MEMORANDUM: HERITAGE SCAN FOR THE PROPOSED PRETORIA NATIONAL BOTANICAL GARDENS INFRASTRUCTURE PROJECT, CITY OF TSHWANE MUNICIPALITY, GAUTENG PROVINCE

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1. Background and Project Description

Exigo Sustainability was commissioned by EOH Coastal & Environmental Services to conduct a heritage scan as part of an Environmental Basic Assessment (BA) for the proposed construction of administrative buildings and associated infrastructure on the grounds of the Pretoria National Botanical Gardens in the City of Tshwane Municipality, Gauteng Province. The development area measures approximately 0.1ha. This memo includes background information on the area’s heritage, its representation in southern Africa, and the history of the larger area under investigation, survey methodology and results as well as heritage legislation and conservation policies. A copy of the memo will be lodged with the Gauteng Provincial Heritage Resources Agency (G-PHRA) whereby recommendations contained in this document will be reviewed.

2. Site Description and Status

The site for the proposed Pretoria National Botanical Gardens Infrastructure Project is situated on the grounds of the Botanical Gardens approximately 10km east of the Pretoria CBD, generally at S25.739356° E28.276474° (1:50 000 topographical map sheet 2528CB) (See Addendum 1, Figure 1 & Figure 2).

Even though the general surroundings in the Botanical Gardens consists of well-kept and landscaped gardens, the project footprint is densely vegetated where high trees, shrubs and surface grass occurs throughout. In many portions of the project footprint, the vegetation had encroached on transformed and disturbed surroundings where rubble heaps containing bricks, concrete, stones and other material occur. Large soil mounds occur in the project area and a number of trenches have been dug where piping are being constructed.

3. Brief Archaeo-historical Context

The history of Gauteng is reflected in a rich archaeological landscape. Sites, documenting Earlier, Middle and Later Stone Age habitation occur across the province, mostly in open air locales or in sediments alongside rivers or pans. In addition, a wealth of Later Stone Age rock art sites, most of which are in the form of rock engravings are to be found in the larger landscape. These sites occur on hilltops, slopes, rock outcrops and occasionally in river beds. Later, Bantu-speaking tribes moved into this area from the northern parts of Southern Africa and settled here. These were presumably Sotho-Tswana herder groups during the Late Iron Age times during the period AD 1500-1800. Settlement by Iron Age communities took place near rivers and close to rocky outcrops. Clusters of trees often indicate the presence of remaining stone walls and other structures. White farmers, settling in the area since the middle of the
19th century, divided up the landscape into a number of farms, which even today form the framework for agricultural, residential and other forms of development. Stands of poplar, palm, eucalyptus, pine and other trees often indicate the presence of farmsteads and proved to be helpful in tracing these cultural resources.

3.1 The Early and Middle Stone Ages in the Gauteng Region

The Highveld areas of Gauteng were inhabited by humans since the Earlier Stone Age (ESA) times and stone tools dating to this period, typically found in the vicinity of watercourses, are abundantly scattered in the landscape. A significant ESA site has been documented on the farm Kaalfontein (366JR) near the Willem Prinsloo Agricultural Museum where an Earlier Stone Age habitation site occurs about 1m sub-surface. The site yielded some of the oldest and largest Stone Age implements found in South Africa. The Middle Stone Age (MSA) marked the occupation of formerly unoccupied areas on the Highveld near water sources and tools belonging to this period mostly occur in the open or in erosion dongas. Later Stone Age (LSA) people displayed advanced technologies and therefore occupied larger and more diverse environments. Most LSA sites are found in association with rock shelters and caves with material found across the Magaliesberg, to the north and east of Mamelodi and scattered throughout Pretoria’s surroundings.

