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**DRAFT BASIC ASSESSMENT REPORT FOR THE
PROPOSED INDUSTRIAL 1 TOWNSHIP; SAMCOR
PARK EXTENSION 12; LOCATED ON A PART OF THE
REMAINDER OF PORTION 601 (A PORTION OF
PORTION 89) OF THE FARM THE WILLOWS 340 JR,
CITY OF TSHWANE**

**APPLICANT:
WILLOWS INDUSTRIAL PARK**

APRIL 2023



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

Is a closure plan applicable for this application and has it been included in this report? if not, state reasons for not including the closure plan.

N/A

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?

YES

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

YES → See Appendix I

If no, state reasons for not attaching the list.

Have State Departments including the competent authority commented?

If no, why?

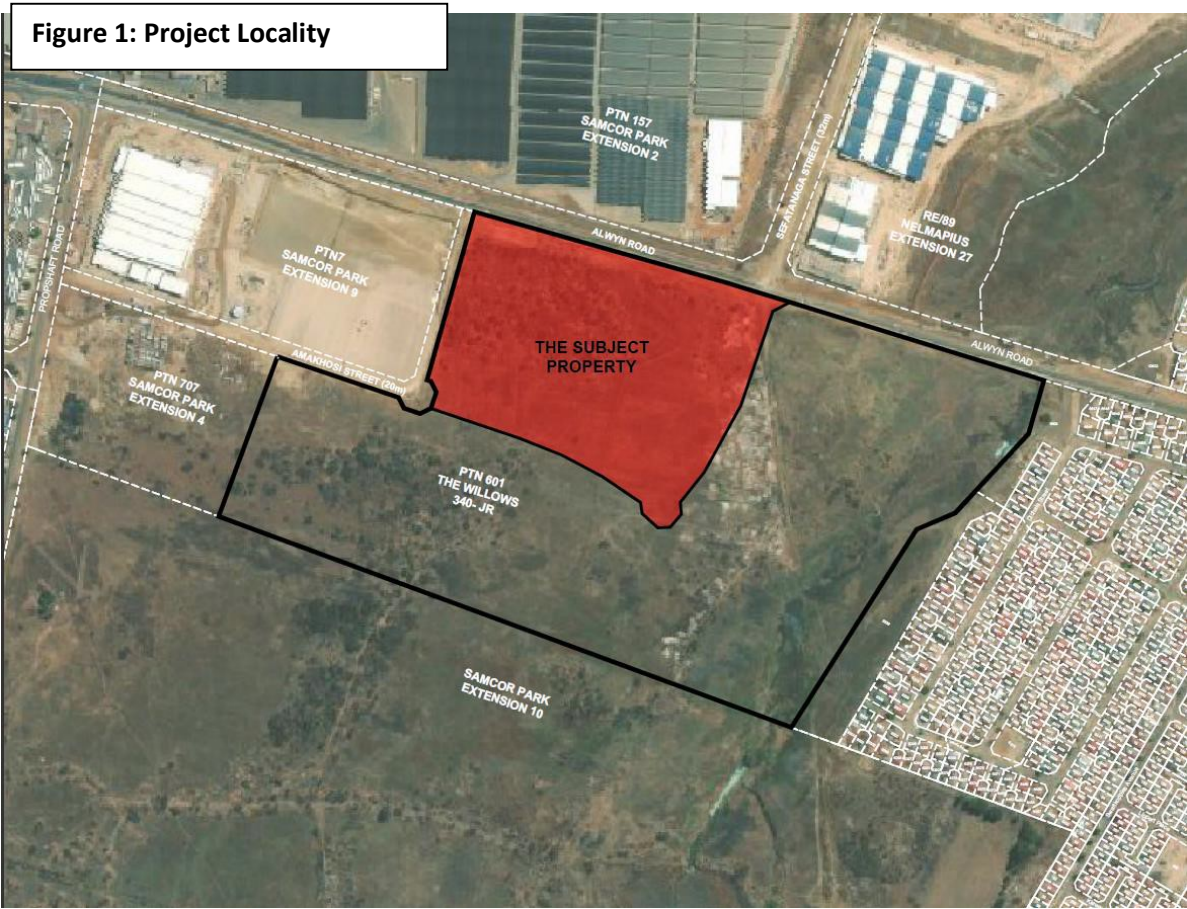
This draft report *has been* submitted to the authorities for their comment. Comments must be received by 15 May 2023, and will be included in the Final Basic Assessment Report (BAR), which will be forwarded to the approving authority (Gauteng Department of Agriculture and Rural Development, GDARD), for the final decision.

SECTION A: ACTIVITY INFORMATION

1. PROPOSAL OR DEVELOPMENT DESCRIPTION

Project title (must be the same name as per application form):

BASIC ASSESSMENT APPLICATION FOR THE PROPOSED INDUSTRIAL 1 TOWNSHIP; SAMCOR PARK EXTENSION 12; LOCATED ON A PART OF THE REMAINDER OF PORTION 601 (A PORTION OF PORTION 89) OF THE FARM THE WILLOWS 340 JR, CITY OF TSHWANE



Select the appropriate box

The application is for an upgrade of an existing development

The application is for a new development

Other, specify

Activity (s) Applied For:

An application may be made for more than one listed or specified activity that, together, make up one development proposal. All the listed activities that make up this application must be listed below:

Indicate the number of the relevant Government Notice	Activity No. (s) (relevant notice):	Describe each listed activity as per the wording in the listing notices:	Activity description
GNR 983: Listing Notice 1:	Activity 9	The development of infrastructure exceeding 1 000 metres in length for the bulk transportation of water or storm water (i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more.	<p>Samcor Park Extension 12 will be responsible for constructing a new 250mm diameter waterline along the western boundary of Samcor Park Extension 12 to the access of the township.</p> <p>Samcor Park Extension 12 will be responsible for constructing a new 160mm diameter sewer line from its north-eastern boundary to connect to the existing 300mm clay pipe to the east of the development.</p>

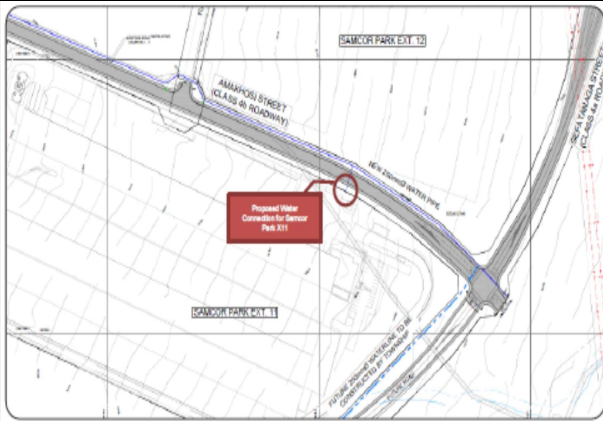


Figure 2-2: Proposed Water Infrastructure

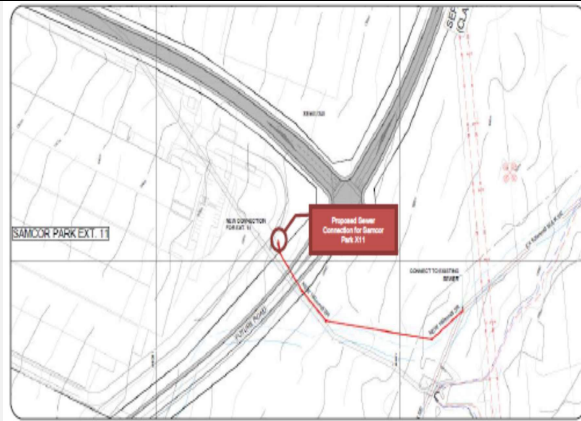

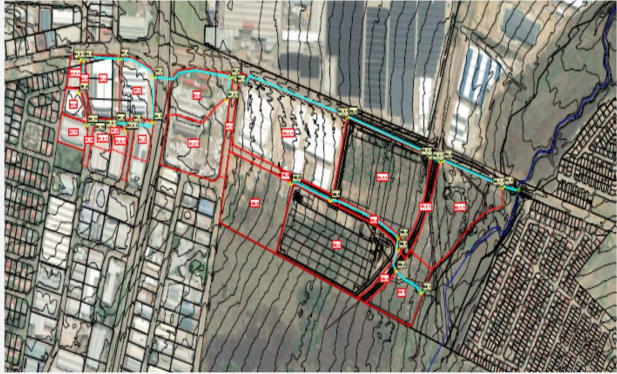



Figure 3-2: Proposed Sewer Infrastructure

	19	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from (i) a watercourse;	<p>The extension of Sefatanaga Street south of the intersection of Amakhosi Street forms part of the development node. A portion of this required road must be developed within the Willow spruit 32m buffer zone.</p> <p>The existing stormwater system along Alwyn Street does not have sufficient capacity for the Samcor Park X 12 township. The stormwater network will require a parallel 900mm diameter pipe to be installed from the western erf boundary of Samcor Park X 12 up to the stormwater outlet. The stormwater outlet is located</p>
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			within the Willow spruit.
		 	
	27	The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation	The establishment of the Industrial 1 township will permanently remove 7.5ha of indigenous vegetation on site.
GNR 985: Listing Notice 3:	Activity 4 c (iv);	The development of a road wider than 4 metres with a reserve less than 13,5 metres, in Gauteng, where Sites are identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng Conservation Plan or in bioregional plans;	The DFFE Screening Tool identified the south eastern portion of the site as an Ecological Support Area.
			
	Activity 12 c (ii):	The clearance of an area of 300 square metres or more of indigenous vegetation in Gauteng Within Critical Biodiversity Areas or Ecological Support Areas identified in the Gauteng Conservation Plan or bioregional plans;	The DFFE Screening Tool identified the south eastern portion of the site as an Ecological Support Area.
	Activity 14 c (ii) (iv)	The development in metres; or (ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs (a) within a	The DFFE Screening Tool identified the south eastern portion of the site as an Ecological Support Area.



		watercourse; Sites identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng Conservation Plan or in bioregional plans.	Further, the proposed townships associated infrastructure (stormwater discharge and roads) will impact the Willow spruit and its associated 32m buffer zone.
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These activities may not commence until Environmental Authorisation has been received from the approving authority - GDARD. The application will follow a Basic Assessment approach in terms of Section 19 of Government Notice R982 (as amended in March 2017) of NEMA: BAR

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

YES	NO
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If yes, describe the legislation and the Competent Authority administering such legislation

Department of Water and Sanitation (DWS) approval in terms of a General Authorisation for water uses under Section 21 (c) and Section 21 (i), issued in terms of Section 39 the National Water Act (Act 36 of 1998).

If yes, have you applied for the authorisation(s)?

YES **NO**

If yes, have you received approval(s)?

YES **NO. WUL Application is underway**

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:	Administering authority:	Promulgation Date:
Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996): Chapter 2 Section 24	National, Provincial, and Local Authorities	8 May 1996
National Environmental Management Act No. 107 of 1998 as amended	Department of Environmental Affairs (DEA) Gauteng Department of Agriculture and Rural Development (GDARD)	27 November 1998
NEMA Environmental Impact Assessment Regulations as amended, GNR 326	Department of Environmental Affairs (DEA) Gauteng Department of Agriculture and Rural Development (GDARD)	7 April 2017
National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)	Department of Environmental Affairs (DEA) Gauteng Department of Agriculture and Rural Development (GDARD)	2004
<ul style="list-style-type: none"> GN number 1002: National List of Ecosystems that are Threatened and Need Protection dated 9 December 2011, as it relates to the NEMBA; 		



<ul style="list-style-type: none"> • GN number R.1020: Alien and Invasive Species Regulations, 2020, in Government Gazette 43735 dated September 2020 as it relates to the NEMBA; • GN number 1003: Alien and Invasive Species Lists, 2020, in Government Gazette 43726 dated 18 September 2020, as it relates to the NEMBA; and • GN number 30568: Threatened or Protected Species (TOPS) list dated 14 December 2007, as it relates to the NEMBA. 		
<p>Government Gazette 45421 dated 10 May 2019 as it relates to the Department of Forestry, Fisheries, and the Environment (DFFE's) national environmental screening report required with an application for EA as identified in regulation 16(1)(v) of EIA Regulations:</p> <ul style="list-style-type: none"> o For the Terrestrial Biodiversity Theme: GN 320 Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Biodiversity as published in Government Gazette 43110 dated 20 March 2020; and • For Animal and Plant Species Themes: GN 1150 Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental • Impacts on Terrestrial Plant and Animal Species as published in Government Gazette 43855 dated 30 October 2020 	<p>Department of Environment, Forestry and Fisheries (DFFE) and Gauteng Department of Agriculture and Rural Development (GDARD)</p>	<p>2019</p>
<p>National Environmental Management Waste Act GNR 921</p>	<p>Department of Environment, Forestry and Fisheries (DFFE) and Gauteng Department of Agriculture and Rural Development (GDARD)</p>	<p>29 November 2013</p>
<p>National Water Act, 1998, Act 36 of 1998</p>	<p>National Department of Water and Sanitation (DWS)</p>	<p>1998</p>
<p>Water Services Act, 1997, Act 108 of 1997</p>		<p>1997</p>



National Environmental Management: Air Quality Act, Act 39 of 2004 and the Atmospheric Pollution Prevention Act, Act 45 of 1965	Department of Environment, Forestry and Fisheries (DFFE)	2004
National Heritage Resources, Act, 1999, Act 25 of 1999	South Africa Heritage Resources Agency (SAHRA)	1999
Gauteng Conservation-Plan 3.3 (2011)	Provincial, Gauteng Department of Agriculture and Rural Development (GDARD)	2011
Conservation of Agricultural Resources (Act 43 of 1983) National Department of Agriculture 21 April 1983	National Department of Agriculture	21 April 1983
The Gauteng Agriculture Potential Atlas Version 4.4 Gauteng Department of Agriculture and Rural Development (GDARD)	The Gauteng Agriculture Potential Atlas Version 4.4 Gauteng Department of Agriculture and Rural Development (GDARD)	
Sustainable Development Criteria for Built Environment Projects requiring Environmental Impact Assessments in Gauteng, 2009	Provincial	2009
Gauteng Environmental Management Framework Gauteng Province 2015	Gauteng Province	2015
Gauteng Spatial Development Framework, 2030	Gauteng Province	2016
Gauteng Urban Edge 2008 / 2009	Gauteng Province	2009
City of Tshwane IDP	City of Tshwane	2021/2026
City of Tshwane SDF	City of Tshwane	2021
City of Tshwane RSDF for Region 6	City of Tshwane	2018
National SDF	National	2023

DESCRIPTION OF COMPLIANCE WITH THE RELEVANT LEGISLATION, POLICY OR GUIDELINE:

Legislation, policy of guideline	Description of compliance
National Environmental Management Act, Act 107 of 1998	<p>The NEMA is the overarching framework for environmental legislation and Regulations governing Environmental Impact Assessments. It sets out the principles for environmental planning, exercise of functions by organs of state, and guiding other laws concerned with the protection or management of the environment. This application takes into account the environmental and socio-economic conditions in compliance with the NEMA principles.</p> <p>In terms of the amended EIA Regulations 2017 as amended, certain listed activities have been identified that may be triggered by the proposed project, and which will subsequently require environmental</p>



	<p>authorisation from GDARD. These activities may not commence until Environmental Authorisation has been received from the approving authority - GDARD. The application will follow a Basic Assessment approach in terms of Section 19 of Government Notice R982 (as amended in March 2017) of NEMA: BAR</p>
<p>GNR 326 of NEMA EIA Regulations, 7 April 2017</p>	<p>In fulfilment of integrated environmental management, the contents of this Basic Assessment Report (BAR) adheres to the requirements of the EIA Regulations. Appendix H includes the Environmental Management Programme that the project will adhere to if authorisation is received.</p>
<p>National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)</p>	<p>The purpose of the Biodiversity Act is to provide for the management and conservation of South Africa’s biodiversity within the framework of the NEMA and the protection of species and ecosystems that warrant national protection. As part of its implementation strategy, the National Spatial Biodiversity Assessment was developed. In terms of the Biodiversity Act, the developer has a responsibility for:</p> <ul style="list-style-type: none"> ▶ The conservation of endangered ecosystems and restriction of activities according to the categorization of the area (not just by listed activity as specified in the EIA regulations). ▶ Application of appropriate environmental management tools in order to ensure integrated environmental management of activities thereby ensuring that all developments within the area are in line with ecological sustainable development and protection of biodiversity. ▶ Limit further loss of biodiversity and conserve endangered ecosystems. <p><i>Please see Appendix G for the Terrestrial Biodiversity Assessment prepared by Scientific Terrestrial Services (Pty) Ltd (STS). STS has provided a detailed report on the Terrestrial Biodiversity, [Animal Species and Plant Species themes], of the site, as per the National Web-based Screening Tool outcome. STS have characterized the study area as follows: The study area is situated within the Savanna Biome and the Central Bushveld Bioregion. The associated vegetation type being the Marikana Thornveld. From a provincial biodiversity planning perspective, the southern portion of the study area is associated with an Ecological Support Area (ESA). No national protected or conservation areas are associated with the study area. The study area (and surrounds) has been associated with various direct and indirect disturbances/ impacts over the years. From 2001 to roughly 2011, the predominant land use in the surrounding areas included agriculture (thereafter replaced by urban development). From roughly 2009 - 2011, increased disturbances within the northern portions of the study area occurred due to dumping of (most likely) waste materials and construction rubble. Three broad habitat units could be distinguished within the study area: Degraded</i></p>



