

### APPLICATION FORM NOTIFICATION OF INTENT TO DEVELOP (NID) SECTION 38 (1) AND SECTION 38 (8)

Heritage Western Cape Reference No:
To be completed by the applicant
Obtained at: HWC.HWC@westerncape.gov.za

Completion of this form is required by Heritage Western Cape for the initiation of all impact assessment processes under Section 38 (1) & (8) of the National Heritage Resources Act (NHRA)

As per Section 38 (1) (e) of the NHRA, submission of the NID must be initiated at the earliest stage of development. Should the development trigger any other legislation, practitioners may submit the NID without formal submission to other statutory bodies in order to comply with the NHRA.

This form is to be read in conjunction with the HWC Notification of Intent to Develop, Heritage Impact Assessment, (Pre-Application) Basic Assessment Reports, Scoping Reports and Environmental Impact Assessments, Guidelines for Submission to HWC

Whilst it is not a requirement, it may expedite processes and in particular avoid calls for additional information if certain of the information required in this form is provided by a heritage specialist/s with the necessary qualifications, skills and experience. All sections of the form must be completed in order to deem the application to be complete.

Making an incorrect statement or providing incorrect information may result in all or part of the application having to be reconsidered by HWC in the future, or submission of a new application.

The following information is to be included upon submission to HWC:

- 1. Proof of payment with correct reference number
- 2. Completed and signed application form the application form must be completed in full in order to be considered
- 3. Power of Attorney
- 4. Locality Map
- 5. Images of the site and its context
- 6. Additional information pertaining to the heritage of the site

Application and associated documentation to be emailed to ceoheritage@westerncape.gov.za

#### A. APPLICABILITY OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NEMA)

#### **Relevant Department:** $\square$ Department of Environmental Affairs Development Planning (DEA&DP)(W Cape); Department of Forestry, Fisheries and Environment (DFFE) (National): Department of Mineral Resources (DMR) (National); Reference Number (if applicable): Please tick the applicable section: This application is made in terms of Section 38(8) of the NHRA and an application under NEMA $\square$ has been made to the following authority: $\square$ This development will not require a NEMA application EAP: Claudette Muller, Chand Environmental Consultants, PO BOX 238, Plumstead, 7801. Email: claudette@chand.co.za Heritage Specialist: David Halkett, ACO Associates cc. 8 Jacobs Ladder, St James, 7945. Email: david.halkett@aco-associates.com

#### **B. BASIC DETAILS**

#### **PROPERTY DETAILS:**

Name of property: Boschendal

Street address or location (eg: off R44): Off the R310 near Pniel (Figure 1)

Erf or farm number/s: (see Figure 3 – 5 cadastral) Water pipeline (0.75 km): RE/8/1201, 1/1674, 16/1685 (Figure 3) Foul sewer (Alt 1 : 14/1674 (Figure 4) Fibre optic cabling: 6 /1674, RE/1730 (Figure 5)	Coordinates: (A logical centre point. Format based on WGS84.) \$33.875459° E18.960331°
Town or District: Pniel	Municipality: Stellenbosch and Drakenstein
Extent of property: 1/1674 (~199.77Ha), 6/1674 (~42.441Ha), 14/1674 (~10Ha), 16/1685 (20.37Ha), RE/1730 (~197.115Ha), RE/8/1201(~6.868Ha), RE/1357.	<b>.</b>

Predominant land use/s of surrounding properties: Agriculture, residential

REGISTERED OWNER OF PROPERTY: Ptn1/1674, Ptn16/1685 Ptn6/1674, RE/1730				
Name and Surname: Boschendal Estate (Pty) Ltd and Boschendal Founders Estate 16 (Pty) Ltd (Represented by: William George)				
Address: Boschendal Farm, Pniel Main Road (R310), Pniel, 7680				
Telephone:	Cell: 082 559 9100 E-mail: specialproject1@bos		ecialproject1@boschendal.co.za	
APPLICANT/ AUTHORISED AGENT				
Name and Surname: As above				
Address:				
Telephone:	Cell: E-mail:		E-mail:	
By the submission of this form and all material submitted in support of this notification (ie: 'the material'), all applicant parties acknowledge that they are aware that the material and/or parts thereof will be put to the following uses and consent to such use being made: filing as a public record; presentations to committees, etc; inclusion in databases; inclusion on and downloading from websites; distribution to committee members and other stakeholders and any other use required in terms of powers, functions, duties and responsibilities allocated to Heritage Western Cape under the terms of the National Heritage Resources Act. Should restrictions on such use apply or if it is not possible to copy or lift information from any part of the digital version				
Signature of Owner:		Date:		
Should the owner not be able to sign, the applicants/ agents must attach copy of power of attorney to this form				
Signature of Applicant/ Authorised Agent:		Date:		
Applicants/ agents must attach copy	of power of attorney	/ to th	is form	

