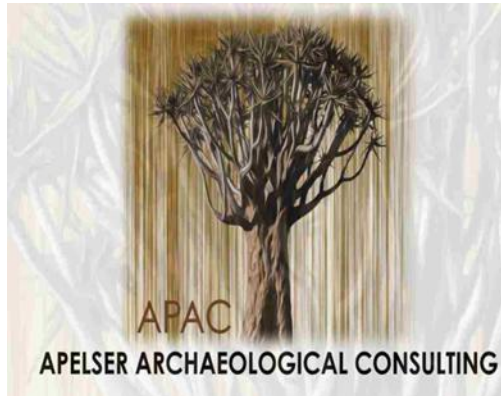




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**Phase 1 HIA Report for the Proposed
Vorna Valley Schools Project near Kyalami Hills Estate, Midrand, Gauteng**

Project Name: MF516 Vorna Valley School

For:

***CP Operations (Pty) Ltd
5 Lynx Road
Midrand
1682***

REPORT: APAC025/117

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August 2025

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DISCLAIMER:

Although all efforts are made to identify all sites of cultural heritage (archaeological and historical) significance during an assessment of study areas, the nature of archaeological and historical sites are as such that it is always possible that hidden or subterranean sites, features or objects could be overlooked during the study. APELSE Archaeological Consulting can't be held liable for such oversights or for costs incurred as a result thereof.

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SUMMARY

APelser Archaeological Consulting (APAC) was appointed by CP Operations (Pty) Ltd (Century Property Developments) to conduct a Phase 1 HIA for the proposed Vorna Valley School Development. The study & proposed development area footprint are located near the Kyalami Hills Estate in Midrand, Gauteng Province.

Background research indicates that there are some cultural heritage sites and features in the larger geographical area within which the study area falls. No sites, features and material of cultural heritage origin and significance were identified in the area during the assessment. This report discusses the results of both the background research and physical assessment and provides a number of recommendations on the way forward.

From a Cultural Heritage perspective, it is recommended that the proposed development should be allowed to continue, taking into consideration the mitigation measures recommended at the end of the report.

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1. INTRODUCTION

APelser Archaeological Consulting (APAC) was appointed by CP Operations (Pty) Ltd (Century Property Developments) to conduct a Phase 1 HIA for the proposed Vorna Valley School Development. The study & proposed development area footprint are located near the Kyalami Hills Estate in Midrand, Gauteng Province.

Background research indicates that there are some cultural heritage sites and features in the larger geographical area within which the study area falls. No sites, features and material of cultural heritage origin and significance were identified in the area during the assessment.

The client indicated the location and boundaries of the study area and the assessment focused on this portion.

2. TERMS OF REFERENCE

The Terms of Reference for the study was to:

1. Identify all objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the portion of land that will be impacted upon by the proposed development;
2. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value;
3. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions;
4. Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources;
5. Review applicable legislative requirements;

3. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are dealt with mainly in two Acts. These are the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

3.1. The National Heritage Resources Act (Act 25 of 1999)

According to the Act the following is protected as cultural heritage resources:

- a. Archaeological artifacts, structures and sites older than 100 years
- b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography

- c. Objects of decorative and visual arts
- d. Military objects, structures and sites older than 75 years
- e. Historical objects, structures and sites older than 60 years
- f. Proclaimed heritage sites
- g. Grave yards and graves older than 60 years
- h. Meteorites and fossils
- i. Objects, structures and sites of scientific or technological value.

The National Estate includes the following:

- a. Places, buildings, structures and equipment of cultural significance
- b. Places to which oral traditions are attached or which are associated with living heritage
- c. Historical settlements and townscapes
- d. Landscapes and features of cultural significance
- e. Geological sites of scientific or cultural importance
- f. Sites of Archaeological and palaeontological importance
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, palaeontological, meteorites, geological specimens, military, ethnographic, books etc.)

A Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon. An Archaeological Impact Assessment (AIA) only looks at archaeological resources. An HIA must be done under the following circumstances:

- a. The construction of a linear development (road, wall, power line, canal etc.) exceeding 300m in length
- b. The construction of a bridge or similar structure exceeding 50m in length
- c. Any development or other activity that will change the character of a site and exceed 5 000m² or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m²
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

Structures

Section 34 (1) of the Act states that no person may demolish any structure or part thereof which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

A structure means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

Alter means any action affecting the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or the decoration or any other means.

Archaeology, palaeontology and meteorites

Section 35(4) of the Act deals with archaeology, palaeontology and meteorites. The act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial)

- a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
- c. trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
- d. bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.
- e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency (SAHRA). In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed.