	<p><i>Woodland: Secondary Grassland: and Transformed Habitat: High levels of disturbance are associated with these areas and the overall habitat integrity is diminished. Although the development will result in the loss of floral and faunal species, development within already degraded and urbanised areas is considered preferable to development in more natural areas beyond the urban footprint. This, combined with the already impacted state of the study area, makes development herein more favourable.</i></p>
<p>National Environmental Management: Waste Act (NEM:WA) GNR 921, 29 November 2013</p>	<p>The Act was established to regulate waste management for the protection of human health and the environment.</p> <p>NEMWA seeks to reform the law on waste management by making provision for various measures for the prevention of pollution and ecological degradation, as well as ecologically sustainable development in order to protect health and the environment through waste management. The objectives of NEMWA include minimising the consumption of natural resources; avoiding and minimising the generation of waste; reducing, re-using, recycling and recovering waste; treating and safely disposing of waste as a last resort; promoting and ensuring the effective delivery of waste services; remediating land where contamination presents or may present a significant risk of harm to health or the environment; and achieving integrated waste management reporting and planning.</p> <p><i>No waste management license is required for the construction or operational phases of the proposed activity. Only a limited amount of solid construction waste will be stored and handled on the site, before being hauled away and deposited at the nearest registered landfill site.</i></p>
<p>National Water Act, 1998, Act 36 of 1998:</p>	<p>The act states that any act or omission, which pollutes, or is likely to pollute a water resource, is an offence, and it indicates what activities are also subject to license applications that must be considered during the environmental authorisation process. Section 19 of the National Water Act, Act 36 of 1998 and Section 28 of the National Environmental Management Act, Act 107 of 1998 imposes a duty of care on all responsible persons whose operations has the potential to cause water pollution or environmental degradation to take reasonable measures to prevent it from occurring, continuing or recurring.</p> <p>According to the Act, any proposed water uses must be specified and registered and/or licensed. Similarly, any modifications to drainage lines on site must be investigated in terms of water use requirements. <i>The proposed development will require a water use license for construction works within the Willow spruit wetland and flood line areas for the</i></p>



	<p><i>sewer connection. Furthermore, the Willow spruit is located within 500m of the proposed site.</i></p>
<p>National Environmental Management: Air Quality Act, Act 39 of 2004 and the Atmospheric Pollution Prevention Act, Act 45 of 1965:</p>	<p>The National Environment Management: Air Quality Act (No.39 of 2004) provides the basis for the management of air pollution in South Africa. The remaining provisions of NEMAQA came into effect on 1 April 2010 in terms of GN 220 of 26 March 2010. Section 21 of the Act enables the Minister to publish a list of activities which result in atmospheric emissions for which an atmospheric emission licence is required. Such a list and associated emissions standards have been published in GN 248 (in GG 33075) also commenced with effect from 01 April 2010.</p> <p>The emission of dust is addressed in Government Notice No.1210 (in GG 32816), which sets National Ambient Air Quality Standards in terms of Section 9(1) of the Air Quality Act. Dust is addressed in terms of the standards set for the emission of particulate matter (PM₁₀) in Regulation 3.1 of GN1210. Part 6 of the Air Quality Act addresses measures in respect of dust. Section 32 enables the Minister to prescribe measures for the control of dust in specified places or areas.</p> <p><i>Dust suppression and mitigation measures have been provided in the Environmental Management Programme. Please See Appendix H.</i></p>

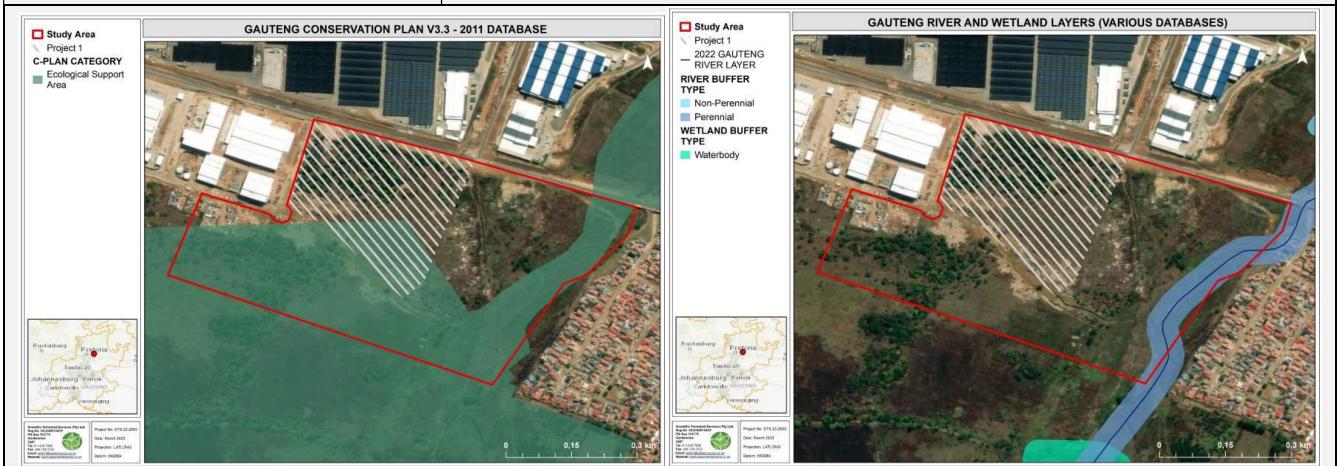
Gauteng Conservation-Plan V3.3 (2011)

As part of the process of initiating the Environmental Impact Assessment process, Seedcracker Environmental Consulting applied the National Web-based Screening Tool to the study area. See Appendix A for the C-plan map of the study site, and Appendix G for the Screening Report.

The Screening Tool is intended to allow for pre-screening of sensitivities in the landscape to be assessed in further detail within the Environmental Authorisation process. This assists with implementing the mitigation hierarchy by allowing developers to adjust their proposed development footprint to avoid sensitive areas.

The southern portion of the Project 1 area is associated with an ESA. For the Animal Species Theme, the study area is of medium sensitivity in terms of the Animal Species Theme. Triggering species included: Birds: *Eupodotis senegalensis* (White-bellied Korhaan; VU). Mammalia: *Crociodura maquassiensis* (Makwassie Musk Shrew; VU), *Dasymys robertsii* (African Marsh Rat; VU), *Hydrictis maculicollis* (Spottednecked Otter; VU), *Neamblysomus julianae* (Juliana's Golden Mole; EN). Reptilia: *Kinixys lobatsiana* (Lobatse Hinge-back Tortoise; VU). Invertebrate: *Clonia uvarovi* (Uvarov's Clonia; VU).

The study area is of medium sensitivity from a Plant Species. For the Terrestrial Biodiversity Theme, the Project area is in an area of very high sensitivity, although this has been disproven on site. The Project area is not associated with any rivers, river buffers or wetland buffers. The adjacent, eastern portion of the study area, however, is associated with a river and non-perennial river buffer.



Gauteng Environmental Management Zones, GEMF 2015

in terms of Regulation 5(4) of the Environmental Management Framework Regulations, 2010, published under Government Notice R547 in Gazette 33306 on 18 June 2010. The Gauteng Provincial Environmental Management Framework Management Frameworks in the Gauteng Province.

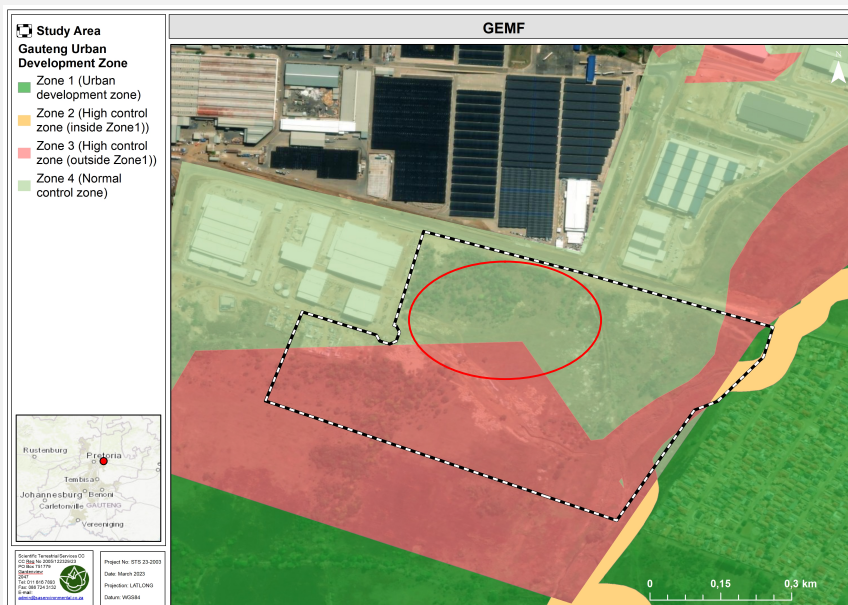
The EMF is seen as part of a pro-active framework that will inform planning on provincial and municipal level. The Environmental Management Zones (EMZ) were derived from the desired state, the environmental sensitivity as well the unique control areas as identified in sections 1, 2 and 3. The EMZs were presented to the Gauteng Planning Forum where it was generally accepted as a suitable contribution to facilitate appropriate development in Gauteng. The EMZs also took the Gauteng Growth and Management Perspective, 2014, into account and is therefore aligned to the general development policy for Gauteng. Five EMZs were identified and overlaying those a further six Special Management Areas were identified where specific planning and policy measures are necessary to achieve the development objective of those areas.

The study and investigation areas fall within the following EMF Zones:

EMF Zone: 3 (Urban development zone)

The northern and southern portions of the study area and the eastern portion of investigation area are located within Zone 1. The intention with this zone is to streamline urban development activities in it and to promote development infill, densification, and concentration of urban development, to establish a more effective and efficient city region that will minimise urban sprawl into rural areas.

EMF Zone 4: (Normal control zone) *This zone is dominated by agricultural uses outside the urban development zone as defined in the Gauteng Spatial Development Framework. No listed activities may be excluded from environmental assessment requirements in this zone.*





<p>Gauteng Urban Edge 2008 / 2009</p>	<p>The site is within the urban edge as per the RSDf policy document</p>
<p>National Heritage Resources, Act, 1999, Act 25 of 1999:</p>	<p>The protection of archaeological and palaeontological resources is the responsibility of a provincial heritage resources authority (SAHRA) and all archaeological objects, palaeontological material and meteorites are the property of the State. <i>“Any person who discovers archaeological or palaeontological objects or material or a meteorite in the course of development must immediately report the find to the responsible heritage resources authority, or to the nearest local authority offices or museum, which must immediately notify such heritage resources authority”.</i></p> <p><i>A Cultural heritage Survey is being conducted for the study area. This specialist report will be included in the Final BAR.</i></p>
<p>NATIONAL SPATIAL DEVELOPMENT FRAMEWORK, 2023</p>	<p>The NSDF guides and promotes coordinated focus and action across all 3 spheres of government and society, which requires every national department, state entity, province, municipality, civil society organisations and private sector to: Be informed, aware and mindful of national spatial transformation and economic transition imperatives of the Country and pursue these in all actions; and Individually and collectively hold each other accountable for their planning, funding and investment decisions and delivery programs in relation to investment in: national priority spaces; the pursuit of national spatial transformation and related economic transition objectives; and the care and respect for, and well-considered utilisation of our national natural resource base. The overarching principles for spatial development in terms of the National Spatial Development Framework are based on Spatial justice, Spatial sustainability, and spatial efficiency.</p>
<p>GAUTENG SPATIAL DEVELOPMENT FRAMEWORK, 2016</p>	<p>The Gauteng Spatial Development Framework amongst others, serves to inform and guide existing spatial planning and land use management in the province to enhance co-ordinated, integrated, and faster decision-making. The proposed SAMCOR Park X 12 development proposes intensified land use and compaction of an area bordering onto existing built environments and contributes to the provision of much needed economic growth opportunity, and skills building within the specialised industrial environment whilst promoting infill development in the area and the job creation that goes with it.</p>
<p>CITY OF TSHWANE 2021/2026 IDP</p>	<p>The IDP is intended to provide strategic direction and operational planning for the City. The IDP confirms that the City of Tshwane has committed itself to being a City that promotes inclusivity, facilitates economic growth and encourages job creation, a City that plays a leading role in contributing towards the substantial growth and development of Gauteng Province, etc. The IDP also gives the background as to the status and the needs of the 7 Regions of Tshwane in as far as development and investment is concerned and indicates where funds will be spent. The proposed development allows for area specific services upgrading, which will not only benefit this development but will contribute to the economic growth of the City.</p>



TSHWANE METROPOLITAN SPATIAL DEVELOPMENT FRAMEWORK, 2021	The Tshwane Metropolitan Spatial Development Framework, 2021 provides strategic direction to all Municipal decision-making processes and plays an important role in addressing social needs, special restructuring and the sustainable use of land. The MSDF emphasises the importance of job creation, social upliftment and skills development as the means to achieve a sustainable society. The Framework suggests that an integrated approach in the overall development of the municipal area should be employed. The framework states that public investment is essential to spur development and create an economic base. This initiative of private developers will contribute to economic growth and increased economic opportunity in the area.
REGIONAL SPATIAL DEVELOPMENT FRAMEWORK FOR REGION 6, 2018 (RSDF)	In terms of the RSDF, the subject property is earmarked for mixed use development. The proposed industrial use of the property will comply with the proposals of the RSDF and the strategic planning for the area. The RSDF confirms that the Region has a strong Industrial sector with job opportunities at Waltloo, Silverton, east Lynne and Koedoespoort. It regards the Silverton/Waltloo Industrial Node as an important role player in the Region in terms of economic development and regional accessibility. In terms of the RSDF this Industrial Node provides for some 34 180 job opportunities available in the Region. The economic base of the Region is well balanced between the retail, office sector in the southern and western sections and the commercial, warehousing, wholesale and industrial activities in the northern section. The framework is clear in its goals to promote and encourage development of the Industrial land in the Silverton, Waltloo and Samcor Park areas for intensification of Industrial use in line with and in support of the Tshwane Automotive City Concept. The proposed development at this location finds support in terms of the demarcation of the RSDF, 2018



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.

Please describe the process followed to reach (decide on) the list of alternatives below

One of the objectives of an EIA is to investigate alternatives to the proposed project. The IEM procedure stipulates that the environmental investigation needs to consider feasible alternatives for any proposed development. Therefore, possible proposals or alternatives for accomplishing the same objectives should be identified and investigated. To ensure that the proposed development enables sustainable development, *feasible* alternatives must be explored. The identification, description, evaluation, and comparison of alternatives are important for ensuring a sound environmental process. Alternatives should be considered as a *norm* within the Environmental Process.

An alternative *land use* proposal was considered. A High Density *Residential* township could be established on the site.

Provide a description of the alternatives considered.

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other(provide details of "other")	Description
1	PREFERRED LAND USE: Industrial 1 Township	<i>Willows Industrial Park</i> (the applicant) proposes the establishment of an Industrial 1 township, to develop a high-volume national warehouse and distribution facility for automotive service parts, for the FORD Motor Company, with an associated administration area to house and supply logistics personnel. The project is located on the Remainder of Portion 601 (a portion of Portion 89) of the farm The Willows 340 JR, in the City of Tshwane Metropolitan Municipality. Two (2) buildings separated by a hardstand area are proposed for the site. The buildings are 22 meters high.