Name and Surname: Stellenbosch	n Municipality			
Address:				
Telephone:	ephone: Cell:		E-mail:	
APPLICANT/ AUTHORISED AGENT	·			
Name and Surname: As above				
Address:				
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Signature of Applicant/ Authorised Agent:		Date:		
Applicants/ agents must attach copy	of power of attorney	y to this form		
REGISTERED OWNER OF PROPERTY:	14/1674 1357			
Name and Surname: WC Education	ava Davat			
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proposed

#### C. DEVELOPMENT DETAILS: Please indicate below which of the following Sections of the National Heritage Resources Act, or other legislation has triggered the need for notification of intent to develop. \$38(1)(a) Construction of a road, wall, powerline, S38(1)(c) Any development or activity that $\square$ pipeline, canal or other similar form of linear will change the character of a site development or barrier over 300m in length \$38(1)(b) Construction of a bridge or similar $\square$ $\square$ (i) exceeding 5 000m2 in extent structure exceeding 50m in length \$38(1)(d) Rezoning of a site exceeding 10 000m2 (ii) involving three or more existing $\square$ $\square$ in extent erven or subdivisions thereof (iii) involving three or more erven or Other triggers, eg: in terms of other legislation, (ie: divisions thereof which have been $\bowtie$ National Environment Management Act, etc.) Please set out details below: consolidated within the past five years If you have checked any of the three boxes

National Environmental Management Act (NEMA) (No. 107 of 1998, as amended) and the Environmental Impact Assessment (EIA) Regulations (2014), as amended.

the site: These are buried services and are not anticipated to change the character of the

development will change the character of

how the

describe

If an impact assessment process has also been/will be initiated in terms of other legislation, please provide the following information:

above.

site

Authority/government department (ie: consenting authority) to which information has been /will be submitted for final decision: DEADP (WC)

Present phase at which the process with that authority stands: Pre-application

Provide a full description of the nature and extent of the proposed development or activity including its potential impacts:

Bulk services are to be installed at Boschendal to supply services to the Founders Estates and other areas on the farms. The heritage processes to be followed is moderately complicated due to the fact that a part of Boschendal is a declared Grade 1 Heritage site (Figure 1). The application processes are explained in more detail below:

Boschendal (Pty) Ltd has acquired the rights to the subdivision and development of eighteen (18) socalled Founders' Estates. The Founders' Estates effectively comprise 18 different farms measuring between 21 and 44ha each. The entire area comprising all the Founders' Estates has been declared a National Heritage Site in terms of the NHRA, as a component of the Cape Winelands Cultural Landscape. From a heritage management perspective, as a National Heritage site, the Founders' Estates falls within the jurisdictional (regulatory) control of the South African Heritage Resources Agency (SAHRA), while the remainder of the Boschendal landholdings fall within the regulatory authority of HWC (Winter 2020).

The **bulk services work on Founders' Estate requires a permit application in terms of S27 to SAHRA**, while the **work outside the S27 area must follow the normal application process of HWC**, commencing with a NID application. ACO Associates has compiled a heritage statement for the S27 area, and this has been sent to Ms S Winter who is compiling the permit application.

The work proposed for Founders Estate and outside has been assessed via fieldwork by Mr D Halkett and Mr J Gribble of ACO Associates (Halkett 2022), and before that by Mr Hart and others (Hart 2005, 2020, Hart & Webley 2013, Kaplan 2005a, Lucas n.d., Lucas 2004, Vos 2004).

