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**A PHASE 1 HERITAGE IMPACT ASSESSMENT REPORT FOR THE  
THE BAVIAANSPOORT OUTFALL SEWER LINE SECTIONS B & C  
ON VARIOUS PORTIONS OF THE FARMS  
ZWARTKOPPIES 364JR, HATHERLEY 331JR & THE WILLOWS 340JR  
TSHWANE METROPOLITAN AREA, GAUTENG**

For:

***Bokamoso Landscape Architects & Environmental Consultants CC  
PO Box 11375  
Maroelana  
0161***

REPORT: **APAC020/87**

by:

***A.J. Pelser  
Accredited member of ASAPA***

***October 2020***

**P.O. BOX 73703  
LYNNWOOD RIDGE  
0040  
Tel: 083 459 3091  
Fax: 086 695 7247  
Email: [apac.heritage@gmail.com](mailto:apac.heritage@gmail.com)**

Member: AJ Pelser BA (UNISA), BA (Hons) (Archaeology), MA (Archaeology) [WITS]

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## SUMMARY

APelser Archaeological Consulting (APAC) was appointed by Bokamoso Landscape Architects & Environmental Consultants CC to conduct a Phase 1 Heritage Impact Assessment for the Baviaanspoort Outfall Sewer Line Sections B & C, located on various portions of the farms Zwartkoppies 364JR, Hatherley 331JR & The Willows 340JR. The study area is located in the Tshwane Metropolitan Municipality of Gauteng.

Background research indicates that there are some cultural heritage (archaeological & historical) sites and features in the larger geographical area within which the study area falls. The assessment of the specific study area did identify some sites, features or material of cultural heritage (archaeological and/or historical) origin or significance that will be impacted directly by the line. This report discusses the results of both the background research and physical assessment and provides recommendations on the way forward at the end.

**It is recommended that the proposed development of the Baviaanspoort Outfall Sewer Line Sections B & C be allowed to continue, taking into consideration the recommendations put forward at the end of the report.**

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## **1. INTRODUCTION**

APelser Archaeological Consulting (APAC) was appointed by Bokamoso Landscape Architects & Environmental Consultants CC to conduct a Phase 1 Heritage Impact Assessment for the Baviaanspoort Outfall Sewer Line Sections B & C, located on various portions of the farms Zwartkoppies 364JR, Hatherley 331JR & The Willows 340JR. The study area is located in the Tshwane Metropolitan Municipality of Gauteng.

The Project Proponent is Balwin Properties on behalf of the City of Tshwane Metropolitan Municipality (CoTMM). The project entails the installation of Section B and C of the new Baviaanspoort Outfall Sewer approximately 7.8km in length connecting to Section A of the Baviaanspoort Outfall Sewer. The purpose of the sewer line is to enable existing and new development in the area to connect to a new bulk sewer line.

Background research indicates that there are some cultural heritage (archaeological & historical) sites and features in the larger geographical area within which the study area falls. The assessment of the specific study area did identify some sites, features or material of cultural heritage (archaeological and/or historical) origin or significance that will be impacted directly by the line.

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

## **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

According to the above-mentioned 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. A 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 000m<sup>2</sup> or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000m<sup>2</sup>
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

### **Structures**

Section 34(1) of the mentioned 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 of 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**

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.

## **4. METHODOLOGY**

### **4.1. Survey of literature**

A survey 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.

### **4.2. Field survey**

The field assessment section of the study was conducted 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.

### **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.

## **5. DESCRIPTION OF THE AREA**

Section B and C will be installed along the Pienaars River and will affect Portions 44, 89 and 253 and the Remainder of Portion 2 of Zwartkoppies 364 JR, the Remainder of Hatherley 331 JR and the Remainder of Portion 398 of The Willows 340 JR.

The proposed Outfall Sewer will be installed in the east of the City of Tshwane. The proposed Section B and C sewer line will commence in close proximity of the point where the Pienaars River flows underneath the N4 towards the north-west. Section B of the proposed sewer line stretches in a north-western direction from the N4 freeway up to Road M10 (Solomon Mahlangu Drive) and runs almost parallel to the river. It might be necessary for Section B to cut across the river/tributary of the river in sensitive areas/on difficult sites as identified by the project engineers. Section C stretches in a north-western direction,

adjacent to the Nelmaphius suburb, from Road M10 (Solomon Mahlangu Drive) up to a point where the Pienaars River's confluence with one of its tributaries.

The topography of the study area is fairly flat and open mostly. In the Section C portion the largest part of the line follows the Pienaarsrivier closely and is located in a both informal and more formal township setting. Large-scale refuse dumping and pollution in this area has impacted on the area together with the urban development activities. The Section B portion has been impacted to a lesser degree by urban developments, but earlier agricultural activities in the area have impacted on the natural landscape in the historical past and if significant archaeological and historical sites, features or material did exist here it would have been disturbed or even destroyed to a large degree as a result. However, the presence of Late Iron Age stone-walled sites in the larger area, as well as known historical sites, should be taken into consideration. This will be discussed later on in the report.