Human remains

Graves and burial grounds are divided into the following:

- a. ancestral graves
- b. royal graves and graves of traditional leaders
- c. graves of victims of conflict
- d. graves designated by the Minister
- e. historical graves and cemeteries
- f. human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

- a. destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;

- b. destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
- c. bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations (Ordinance no. 12 of 1980)** (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated to) before exhumation can take place.

Human remains can only be handled by a registered undertaker or an institution declared under the **Human Tissues Act (Act 65 of 1983 as amended)**.

3.2. The National Environmental Management Act (Act 107 of 1998)

This Act states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

Environmental management should also take the cultural and social needs of people into account. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.

The specific requirements that specialist studies and reports must adhere to are contained in Appendix 6 of the EIA Regulations.

4. METHODOLOGY

4.1. Literature Review

A review of available literature was undertaken in order to place the development area in an archaeological and historical context. The sources utilized in this regard are indicated in the bibliography. These include Bergh (1999), Huffman (2007) & Lombard et.al (2012).

4.2. Field survey

The field assessment component of the study was conducted on the 21st of August 2025 according to generally accepted HIA practices and aimed at locating all possible objects, sites, and features of heritage significance in the area of the proposed development. The location/position of all sites, features and objects is determined by means of a Global Positioning System (GPS) where possible, while detail photographs are also taken where needed. An on-foot survey of the area was undertaken during the field-based assessment.

4.3. Oral histories

People from local communities are sometimes interviewed in order to obtain information relating to the surveyed area. It needs to be stated that this is not applicable under all circumstances. When applicable, the information is included in the text and referred to in the bibliography.

4.4. Documentation

All sites, objects, features and structures identified are documented according to a general set of minimum standards. Co-ordinates of individual localities are determined by means of the Global Positioning System (GPS). The information is added to the description in order to facilitate the identification of each locality.

4.5. Limitations

Dense vegetation (grass cover and others) in sections limited visibility on the ground, but this is not seen as a fatal flaw in the study. The area has also been largely developed and dumping of soil/rubble also occurs throughout the area.

5. DESCRIPTION OF THE AREA AND PROJECT

The study and proposed development area is located in Midrand, close to the Kyalami Hills Estate & other existing residential developments.

The study area is located in the Moderate Eastern Plateau climatic region and consists of Grassland type vegetation. The topography of the study area is relatively flat with no features such as hills and rocky outcrops. There are small streams that cut through the study area and also a small dam. The elevation of the study area varies between 1435 and 1455m above sea level.