While only a relatively small area of work is outside the defined S27 site (External services), a full description of the project is included below to place this NID application in context. The external

services covered by this NID are described in Section 1.8 and evaluated with respect to heritage resources in Section D forward:

#### 1. Project Description

Boschendal (Pty) Ltd (the proponent) has acquired the land use rights to the subdivision and development of eighteen (18) so-called Founders' Estates (FEs) on a portion of its landholdings. The Founders' Estates comprise 18 different farms of approximately 25 ha each, with each one having an area of 8,000m<sup>2</sup> (referred to as the "Excluded Area") within which a homestead may be developed (subject to agreement from various authorities/ stakeholders and within the scope of a specific set of guidelines). A Developable Area (DA) has been provisionally determined within the 8000m<sup>2</sup> Excluded Area of each FE, ranging from 1,200m<sup>2</sup> to 2,400m<sup>2</sup>. The exact positioning of each DA within each Excluded Area must still be defined and will be subject to building design, heritage, and environmental applications. These development footprints are not included in the scope of this environmental application and each DA would be subject to separate environmental application/s, if required, once defined. In the interim, the proponent intends to install new service infrastructure and expand on existing infrastructure to ensure that the entire Founders Estate is serviced. The proponent also intends to formalise existing farm roads and develop new sections of roadway.

The scope of the environmental application includes the following:

• The installation of a new bulk foul sewer line, bulk water pipelines and rising main, stormwater infrastructure (swales and culverts) and fibre internet ducts;

- The expansion of existing electricity and irrigation lines;
- The formalisation of existing farm roads;

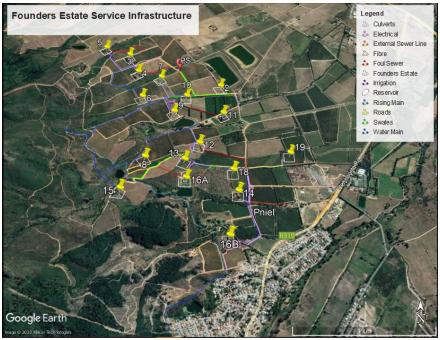
• The development of new sections of formal roadway (noting that there are existing dirt tracks and paved roads on the site which will be expanded upon in terms of length and not width);

• The construction of a new 100kl reservoir and new sewer pump station;

• The installation of an "external" (beyond the limits of the Founders Estate) sewer pipeline and water pipeline in order to connect the Estate to the municipal network.

Most of the service corridors will be located within existing roadway or informal, transformed road shoulders. However, there will be installation of services beyond existing roadway, and/or close to, within, or across watercourses, which in some areas would also entail the clearance of indigenous vegetation. Where the routings of service lines overlap, services will be installed within the same 1m wide trench.

Each service infrastructure component included in the scope of this Basic Assessment (BA) is described below, and size specifications summarised in Table 1. All proposed infrastructure is depicted in Figure A below.



	New Development component	Total length (m)	Width/diameter	Total footprint
	Sewer pipelines – below ground	3 750 m	160 mm diameter	3 750 m2
	Sewer pipelines - above ground	200 m	250 mm diameter	200 m2
	Water pipelines	7 350 m	110 mm diameter	7 350 m2
	Rising Main 2 350 m 75 mm diameter		2 350 m2	
Internal Services	Electricity lines	5 200 m N/A		5 200 m2
	Irrigation lines	1 250 m	32 mm diameter	1 250 m2
	Fibre ducts	6 100 m	90 mm diameter	6 100 m2
	New roads	335 m	3.0 m – 5 m	1 435 m²
	Reservoir	N/A	N/A	20 m x 20 m
	Culverts	N/A	N/A	TBC
External Services	Water Pipeline	750 m	250 mm diameter	750 m²
External Services	Sewer Pipeline (refurb existing)	350 m	160 mm diameter	350 m²

Table 1

#### 1.1 Water supply pipelines and reservoir

A new water supply reticulation network would be developed on site, securing supply from the existing municipal water reticulation network in Pniel (refer to Figure 3). This system would consist of 110 mm diameter pipes, as well as pressure reducing valves, scour valves, and isolation valves. A total length of 7350 m pipe would be installed. A new rising main would connect to a proposed new reservoir and run in a southerly direction along existing roadway to a new connection point on Farm 16/1685. The rising main would be 2350 m in length and a diameter of 75 mm. A new 100kl reservoir is proposed to be constructed directly adjacent to an existing reservoir located to the west of the site on the lower slopes of Simonsberg. The development footprint of the new reservoir is 400 m<sup>2</sup> and would also entail the clearance of indigenous vegetation. Note that the capacity thresholds contained in the NEMA Listing Notices pertaining to the development of water networks are not met by these pipelines, particularly with regard to pipeline diameter. NEMA is triggered for the relevant Listed Activities relating to the clearance of indigenous vegetation and building within/close to watercourses.