3.2 The Iron Age / Farmer Period and Stone Walled Settlements

Remains of Early Iron Age occupation on the Highveld is scarce, with isolated sites occurring in the Magaliesberg, e.g. at Broederstroom. Large scale occupation of the larger Gauteng area by Bantu speaking farming communities occurred only in the second millennium AD. The 16th century was marked by a warmer and wetter climate, providing conditions favourable for Later Iron Age (LIA) farmer occupation in areas in the Witwatersrand, the Free State and the Mpumalanga escarpment. This, in turn resulted in increased food production with expanding populations on the central Highveld by the 19th century. Due to ever expanding territories and resulting conflict situations these Later Iron Age farmers preferred protective mountain slopes close to areas fit for cattle grazing. A number of Later Iron Age stone-walled archaeological sites, conventionally associated with Tswana and Ndebele speakers occur, in amongst other areas, across the Pienaars River around Wallmannsthal, Roodeplaat dam and southwards across the N4 Highway. Large concentration of Later Iron Age sites in the larger Pienaarspoort area have been documented on the farms Downbern 494JR, Elandshoek 337JR, Leeuwkloof 258 JR, the Windybrow Game Farm and Buffelskloof 281JR.

3.3 Later History: Colonial Period and the Anglo-Boer War

In the 1820s the first European farmers, hunters, traders, missionaries and other travellers people appeared on the Highveld. Pretoria was founded in 1855 by Marthinus Pretorius, leader of the Voortrekkers, who named it after his father Andries Pretorius. The elder Pretorius had become a national hero of the Voortrekkers after his victory over the Zulus in the Battle of Blood River. It became the capital of the South African Republic (ZAR) on 1 May 1860. The founding of Pretoria as the capital of the South African Republic can be seen as marking the end of the Boers’ settlement movements of the Great Trek. For centuries the area east of Pretoria proved to be ideal farmland because of its water richeness and the first white settlers trekked into this area during the early part of the 19th century. The Bronkhorst family were the first owners of the farms in the district where Pretoria would later be founded. Pretoria saw British troops advancing through the area during the Anglo-Boer War, before engaging in battle, on 11 and 12 June 1900, that was later to become known as the “Battle of Diamond Hill” or the “Slag van Donkerhoek”. It was one of the largest battles that took place during the war and the remains of gun placements, trenches and fortifications can still be found. Since its founding in 1855, urban development of Pretoria remained concentrated in the central area around Church Square. Elsewhere, settlement was mainly agricultural, characterized by the subdivision of the original farms to accommodate children. During the 1940-1950 era there was a large increase in the urban population and many new suburbs were developed on the periphery of the urban area. Parallel with urban development was the development and settlement of smallholdings around the urban centres. Agricultural smallholdings developed in the
Transvaal after World War I, but a real increase in the number of smallholdings only took place between 1935 and 1939. The Pretoria National Botanical Garden was established in June 1946 when the University of Pretoria granted approval to the Department of Agriculture for the development of a botanical garden on a piece of land that was previously part of the University’s Experimental Farm.

4. **Heritage Survey and Scoping**

A site inspection of the site demarcated for the Pretoria National Botanical Gardens Infrastructure Project was conducted on 5 November 2018 where the site was carefully investigated by means of a foot survey. The visibility of general surroundings at the time of the survey was moderate to low as the site is densely vegetated (See Addendum 1, Figure 6 – Figure 13). A Garmin Montana GPS and geo-referenced aerial photos on a tablet device was used for spatial reference. The general landscape and the site impacted on were recorded and photographed with a Canon Digital camera in accordance with standard archaeological practice by which prospective development sites are recorded as part of heritage assessment. As most archaeological material occur in single or multiple stratified layers beneath the soil surface, special attention was given to disturbances, both man-made such as roads and clearings, as well as those made by natural agents such as erosion. In addition, historical topographical maps and aerial photographs were examined which in turn, suggest that the landscape around the current botanical gardens remained largely undeveloped (as part of the University of Pretoria Experimental Farm) prior to the establishment of the facility in 1946. As such, no man-made structures or features of heritage potential are visible on either maps or photos (See Addendum 1, Figure 4 and Figure 5) and the author of this memorandum is convinced that no sensitive heritage receptors were present in the landscape prior to the more recent transformation of the site (See Section 2).

Consequently, during the site and aerial surveys no sites of heritage potential or the remains thereof were noted at the site proposed for development.

5. **Impact and Proposed Mitigation**

No heritage features or indications of the presence of such features were observed within the proposed Pretoria National Botanical Gardens Infrastructure Project development site and it might be assumed that, considering the transformed nature of the site, the footprint zone is void of heritage or archaeological remains. As a result, the impact of the proposed development on known heritage resources can be considered to be nil. No further heritage mitigation measures are required provided that no previously undetected surface or subsurface heritage remains are found at any point during site clearing or development.