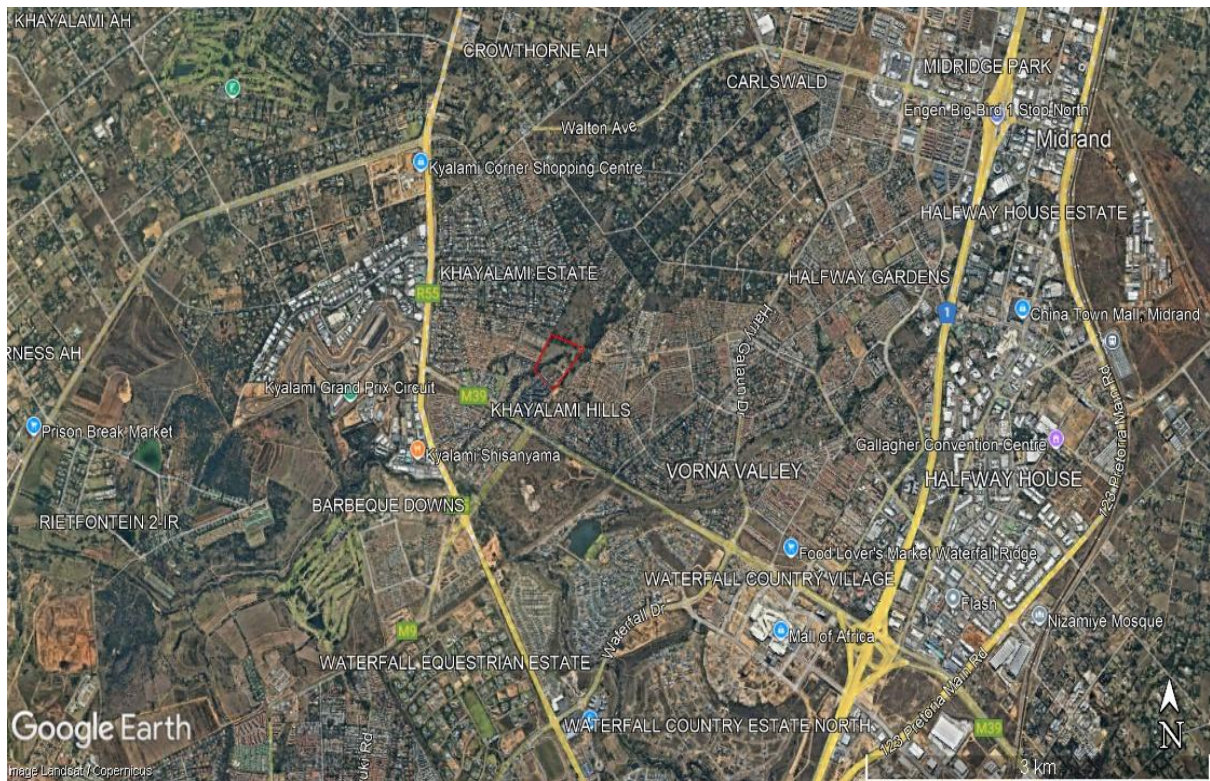


Figure 1: General location of the study and proposed development area indicated by the red polygon (Google Earth 2025).



Figure 2: Closer view of the study & proposed development area footprint in 2004 (Google Earth 2025).



Figure 3: Closer view of the study & proposed development area footprint in 2015 (Google Earth 2025).

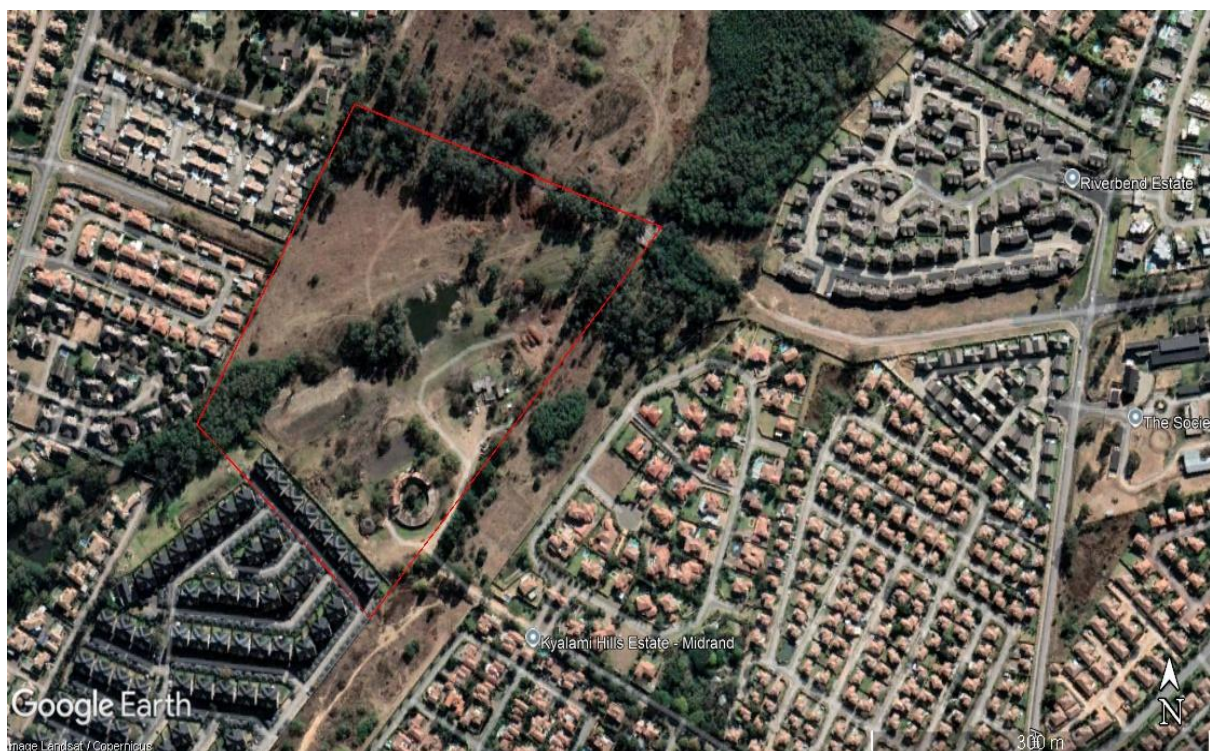


Figure 4: The area in 2020 (Google Earth 2025).



Figure 5: Closer view of the area in 2025 (Google Earth 2025).