#### **1.2 Sewer Reticulation**

A new internal sewer reticulation network would be developed to connect to the existing municipal line in Pniel. Below ground sections of pipeline would consist of a 160 mm diameter PVC-u Class 34 pipeline. Above ground sections of pipeline at stream crossings would consist of a 250 mm diameter galvanised steel pipe. A total of 3950 m of pipeline is proposed. A sewer pump station with a development footprint of approx. 100 m<sup>2</sup> is proposed on Portion 7 of Farm 1685 adjacent to an existing roadway, and beyond any freshwater buffers or sensitive vegetation. Note that the capacity thresholds contained in the NEMA Listing Notices pertaining to the development of water networks are not met by these pipelines, particularly with regard to pipeline diameter. NEMA is triggered for the relevant Listed Activities relating to the clearance of indigenous vegetation and building within/close to watercourses.

#### 1.3 Electricity supply

Electricity supply is already being provided to the farm via an existing 11kV overhead power line. New connections would off-take from the existing overhead line and would be installed in underground ducting within the combined services trenches. A total length of 5200 m of electrical cables is proposed. The proposed electrical infrastructure does not trigger NEMA as they are below the capacity thresholds contained in the Listed Activities pertaining to power supply.

#### 1.4 Irrigation supply

Existing irrigation lines are presently extensive and connect to various farm dams (which are licensed under the NWA) and connections to these are proposed, via 32 mm diameter pipelines. The total

length of irrigation lines proposed is 1250 m.

#### 1.5 Fiber ducts

New fibre sleeves would be installed across the site. The fibre sleeves would consist of 90mm PVC-u Class 9 pipes. The total length across the site included in this scope is ~6100 m. Short sections lie outside the founders Estate but are within Boschendal land. The areas relevant to the NID are shown in Figure 5.

#### 1.6 Stormwater Infrastructure

#### • Swales

Swales will provide attenuation of the runoff from roadways. Stormwater swales are proposed along Road A, Road B, Road C, Road D and Road D\_1. Note that the swales would be located within the disturbed footprints of existing roadways. The purpose of the swale is to allow any overland runoff from the proposed roadway to be treated, attenuated and discharged into the nearest stream. Where possible, multiple outlets will be provided to prevent concentrated flow. It is proposed to construct the outflows will be constructed with 2 dry-stone layers (open joints, no mortar) with rip-rap at the base of the outlet which will be lined with geotextile (Class A3). The runoff will spill out via this outlet towards the nearest stream. The proposed outlets are to be constructed at 20 - 25 m intervals.

#### • Culverts

Eight new box culverts are proposed at watercourse crossings.

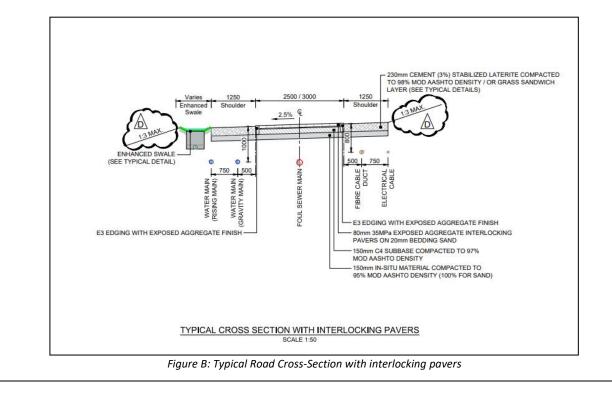
#### 1.7 Proposed New Roads

New road sections would be constructed on Portion 5, Portion 10 and Portion 19 of Farm 1685. A new road would also be constructed across Farm Portion 13 and 12. The sections and specifications of proposed new roadway are summarised in Table 1 below. The new road sections would connect to existing roads.

