THE PROPOSED CONSTRUCTION OF A CURRO SCHOOL ON PORTION 54 OF THE FARM BLUE HILLS NO. 397, MIDRAND, GAUTENG PROVINCE

Draft Basic Assessment Report

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EXECUTIVE SUMMARY

Introduction and Background

Curro Holdings (The Applicant) appointed Enviroworks, an Independent Environmental Assessment Practitioner (EAP), to undertake the required Basic Assessment Process for the proposed development of a Curro Castle on Portion 54 of the Farm Blue Hills No. 397, Midrand, Gauteng Province.

The proposed project is a listed activity in terms of Sections 24(2) and 24(d) of the National Environmental Management Act, 1998 (Act No. 107 of 1998)(NEMA)(as amended). The Environmental Impact Assessment (EIA) Regulations, 2017 promulgated in terms of Chapter 5 of the NEMA provide for the control of certain activities that are listed in Government Notice Regulation (GN R.) No. 327, 325 and 324. Activities listed in these notices must comply with the regulatory requirements listed in GN R. 326, which prohibits such activities until written authorisation is obtained from the competent authority. Such Environmental Authorisation (EA), which may be granted subject to conditions, will only be considered once there has been compliance with the EIA Regulations of 2017. GN R. No. 326 sets out the procedure and documentation that need to be compiled with undertaking a Basic Assessment Report (BAR).

Project Description

The main aim for the Pre-Primary Curro Castles are to be homes away from home where children enjoy well-balanced and wholesome meals and snacks prepared in the Hansel and Gretel kitchens. Curro Castle magic is kept alive with detailed fantasy surroundings, a Story Queen, Repunzel's Books, coupled with huge variety of extramural activities and fun-filled holiday programs. At Curro Castle, the emphasis is on the uniqueness of each child and every child is regarded as a competent learner from birth. Curro understands that children develop and learn in different ways and at different places, with all areas of development and learning being equally important and inter-connected.

Curro Holdings wish to develop a Curro Castle on Portion 54 of the Farm Blue Hills No. 397 in Midrand, which entails the following infrastructure:

- The Curro Castle Main Building (± 4305m^2);
- Five (5) Two (2) Bedroom Apartments (± 435m^2 per unit);
- Eleven (11) One (1) Bedroom Apartments (± 116m^2 per unit);
- Club House (± 193m^2);
- Guard House (± 13m^2);
- Play Grounds;
- Two Hundred and Fifty Seven (257) Parking Bays (± 3242.5m^2);
- Service Delivery Infrastructures (water and electricity);
- New Access Roads; and,
- A Retention Pond (± 790m^2).

The Erf size of Portion 54 of the Farm Blue Hills No. 397 is 85 888 m^2 where the entire footprint will be developed; however, approximately half would be landscaped.

Figure 1: Layout of the Proposed Development.

Legislative Context

The proposed project constitutes the following listed activities of the NEMA:

Government Notice 327 of 2017: Listing Notice 1 of the National Environmental Management Act, 1998 (Act No. 107 of 1998).

Activity 27: The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation.

Activity 28: Residential, mixed, retail, commercial, industrial or institutional development where such land was used for agricultural, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development:

(i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares.

Government Notice 324 of 2017: Listing Notice 3 of the National Environmental Management Act, 1998 (Act No. 107 of 1998).

Activity 4: The development of a road wider than 4 metres with a reserve less than 13.5 metres.

c. Gauteng

iv. Sites identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng Conservation Plan or bioregional plans;

Activity 6: The development of resorts, lodges, hotels, tourism or hospitality facilities that sleeps 15 people or more.

c. Gauteng

iv. Sites identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng conservation Plan or in bioregional plans.

Activity 12: The clearance of an area of 300 square meters or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.

c. Gauteng

i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEM:BA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;

ii. Within Critical Biodiversity Areas or Ecological Support Areas identified in the Gauteng Conservation Plan or bioregional plans.

Activity 14: The development of –
(ii) infrastructure or structures with a physical footprint of 10 square metres or more;

where such development occurs –
(a) within a watercourse;
(c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse.

c. Gauteng
iv. Sites identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng Conservation Plan or in bioregional plans;

Report Structure
This Report is set out as followed:

- **Section A: Activity Information** provides an overview of the development proposal and listed activities which are triggered in terms Listing Notices GN R. 327 and R. 324; of the EIA Regulations of 07 April 2017.

- **Section B: Description of Receiving Environment** provides detail on the affected landscape in its present state. A range of aspects relating to the biophysical (e.g. geology, soil surface and sub-surface water and biodiversity), socio-economic and historic and cultural character of the immediate site and surrounding areas are described herein, whilst applicable legislation, policies and guidelines considered are recognised.

- **Section C: Public Participation** describes the consultation component of this study between the EAP and Interested and Affected Parties (I&AP's) as well as Organs of State. Regulatory requirements of the process are discussed, with a summary of consultation made with state departments as well as comments and response that are given. Comment periods were afforded to parties, with an initial registration period provided to parties.

- **Section D: Resource use and Process Details,** an extraction of the resource uses of the proposed project phases, attributes to waste and emissions, water use, power supply and energy efficiency are further discussed.

- **Section E: Impact Assessment** describes how the proposed project may impact on the geographical and physical, biodiversity, socio-economic and historical and cultural aspects of the receiving environment. Based on such findings as various site surveys, impact assessment, investigation of alternatives and the review of strategic policies to consider the needs and desirability, the outgoing opinion of the EAP is detailed. Any noteworthy recommendations emanating from the study are described here.

- **Section F: Appendices** list all supportive documents enclosed with this report, after which declarations of the Applicant, EAP and Specialists are given.

Alternatives

Preferred Location Alternative:

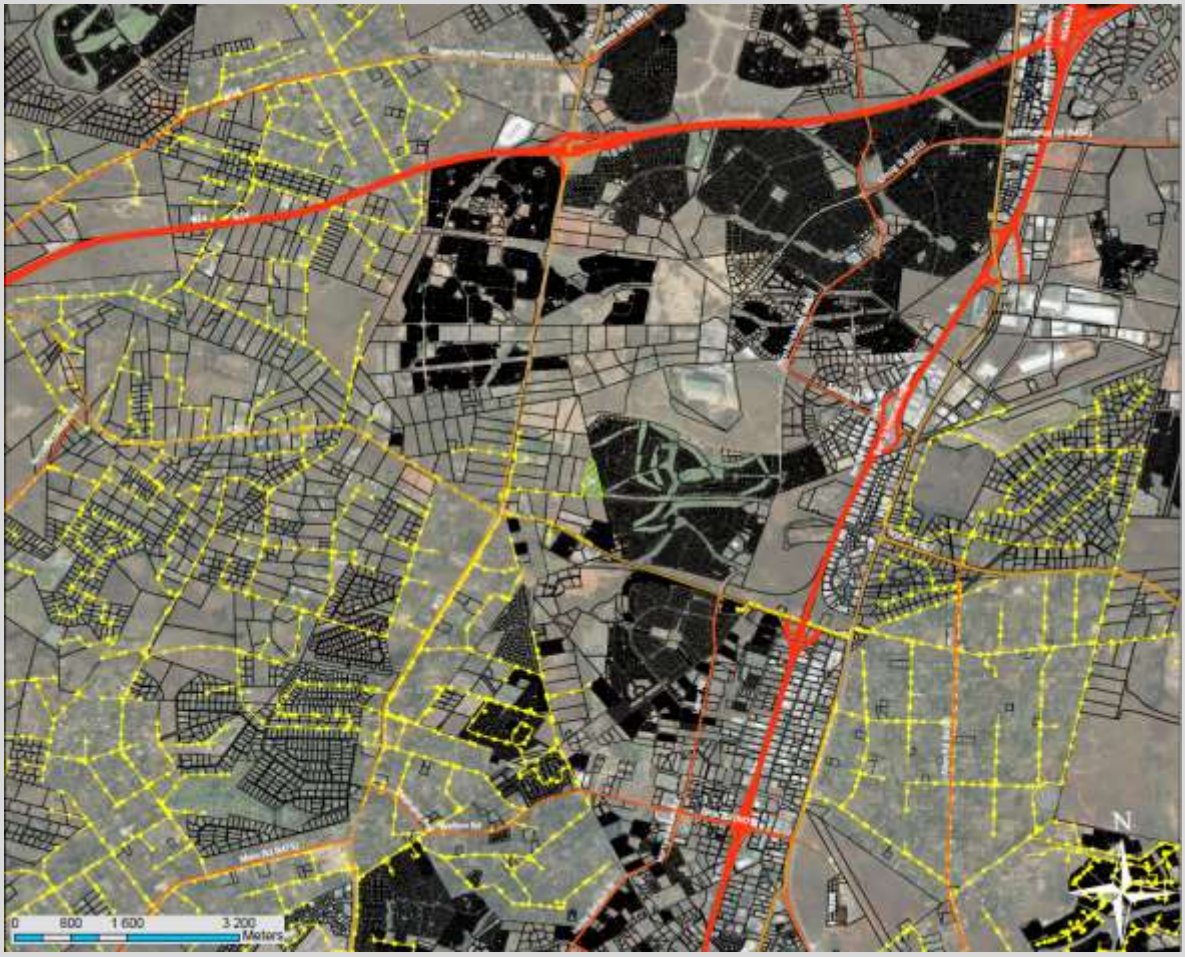

Figure 2: Preferred Location Alternative.

The boundaries for the Preferred Alternative are located at the following co-ordinates:

i. A: 25˚ 55’ 59.43’’ S; 28˚ 06’ 24.28’’ E;
ii. B: 25˚ 55’ 59.89’’ S; 28˚ 06’ 26.70’’ E;
iii. C: 25˚ 56’ 16.59’’ S; 28˚ 06’ 30.74’’ E;
iv. D: 25˚ 56’ 15.63’’ S; 28˚ 06’ 21.25’’ E.

Preferred Layout Alternative of the Access Road:

Figure 3: Preferred Layout Alternative of the Access Road.

The preferred layout of the access road will extend from African View Drive and will traverse a distance of seven hundred and thirty meters (730 m). As per the Traffic Impact Assessment conducted by BVi Consulting Engineers the road will have a two-lane configuration, with one (1) lane for incoming and outgoing vehicles respectively.

Advantages of the Preferred Layout:

1. The access road will traverse the shortest possible route;
2. The land that will be traversed is owned by Curro Holdings;
3. The access road won't put additional traffic flow pressure on the Summit/R55 intersection; and,
4. Adequate turning lanes are already present at the Olifantsfontein/African View Drive intersection.

Public Participation Process

A comprehensive **Public Participation** will be undertaken to engage stakeholders and interested and affected parties on the development proposal. I&AP's will be informed of the Basic Assessment Process through an advertisement in one (1) newspapers and poster notices will be erected at strategic locations. The surrounding landowners will be informed of the proposed project by means of the distribution of comment forms and the Basic Assessment Report (BAR), as well as relevant Organs of State.

This BAR will be made available for a thirty (30) day comment period from **DATE to DATE.** The BAR will be available on the Enviroworks website (**www.enviroworks.co.za**) and a link to the Enviroworks website will be sent via email to all relevant Stakeholders and Organs of State.

Specialist Findings

On assessment of the proposed location, the specialist determined the following:

Botanical Impact Assessment (Enviroworks)

The proposed development area is heavily degraded and surrounded by residential areas on three boundaries except on the western boundary. The vegetation is dominated by *Hyparrhenia hirta* with karroid shrubs in abundance in the north western and south western section of the property. A number of

indigenous geophytes were observed, none of which are endangered. No fauna except for three bird species were observed.

The small scale footprint of the proposed Curro Castle is not likely to generate significant impacts on broad scale ecological processes or landscape connectivity; on condition that all mitigation measures are followed. Any risk of pollution due to inappropriate disposal of waste can be mitigated to an acceptable level through the appropriate waste management and ensuring that no run-off or effluent from the construction site enters the environment.

The overall impacts associated with the development are considered to be low with no impacts of high significance. From an Ecological point of view the proposed development should be allowed to continue.

Heritage Impact Assessment (Dr Lloyd Russouw)
As far as the palaeontological heritage is concerned, the proposed development may proceed with no further palaeontological assessment required. Given the degraded terrain, impact on potentially in situ archaeological remains, rock art localities, graves, pre-historic or historically significant structures within the study are considered unlikely. The proposed development footprint is assigned a site rating of Generally Protected (GP. C).

Traffic Impact Assessment (BVi Consulting Engineers)
The on-site traffic management is important to the school development in terms of safety and capacity. The provision of a sufficient drop-off and pick-up embayment as well as parking facilities will help in this regard. It is recommended that a ten (10) vehicle queue space be provided on-site to accommodate vehicles without affecting passing vehicle flow. A five (5) vehicle stopping embayment should also be provided for vehicles that are in the process of dropping or picking up learners.

The minimum parking requirements as stipulated by the *City of Johannesburg: Land Use Scheme 2017* is one (1) for every five (5) children and one (1) additional bay per classroom. In addition to this, the scheme also stipulated that one (1) bay per residential unit and one (1) bay per three (3) residential units for visitors must be allowed for. Therefore, the development which consists of a school for four hundred and forty (440) pupils with eighteen (18) classrooms and sixteen (16) apartments should have one hundred and twenty seven (127) bays available.

In order for the transport network to function more effectively, it is recommended that all gravel roads in the immediate vicinity of the development and intersection be formalized and the Witbos Street and Plantation Road intersections be signalized. The capacity deficiency at R55/Summit Road intersection can be addressed by extending the stacking lengths of the turning lanes. It is; however, anticipated that the proposed extension of Witbos Street would cause the migration of traffic flow and would relieve some pressure from the R55/Summit Road intersection. Therefore, by taking all of the above into account, it can be concluded that the re-zoning and development can be supported from a traffic impact perspective.

Recommendations of the EAP
The following recommendations are made by the EAP:

- All mitigation measures must be adhered to as stipulated within the Environmental Management Plan;
- The proposed access route must be approved by Johannesburg Roads Agency;
- An ecological walkthrough must be conducted prior to the commencement of the project during the flowering period to ensure that no provincially- or naturally protected or significant species have been omitted;
- Construction activities should be confined within the development footprint and avoid disturbing vegetation beyond the borders of the development footprint;
- Suitable dust management and prevention measures during the construction phase must be

implemented;

- Areas around the proposed project footprint must be adequately rehabilitated and landscaped;
- An integrated waste management plan must be developed for the facility;
- No open fires will be allowed on site, and demarcated smoking areas must be set out and indicated on the site layout plan;
- No animals may be killed, should snakes be discovered a trained person must be called upon to move them; and,
- All activities must be conducted as stipulated in the Method Statements.