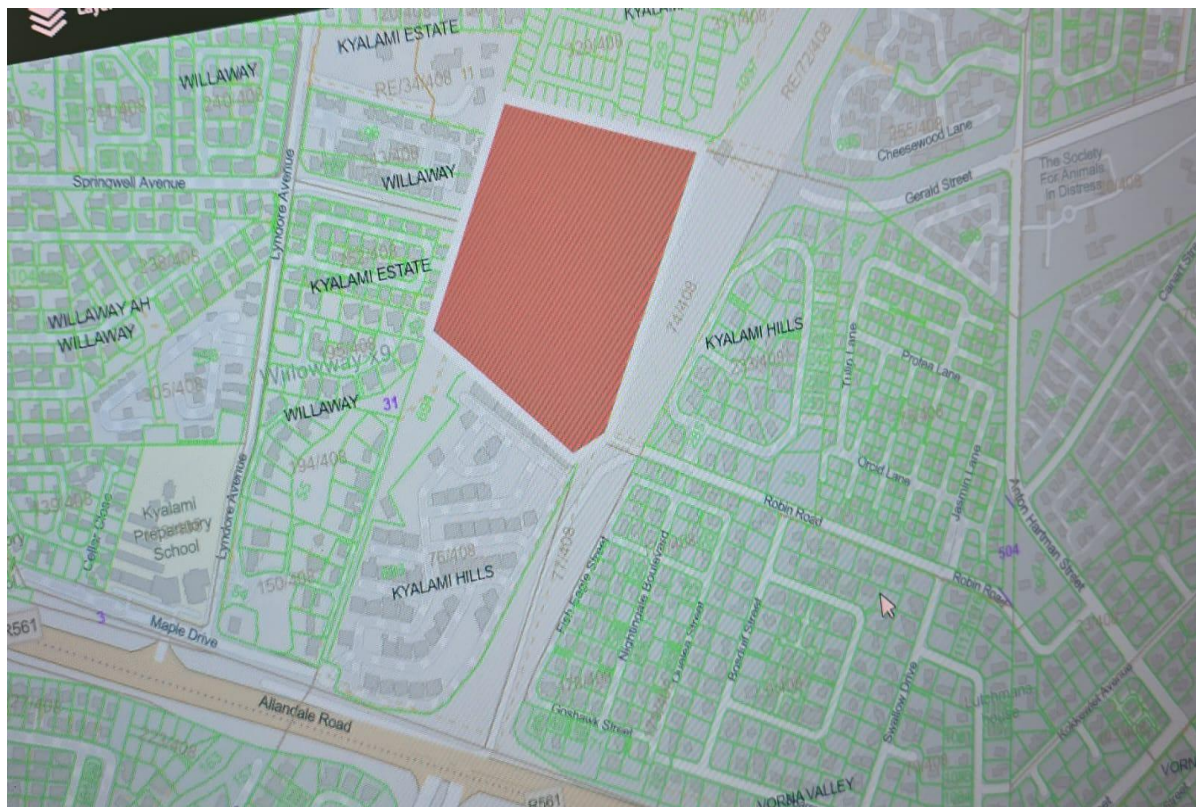


Figure 6: Locality Map and footprint (courtesy CP Operations (Pty) Ltd).



Figure 7: General view of the area (@Hannes Visser August 2025).



Figure 8: Vegetation in the study area (@Hannes Visser August 2025).



Figure 9: A stream running through the study area (@Hannes Visser August 2025).



Figure 10: Small dam in the study area (@Hannes Visser August 2025).

6. DISCUSSION

The Stone Age is the period in human history when lithic (stone) material was mainly used to produce tools. In South Africa the Stone Age can be divided basically into three periods. It is however important to note that dates are relative and only provide a broad framework

for interpretation. A basic sequence for the South African Stone Age (Lombard et.al 2012) is as follows:

Earlier Stone Age (ESA) up to 2 million – more than 200 000 years ago

Middle Stone Age (MSA) less than 300 000 – 20 000 years ago

Later Stone Age (LSA) 40 000 years ago – 2000 years ago

It should also be noted that these dates are not a neat fit because of variability and overlapping ages between sites (Lombard et.al 2012: 125).

The closest known Stone Age sites to the area are located at Melville Koppies (MSA), Glenferness, Pietkloof and Zevenfontein (Bergh 1999: 4], while Revil Mason also mentions Stone Age occurrences at Witkoppen (Mason 1989). A number of Early and Middle Stone Age sites have been recorded in the larger area, while the well-known Early Hominid sites of Swartkrans and Sterkfontein (Cradle of Humankind) is situated some kilometers to the north of the study area (Bergh 1999:4). Later Stone Age sites are known in the larger geographical area, including sites at Zwartkops, Hennopsrivier, Uitkomstgrot, Glenferness, Pietkloof and Zevenfontein (Bergh 1999: 4). Sites with rock art (engravings) have also been found in the Krugersdorp area (Bergh 1999:5).