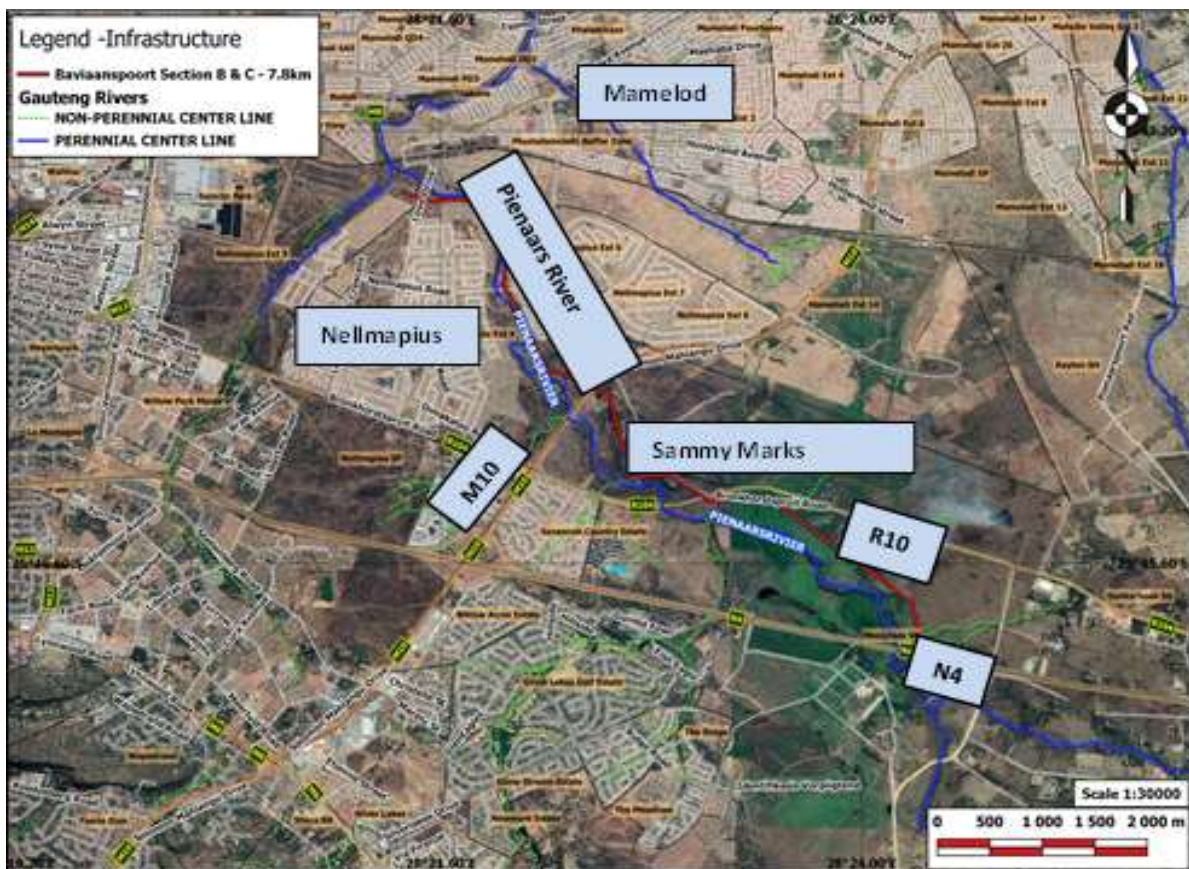
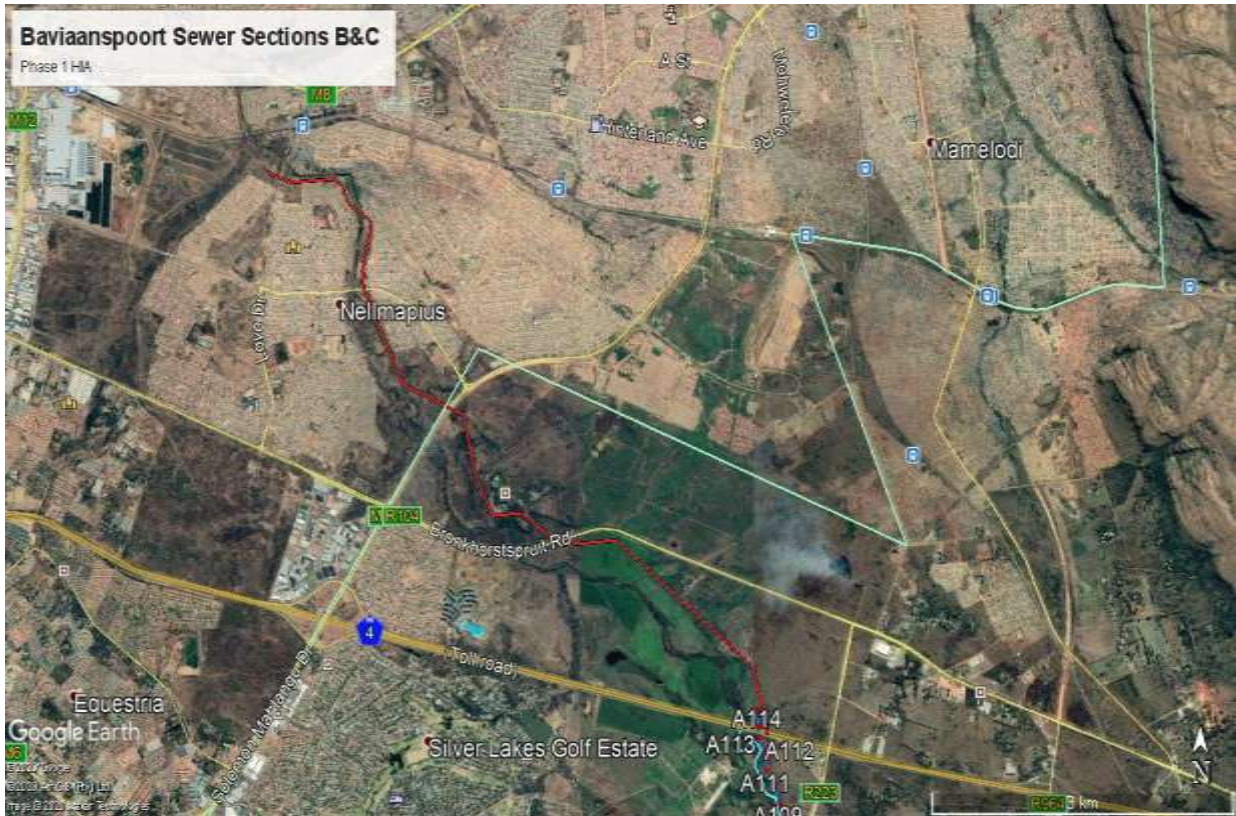


Figure 1: Location Map showing the proposed Baviaanspoort Sewer Outfall Line (in red) Sections B & C (courtesy Bokamoso Landscape Architects and Environmental Consultants CC).