BASIC ASSESSMENT CONTENT CHECKLIST

A Basic Assessment Report must contain the following information that is necessary for the Competent Authority to consider and come to a decision on the Application, and must include the below mentioned as stipulated in Appendix 1 of GN R. 326 of 07 April 2017 -

Content Requirements of a Basic Assessment Process	Section in the Report
(a) details of – (i) the EAP who prepared the report, and (ii) the expertise of the EAP, including a curriculum vitae;	Curriculum Vitae of the EAP
(b) the location of the activity, including: (i) the 21 digit Surveyor General code of each cadastral land parcel; (ii) where available, the physical address and farm name; (iii) where the required information in items (i) and (ii) is not available, the coordinates of the boundary of the property or properties;	Section B: Receiving Environment
(c) a plan which locates the proposed activity or activities applied for as well as associated structures and infrastructure at an appropriate scale;	Appendix C: Facility Illustrations
(d) a description of the scope of the proposed activity, including – (i) all listed and specified activities triggered and being applied for; and (ii) a description of the activities to be undertaken including associated structures and infrastructure;	Section A: Activity Information
(e) a description of the policy and legislative context within which the development is proposed including – (i) an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments that are applicable to **this** activity and have been considered in the preparation of the report; and (ii) how the proposed activity complies with and responds to the legislation and policy context, plans, guidelines, tools framework, and instruments;	Section A: Activity Information
(f) a motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location;	Section E: Impact Assessment
(g) a motivation for the preferred site, activity and technology alternative;	Section A: Activity Information
(h) a full description of the process followed to reach the proposed preferred alternative within the site, including: (i) details of all the alternatives considered; (ii) details of the public participation process undertaken in terms of Regulation 41 of the Regulations, including copies of the supporting documents and inputs; (iii) a summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them; (iv) the environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects; (v) the impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts – (aa) can be reversed; (bb) may cause irreplaceable loss of resources; and (cc) can be avoided, managed or mitigated; (vi) the methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risk associated with the alternatives; (vii) positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may	Section A: Activity Information

be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects; (viii) the possible mitigation measures that could be applied and level of residual risk; (ix) the outcome of the site selection matrix; (x) if no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such; and (xi) a concluding statement indicating the preferred alternatives, including preferred location of the activity;	
(i) a full description of the process undertaken to identify, assess and rank the impacts the activity will impose on the preferred location through the life of the activity, including – (i) a description of all environmental issues and risk that were identified during the environmental impact assessment process; and (ii) an assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures;	Section E: Impact Assessment
(j) an assessment of each identified potentially significant impact and risk, including- (i) cumulative impacts; (ii) the nature, significance and consequences of the impact and risk; (iii) the extent and duration of the impacts and risk occurring; (iv) the probability of the impact and risk occurring; (v) the degree to which the impact and risk can be reversed; (vi) the degree to which the impact and risk may cause irreplaceable loss of resources; and (vii) the degree to which the impact and risk can be avoided, managed or mitigated;	Section E: Impact Assessment
(k) where applicable, a summary of the findings and impact management measures identified in any specialist report complying with Appendix 6 to these Regulation and an indication as to how these findings and recommendations have been included in the final report;	Section E: Impact Assessment
(l) an environmental impact statement which contains – (i) a summary of the key findings of the environmental impact assessment; (ii) a map at an appropriate scale which superimposes the proposed activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers; and (iii) a summary of the positive and negative impacts and risks of the proposed activity and identified alternatives;	Section E: Impact Assessment
(m) based on the assessment, and where applicable, impact management measures from specialist reports, the recording of the proposed impact management outcomes for the development for inclusion in the EMPr;	Section E: Impact Assessment
(n) any aspects which were conditional to the findings of the assessment either by the EAP or specialist which are to be included as conditions of authorisation;	Section E: Recommendations of the Practitioner
(o) a description of any assumptions, uncertainties, and gaps in knowledge which relate to the assessment and mitigation measures proposed;	Section E: Impact Assessment
(p) a reasoned opinion as to whether the proposed activity should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be made in respect of that authorisation;	Section E: Impact Assessment
(q) where the proposed activity does not include operational aspects, the period for which the environmental authorisation is required, the date on which the activity will be concluded, and the post construction monitoring requirements finalised;	N/A
(r) an undertaking under oath or affirmation by the EAP in relation to: (i) the correctness of the information provided in the reports; (ii) the inclusion of comments and inputs from stakeholders and I&APs; (iii) the inclusion of inputs and recommendations from the specialist	Declaration of the EAP.

reports where relevant; and (iv) any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties; and	
(s) where applicable, details of any financial provision for the rehabilitation, closure, and ongoing post decommissioning management of negative environmental impacts;	N/A
(t) any specific information that may be required by the competent authority; and	Appendix I: Other Information
(u) any other matters required in terms of section 24(4)(a) and (b) of the Act.	N/A

CURRICULUM VITAE OF THE EAP

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RELEVANT QUALIFICATIONS

Baccalaureus Scientiae (B.Sc.) in Environmental Geography: University of the Free State (2014)
Baccalaureus Scientiae (B.SC) Honours in Environmental Management: University of South Africa (2018)

WORK EXPERIENCE

January 2015 – Present: Environmental Specialist on contract at Enviroworks

KEY PROJECT EXPERIENCE

ENVIRONMENTAL IMPACT ASSESSMENT EXPERIENCE

- Environmental Impact Assessment for the proposed 171ha expansion of Nalisview Cemetery in Bloemfontein on behalf of Mr. Jannie Nel

BASIC ASSESSMENT EXPERIENCE

- Construction of 30 Broiler Houses and an Abattoir, Leipoldtville, Western Cape Province (Mocke Poultry).
- Dewetsdorp Reservoir System Augmentation, Dewetsdorp, Free State Province (Bloemwater).
- Construction of the Palmiet Truck Stop, Vrede, Free State Province (DeStudio Town Planning).
- Section 24G for the unlawful operation of a Recycling Centre, Swellendam, Western Cape Province (Agri-World Recyclers).
- Construction of a 3.2 kilometre pipeline and associated infrastructure, Olifantshoek, Northern Cape Province (Ghamagara Local Municipality).
- Construction of 4 telecommunication masts, Cape Town, Western Cape Province (Highwave Consultants).
- Installation of a 90 000l LPG Cylinder, Bloemfontein, Free State Province (EASIGAS).
- Installation of a 45 000l LPG Cylinder, East London, Eastern Cape Province (EASIGAS).
- Upgrade of Day-visitor facilities at Kraalbaai, West Coast National Park, Western Cape Province (SANParks).
- Development of the Phalaborwa Wildlife Activity Hub, Kruger National Park, Limpopo Province (SANParks).
- Periodic maintenance of National Route 2 Section 4 between Riviersonderend (Km 0.0) and Swellendam (Km 56.9), Western Cape Province (SANRAL).
- Proposed development of the Klein Mooimaak Rest Camp Facility, West Coast National Park (SANParks).
- Proposed development of the 35m Buffeljagsrivier Monopole Mast, Western Cape Province (Coast to Coast Towers).
- Compilation of a River Maintenance Management Plan for Bath River, Caledon, Western Cape Province (Theewaterskloof Local Municipality).
- Proposed development of a 12.5 ha cemetery, Grabouw, Western Cape Province (Theewaterskloof Local Municipality).

- Proposed development of Hostels and Orientation Centres, Mapungubwe National Park, Limpopo Province (SANParks).
- Proposed upgrade of the R27 Gate & Geelbek Restaurant, West Coast National Park, Western Cape Province SANParks).
- Proposed development of the 25m Joostenbergvlakte Monopole Mast, Western Cape Province (Coast to Coast Towers).
- Proposed development of 30 Chicken Houses and an Abattoir, Odendaalsrus, Free State Province (Chridel Consulting).
- Design, Rehabilitation / Improvement, Routine Maintenance works of N220: Chissano to Chibuto and N/C Crz. N220 to N1, Mozambique (World Bank).
- Proposed development of a Curro Castle on Portion 54 of the Farm Blue Hills No. 397, Midrand, Gauteng Province (Curro Holdings).
- Proposed development of a 25m Monopole Mast on Portion 25 of the Farm Klein Bottelary No. 17, Brackenfell, Western Cape Province (Coast to Coast Towers).
- Proposed development of a Housing Development in Hartswater, Northern Cape Province (Makespace Architects).
- Routine maintenance of TR/1, TR1/3, TR44/1, TR88/1, MR401, MR402 and DR1834 near Uniondale, Western Cape Province (Western Cape Department of Transport and Public Works).
- Proposed development of a Tree Mast on Portion 87 of the Farm Cragga Kamma No. 23, Port Elizabeth, Eastern Cape Province (Blue Sky Towers).

EXPERIENCE IN PERMITS AND LICENCING

- Water Use License (General Authorisation) for the expansion of a cemetery by more than 2500 m^2 (Jannie Nel).
- Water Use License for 30 Broiler Houses and Abattoir, Leipoldtville, Western Cape Province (Mocke Poultry).
- Waste Management License and Section 24 G report for Agri World Recycling, Swellendam, Western Cape Province (Agri-World Recycling).
- Water Use License (General Authorisation) for the construction of a 3.2km pipeline, Olifantshoek, Northern Cape Province (Ghamagara Local Municipality).

ENVIRONMENTAL CONTROL OFFICER (ECO)

- The construction of the Cecilia Park powerline and sub-station, Bloemfontein, Free State Province (Centlec).
- The construction of a dual carriageway and bridge from Mthatha up to and including the Ngqeleni interchange of Provinsial Road 61 Section 8, Eastern Cape Province.
- The construction of a road from Moretele to Khaukhwe, North West Province (Department Public Works).
- The construction of a 14km water pipeline, Botshabelo, Free State Province (Bloemwater).
- The construction of a sub-station, Bloemfontein, Free State Province (Centlec).
- The rehabilitation of bridges on National Route 14: Upington to Kuruman, Northern Cape Province (SANRAL).
- The rehabilitation of the Theekloof Pass, Fraserburg, Northern Cape.
- Reseal of Diversional Road 1468, 1470, 1473 and Minor Road 5873 on behalf of Actophambili, Witzenberg, Western Cape Province.
- Reseal of Section MR 201 and MR 305 on behalf of Actophambili, Wolsely, Western Cape Province.
- Reseal of the National Route 1, on behalf of Actophambili, Leeu Ghamka, Western Cape Province (SANRAL).
- The widening of Pella Road on behalf of the City of Cape Town, Atlantis, Western Cape Province (City of Cape Town).
- The widening of structures over the Orange River on National Route 12 Section 9 near Hopetown,

Northern Cape Province (SANRAL).
- The construction of a bulk water supply reservoir, Olifantshoek, Northern Cape Province (Ghamagara Local Municipality).
- Rehabilitation of the Donkergat Road within the West Coast National Park on behalf of BVI Procurement Management Engineers, Western Cape Province (Department of Defence & Department of Public Works).
- Periodic Maintenance of National Route 2 Section 4 between Swellendam and Riviersonderend, Western Cape Province (SANRAL).

VISUAL IMPACT ASSESSMENT (VIA):
- Phalaborwa Wildlife Activity Hub, Kruger National Park, Limpopo Province (SANParks).
- 4.9ha Sand Mine on Portion 5 of the Farm Doornekraal No. 830, Western Cape Province (Greenmined).
- Proposed development of the Harvard Powerline, Bloemfontein, Free State Province (Centlec).
- Proposed development of the 35 m Buffeljagsrivier Monopole Mast, Buffeljagsrivier, Western Cape Province (Coast to Coast Towers).
- Proposed development of the 25 m Robertson Monopole Mast, Robertson, Western Cape Province (Coast to Coast Towers).
- Proposed development of the Klein Mooimaak Rest Camp Facility, West Coast National Park (SANParks).
- Proposed development of a Sand Mine near Malmesbury, Western Cape Province (Greenmined).
- Proposed upgrade of the R27 Gate and Geelbek Restaurant, West Coast National Park, Western Cape Province (SANParks).
- Proposed development of the 25 m Roodekrans Monopole Mast, Krugersdorp, Gauteng Province (Coast to Coast Towers).
- Proposed development of a 25 m Monopole Mast on Portion 25 of the Farm Klein Bottelary No. 17, Brackenfell, Western Cape Province (Coast to Coast Towers).
- Proposed development of a Landfill Site on Portion 3 of the Farm Katbosch No. 93, Sasolburg, Free State Province (Metsimaholo Landfill).
- Proposed development of numerous visitor information centres at Schroda and Mapungubwe Hill, Mapungubwe National Park, Limpopo Province (SANParks).
- Proposed development of a 35 m Monopole Mast on Portion 13 of the Farm Van Aries Kraal No. 455, Grabouw, Western Cape Province (Coast to Coast Towers).
- Proposed development of a 25 m Monopole Mast on Erf 532, Gansbaai, Western Cape Province (Coast to Coast Towers).
- Proposed development of a 35 m Lattice Mast on Portion 7 of the Farm Jagersvlakte No. 292, Grabouw, Western Cape Province (Warren Petterson Planning).
- Proposed development of a 35 m Lattice Mast on Erf 532, Stanford, Western Cape Province (Warren Petterson Planning).
- Proposed development of a 15 m Lattice Mast on Portion 4 of the Farm No. 53, Genadendal, Western Cape Province (Warren Petterson Planning).
- Proposed development of a 25 m Monopole Mast on Portion 8 of the Farm Delta No. 1003, Groot Drakenstein, Western Cape Province (Coast to Coast Towers).
- Proposed development of a 30 m Tree Mast on Portion 87 of the Farm Langverwacht No. 241, Kuils River, Western Cape Province (Warren Petterson Planning).

WETLAND DELINEATION STUDIES:
- Development of 13 borrow pits along National Road 8, Ladybrand, Free State Province (SANRAL).
- Development of a 12.5ha cemetery on Erf 4233, Western Cape Province (Theewaterskloof Local Municipality).
- Proposed development for the proposed Alfred Nzo Agri-Hub, Cederville, Eastern Cape Province

(Department Public Works).

STORMWATER MANAGEMENT PLANS:

- Stormwater Management Plan for a Recycling Plant on Erf 5172, Swellendam, Western Cape Province (Agri-World Recycling).
- Stormwater Management Plan for the proposed Granite Mine on the Remaining Extent of the Farm Biesjesfontein No. 218, Springbok, Northern Cape Province (Greenmined Environmental).
- Stormwater Management Plan for the proposed development of Six Layer Hen Houses on the Remainding Extent of the Farm Helena 1492, Bloemfontein, Free State Province (Katawa Trading).
- Stormwater Management Plan for the Routine Maintenance of a Drainage System near Karatara, Western Cape Province (Garden Route District Municipality).
- Stormwater Management Plan for the Unlawful establishment of a Chicken Broiler Facility on Portions 10 and 11 of the Farm Blesbokfontein No. 558, Bronkhorspruit, Gauteng Province (Sintier Poultry).

ENVIRONMENTAL AUDITING:

- Decommissioning Audit for the closure of a warehouse, Cape Town, Western Cape Province (Wheatherford).
- Annual Audit on the Waste Management License for Elgin Fruit Juice, Grabouw, Western Cape (Elgin Fruit Juice).
- Annual Environmental Compliance Audit for the operation of the Olive Hill Quarry, Bloemfontein, Free State Province (Lafarge Aggregate).
- Monthly Environmental Compliance Audit for the operation of a Sand Mine near Sasolburg, Free State Province (Mission Point Mine).
- Quarterly Environmental Compliance Audit for the Xina Solar Thermal Plant (Phase 2) and its associated infrastructure near Pofadder, Northern Cape Province (Abengoa Solar).

OTHER EXPERIENCE:

- Conducting the Public Participation Process on the Draft Management Plan for the Goukamma Nature Reserve Complex, Western Cape Province (Cape Nature).
- Compilation of an Environmental Management Plan and a Risk Assessment for the pressure testing of a 1 000 000 litre LPG Cylinder within the Port Elizabeth Harbour, Eastern Cape Province (EASIGAS).
- Compilation of an Environmental Management Plan for the development of two Billboards, Bloemfontein, Free State Province (Outdoor Network).
- GIS mapping and technical for various projects, including the drawing of locality, sensitivity, and alien and invasive management maps.
- Public Participation Processes and assistance to several projects.

ACRONYMS AND ABBREVIATIONS

BA	–	Basic Assessment
BAR	–	Basic Assessment Report
CBA	–	Critical Biodiversity Area
DEA	–	Department of Environmental Affairs
EAP	–	Environmental Assessment Practitioner
ECO	–	Environmental Compliance Officer
EIA	–	Environmental Impact Assessment
EMF	–	Environmental Management Framework
EMPr	–	Environmental Management Program
ESA	–	Ecological Support Area
GN R.	–	Government Notice Regulation
I&AP	–	Interested & Affected Party
IDP	–	Integrated Development Plan
LED	–	Local Economic Development
LM	–	Local Municipality
NDT	–	National Department of Tourism
NEM:PAA	–	National Environmental Management: Protected Areas Act
NEM:WA	–	National Environmental Management: Waste Act
NEMA	–	National Environmental Management Act
NHRA	–	National Heritage Resources Agency
NPA	–	National Parks Act
NWA	–	National Water Act
PSDF	–	Provincial Spatial Development Framework
SAHRA	–	South African Heritage Resources Agency
SANRAL	–	South African National Roads Agency Limited
SAPS	-	South African Police Service
SDF	–	Spatial Development Framework

Contents

GAUTENG PROVINCE
AGRICULTURE AND RURAL DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

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? No
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

If no, state reasons for not attaching the list.

N/A

Have State Departments including the competent authority commented? T.B.C

If no, why?

N/A

1 SECTION A: ACTIVITY INFORMATION

1.1 PROPOSAL OR DEVELOPMENT DESCRIPTION

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

Proposed Development of a Curro Castle on Portion 54 of the Farm Blue Hills No. 397, Midrand, Gauteng Province.

Select the appropriate box

The application is for an upgrade of an existing development		The application is for a new development	x	Other, specify	

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

YES x	

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

Application for Heritage Permit in accordance with Section 38(1) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999). A Water Use License must be applied for as the development will take place within five hundred meters (500 m) of a drainage line.