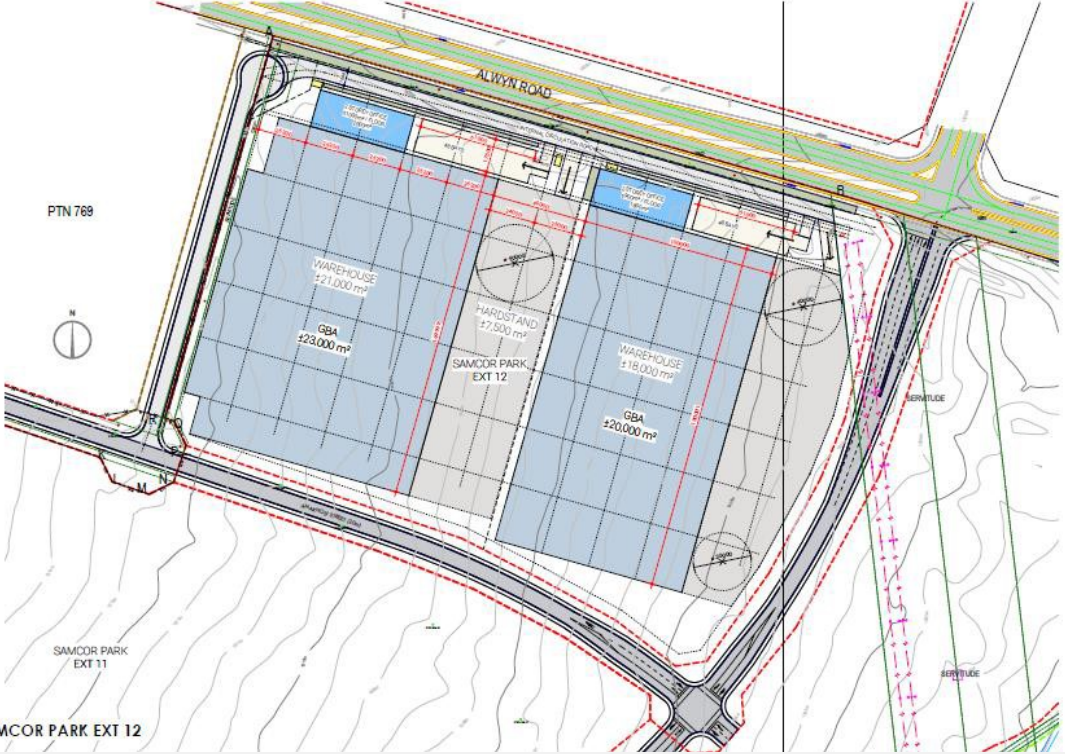
No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other (provide details of "other")	Description
		<p>See Appendix A for the proposed township layout.</p> <p>The Remainder of Portion 601 (a portion of Portion 89) of the farm The Willows 340 JR is located within the SAMCOR Park Industrial area, between the Waltloo and Nellmapius townships. Simon Vermooten Road (M12) lies approximately 500m to the west, and the Bronkhorstspruit Road is situated approximately 550m to the south. Waltloo Road lies approximately 1.4km to the north-west. The property forms part of the larger Remainder of Portion 601 (a portion of Portion 89) of the farm The Willows 340 JR, which is situated at 459 Alwyn Street, 500m to the south-east of the intersection between Alwyn Street and Propshaft Road. The site is easily accessible from Alwyn Street and Propshaft Road.</p> <p>The study area falls inside the Tshwane Automotive Special Economic Zone (TASEZ) and is earmarked as Phase 3 in the TASEZ masterplan. See Appendix A. The Tshwane Automotive Special Economic Zone (TASEZ) is a collaboration between different spheres of government and private sector to establish Africa's first automotive city.</p> <p>The study area has been thoroughly studied by Scientific Terrestrial Services, see Appendix G. The study area (and surrounds) has been associated with various direct and indirect disturbances/ impacts over the years. From 2001 to roughly 2011, the predominant land use in the surrounding areas included agriculture (thereafter replaced by urban development). From roughly 2009-2011, increased disturbances within the northern portions of the study area occurred due to dumping of (most likely) waste materials and construction rubble. Three broad habitat units could be distinguished within the study area: Degraded Woodland: Secondary Grassland: and Transformed Habitat: High levels of disturbance are associated with these areas and the overall habitat integrity is diminished. Although the development will result in the loss of floral and faunal species, development within already degraded and urbanised areas is considered preferable to development in more natural areas beyond the urban footprint. This, combined with the already impacted state of the study area, makes development herein more favourable.</p> <p>Bulk water services are available in Propshaft and Alwyn Roads. Samcor Park X12 will be responsible for constructing a new 250 mm \varnothing water line along the western boundary of Samcor Park X12 to the access of the</p>



No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other(provide details of "other")	Description
		<p>township. There is an existing 300 mm \varnothing clay sewer pipe which runs within a servitude registered on Portion 601 of the farm The Wilgers, this pipe line connects to a bulk 525 mm \varnothing line located within the Willow Spruit wetland and flood line areas. Samcor Park X12 will be responsible for constructing a new 160 mm \varnothing sewer line from its north eastern boundary to connect to the existing 300 mm \varnothing clay pipe to the east of the development. See Appendix G for the Civil Concepts engineering report for detailed illustrations of these services.</p> <p>There is an existing stormwater pipeline running along the northern boundary of the adjacent township, Samcor Park X11. This pipe traverses through the Samcor Park X11 township and finally outlets to the Willow Spruit. The existing stormwater line running along the northern boundary of the Samcor Park X11 will be rerouted to no longer traverse through this township. The pipe will be realigned along the extension of Amakhosi Street, where it will cross Sefatanaga Street and join the existing pipe.</p> <p>In addition to the above, an existing 900 mm \varnothing to 1250 mm \varnothing pipe runs along the southern boundary of Alwyn Road (Samcor Park x 12 northern township boundary). The existing system along Alwyn Road does not have sufficient capacity. The stormwater network will require a parallel 900 mm \varnothing pipe to be installed from the western erf boundary of Samcor Park X 12, up to the stormwater outlet. A 825 mm \varnothing for the 1:20 year post development connection will be provided in the north eastern corner of the Samcor Park X 12 development, which will connect to the existing line along Alwyn Road. Samcor Park X12 will be responsible for a 825 mm \varnothing stormwater pipe to be installed from the new road on the western boundary up to the existing system in Alwyn Road.</p> <p>The above said stormwater discharge points into the Willow spruit, are subject to a concurrently running WULA process.</p> <p>ELR electrical engineers conducted the electrical requirements for the proposed development, and the available capacity on the City of Tshwane network. See Appendix G. The allocated capacity required for Samcor Park X 12 is calculated at 2 121.25 kVA. The proposed township will in future be supplied from the new Propshaft 11kV switchstation. There are no free 11kV switchgear panels presently available, however two panels can be added on either side of the existing 11kV panel to supply a ring feeder,</p>



No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other(provide details of "other")	Description
		<p>which will also cater for the proposed Samcor Park X 12 township. To make capacity available at Propshaft switchstation, load associated with the Nellmapius residential townships will have to be moved (supplied from another source). The Electricity and Energy Department of the City of Tshwane already applied to Eskom to make approximately 16MVA available at 11kV from the Eerste Fabrieke SARS/Eskom substation. Once this capacity is available, some of the Nellmapius residential townships' load can be supplied from this source, resulting that capacity will be available at Propshaft switchstation. Once the Propshaft switch station is deloaded, it will be possible to supply the proposed Samcor Park X 12 township.</p> <p>The end state solution will be for the new Wildebees Intake 400/132kV station to be completed as well as the feeder lines from Wildebees Intake Station to the Waltloo 132/11kV S/S. This will relieve the present overloading of the Njala/Waltloo 132kV O/H feeder (presently 140%). Once this is operational, Propshaft switch station will be supplied from Waltloo S/S and the Eerste Fabrieke Input (16MVA) most likely terminated. Wildebees Intake station is programmed to be completed by end 2025.</p> <p>The Traffic Impact Assessment conducted by Civil Concepts Engineers (see appendix G), details the existing and future road networks which serve the site. Intersection upgrades are required to accommodate the background traffic, latent right traffic and development traffic volumes on the existing road network.</p> <p>The proposed development allows for area specific services upgrading, which will not only benefit this development but will contribute to the economic growth of the City.</p> <p>The FORD warehouse and distribution facility proposes intensified land use and compaction of an area bordering onto existing built environments and contributes to provision of much needed economic growth opportunity, and skills building within the specialised industrial environment whilst promoting infill development in the area and the job creation that goes with it. Public investment is essential to drive development and create an economic base. The FORD warehouse initiative will contribute to economic growth and increased economic opportunity in the area.</p>

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other (provide details of "other")	Description
 <p>The site plan shows a large industrial area bounded by Alwyn Road to the north and a road to the south. Key features include:</p> <ul style="list-style-type: none"> Warehouse: 21,000 m² GBA: 23,000 m² Hardstand: 7,500 m² Warehouse: 18,000 m² GBA: 20,000 m² <p>Other labels include PTN 769, SAMCOR PARK EXT 11, SAMCOR PARK EXT 12, and ERWITSE.</p>		
2	<p>Alternative high density residential township</p>	<p>A feasible land use alternative is for a high-density residential application. A residential township would trigger the same EIA listed activities as the Industrial 1 township, and it would have the same associated engineering infrastructure upgrades and requirements. A residential township would also transform the study area from vacant land to a built environment, resulting in the equivalent loss of fauna and flora habitat.</p> <p>A residential township would however not be in keeping with the present Samcor Park Industrial land uses. Surrounding buildings to the site are typical warehouse type buildings associated with industrial use, and a number of the properties are used for purposes associated with the automotive industry. The Ford Motor Company South African Manufacturing and Automotive Assembly plant already occupies a large area of land to the north of the subject property, whilst several motor related industries have established on the land surrounding the plant. The Samcor Park X 12 farm portion falls inside the Tshwane Automotive Special Economic Zone (TASEZ) and is earmarked as Phase 3 in the TASEZ masterplan. The Tshwane municipal departments are in support of the proposed Industrial 1 development at the present location inside the</p>



No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other (provide details of "other")	Description
		<p>TASEZ, subject to a successful land development application process.</p> <p>The properties further west of Propshaft Road include smaller industrial and light industrial businesses as well, such as panel beaters, paint factory, insulation panel manufacturers, elevator chain maintenance and repairs, automation product manufacturers, courier services, steel manufacturing services, security companies.</p> <p>Although the areas to the east of the study area, across the Willow spruit, are used for single residential purposes as part of the Nellmapius residential townships, the Ward councilor and his committee have expressed their <i>objection</i> to a residential township in an area that needs to bring employment opportunities. The Ward councilor seeks a development that will bring further economic investment to the region, which will ultimately benefit the surrounding communities.</p> <p>The municipal planning frameworks for the area are also not in support of a residential application.</p>

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

NOTE: The numbering in the above table must be consistently applied throughout the application report and process

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 infrastructure (roads, services etc), impermeable surfaces and landscaped areas:

Size of the activity:

Proposed activity 7.5 hectares

Alternatives:

Alternative 1 (if any) 7.5 hectares

Alternative 2 (if any)

Ha/ m²

or, for linear activities:

Length of the activity:

Proposed activity

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

k/km

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

Size of the site/servitude:

Proposed activity

The site measures 7.5 hectares

Alternatives:

Alternative 1 (if any)

7.5 hectares

Alternative 2 (if any)

7.5 hectares

5. SITE ACCESS

Proposal

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

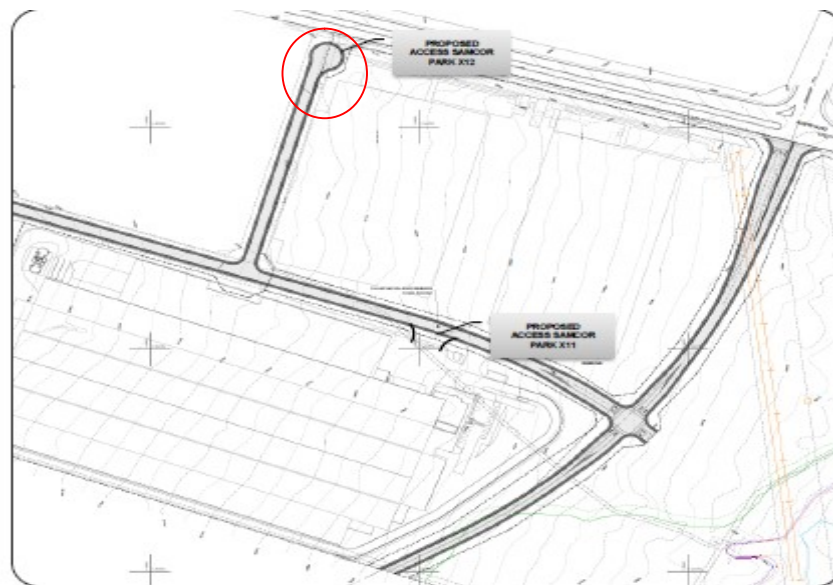
YES	NO
X	

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

m

Describe the type of access road planned:

One access will be provided to Samcor Park X12 via the future street to be constructed on the western boundary of the township:



Please see Appendix G for the Traffic Impact Study compiled by Civil Concepts Engineers for this application.

Include the position of the access road on the site plan.

Alternative 1

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

YES	NO
X	

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

--

Describe the type of access road planned:

Same as for the Preferred Alternative.

Include the position of the access road on the site plan.

Alternative 2

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

YES	NO
-----	----



road?

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

Describe the type of access road planned:

--

Include the position of the access road on the site plan.

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

Section A 6-8 has been duplicated

0

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.
 - 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)
- shapefiles 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;
- 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;
 - the 1:100 and 1:50 year flood line;
 - ridges;
 - cultural and historical features;
 - 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;



- locality 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);
- locality 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.

See 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.

See Appendix D

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.

See Appendix C

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

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

Further:

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 route 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 alternative location/route needs to be clearly indicated at the top of the next page
- 3) Attach the above documents in a chronological order

Section B has been duplicated for location/route alternatives times



(complete only when appropriate)

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

N/A (complete only when appropriate for above)

Section B – Location/route Alternative No.

0 (complete only when appropriate for above)

1. PROPERTY DESCRIPTION

Property description:

Part of the Remainder of Portion 601 (a portion of Portion 89) of the farm The Willows 340 JR

(Farm name, portion etc.)

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.

Proposed, preferred Alternative:

Latitude (S):

Longitude (E):

25 43 57.74

28 20 23.41

In the case of linear activities:

Alternative:

Latitude (S):

Longitude (E):

- 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

Addendum of route alternatives attached

The 21 digit Surveyor General code of each cadastral land parcel

TOJR00000000034000601

3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

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

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

See Appendix G for the **ENGINEERING GEOLOGICAL INVESTIGATIONS** conducted for the site.

Is the site located on any of the following?

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

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

6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 3)? YES NO

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 % = 90	Natural veld with heavy alien infestation / % =	Veld dominated by alien species % =	Landscaped (vegetation) % =
Sport field % =	Cultivated land % =	Paved surface (hard landscaping) % =	Building or other structure % =	Bare soil % = 10

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.

Are there any rare or endangered flora or fauna species (including red list species) present on the site

YES	NO
-----	----

If YES, specify and explain:

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.	Undetermined
--	--------------

If YES, specify and explain:

Are there any special or sensitive habitats or other natural features present on the site?	YES	NO
--	-----	----

If YES, specify and explain:

Was a specialist consulted to assist with completing this section	YES	NO
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See Appendix G for the Biodiversity Assessment

If yes complete specialist details

Name of the specialist:	Scientific Terrestrial Services	
Qualification(s) of the specialist:	Stephen van Staden MSc (Environmental Management) (University of Johannesburg) BSc (Hons) Zoology (Aquatic Ecology) (University of Johannesburg) BSc (Zoology, Geography and Environmental Management) (University of Johannesburg)	
Postal address:	PO. Box 751779, Garden view	
Postal code:	2047	
Telephone:	011 616 7893	084 311 4878
E-mail:	stephen@sasenvgroup.co.za	



Are any further specialist studies recommended by the specialist?	YES	NO
If YES, specify: <input style="width: 95%;" type="text"/>		
If YES, is such a report(s) attached?	YES	NO
Name of the specialist:	<input style="width: 100%;" type="text"/>	
Qualification(s) of the specialist:	<input style="width: 100%;" type="text"/>	
Postal address:	<input style="width: 100%;" type="text"/>	
Postal code:	<input style="width: 100%;" type="text"/>	
Telephone:	<input style="width: 30%;" type="text"/>	<input style="width: 30%;" type="text"/>
E-mail:	<input style="width: 30%;" type="text"/>	<input style="width: 30%;" type="text"/>
Are any further specialist studies recommended by the specialist?	YES	NO
If YES, specify: <input style="width: 95%;" type="text"/>		
If YES, is such a report(s) attached?	YES	NO

If YES list the specialist reports attached below:

Signature of specialist:

Date:

March 2023

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	35. Road



Other land uses (describe):	36. Airport Runway
-----------------------------	--------------------

NOTE: Each block represents an area of 250m X250m

NORTH						
	8	15	15	15	2	
	35	35	35	35	2	
WEST	8	15	1	1	2	EAST
	8	15	1	1	2	
	8	15	1	1	2	
SOUTH						

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

Site

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

YES	NO
-----	----

If yes indicate the type of reports below

- Terrestrial Assessment
- Water, Sewer, roads and Stormwater; Engineering Reports
- Traffic Impact Assessment
- Electrical Engineering Services Report
- Geotechnical Investigations
- Flood Line Study
- Environmental Management Programme

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.

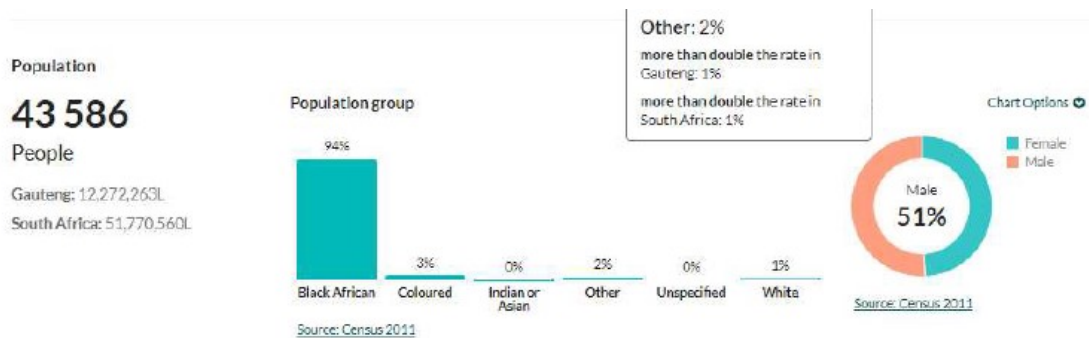
Demographics of a study area are important to ensure that new developments will complement the existing land uses. Census data is used for planning, monitoring and evaluation.

