitigation and Management Measures (if applicable)	Mitigation Effectiveness	Significance	Loss of Resources	Reversibility	
			No-Go Option	Not Applicable	Not Applicable	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable	Not Applicable	
	Negative	Fuel consumption	Proposal	Yes	Direct	Local	Incidental	Low-Medium	Definite	Low-Medium	High	• Record and monitor fuel consumption regularly • Promote good driving practices (to reduce fuel consumption).	Low	Low	No Loss	Reversible	
			Alternative 1			Local	Incidental	Low-Medium	Definite	Low-Medium	High	Low	Low	No Loss	Reversible		
			No-Go Option			None	None	None	None	None	None	None	None	High	None required	Not Applicable	None
	Negative	Raw materials consumption	Proposal	Yes	Direct	Local	Incidental	Low-Medium	Definite	Low-Medium	High	• Promote effective use of raw material.	Low	Low	No Loss	Reversible	
			Alternative 1			Local	Incidental	Low-Medium	Definite	Low-Medium	High	Low	Low	No Loss	Reversible		
No-Go Option			None			None	None	None	None	None	None	None	High	None required	Not Applicable	None	Not Applicable
Effects on Biodiversity	Negative	Loss of existing habitat - stochastic events such as fire	Proposal	No	Direct	Site	Incidental	Medium	Likely	Low	High	Fire extinguishers must be placed on the property.	High	Low	No Loss	Reversible	
			Alternative 1			Site	Incidental	Medium	Likely	Low	High	High	Low	No Loss	Reversible		
			No-Go Option			None	None	None	None	None	None	None	None	High	None required	Not Applicable	None
	Negative	Direct mortality of fauna - Intentional killing of fauna	Proposal	Yes	Direct	Site	Incidental	Low	Improbable	Low	High	It is not expected that any fauna will be found on site during operation. The Applicant must include the requirement in their rule book that should any be found that the relevant organisation be called to safely remove the species.	High	Low	No Loss	Reversible	
			Alternative 1			Site	Incidental	Low	Improbable	Low	High	High	Low	No Loss	Reversible		
			No-Go Option			None	None	None	None	None	None	None	None	High	None required	Not Applicable	None
	Negative	Disruption of ecological life cycles due to the restriction of species movement - Infrastructure	Proposal	Yes	Direct	Site	Permanent	Low	Highly Likely	Low-Medium	High	Stormwater, sewer and road infrastructure should be designed in such a way that it will have minimal impact on the environmental features.	High	Low	No Loss	Reversible	
			Alternative 1			Site	Permanent	Low	Highly Likely	Low-Medium	High	High	Low	No Loss	Reversible		
			No-Go Option			None	None	None	None	None	None	None	None	High	None required	Not Applicable	None
	Incidents, accidents and potential emergency situations	Negative	Pollution incidents	Proposal	No	Direct	Site	Incidental	Low-Medium	Possible	Low	High	• Hazardous substances must be stored and handled in accordance with the appropriate legislation and standards, which include the Hazardous Substances Act (Act No. 15 of 1973), the Occupational Health and Safety Act (No. 85 of 1993). • Sewer Conservancy Tank must be operated by a skilled and experienced operator and in line with the design requirements.	Low	Low	No Loss	Reversible
				Alternative 1			Site	Incidental	Low-Medium	Possible	Low	High	Low	Low	No Loss	Reversible	
				No-Go Option			None	None	None	None	None	None	None	None	High	None required	Not Applicable
Negative		Health and safety	Proposal	No	Direct	Site	Incidental	Low-Medium	Possible	Low	High	• 24 hour security and access control. • Health and Safety awareness training. • Health and Safety Policy to be put in place and implemented.	Low	Low	No Loss	Reversible	
			Alternative 1			Site	Incidental	Low-Medium	Possible	Low	High	Low	Low	No Loss	Reversible		
			No-Go Option			None	None	None	None	None	None	None	None	High	None required	Not Applicable	None