If yes, have you applied for the authorisation(s)?	YES x	
If yes, have you received approval(s)? (attach in appropriate appendix)		NO x

1.2 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:
National Environmental Management Act, 1998 (Act No. 107 of 1998 as amended).	National & Provincial	27 November 1998
National Environmental Management Act (NEMA), Amended Environmental Impact Assessment Regulations of 07 April 2017.	GDARD	2017
National Environmental Management: Biodiversity Act (NEMBA), 2004 (Act 10 of 2004)	National & Provincial	2004
National Building Regulations and Building Standard Act, 1977 (Act No. 103 of 1977)	Local Municipality	1977
Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983)	Department of Agriculture	1983
National Heritage Resources Act, 1999 (Act 25 of 1999)	South African Heritage Resource Agency	1999
National Water Act, 1998 (Act 36 of 1998)	Department of Water and Sanitation	1998

Description of compliance with the relevant legislation, policy or guideline:

Legislation, policy of guideline	Description of compliance
National Environmental Management Act (NEMA), Amended Environmental Impact	The Listed Activities and assessment criteria were considered in conducting of the Public Participation Process

Assessment Regulations of April 2017.	and collation of information to be included in this BAR. Furthermore all documentation has been compiled in accordance with the relevant Appendices within GN R. 326 of 07 April 2017.
Guideline involving an Ecological Specialist in an EIA process, 2005.	The Ecological Impact Assessment has been prepared in accordance with the guideline as developed by the Western Cape Department of Environmental Affairs.
National Heritage Resources Act, 1999 (Act 25 of 1999)	The proposed development site was assessed for heritage significance in order to determine the sensitivity of the area.
National Water Act, 1998 (Act 36 of 1998)	Section 21 of the National Water Act will be applicable as the proposed development will take place within five hundred meters (500 m) of a drainage line.
City of Johannesburg Draft Integrated Development Framework 2018/19 Review	The proposed development was assessed according to the Integrated Development Framework for the City of Johannesburg.
City of Johannesburg Spatial Development Framework 2040 (2016)	It was verified that the proposed development will be in line with the City of Johannesburg Spatial Development Framework 2040 (2016).

1.3 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

Prior to the undertaking of the Basic Assessment Process the Applicant selected the preferred Erf on the following criteria:

- The property offers the optimal position, situated directly adjacent to a site where a Curro Primary School will be developed in the future;
- The proposed site is already degraded and is not of cultural significance;
- Adequate residential areas in close proximity to the school, making it viable from a business perspective;
- Sufficient space to construct the required Curro Castle.

Design Alternative:
There are no feasible design alternatives available. The school has been designed to make optimal use of the entire property. The layout of internal roads and parking bays have been specifically designed to ensure the optimal flow of Traffic.

Preferred Layout Alternative 1:
The preferred layout of the access road will extend from African View Drive and will traverse a distance of seven hundred and thirty meters (730 m). As per the Traffic Impact Assessment conducted by BVi Consulting

Engineers the road will have a two-lane configuration, with one (1) lane for incoming and outgoing vehicles respectively.

Advantages of the Preferred Layout:

1. The access road will traverse the shortest possible route;
2. The land that will be traversed is owned by Curro Holdings;
3. The access road won't put additional traffic flow pressure on the Summit/R55 intersection; and,
4. Adequate turning lanes are already present at the Olifantsfontein/African View Drive intersection.

Location Alternative:

Only one Location Alternative has been identified. The proposed Portion of land is already owned by Curro Holdings.

Provide a description of the alternatives considered

No.	Design Alternative
	N/A

No.	Layout Alternative
1.	 **Figure 4: Preferred Layout Alternative of the Access Road.** The preferred layout of the access road will extend from African View Drive and will traverse a distance of seven hundred and thirty meters (730 m). As per the Traffic Impact Assessment conducted by BVi Consulting Engineers the road will have a two-lane configuration, with one (1) lane for incoming and outgoing vehicles respectively. The proposed road will be situated at the following co-ordinates: • Start Point: 25˚ 56' 30.31'' S; 28˚ 06' 24.69'' E; • Mid Point: 25˚ 56' 19.55'' S; 28˚ 06' 29.63'' E; • End Point: 25˚ 56' 07.51'' S; 28˚ 06' 28.56'' E. **Advantages of the Preferred Layout:** 1. The access road will traverse the shortest possible route; 2. The land that will be traversed is owned by Curro Holdings;

	3. The access road won't put additional pressure on the traffic flow of Summit/R55 intersection; and, 4. Adequate turning lanes are already present at the Olifantsfontein/African View Drive intersection. **Disadvantages of the Preferred Layout:** 1. It can become a nuisance to residence using African View Drive as access road to their homes.
2.	 **Figure 5: Alternative 1 of the Access Road.** Alternative 1 will have a two-lane configuration, with one (1) lane for incoming and outgoing vehicles respectively. The proposed road surface will consist of tar. Access will be gained via the Plantation Road/Summit Road Intersection and traverse a distance of four hundred and twenty meters (420 m) to the Plantation Road/Witbos Road Intersection. At the intersection it will make a right turn and traverse a distance of nine hundred and eighty six meters (986 m); where after a left turn is made towards the entrance gate of the proposed development. The entrance gate will be situated two hundred and eighty eight meters (288 m) from the corner. The proposed alternative will be situated at the following co-ordinates: • Start Point: 25˚ 56' 26.39'' S; 28˚ 05' 58.99'' E; • Mid Point: 25˚ 56' 14.75'' S; 28˚ 06' 11.99'' E; • End Point: 25˚ 56' 07.51'' S; 28˚ 06' 28.56'' E. Advantages of Alternative 1: 1. The proposed extention of Witbos Street would cause the migration of traffic flow and would relieve some pressure from the R55/Summit Road intersection. Disadvantages of Alternative 1: 1. The road will cover a greater distance than the preferred alternative; 2. The Wibos Road/Plantation Road must be formalised and singalised; and, 3. The Plantation Road/Summit Road Intersection is situated in close proximity to the Summit Road/R55 intersection.

No.	Location Alternative
	N/A

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

N/A

1.4 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 ***(Total environmental (landscaping, parking, etc.) and the building footprint)***	8.5 ha
Alternatives:	
Alternative 1 (if any)	N/A
Alternative 2 (if any)	N/A
	Ha/ m^2

or, for linear activities:

	Length of the activity:
Proposed activity	740 m
Alternatives:	
Alternative 1 (if any)	1 720 m
Alternative 2 (if any)	N/A
	m/km

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

	Size of the site/servitude:
Proposed activity	8.5 ha
Alternatives:	
Alternative 1 (if any)	N/A
Alternative 2 (if any)	N/A
	Ha/m^2

1.5 SITE ACCESS

1.5.1 PROPOSAL

		NO
Does ready access to the site exist, or is access directly from an existing road?		**X**
If NO, what is the distance over which a new access road will be built	740 m	

Describe the type of access road planned:

As per the Traffic Impact Assessment compiled by BVi Engineers the access road will have a two-lane configuration, with one (1) lane for incoming and outgoing vehicles respectively. The proposed road surface will consist of tar. Access will be gained via the African View Drive.

Figure 6: Proposed Access Road Layout.

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

1.5.2 ALTERNATIVE 1

Does ready access to the site exist, or is access directly from an existing road?	**No X**
If NO, what is the distance over which a new access road will be built	1 720 m

Describe the type of access road planned:

As per the Traffic Impact Assessment compiled by BVi Engineers the access road will have a two-lane configuration, with one (1) lane for incoming and outgoing vehicles respectively. The proposed road surface will consist of tar. Access will be gained by Summit Road/Plantation Road/Witbos Road.

Figure 7: Alternative Access Road Layout.

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

1.5.3 ALTERNATIVE 2

Does ready access to the site exist, or is access directly from an existing road?	N/A
If NO, what is the distance over which a new access road will be built	N/A

Describe the type of access road planned:

N/A

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

PLEASE NOTE: POINTS 6 TO 8 OF SECTION A MUST BE DUPLICATED WHERE RELEVANT FOR ALTERNATIVES

Section A 6-8 has been duplicated **0** Number of times

(only complete when applicable)

1.6 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); and,
  - 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; and,
- 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; and,
  - 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 kilometers, 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.

1.7 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.

1.8 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.

2 SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

NOTE: COMPLETE SECTION B FOR THE PROPOSAL AND ALTERNATIVE(S) (IF NECESSARY)

Instructions for completion of Section B for linear activities:

1. For linear activities (pipelines etc) it may be necessary to complete Section B for each section of the site that has a significantly different environment;
2. Indicate on a plan(s) the different environments identified;
3. Complete Section B for each of the above areas identified;
4. Attach to this form in a chronological order; and,
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	**0**	times

Instructions for completion of Section B for location/route alternatives:

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

Section B has been duplicated for location/route alternatives	**0**	times

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.	**N/A**	(complete only when appropriate for above)

2.1 PROPERTY DESCRIPTION

Property description: (Including Physical Address and Farm name, portion etc.)	The proposed project is situated on Portion 54 of the Farm Blue Hills No. 397 in Midrand Gauteng Province. Towards the west of the development is the R55 road and Summit Road towards the south.

2.2 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.

Alternative: **Latitude (S):** **Longitude (E):**

25° 55' 59.43'' S	28° 06' 24.28'' E
25° 55' 59.89'' S	28° 06' 26.70'' E
25° 56' 16.59'' S	28° 06' 30.74'' E
25° 56' 15.63'' S	28° 06' 21.25'' E

In the case of linear activities:

Alternative:

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

Latitude (S):	Longitude (E):
25° 56' 30.31'' S	28° 06' 24.69'' E
25° 56' 19.55'' S	28° 06' 29.63'' E
25° 56' 07.51'' S	28° 06' 28.56'' E

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 **N/A**

The 21 digit Surveyor General code of each cadastral land parcel

PROPOSAL	T	O	J	R	0	0	0	0	0	0	0	0	0	3	9	7	0	0	0	5	4
ALT. 1	T	O	J	R	0	0	0	0	0	0	0	0	0	3	9	7	0	0	0	5	4

2.3 GRADIENT OF THE SITE

Indicate the general gradient of the site.

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

2.4 LOCATION IN LANDSCAPE

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

Ridgeline	Plateau	Side slope of hill/ridge	Valley	**Plain X**	**Undulating plain/low hills X**	River front

2.5 GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site located on any of the following?

Shallow water table (less than 1.5m deep)	**NO X**
Dolomite, sinkhole or doline areas	**NO X**
Seasonally wet soils (often close to water bodies)	**NO X**
Unstable rocky slopes or steep slopes with loose soil	**NO X**
Dispersive soils (soils that dissolve in water)	**NO X**
Soils with high clay content (clay fraction more than 40%)	**NO X**

Any other unstable soil or geological feature	[redacted]	**NO X**
An area sensitive to erosion	[redacted]	**NO X**

(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)	[redacted]	**NO X**

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):**
N/A	N/A

c) are any caves located within a 300m radius of the site(s)	[redacted]	**NO X**

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):**
N/A	N/A

d) are any sinkholes located within a 300m radius of the site(s)	[redacted]	**NO X**

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):**
N/A	N/A

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

2.6 AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 4)?	[redacted]	**NO X**

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

2.7 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**	Natural veld with heavy alien	Veld dominated by alien species	Landscaped (vegetation)

% =	**aliens % = 87**	infestation % =	% =	% =
Sport field % =	Cultivated land % =	Paved surface (hard landscaping) % =	**Building or other structure % = 3**	**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		**NO X**

If YES, specify and explain:

N/A

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.		**NO X**

If YES, specify and explain:

N/A

Are there any special or sensitive habitats or other natural features present on the site?	**YES X**	

If YES, specify and explain:

1. Vegetation Type:

The vegetation type is classified as Egoli Granite Grassland (GM 10) according to Mucina and Rutherford (2006). This vegetation type is considered endangered, with only 3% conserved in statutory reserves. More than two thirds have already been transformed, mostly by urbanization, agriculture or by road construction. Current rates of transformation threatens most of the remaining un-conserved areas. It is characterized by moderately undulating planes and low hills, with rocky outcrops and rock sheets were present. The herbaceous layer is dominated by tall grasses, usually *Hyparrhenia hirta*. This area consists of archaean granites and gneisses of Halfway House Granite, supporting leaches shallow coarsely grained sandy soils that is poor in nutrients, mainly of the Glenrosa form.

The tall shrub component is made up of *Sersia pyroides. Sersia pyroides* are found on site in different sizes ranging from tall- to small shrubs. The taller shrub individuals should preferably not be removed and should be merged into the development footprint if possible.

FAMILY	GENUS	SPECIES	IUCN	CRITERIA
Apocynaceae	Gomphocarpus	*Fruticosus*	Least Threatened	N/A
Apocynaceae	Gomphocarpus	*Physocarpus*	Least Threatened	N/A
Anacardiaceae	Searsia	*Lancea*	Least Threatened	N/A
Anacardiaceae	Searsia	*Pyroides*	Least Threatened	N/A
Asteraceae	Felicia	*muricata*	Least Threatened	N/A
Asteraceae	Haplocarpa	*Scaposa*	Least Threatened	N/A
Asteraceae	Helichrysum	*Rugulosum*	Least Threatened	N/A
Asteraceae	Seriphium	*Plumosum*	Least Threatened	N/A
Convolvulaceae	Ipomoea	*Obscura*	Least Threatened	N/A
Lamiaceae	Leonotis	*Ocymifolia*	Least Threatened	N/A

Hyacinthaceae	Ledebouria	*revoluta*	Least Threatened	N/A
Hypoxidaceae	*Hypoxis*	*Hemerocallidae*	Least Threatened	N/A
Poaceae	*Cynodon*	*Dactylon*	Least Threatened	N/A
Poaceae	*Eragrotis*	*Pseudo-obtusa*	Least Threatened	N/A
Poaceae	*Hyparrhenia*	*Hirta*	Least Threatened	N/A
Poaceae	*Melinis*	*Repens*	Least Threatened	N/A
Poaceae	*Sporobolus*	*fimbriatus*	Least Threatened	N/A

2. Present Ecological State (PES) and Ecological Importance and Sensitivity (EIS):

The proposed nursery school and associated infrastructure will completely transform the existing surface vegetation inside the development footprint. The PES score of the development footprint is D. The area is extremely modified by the surrounding urban residential area, dumping of building rubble and frequent fires. Some loss and change of natural habitat and biota have occurred, but the basic ecosystem functions are still predominantly unchanged.

Furthermore, the EIS score is D. While the veld type is Endangered, the Specific area has no ecological importance anymore. It does not form part of an ecological corridor anymore and is totally isolated from any other patch of the same veld type. Biodiversity in this site is not usually sensitive to flow and habitat modifications. Some species might be threatened by the development but will have difficulty to find suitable habitat nearby.

The disturbed conditions, dumping, alien invasion and veld fires has resulted in the area achieving low PES and EIS scores. This section is therefore not of high conservational significance for habitat preservations or ecological functionality persistence in support of the surrounding ecosystem or broader vegetation type.

3. Mammals

Mammals of conservation concern from the QDGS are listed within the Ecological Impact Assessment. Some species are unlikely to occur and are not mentioned, like the lion. If other species were to be found on site, the small footprint of the development is unlikely to be significantly impacted upon. No burrows or any other presence of any small mammals were noticed during the site visit.

4. Insects

No listed dung beetles are found in the QDGS. No Neoroptera and Megaloptera of conservation concern are known from the QDGS. The area is disturbed and the development footprint is small. It is unlikely to be significantly impact on entomology. The insects are mobile and can relocate from the development footprint to the adjacent area. No listed butterflies or moths are known to occur in the development area. No listed spiders or scorpions are known to occur in the area and these species are presumed to move away from the construction site due to increased disturbance.

5. Amphibians

Pyxicephalus adspersus (Giant Bullfrog) is known from the QDGS and is near threatened. Urbanisation threatens the habitat of this species. In this case, from the lack of any open water and the gravelly nature of the soil, it is unsure if the proposed area will support any population of this specie. The specie is fossorial (digging holes and staying in sandy soils). It breeds between October and February in shallow non-permanents water, wetlands and edges of dams, none of which are present in the study area. Even though Giant Bullfrogs are territorial, they will likely move away due to increased presence of people.

6. Reptiles

The only species of conservation concern known from the QDGS is *Crocodylus niloticus* (Nile crocodile listed as vulnerable) but is almost unlikely to be found in the surrounding area and will not be affected by the development.

7. Birds

Three bird species were noticed in the study area. These are the Crowned plover (*Vanellus coronatus*), Southern Black korhaan (*Eupodotis afra*), Swainson's francolin (*Francolinus swainsonii*). These birds will in all probability all move away during construction with only the Crowned plover likely to return as these birds readily adapt to living in residential areas.