Region 6 is bordered by the Magaliesberg mountain range to the north, the N1 freeway to the west and the Ekurhuleni Metropolitan Municipality to the south. The region includes large parts of the former Kungwini and Nokeng Tsa Taemane regions. Some of the areas that fall under Region 6 include Nellmapius, Mamelodi, Jan Niemand Park, Mahube Valley, Moreletapark, Silver Lakes and Mooikloof.

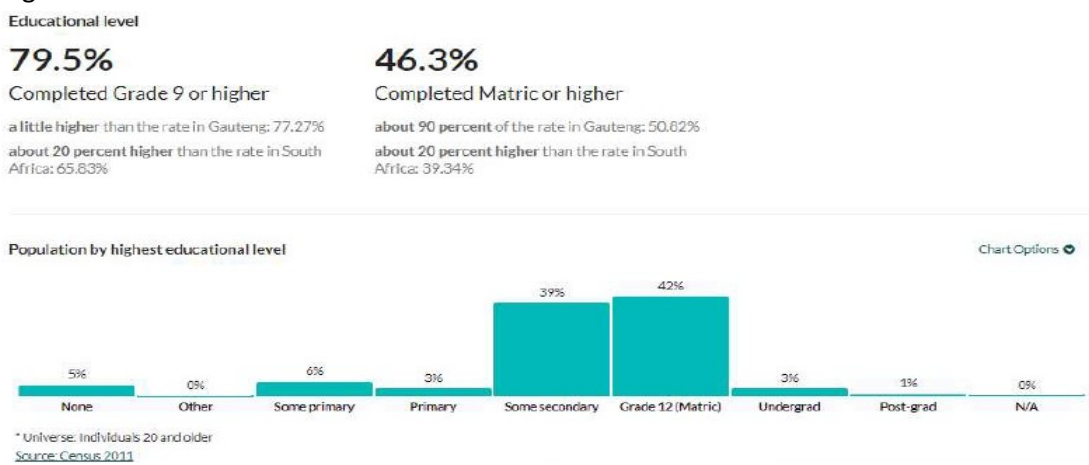
The region includes large parts of the former Kungwini and Nokeng Tse Tsamane regions. The N4 freeway which links the city of Tshwane with Mpumalanga province and runs east-west through the region. The N1 freeway which runs on the western side of the region and links the city of Tshwane with the Limpopo province in the north and Johannesburg, Bloemfontein and Cape Town towards the south. The R21 freeway along the western boundary of the region which links the city with the Ekurhuleni municipality and the OR Tambo International Airport. The region has a high level of accessibility.

Population demographics

Region 6 had a total population of 605 556 people in 2011. The urban areas in the north west of the region have the highest densities. The remainder of the region is predominantly low density and rural in nature. When considering population per age group and gender, the age groups from 20 to 39 years are the largest, with a substantial portion of the population being under 4 years of age. The majority of people in this region are within the economically active age group. This means a relatively low dependency ratio, as most people in this area should be able to access employment. The latter however depends on the number of job opportunities and access to areas of economic activity. The level of employment will also depend on the levels of education in the region.

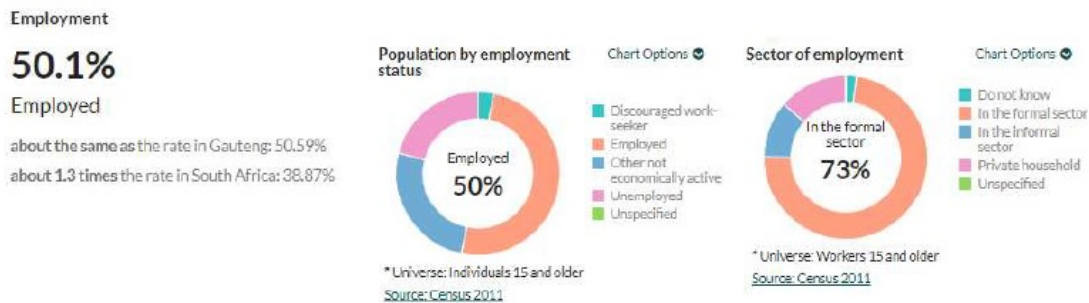


Levels of Education: Region 6: 3% of adults have no schooling, 26% of adults are schooled up to grade 12.



Employment: Around 22% of the economically active population in the region is unemployed. There is a huge concentration of people in the north east quadrant,

representing low and no- income groups. Region 6 is the region with the greatest development pressure.



Accommodation: A total of 44377 dwelling units, around 22% of dwelling in the region, are informal.

Regionality and Sense of place: Region 6 is a mix of low density rural areas and high density urban areas. The Region includes large parts of the former Kungwini and Nokeng Tae Tsamane regions. The region enjoys a high level of accessibility with the N4, N1 and R21 freeways in short distance. The region is popular in terms of retail as well as office functions as many of the higher category retail and office functions of the City have relocated to this region over the past few years. Further to this is also the second most important industrialised area in Tshwane situated in Silverton/ Silvertondale/ Waltloo/ Bellevue- area. Suburban areas are mostly low density in nature and the region accommodates a number of Golf and Life Style Estates such as Woodhill, The Hills and Silver lakes. However, there is also a high density area to the north of the region with large areas planned for RDP type development and informal settlements invaded the land before construction of services took place. There is a high dependency on private motor vehicles, from the southern section of the region, placing an impossible demand on the road infrastructure. Further to this is a high rail related dependency of the north eastern quadrant to the City Centre. There are also an unusually high dependency on bus travel through the area from the far outlying rural areas e.g. Moutse and Moloto.

The Bronberg and the Magaliesberg Mountain range is a major environmental feature running east to west in the northern part of the region. It provides limited thoroughfare, with only two major crossing points. The Moreleta Spruit and its tributaries cover virtually the entire area to the south of the Bronberg, contributing to the well-defined regional open space system of the southern part of the region.

The region contains a number of strategic land uses including the CSIR, South African National Intelligence Service and the Menlyn Park Retail Node which has a metropolitan function in terms of facilities. The Hatherley landfill site has a metropolitan function in terms of its Strategic nature and size. No other sites are known for future development in the Metro as yet.



Almost all the developable land within the southern section of the Region has been developed and the uncontrolled development in the old Kungwini area places a burden on the existing saturated road infrastructure. The north-eastern section of the region accommodates mostly low-income communities and industrial land uses. The middle and south-western section of the region accommodates medium to high-income areas with large institutional uses. The northern section of the region includes a number of strategically located undeveloped areas in terms of accessibility and infrastructure which offer significant development potential.

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, powerline, 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?

Undetermined

If YES, explain:

Dr Johnny Van Schalkwyk is currently conducting the Heritage Impact Assessment for this application.

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:

To be included in the Final BAR.

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

No

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

No

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



SECTION C: PUBLIC PARTICIPATION

1. 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?

YES	NO
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If yes, has any comments been received from the local authority?

YES	NO
-----	----

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

The Public Participation Process is currently underway. The Draft BAR has been submitted to the relevant local authorities. Comments received from the public, local authorities and other identified IAP's will be included in the final BAR. The comment period is 14 April 2023 till the 15 May 2023.

2. 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?

YES	NO
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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 Public Participation Process is currently underway. Comments received will be included in the final BAR.

3. 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. 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.



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 issued as required in terms of the regulations
- Appendix 3 – Proof of newspaper advertisements
- Appendix 4 – Communications to and from interested and affected parties
- Appendix 5 – Minutes of any public and/or stakeholder meetings
- Appendix 6 - Comments and Responses Report
- Appendix 7 –Comments from I&APs on Basic Assessment (BA) Report
- Appendix 8 –Comments from I&APs on amendments to the BA Report
- 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

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

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

Section D Alternative No. (complete only when appropriate for above)

The following information applies to both alternatives, since both land use proposals have the same resource use

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)?

YES	NO
Undetermined	



During the construction phase, waste will comprise mainly of excess spoil material from ground excavations and trenching activities, vegetation removal, construction material, general waste from site personnel, paints and solvents and waste water and sewage to be disposed of at registered sites. A recycling programme should be implemented to ensure that the generation of waste that is being disposed of, is minimised from source. It is suggested that two areas on the site, be demarcated for waste disposal. One area will include all waste that *cannot* be recycled, while the other area will include all *recyclable* waste. The building rubble and solid waste (such as sand, gravel, concrete and over burden material) that cannot be used for filling and rehabilitation during the construction phase, must be removed from site and be disposed of safely and responsibly at a licensed landfill site. It is also suggested that the recyclable waste be sorted into different categories such as paper, plastic, glass & tin/ metal and that the appropriate independently appointed parties pick up the recyclable items. The solid waste produced during the construction phase, will be taken and collected from site by means of skip waste containers. This will be the responsibility of the applicant.

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

The construction solid waste will be disposed of at a registered Municipal landfill site, of the COT.

Will the activity produce solid waste during its operational phase?	YES	NO
If yes, what estimated quantity will be produced per month?	This cannot be determined at this stage	

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

The waste collections under contract by the COT Municipality will collect the domestic trash on a weekly basis. Recycling will be encouraged, and separate bins for recycling should be provided to the residents. Domestic waste will be disposed of at a registered landfill site.

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?	YES	NO
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Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

To be disposed of at licensed landfill site.

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?	YES	NO
If yes, inform the competent authority and request a change to an application for scoping and EIA		

Is the activity that is being applied for a solid waste handling or treatment facility?	YES	NO
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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:

All materials that can be recycled will be separated from the general waste and disposed of at a recycling facility. Spoil material which could be used for landscaping purposes will be extracted and kept neatly intact in a controlled manner, to prevent wind and water erosion.

Recycling of solid wastes not only facilitates disposal, but conserves energy, cuts pollution, and preserves natural resources.

Presently, the applicant has not considered the re-use or recycling of materials as part of the development proposal. During the construction phase, waste should be managed according to the following Waste Disposal Management Plan (as well as the Waste stream system presented in the EMPr). The following procedures must be adhered to, in order to control and manage builder's wastes generated on the premises:

- *Rubble material will be removed from the construction site frequently and disposed of at an approved dumping site.*
- *Sufficient containers will be on the construction site to handle the amount of litter, wastes, rubbish debris and builders wastes generated on the site.*
- *These containers will be emptied frequently to avoid rodents, insects or any other organisms accumulating on the site and becoming a health hazard to adjacent properties.*
- *No wastes will remain on the construction site for more than two (2) weeks.*

Material to be used as backfill during a later building phase will be covered with a layer of soil to prevent litter from flying away and unhygienic conditions developing on the rubbish dumps. During the operational phase of the established township, waste will be collected by the Tshwane Municipal Services.

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?

YES	NO
-----	----

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)?

YES	NO
-----	----

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

Yes	NO
-----	----

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

m³

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?

YES	NO
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If yes, provide the particulars of the facility:

Facility name:			
Contact person:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

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

Water use and wastewater recycling are essential for Environmental Sustainability.

The applicant must commit to reducing its water dependency and usage through efficient operations to minimise the developments impact on the regions scarce water resources, and to reduce operating costs. Water usage should be monitored at a company /facility/development level, to ensure consumption targets are achieved. A water conservation program should be developed to identify and manage water saving initiatives. All new facilities and buildings are required to implement water savings initiatives, as dictated by environmental sustainability initiatives, to ensure good practice water efficiency standards are met and exceeded where possible. All staff, contractors, suppliers and leased facilities are made aware of the need to conserve water and minimise consumption.

Water conservation measures should include metering water use, installing water-efficient fixtures and technologies, growing drought-resistant landscaping, and making sure that leaks are quickly repaired. To achieve an even more significant impact, onsite alternative water sources and water re-use as cleaned or grey water should be considered.

Liquid effluent (domestic sewage) Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?	YES	NO
If yes, what estimated quantity will be produced per month?	Undetermined	
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)?	YES	NO
Will the activity produce any effluent that will be treated and/or disposed of on site?	YES	NO
If yes describe how it will be treated and disposed of.		

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

YES	NO
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If yes, is it controlled by any legislation of any sphere of government?

YES	NO
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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:

Limited dust will be generated during the construction phase of the project, due to the movement of trucks on site. The dust emissions will have short term impact duration, and therefore a limited impact in terms of severity and extent. Appropriate dust suppression measures will be implemented to reduce the impacts as required, and will be monitored by the appointed Environmental Control Officer.

2. WATER USE

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

Municipal	Directly from water board	groundwater	river, stream, dam or lake	other	the activity will not use water
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If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate

the volume that will be extracted per month:

N/A

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix

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

YES	NO
-----	----

If yes, list the permits required

Department of Water and Sanitation (DWS) approval in terms of a General Authorisation for water uses under Section 21 (c) and Section 21 (i), issued in terms of Section 39 the National Water Act (Act 36 of 1998) for the discharge of storm water into the Willow spruit.

If yes, have you applied for the water use permit(s)?

YES	NO
-----	----

If yes, have you received approval(s)? (attached in appropriate appendix):

Not yet

3. POWER SUPPLY

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

The application falls within the City of Tshwane area of supply, provided by the municipality

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

The capacity required for the proposed township can be made available at the Propshaft switchstation.

4. ENERGY EFFICIENCY

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

Different energy saving measures will be considered in the detail design phase of the project. The measures will include combinations of a variety of appropriate energy saving and alternative energy generation initiatives, including renewable energy, as relevant to a particular facility/development structure. Specific focus should be placed on the management



of new buildings, to ensure that their design is energy efficient. Conformance with the Green Buildings Policy is important in this respect. Energy efficiency in new buildings will take account not only of the building's design, but also of life-cycle impacts associated with the upstream activities (e.g. the carbon footprint of the materials used for building construction) and the downstream activities (e.g. waste and excess soil produced by construction). To this end, SEC also recommends the following:

*Appropriate **structural designs**, energy effective building construction and orientation, have not been considered to date. The following recommendations regarding structural designs are provided by the EAP: Use of building material that requires excessive amounts of energy to manufacture should be minimised. Use of building material originating from sensitive or scarce environmental resources should be minimised. Building material that can be recycled / reused should be used rather than building material that cannot. Use highly durable building material for parts of the building that is unlikely to be changed during the life of the building (unlikely to change due to e.g. renovation, fashion, changes in family life cycle) is highly recommended. Local building material instead of imported building material should be used as much as possible (this will reduce transportation impacts and enhance local job creation).*

The following energy saving methods must be investigated further during the detail design phase for possible implementation for the proposed development: The use of energy efficient lighting; The use of daylight whenever possible in lieu of artificial lighting; Switching off of all electrical appliances at night and times not in use; Use of high-efficient HVAC systems; Possibility of co-generation in co-operation with the supply authority; Use of solar water heating; Setting thermostats of water heaters at the most efficient level; Insulation of hot water pipes and hot water storage tanks; Use of high-efficient electric motors; Use of appropriate conductor size to reduce distribution losses; Use of control methods to reduce maximum demand and exploit off peak electricity tariffs; Insulation of windows, walls, ceilings and roofs.

The facility will also make use of natural ventilation and therefore minimising impacts associated with energy use.

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

Where possible, the use of alternative energy supply will be promoted and used. This could include:

- Solar lighting.
- Solar water heating.

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.

Comments received following the review of the draft BAR will be included in the Final BAR

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 (CRR) that must be attached to this report):

The CRR will be included in the Final BAR.

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

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

The potential impacts of the proposed activity were identified through a site visit, specialist studies and technical studies. Issues raised by IAP's and authority comments (to be received following the review of this draft report), will be used to further refine any identified impacts.

In this Basic Assessment Report, the potential impacts are broadly identified and outlined. An assessment of the potential impacts is provided, identifying the impacts that are potentially significant and recommending management and mitigation measures to reduce the impacts. In general, it is recognised that every development has the potential to pose various risks to the environment as well as to the residents or businesses in the surrounding area. Therefore, it is important that these possible risks are taken into account during the planning phase of the development. Risks and key issues were identified and addressed through an internal process based on similar developments, environmental and technical evaluations.

Previous experience has shown the rating and ranking of impacts is often a controversial aspect because of the subjectivity involved in attaching values to impacts. Please refer to tables below, for a detailed description on the assessment methodology used. Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required.

The potential impacts of the proposed development have been identified through a desktop study, a site visit, specialist and technical studies.

SIGNIFICANCE DESCRIPTION METHODOLOGY

The identification and assessment of environmental impacts is a multi-faceted process, which combines quantitative and qualitative descriptions and evaluations. It involves the application of scientific

measurements and professional judgment to determine the significance of environmental impacts associated with the proposed project. The process involves consideration of *inter alia*: the purpose and need for the project; views and concerns of interested and affected parties, general public interest; and environmental legislation and guidelines.

The potential environmental impacts associated with the project have been evaluated according to the nature, extent, duration, intensity, probability, and significance rating of the impacts as explained below.

Significance of Impact

The significance of the impact has been determined through the following criteria:

(a) **Nature of Impact:** This includes a brief description of how the proposed activity will impact on the environment. The nature of the impact is *described* as follows:

Positive: Impacts affect the environment in a positive manner, such that natural, cultural and/or social functions

and processes are not affected or enhanced

Negative: Impacts affect the environment in a negative manner, such that natural, cultural and/or social functions and processes are altered, destroyed, lost, etc.