**Figure 2: General location of the Sewer Outfall Line study area (Google Earth 2020).**



**Figure 3: Closer view of Section B portion of the line between the N4 & Solomon Mahlangu Drive (Google Earth 2020).**





**Figure 4: Closer view of Section C portion of the line between the Solomon Mahlangu Drive & Nellmapius (Google Earth 2020).**

## 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 in 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 are those of the well-known Early Stone Age site at Wonderboompoort, a Later Stone Age site known as Fort Troje near Cullinan and a number of sites in the Magaliesberg area (Bergh 1999: 4). Stone Age people occupied the larger area since earliest times. Middle Stone Age material has also been identified at Erasmusrand and the Groenkloof Nature Reserve (Van Vollenhoven 2006: 183). At the Erasmusrand cave some Late Stone Age tools were also identified as well as at Groenkloof (Van Vollenhoven

2006: 184). LSA material was also found at Zwartkops and Hennops River (Bergh 1999: 4). This last phase of the Stone Age is associated with the San people.

Very little data is available on the Stone Age within the study area. Van Schalkwyk in a report on the proposed upgrading of road R104, Silverton to Bronkhorstspuit merely noted that stone tools from all phases of the Stone Age are present within the region, and especially along water courses and lithic outcrops. In a survey for heritage resources on Hatherley 331JR the National Cultural History Museum (now Ditsong) (1995) recorded isolated elements of Middle Stone Age (MSA) lithics on hornfels, quartz and quartzite. The authors point out that whereas no Later Stone Age (LSA) lithics were recorded, some LSA examples have been found to the south on the farm Donkerhoek 365JR. The National Cultural History Museum (1995) in a survey for heritage resources on Pienaarspoort 339 JR recorded isolated elements of MSA lithics on hornfels, quartz and quartzite (Kusel 2019: 38).

***No Stone Age sites or objects (such as stone tools) were identified in the area during the assessment. If any Stone Age artifacts are to be found in the area then it would more than likely be single, out of context, stone tools.***

The Iron Age is the name given to the period of human history when metal was mainly used to produce metal 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) however indicates that a Middle Iron Age should be included. His dates, which now seem to be 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.

No Early Iron Age sites are known in the larger geographical area of Pretoria, while Later Iron Age sites do occur in the Pretoria area (Bergh 1999: 7). The closest known LIA sites are at Silver Lakes and near Mamelodi on the farm Hatherley (Van Schalkwyk et.al 1996). These sites are related to the Manala Ndebele (Bergh 1999: 10) who was present in the area at the time when the first Europeans arrived here during the mid-19th century. LIA sites are also known to occur widely on the farm Zwartkoppies (Kusel 2019).

Iron Age occupation of the area did not start much before the 1500s. By that time, groups of Tswana and Ndebele speaking people were moving into the area, occupying the different hills and outcrops, using the ample resources such as grazing, game and metal ores. During the early decades of the 19th century, the Tswana- and Ndebele-speakers were dislodged by the Matabele of Mzilikazi. Internal strife caused Mzilikazi, a general of King Shaka, and his followers to move away from the area between the Thukela and Mfolozi River (KwaZulu-Natal). Eventually, after a sojourn in the Sekhukhuneland area, followed by a short stay in

the middle reaches of the Vaal River, they settled north of the Magaliesberg. One of three main settlements established by them, eKungwini, was on the banks of the Apies River, just north of Wonderboompoort. However, no remains of this settlement have ever been identified. It was during the Matabele's stay along the Apies River that the first white people entered the area: travelers and hunters such as Cornwallis Harris and Andrew Smith, traders Robert Schoon and Andrew McLuckie, and missionaries James Archbell and Robert Moffat. It is known from oral history the Robert Schoon sent Mzilikazi huge quantities of glass trade beads, rather than the guns that the latter coveted so much.

It is a well-established fact that the stone walled sites on various farms in the larger area around the east of Pretoria and the Bronberge were inhabited mainly by the southern Ndebele. The former were most probably among the earliest Nguni-speaking people in the immediate area north of the Magaliesberg range north of Pretoria. During the rule of a chief named Musi, they split into five separate migrating groups, namely the Manala, Ndzungza, Kekana, Mhwaduba and Sibasa sections (Van Schalkwyk et.al 1996:47-48).

The Manala settled over a wide area towards the east of present-day Pretoria. This is roughly north and north east of the Bronberg range (from Wapadrand in the west towards Tiegerpoort and Bapsfontein in the south east), south of the Magaliesberg and Pienaarspoort range (known to the Manala as Ko- or KwaQobongo) and from Mamelodi in the west towards the Cullinan intersection on the N4 in the east.

According to oral traditions this area was geo-politically divided into three regions. It is unclear whether these divisions denoted tribal sub regions, wards or headmanships, whether they were chronologically occupied and deserted, and exactly which rulers or chiefs were linked to these areas. The oral traditions also revealed that since the almost complete destruction of the Manala chiefdom by Mzilikazi in around 1825, remnants of the Manala regrouped in scattered settlements or clusters of settlements up to recent times. Many Manala became labour tenants on European owned farms in the area. As a result of the destruction caused by Mzilikazi, the Manala underwent a three-fold split, which was further aggravated by internal strife.