Records indicate that stone tools dating to the Early and Middle Stone Age and especially the Later Stone Age occurred all over, for example in the Jukskei River area at Glenferness shelter, excavated by Prof. Revil Mason (Van Schalkwyk 2012:11). Excavations by Mason (1997) at the Boulders Shopping Centre identified remains dating to all three phases of the Stone Age (Van der Walt 2018: 27).

No Stone Age sites or material were identified in the area during the August 2025 field assessment, and if any are to be found in the area then it would more than likely be single, out of context, stone tools scattered across the area.

The Iron Age is the name given to the period of human history when metal was mainly used to produce artifacts. In South Africa it can be divided in two separate phases (Bergh 1999: 96-98), namely:

Early Iron Age (EIA) 200 – 1000 A.D.

Late Iron Age (LIA) 1000 – 1850 A.D.

Huffman (2007: xiii) indicates that a Middle Iron Age should be included. His dates, which are widely accepted in archaeological circles, are:

Early Iron Age (EIA) 250 – 900 A.D.

Middle Iron Age (MIA) 900 – 1300 A.D.

Late Iron Age (LIA) 1300 – 1840 A.D.

Iron Age people started to settle in southern Africa c. AD 300, with one of the oldest known sites at Broederstroom south of Hartebeespoort Dam dating to AD 470. Having only had

cereals (sorghum, millet) that need summer rainfall, Early Iron Age (EIA) people did not move outside this rainfall zone, and neither did they occupy the central interior Highveld area. The occupation of the larger geographical area (including the study area) did not start much before the 1500s. By the 16th century things changed, with the climate becoming warmer and wetter, creating condition that allowed Late Iron Age (LIA) farmers to occupy areas previously unsuitable, for example the Witwatersrand in the region of Klipriviersberg and the Magaliesberg to the north (Van Schalkwyk 2017: 11).

As with the Stone Age, there are no known Iron Age sites in the specific area. The closest known Iron Age sites to the area are those of Melville Koppies and Bruma Lake (Bergh 1999: 7), dating to the Late Iron Age. There are no known Early Iron Age sites in the larger area (Bergh 1999: 6-7).

Based on Tom Huffman's research it is possible that LIA sites, features or material could be present in the larger area. This will include the Ntsuanatsatsi facies of the Urewe Tradition, dating to between AD1450 and AD1650 (Huffman 2007: 167); the Uitkomst facies of the same tradition (AD1700 to AD1820) [p.171]; Olifantspoort facies of Urewe (AD1500 – AD1700) [p.191], as well as the Buispoort facies of Urewe, dating to around AD1700 – AD1840 (p.203).

No Iron Age sites; features or material were identified in the study & proposed development area during the August 2025 field assessment.

The historical age started with the first recorded oral histories in the area. It includes the moving into the area of people that were able to read and write. The first Europeans to move through and into the area were the group of Cornwallis Harris in 1836 (Bergh 1999: 13). These groups were closely followed by the Voortrekkers after 1844 (Bergh 1999: 14). The earliest European groups to pass through or close to the area was those of Cornwallis Harris in 1836 (p.13), followed by the Voortrekkers soon afterwards (Bergh 1999: 13-14). In the 1890's a number of proclamations were made for the town of Waterval in the District of Pretoria. The 1890 proclamation of Waterval apparently refers to the town of Halfweghuys (today's Midrand) on the farm Waterval halfway between Pretoria & Johannesburg.

The larger area also saw some activity during Anglo-Boer War (1899-1902) (Bergh 1999: 51; 54). The Anglo-Boer War (1899-1902) had an impact on the adjacent Midrand area, and for a short period the area was a key focus of the British war effort, when the British forces under Lord Roberts advanced through Midrand from Johannesburg en route to Pretoria. Pretoria was occupied on 5 June 1900. Some British military units were stationed close to the study area. Conflict in the area was defined by the Boer attempts to sabotage the railway line as well as attacks on troop trains. A notable incident was the successful Boer demolition of the railway culvert near the Pinedene Station. The railway had to be completely rebuilt by the Imperial Military Railways in 1901 (Van der Walt 2018: 28). In order to prevent Boer forces freedom of movement, a system of block houses was built, some of which are located on the farm Kalkheuwel (Van Schalkwyk 2010: 11).

No sites of historical origin or significance were identified in the study area during the August 2025 field-based assessment.