Negative		Storage of hydrocarbons	Proposal	No	Direct	Site	Incidental	Low-Medium	Possible	Low	High	• Hazardous substances must be stored and handled in accordance with the appropriate legislation and standards, which include the Hazardous Substances Act (Act No. 15 of 1973), the Occupational Health and Safety Act (No. 85 of 1993). • Best practice regarding storage of substances • Spill kits to be located in strategic areas for when needed	Low	Low	No Loss	Reversible	
			Alternative 1			Site	Incidental	Low-Medium	Possible	Low	High	Low	Low	No Loss	Reversible		
			No-Go Option			None	None	None	None	None	None	None	None	High	None required	Not Applicable	None
Negative		Fire	Proposal	No	Direct	Neighbouring	Incidental	Low-Medium	Possible	Low	High	• Adhere to the appropriate emergency procedures • Firefighting equipment must be accessible on site at all times. • Display of emergency numbers	Low	Low	No Loss	Reversible	
			Alternative 1			Neighbouring	Incidental	Low-Medium	Possible	Low	High	Low	Low	No Loss	Reversible		
			No-Go Option			Neighbouring	Incidental	Low-Medium	Possible	Low	High	The site is currently unoccupied but historically an informal settlement occurred on site. Should the develop not take place, the potential for illegal settlements once again occurring is high and may result in fires on site and on neighbouring properties.	None	Low	No Loss	Reversible	
Social	Negative	Visual impact	Proposal	Yes	Direct	Neighbouring	Long-term	Low	Improbable	Low	High	According to the Heritage Impact Assessment, visual impacts to scenic routes and sense of place are considered low due to the extensive developments that already occur in the area. As the development is in line with the development goals of the area, no mitigation measures are required or recommended.	None	Low	No Loss	Reversible	
			Alternative 1			Neighbouring	Long-term	Low	Improbable	Low	High	None	Low	No Loss	Reversible		
			No-Go Option			None	None	None	None	None	None	None	None	High	None required	Not Applicable	None
	Positive	Safety and security	Proposal	No	Direct	Neighbouring	Long-term	Low-Medium	Likely	+Low	High	Due to the development of the site, safety and security in the area is likely to improve. In addition, the following will be implemented which will assist with this: • 24 hour access control to the site and 24 hour security.	Low	+Low	No Loss	Reversible	
			Alternative 1			Neighbouring	Long-term	Low-Medium	Likely	+Low	High	Low	+Low	No Loss	Reversible		
	Negative		No-Go Option	No	Direct	Neighbouring	Long-term	Low-Medium	Possible	Low	High	The site is currently unoccupied but historically an informal settlement occurred adjacent to site. Should the develop not take place, the potential for illegal settlements once again occurring is high and may result in further safety and security issues in the area.	None	Low	No Loss	Reversible	
	Negative	Traffic disruptions	Proposal	No	Direct	Neighbouring	Long-term	Low-Medium	Definite	Low-Medium	High	• Road upgrades to ingress and egress lanes as discussed in the Traffic Impact Assessment to be implemented.	High	Low	No Loss	Reversible	
			Alternative 1			Neighbouring	Long-term	Low-Medium	Definite	Low-Medium	High	High	Low	No Loss	Reversible		
			No-Go Option			None	None	None	None	None	None	None	None	High	None required	Not Applicable	None

	IMPACTS				CONSEQUENCE			PROBABILITY	RANKING WITHOUT MITIGATION	CONFIDENCE	IMPLEMENTATION OF MANAGEMENT MEASURES	RANKING WITH MITIGATION	DEGREE REVERSABILITY & LOSS OF RESOURCE (AFTER MITIGATION)			
	Nature	Description	Alternative	Cumulative	Type	Extent (A)	Duration (B)	Intensity (C)	Probability (P)	Significance (A + B + C) X P	Confidence	Description and/or Mitigation and Management Measures (if applicable)	Mitigation Effectiveness	Significance	Loss of Resources	Reversibility
	Not Applicable	Loss of cultural heritage	Proposal	Not Applicable	Not Applicable	None	None	None	None	None	High	Impacts not applicable to the operational phase. No mitigation required.	None	None	No Loss	Reversible
			Alternative 1			None	None	None	None	None	High		None	None	No Loss	Reversible
			No-Go Option			None	None	None	None	None	High		None	None	Not Applicable	None