The pre-colonial threefold regional divisions, consisted of Ezotshaneni, Embilaneni and KoNonduna. According to oral records, KoNonduna was occupied between circa 1747 and 1825 at the time of Mzilikazi's destruction of the Manala. The dates are speculative and based on a complex dating system, which combines the notion of regimentation, generation and duration of rule. In terms of Manala Royal Genealogy, the names of all 33 rulers (amakosi), from around 1642 to the present, are known. Of these, Mdibane (11th ruler and founder of KoNonduna), Matshaba (14th ruler and linked to Hatherley or Emakopana) and Sibindi (18th ruler attacked by Mzilikazi) are the most relevant in terms of the work on Hatherley (Van Schalkwyk et.al 1996:48-49).

The exact geographical boundaries of the KoNonduna sub-region are not known. It might have overlapped with the adjacent Embilaneni. Oral traditions does however provide the names of farms which formed part of this region, namely Klipkop 396 JR, **a section of Zwartkoppies 364 JR, Hatherley 331 JR**, a section of Mooiplaats 367 JR and Zwavelpoort 373

JR. It appears that the KoNonduna ward was established at the time of the reign of MdBane and lasted until the time of the attack by Mzilikazi during Sibindi's reign (Van Schalkwyk et.al 1996:49-50). Some of the stone-walled remains located on Portion 407 of Mooiplaats 367JR are therefore more than likely related to the Manala Ndebele and KoNonduna.

***Although no Iron Age sites, features or cultural material were identified during the October 2020 assessment of the Baviaanspoort Sewer Outfall Line Sections B & C, it is known that sites dating to this time-period do exist in the area.***

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 groups of Schoon and McLuckie and the missionaries Archbell and Moffat in 1829 (Bergh 1999: 12). They were followed by others such as Andrew Smith (1835), Cornwallis Harris (1836) and David Livingstone in 1847 (Bergh 1999: 13). These groups were closely followed by the Voortrekkers after 1844 and Pretoria was established in 1855 (Bergh 1999: 14-17). White settlers started to occupy huge tracts of land, claiming it as farms after the late 1840s. Of these, some of the earliest were Lucas Bronkhorst (Groenkloof), David Botha (Hartebeestpoort – Silverton) and Doors Erasmus (Wonderboom). With the establishment of Pretoria (1850) services such as roads, started to develop. The larger area within which the study area is located also played a role during the Anglo-Boer War (1899-1902) and specifically during the Battle of Donkerhoek/Diamond Hill in June 1900 (Bergh 1999: 53-54).

***Some historical sites, features or material were identified in the study area during the assessment. The Sammy Marks House Museum on Zwartkoppies is located in close proximity to a section of the proposed line and some of its associated historical structures will be directly impacted by the development activities. A buffer zone of at least 30m must be placed from the outer boundary of these structures within which no development should be taking place.***

The oldest map for the farm Zwartkoppies 364JR (Portion 1) dates to 1874. It shows that farm was then numbered as No.289 and was located in the Pretoria District, Piennaarsrivier Ward of the Z.A.R. The farm was surveyed for (it seems) one H.W Strijdom in March 1874 (**CSG Document 10HFJ01**). The map for Portion 2 of the same farm dates to 1879 and shows that it was surveyed for one G. Bannatyne (**CSG Document 10521577**). For Hatherley 331JR (Portion 1) a 1918 map shows that the farm was then known as Weltevreden No.22 and that the farm was originally surveyed in March 1889 (**CSG Document 10HH3H01**). The farm was given by Deed of Transfer in October 1892 to Eerste Fabrieken Hatherley Distillery Ltd. Eerste Fabrieken was one of Sammy Marks' businesses. For The Willows 398JR an 1879 map for Portion 1 shows that it was surveyed for one C. Rademeyer at an unknown date (**CSG Document 10HIWZ01**).