Was a specialist consulted to assist with completing this section?	**YES** X	

If yes complete specialist details

Name of the specialist:	Dr Lloyd Rossouw		
Qualification(s) of the specialist:	Ph.D Archaeology		
Postal address:	P.O. Box 266, Bloemfontein		
Postal code:	9300		
Telephone:	-	Cell:	084 250 5992
E-mail:	Lloyd.rosouw@gmail.com	Fax:	-

Are any further specialist studies recommended by the specialist?		**NO** X

Name of the specialist:	Dirk van der Merwe		
Qualification(s) of the specialist:	Civil Engineering		
Postal address:	P.O. Box 86, Century City		
Postal code:	7446		
Telephone:	021 527 7000	Cell:	084 232 4696
E-mail:	dirkvdm@bviwc.co.za	Fax:	021 527 7001

Are any further specialist studies recommended by the specialist?		**NO** X

Name of the specialist:	Hein Potgieter		
Qualification(s) of the specialist:	M.SA (Sustainable Agriculture)(UFS: 2002)		
Postal address:	Suite 116, Private Bag X01, Brandhof		
Postal code:	9324		
Telephone:	051 436 9675	Cell:	071 165 4497
E-mail:	hein@enviroworks.co.za	Fax:	086 601 7507

Are any further specialist studies recommended by the specialist?		**NO** X

If YES, specify:	N/A
If YES, is such a report(s) attached?	N/A

If YES list the specialist reports attached below

The following Specialist Studies were conducted during the EIA Process:

- Ecological Impact Assessment;
- Traffic impact Assessment; and,
- Heritage Impact Assessment.

Signature of specialist: _____ Date:

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

2.8 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 X	**2. River, stream, wetland X**	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	**7. Agriculture X**	**8. Low density residential X**	**9. Medium to high density residential X**	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 X	22. Airport[N]	23. Train station or shunting yard[N]	24. Railway line[N]	**25. Major road (4 lanes or more)[N] X**
26. Sewage treatment plant[A]	27. Landfill or waste treatment site[A]	28. Historical building	29. Graveyard	30. Archeological site
31. Open cast mine	32. Underground mine	33.Spoil heap or slimes dam[A]	34. Small Holdings	
Other land uses (describe):	N/A			

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

NORTH

	9	**9**	**1**	
7 &25	**1**	**1**	**8 & 21**	**8 & 21**
1 &25	**1**		**8 & 21**	**8 &21**
1 &25	**1**	**9**	**9**	**8 & 21**
	25	**25**	**25**	

WEST EAST

SOUTH

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

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

Have specialist reports been attached?	**YES X**	

If yes indicate the type of reports below

The following Specialist Reports have been compiled:

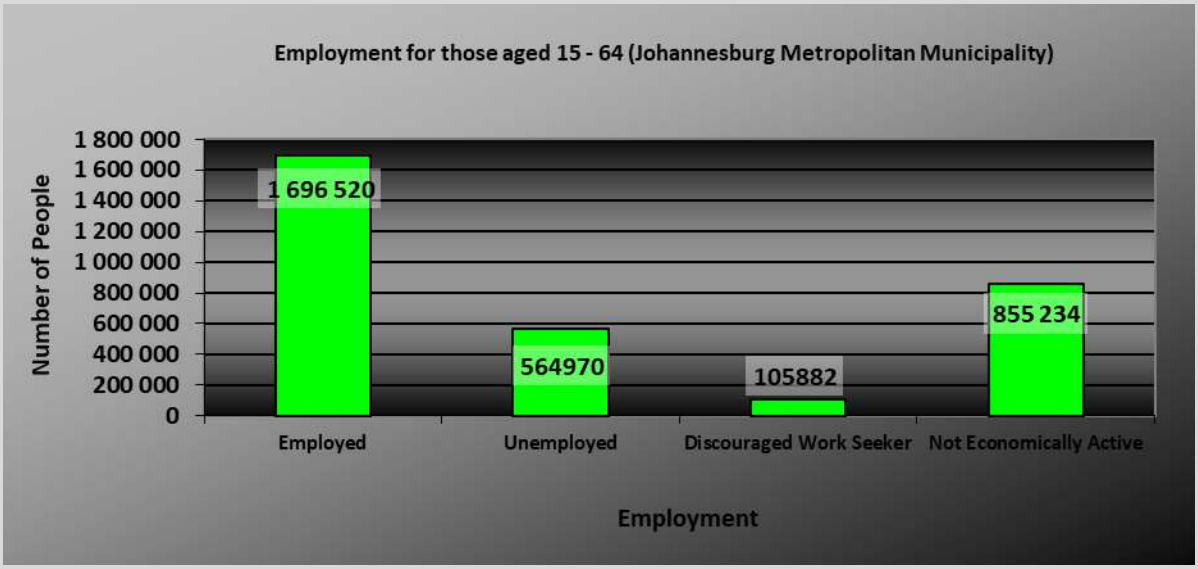
- Ecological Impact Assessment;
- Traffic Impact Assessment; and,
- Preliminary Heritage Study.

2.9 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.

Level of Unemployment:

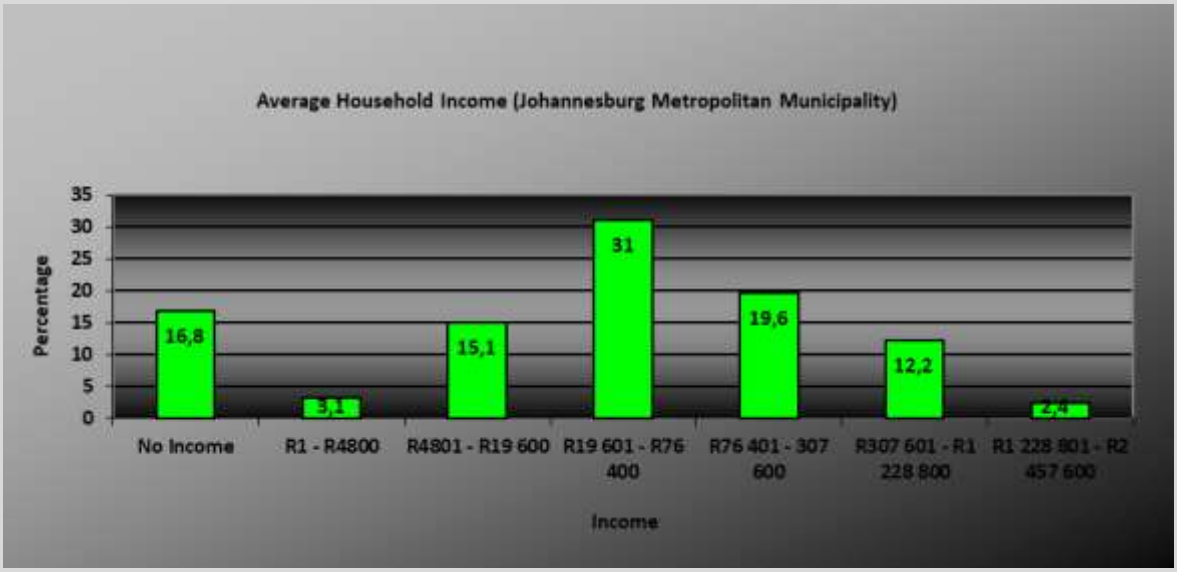
There are 2 261 490 economically active (employed or unemployed but not looking for work) people in the City of Johannesburg; of these 25% are unemployed. Thirty one and a half percent (31.5 %) of the economically active youth are unemployed.



(Statistics South Africa)

Economic Profile of the Local Municipality:

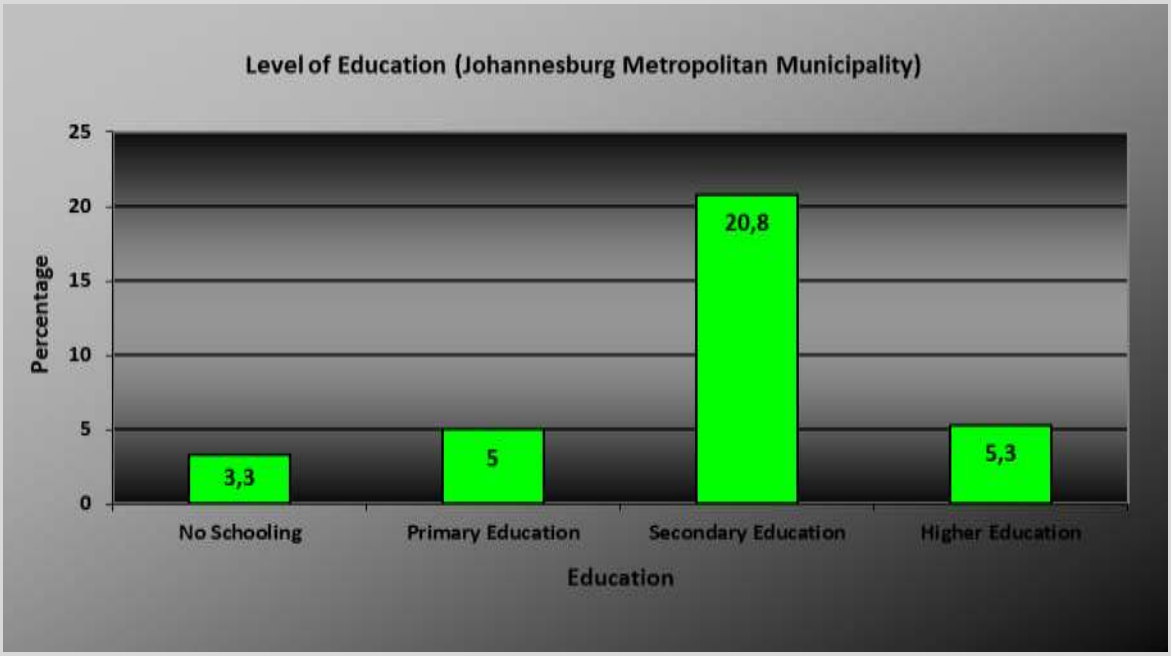
The Economic Profile of the City of Johannesburg Metropolitan Municipality is summarized below.



(Statistics South Africa)

Level of Education:

The population figures estimate that there are 4 400 000 people that live in the City of Johannesburg Metropolitan Municipality. Of those 20 years and older, 3.4 % have completed primary school, 34.9 % have completed matric and 2.9 % have no form of schooling. The education levels are as follows:



(Statistics South Africa)

2.10 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?		**NO** **x**

If YES, explain:

N/A

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

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

The site is underlain by metamorphic rocks considered to be of no palaeontological significance. The overlying Quaternary component (geologically recent superficial sediments/residential soils) is also regarded as of low palaeontological significance mainly due to extensive terrain (Google Earth) degradation and a lack of suitable alluvial, spring or pan deposits in the area. There is no record of archaeologically or historically significant structures situated within the proposed development footprint. Google Earth images indicate that development will be conducted in an area that has already been altered by modern activities. Several structures located within the footprint have been demolished between 2013 and 2016. An existing road is providing access to the site. As far as the palaeontological heritage s concerned, the proposed development may proceed with no further palaeontological assessment required. Given the degraded terrain, impact on potentially in situ archaeological remains, rock art localities, graves, pre-historic or historically significant structures within the study area is considered unlikely. The proposed development footprint is assigned a site rating of Generally Protected C (GP. C).

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

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

3 SECTION C: PUBLIC PARTICIPATION (SECTION 41)

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

3.1 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** **X**	
If yes, has any comments been received from the local authority?	**YES** **X**	

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

This will be completed once the initial Public Participation Process has been completed.

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

This will be completed once the initial Public Participation Process has been completed.

3.2 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

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

This will be completed once the initial Public Participation Process has been completed.

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

This will be completed once the initial Public Participation Process has been completed.

3.3 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.

3.4 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

4 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;
2. Each alterative needs to be clearly indicated in the box below; and,
3. Attach the above documents in a chronological order.

Section D has been duplicated for alternatives	**0**	times

Section D Alternative No.	**0**	(complete only when appropriate for above)

4.1 WASTE, EFFLUENT, AND EMISSION MANAGEMENT

4.1.1 SOLID WASTE MANAGEMENT

Will the activity produce solid construction waste during the construction/initiation phase?	**YES** **X**	
If yes, what estimated quantity will be produced per month?	± 23 m^3	

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

Solid waste will be generated during the construction of the new buildings, the clearing of vegetation on site as well as during the construction phase. Solid waste will include building rubble, vegetated matter and cement bags from foundation construction. The solid waste generated during the construction phase will be collected in containers and transported with a truck from the site to the local registered landfill site.

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

Waste will be disposed of at the Rand Water Zuikerbosch Landfill Site which is classified as a G:S:B+ landfill (Registration Number: 12/9/11/108).

Will the activity produce solid waste during its operational phase?	**YES** **X**	
If yes, what estimated quantity will be produced per month?	11 m^3	

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

A registered disposal company will be appointed for the disposal and management of waste.

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?		**NO** **X**

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

N/A

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?		**NO** **X**

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?		NO X

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

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

All recyclable packaging produced during the construction period will be recycled as provided for in the EMP. Should the school be decommissioned, all re-useable components will be deployed to alternative facilities or be recycled.

4.1.2 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?		NO X
If yes, what estimated quantity will be produced per month?		N/A
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)?		NO X

Will the activity produce any effluent that will be treated and/or disposed of on site?		NO X
If yes, what estimated quantity will be produced per month?		N/A

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

N/A

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?		NO X

If yes, provide the particulars of the facility:

Facility name:	N/A		
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:

N/A, all waste water will feed into the municipal system.

4.1.3 LIQUID EFFLUENT (DOMESTIC SEWAGE)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?	YES X	
If yes, what estimated quantity will be produced per month?	Unknown at this stage	
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)?		NO X

Will the activity produce any effluent that will be treated and/or disposed of on site?		NO X

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

N/A

4.1.4 EMISSIONS INTO THE ATMOSPHERE

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

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

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

Except for vehicles of parents offloading school children the proposed development will not release any emissions into the atmosphere.

4.2 WATER USE

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

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

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate

the volume that will be extracted per month:	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?		**NO X**

If yes, list the permits required

N/A

If yes, have you applied for the water use permit(s)?		**NO X**
If yes, have you received approval(s)? (attached in appropriate appendix)		**NO X**

4.3 POWER SUPPLY

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

Power will be obtained from the Local Municipality.

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

N/A

4.4 ENERGY EFFICIENCY

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

N/A

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

N/A

5 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).

5.1 ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

This will be completed once the initial Public Participation Process has been conducted.

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

This will be completed once the initial Public Participation Process has been conducted.

5.2 IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE

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

Impact Assessment Methodology

For each potential impact, the **EXTENT** (Spatial scale), **MAGNITUDE** (degree of the impact), **DURATION** (time scale), **PROBABILITY** (occurrence), **IRREPLACEABILITY** (loss of resources) and the **REVERSIBILITY** (degree to which the proposed impact can be reversed) will be assessed by the EAP as well as the Specialists. The assessment of the above criteria will be used to determine the significance of each impact, with and without the implementation of the proposed mitigation measures. The scale to be used to assess these variables and to define the rating categories are tabulated in **Table 1** and **Table 2** below.

Table 1: Evaluation components, ranking scales and descriptions (criteria).

Evaluation component	Ranking scale and description (criteria)
MAGNITUDE of NEGATIVE IMPACT (at the indicated spatial scale)	**10 - Very high**: Bio-physical and/or social functions and/or processes might be *severely* altered. **8 - High**: Bio-physical and/or social functions and/or processes might be *considerably* altered. **6 - Medium**: Bio-physical and/or social functions and/or processes might be *notably* altered. **4 - Low** : Bio-physical and/or social functions and/or processes might be *slightly* altered. **2 - Very Low**: Bio-physical and/or social functions and/or processes might be *negligibly* altered. **0 - Zero**: Bio-physical and/or social functions and/or processes will remain *unaltered.*
MAGNITUDE of POSITIVE IMPACT (at the indicated spatial scale)	**10 - Very high (positive)**: Bio-physical and/or social functions and/or processes might be *substantially* enhanced. **8 - High (positive)**: Bio-physical and/or social functions and/or processes might be *considerably* enhanced. **6 - Medium (positive)**: Bio-physical and/or social functions and/or processes might be *notably* enhanced. **4 - Low (positive)**: Bio-physical and/or social functions and/or processes might be *slightly* enhanced.