	Negative	Loss of sense of place	Proposal	No	Direct	Neighbouring	Long-term	Low	Improbable	Low	High	According to the Heritage Impact Assessment, visual impacts to scenic routes and sense of place are considered low due to the extensive developments that already occur in the area. As the development is in line with the development goals of the area, no mitigation measures are required or recommended.	None	Low	No Loss	Reversible
			Alternative 1			Neighbouring	Long-term	Low	Improbable	Low	High		None	Low	No Loss	Reversible
			No-Go Option			None	None	None	None	None	High		None	None	Not Applicable	None
	Positive	Change of land use	Proposal	Yes	Direct	Site	Permanent	Low-Medium	Definite	+ Medium	High	A Townplanning process is currently being undertaken to change the land use associated with the site. The proposed change in land use is in line with the Region A Spatial Development Plan and the Gauteng Spatial Development Framework. The development of the Lanseria node will assist in the furthering of the objectives of the Gauteng Provincial Government and City of Johannesburg and as such will have a positive impact. No mitigation measures other than the townplanning process is required.	Low	+ Medium	No Loss	Reversible
			Alternative 1			Site	Permanent	Low-Medium	Definite	+ Medium	High		Low	+ Medium	No Loss	Reversible
			No-Go Option			None	None	None	None	None	High		None	None	Not Applicable	None
Economic	Positive	Decline/increase in economy	Proposal	Yes	Direct	Local	Long-term	Medium-High	Definite	+ Medium- High	High	Once operational the proposed dealership will result in new business in the area bringing customers and contributing to the development of the Lanseria node. This will have an economic multiplier effect in the local community. No mitigation measures are required. The proposal is preferred as it maximises the visibility of the truck dealership and thus has more of economic benefit.	None	+ Medium- High	No Loss	Reversible
			Alternative 1			Local	Long-term	Low-Medium	Definite	+ Medium	High	The alternative is not preferred as it does not maximise the visibility of both dealerships.	None	+ Medium	No Loss	Reversible
			No-Go Option			Local	Long-term	Medium	Definite	Medium	High	Should the development not proceed, the benefits to the local community will be long term and negative. Further, the goals of the GSDP and Regional SDP will also not be met. There are no mitigation measures available,	None	Medium	Partial	High Degree
	Positive	Decline/increase in property value	Proposal	No	Direct	Neighbouring	Permanent	Medium	Definite	+ Medium	High	The development of the proposed truck and car dealership will increase the property value of the site overall. Further, it will have a knock on effect and is likely to increase the value of neighbouring properties as well. No mitigation measures are required.	None	+ Medium	No Loss	Reversible
			Alternative 1			Neighbouring	Permanent	Medium	Definite	+ Medium	High		None	+ Medium	No Loss	Reversible
			No-Go Option			Neighbouring	Long-term	Medium	Definite	Medium	High		The site was previously used as an informal settlement. It is degraded and without development, the property value is likely to decrease. This will have knock on effects on the surrounding properties. No mitigation, save for development of the site, is available.	None	Medium	No Loss
	Positive	Employment	Proposal	Yes	Direct	Local	Short-term	Medium-High	Definite	+ Medium	None	The proposed development will result in approximately 20 permanent full time operation related employment opportunities for the local community. Local labour should be utilised as far as possible.	None	+ Medium	No Loss	Reversible
			Alternative 1			Local	Short-term	Medium-High	Definite	+ Medium	None		None	+ Medium	No Loss	Reversible
			No-Go Option			Local	Long-term	Medium	Definite	Medium	None		Should the development not proceed, the benefits to the local community will be long term and negative as potential employment opportunities will be lost. No mitigation measures are available.	None	Medium	No Loss