(b) **Extent:** *The* physical and spatial size of the impact, which is classified as:

- Local: The impacted area extends only as far as the activity, e.g. a footprint of proposed activity.
- Site: The impact could affect the whole, or a measurable portion of the above mentioned property.
- Regional: The impact could affect the area including the neighbouring properties, the transport routes and the adjoining towns.

The impact will either disappear with mitigation or will be mitigated through natural process in a span shorter than any proposed phases.

- Medium term (5-15 years):
The impact will last up to the end of the phases, where after it will be entirely negated.

- Long term (duration of operation):
The impact will continue or last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter.

(c) **Duration:** The lifetime of the impact; this is measured in the context of the life-time of the proposed project.

- Short term (0-5 years):

- Permanent:
The only class of impact, which is considered non transitory. Mitigation, either by man or

natural process, will not occur in such a way or in such a time span that the impact can be considered transient.

(d) Probability

This describes the likelihood of the impacts actually occurring. The impact may occur for any length of time during the life cycle of the activity, and not at any given time. The classes are rated as follows:

- Improbable: The possibility of the impact occurring is very low, due to the circumstances, design or experience. Probable: There is a possibility that the impact will occur to the extent that provisions must be made to mitigate the impacts.
- Highly probable: It is most likely that the impacts will occur at some or other stage of the development. Plans must be drawn up before the undertaking of the activity.
- Definite: The impact will take place regardless of any prevention plans, and thus mitigatory actions or contingency plans must be relied on to contain the effect.

(e) Intensity

This will be a relative evaluation within the context of all the activities and the other impacts within the framework of the project. Does it destroy the impacted environment, alter its functioning, or render it slightly altered? These are rated as:

- None: No known impacts
- Low: The impact alters the affected environment in such a

way that the natural processes or functions are not affected.

- Medium: The affected environment is altered, but function and process continue, albeit in a modified way.
- High: Function or process of the affected environment is disturbed to the extent that it temporarily or permanently ceases.

Determination of significance

Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale and therefore indicates the level of mitigation required. The classes are rated as follows:

- No significance: The impact is not substantial and does not require any mitigatory action.
- Low: The impact is of minimal importance, but may require limited mitigation.
- Medium: The impact is of importance and therefore considered to have a negative impact. Mitigation is required to reduce the negative impacts to acceptable levels.
- High: The impact is of great importance. Failure to mitigate, with the objective reducing the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation is therefore essential.

Status

Taking all the criteria into account, the status of the impact will either be classified as a positive or negative impact.

- **Reversibility Rating**
- **Irreversible** (the activity will lead to an impact that is permanent)
- **Partially reversible** (The impact is reversible to a degree e.g.
 - acceptable revegetation measures can be implemented but the pre-impact species composition and/or diversity may never be attained. Impacts may be partially reversible within a short (during construction), medium (during operation) or long term (following decommissioning) timeframe
- **Fully reversible** (The impact is fully reversible, within a short, medium or long-term timeframe).

Management Actions:

- Where negative impacts are identified, mitigatory measures will be identified to avoid or reduce negative
- impacts. Where no mitigatory measures are possible this will be stated.
- Where positive impacts are identified, augmentation measures will be identified to potentially enhance these.
- Quantifiable standards for measuring and monitoring mitigatory measures and enhancements will be set.
- This will include a programme for monitoring and reviewing the recommendations to ensure their ongoing effectiveness.

Mitigation:

- The objective of mitigation is to firstly avoid and minimise impacts where possible and where these cannot be completely avoided, to compensate for the negative impacts of the development on the receiving environment and to maximise re-vegetation and rehabilitation of disturbed areas. For each impact identified, appropriate mitigation measures to reduce or otherwise avoid the potentially negative impacts are suggested.
- All impacts are assessed without mitigation and with the mitigation measures as suggested.



Comparative potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur as a result of the construction phase of the Samcor Park X 12 Industrial 1 township.

- **The impacts are the same for both the identified alternatives since the transformation of land for either a Residential township or light industrial township have the same biophysical and engineering impacts. Socio economic impacts have been addressed separately for the operational phase**

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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PRE-CONSTRUCTION PHASE

General mitigation to be incorporated into the design and planning phase of the development, include the following:

- The Project area is associated with one Orange Listed (OL) species, namely *Hypoxis hemerocallidea*, confirmed in the Degraded Woodland. Due to the presence of OL species on site, if the proposed development is authorised, it is recommended that impacts to OL species be mitigated/reduced through relocating to suitable, similar habitat outside of the project footprint. A walkdown of the authorised footprint areas within the Degraded Woodland and Secondary Grassland must take place prior to vegetation clearance activities.
- An Alien Invasive Eradication plan must be compiled and implemented to ensure the spread of these species are managed responsibly.
- Plan access roads in such a way as to minimize the impact on the adjacent residents, road users, the Willow spruit and its associated 32m buffer zone.
- Materials delivery, handling and storage areas must be planned with the ECO and OHS .
- Develop an installation sequence and layout drawings to work methodically.
- Identify works that may interrupt water and electrical activities.
- Develop and maintain a labour and materials tracking report.



Comparative potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur as a result of the construction phase of the Samcor Park X 12 Industrial 1 township.

- **The impacts are the same for both the identified alternatives since the transformation of land for either a Residential township or light industrial township have the same biophysical and engineering impacts. Socio economic impacts have been addressed separately for the operational phase**

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
CONSTRUCTION PHASE				
<p><u>Impacts associated with Geological Suitability</u></p> <p>Nature of Impact: Soil erosion, modification or original soil conditions, compaction of soil caused by construction vehicles and workers.</p>	Negative	<ul style="list-style-type: none"> • The site is in an area where a Transvaal diabase sill is intrusive into the sediments associated with the Silverton formation, Pretoria Group. The area is not subject to dolomite related instabilities. • The soil profiles encountered on site are variable and generally consisted of colluvium or alluvium overlying residual materials derived from shale or diabase. Shale bedrock was also encountered. All soil materials tested were expansive to some extent. Problematic fill and surface rubble was encountered across virtually the entire site. 	Low	Low
<p><u>Bulk Earthworks: Removal of vegetation causing soil erosion</u></p> <p>With the removal of</p>	Negative	<ul style="list-style-type: none"> • Clearing of vegetation to only be undertaken immediately preceding commencement of construction; • Care must be taken to ensure that runoff is well dispersed so as to limit erosion; 	Medium	Low



Comparative potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur as a result of the construction phase of the Samcor Park X 12 Industrial 1 township.

➤ **The impacts are the same for both the identified alternatives since the transformation of land for either a Residential township or light industrial township have the same biophysical and engineering impacts. Socio economic impacts have been addressed separately for the operational phase**

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
<p>vegetation during construction, soils will be exposed to wind and rain and topsoil may be lost. This may result in erosion and sedimentation, following rainfall and subsequent sheet wash. In addition, the soils will be traversed by a number of vehicles during the construction phase which is likely to result in soil compaction. This may result in the degradation of the soil over time.</p>		<ul style="list-style-type: none"> • Appropriate erosion control measures must be implemented to ensure that no erosion is taking place. At the first sign of erosion the necessary remedial action must be taken; • Temporary stabilisation measures (e.g., silt traps) should be implemented at the first signs of any erosion; and • Any additional impacted areas must be rehabilitated with indigenous vegetation should construction affect areas outside of the approved footprint • All soils compacted because of construction activities falling outside of development footprint areas should be ripped and profiled. Special attention should be paid to alien and invasive control within these areas. • Once earthworks are complete, disturbed areas are to be stabilised with mulch, straw or other methods approved by the ECO this purpose. 		



Comparative potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur as a result of the construction phase of the Samcor Park X 12 Industrial 1 township.

➤ **The impacts are the same for both the identified alternatives since the transformation of land for either a Residential township or light industrial township have the same biophysical and engineering impacts. Socio economic impacts have been addressed separately for the operational phase**

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<p><u>Bulk Earthworks: Site clearance and Removal of vegetation</u></p> <ul style="list-style-type: none"> ▪ Loss of habitat ▪ Loss of fauna and Flora ▪ Degradation of ecological systems ▪ Disruption of natural corridors 	<p>Negative</p>	<ul style="list-style-type: none"> ▪ The Project area is associated with one Orange Listed (OL) species, namely <i>Hypoxis hemerocallidea</i>, confirmed in the Degraded Woodland. It is recommended that impacts to the OL species be mitigated/reduced through relocating to suitable, similar habitat outside of the project footprint. • Rehabilitation of sites disturbed by construction activities should commence as quickly after the cessation of the activities as possible. • The development site must be clearly demarcated and no vegetation clearing is permitted to occur outside the demarcated area. • Construction footprint must be limited to the approved site to minimise secondary disturbance, thus reducing the size of the areas that require revegetation to a minimum. • All plant collection from the surrounding area should be prohibited. • Relevant permits must be obtained to remove any protected species. • Clear Alien Invasive Species from areas disturbed by construction on a regular basis, as per an Alien Vegetation Management Plan. 	<p>Low</p>	<p>Low</p>



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		<ul style="list-style-type: none"> • After construction activities are complete, only use indigenous plant species for rehabilitation and landscaping ▪ No burning of stockpiled vegetation is permitted. ▪ Edge effect control needs to be implemented within construction areas, with ▪ Alien vegetation must be removed and controlled within the study area during both the construction and operational phases, with specific mention of Category 1b and 2 species in line with the NEMBA Alien and Invasive Species Regulations (2016); ▪ Care must be taken to avoid the introduction of alien plant species to the site and surrounding areas. (Particular attention must be paid to imported material). ▪ Only indigenous plant species, preferably species that are indigenous to the natural vegetation of the area, should be used for landscaping in communal areas. As far as possible, plants naturally growing on the development site, but would otherwise be destroyed during clearing for development purposes, 		



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		<p>should be incorporated into landscaped areas.</p> <ul style="list-style-type: none"> ▪ Where soil disturbance is required for the laying of service infrastructure, the topsoil should be put aside and replaced after the infrastructure has been installed. 		
<u>Loss of ecosystem function</u>	Negative	<ul style="list-style-type: none"> • Minimise natural vegetation clearance and the footprint for the disturbed area, at any given time, as far as possible; • Erect a fence around the construction site to strictly prevent any impact on the surrounding vegetation; • Ensure construction activities do not result in erosion and loss of soils; • Manage access to adjacent open space areas; • Encourage correct general waste management within the development to prevent waste from entering the surrounding area; • Practice environmentally friendly pest animal management to reduce the potential impact on raptors; • Prohibit the collection of plants, animals or soil from the surrounding open 	Low	Low



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		areas; and <ul style="list-style-type: none"> ▪ Prevent the spread of fires into surrounding areas 		
<p>Invasion of alien vegetation: Clearing for the construction phase of the project, as well as for maintenance during the operation phase, will result in soil disturbance and reduced cover of indigenous vegetation, greatly increasing the chance of the establishment of alien invasive plants. However, if mitigation measures are implemented, there will be</p>	Negative	<ul style="list-style-type: none"> • On-going removal and disposal of alien vegetation species. • Alien plant regrowth must be monitored, and any such species must be removed at regular intervals throughout the construction phase; • Only local topsoil maybe used and if any is imported, this should be certified alien plant free; and • Where soils are slow to revegetate, these areas should be grubbed and planted with species suited to the region. 		



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less alien vegetation, and less change of spread of alien vegetation				
<p><u>Top Structure construction (brick work, steel work, cement mixing, plastering, thatching, paving etc.) – Hydrocarbon spills and leaks from machinery</u></p> <p>Impacted environment: Soil, ie. <u>Soil pollution</u></p> <ul style="list-style-type: none"> ▪ Pollution Incidents ▪ Storage of hydrocarbons 	Negative	<ul style="list-style-type: none"> • All construction materials, including fuels and oil, must be stored in demarcated areas that are contained within berms / bunds to avoid spread of any contamination into storm water systems. Washing and cleaning of equipment should also be done in berms or bunds, in order to trap any cement and prevent excessive soil erosion. These sites must be re-vegetated after construction has been completed. • The Contractor must ensure that all liquid fuels and oils are stored in tanks with lids, which are kept firmly shut and under lock and key at all times. The capacity of the tank must be clearly displayed and the product contained within the tank clearly identified using the emergency information system detailed in SABS 0232 part 1. Fuel storage tanks must have a capacity not 	Med	Low



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		<p>exceeding 30 000 liters, and must be kept on site only for as long as fuel is needed for construction activities, on completion of which they shall be removed.</p> <ul style="list-style-type: none"> In the event of a hydrocarbon spill, the source of the spillage must be isolated and the spillage contained. The area must be cordoned off and secured. The Contractor must ensure that there is always a supply of absorbent material readily available to absorb/ breakdown or where possible, be designed to encapsulate minor hydrocarbon spillages. The quantities of such materials must be able to handle a minimum of 200 ℓ of hydrocarbon liquid spill. 		
<p>Hydrological Impacts:</p> <ul style="list-style-type: none"> Pollution of surface water resources –Spills 	Negative	<ul style="list-style-type: none"> Chemicals used for construction must be stored safely on site and surrounded by bunds. Chemical storage containers must be regularly inspected so that any leaks are detected early; No re-fuelling of construction vehicles or maintenance activities to occur 	Med	Low



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<p>and leaks from any plant during the construction phase of the development could potentially impact the downstream water quality via chemical pollution.</p> <ul style="list-style-type: none"> Altered runoff patterns, leading to increased erosion and sedimentation of the Willow spruit. 		<p>outside of the site boundaries.</p> <ul style="list-style-type: none"> All fuel storage areas, wash bays and vehicle servicing areas must be located within bunded areas with a separate dirty water handling system and oil/grease trap. General sediment traps should also be included where suitable; The ablution facilities meant for construction workers must be located on the north western side of the property (i.e., as far as possible from the adjacent vacant property); Toilets must be emptied regularly and before any extended site shutdown or builder's break; Hazardous waste bins/skips to be made weather proof; Littering and contamination of water sources during construction must be prevented by effective on-site management; Stockpiles to be located on the western side of the property; All stockpiles must be protected from erosion, stored on flat areas where run- 		



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		<p>off will be minimised, and be surrounded by bunds; and</p> <ul style="list-style-type: none"> • Once construction has been completed the disturbed areas must be grubbed and levelled, i.e., no raised areas should occur that would divert or impound any surface water flows • Spill kits to be made available at areas of possible spillages of hazardous substances; • Remediation of spillages must be conducted on a continual basis; • Drip trays will be placed underneath vehicles and machinery waiting for maintenance, repair or standing for long periods of time; • No waste water or hazardous substances will be disposed of into the surrounding environment; • Sediment depositions should be regularly removed from the swale, to prevent pollution of the runoff from contaminants contained therein. • Cover any wastes that are likely to wash away or contaminate storm water. 		