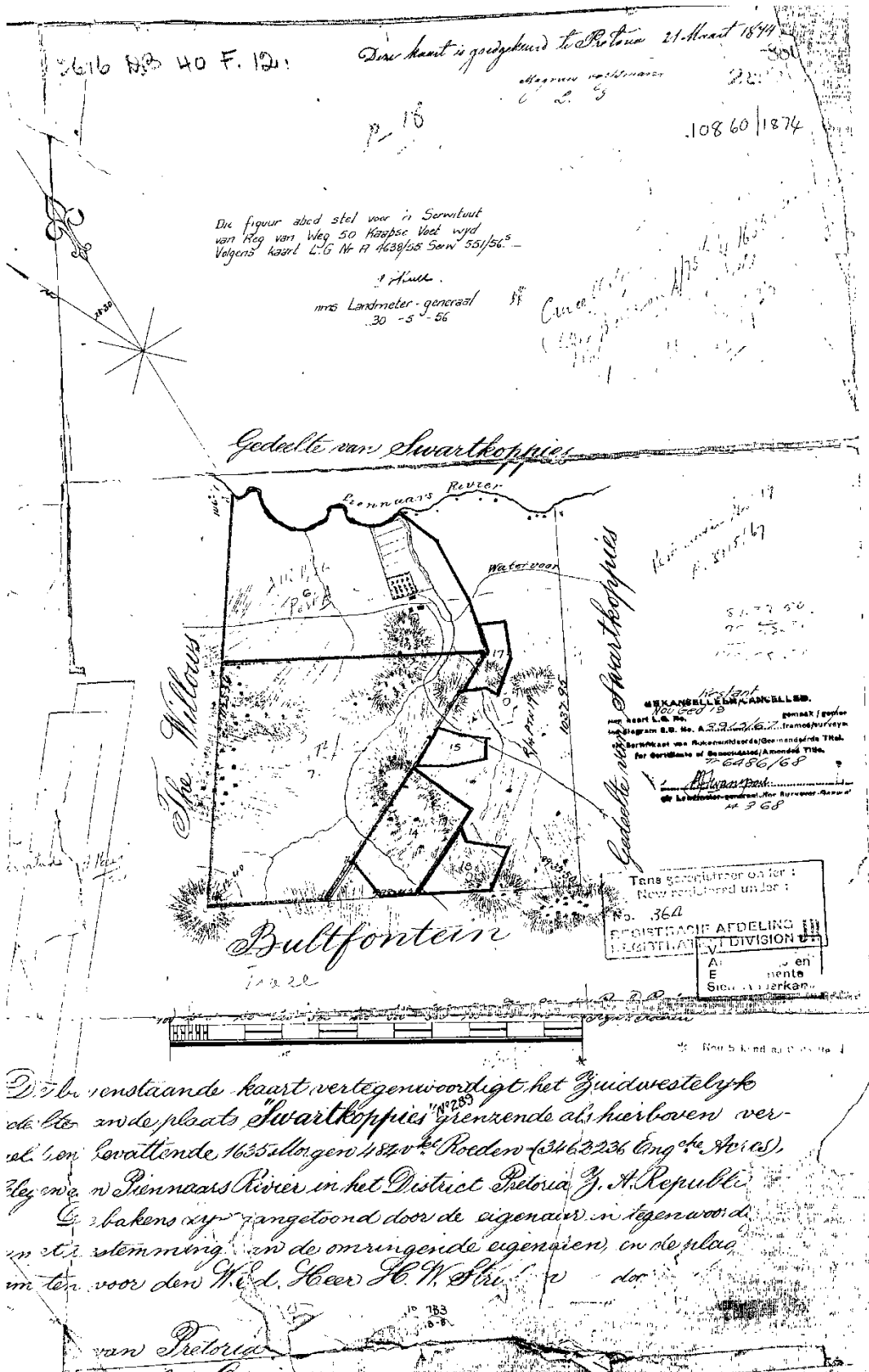


Figure 5: 1874 map of Zwartkoppies 364JR ([www.csg.dla.gov.za](http://www.csg.dla.gov.za)).



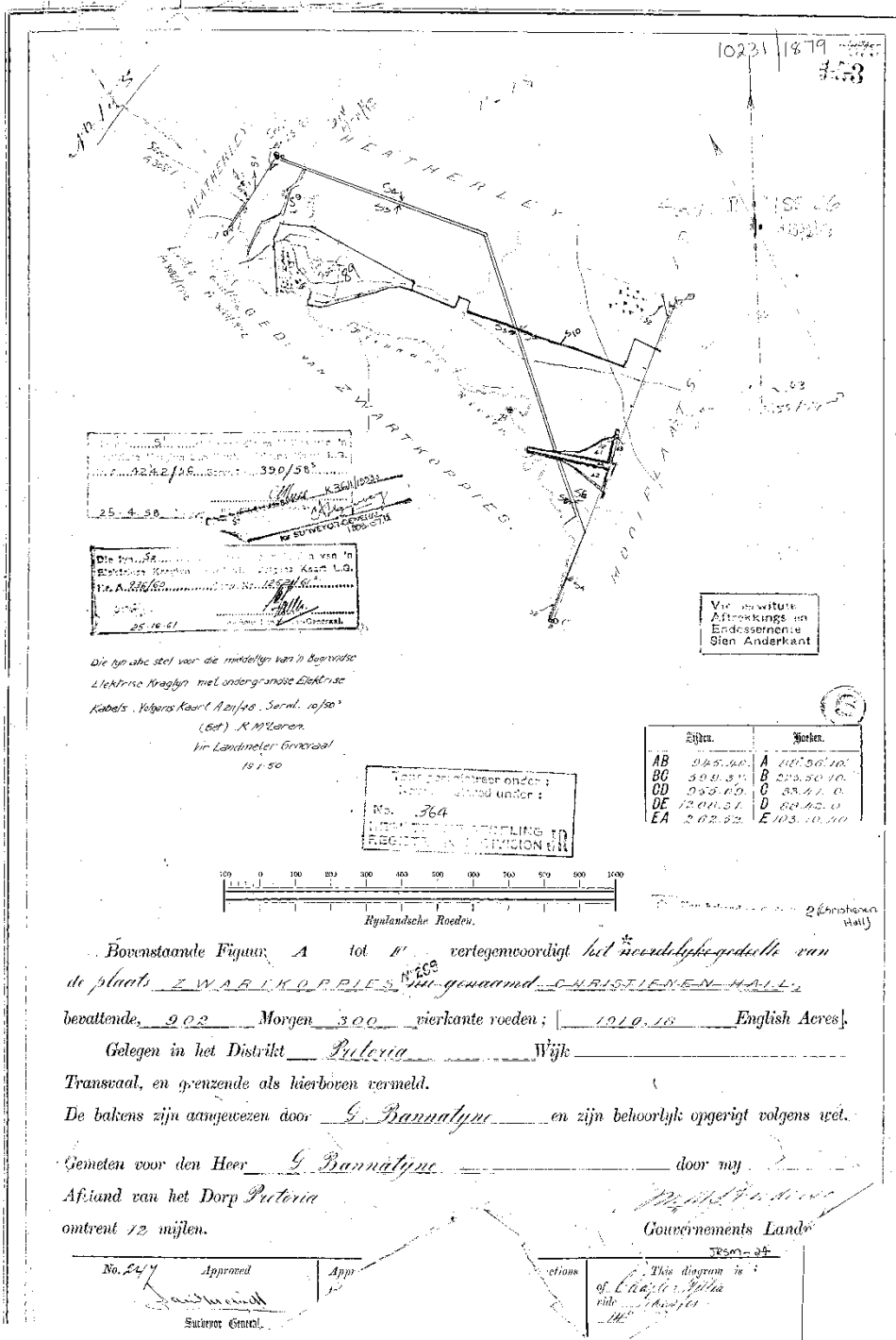
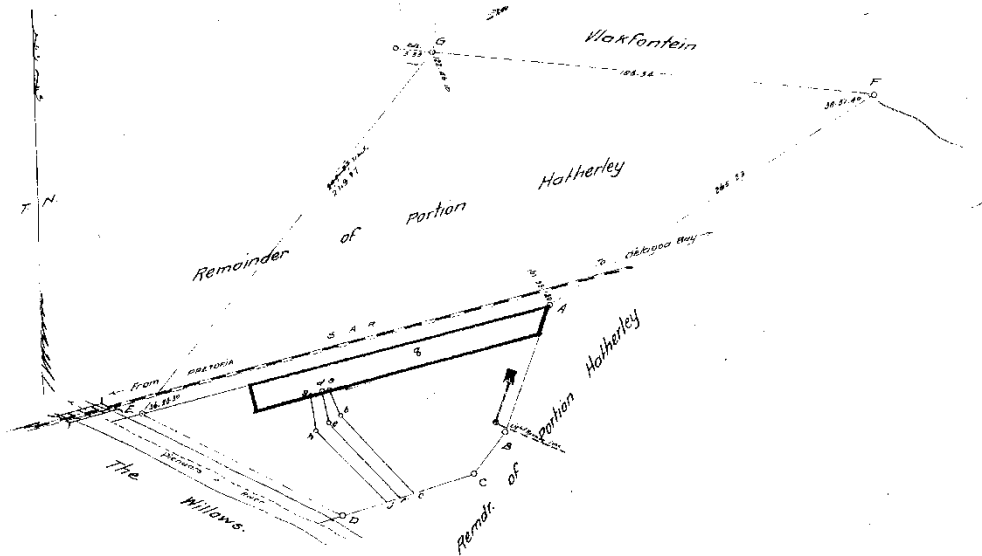