Location	Road Length	Road Width	Development Footprint
Farm 1685/5	65 m	3 m	195 m²
Farm 1685/10	45 m	3 m	135 m²
Between Farm 1685/13 and Farm 1685/12	160 m	3.5 m	560 m²
Farm 1685/13	26 m	3 m	78 m²
Farm 1685/19	17 m	3 m	51 m²
TOTAL	313 m	N/A	1 019 m²

Table 1: Description of proposed new road sections

All roads would have an exposed aggregate finish, with interlocking precast concrete brick pavers (refer to Figure B) or in situ cast concrete (refer to Figure C).



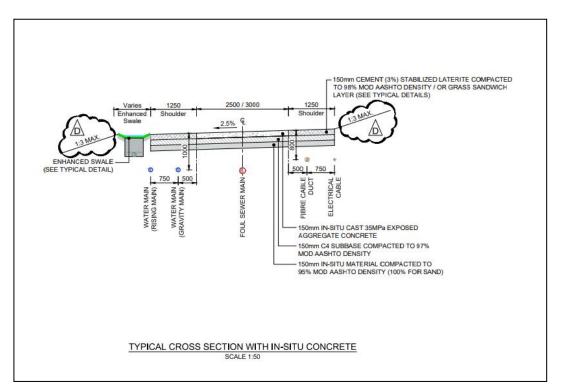


Figure C: Typical Road Cross-Section with in-situ concrete

#### **1.8 External Services**

In order to connect this portion of Boschendal Estate to existing municipal service supply, an existing external foul sewer line will be refurbished and an external water main would need to be constructed beyond the boundary of Boschendal Estate. These are described below and depicted in **Error! Reference source not found.** 

#### 1.8.1 Water connection

With respect to water supply, a new 250 mm diameter water connection would be made at the Pniel Lower reservoir on Erf 669 at the corner of Panorama and Simonsberg Streets in Pniel (see Figure 3, photos 1-4). The new pipeline line would be routed in a north-easterly direction to follow an existing gravel road, then turn east and run along the northern boundary of Remainder Farm 8/1201 (next to a dam), continue onto Farm 1/1674 and then finally terminate at a new connection point located on Farm 16/1685, Boschendal. The total length of the external water pipeline would be 750 m and the diameter would be 250 mm.

#### 1.8.2 Foul Sewer Line

For the external foul sewer line, it is proposed to connect to the existing sewer line of the sports field at the Millennium Hall connection point. From there it crosses below the R310 road from where it turns and runs on the southern side inside the school property until it connects to the existing sewer at a manhole. This will require refurbishment and upgrade of the pump station and rising main in order to increase pump capacity, depending on capacity analyses which must still be undertaken. Note that the capacity thresholds contained in the NEMA Listing Notices pertaining to the development of water networks are not met by these pipelines, particularly with regard to pipeline diameter. NEMA is triggered for the relevant Listed Activities relating to the clearance of indigenous vegetation and building within/close to watercourses. The location of the sewer is indicated in Figure 4 (and photos 5-13).

#### References

Hart, T, 2005. Archaeological impact Assessment of the proposed Founders Estate, Boschendal. Unpublished report prepared for Baumann and Winter Heritage Consultants. Archaeology Contracts Office, UCT.

Hart, T, 2020. Draft archaeological residues conservation management plan for the Founders' Estate, Boschendal. Unpublished report prepared for Boschendal Pty Ltd. ACO Associates cc.

Hart, T, Webley, L. 2013. Archaeological / heritage residues management plan (Founders' Estates). Unpublished report prepared for Boschendal Estates. Archaeology Contracts Office.

Halkett, D. 2022. Archaeological assessment of bulk services on the Boschendal Founders Estate, Stellenbosch, to inform a s27 application in terms of the national heritage resources act. Prepared for Sarah Winter Heritage Consultant on behalf of Boschendal (Pty) Ltd. ACO Associates cc.

Kaplan, J. 2005a. Phase 1 Archaeological Impact Assessment Proposed development of Boschendal Lands, Dwars River Valley. Unpublished report prepared for Doug Jeffery Environmental Consultants. Agency for Cultural Resource Management.