	2 - Very Low (positive): Bio-physical and/or social functions and/or processes might be *negligibly* enhanced. **0 - Zero (positive)**: Bio-physical and/or social functions and/or processes will remain *unaltered.*
DURATION	**5 - Permanent** **4 - Long term**: Impact ceases after operational phase/life of the activity > 60 years. **3 - Medium term**: Impact might occur during the operational phase/life of the activity – 60 years. **2 - Short term**: Impact might occur during the construction phase - < 3 years. **1 - Immediate**
EXTENT (or spatial scale/influence of impact)	**5 - International**: Beyond National boundaries. **4 - National**: Beyond Provincial boundaries and within National boundaries. **3 - Regional**: Beyond 5 km of the proposed development and within Provincial boundaries. **2 - Local**: Within 5 km of the proposed development. **1 - Site-specific**: On site or within 100 m of the site boundary. **0** - None
IRREPLACEABLE loss of resources	**5 – Definite** loss of irreplaceable resources. **4 – High** potential for loss of irreplaceable resources. **3 – Moderate** potential for loss of irreplaceable resources. **2 – Low** potential for loss of irreplaceable resources. **1 – Very low** potential for loss of irreplaceable resources. **0 - None**
REVERSIBILITY of impact	**5 –** Impact **cannot** be reversed. **4 – Low** potential that impact might be reversed. **3 – Moderate** potential that impact might be reversed. **2 – High** potential that impact might be reversed. **1 –** Impact **will be** reversible. **0 –** No impact.
PROBABILITY (of occurrence)	**5 - Definite**: >95% chance of the potential impact occurring. **4 - High probability**: 75% - 95% chance of the potential impact occurring. **3 - Medium probability**: 25% - 75% chance of the potential impact occurring **2 - Low probability**: 5% - 25% chance of the potential impact occurring. **1 - Improbable**: <5% chance of the potential impact occurring.
Evaluation component	**Ranking scale and description (criteria)**
CUMULATIVE impacts	**High**: The activity is one of several similar past, present or future activities in the same geographical area, and might contribute to a very significant combined impact on the natural, cultural, and/or socio-economic resources of local, regional or national concern. **Medium**: The activity is one of a few similar past, present or future activities in the same geographical area, and might have a combined impact of moderate significance on the natural, cultural, and/or socio-economic resources of local, regional or national concern. **Low**: The activity is localised and might have a negligible cumulative impact. **None**: No cumulative impact on the environment.

Table 2: Definition of significance ratings (positive and negative).

Significance Points	Environmental Significance	Description
125 – 150	**Very high (VH)**	An impact of very high significance will mean that the project cannot proceed, and that impacts are irreversible, regardless of available mitigation options.
100 – 124	**High (H)**	An impact of high significance which could influence a decision about whether or not to proceed with the

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 construction phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Planning, design and construction phase	**Layout Alternative 1**		**Layout Alternative 2**		**No-Go Alternative**
	Before Mitigation	**After Mitigation**	**Before Mitigation**	**After Mitigation**	
POTENTIAL IMPACTS ON GEOGRAPHICAL AND PHYSICAL ASPECTS :					
Nature of impact: Negative impact of haphazard placement of site infrastructure on the environment.	**Activity:** The establishment of a main site office and storage site during the construction period will ensure that the poor placement of materials and infrastructure will be avoided. This could also result in the damage or pollution to surrounding areas caused by construction activities.				No construction phase impacts are associated with the no-go alternative thus no assessment has been undertaken.
Magnitude:	4	2	4	2	-
Duration:	2	2	2	2	-
Extent:	1	0	1	0	-
Irreplaceable:	2	1	2	1	-
Reversibility:	1	0	1	0	-
Probability:	4	3	4	3	-
Total SP:	40	15	40	15	-
Significance rating:	M	L	M	L	-
Cumulative impact:	-	-	-	-	-
Proposed Mitigation:	• Draw up and submit for approval a Site Layout Master Plan. This plan must show the final positions and extent of all permanent and temporary site structures and infrastructure (inclusive of the distance from any sensitive environmental areas); • The planning of the layout must be done in consultation, on-site, with the Environmental Control Officer (ECO); • The contractor may not deface, paint, damage or mark any natural features situated outside the development footprint; • The contractor must ensure that all construction personnel, labourers and equipment remain within the demarcated construction sites at all times; • No servicing of vehicles may be permitted on site, unless for emergency purposes; • Stockpiles may not be situated in such a manner that they obstruct pathways; • Location of storage area must take into account prevailing winds, distance to water bodies and general on-site topography; • Place infrastructure as far as possible on sites that have already been transformed;				N/A

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
	• Facilities may not be used as staff accommodation; • The Contractors camp layout must take into account availability of access for deliveries and services and any future works; • The Contractors camp must be of sufficient size to accommodate the needs of all sub-contractors that may work on the project; and, • The Contractor must implement the following as required: ➢ Suitable sanitation facilities, adequate for the number of staff on site (1 for every 15 personnel and 1 for each gender); and, ➢ Facilities for solid waste collection.				
Nature of impact: Topsoil Removal and Soil Erosion	**Activity:** The clearing of topsoil and excavation for the establishment of building foundations may result in the destruction of fertile topsoil.				No construction phase impacts are associated with the no-go alternative thus no assessment has been undertaken.
Magnitude:	6	2	6	2	-
Duration:	2	2	2	2	-
Extent:	1	1	1	1	-
Irreplaceable:	2	1	2	1	-
Reversibility:	3	2	3	2	-
Probability:	4	3	4	3	-
Total SP:	56	24	56	24	-
Significance rating:	M	L	M	L	-
Cumulative impact:	L	-	L	-	-
Proposed Mitigation:	• Remove topsoil approximately 300mm deep from establishment area and stockpile areas; • Stockpile topsoil separately from sub-soil, in heaps not higher than 2m; • Topsoil stockpiles to be kept free from weeds; • Topsoil stockpiles to be placed on a levelled area and measures to be implemented to safeguard the piles from being washed away in the event of heavy rain/storm water; • Topsoil needs to be stored on designated areas only. This needs to be planned and indicated in the site-layout plan; • Ensure that topsoil is not mixed with subsoil and/or any other excavated material;				N/A

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
	• Provide containment and settlement facilities for effluents from concrete mixing and washing facilities; • Temporarily stored topsoil must be re-applied within 6 months; • Provide spill containment facilities for hazardous materials like fuel and oil; • Implement suitable erosion prevention measures; • Adequate stormwater management measures must be implemented on site in order to sufficiently manage stormwater runoff from the construction site during the construction phase. • Topsoil must be used in all rehabilitation activities, and may not be compacted to ensure that its plant support capacity remain of high quality; and, • Following rehabilitation activities any excess top soil is to be removed and site and disposed of at a registered solid waste landfill site (Zuikerbosch Landfill).				
Nature of impact: Surface and groundwater contamination due to construction activities such as the use of hazardous materials on site e.g. fuel and oil.	**Activity:** Spills could possibly occur on site and lead to the contamination of soil and groundwater.				No construction phase impacts are associated with the no-go alternative thus no assessment has been undertaken.
Magnitude:	8	6	8	6	-
Duration:	2	2	2	2	-
Extent:	2	1	2	1	-
Irreplaceable:	3	3	3	3	-
Reversibility:	4	2	4	2	-
Probability:	4	3	4	3	-
Total SP:	76	42	76	42	-
Significance rating:	MH	M	MH	M	-
Cumulative impact:	L	-	L	-	-
Proposed Mitigation:	• Concrete must be mixed on mixing trays only and not on exposed soil. Concrete must be mixed only in areas which have been specially demarcated for this purpose (preferable where no natural vegetation occur); • Concrete mixing to be carried out away from sensitive areas and on impermeable surfaces;				N/A

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
	• Material Safety Data Sheets (MSDSs) must be available on site for all chemicals and hazardous substances to be used on-site, including information on their ecological impacts and how to minimise the impacts in case of leakage; • All spillage must be cleaned up immediately after they have occurred and proof must be available; • Spillage of petrochemical products must be avoided. In the case of accidental spillage, contaminated soil must be removed for bio-remediation or disposed of at a facility for the substance concerned. Disturbed land must be rehabilitated; • Do not locate any ablution facilities, sanitary convenience, septic tank or French drain within the 1:100 year flood line, or within a horizontal distance of 100m (whichever is greater) of a watercourse or drainage line; • Vehicles and machinery must be regularly serviced to avoid leakages; • At the work site the Contractor must maintain strict surveillance to ensure that no spills occur; • No water courses may be used to clean equipment, or for bathing. All cleaning operations must take place off site at a location where waste water can be disposed of correctly; • The discharge of any pollutants such as cement, concrete, lime, chemicals, etc. into the natural environment and the storm water system must strictly be prohibited; • Fuel and chemical storage must be done within a designated area only, which is properly bund and able to contain 110% of the capacity of fuel or chemicals stored within; • Construction vehicles must be inspected every morning before work commence to ensure that no leakages do occur; • All personnel must receive induction on how to report spillages, contain them and treat them accordingly; • Spill kits must be available at each working station; • All surfaces used for waste storage and loading areas should have an impermeable surface; • Stormwater and run-off should be managed and diverted to not be in contact with waste; • Drip trays must be placed beneath all construction equipment that is stationary on site or within the site camp; and, • Hazardous waste must be stored in bins with a lid in a demarcated waste area, and must be disposed of at a hazardous treatment facility with records on file.				
Nature of impact: Handling of general waste materials on the development site.	**Activity:** The presence of personnel and construction operations on site will increase the likelihood of littering and the dumping of solid waste.				No construction phase impacts are associated with the no-go alternative thus no assessment has been undertaken.

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
Magnitude:	6	2	6	2	-
Duration:	2	2	2	2	-
Extent:	2	1	2	1	-
Irreplaceable:	2	1	2	1	-
Reversibility:	1	1	1	1	-
Probability:	4	3	4	3	-
Total SP:	52	21	52	21	-
Significance rating:	M	L	M	L	-
Cumulative impact:	L	-	L	-	-
Proposed Mitigation:	• An adequate number of scavenger proof litter bins are to be placed throughout the site. Two (2) waste bins at least must be present, one (1) for hazardous waste and one (1) for non-hazardous waste at each working site. Dumping of waste on site is prohibited; • Waste sorting and separation must form part of the environmental induction and awareness program, to encourage personnel to collect waste paper, glass and metal waste separately; • Keep all work sites including storage areas, offices and workshops neat and tidy; • Dedicate a demarcated and signposted storage area on site for the collection of construction waste; • All domestic waste is to be removed from site and disposed of at a registered solid waste landfill site (Zuickerbosch Landfill) as mentioned in the Basic Assessment Report; • Care must be taken to ensure that no waste falls off disposal vehicles on-route to the landfill. If needed, a tarpaulin can be utilised; • The burning or burying of solid waste on site is prohibited. Do not burn PVC pipes or other plastic materials, as this is regarded as hazardous waste; • Littering by construction workers shall not be permitted; • General refuse/rubbish shall be removed from site on a weekly basis to an approved registered landfill site or as soon as the waste bins are reaching three quarter full capacity; • Minimise waste by sorting wastes into recyclable and non-recyclable waste; • Ablution facilities must be serviced by a registered service provider, cleaned at least once a week, and safe disposal slips must be on file at the site office; • A bi-weekly (twice a week) litter patrol of the entire site shall be conducted by the designated Environmental Control Officer (ECO);				N/A

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
	• Hazardous waste must be sorted from non-hazardous waste and disposed of at a hazardous treatment facility, records and proof of disposal must be kept; and, • A register must be kept of the quantities of waste disposed and proof of disposal must be available at the site office.				
Nature of impact: Increased risk of veld fires.	**Activity:** Due to the presence of construction personnel in natural areas, fires can occur if not managed to the correct standard.				No construction phase impacts are associated with the no-go alternative thus no assessment has been undertaken.
Magnitude:	10	6	10	6	-
Duration:	2	2	2	2	-
Extent:	2	1	2	1	-
Irreplaceable:	3	3	3	3	-
Reversibility:	4	4	4	4	-
Probability:	3	2	3	2	-
Total SP:	63	32	63	32	-
Significance rating:	M	L	M	L	-
Cumulative impact:	-	-	-	-	-
Proposed Mitigation:	• The potential risk of veld fires is heightened by windy conditions in the area, specifically during the dry, windy winter months; • The Contractor shall take all reasonable and precautionary steps to ensure that fires are not started as a consequence of the activities on site. The Contractor will be held responsible for any damage to structures or property or neighboring the site as a result of any fire caused by personnel; • Ensure the work site and the contractor's camp is equipped with adequate firefighting equipment. This includes at least rubber beaters when working in veldt areas, and at least one fire extinguisher of the appropriate type irrespective of the site; • The Contractor must provide fire-fighting training to selected construction staff and take cognizance of the Veld and Forest Fire Act, Act No. 101, 1998; • Workers must be adequately trained in the handling of firefighting equipment, and can include but not limited to: ➢ Regular fire prevention talks and drills; and, ➢ Posting of regular reminders to staff;				N/A

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
	• No open fires are permitted anywhere on site; • Do not store any fuel or chemicals under trees; • Do not store gas and liquid fuel in the same storage area (Hazardous substances to be stored in accordance with SANS); • Any fires that occur on site shall be reported to the ECO immediately and then to the relevant Authorities; • In the event of a fire, the Contractor shall immediately employ such plant and personnel at his disposal and take all necessary action to prevent the spread of the fire and bring it under control; • Do not permit any smoking within 3m of any fuel or chemical storage area, or refueling area. A designated smoking area must be established on site; and • All construction vehicles must be fitted with at least one fire extinguisher.				
Nature of impact: Destruction of fauna and flora associated with the movement of construction vehicles on site.	**Activity:** The movement of vehicles on site may result in the destruction of biodiversity, compaction of valuable topsoil and mortalities of fauna on site.				No construction phase impacts are associated with the no-go alternative thus no assessment has been undertaken.
Magnitude:	4	2	4	2	-
Duration:	2	2	2	2	-
Extent:	2	2	2	2	-
Irreplaceable:	2	2	2	2	-
Reversibility:	4	4	4	4	-
Probability:	3	2	3	2	-
Total SP:	42	24	42	24	-
Significance rating:	M	L	M	L	-
Cumulative impact:	-	-	-	-	-
Proposed Mitigation:	• During construction create designated turning areas and strictly prohibit any off-road driving or parking of vehicles and machinery outside designated areas; • Monitor the establishment of (Alien) Invasive Species and remove as soon as detected, before regenerative material can be formed; • All drivers must adhere to the site speed limit of 40 km/h;				N/A

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
	• Abnormal loads and machinery should avoid movement over gravel roads during and immediately after rainfall events, so as to limit destruction of road surfaces and sedimentation of downhill rivers/streams; • All vehicles must be road-worthy, be maintained to prevent fuel or oil leaks and drivers are to the licensed appropriately for the driving of their assigned vehicle. Drivers responsible for the transportation of personnel must be specifically licensed to do so; • Signage is to be placed on vehicles at all times; • Any fauna threatened by construction activities should be removed to safety by the ECO or another suitably qualified person; • After decommissioning, if access roads or portions thereof will not be of further use to the landowner, remove all foreign material and rip area to facilitate the establishment of vegetation, followed by a suitable revegetation program, and • Construction-related vehicles and machinery may not operate on site without reflective safety signage, car-top lights and reflective personnel gear.				
Nature of impact: Traffic impacts associated with the movement of construction vehicle.	**Activity:** The movement of vehicles in the vicinity of the construction site may cause damage to road surfaces as well as increase in the traffic volume within the Blue Hills area.				No construction phase impacts are associated with the no-go alternative thus no assessment has been undertaken.
Magnitude:	4	2	6	4	-
Duration:	2	2	2	2	-
Extent:	3	3	3	3	-
Irreplaceable:	1	1	1	1	-
Reversibility:	3	2	3	3	-
Probability:	4	3	5	4	-
Total SP:	52	30	75	52	-
Significance rating:	M	L	MH	M	-
Cumulative impact:	M	-	H	MH	-
Proposed Mitigation:	• Abnormal loads must be timed to avoid times of year when traffic volumes are likely to be higher, as would be expected over national holidays, weekends and school holiday periods; • Furthermore; loads should be timed to avoid times of the day when traffic volumes are likely to be higher (06:00				N/A

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
	– 09:00 and 16:00 – 18:00); • Vehicles used for transport of materials and sand must be fitted with tarpaulins to prevent the release of such material or items onto road surfaces; • Any damage to public roads is to be reported to the management authority and repaired to its original condition; • In order for the transport network to function more effectively, it is recommended that all gravel roads in the immediate vicinity of the development and intersections be formalized and the Witbos Street and Plantation Road intersections be signalized; • Access must be gained via Plantation Road and the R55/Summit Road must be avoided as far as possible; • Transport of materials should be limited to the least amount of trips possible; and, • Abnormal loads may not be transported after dark.				