Figure 6: An 1879 map for Portion 2 of Zwartkoppies 364JR ([www.csg.dla.gov.za](http://www.csg.dla.gov.za)).

SIDES.		ANGLES.		(Y) CO-ORDINATES (X)	
AB	39.88	A	56.8.40	A	-138.04 + 224.28
BC	15.09	B	181.27.50	B	-175.38 + 240.49
CD	40.09	C	144.25.20	C	-187.09 + 230.0195
DE	65.72	D	135.38.40	D	-197.90 + 268.615
EA	123.07	E	42.0.0	E	-166.33 + 324.85
				F	± 0.000 ± 0.000
				G	+ 24.322 + 184.746

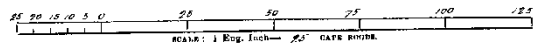
Real Area = 6 Morg. 21.50 Rods.

x CD mid river = 180  
 x AE " " = 180



For Servitudes  
 Deeds to be noted  
 See Over.

Transferee under:  
 Hatherley No. 331  
 JR



The above Figure lettered ABCD mid river is a representation of 6 Morgen 480 Square Rods of land, being portion 1 of that portion of the Eastern portion called "HATHERLEY" of the Farm-

**WELTEVREDEN, No 22.**

as appears on the Diagram S.G. No. A. framed by Surveyor B. de Kock in March 1889 relating to Deed of Transfer No. 80/1893 dated 26.10.1892 made in favour of *Eerste Fabriek Hatherley Distillery Limited* situate in the District of *PRETORIA* Ward *Acqies River* Province of Transvaal. Bounded as indicated above and have been properly erected according to law. The Beacons were pointed out by *J. H. Fehsen* Surveyed in *July 1918* by me *J. H. Fehsen* Land Surveyor.

No. A. Examined. The numerical data of this Diagram are sufficiently consistent. <i>B. Lawrence Edwards</i> Examiner of Diagrams.	Approved <i>B. de Kock</i> Surveyor-General.	This Diagram belongs to Deed of Transfer No. made this day in favour of Deeds Office, Pretoria. JR-5DC Registrar of Deeds. JR-5DC T.P.S. (PTA. REG.) (N.)
	Surveyor-General's Office, Pretoria. 1918	

Figure 7: A 1918 map for Portion 2 of Hatherley 331JR ([www.csg.dla.gov.za](http://www.csg.dla.gov.za)).

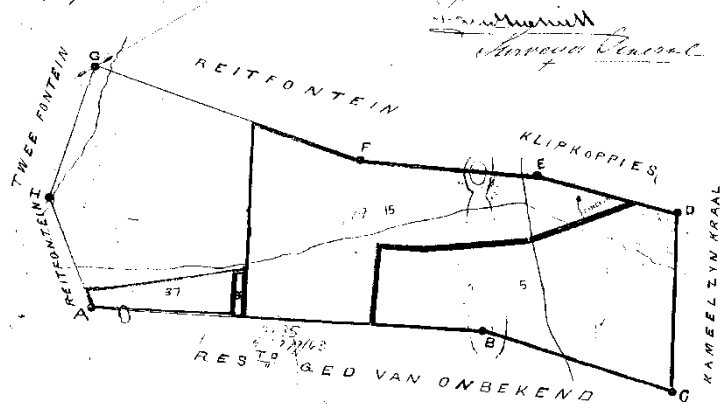
10254/1879

157

No. 157  
 Deze Naar goedkeurd.  
 Landmeter Generaal's Kantoor, Pretoria,  
 24 Desember 1879  
 Landmeter General.