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<p><u>Hydrological Impacts: Ground Water Quality</u></p> <p>Accidental spillages of diesel, oil or other hazardous substances could contaminate soil, leach into the groundwater or reach downstream water bodies through run-off.</p>	<p>Negative</p>	<ul style="list-style-type: none"> ▪ Spill kits to be made available at areas of possible spillages of hazardous substances; ▪ Remediation of spillages must be conducted on a continual basis and within 24h of spillage; ▪ Maintenance of vehicles may not be conducted on site; ▪ Drip trays will be placed underneath vehicles and machinery waiting for maintenance, repair or standing for long periods of time; ▪ No waste (hazardous or general) will be disposed of in excavated trenches; ▪ No waste water or hazardous substances will be disposed of into the surrounding environment; ▪ Hazardous substances will be stored in bunded areas with a capacity of 110 % of the contents volume ▪ The stormwater management plan compiled for the development must be correctly implemented 	<p>Med</p>	<p>Low</p>



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<p>Solid Waste Pollution</p> <p>The construction phase of the activity will produce construction waste in the form of discarded construction material (e.g., packaging material etc.), excess soil/spoil (from levelling) and a large volume of cleared bush vegetation (alien vegetation). The incorrect management of these wastes may result in pollution of the surrounding</p>	<p>Negative</p>	<ul style="list-style-type: none"> • Construction material must be reused or recycled where possible (e.g. mulching of cleared vegetation); • Vegetation that is cleared from the site (and is not replanted or relocated as per the recommendations of the specialist) must be removed to a registered garden refuse site; • Staff must be trained to implement waste control and to identify hazardous waste; • Other waste to be removed to a licenced landfill site; • General good house-keeping must be implemented. No litter to remain on site; • Spills must be avoided during transportation of material; • Disposal certificates must be obtained for all waste disposals; and • Sufficient and appropriate weather- and scavenger-proof bins must be made available on-site during construction and removed/emptied on a daily basis 	<p>Med</p>	<p>Low</p>



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natural areas.		<ul style="list-style-type: none"> • Provision of adequate numbers of litter bins throughout the development; and • Promoting the recycling of waste, with specialist service providers appointed to remove the waste from site. • Records of all waste taken off site and disposed of must be kept as evidence. • Burning of waste material will not be permitted. 		
<p><u>Impact Resulting from Material Stockpiling</u></p> <p>During the construction phase, stockpiling of construction materials on a property could result in erosion and mobilisation of the materials towards the</p>	Negative	<ul style="list-style-type: none"> • The Contractor must implement a suitable plan for stockpile management as storage outside of the property boundaries will not be permitted; • Where possible, any excavated material must be reused in construction and/or an investigation into a third party who could use the material beneficially must be undertaken to minimise waste to landfill. All unused/excess fill material must be removed from the site to a registered waste disposal site. 	Low	Low



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Willow spruit, resulting in sedimentation and other impacts. Furthermore, the incorrect stockpiling of material outside of the approved development area will result in further loss of indigenous vegetation and negatively impact on the open space areas adjacent to the sit				
<p>Increased Noise and Disturbance</p> <p>It can be expected that there will be an increase in noise</p>	Negative	<ul style="list-style-type: none"> • Construction vehicles to be in sound working order and fitted with mufflers if necessary; • The Contractor must adhere to the relevant noise regulations and limit noise to within standard working hours; • As construction workers operate in a noisy environment, it must be ensured 	Med	Low



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levels during the site preparation and construction phase of the development. The increase in noise will be associated with the operation of construction equipment, labourers and vehicles, especially the bulldozer used to clear vegetation, build platforms, dig trenches, etc.		<p>that their working conditions comply with the requirements of the Occupational Health and Safety Act (Act No 85 of 1993). Where necessary, ear protection gear must be worn;</p> <ul style="list-style-type: none"> • Should the vehicles or equipment not be in good working order, the Contractor may be instructed to remove the offending vehicle or machinery; • Limit construction to daylight hours; and • Restrict unnecessary noise (e.g., portable radios, vehicle radios, whistles etc.). 		
<p>Visual Impacts</p> <p>Construction activities will result in the commissioning of bulk earthwork machinery</p>	<p>Negative Subjectively perceived</p>	<ul style="list-style-type: none"> • Good house-keeping to be implemented on site; • No visually intrusive practices are allowed on site or in the surrounding areas; • Any reflective construction material must be stored and placed in such a manner that it does not reflect sunlight towards the surrounding properties; • Construction materials to be stored neatly and waste to be collected on a 	<p>Medium</p>	<p>Low</p>



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and vehicles. Unkept site due to littering and illegal dumping on site and surrounding areas. Unsightly construction waste pile may be visually intrusive.		regular basis; <ul style="list-style-type: none"> • Erosion, waste vegetation and dust to be mitigated as per the abovementioned mitigation measures; and • All disturbed areas surrounding the proposed development must be rehabilitated and all alien vegetation and weeds removed from these areas. ▪ Light pollution should be minimised. Lighting is to be sufficient for safety and security purposes, but shall not be intrusive to neighbouring residents. 		
<p><u>Employee Safety and Security:</u></p> <p>A construction site can be a dangerous place and thus could result in harm to people and property and by their</p>	Negative	<ul style="list-style-type: none"> • A fence must be constructed around the site prior to commencement of construction • Signs should be erected on all entrance gates indicating that no temporary jobs are available, thereby limiting opportunistic labourers and crime. • The site and crew are to be managed in strict accordance with the Occupational Health and Safety Act (Act No. 85 of 1993) and the National Building Regulations 	Medium	Low



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nature act as a magnet to the unemployed, resulting in people gathering at the site.		<ul style="list-style-type: none"> • All structures that are vulnerable to high winds must be secured (including toilets). • Potentially hazardous areas such as trenches are to be cordoned off and clearly marked at all times. • The Contractor is to ensure traffic safety at all times, and shall implement road safety precautions for this purpose when works are undertaken on or near public roads. • Necessary Personal Protective Equipment (PPE) and safety gear appropriate to the task being undertaken is to be provided to all site personnel (e.g. hard hats, safety boots, masks etc.). • All vehicles and equipment used on site must be operated by appropriately trained and / or licensed individuals in compliance with all safety measures as laid out in the Occupational Health and Safety Act (Act No. 85 of 1993) (OHSA). • An environmental awareness training programme for all staff members shall 		



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		<p>be put in place by the Contractor. Before commencing with any work, all staff members shall be appropriately briefed about the EMPr and relevant occupational health and safety issues.</p> <ul style="list-style-type: none"> • All construction workers must be issued with ID badges and clearly identifiable uniforms. • Access to fuel and other equipment stores is to be strictly controlled. • Emergency procedures must be produced and communicated to all the employees on site. This will ensure that accidents are responded to appropriately and the impacts thereof are minimised. This will also ensure that potential liabilities and damage to life and the environment are avoided. • Adequate emergency facilities must be provided for the treatment of any emergency on the site. • The nearest emergency service provider must be identified during all phases of the project as well as its capacity and the magnitude of accidents it will be able to handle. Emergency contact numbers are to be displayed conspicuously 		



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		<p>at prominent locations around the construction site and the construction crew camps at all times.</p> <ul style="list-style-type: none"> • The Contractor must have a basic spill control kit available at each construction crew camp and around the construction site. The spill control kits must include absorptive material that can handle all forms of hydrocarbon as well as floating blankets / pillows that can be placed on water courses. • The Contractor shall make available safe drinking water fit for human consumption at the site offices and all other working areas. • Washing and toilet facilities shall be provided on site and in the Contractors camp. • 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 10 workers using the camp. Toilet paper must be provided. • The chemical toilets servicing the camp must be maintained in a good state, 		



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		<p>and any spills or overflows must be attended to immediately.</p> <ul style="list-style-type: none"> • The chemical toilets must be emptied on a regular basis. • No loitering around the site for people seeking temporary employment is to be allowed. 		
<p><u>Impact on Archaeological and/or Paleontological Resources</u></p> <p>Although highly unlikely, it is possible that the discovery or exposure of archaeological artefacts may occur during the construction phase. Should this be the case, it is</p>	Negative	<ul style="list-style-type: none"> • A Heritage Assessment is currently being completed by Dr J Van Schalkwyk Heritage Consultant. This report will form part of the FBAR. • Archaeological features that are located below the soil surface may be disturbed during excavations as part of the construction period. 	Assessment underway	



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also possible that these heritage resources will be damaged or lost during the construction phase.				
<p><u>Impacts on Air Quality: Dust Creation</u></p> <p>The construction activities will increase the potential for dust especially from the clearing of vegetation. During the construction phase of the activity, materials will be moved to and from the project site and this could</p>	Negative	<ul style="list-style-type: none"> • Ensure that exposed areas are dampened with non-potable water following vegetation clearance; • Construction work to be halted during periods of strong wind; • The loading of materials must be done with the lowest drop height and those vehicles carrying dusty materials must be securely and properly covered before they leave the site; • Any complaints or claims emanating from the lack of dust control must be attended to immediately by the Contractor; and • Maintain vegetation as a windbreak in the area facing the prevailing wind direction until the completion of construction. 	Medium	Low



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result in dust pollution not only from the materials, but also from the construction vehicles which will be operating on site. The effects of dust will be exacerbated during high wind conditions.				
<p><u>Impacts on Health, Safety and Fire Risk</u></p> <p>The use of construction machinery during the construction phase poses a potential risk to the health and safety of people working</p>	Negative	<ul style="list-style-type: none"> All relevant Health and Safety legislation as required in South Africa should be strictly adhered to, including but not limited to the Occupational Health and Safety Act, 1993 (No. 85 of 1993); Smoking should be restricted to a designated smoking area; Ensure availability of fire extinguishers; and All employees must be aware of emergency/ contingency plans to ensure an understanding of the hazards and procedures required during an emergency situation 	Medium	Low



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at the construction site. The movement of construction vehicles also increases the risk of accidents along provincial roads. The risk of accidents, fires and potential injuries must be mitigated effectively.				
<p><u>Construction Traffic and Road Impacts</u></p> <p>During construction, there will be an increase in the number of vehicles using the nearby roads, including heavy</p>	Negative	<ul style="list-style-type: none"> • All drivers to have the necessary driving permits to operate the plant/vehicles; • All traffic laws must be obeyed at all times; • Avoid transportation of construction material during peak hours; • Any abnormal loads must be approved with the traffic authorities and must comply with any conditions imposed by the authorities; • Avoid transportation of construction material during peak hours; 	Medium	Low



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<p>construction vehicles. This may result in damage to the roads. The construction vehicles could also impede other road users at certain sections of the roads to the site if not adequately managed and controlled.</p>		<ul style="list-style-type: none"> • The Contractor must employ flag staff in order to prevent on-site accidents; • Speed must be limited to 30 km/h on site; • Suitable temporary signage be erected, warning motorists of the presence of heavy construction vehicles; • Overloading of vehicles must not occur; and • Any damage to existing access roads as a result of the construction activities must be immediately repaired • The movement of construction vehicles during the construction period is to be carried out in such a manner so as not to interfere unnecessarily or improperly with the public convenience. Traffic signage acknowledging the presence of a construction site must be provided. • Proper and adequate lanes to allow for ingress/egress to be provided. • Access to the construction area must be predetermined and used during constructions. • The working area and all exposed trenches must be fenced off with barrier 		



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➤ **The impacts are the same for both the identified alternatives since the transformation of land for either a Residential township or light industrial township have the same biophysical and engineering impacts. Socio economic impacts have been addressed separately for the operational phase**

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
		netting, danger tape & droppers. <ul style="list-style-type: none"> Excavated earth material should not be dumped/ stockpiled in the road in any way that will obstruct traffic flow. 		
<p><u>Infrastructure and Services</u></p> <p>Additional pressure placed on existing municipal infrastructure to accommodate the new Industrial 1 township</p>	Negative	<ul style="list-style-type: none"> Integrity of existing services to be ensured. Adherence to Traffic Impact Study requirements. It must be ensured that existing services infrastructure within the road reserve are not damaged. Any damages to existing services infrastructure must be repaired immediately. 	Low	Low
<p><u>Employment Creation and Local Business Development</u></p> <p>The construction phase of the</p>	Positive	<ul style="list-style-type: none"> The project will create a number of job opportunities for the local population. Any available jobs will provide an immediate positive impact on the employment and income situation within the study area. This phase of the development will provide the most benefits in terms of sustained 		



Comparative potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur as a result of the construction phase of the Samcor Park X 12 Industrial 1 township.

➤ **The impacts are the same for both the identified alternatives since the transformation of land for either a Residential township or light industrial township have the same biophysical and engineering impacts. Socio economic impacts have been addressed separately for the operational phase**

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
<p>proposed development will create temporary jobs for locals within the area. Where possible, materials must be sourced from local businesses and this will result in a boost of the local economy of the immediate vicinity and surrounding areas.</p>		<p>employment for the duration of the project and increase in income. Initially, the site preparation phase will employ large construction vehicles and equipment for landscaping, grading and levelling, the cutting of access roads for these vehicles and laborers to access the site. This means that many skilled workers will be necessary to operate front-end loaders, excavators, bulldozers and backhoes and other vehicles. In addition to this, unskilled labourers will still be necessary for other tasks. This phase of the development will therefore have a short-term major positive impact on the employment and income at the local level.</p> <ul style="list-style-type: none"> • Employ local people wherever possible; • Purchase materials from local businesses wherever possible; and • Equal opportunities must be given to women where possible. 		



Comparative potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur as a result of the construction phase of the Samcor Park X 12 Industrial 1 township.

➤ **The impacts are the same for both the identified alternatives since the transformation of land for either a Residential township or light industrial township have the same biophysical and engineering impacts. Socio economic impacts have been addressed separately for the operational phase**

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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OPERATIONAL PHASE

<p><u>Impact on Surface Water Runoff Patterns</u></p> <p>The clearing of vegetation that will be replaced with hard surfaces will increase run-off due to reduced vegetation cover and/or change in vegetation cover. By intercepting and slowing precipitation hitting the ground, vegetation substantially reduces the</p>	<p>Negative</p>	<ul style="list-style-type: none"> • No run-off should be allowed to leave the site directly; • Ensure stormwater channels do not cause erosion or other damage to open space areas, including the Willow spruit water resource; • Development footprints should be minimised, where possible, to reduce hardened surfaces which contribute to stormwater generation; • Stormwater management structures must be monitored and maintained throughout the operational phase 	<p>Medium</p>	<p>Low</p>
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Comparative potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur as a result of the construction phase of the Samcor Park X 12 Industrial 1 township.

➤ **The impacts are the same for both the identified alternatives since the transformation of land for either a Residential township or light industrial township have the same biophysical and engineering impacts. Socio economic impacts have been addressed separately for the operational phase**

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
volume and rate of runoff. This then prevents soil erosion. Due to the nature of the project this will persist into the operational phase.				
<p><u>Potential Pollution of down stream Willow spruit</u></p> <p>Poor maintenance of the sewage infrastructure, poor waste disposal practices and/or any significant vehicle/machinery breakdown in or around the development</p>	Negative	<ul style="list-style-type: none"> • Appropriate waste management, as described herein and the EMPr, must be implemented for the operation of the development; • All sewage infrastructure must be regularly serviced and maintained; • Any pollution from leaks or spills must be immediately cleaned and removed from the warehouse development. 	Low	Low



Comparative potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur as a result of the construction phase of the Samcor Park X 12 Industrial 1 township.

➤ **The impacts are the same for both the identified alternatives since the transformation of land for either a Residential township or light industrial township have the same biophysical and engineering impacts. Socio economic impacts have been addressed separately for the operational phase**

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
could result in pollution of the downstream water course.				
<p>Utilisation of Water Resources</p> <p>The proposed development will rely entirely on water from the municipal supply to meet the daily consumption demands as estimated by the applicant. This will place additional pressure on the water resources for the area.</p>	Negative	<ul style="list-style-type: none"> Excessive use of water to be avoided wherever possible; Ensure that all water reticulation infrastructure is maintained regularly to avoid leaks; Rainwater harvesting must be implemented to collect rainwater from the warehouse drains and gutters; Make use of water saving products such as water saving toilets with a dual-flush valve, water saving taps with spray cartridges, water-saver shower heads and timed turn-off taps; and Monitor water consumption to ensure water is utilised within the volumes made available by any relevant municipal drought regulations 	Medium	Medium



Comparative potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur as a result of the construction phase of the Samcor Park X 12 Industrial 1 township.

➤ **The impacts are the same for both the identified alternatives since the transformation of land for either a Residential township or light industrial township have the same biophysical and engineering impacts. Socio economic impacts have been addressed separately for the operational phase**

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
<p>Electricity Usage</p> <p>The proposed development will result in increased electricity usage.</p>	<p>Negative</p>	<ul style="list-style-type: none"> • Energy saving strategies must be practiced such as using renewable energy (solar energy) wherever possible; and • LED lighting must be implemented to reduce electricity consumption; and 	<p>Medium</p>	<p>Medium</p>
<p>Impact on Service Availability</p> <p>The proposed development will add to the pressure on the municipal service availability for the Tshwane Municipality by increasing the amount of water use, effluent discharge and solid waste</p>	<p>Negative</p>	<ul style="list-style-type: none"> • According to the Civil Concepts Engineering Reports (Appendix G), there are sufficient bulk services available to accommodate the proposed development. The developer will be responsible for constructing new infrastructure to sustainably service the Industrial township. • Renewable energy options and use of energy efficient lighting and measures should be implemented. 	<p>Medium</p>	<p>Low</p>



Comparative potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur as a result of the construction phase of the Samcor Park X 12 Industrial 1 township.

➤ **The impacts are the same for both the identified alternatives since the transformation of land for either a Residential township or light industrial township have the same biophysical and engineering impacts. Socio economic impacts have been addressed separately for the operational phase**

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
generation. This will put additional pressure on existing municipal infrastructure such as water supply pipelines, sewage infrastructure (piping and treatment works) and contribute to filling of landfill sites.				
<p>Traffic Impacts</p> <p>The traffic associated with the operational development will impact on road users of the surrounding roads.</p>	Negative	<ul style="list-style-type: none"> According to the Civil Concepts Engineers report, the surrounding road network, including the proposed access point off Propshaft street, can accommodate the additional development traffic at an acceptable level of service (LOS), provided the road upgrades are constructed. Public transport facilities must be provided on site, and pedestrian sidewalks must be provided along the future Amakhosi and Sefatanaga Streets. 	Medium	Low



Comparative potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur as a result of the construction phase of the Samcor Park X 12 Industrial 1 township.

➤ **The impacts are the same for both the identified alternatives since the transformation of land for either a Residential township or light industrial township have the same biophysical and engineering impacts. Socio economic impacts have been addressed separately for the operational phase**

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
		<ul style="list-style-type: none"> • All signage and road markings for the proposed sites should be in accordance with the South African Road Traffic Signs Manual”. • Appropriate upgrades of the roads and traffic signals, intersections to minimise inconvenience and improve traffic flows • It is imperative that appropriate and sufficient pedestrian sidewalks be provided. Functional pedestrian linkages should also be created to and from the development and the existing sidewalks must provide continuous and safe pedestrian movement. • A formalised road network should encourage the local authority to implement public transport services to the new township. Side walks will assist pedestrian commute. Formal roads will be safer for all road users, and cause less environmental degradation in the form of proper storm water management and soil erosion abatement. In order to control speeding, speed humps should be constructed at regular intervals. 		



Comparative potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur as a result of the construction phase of the Samcor Park X 12 Industrial 1 township.