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
POTENTIAL IMPACTS ON BIOLOGICAL ASPECTS:					
Nature of impact: Direct impact on vegetation during construction and loss of species.	**Activity:** The construction of several permanent structures on site will result in the loss of vegetation due to foundation excavation.				No impact will occur as the development activities will not take place. Vegetation and habitat features of the proposed development site will remain unaffected.
Magnitude:	6	4	6	4	-
Duration:	5	5	5	5	-
Extent:	1	1	1	1	-
Irreplaceable:	2	0	2	0	-
Reversibility:	1	1	1	1	-
Probability:	5	3	5	3	-
Total SP:	75	33	75	33	-
Significance rating:	MH	L	MH	L	-
Cumulative impact:	L	-	L	-	-
Proposed Mitigation:	• Keep areas affected to a minimum, strictly prohibit any disturbance outside the demarcated foundation				N/A

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
	footprint area; • Clear as little indigenous vegetation as possible, aim to maintain vegetation where it will not interfere with the construction or operation of the development, rehabilitate an acceptable vegetation layer according to rehabilitation recommendations of the relevant EMP'r, if possible; • Indigenous vegetation unique to the area must be used during landscaping activities; • There must be a pre-construction environmental induction for all construction staff on site to ensure that basic environmental biodiversity principles are adhered to; • Where the ECO deems it necessary (e.g. sensitive, natural areas) the ecologist appointed to do the vegetation study will be utilised; • Restoration measures will be required to reinstate functionality in the disturbed soil and vegetation; • Impacts to sensitive sites (drainage lines) must be avoided; • An additional ecological walkthrough be conducted prior to commencement of the project during the flowering period to ensure that no provincially- or nationally protected or significant species have been omitted; • Posters of species of conservation concern should be kept on site where they will be visible to construction workers; • Ensure the upkeep of demarcation boundaries throughout the period of construction until rehabilitation has been completed; • No vegetation may be gathered for the purpose of creating fire; and, • Areas to be cleared should be agreed and demarcated before the start of the clearing operations.				
Nature of impact: Alien invasive species establishment within the development area.	**Activity:** Alien Invasive Species present on the site may spread and establish within the development area.				No impact will occur as the development activities will not take place. Vegetation and habitat features of the proposed development site will remain unaffected.
Magnitude:	6	4	6	4	-
Duration:	2	2	2	2	-
Extent:	2	2	2	2	-
Irreplaceable:	2	0	2	0	-
Reversibility:	1	0	1	0	-
Probability:	4	3	4	3	-

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
Total SP:	52	24	52	24	-
Significance rating:	M	L (+)	M	L (+)	-
Cumulative impact:	L	-	L	-	-
Proposed Mitigation:	• Alien invasive vegetation material cleared during construction activities must be adequately disposed of at a suitable, certified 'green waste' disposal site in order to prevent further spreading; • Prevent any cleared Alien Invasive Species material from entering the development area; • Implement suitable Alien Invasive Species establishment prevention measures during the construction phase; and, • Areas around the proposed project footprint must be adequately rehabilitated to prevent significant Alien Invasive Species establishment. ***Clearing and Guiding Principles*** • Alien control programs are long-term management projects and should include a clearing plan which includes follow up actions for rehabilitation of the cleared area; • The lighter infested areas should be cleared first to prevent seed build-up; • Pre-existing dense areas should be left for last, as they probably will not increase in density or pose a greater threat than they are currently; and, • All clearing actions should be monitored and documented to keep track of which are due for follow-up clearing. ***Clearing Methods*** • Different species require different control methods such as manual, chemical or biological methods or a combination of the two; • Care should be taken to ensure that the clearing methods used do not encourage further invasion. As such, regardless of the methods used, soil disturbance should be kept to a minimum. The vegetative stage of the plants should also be considered before clearing; • Fire is not a natural phenomenon in the area and should not be used in general for alien control or vegetation management at the site. Only *Cylindropuntia sp* should be destroyed by burning after removal, since these plants can spread vegetatively as well as with seed; and, • The best-practice clearing method for each species identified should be used. The preferred clearing methods for most alien species can be obtained from the Department of Water and Agricultural Affairs (DWAF) Working for Water website: http://www.dwaf.gov.za/wfw/Control/.				N/A

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
	Use of Herbicides for Alien Control Although it is usually preferable to use manual clearing methods where possible, such methods may create additional mechanical disturbance which may stimulate alien invasion and may also be ineffective for many woody species which re-sprout. Where herbicides are to be used , the impact of the eradication program on the natural environment should be minimised be observing the following: • Area contamination must be minimised by careful, accurate application with a minimum amount of herbicide to achieve good control; • Care must be taken to prevent contamination of water bodies. This includes special care in storage, application, cleaning equipment and disposal of containers, product and spray mixtures; • Equipment should be washed where there is no danger of contaminating water sources and washings carefully disposed of in a suitable place; • To avoid damage to indigenous or other desirable vegetation, herbicides that would have the least effect on the indigenous vegetation should be used; • Droplet nozzles with a course spray pattern should be fitted to avoid drift of herbicides onto neighbouring vegetation; and, • The appropriate health and safety precautions should be followed regarding the storage, handling and disposal of herbicides.				
Nature of impact: Surface material erosion.	**Activity:** Removal of vegetation and excavation activities will result in the site being prone to the erosion of surface material.				No impact will occur as the development activities will not take place. Vegetation and habitat features of the proposed development site will remain unaffected.
Magnitude:	6	2	6	2	-
Duration:	2	2	2	2	-
Extent:	2	2	2	2	-
Irreplaceable:	3	3	3	3	-
Reversibility:	2	2	2	2	-
Probability:	4	2	4	2	-
Total SP:	60	22	60	22	-

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
Significance rating:	M	L	M	L	-
Cumulative impact:	L	-	L	-	-
Proposed Mitigation:	• Implement suitable erosion prevention measures during the construction phase; • Disturb as little ground area as possible, stabilize that area as quickly as possible, control drainage through the area, and trap sediment onsite; • Conserve topsoil with its leaf litter and organic matter, and re-apply this material to local disturbed areas to promote the growth of local native vegetation; • Maintain and re-apply erosion control measures until vegetation is successfully established; • Areas around the proposed project footprint must be adequately rehabilitated to prevent significant erosion; and, • An adequate Storm water Management Plan must be implemented on site in order to sufficiently manage storm water runoff and clean/dirty separation during the construction and operational phases.				N/A
Nature of impact: Dust nuisance generated by the operation of machinery and vehicles.	**Activity:** The frequent upwelling of dust as consequence of the movement of vehicles and machinery on site may impact on worker health causing asthma and other respiratory conditions. Stockpiles are susceptible to the upwelling of fine particulate matter. Several ambient factors, the terrain characteristics, soil type and land use forms can attribute to the degree of loss and susceptibility of stockpiles towards the generation of dust. Regular watering of exposed surfaces may result in the reduction of wind-generated dust from stockpiles.				No construction phase impacts are associated with the no-go alternative thus no assessment has been undertaken.
Magnitude:	8	4	8	4	-
Duration:	2	2	2	2	-
Extent:	2	2	2	2	-
Irreplaceable:	1	1	1	1	-
Reversibility:	1	1	1	1	-
Probability:	4	3	4	3	-
Total SP:	56	30	56	30	-
Significance rating:	M	L	M	L	-
Cumulative impact:	L	-	L	-	-
Proposed Mitigation:	• Access roads are to be kept clean and dust suppression techniques should be implemented to minimize impacts of vehicle movement; • Implement dust suppression measures by watering areas to be cleared as well as already exposed surfaces with				N/A

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
	damaged soil particles, particularly during dry, windy periods; • Ensure all vehicles remain on designated roads and avoid the opening of detour or by-pass tracks; • Implement speed restrictions for vehicles on gravel roads; • Vehicles delivering or removing soil must be covered to reduce spills and windblown dust; • Any complaints received by the Contractor regarding dust will be recorded and communicated to the ECO; • Ensure all vehicles remain on designated roads and avoid the opening of detour or by-pass tracks; • A speed limit of 30km/h must be applied on gravel roads; and, • After construction decommissioning, if access roads or portions thereof will not be of further use to the landowner, remove all foreign material and rip area to facilitate the establishment of vegetation, followed by a suitable revegetation program.				
Nature of impact: Fauna will be directly impacted as a result of construction activities and human presence at the site.	**Activity:** The construction of facilities will result in some habitat loss for resident fauna, as some species will occur within the affected areas. In addition, increased levels of noise, pollution, disturbance and human presence during construction will be detrimental to resident fauna. Sensitive and shy fauna may move away from the area during the construction phase as a result of the noise and human activities present, while some slow-moving species (such as mole rats or blind snakes) would not be able to avoid the construction activities and might be killed.				No construction phase impacts are associated with the no-go alternative thus no assessment has been undertaken.
Magnitude:	6	2	6	2	-
Duration:	2	2	2	2	-
Extent:	1	1	1	1	-
Irreplaceable:	2	1	2	1	-
Reversibility:	2	0	2	0	-
Probability:	3	2	3	2	-
Total SP:	39	12	39	12	-
Significance rating:	L	L	L	L	-
Cumulative impact:	M	L	M	L	-
Proposed Mitigation:	• The process of clearing of vegetation must start at the south eastern end of Portion 10 and proceed north to allow mobile fauna a chance to escape to the vegetation adjacent to the southern boundary; • No hunting, snaring, shooting, nest raiding or egg collection by the construction staff may be allowed; • Holes and trenches must not be left open for extended periods of time and should only be dug when needed for immediate construction. Trenches that may stand open for some days should have places where the loose				N/A

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
	material has been returned to the trench to form an escape ramp present at regular intervals to allow any fauna that fall in to escape; • Fires should only be allowed within fire safe demarcated area; • Ensure that the construction area is fenced off from adjacent areas which may harbor wild animals; • Do not store building materials and excess stockpiled soils within riparian zones or within areas where natural vegetation occur; and • Should any fauna be discovered, it should be relocated to an area outside the development footprint by a trained professional.				

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
POTENTIAL IMPACTS ON SOCIO-ECONOMIC ASPECTS:					
Nature of impact: Occupational Health and Safety.	**Activity:** During the construction phase, accidents, occupational diseases, ill health and damage to property can occur if pre-cautionary measures are not taken. Increased movement of vehicles may lead to increased accidents among local communities, construction workers and vehicle operators.				No construction phase impacts are associated with the no-go alternative thus no assessment has been undertaken.
Magnitude:	8	4	8	4	-
Duration:	2	2	2	2	-
Extent:	1	1	1	1	-
Irreplaceable:	3	2	3	2	-
Reversibility:	3	3	3	3	-
Probability:	3	2	3	2	-
Total SP:	51	24	51	24	-
Significance rating:	M	L	M	L	-
Cumulative impact:	-	-	-	-	-
Proposed Mitigation:	• Ensure that PPE is available to Personnel; • Adhere to the Occupational Health and Safety Act; • Keep the first aid kit stocked; • Issue all workers with necessary health and safety items; • Potentially hazardous areas must be demarcated with danger tape; • Appropriate signage must be placed to caution Employees and Contractors not to enter certain structures				N/A

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
	without Authorisation; • Regular safety inspections must be conducted to ensure that participants are equipped with necessary safety equipment; • All construction Personnel to wear hard hats and reflector jackets at all times; • There must be a Safety Officer on site who has first aid training and knowledge of safety procedures; • The Contractor must have insurance cover for the workmen; and, • The Contractor must insure all staff have a valid medical certificate.				
Nature of impact: The creation of job opportunities during the construction phase.	Activity: The construction period will create a few job opportunities for individuals residing in the area of Blue Hills.				No construction phase impacts are associated with the no-go alternative thus no assessment has been undertaken.
Magnitude:	2	2	2	2	-
Duration:	2	2	2	2	-
Extent:	3	3	3	3	-
Irreplaceable:	0	0	0	0	-
Reversibility:	0	0	0	0	-
Probability:	4	5	4	5	-
Total SP:	28	35	28	35	-
Significance rating:	L (+)	L (+)	L (+)	L (+)	-
Cumulative impact:	-	-	-	-	-
Proposed Mitigation:	• Where reasonable and practical the contractors appointed by the applicant should appoint local contractors and implement a “local first” policy, especially for semi and low-skilled job categories; and, • The recruitment selection process should seek to promote gender equality and the employment of women wherever possible, particularly for less labour-intensive work such as flag bearing and supervision.				N/A
Nature of impact: Disturbance to Communities	Activity: All construction activities will cause disturbance to the community around the area. Managing the welfare of a significant number of workers is inevitably a mayor challenge, and the co-existence of multiple Contractor crews of workers from diverse ethnic and geographic backgrounds can be problematic.				No construction phase impacts are associated with the no-go alternative thus no assessment has been undertaken.
Magnitude:	8	6	8	6	-
Duration:	2	2	2	2	-

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
Extent:	2	2	2	2	-
Irreplaceable:	1	1	1	1	-
Reversibility:	1	1	1	1	-
Probability:	5	4	5	4	-
Total SP:	70	48	70	48	-
Significance rating:	M	M	M	M	-
Cumulative impact:	M	M	M	M	-
Proposed Mitigation:	• The RE is to establish a formal grievance mechanism through which affected people can lodge a grievance and to help ensure a speedy satisfactory resolution of any disputes; • The Contractor will be required to minimise the risk of grievance with the local communities through implementing the specifications described in the EMP; • Where grievances occur, the Contractor will be required to assist in the process to investigate and resolve the grievance as effectively and quickly as reasonable; • The Contractor shall keep a "Complaints Register" on site. The register shall contain: ➢ All contact details of the person who made the complaint and information regarding the complaint itself; ➢ The investigations undertaken and response provided; ➢ Actions taken and by whom; ➢ Any follow-up actions taken; and, • Copies of complaints received are to be copied to the RE, and where pertinent, the ESO.				N/A

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
POTENTIAL IMPACTS ON CULTURAL-HISTORICAL ASPECTS:					
Nature of impact: Damage and destruction of vertebrate fossils during excavation activities.	**Activity:** Excavation activities can result in the discovery of cultural and historical artefacts beneath the earth surface. Damage or loss can occur if the correct procedures are not followed.				No construction phase impacts are associated with the no-go alternative thus no assessment has been undertaken.
Magnitude:	2	2	2	2	-

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
Duration:	2	2	2	2	-
Extent:	1	0	1	0	-
Irreplaceable:	3	1	3	1	-
Reversibility:	3	1	3	1	-
Probability:	3	3	3	3	-
Total SP:	33	18	33	18	-
Significance rating:	L	L	L	L	-
Cumulative impact:	-	-	-	-	-
Proposed Mitigation:	• Should any heritage resources (including but not limited to fossil bones, coins, indigenous and/or colonial ceramics, any articles of value or antiquity, stone artefacts or bone remains, structures and other built features, rock art and rock engravings) be exposed during excavation for the purpose of construction, construction in the vicinity of the finding must be stopped. A trained Palaeontologist or Heritage Specialist must be notified to assess the finds, and this must then be reported to the applicable Heritage Authority; • Heritage remains uncovered or disturbed during earthworks must not be disturbed further until the necessary approval has been obtained from the Heritage Authority. A registered Heritage Specialist must be called to the site for inspection and removal once Authority to do so, has been given; • Excavations must be limited to the footprint area and be maintained in a narrow corridor; • All operations of excavation equipment must be made aware of the possibility of the occurrence of sub-surface heritage features and the following procedures must be followed: o All construction in the immediate 50 m vicinity radius of the site must cease; o The heritage practitioner must be informed as soon as possible; o In the event of obvious human remains SAPS must be notified; o Mitigation measures (such as refilling, etc.) must not be attempted; o The area in a 50 m radius of the find must be cordoned off with hazard tape; and, • Public access must be limited and the area must be placed under guard;				N/A

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
POTENTIAL VISUAL IMPACTS:					
Nature of impact: Impact on the sense of	**Activity:** The movement of construction vehicles, machinery and personnel on site shall result in a visual impact on				No construction phase impacts are associated with the no-go

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
place for surrounding users.	surrounding users. Furthermore to this, the storage of materials and excavation shall result in disturbance and an unsightly character.				alternative thus no assessment has been undertaken.
Magnitude:	4	2	4	2	-
Duration:	2	2	2	2	-
Extent:	2	2	2	2	-
Irreplaceable:	1	1	1	1	-
Reversibility:	1	1	1	1	-
Probability:	5	3	5	3	-
Total SP:	50	24	50	24	-
Significance rating:	M	L	M	L	-
Cumulative impact:	L	-	L	-	-
Proposed Mitigation:	• Access roads are to be kept clean and dust suppression techniques should be implemented to minimise impacts of vehicle movement; • Site offices and structures should be limited to one location and carefully situated to reduce visual intrusions. Roofs should be grey and non-reflective; • Construction camps as well as development areas must be screened with netting; • Lights within the construction camp must face directly down (angle of 180˚); • Litter should be strictly controlled, as the spread thereof through wind could have a very negative visual impact; and, • Avoid shiny materials in structures. Where possible shiny metal structures should be darkened or screened to prevent glare.				N/A

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
POTENTIAL IMPACTS ON NOISE ASPECTS:					
Nature of impact: Noise nuisance generated by construction works, vehicles and personnel.	**Activity:** The operating of vehicles and machinery on site results in the generation of noise disturbing users of the surrounding area.				No construction phase impacts are associated with the no-go alternative thus no assessment has been undertaken.
Magnitude:	8	4	8	4	-

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
Duration:	2	2	2	2	-
Extent:	2	2	2	2	-
Irreplaceable:	3	2	3	2	-
Reversibility:	2	2	2	2	-
Probability:	4	3	4	3	-
Total SP:	68	36	68	36	-
Significance rating:	M	L	M	L	-
Cumulative impact:	M	L	M	L	-
Proposed Mitigation:	• Should multiple activities result in the excessive generation of noise, it must be strived to coordinate the incidence of these at the same site; • Limit working hours of noisy equipment to daylight; • No unnecessary hooting by project and resident vehicles; • Any complaints received by the Contractor regarding noise will be recorded and communicated to the Environmental Officer; • All stationary noisy equipment such as compressors and pumps should be contained behind acoustic covers, screens or sheds where possible; • The regular inspection and maintenance of equipment must be undertaken to ensure that all components is functioning optimally; • Where recurrent use of machinery is frequent, machines should be shut down during intermediate periods; • Fit silencers to equipment; • Unless otherwise specified by the DEO, normal work hours will apply (i.e. from 06:30 to 17:00, Mondays to Fridays); • Ensure that Employees and staff conduct themselves in an acceptable manner while on site, both during work hours and after hours; and, • No loud music is permitted on site or in the Camp.				N/A

Impacts that may result from the operational 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 operational phase.