Gezien volgens Art. 8 der Instruktie voor den Landmeter General,  
 Gouvernementskantoor, Pretoria,  
 10 Februar 1880.  
 J. W. van Kampen,  
 Staatspresident.  
 Administrateur

This Map was issued by order of the Governor of the Cape Colony on the 10th of February 1880.  
 J. W. van Kampen  
 Landmeter General



RESTANT  
 GANCELLED KANBELLE  
 MELKKOR 468  
 1884/81  
 No. 35226 1881

Vir die Staat  
 Affidavit en  
 Endorsement  
 sien Aankant

Tans geregistreer onder :  
 Now registered under :  
 No. 398  
 REGISTRASIE AFDELING JR  
 REGISTRATION DIVISION JR

KRAGTENS PROK. 49/45 IS HIERDIE PLAAS OP  
 28/3/1845 NA DIE DISTRIK BRONKHORSTSPRUIT  
 OORGEPLAAS EN AS NO. 226 GEREJISTREER  
 \* Nou bekend as Grondst. 1

Eijdel		Voeten.	
AB	900.85	A	114.73 06
BC	457.16	B	174.25 20
CD	434.33	C	170.75 50
DE	424.67	D	171.27 40
EF	324.27	E	89.27 60
FG	280.01	F	139.49 10

Hobenstaande Figur A F vertegenwoordigt het WESTELYK gedeelte van de Plaats genaamd ONBEKEND N° 226, betakende 1013 Morgen, 257 Vierkante Voeten, (2144.40 Engelsche Acres.)

Gelegen in het District PRETORIA ~~Suid-Afrikaanse Republiek~~ en grenzende als hierboven vermeld, ~~naar de West~~ en de plaats is gemeten door den

door den Heer Rademayer door mij J. W. van Kampen  
 Afstand tusschen PRETORIA en de plaats is 3 uren te Paard.  
 Gouvernements Landmeter.

Figure 8: An 1879 map for The Willows 398JR (www.csg.dla.gov.za).

Results of the study area assessment

During the assessment of the Baviaanspoort Sewer Outfall Line Sections B & C some sites, features or material of cultural heritage (archaeological and/or historical) origin or significance were found to be located in close proximity to sections of the line, with some to be directly impacted by it if the current alignment is utilized.

A number of sites (mostly Late Iron Age stone-walled sites and more recent historical sites including ruins of farming-related structures and cemeteries) are known to exist in the general geographical area on the farms. These sites were identified during earlier surveys by Kusel and Pelser (Kusel 2007 & 2019; Pelser 2016, 2017, 2018 & 2019) but will not be directly impacted upon by the proposed Zwavelpoort Bulk Sewer and the Baviaanspoort Outfall Sewer Line sections. Most of the sites are located far from the proposed B & C line and will not be impacted by the development activities. A Google Earth image below shows the closest of these sites to the line.

A section of the line is located close to the Sammy Marks Museum on Zwartkoppies. Part of this section runs very close to some historical remains associated with the Museum and care should be taken to not impact in any way on these remains and structures. A Google Earth image below shows the location of the line in regards to these remains, while photographs of these sites come from Kusel's 2019 report and are acknowledged as such.

A List of all the sites with their GPS Coordinates and the types of sites they represent are provided below:

1. **S25 45 06.40 E28 23 27.30**: LIA
2. **S25 45 03.60 E28 23 24.20**: LIA
3. **S25 45 03.40 E28 23 29.90**: LIA
4. **S25 45 58.20 E28 24 09.60**: Historical – Pienaarsrivier Weir
5. **S25 45 10.70 E28 22 39.30**: Historical – Pienaarsrivier Weir
6. **S25 44 39.00 E28 22 35.40**: Historical - Two houses of the Manyake family dating from 1921
7. **S25 45 37.70 E28 24 15.00**: Historical - Cemetery with 13 graves of the Molefi family
8. **S25 45 05.94 E28 22 44.16**: Historical – Remains and structures associated with Sammy Marks Museum on Zwartkoppies

The only site that will be directly impacted by the proposed sewer line development is the last mentioned one. The site and the structures on it are of High Cultural Heritage Significance being associated with the Sammy Marks Museum complex on Zwartkoppies. It is therefore important that the proposed sewer line does not impact in any way on this site and that the line route is moved away from the site in order to avoid it. A buffer zone of at least 30m must be placed from the outer boundary of these structures within which no development should be taking place.

**GPS Location of Site:** S25 45 05.94 E28 22 44.16

**Cultural Significance:** High

**Heritage Significance:** Grade II: Heritage resources with qualities giving it provincial or regional importance although it may form part of the National estate

**Field Ratings:** Local Grade IIIA: should be included in the heritage register and not be mitigated (High significance)

**Mitigation:** See Above



**Figure 9: A view of the Pienaarsrivier close to Nellmapius.**



**Figure 10: A view of the refuse dumping found all over the Section C portion of the line.**



**Figure 11: Large parts of the Section C line is located within & close to informal and more formal settlement areas.**



**Figure 12: A closer view of the Pienaarsrivier on the Section C line route.**





**Figure 13: Another view of a part of the Section C line route next to the river.**



**Figure 13: A view of the Section C line close to Alwyn Road/Nellmapius Drive.**



**Figure 14: Another view of a part of the Section C line route next to the Pienaarsriver.**



**Figure 15: Another part of the Section C line route.**





**Figure 16: Aerial view of Section C line from Solomon Mahlangu Drive to Nellmapius. Large parts are located in and between informal and more formal urban settlements (Google Earth 2020).**



**Figure 17: A portion of the Section C line crosses possible wetland areas/floodplain of the Pienaarsriver (Google Earth 2020).**





Figure 18: Aerial view of the Section B line from the N4 towards Solomon Mahlangu Drive.