➤ **The impacts are the same for both the identified alternatives since the transformation of land for either a Residential township or light industrial township have the same biophysical and engineering impacts. Socio economic impacts have been addressed separately for the operational phase**

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
<p><u>Solid Waste Pollution</u></p> <p>During the operational phase, the proposed development will produce solid waste. The incorrect management of waste will have a negative impact on the surrounding environment as it can cause unnecessary pollution.</p>	<p>Negative</p>	<ul style="list-style-type: none"> • Waste recycling must be integral to the implementation and occupation of the Warehouse. • All waste must be disposed of at licensed landfill site. • General good house-keeping should be practiced on site; • Recycling and reusing of plastic and cardboard must be promoted to reduce the amount of waste being disposed of at the municipal transfer station. 	<p>Low</p>	<p>Low</p>
<p><u>Surface Water Pollution</u></p>	<p>Negative</p>	<ul style="list-style-type: none"> ▪ The stormwater management plan must ensure provision of appropriate management of surface water runoff from the development including no pollution from solid or liquid material that will enter the Willow spruit wetland via the stormwater discharge ▪ Stormwater management must aim to ensure pre-development runoff does not 	<p>Medium</p>	<p>Low</p>



Comparative potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur as a result of the construction phase of the Samcor Park X 12 Industrial 1 township.

➤ **The impacts are the same for both the identified alternatives since the transformation of land for either a Residential township or light industrial township have the same biophysical and engineering impacts. Socio economic impacts have been addressed separately for the operational phase**

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
		<p>exceed post-development runoff with specific mention of peak discharge and runoff volumes as well as debris concentrations entering into the freshwater ecosystem</p> <ul style="list-style-type: none"> ▪ Stormwater structures must be equipped with dissipating structures which will remove silt and litter before stormwater entry into the Willow spruit. • The use of Sustainable Drainage Systems (SuDS) to manage stormwater is considered important for the proposed development as there will be an increase in hardened surfaces within close proximity to the system. SuDS will assist in preventing significant impacts on the hydrological functioning of the system, reduce the risk of flooding during high flow periods and reduce the risk of increased erosion. • Water quality monitoring is further recommended to identify any impacts that may be occurring. 		



Comparative potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur as a result of the construction phase of the Samcor Park X 12 Industrial 1 township.

➤ **The impacts are the same for both the identified alternatives since the transformation of land for either a Residential township or light industrial township have the same biophysical and engineering impacts. Socio economic impacts have been addressed separately for the operational phase**

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
<u>Visual Impacts</u>	Negative	<ul style="list-style-type: none"> Light pollution should be minimised. Lighting on site is to be sufficient for safety and security purposes, but shall not be intrusive to neighbouring residents, disturb wildlife. Outside lighting will have to be downward shining (eyelid type), low wattage and should not be positioned higher than 1m above the ground surface. 	Low	Low
<u>Employment Creation and Local Business Development</u>	Positive	<p><i>Alternative 1: The FORD warehouse and distribution facility:</i> The operational phase of the proposed development will create permanent jobs for skilled, apprentices and locals within the area. The preferred land use alternative will stimulate economic growth through private investment in the Silverton, Nellmapius, Eersterus and Mamelodi areas.</p> <p><i>Alternative 2: A residential township</i> will also create permanent jobs, but anticipated to be less than the alternative 1.</p>		



Comparative potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur as a result of the construction phase of the Samcor Park X 12 Industrial 1 township.

- **The impacts are the same for both the identified alternatives since the transformation of land for either a Residential township or light industrial township have the same biophysical and engineering impacts. Socio economic impacts have been addressed separately for the operational phase**

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
<p>No Go Alternative The no development / construction alternative must be considered in keeping with the legal requirements (Section 24 (4) of NEMA). This implies that the site be left <i>as is</i> and that no development or alteration be done to the site. If this alternative is pursued, the existing conditions on the site will be retained.</p>				
<p>Existing conditions and habitat on the site will be retained</p>		<p>Although the development will result in the loss of floral and faunal species, development within already degraded and urbanised areas is considered preferable to development in more natural areas beyond the urban footprint. This, combined with the already impacted state of the study area, makes development herein more favourable.</p> <p>The study area is considered acceptable for development.</p>	<p>N/A</p>	<p>N/A</p>

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

1. Terrestrial Biodiversity Assessment
2. Water, Sewer, roads and Stormwater; Engineering Reports
3. Traffic Impact Assessment
4. Electrical Engineering Services Report
5. Geotechnical Investigations
6. Flood Line Study
7. Environmental Management Programme

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

This report has been compiled on the strength of the information available to Seedcracker Environmental Consulting (SEC) at the time of report preparation. The overall aim of ecologically sound urban development is to minimize the negative impact of development on the environment. The environmental issues listed in this report have been determined through relevant legislation; the professional understanding of the environmental assessment practitioner, Ecological and engineering specialist consultants. The Basic Assessment report serves to predict and determine the impact of the proposed development on the environment, and the likelihood (probability) of the impacts manifesting themselves. In undertaking this investigation and compiling the Basic Assessment Report, the following has been *assumed*:

- The information provided by the applicant and professional team is an unbiased and accurate reflection of the characteristics of the site and the development proposal;
- The scope of this investigation is limited to assessing the environmental impacts associated with the study area, and the freshwater systems located within 500m of the site;
- It is also assumed that the applicant will comply with all legislation pertaining to the activities of this proposed project and that all permits and licenses that may be required will be identified and applied for *prior to commencement of construction activities (ie, WULA)*;
- The public involvement process seeks to involve key stakeholders, local authorities, ward councilors, rate payers' associations, and adjacent landowners who deliver constructive, non-threatening inputs.
- SEC assumes that the applicant will implement the measures contained in the EMPr, and will adhere to any monitoring procedures. The appointed ECO must adopt a process of continual improvement when managing and mitigating negative environmental impacts arising from the project. The EMPr will be used as the basis of environmental management and will regularly be improved and refined where applicable.
- Should the project be authorised, the applicant will effect any recommendations and mitigation measures outlined in the authorization, into the detailed design and construction contract specifications of the project.



3. IMPACTS THAT MAY RESULT FROM THE DECOMMISSIONING 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.

Proposal: Alternative 1

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
No closure is envisioned.				

Alternative 2

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
No closure is envisioned.				

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

Not applicable.

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

Not applicable

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:

The anticipated impacts resulting from the construction and implementation of the proposed development could potentially result in cumulative negative effects, when taking the following into consideration: (i) The proposed development will add to existing road users in the area and will have an impact on traffic, (ii) The proposed development will add additional pressure to services in the area and should the Local municipality be unable to maintain infrastructure or other services such as waste removal, then it could have a negative impact on surrounding land users, and (iii) stormwater (SW) pollution or improperly mitigated SW discharge points can cause environmental impacts to the Willow spruit.



5. 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.

Proposal / Preferred Alternative / Alternative 1: Industrial 1 Township

This Basic Assessment Report for the proposed Samcor Park x 12 Industrial 1 township, has been undertaken in accordance with the EIA Regulations published in GNR 982 of 4 December 2014 of the NEMA, and amended in 2017. This process includes the required Stakeholder Engagement Process as stipulated in GNR 982, which is presently underway. This study provides an assessment of the possible positive and negative impacts that may arise from the identified activities associated with the construction and operation of the different alternatives for development. The information contained in this report and the documentation attached hereto, is supportive for the approving authority to decide in respect of the activities applied for. Where potential biophysical or social impacts have been identified, mitigation and management measures have been proposed to control and monitor the magnitude of impacts associated with the various aspects of the activity.

Willows Industrial Park (the applicant) proposes the establishment of an Industrial 1 township, to develop a high-volume national warehouse and distribution facility for the FORD Motor Company, with an associated administration area to house and supply logistics personnel. The project is located on part of the Remainder of Portion 601 (a portion of Portion 89) of the farm The Willows 340 JR, in the City of Tshwane Metropolitan Municipality.

The site is affected by an environmentally sensitive area as depicted in the Gauteng Conservation Plan. The southeastern portion of the site is considered an Ecological Support Area (ESA). The medium sensitivity of the ESA is however *disputed* for the study area, and a low sensitivity has been confirmed during the specialist terrestrial assessment. The various habitat units associated with the study area includes degraded vegetation communities. No significant or important ecological processes are supported within these habitats, and the proposed development within these areas will not result in significant loss of floral or faunal resources. Development can be authorised within these habitat units, provided the mitigation measures as presented in the specialist report and EMPr are implemented.

To guide the planning process of the proposed project, the following specialist studies were commissioned by the applicant, namely; Engineering Services Investigations, Traffic, access and stormwater studies, flood line study, electrical supply, and a Geotechnical Investigation. The results of these studies have been used to assist with determining the technical constraints of the property and identifying the engineering solutions to support the application. The site is not affected by a wetland or flood line. The civil infrastructure that impacts the Willow spruit water resource and its buffer zone, is presently subject to a Water Use License Application.

The impact rating of the identified environmental aspects revealed that most of the negative environmental impacts will be experienced during the *construction* phase. The significance of negative impacts reduces to low with the implementation of mitigation measures. It is envisaged that the identified impacts for the



preferred alternative can be easily mitigated and satisfactorily managed.

CONSTRUCTION PHASE		
IMPACT	ALTERNATIVE	SIGNIFICANCE AFTER MITIGATION
Geotechnical suitability	1	Low
Soil erosion	1	Low
Loss of vegetation and habitat	1	Low
Soil pollution	1	Low
Surface water quality	1	Low
Ground water quality	1	Low
Waste Management	1	Low
Noise and disturbance	1	Low
Visual impact	1	Low
Impact on Archaeological and/or Paleontological Resources	1	Low
Air quality	1	Low
Traffic Impact	1	Low
Infrastructure and services	1	Low
Employment, safety and security	1	Low
OPERATIONAL PHASE		
IMPACT	ALTERNATIVE	SIGNIFICANCE AFTER MITIGATION
Traffic safety	1	Low
Impact on Service Availability	1	Low
Waste management	1	Low
Impact on Surface Water Runoff Patterns	1	Low
Potential Pollution of Watercourses	1	Low
Utilisation of Water Resources	1	Low
Electricity Usage	1	Low
Visual impact	1	Low
Employment Creation and Local Business Development	1	High positive

Alternative 2: High density residential township

The alternative residential township proposal would trigger the same EIA listed activities as the Industrial 1 township, and it would have the same associated engineering infrastructure upgrades and requirements. A residential township would also transform the study area from vacant land to a built environment, resulting in the equivalent loss of fauna and flora habitat.

The impact rating of the identified environmental aspects revealed that most of the negative environmental impacts will be experienced during the *construction* phase. The significance of negative impacts reduces to low with the implementation of mitigation measures. It is envisaged that the identified impacts for alternative 2 can be easily mitigated and satisfactorily managed.

CONSTRUCTION PHASE		
IMPACT	ALTERNATIVE	SIGNIFICANCE AFTER MITIGATION



Geotechnical suitability	2	Low
Soil erosion	2	Low
Loss of vegetation and habitat	2	Low
Soil pollution	2	Low
Surface water quality	2	Low
Ground water quality	2	Low
Waste Management	2	Low
Noise and disturbance	2	Low
Visual impact	2	Low
Impact on Archaeological and/or Paleontological Resources	2	Low
Air quality	2	Low
Traffic Impact	2	Low
Infrastructure and services	2	Low
Employment, safety and security	2	Low
OPERATIONAL PHASE		
IMPACT	ALTERNATIVE	SIGNIFICANCE AFTER MITIGATION
Traffic safety	2	Low
Impact on Service Availability	2	Low
Waste management	2	Low
Impact on Surface Water Runoff Patterns	2	Low
Potential Pollution of Watercourses	2	Low
Utilisation of Water Resources	2	Low
Electricity Usage	2	Low
Visual impact	2	Low
Employment Creation and Local Business Development	2	High positive

A residential township would however not be in keeping with the present Samcor Park Industrial land uses. The Ward councilor and his committee have expressed their *objection* to a residential township in an area that needs to bring employment opportunities. The Ward councilor seeks a development that will bring further economic investment to the region, which will ultimately benefit the surrounding communities.

The municipal planning frameworks for the area are also not in support of a residential application.

No-go (compulsory)

Should the authorities decline the Industrial 1 application and the residential alternative outright, the 'No-Go' option will be adopted, and the status quo of the site will remain. Although the duty of care would be imposed on the applicant, a vacant piece of land not managed properly, is vulnerable to illegal activities (waste dumping), and informal settlement, which if go unchecked, will cause more environmental ruin than responsible development would.

Given the motivation provided for the Industrial 1 township, and the biophysical characteristics of the site, the study area is considered acceptable for development. The no-go alternative is therefore not the preferred proposal for the site.



6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

The site of the FORD Motor company national warehouse and distribution facility is largely transformed and has little conservation value. The surrounding area is also largely developed and surrounded by residential and industrial development. Little natural vegetation remains. The downstream Willow spruit water resource will be avoided, with the exception of service connections. The proposed development will have a low impact on the terrestrial biodiversity of the site, as well as the surrounding area. No animal or plant SCCs were recorded on site, and there is little chance that they will occur in the vicinity. The 1:100-year floodline does not affect the site.

With the implementation of the mitigation measures provided in this report and the EMPr, Seedcracker Environmental Consulting (SEC) is confident that the sum of the construction impacts to the environment will be of a Low negative significance in the short-term. The impacts will be limited in extent to the *study area* which has a low environmentally sensitive status. The net effect on the environment from the operational phase will be positive, as the proposed development results in bulk service and road upgrades, and socio-economic growth and investment in the area. SEC is confident that the sum of the operational impacts phase, will be of positive significance within the *local area* due to the various employment opportunities the development will bring. The permanent nature of the automotive development will result in a high positive long term impact.

If the recommended measures in his BAR and in the EMPr are implemented and monitored, then the proposed development as outlined will be in keeping, and beneficial to the area.

For alternatives:

The impact assessment result for the alternative land use proposal had the same outcome as for the preferred alternative. A residential township would however not be in keeping with the present Samcor Park Industrial land uses. The Ward councilor and his committee have expressed their *objection* to a residential township in an area that needs to bring employment opportunities. The Ward councilor seeks a development that will bring further economic investment to the region, which will ultimately benefit the surrounding communities. The municipal planning frameworks for the area are also not in support of a residential application.

Having assessed the significance of impacts of the proposal and alternative(s), please provide an overall summary and reasons for selecting the proposal or preferred alternative.

The preferred alternative is the optimal use of vacant, degraded land, at the given location. The Industrial 1 township forms an integral part of development policies at National, Provincial, and Local levels of Government. The Industrial nature and excellent accessibility of the Samcor Park area support and promote the preferred land use. The preferred alternative will expand the economic base of the municipality in terms of industrial development with supporting services in close proximity to residential opportunities.



7. SPATIAL DEVELOPMENT TOOLS

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

The following spatial planning tools were consulted:

- National Screening tool
- GDARD C-Plan V3
- Gauteng Provincial Environmental Management Framework

Spatial data was used to determine the agricultural potential, presence of rivers, wetlands and Ecological status of the study site. Together with the Gauteng Conservation Plan (c-plan) data, the presence of a potential Ecological support area (ESA) was identified and further investigated.

Gauteng Environmental Management Zones, GPEMF 2015
According to the Gauteng Environmental Management Framework (EMF) (2015), the study area falls within EMF Zone 3 (Urban development zone) and EMF Zone 4: (Normal control zone).

The development proposal is supported by the **municipal planning policies** as discussed in Section 2 of this report.

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

Based on the outcome of the impact study, it is recommended that the preferred Industrial 1 township alternative is implemented, subject to the implementation of all mitigation measures as set out in this Basic Assessment Report. All mitigation measures, which have been outlined in this report as well as in the EMPr and specialist reports, must be fully adhered to. The Environmental Management Programme (EMPr) will be binding on all managers and contractors operating/utilizing the site. All requirements from the COT Municipality must be adhered to. All requirements of the Water Use License obtained for works within the wetland system must be adhered to.