Results of the August 2025 assessment

No Stone Age, Iron Age or recent historical sites, features or material were identified in the area during the recent August 2025 field-based assessment. If any did exist in the study and proposed development area in the past, it would likely have been extensively impacted or even destroyed by recent developments in the area.



**Figure 11: View of some existing development in the area
(@Hannes Visser August 2025).**



Figure 12: Soil and other rubble are dumped in the area (@Hannes Visser August 2025).



Figure 13: General view of part of the area (@Hannes Visser August 2025).



Figure 14: Another section of the area (@Hannes Visser August 2025).



**Figure 15: A view of part of the area (@Hannes Visser August 2025).
Note the vegetation cover and soil dumps**



Figure 16: Existing weir in the area (@Hannes Visser August 2025).



Figure 17: General view of the area showing the general topography and landscape (@Hannes Visser August 2025).



**Figure 18: Tracklogs created for the survey
(@Hannes Visser August 2025 from Google Earth).**

Impact Assessment and Mitigation Measures

The significance of impacts is determined using the following criteria:

Probability: describes the likelihood of the impact actually occurring

- **Improbable:** the possibility of the impact occurring is very low, due to the circumstances, design or experience.
- **Probable:** there is a probability that the impact will occur to the extent that provision must be made therefore.
- **Highly probable:** it is most likely that the impact will occur at some stage of the development.
- **Definite:** the impact will take place regardless of any prevention plans and there can only be relied on mitigation measures or contingency plans to contain the effect.

Duration: the lifetime of the impact

- **Short Term:** the impact will either disappear with mitigation or will be mitigated through natural processes in a time span shorter than any of the phases.
- **Medium Term:** the impact will last up to the end of the phases, where after it will be negated.
- **Long Term:** the impact will last for the entire operational phase of the project but will be mitigated by direct human action or by natural processes thereafter.

- **Permanent:** the impact is non-transitory. Mitigation either by man or natural processes will not occur in such a way or in such a time span that the impact can be considered transient.

Scale: the physical and spatial size of the impact

- **Local:** the impacted area extends only as far as the activity, e.g., footprint
- **Site:** the impact could affect the whole or measurable portion of the abovementioned property.
- **Regional:** the impact could affect the area including the neighboring residential areas.

Magnitude/Severity: Does the impact destroy the environment, or alter its function

- **Low:** the impact alters the affected environment in such a way that natural processes are not affected.
- **Medium:** the affected environment is altered, but functions and processes continue in a modified way.
- **High:** function or process of the affected environment is disturbed to the extent where it temporarily or permanently ceases.

Significance: This is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required.

- **Negligible:** the impact is non-existent or unsubstantial and is of no or little importance to any stakeholder and can be ignored.
- **Low:** the impact is limited in extent, has low to medium intensity; whatever its probability of occurrence is, the impact will not have a material effect on the decision and is likely to require management intervention with increased costs.
- **Moderate:** the impact is of importance to one or more stakeholders, and its intensity will be medium or high; therefore, the impact may materially affect the decision, and management intervention will be required.
- **High:** The impact could render development options controversial or the project unacceptable if it cannot be reduced to acceptable levels; and/or the cost of management intervention will be a significant factor in mitigation.

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

Sum (Duration, Scale, Magnitude) x Probability

S = Significance weighting; Sc = Scale; D = Duration; M = Magnitude; P = Probability

With no sites, features and material of cultural heritage origin or significance found in the proposed development area during the assessment, the current site layout provided will not have negative impact.

Aspect	Description	Weight
Probability	Improbable	1
	Probable	2
	Highly Probable	4
	Definite	5
Duration	Short Term	1
	Medium Term	3
	Long Term	4
	Permanent	5
Scale	Local	1
	Site	2
	Regional	3
Magnitude/Severity	Low	2
	Medium	6
	High	8
Significance	Sum (Duration, Scale, Magnitude)	x Probability
	Negligible	≤20
	Low	>20≤40
	Moderate	>40≤60
	High	>60

Results: $1+2+2 \times 1 = 5$ i.e. ≤ 20

The impact of the proposed development on recorded and known cultural heritage sites in the area is therefore deemed as Negligible based on the Impact Assessment criteria used. However, there is always a possibility of sites, features and material being missed as a result of various factors such as vegetation cover hampering visibility on the ground, as well as the often-subterranean nature of cultural heritage resources (including low stone-packed or unmarked graves). For these reasons it is recommended that a Chance Find Protocol (CFP) also be drafted and implemented for the development. This will ensure that, should any previously unknown and unrecorded sites, features and cultural material deposits be exposed during any development activities, that these could be investigated by a Heritage Specialist in order to provide recommendations on their significance and on the way forward in terms of possible mitigation measures. A Generic CFP is provided below:

Chance Find Protocol

A CFP will ensure that should any previously unknown sites, features or significant cultural material deposits are uncovered that these are reported to and investigated by a Heritage Specialist who will then provide recommendations on the way forward in terms of mitigation.