Lucas, G, De Villiers J, Abott, M & Hall, A. n.d. 'Goede Verwachting: An Eighteenth century Silver Mine at the Cape. Unpublished report. Fornleifastofnun Íslands, Barugata 3, 101 Reykjavík, Iceland

Lucas, G. 2004. An archaeology of colonial identity. Power and material culture in the Dwars Valley, South Africa. London: Kluwer Academic.

Vos, H. 2004. Zilvermijn at Simonsberg. Unpublished report.

#### Estimated value cost of the project in South African Rands: ~R50 million

#### D. ANTICIPATED IMPACTS ON HERITAGE RESOURCES

Section 3 of the National Heritage Resources Act sets out the following categories of heritage resource as forming part of the national estate. Please indicate the known presence of any of these by checking the box alongside and then providing a description of each occurrence, including nature, location, size, type. Failure to provide sufficient detail or to anticipate the likely presence of heritage resources on the site may lead to a request for more detailed specialist information.

#### Provide a short history of the site and its environs (Include sources where available):

#### PRE-COLONIAL BACKGROUND FOR THE REGION

#### Early Stone Age (ESA)

Kaplan (2005a) notes that ESA material located during the archaeological assessment of the Boschendal farms are consistent with tools often found elsewhere in the Stellenbosch/Drakenstein area (Kaplan 1998, 1999, 2000, 2001, 2002a,b,c, 2003a,b,c, 2004a,b,c,d, 2005a,b,c, Orton et al 2005, Orton n.d., Yates & Manhire 1997). The age and context of the ESA is described further below.

The ESA material commonly found on river terraces, has been widely reported to occur in the Boland with finds particularly common in a belt from Somerset West through to Stellenbosch and Paarl, and beyond to Malmesbury. This material is mostly in secondary context having been reworked and/or washed into the terraces during flood events post-dating their manufacture and hence are seldom, if ever, found with associated non-lithic material.

During the early years of archaeological research in South Africa, large quantities of ESA artefacts were noted in the vicinity of Stellenbosch, leading researchers to assign the name "Stellenbosch Culture" to the artefacts (Péringuey 1911; Péringuey & Corstophine 1900). Goodwin ascribed ESA material from the western edge of the Cape Fold Belt and locations across South Africa to the "Stellenbosch Culture" (Goodwin & Van Riet Lowe 1929).

The ESA is divided into two main industries known as the 'Oldowan' and the 'Acheulean'. The latter includes the "Stellenbosch Culture", and in fact, all western Cape ESA occurrences are likely to fall within this latter period which dates between ~1.4 mya and ~200,000 kya (Asfaw et al. 1992; Kuman & Clarke 2000; Szabo & Butzer 1979). Typical Acheulean artefacts include distinctive hand-axes and cleavers, but a variety of cores, flakes and chunks are also found (Mitchell 2002). Goodwin (Goodwin & Van Riet Lowe 1929) noted that handaxes were commonly made on either large flakes, or on unprepared river cobbles.

#### Middle Stone Age (MSA) and Later Stone Age (LSA):

Moderately younger Middle Stone Age (MSA), and more recent Later Stone Age (LSA) remains are found less frequently during impact assessments in the Franschhoek/Paarl area, but LSA sites are known to occur (Orton et al 2005, Orton n.d.). LSA material however must once have been widespread in the area, but as sites of that type probably overlapped places favourable for settlement and agriculture in more recent times, are difficult to identify now due to disturbance.

The Middle Stone Age (MSA) probably started ~200,000 years ago though a precise date of transition to the Later Stone Age (LSA) while still uncertain, probably occurred between ~30,000 and 20,000 years ago (Thackeray 1992:400). Many larger flakes such as those from the earlier parts of the MSA, however could easily be confused with ESA artefacts, while in some cases, flake size occurs overlaps with the LSA. Certain MSA artefacts are easily recognised i.e. triangular flakes, long quadrilateral blades and flakes with faceted platforms, are very characteristic of the period.

The Later Stone Age spans the period from ~20,000 years, up to and overlapping the arrival of European colonists. Few LSA occupation sites have been described in the area, though other aspects such as rock paintings from the period are described in the Wemmershoek area and on the farm Môrelig (Kaplan 2003b).