Operational Phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	

Operational Phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
POTENTIAL IMPACT ON GEOGRAPHICAL AND PHYSICAL ASPECTS					
Nature of impact: Handling of general waste materials on the development site.	**Activity:** The operation of a school will result in the generation of waste materials by scholars as well as daily operational activities such as paper disposal etc.				Due to the development not being developed no waste will be generated.
Magnitude:	6	2	6	2	-
Duration:	4	4	4	4	-
Extent:	2	2	2	2	-
Irreplaceable:	2	2	2	2	-
Reversibility:	1	0	1	0	-
Probability:	4	3	4	3	-
Total SP:	60	30	60	30	-
Significance rating:	M	L	M	L	-
Cumulative impact:	-	-	-	--	-
Proposed Mitigation:	• An adequate number of scavenger proof litter bins are to be placed throughout the site; • Waste sorting and separation bins should be placed at all public facilities, to encourage scholars to dispose waste paper, glass and general waste separately; • Keep all work sites including storage areas, offices and classrooms neat and tidy; • All domestic waste is to be removed from site and disposed of at a registered solid waste landfill site (Zuikerbosch Landfill site) as mentioned in the Basic Assessment Report; • Care should be taken to ensure that no waste fall of disposal vehicles on-route to the landfill. If needed, a tarpaulin can be utilised; • The burning or burying of solid waste on site is prohibited. Do not burn PVC pipes or other plastic materials, as this is regarded as hazardous waste; • Waste must be stored within a designated area as far as possible; • Minimise waste by sorting wastes into recyclable and non-recyclable waste; and, • A bi-weekly litter patrol of the entire site shall be conducted by the designated Terrain Manager.				N/A
Nature of impact: Traffic impacts associated with the movement of vehicles within the development area.	**Activity:** The regular movement of vehicles within the development area may result in the disruption of traffic flow patterns.				No operational phase impacts are associated with the no-go alternative thus no assessment has been undertaken.
Magnitude:	8	6	8	6	-
Duration:	4	4	4	4	-

Operational Phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
Extent:	2	2	2	2	-
Irreplaceable:	2	2	2	2	-
Reversibility:	1	1	1	1	-
Probability:	4	3	5	4	-
Total SP:	68	45	85	60	-
Significance rating:	M	M	MH	M	-
Cumulative impact:	MH	MH	H	MH	-
Proposed Mitigation:	• All gravel roads in the immediate vicinity of the development and intersections be formalised; • The Witbos Street and Plantation Road intersections be signalised; • The proposed extension of the Witbos Road would cause the migration of traffic flow and relieve some pressure from the R55/Summit Road intersection; • Adequate signage informing motorists of the speed limit must be placed next to the access road; • A stop sign must be placed at the exit of the school to ensure that parents take other motorists into consideration; • U-turns within the access road and in front of the school must be prohibited; and, • Adequate parking must be provided on the school premises as no cars will be allowed to park within the road reserve.				N/A
Nature of impact: Surface and groundwater contamination from the School.	Activity: Surface and groundwater can become contaminated due to operation of the School Facility.				No operational phase impacts are associated with the no-go alternative thus no assessment has been undertaken.
Magnitude:	4	2	4	2	-
Duration:	4	4	4	4	-
Extent:	3	2	3	2	-
Irreplaceable:	2	2	2	2	-
Reversibility:	1	1	1	1	-
Probability:	4	3	4	3	-
Total SP:	56	33	56	33	-
Significance rating:	M	L	M	L	-
Cumulative impact:	M	L	M	L	-
Proposed Mitigation:	• It should be ensured that all associated infrastructure (sewerage pipes) operate within their design measures. Should it happen that a pipe is blocked/leaking it must be reported to the Municipality at once to ensure that				N/A

Operational Phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
	effluent does not drain into the natural environment; • The waste area must be properly bund to ensure that no natural water can enter the storage area; • All effluent generated from households must be disposed-off into the Municipal network; and, • Stormwater should be implemented in such a manner that dirty water is diverted into the Municipal network and not into any natural canals.				

Operational Phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
POTENTIAL IMPACTS ON SOCIO-ECONOMIC ASPECTS:					
Nature of impact: Occupational Health and Safety.	**Activity:** During the operational phase, accidents, occupational diseases, ill health and damage to property can occur if pre-cautionary measures are not taken. Routine upkeep of the facilities, such as mowing, may lead to increased accidents among staff or pupils.				No construction phase impacts are associated with the no-go alternative thus no assessment has been undertaken.
Magnitude:	6	2	6	2	-
Duration:	4	4	4	4	-
Extent:	1	1	1	1	-
Irreplaceable:	2	1	2	1	-
Reversibility:	3	1	3	1	-
Probability:	4	3	4	3	-
Total SP:	64	27	64	27	-
Significance rating:	M	L	M	L	-
Cumulative impact:	-	-	-	-	-
Proposed Mitigation:	• Ensure that PPE is available to Personnel; • Adhere to the Occupational Health and Safety Act; • Keep the first aid kit stocked; • Issue all workers with necessary health and safety items; • Potentially hazardous areas must be demarcated with danger tape; • Appropriate signage must be placed to caution Employees and Contractors not to enter certain structures without Authorisation; and, • Regular safety inspections must be conducted to ensure that participants are equipped with necessary safety equipment.				N/A

Operational Phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
Nature of impact: Operational Activities may have a positive impact on the local and regional socio-economic conditions.	**Activity:** During the operational phase of the proposed development employment and business opportunities will be created for the Local Community of Blue Hills.				Should the proposed development not take place, no employment or business opportunities will be created.
Magnitude:	4	N/A	4	N/A	4
Duration:	4		4		4
Extent:	2		2		2
Irreplaceable:	0		0		0
Reversibility:	0		0		0
Probability:	5		5		5
Total SP:	50		50		50
Significance rating:	M (+)		M (+)		M
Cumulative impact:	-		-		-
Proposed Mitigation:	• Mitigation measures are not applicable as the impact is positive.				N/A

Operational Phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
POTENTIAL IMPACTS ON NOISE:					
Nature of impact: Noise nuisance generated by vehicles and maintenance personnel.	**Activity:** Noise nuisance that may be created by maintenance work conducted on the proposed facilities as well as the presence of personnel on site.				No operational phase impacts are associated with the no-go alternative thus no assessment has been undertaken.
Magnitude:	6	2	6	2	-
Duration:	4	4	4	4	-
Extent:	2	2	2	2	-
Irreplaceable:	2	2	2	2	-
Reversibility:	1	1	1	1	-
Probability:	4	3	4	3	-

Operational Phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
Total SP:	60	33	60	33	-
Significance rating:	M	L	M	L	-
Cumulative impact:	L	-	L	-	-
Proposed Mitigation:	• Limit working hours of noisy equipment to daylight hours; • Unless otherwise specified, normal working hours will apply (i.e. from 07:00 to 17:00, Mondays to Fridays); • Ensure that Employees and staff conduct themselves in an acceptable manner while on site, both during work hours and after hours; and, • No loud music is permitted on site.				N/A
Nature of impact: Noise nuisance generated by sports activities.	**Activity:** Noise nuisance that may be created by pupils during sports activities as well as cheering from supporters during sports matches.				No operational phase impacts are associated with the no-go alternative thus no assessment has been undertaken.
Magnitude:	8	4	8	4	-
Duration:	4	4	4	4	-
Extent:	2	2	2	2	-
Irreplaceable:	2	2	2	2	-
Reversibility:	1	1	1	1	-
Probability:	4	3	4	3	-
Total SP:	68	39	68	39	-
Significance rating:	M	L	M	L	-
Cumulative impact:	L	-	L	-	-
Proposed Mitigation:	• Limit working hours of noisy equipment to daylight hours; • Avoid scheduling of school events after 22:00 during week days and on Sundays; • No use of a PA system or loud music is to be permitted after 22:00 on weekdays or on Sundays; and, • Ensure that Employees and staff conduct themselves in an acceptable manner while on site, both during work hours and after hours.				N/A

Operational Phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
POTENTIAL IMPACTS ON VISUAL ASPECT:					

Operational Phase	Layout Alternative 1		Layout Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
Nature of impact: Impact on the sense of place for surrounding users.	**Activity:** The development of the proposed sports facilities will cause a visual intrusion to observers within a 100 meter radius (100 m) radius from the proposed development.				No operational phase impacts are associated with the no-go alternative thus no assessment has been undertaken.
Magnitude:	4	2	4	2	-
Duration:	4	4	4	4	-
Extent:	1	1	1	1	-
Irreplaceable:	2	2	2	2	-
Reversibility:	4	4	4	4	-
Probability:	5	3	5	3	-
Total SP:	75	39	75	39	-
Significance rating:	MH	L	MH	L	-
Cumulative impact:	M	L	M	L	-

Proposed Mitigation:	• Avoid shiny materials in structures. Where possible shiny metal structures should be darkened or screened to prevent glare;
	• Ensure facilities are well maintained and tidy;
	• Mitigation to minimise lighting impacts include the following:
	  • Shielding the source of light by physical barriers (walls, vegetation or structures itself);
	  • Limit mounting heights of lighting fixtures, or alternatively using foot-lights or bollard level lights;
	  • Make use of downward directional lighting fixtures;
	  • Make use of minimum lumen or wattage in lights;
	  • Use motion sensors to activate lighting ensuring light is available when needed.
					N/A

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

The following Specialist Reports have been incorporated into the impact ratings above:

- Ecological Impact Assessment;
- Traffic impact Assessment; and,
- Heritage Impact Assessment.

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

The processes of investigation which have led to the production of this report, harbours several assumptions, which include the following:

- All information provided by the applicant and engineering design team to the environmental specialist was correct and valid at the time that it was provided;
- The proposed project footprint as provided by the engineering design team is correct and will not be significantly deviated from.
- Strategic level investigations undertaken by the Applicant prior to the commencement of the BA process, determined that the development site represents a potentially suitable and technically acceptable location;
- The Public will receive a fair and reoccurring opportunity to participate and comment during the BA process, through the provision of adequate Public Participation timeframes stipulated in the Regulations;
- The need and desirability of the project is based on strategic national, provincial and local plans and policies which reflect the interests of both statutory and public viewpoints;
- The BA process is a project-level framework and the specialists are limited to assessing the anticipated environmental impacts associated with the construction and operational phases of the proposed project
- Strategic level decision making is conducted through cooperative governance principles with the consideration of sustainable and responsible development principles underpinning all decision making.

Given that a BA involves prediction, uncertainty forms an integral part of the process. Two types of uncertainty are associated with the BA process, namely process-related and prediction-related.

- Uncertainty of prediction is critical at the data collection phase as final certainty will only be obtained upon implementation of the proposed development. Adequate research, experience and expertise may minimise this uncertainty;
- Uncertainty of values depicts the approach assumed during the BA process, while final certainty will be determined at the time of decision making. Enhanced communication and widespread/comprehensive coordination can lower uncertainty;
- Uncertainty of related decision relates to the interpretation and decision making aspect of the BA process, which shall be appeased once monitoring of the project phases is undertaken.

The EIA process is being undertaken prior to the availing of certain information which would be derived from the project design and feasibility studies. As such, technical aspects included herein derive from a range of sources including pre-feasibility engineering and through personal communication with the design team. Given that the EIA process is one of several investigations being done, milestones and key outputs for each of these may not always be available for integration into the EIA process. As such, the GDARD and other commenting and decision-making Authorities are required to generate their decisions based on the information available to the study at the time, whilst measures can be adopted to manage any changes as conditions within decisions made.

Enviroworks is an independent environmental consulting firm and as such, all processes and attributes of the EIA are addressed in a fair and unbiased fashion. It is believed that through the running of a transparent and participatory process, risks associated with assumptions, uncertainties and gaps in knowledge can be, and were, minimised.

5.3 IMPACTS THAT MAY RESULT FROM THE DECOMISSIONING AND CLOSURE PHASE

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

The Activity will not be decommissioned in the future and therefore the proposed impacts thereof have not been assessed.

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

N/A

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

N/A

5.4 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 following cumulative impacts have been identified by the Environmental Assessment Practitioner taking into account impacts as identified by the Appointed Specialist as well.

1. **Construction Phase:**

Due to numerous residential developments taking place within close proximity of the proposed development topsoil removal and soil erosion if not mitigated will have a low cumulative impact. It must be ensured that all mitigation measures are implemented which will limit the development contributing to the cumulative impact. As the area consists of open fields surrounded by high density residential areas, waste management will be of critical importance. If waste is not management correctly it can be transported via mediums such as wind and water polluting the area even further. If Curro Holdings implement the necessary mitigation measures the proposed development will not contribute to the cumulative impact. Although no drainage lines exist on site, contamination of surface and groundwater must be managed as two drainage lines are present within close proximity of the proposed development. If managed correctly as stipulated within the Environmental Management Plan the development will not contribute to the cumulative impact. The biggest cumulative impact contribution will be towards traffic movement in the area, especially alternative 1 as it will be situated in close proximity to the Summit/R55 crossing. If mitigation measures are not implemented the preferred access route will contribute to traffic to the Olifantsfontein Road/African View Drive Crossing.

The development will contribute to vegetation clearance as the site is approximately eight hectares (8 ha); however, not the entire eight hectares (8 ha) will be developed and landscaping will form part of the construction phase, limiting the cumulative impact to pre-mitigation. As per the Ecological Impact Assessment no endangered or protected plant species are present on site. If mitigation are not implemented it is guaranteed that Alien and Invasive Species will spread to the site; however, mitigation measures are provided for the eradication of Alien and Invasive species. As the exclusive Blue Valley Golf Estate is situated directly adjacent to the proposed development construction activities, dust and noise can become a potential nuisance to the estate. It is of critical importance to ensure that a formal grievance mechanism is implemented on site to ensure that all aspects are managed correctly and where necessary adjusted in order not to cause any nuisance to the Residents of the estate.