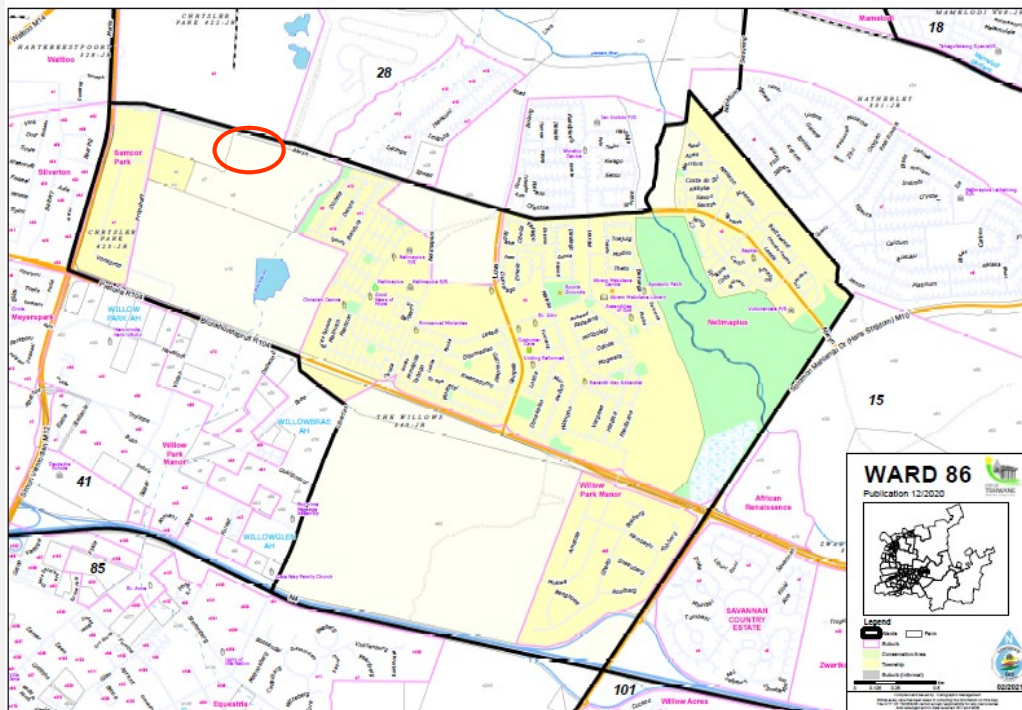
It is the opinion of the EAP that no fatal flaws are associated with the proposed development and that all impacts can be adequately mitigated to reduce the risk or significance of the impacts to an acceptable level. Due to the type of project proposed, the negative aspects will be low, following the correct implementation of mitigation measures, and do not warrant any significant restrictions regarding the development proposal. It is the opinion of the EAP that this Basic Assessment Report

contains sufficient information to allow the approving authorities to make an informed decision. It is therefore recommended that the application for Environmental Authorisation should be approved on condition that the recommendations stated herein are effectively implemented.

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

The location of the proposed development in the Ward 86 area, has certain characteristics that contribute to the desirability of an industrial development. These include:

- The area is highly accessible via the N1 and N4 freeways, Alwyn Road, Simon Vermooten Drive, The Old Bronkhorstspuit Road, Waltloo Road, Stormvoël Road and Solomon Mahangu Road. These prominent routes provide the area with excellent accessibility both regionally and locally, linking it to the Johannesburg, the East- and West Rand, Polokwane and areas further north. Distribution on a national level can be easily achieved due to the ideal locality of the subject property.
- The property can be easily accessed by the Silverton, Nellmapius, Eersterus and Mamelodi work seekers.
- Established Industrial uses are located adjacent north and west of the site.
- The development will turn underutilised land inside the urban development area into properties that are developed for the benefit of the surrounding area and the City of Tshwane which contributes to “infill development”;
- The proposed development will attract further investment in the local area;
- The FORD motor company will pay rates and taxes which will expand the income base of the City;



- The proposed development fulfils the need for economic growth and job opportunities in the area;
- Municipal engineering services and infrastructure are readily available and the upgrades



required to the services infrastructure will be for the account of the developer (private capital brought to improve the area). Bulk development charges will also be payable to the Municipality for purposes of the improvement and maintenance of the infrastructure network.

In view of the above, the proposed township establishment is compatible with, and will have a positive impact on the surrounding areas.

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

The authorisation should cater for the commencement of construction within 10 years from the date of authorization and concluded within 10 years. Construction activities on site, must be accompanied by an Environmental Control Officer.

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 EMP is to be attached to this report as an Appendix

EMPr attached

YES

SECTION F: APPENDICES

The following appendixes must be attached as appropriate (this list is inclusive, but not exhaustive):

It is required that if more than one item is enclosed that a table of contents is included in the appendix

Appendix A1: Locality plan(s)

Appendix A2: Preferred Township Layout Plan

Appendix A3: Alternative Township Layout accommodating the UCVB wetland on site

Appendix A4: GDARD C-Plan of the site

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Route position information

Appendix E: Public participation information

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

Appendix G: Specialist reports

- Terrestrial Assessment
- Water, Sewer, roads and Stormwater; Engineering Reports
- Traffic Impact Assessment
- Electrical Engineering Services Report
- Geotechnical Investigations
- Flood Line Study



Appendix H: EMPr: *Environmental Management Programme*

Appendix I: Other information

- List of Departments informed of application
- CV of the EAP
- Screening Report

CHECKLIST

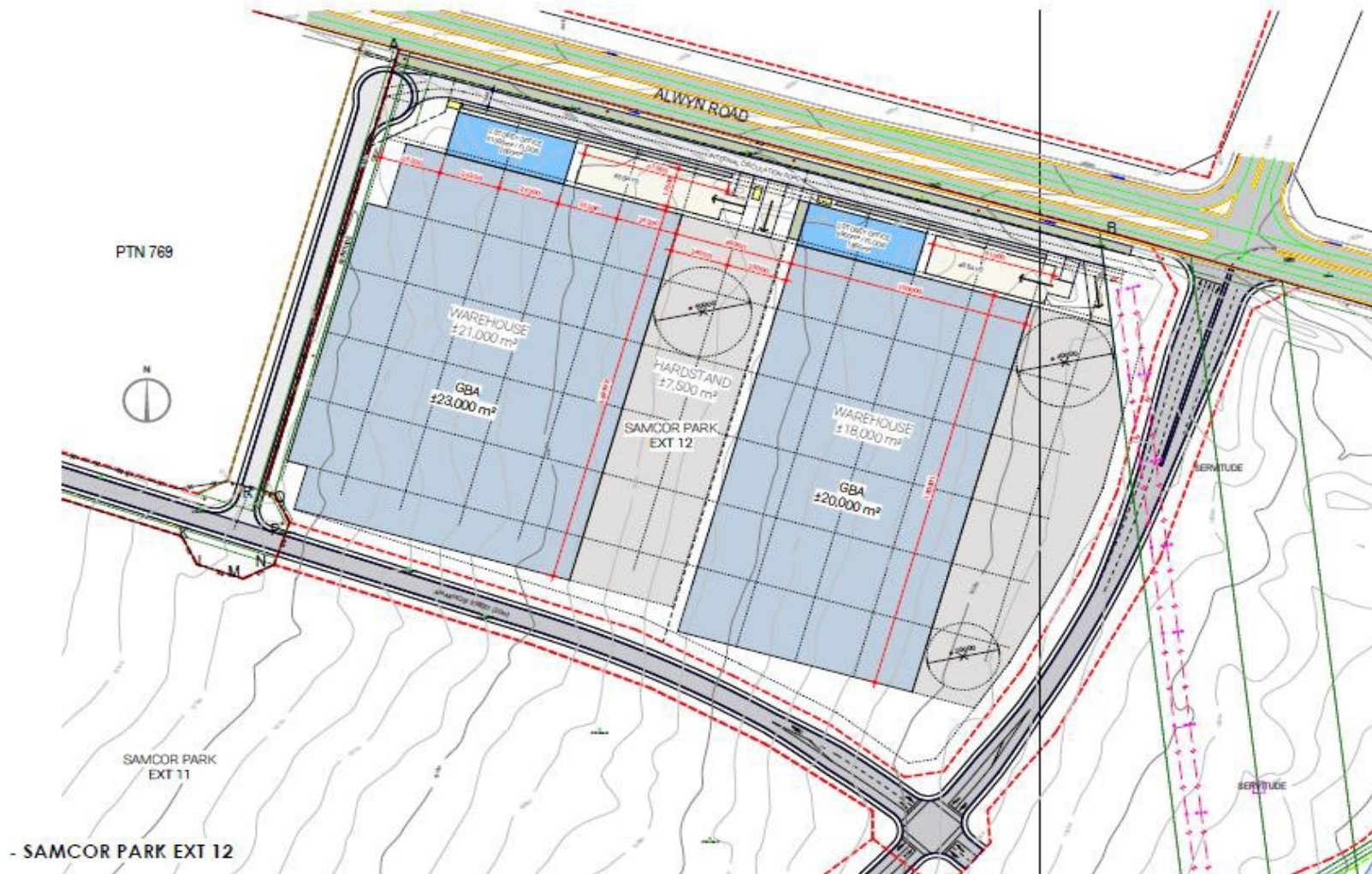
To ensure that all information that the Department needs to be able to process this application, please check that:

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

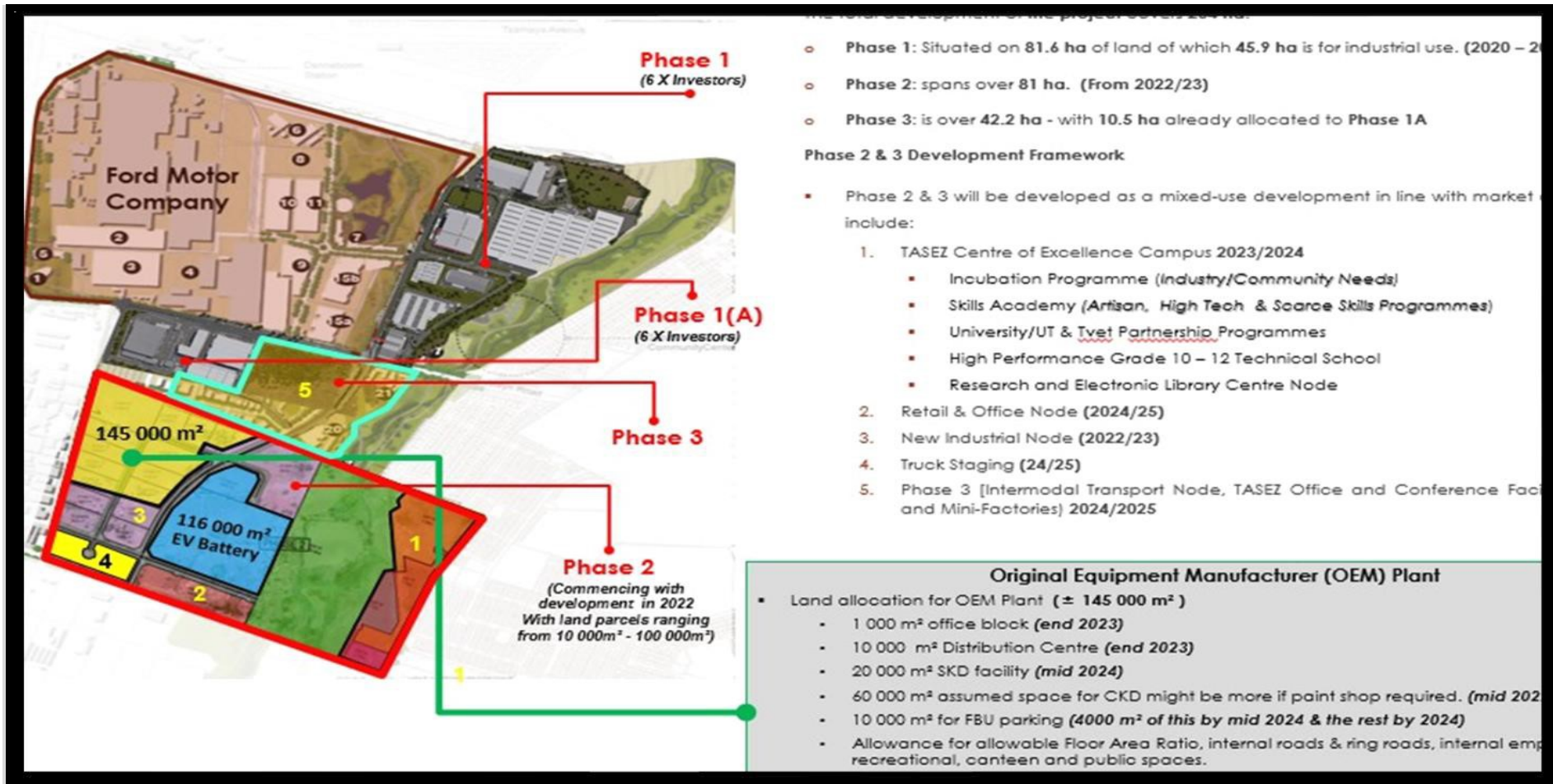
APPENDIX A1: LOCALITY MAP



APPENDIX A2: PREFERRED SITE PLAN OF PROPOSED DEVELOPMENT



APPENDIX A3: TASEZ MASTER PLAN INCORPORATING THE APPLICATION SITE



APPENDIX B: SITE PHOTOGRAPHS

SAMCOR PARK X 12



N



NE



E



SE



SW



S



W



NW



APPENDIX C: FACILITY ILLUSTRATIONS

None Available



APPENDIX D: ROUTE POSITION INFORMATION

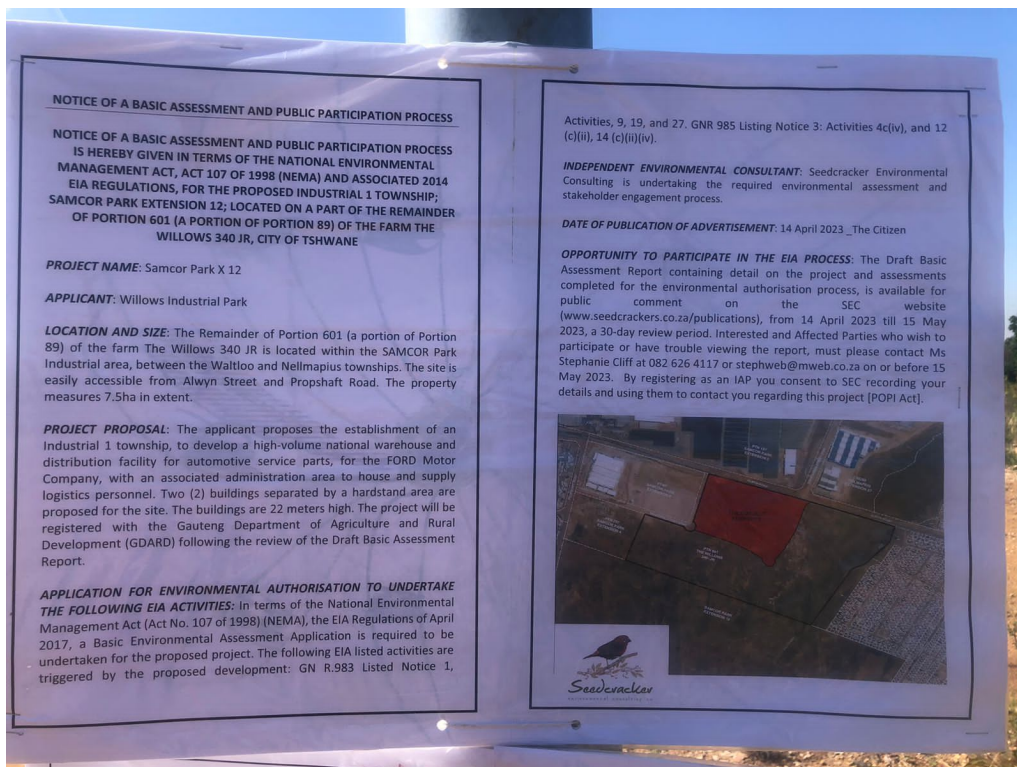
NOT APPLICABLE



APPENDIX E: PUBLIC PARTICIPATION INFORMATION

- E1: Proof of Site Notices -To be included in Final BAR**
- E2: Written Notices Issued**
- E3: Proof of Newspaper Advert - To be included in Final BAR**
- E4: Communication with I&APs - To be included in Final BAR**
- E5: Minutes of Meetings – N/A**
- E6: Comments and Issues Report - To be included in Final BAR**
- E7: Comments from I&APs on BAR**
- E8: Comments from I&APs on amended BAR**
- E9: Copy of Register of I&APs**

Appendix E1 - Proof of site notice







Appendix E2 – Written notices issued to IAP'S



Appendix E3 – Proof of newspaper advertisements

To be included in Final BAR



Appendix E4 –Communications to and from IAPS

To be included in Final BAR



Appendix E5 – Minutes of meetings

Not applicable



Appendix E6 - Comments and Responses Report

To be included in the Final BAR



Appendix E7 –Comments from I&APs on Basic Assessment (BA) Report

To be included in the Final BAR



Appendix E8 –Comments from I&APs on amendments to the BA report

Not Applicable



Appendix E9 – Copy of the register of I&APs



Appendix E10 – Comments from I&APs on the application

To be included in the Final BAR



APPENDIX G: SPECIALIST STUDIES

TERRESTRIAL BIODIVERSITY ASSESSMENT



WATER, SEWER, ROADS AND STORMWATER; ENGINEERING REPORTS



TRAFFIC IMPACT ASSESSMENT



ELECTRICAL ENGINEERING SERVICES REPORT



GEOTECHNICAL INVESTIGATIONS



FLOOD LINE STUDY



APPENDIX H: ENVIRONMENTAL MANAGEMENT PROGRAMME

**APPENDIX I:****DRAFT REPORT SUBMITTED TO THE FOLLOWING AUTHORITIES FOR COMMENT:**

Municipality in whose area of jurisdiction the activity falls:	City of Tshwane		
Contact person:	Rudzani Mukheli		
Postal address:	Room CP118 Tshwane House, Ground Floor, Block A 320 Madiba Street		
		Postal code:	0002
Telephone	(012) 358 8731	Cell:	079 968 0360
E-mail:	RudzaniM@Tshwane.gov.za		

Department of Water and Sanitation

Phyllis Maphakela
MaphakelaP@dwa.gov.za
0823278625
285 Francis Baard Street
Bothongo Plaza East
PRETORIA
Tel: (012) 392 1300
Fax: (086) 274 3717



EAP CV



DEA SCREENING REPORT