This Protocol applies to permanent employees, its subsidiaries, contractors and subcontractors, and service providers. The aim of this Protocol is to establish monitoring and reporting procedures to ensure compliance with this Protocol and its associated procedures. Construction crews must be properly inducted to ensure they are fully aware of the procedures regarding chance finds relating to heritage resources.

The term 'heritage resource' includes structures, archaeology, paleontology, meteors, and public monuments as per the South African National Heritage Resources Act (Act No. 25 of 1999) (NHRA) Sections 34, 35, and 37.

Procedures specific to burial grounds and graves as defined under NHRA Section 36 will be discussed separately as these require the implementation of separate criteria for Chance Find procedures.

The following procedural guidelines must be considered in the event that previously unknown heritage resources or burial grounds and graves are exposed or found during the life of the project.

Initial Identification and/or Exposure (Chance Find)

If during the construction, operations, or closure phases of this project, any person employed by the developer, one of its subsidiaries, contractors and subcontractors, or service provider, find any artefact of cultural significance, this person must cease work at the site of the find. They must report this find to their immediate supervisor, and through their supervisor to the senior on-site manager.

The initial procedure when such sites are found aim to avoid any further damage. If during the construction, operations or closure phases of this project, any person employed by the developer, one of its subsidiaries, contractors and subcontractors, or service provider, finds any artefact of cultural significance the following steps and reporting structure must be observed in both instances:

- The person or group (identifier) who identified or exposed the heritage resource or burial ground must cease all activity in the immediate vicinity of the site;
- The identifier must immediately inform the senior on-site Manager of the discovery;
- The senior on-site Manager must make an initial assessment of the extent of the find, and confirm the extent of the work stoppage in that area and ensure that the site is secured and control access;

- The senior on-site Manager will inform the ECO and Health and Safety (HS) officer of the chance find and its immediate impact on operations. The ECO will then contact the project archaeologist.
- **Chance Find Protocol: Heritage Resources**

In the event that previously unidentified heritage resources are identified and/or exposed during construction or operation of the project, the following steps must be implemented subsequent to those outlined above:

- The project archaeologist must be notified of the discovery;
- The project archaeologist will visit the site for a field-based assessment of the finds and appropriate mitigation measures will then be presented to the developer;
- Should the specialist conclude that the find is a heritage resource protected in terms of the NHRA (1999) Sections 34, 35, 37 and NHRA (1999) Regulations (Regulation 38, 39, 40), the project archaeologist will notify the South African Heritage Resources Agency (SAHRA) and/or the Provincial Heritage Resources Agency Gauteng (PHRA-G) on behalf of the developer; and
- Based on the comments received from SAHRA and/or PHRA-G, the project archaeologist will provide the developer with a Terms of References Report and relevant associated costs if necessary.

Chance Find Protocol: Burials and Graves

In the event that previously unidentified burial grounds and graves are identified and/or exposed during construction or operation of the project, the following steps must be implemented subsequent to those outlined above:

- The project archaeologist must immediately be notified of the discovery in order to take the required further steps:
- The local South African Police Service (SAPS) will be notified on behalf of the developer;
- The project archaeologist will inspect the exposed burial and determine in consultation with the SAPS if any additional graves may exist in the vicinity as well as the temporal context of the remains, i.e.:
 - Forensic
 - Authentic burial/grave (informal or older than 60 years, NHRA (1999) Section 36); or
 - Archaeological (older than 100 years, NHRA (1999) Section 38);

- Should the specialist conclude that the find is a heritage resource protected in terms of the NHRA (1999) Section 36 and NHRA (1999) Regulations (Regulation 38, 39, 40), the project archaeologist will notify SAHRA and/or LIHRA on behalf of the developer;
- SAHRA's Burial Grounds & Graves Unit (BBG Unit) may require that an identification of interested parties, consultation and /or grave relocation take place;

Consultation must take place in terms of NHRA (1999) Regulations 39, 40, 42; and 5. Grave relocation must take place in terms of NHRA (1999) Regulations 34.