2. **Operational Phase Impacts:**

The highest cumulative impact associated with the operational phase of the proposed development will be traffic impacts associated with the movement of vehicles within the development area. The preferred alternative will have a Moderate High impact pre-mitigation and alternative a High impact pre-mitigation; due to the congestion of Olifantsvlei Road and Summit/R55 roads. If mitigation measures are implemented the impact will be lower but only marginally. Curro Holdings will need to meet with JRA in order to determine the requirements for the proposed access road. Surface and groundwater can become contaminated due to service delivery infrastructure; however, the school must maintain the system and as such the cumulative impact will be low. Due to the area consisting of natural veld, the development thereof may have a negative visual impact on the surrounding estates; however, the area does not have a high scenic nor cultural value and as such the visual impact will have a low cumulative impact on surrounding landowners.

5.5 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.

5.5.1 PROPOSAL

If all mitigation measures are implemented as listed within the Environmental Management Plan, impacts during the construction phase will be low except for surface and groundwater contamination and disturbance to communities. During the construction of such a facility surface and groundwater contamination can take place as the construction period will be short term with a moderate potential for the loss of irreplaceable resources. It is important that proactive management is followed on site and as such all hazardous materials must be stored within a bund area, drip trays must be placed beneath stationary construction equipment and should any spillages occur on site it should be contained immediately and cleaned up. It is important that the Resident Engineer establish a formal grievance mechanism during the construction phase and all complaints must be addressed in a timeously manner and feedback must be provided to the adjacent landowners. During the operational phase all impacts will be low if mitigation measures are implemented, the only impact that will be moderate is the movement of traffic through the immediate vicinity. Mitigation measures are in place; however, the Johannesburg Roads Agency will be consulted with in order to obtain their comments and recommendations.

5.5.2 ALTERNATIVE 1

Alternative 1 does not differ much in terms of impact ratings when compared to those of the Preferred Alternative. The only change that occurs between the alternatives is with regard to traffic management in the construction and operational phase as the alternative access road will be longer in distance. As mentioned above the Johannesburg Roads Agency will be consulted with in order to obtain their comments and recommendations. Alternative 1 is not considered as the preferred due to the reasons as listed under the alternative section.

5.5.3 NO-GO (COMPULSORY)

The no-go option will result in the Curro Castle School not being developed. As per the IDP of the City of Johannesburg, education plays an important role in advancing human capital. The proposed school will serve the residential areas in close proximity and will take the load of the Department of Education to develop a school. Furthermore, should the proposed development not be developed, the employment opportunities associated with the development will be lost. The proposed development would not have been recommended if it was found that the construction thereof might cause substantial detrimental harm to the environment; however, all impacts can be mitigated to an acceptable level. It is thus due to the aforementioned that the no-go option is considered to be undesirable.

5.6 IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

Two layout alternatives of the access road have been considered. Alternative 1 will have less of an impact on the traffic network of the surrounding roads. The impact ratings for the two layout alternatives are summarized below.

5.6.1 Construction Phase Impact Summary:

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2	
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation
POTENTIAL IMPACTS ON GEOGRAPHICAL AND PHYSICAL ASPECTS:				
Nature of impact: Negative impact of haphazard placement of site infrastructure on the environment.	**Activity:** The establishment of a main site office and storage site during the construction period will ensure that the poor placement of materials and infrastructure will be avoided. This could also result in the damage or pollution to surrounding areas caused by construction activities.			

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2	
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation
Significance rating:	M	L	M	L
Cumulative impact:	-	-	-	-
Nature of impact: Topsoil Removal and Soil Erosion	**Activity:** The clearing of topsoil and excavation for the establishment of building foundations may result in the destruction of fertile topsoil.			
Significance rating:	M	L	M	L
Cumulative impact:	L	-	L	-
Nature of impact: Surface and groundwater contamination due to construction activities such as the use of hazardous materials on site e.g. fuel and oil.	**Activity:** Spills could possibly occur on site and lead to the contamination of soil and groundwater.			
Significance rating:	MH	M	MH	M
Cumulative impact:	L	-	L	-
Nature of impact: Handling of general waste materials on the development site.	**Activity:** The presence of personnel and construction operations on site will increase the likelihood of littering and the dumping of solid waste.			
Significance rating:	M	L	M	L
Cumulative impact:	L	-	L	-
Nature of impact: Increased risk of veld fires.	**Activity:** Due to the presence of construction personnel in natural areas, fires can occur if not managed to the correct standard.			
Significance rating:	M	L	M	L
Cumulative impact:	-	-	-	-
Nature of impact: Destruction of fauna and flora associated with the movement of construction vehicles on site.	**Activity:** The movement of vehicles on site may result in the destruction of biodiversity, compaction of valuable topsoil and mortalities of fauna on site.			
Significance rating:	M	L	M	L
Cumulative impact:	-	-	-	-
Nature of impact: Traffic impacts associated with the movement of construction vehicle.	**Activity:** The movement of vehicles in the vicinity of the construction site may cause damage to road surfaces as well as increase in the traffic volume within the Blue Hills area.			
Significance rating:	M	L	MH	M
Cumulative impact:	M	-	H	MH

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2	
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation
POTENTIAL IMPACTS ON BIOLOGICAL ASPECTS:				

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2	
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation
Nature of impact: Direct impact on vegetation during construction and loss of species.	**Activity:** The construction of several permanent structures on site will result in the loss of vegetation due to foundation excavation.			
Significance rating:	MH	L	MH	L
Cumulative impact:	L	-	L	-
Nature of impact: Alien invasive species establishment within the development area.	**Activity:** Alien Invasive Species present on the site may spread and establish within the development area.			
Significance rating:	M	L (+)	M	L (+)
Cumulative impact:	L	-	L	-
Nature of impact: Surface material erosion.	**Activity:** Removal of vegetation and excavation activities will result in the site being prone to the erosion of surface material.			
Significance rating:	M	L	M	L
Cumulative impact:	L	-	L	-
Nature of impact: Dust nuisance generated by the operation of machinery and vehicles.	**Activity:** The frequent upwelling of dust as consequence of the movement of vehicles and machinery on site may impact on worker health causing asthma and other respiratory conditions. Stockpiles are susceptible to the upwelling of fine particulate matter. Several ambient factors, the terrain characteristics, soil type and land use forms can attribute to the degree of loss and susceptibility of stockpiles towards the generation of dust. Regular watering of exposed surfaces may result in the reduction of wind-generated dust from stockpiles.			
Significance rating:	M	L	M	L
Cumulative impact:	L	-	L	-
Nature of impact: Fauna will be directly impacted as a result of construction activities and human presence at the site.	**Activity:** The construction of facilities will result in some habitat loss for resident fauna, as some species will occur within the affected areas. In addition, increased levels of noise, pollution, disturbance and human presence during construction will be detrimental to resident fauna. Sensitive and shy fauna may move away from the area during the construction phase as a result of the noise and human activities present, while some slow-moving species (such as mole rats or blind snakes) would not be able to avoid the construction activities and might be killed.			
Significance rating:	L	L	L	L
Cumulative impact:	M	L	M	L

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2	
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation
POTENTIAL IMPACTS ON SOCIO-ECONOMIC ASPECTS:				
Nature of impact: Occupational Health and Safety.	**Activity:** During the construction phase, accidents, occupational diseases, ill health and damage to property can occur if pre-cautionary measures are not taken. Increased movement of vehicles may lead to increased accidents among local communities, construction workers and vehicle operators.			
Significance rating:	M	L	M	L
Cumulative impact:	-	-	-	-

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2	
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation
Nature of impact: The creation of job opportunities during the construction phase.	Activity: The construction period will create a few job opportunities for individuals residing in the area of Blue Hills.			
Significance rating:	L (+)	L (+)	L (+)	L (+)
Cumulative impact:	-	-	-	-
Proposed Mitigation:	• Where reasonable and practical the contractors appointed by the applicant should appoint local contractors and implement a "local first" policy, especially for semi and low-skilled job categories; and, • The recruitment selection process should seek to promote gender equality and the employment of women wherever possible, particularly for less labour-intensive work such as flag bearing and supervision.			
Nature of impact: Disturbance to Communities	Activity: All construction activities will cause disturbance to the community around the area. Managing the welfare of a significant number of workers is inevitably a mayor challenge, and the co-existence of multiple Contractor crews of workers from diverse ethnic and geographic backgrounds can be problematic.			
Significance rating:	M	M	M	M
Cumulative impact:	M	M	M	M

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2	
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation
POTENTIAL IMPACTS ON CULTURAL-HISTORICAL ASPECTS:				
Nature of impact: Damage and destruction of vertebrate fossils during excavation activities.	**Activity:** Excavation activities can result in the discovery of cultural and historical artefacts beneath the earth surface. Damage or loss can occur if the correct procedures are not followed.			
Significance rating:	L	L	L	L
Cumulative impact:	-	-	-	-

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2	
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation
POTENTIAL VISUAL IMPACTS:				
Nature of impact: Impact on the sense of place for surrounding users.	**Activity:** The movement of construction vehicles, machinery and personnel on site shall result in a visual impact on surrounding users. Furthermore to this, the storage of materials and excavation shall result in disturbance and an unsightly character.			
Significance rating:	M	L	M	L
Cumulative impact:	L	-	L	-
Proposed Mitigation:	• Access roads are to be kept clean and dust suppression techniques should be implemented to minimise impacts of vehicle movement; • Site offices and structures should be limited to one location and carefully situated to reduce visual intrusions. Roofs should be grey and non-reflective; • Construction camps as well as development areas must be screened with netting; • Lights within the construction camp must face directly down (angle of 180˚);			

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2	
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation
	• Litter should be strictly controlled, as the spread thereof through wind could have a very negative visual impact; and, • Avoid shiny materials in structures. Where possible shiny metal structures should be darkened or screened to prevent glare.			

Planning, design and construction phase	Layout Alternative 1		Layout Alternative 2	
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation
POTENTIAL IMPACTS ON NOISE ASPECTS:				
Nature of impact: Noise nuisance generated by construction works, vehicles and personnel.	**Activity:** The operating of vehicles and machinery on site results in the generation of noise disturbing users of the surrounding area.			
Significance rating:	M	L	M	L
Cumulative impact:	M	L	M	L

5.6.2 Operational Impact Summary:

Operational Phase	Layout Alternative 1		Layout Alternative 2	
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation
POTENTIAL IMPACT ON GEOGRAPHICAL AND PHYSICAL ASPECTS:				
Nature of impact: Handling of general waste materials on the development site.	**Activity:** The operation of a school will result in the generation of waste materials by scholars as well as daily operational activities such as paper disposal etc.			
Significance rating:	M	L	M	L
Cumulative impact:	-	-	-	--
Nature of impact: Traffic impacts associated with the movement of vehicles within the development area.	**Activity:** The regular movement of vehicles within the development area may result in the disruption of traffic flow patterns.			
Significance rating:	M	M	MH	M
Cumulative impact:	MH	MH	H	MH
Nature of impact: Surface and groundwater contamination from the School.	Activity: Surface and groundwater can become contaminated due to operation of the School Facility.			
Significance rating:	M	L	M	L
Cumulative impact:	M	L	M	L

Operational Phase	Layout Alternative 1		Layout Alternative 2	
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation
POTENTIAL IMPACTS ON SOCIO-ECONOMIC ASPECTS:				
Nature of impact: Occupational Health and Safety.	**Activity:** During the operational phase, accidents, occupational diseases, ill health and damage to property can occur if pre-cautionary measures are not taken. Routine upkeep of the facilities, such as			

Operational Phase	Layout Alternative 1		Layout Alternative 2	
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation
	mowing, may lead to increased accidents among staff or pupils.			
Significance rating:	M	L	M	L
Cumulative impact:	-	-	-	-
Nature of impact: Operational Activities may have a positive impact on the local and regional socio-economic conditions.	**Activity:** During the operational phase of the proposed development employment and business opportunities will be created for the Local Community of Blue Hills.			
Significance rating:	M (+)	N/A	M (+)	N/A
Cumulative impact:	-		-	

Operational Phase	Layout Alternative 1		Layout Alternative 2	
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation
POTENTIAL IMPACTS ON NOISE:				
Nature of impact: Noise nuisance generated by vehicles and maintenance personnel.	**Activity:** Noise nuisance that may be created by maintenance work conducted on the proposed facilities as well as the presence of personnel on site.			
Significance rating:	M	L	M	L
Cumulative impact:	L	-	L	-
Nature of impact: Noise nuisance generated by sports activities.	**Activity:** Noise nuisance that may be created by pupils during sports activities as well as cheering from supporters during sports matches.			
Significance rating:	M	L	M	L
Cumulative impact:	L	-	L	-

Operational Phase	Layout Alternative 1		Layout Alternative 2	
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation
POTENTIAL IMPACTS ON VISUAL ASPECTS:				
Nature of impact: Impact on the sense of place for surrounding users.	**Activity:** The development of the proposed sports facilities will cause a visual intrusion to observers within a 100 meter radius (100 m) radius from the proposed development.			
Significance rating:	MH	L	MH	L
Cumulative impact:	M	L	M	L

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 layout of the access road will extend from African View Drive and will traverse a distance of seven hundred and thirty meters (730 m). As per the Traffic Impact Assessment conducted by BVi Consulting Engineers the road will have a two-lane configuration, with one (1) lane for incoming and outgoing vehicles respectively.

The proposed road will be situated at the following co-ordinates:

- Start Point: 25˚ 56’ 30.31’’ S; 28˚ 06’ 24.69’’ E;
- Mid Point: 25˚ 56’ 19.55’’ S; 28˚ 06’ 29.63’’ E;

- End Point: 25˚ 56’ 07.51’’ S; 28˚ 06’ 28.56’’ E.

Advantages of the Preferred Layout:

1. The access road will traverse the shortest possible route;
2. The land that will be traversed is owned by Curro Holdings;
3. The access road won’t put additional pressure on the traffic flow of Summit/R55 intersection; and,
4. Adequate turning lanes are already present at the Olifantsfontein/African View Drive intersection.

Disadvantages of the Preferred Layout:

It can become a nuisance to residence using African View Drive as access road to their homes.

5.7 SPATIAL DEVELOPMENT TOOLS

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

A change in land-use application must be submitted to the City of Johannesburg Metropolitan Municipality as well as building approval for the proposed Curro Castle. The Applications; however, can’t be submitted for approval prior to the Environmental Authorisation being issued by the Gauteng Department of Agriculture and Rural Development.

5.8 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	
X	

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

N/A

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

- All mitigation measures must be adhered to as stipulated within the Environmental Management Plan;
- The proposed access route must be approved by Johannesburg Roads Agency;
- An ecological walkthrough must be conducted prior to the commencement of the project during the flowering period to ensure that no provincially- or naturally protected or significant species have been omitted;
- Construction activities should be confined within the development footprint and avoid disturbing vegetation beyond the borders of the development footprint;
- Suitable dust management and prevention measures during the construction phase must be implemented;
- Areas around the proposed project footprint must be adequately rehabilitated and landscaped;
- An integrated waste management plan must be developed for the facility;
- No open fires will be allowed on site, and demarcated smoking areas must be set out and indicated on the site layout plan;
- No animals may be killed, should snakes be discovered a trained person must be called upon to move them; and,
- All activities must be conducted as stipulated in the Method Statements.

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

The Integrated Development Plan (IDP) of the City of Johannesburg 2018/2019, does not discuss the development. The IDP does; however, mention that the following as part of advancing human capital: "Although it is not a competency of local government, the City supports the production of knowledge, access to knowledge and education for all residents." Furthermore, it is noted in the IDP that Gauteng is the fastest growing province in the country and that enhancing education is one of the factors that improves human and social development.

According to the Spatial Development Framework 2040 for the City of Johannesburg (SDF), the proposed development falls beyond the Urban Development Boundary (UDB). Development outside of the UBD is to be limited, excluding the following ecological resource protection and management, food production, low intensity social services and amenities, agricultural related investment, leisure and tourism, and green energy initiatives. The SDF states the following as one of the criteria that developments outside the UBD are required to meet:

"Social amenities: *Social amenities serving communities in close proximity and that cannot be accommodated within the Urban Development (including Schools, Clinics, Religious facilities) – the scale of these facilities will be considered carefully and may be more restricted than the development controls outlined below, especially schools and religious facilities."*

The proposed development features the expansion of school facilities that cannot be placed within the adjacent UDB due to spatial constraints.

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

3 years as the development must be approved by the City of Johannesburg Metropolitan Municipality.

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**

6 SECTION F: APPENDIXES

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 A:	Site plan(s) – *(must include a scaled layout plan of the proposed activities overlain on the site sensitivities indicating areas to be avoided including buffers)*
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
Appendix H:	Environmental Management Program Report
Appendix I:	Other Information

7 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.