Figure 19: A view of a part of the Section B line crosses over old fields close to the river.



**Figure 20: Another view of the Section B line route towards the N4 from the Bronkhorstspuit Road.**



**Figure 21: The Section B line route towards the Sammy Marks Museum.**





**Figure 22: Part of the Section B line follows close by this route towards historical sites associated with the Sammy Marks Museum.**



**Figure 23: Old Cowshed at the Sammy Marks Museum site (from Kusel 2019).**



**Figure 24: Dairy dating to 1915 at the site (Kusel 2019).**



**Figure 25: Silos at the site (Kusel 2019).**





**Figure 26: Dairy and farmhouse (Kusel 2019).**



**Figure 27: Old farm manager's house at the Sammy Marks site (Kusel 2019).**





**Figure 28: Closer view showing part of the Section B line crossing close to the sites & structures associated with Sammy Marks and shown in Fig.23-27 (Google Earth 2020).**



**Figure 29: Aerial view showing the Section B line with the closest known heritage sites indicated (Yellow = historical; Red = Graves; Blue = Late Iron Age). Sammy Marks Museum is also shown (Google Earth 2020).**



**Figure 30: Part of the Section B line between Sammy Marks & Solomon Mahlangu is located in areas that have already been disturbed and impacted on by current developments.**



**Figure 31: Another part of the Section B line towards Solomon Mahlangu Drive.**



It is recommended that the proposed Baviaanspoort Sewer Outfall Line Sections B & C be allowed to continue once the recommended mitigation measures regarding the Sammy Mark Museum site and structures have been adhered to. A buffer zone of at least 30m must be placed from the outer boundary of these structures within which no development should be taking place.

***It should be noted that although all efforts are made to cover a total area during any assessment and therefore to identify all possible sites or features of cultural (archaeological and/or historical) heritage origin and significance, that there is always the possibility of something being missed. This will include low stone-packed or unmarked graves. This aspect should be kept in mind when development work commences and if any sites (including graves) are identified then an expert should be called in to investigate and recommend on the best way forward.***

## **7. CONCLUSIONS AND RECOMMENDATIONS**

APelser Archaeological Consulting (APAC) was appointed by Bokamoso Landscape Architects & Environmental Consultants CC to conduct a Phase 1 Heritage Impact Assessment for the Baviaanspoort Outfall Sewer Line Sections B & C, located on various portions of the farms Zwartkoppies 364JR, Hatherley 331JR & The Willows 340JR. The study area is located in the Tshwane Metropolitan Municipality of Gauteng.

The Project Proponent is Balwin Properties on behalf of the City of Tshwane Metropolitan Municipality (CoTMM). The project entails the installation of Section B and C of the new Baviaanspoort Outfall Sewer approximately 7.8km in length connecting to Section A of the Baviaanspoort Outfall Sewer. The purpose of the sewer line is to enable existing and new development in the area to connect to a new bulk sewer line.

Section B and C will be installed along the Pienaars River and will affect Portions 44, 89 and 253 and the Remainder of Portion 2 of Zwartkoppies 364 JR, the Remainder of Hatherley 331 JR and the Remainder of Portion 398 of The Willows 340 JR.

The proposed Outfall Sewer will be installed in the east of the City of Tshwane. The proposed Section B and C sewer line will commence in close proximity of the point where the Pienaars River flows underneath the N4 towards the north-west. Section B of the proposed sewer line stretches in a north-eastern direction from the N4 freeway up to Road M10 (Solomon Mahlangu Drive) and runs almost parallel to the river. It might be necessary for Section B to cut across the river/tributary of the river in sensitive areas/on difficult sites as identified by the project engineers. Section C stretches in a north-western direction, adjacent to the Nelmaphius suburb, from Road M10 (Solomon Mahlangu Drive) up to a point where the Pienaars River confluence with one of its tributaries.

During the assessment of the Baviaanspoort Sewer Outfall Line Sections B & C some sites, features or material of cultural heritage (archaeological and/or historical) origin or significance were found to be located in close proximity to sections of the line, **with some to be directly impacted by it if the current alignment is utilized.**

A number of sites (mostly Late Iron Age stone-walled sites and more recent historical sites including ruins of farming-related structures and cemeteries) are known to exist in the general geographical area on the farms. These sites were identified during earlier surveys by Kusel and Pelser (Kusel 2007 & 2019; Pelser 2016, 2017, 2018 & 2019) but will not be directly impacted upon by the proposed Zwavelpoort Bulk Sewer and the Baviaanspoort Outfall Sewer Line sections. Most of the sites are located far from the proposed B & C line and will not be impacted by the development activities.

A section of the line is located close to the Sammy Marks Museum on Zwartkoppies. Part of this section runs very close to some historical remains associated with the Museum and care should be taken to not impact in any way on these remains and structures. The site and the structures on it are of High Cultural Heritage Significance being associated with the Sammy Marks Museum complex on Zwartkoppies. It is therefore important that the proposed sewer line does not impact in any way on this site and that the line route is moved away from the site in order to avoid it. A buffer zone of at least 30m must be placed from the outer boundary of these structures within which no development should be taking place.

***It should be noted that although all efforts are made to locate, identify and record all possible cultural heritage sites and features (including archaeological remains) there is always a possibility that some might have been missed as a result of grass cover and other factors. The subterranean nature of these 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.***

Finally, from a Cultural Heritage point of view, it is recommended that the proposed Baviaanspoort Sewer Outfall Line Sections B & C be allowed to continue once the recommended mitigation measures regarding the Sammy Mark Museum site and structures have been adhered to.

## 8. REFERENCES

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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.