7. CONCLUSIONS AND RECOMMENDATIONS

APelser Archaeological Consulting (APAC) was appointed by CP Operations (Pty) Ltd (Century Property Developments) to conduct a Phase 1 HIA for the proposed Vorna Valley School Development. The study & proposed development area footprint are located near the Kyalami Hills Estate in Midrand, Gauteng Province.

Background research indicates that there are some cultural heritage sites and features in the larger geographical area within which the study area falls. No Stone Age, Iron Age or recent historical sites, features or material were identified in the area during the recent August 2025 field-based assessment. If any did exist in the study and proposed development area in the past, it would likely have been extensively impacted or even destroyed by recent developments in the area.

The impact of the proposed development on recorded and known cultural heritage sites in the area is deemed as Negligible based on the Impact Assessment criteria used. With the possibility of sites, features and material being missed as a result of various factors, it is recommended that a Chance Find Protocol be drafted and implemented for the proposed development. A Generic CFP is provided in the report.

Finally, from a Cultural Heritage perspective, it is recommended that the proposed Vorna Valley Development be allowed to continue, taking into consideration the mitigation measures recommended above.

The subterranean nature of cultural heritage resources (including low stone-packed or unmarked graves) should also be taken into consideration. Should any previously unknown or invisible sites, features or material be uncovered during any development actions then an expert should be contacted to investigate and provide recommendations on the way forward.

8. REFERENCES

General and Closer Views of study and proposed development area footprint: Google Earth 2025.

Location Map: courtesy CP Operations (Pty) Ltd.

Field Report and Photographs: courtesy Hannes Visser August 2025.

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APPENDIX A: DEFINITION OF TERMS:

Site: A large place with extensive structures and related cultural objects. It can also be a large assemblage of cultural artifacts, found on a single location.

Structure: A permanent building found in isolation or which forms a site in conjunction with other structures.

Feature: A coincidental find of movable cultural objects.

Object: Artifact (cultural object).

(Also see Knudson 1978: 20).

APPENDIX B: DEFINITION/ STATEMENT OF HERITAGE SIGNIFICANCE

Historic value: Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.

Aesthetic value: Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.

Scientific value: Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period

Social value: Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

Rarity: Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.

Representivity: Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province region or locality.

APPENDIX C: SIGNIFICANCE AND FIELD RATING:

Cultural significance:

- Low: A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings.
- Medium: Any site, structure or feature being regarded less important due to a number of factors, such as date and frequency. Also any important object found out of context.
- High: Any site, structure or feature regarded as important because of its age or uniqueness. Graves are always categorized as of a high importance. Also any important object found within a specific context.

Heritage significance:

- Grade I: Heritage resources with exceptional qualities to the extent that they are of national significance
- Grade II: Heritage resources with qualities giving it provincial or regional importance although it may form part of the national estate
- Grade III: Other heritage resources of local importance and therefore worthy of conservation

Field ratings:

- i. National Grade I significance: should be managed as part of the national estate
- ii. Provincial Grade II significance: should be managed as part of the provincial estate
- iii. Local Grade IIIA: should be included in the heritage register and not be mitigated (high significance)
- iv. Local Grade IIIB: should be included in the heritage register and may be mitigated (high/medium significance)
- v. General protection A (IV A): site should be mitigated before destruction (high/medium significance)
- vi. General protection B (IV B): site should be recorded before destruction (medium significance)
- vii. General protection C (IV C): phase 1 is seen as sufficient recording and it may be demolished (low significance)

APPENDIX D: PROTECTION OF HERITAGE RESOURCES:

Formal protection:

National heritage sites and Provincial heritage sites – Grade I and II

Protected areas - An area surrounding a heritage site

Provisional protection – For a maximum period of two years

Heritage registers – Listing Grades II and III

Heritage areas – Areas with more than one heritage site included

Heritage objects – e.g. Archaeological, palaeontological, meteorites, geological specimens, visual art, military, numismatic, books, etc.

General protection:

Objects protected by the laws of foreign states

Structures – Older than 60 years

Archaeology, palaeontology and meteorites

Burial grounds and graves

Public monuments and memorials

APPENDIX E: HERITAGE IMPACT ASSESSMENT PHASES

1. Pre-assessment or Scoping Phase – Establishment of the scope of the project and terms of reference.
2. Baseline Assessment – Establishment of a broad framework of the potential heritage of an area.
3. Phase I Impact Assessment – Identifying sites, assess their significance, make comments on the impact of the development and makes recommendations for mitigation or conservation.
4. Letter of recommendation for exemption – If there is no likelihood that any sites will be impacted.
5. Phase II Mitigation or Rescue – Planning for the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.
6. Phase III Management Plan – For rare cases where sites are so important that development cannot be allowed.