6. **Recommendations**

A number of archaeological and historical studies have been conducted in this part of the Gauteng Province and most of these studies infer a varied and rich heritage landscape. Locally, historical data pertaining to the Pretoria National Botanical Gardens Infrastructure Project site suggest that no sites of heritage significance occurred in the project footprint prior to more recent alteration and transformation of the site as a result of digging and rubble dumping. In addition, no heritage receptors were noted in the proposed development area during the site inspection and the author of this memorandum is confident that no impact will occur on heritage resources during the course of the proposed development. As such, no further action in terms of heritage assessment or mitigation is required, provided that no previously undetected heritage remains of significance be exposed during earth moving and construction.

**It is recommended that the developer be exempted from further Phases of Heritage Assessment.**

Should previously undetected surface or subsurface palaeontological, archaeological or historical material be exposed during construction activities, all activities should be suspended and the archaeological specialist should be notified.
immediately (contact: neels@exigo3.com / +27 012 751 2160). In the event that human remains are discovered at any stage, these should be reported to the archaeological specialist and the South African Heritage Resources Authority (contact: info@sahra.org.za / +27 021 462 4502) and development activities should be suspended until the site has been inspected by the Specialist. The archaeological specialist will advise on further management actions and possible relocation of human remains in accordance with the Human Tissue Act (Act 65 of 1983 as amended), the Removal of Graves and Dead Bodies Ordinance (Ordinance no. 7 of 1925), the National Heritage Resources Act (Act no. 25 of 1999) and any local and regional provisions, laws and by-laws pertaining to human remains.

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7. List of References


Human Tissue Act and Ordinance 7 of 1925, Government Gazette, Cape Town

National Resource Act No. 25 of 1999, Government Gazette, Cape Town

www.sahra.org.za/sahris

Accessed 2018-11-02

https://www.sanbi.org/gardens/pretoria/history/

Accessed 2018-11-02
Figure 1: Geographical location of the proposed Pretoria National Botanical Gardens Infrastructure Project (1:50 000 Map reference 2528CB).
Figure 2: Aerial map providing an representation of the proposed Pretoria National Botanical Gardens Infrastructure Project site (yellow outline).
Figure 3: Project map providing a site plan for proposed Pretoria National Botanical Gardens Infrastructure Project site in brown shade (map provided).
Figure 4: A series of historical maps of the project landscape, dating to 1943 (top), 1965 (middle) and 1975 (bottom). The location of the project site is indicated by the yellow circle. Note the general absence of man-made features on the maps.
Figure 5: A series of historical aerial photos of the project landscape, dating to 1939 (top), 1948 (middle) and 1965 (bottom). The relative location of the project site is indicated by the red arrows. Note the general absence of man-made features on the photos.
Figure 6: View of rubble heaps and spoil mounds in the project footprint area.

Figure 7: View of rubble heaps and stones in the project footprint area.

Figure 8: View of dense surface vegetation in a portion of the project area.
Figure 9: View of surface vegetation the project area.

Figure 10: View of an open trench and digging in the project area.

Figure 11: Current construction at the education centre adjacent to the project area.
Figure 12: View of concrete and bricks on rubble heaps in the project area.

Figure 13: View of rubble heaps in the project area
ADDENDUM 2: General Legislative Framework

The National Heritage Resources Act (Act No. 25 of 1999, section 38) provides guidelines for Cultural Resources Management and prospective developments:

“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 50 m 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.”

Consequently, section 35 of the Act requires Heritage Impact Assessments (HIA’s) or scoping to be done for such developments in order for all heritage resources, that is, all places or objects of aesthetics, architectural, historic, scientific, social, spiritual linguistic or technological value or significance to be protected. Thus any assessment should make provision for the protection of all these heritage components, including archaeology, shipwrecks, battlefields, graves, and structures older than 60 years, living heritage, historical settlements, landscapes, geological sites, palaeontological sites and objects.

It must also be clear that Archaeological Specialist Reports (AIA’s), Heritage Impact Assessment Reports (HIA’s), Heritage Memo’s and included motivations and recommendations will be assessed by the relevant heritage resources authority (LIHRA). The final decision as to heritage resources conservation, mitigation and destruction rests with the heritage resources authority.