One notable LSA site was located by Orton et al (2005) at Solms Delta wine farm, ~3.5 km to the north east of Founders Estate. The site was found during a series of trial excavations on the old werf and a small, controlled excavation in the area produced a significant number of artefacts that were later analysed and described (Orton n.d.). Three retouched stone tool types i.e. segments, backed bladelets and backed scrapers are common in the assemblage and most probably date the site to the period between 3600 BC and 1200 BC. These types of artefacts are known from dated assemblages from a number of sites on the west coast. The presence of indigenous pottery at the Delta site indicates that at least some part of the occupation occurred after 2000 years ago when this technology first appeared in south-western Africa.

#### Historical period

Boschendal Estate is made up of a number of farms in the highly fertile Dwars River/Pniel Valley, between the towns of Stellenbosch and Franschoek. The farm's title deeds are dated 1685. The estate's first owner, Jean le Long, was one of the party of 200 French Huguenot refugees who were fleeing religious persecution in Europe. He was granted land in the Cape of Good Hope by the Dutch East India Company in 1688 and the title deed was written in 1713. In 1715 the farm was acquired by another Huguenot, Abraham de Villiers, who sold it to his brother Jacques in 1717. In 1812 Paul de Villiers and his wife, Anna Susanna Louw, completed a new house at Boschendal on the site of his father's home. This is the homestead as restored today (Loyd Williams n.d.). The De Villiers family farmed Boschendal until 1879. In 1887 the estate was bought by Cecil Rhodes and formed part of his commercial fruit business, Rhodes Fruit Farms, which has become today's Boschendal Farm (SA History Online). The remains of the old Simonsberg VOC silver mining complex, consisting of mine shafts on the mountainside, and a series of associated buildings and features is located on Founders Estate (Lucas 2004). The remains of the old VOC silver mine complex is arguably amongst the most important archaeological heritage site on the property.

The present-day community of Pniel has its origins associated with early slavery on the farms and mine. Cecil John Rhodes was responsible for consolidating many of the early land grants into an extensive estate during the late 19th century and which for much of the of the 20th century, remained in the ownership of Anglo-American Farms. The Founders Estate, which was formed after Anglo American disposed of its property, consists of some 412 hectares of land on the western side of the valley.

The Founders Estate contains several significant building complexes, namely Goedehoop, Rhodes Cottage and Nieuwedorp. There are other structures, all of which are protected by the NHRA through Founders Estate Being declared a National Heritage Site (NHS), but which are not of major historical significance. Most of the historic settlement areas are associated with groves of oak or bluegum trees., and typical landscape features are tree-lined roads, while most of the numerous streams and springs originating in the Simonsberg, have been captured in formal leiwater (furrow) systems and dams.

#### **References:**

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indico	e indicate which heritage resources exist on the site and in its environs, describe them and ate the nature of any impact upon them:
This se	ction forward refers to the services which lie outside Founders Estate (the External Services)
	Places, buildings, structures and equipment of cultural significance
$\square$	Description of resource: There are no significant structures on the sites of the external services
	Description of impact on heritage resource: No impacts are anticipated
	Places to which oral traditions are attached or which are associated with living heritage
	Description of resource:
	Description of impact on heritage resource:
	Historical settlements and townscapes
	Description of resource:
	Description of impact on heritage resource:
	Landscapes and natural features of cultural significance
	Description of resource:
	Description of impact on heritage resource:
	Geological resources of scientific or cultural importance
	Description of resource:
	Description of impact on heritage resource:
	Archaeological resources (Including archaeological sites and material, rock art, battlefields & wrecks):
	Description of resource:
	The proposed footprints of various bulk services to the Founders' Estates and areas outside, were provided by Chand Environmental Consultants to ACO Associates cc for assessment. These were uploaded to handheld GPS units and were inspected on 8th April 2022 by Mr D Halkett and Mr J Gribble. All the services footprints were examined on foot and/or from the vehicle. Most services are in, or at the edge of existing farm roads, but some sections cross land where there was no existing access, and those were examined on foot, unless they were in land that was already disturbed by agriculture or other activities.
	As it had been several years since Harts' assessments (Hart 2005, Hart & Webley 2013) some development sites were re-examined to determine if changes to the land could have occurred and the results of Harts' assessments and the 2022 assessment were taken in combination.
	External services were also assessed on the same day. These consist of the following:
	Water connection With respect to water supply, a new 250 mm diameter water connection would be made at the Pniel Lower reservoir on Erf 669, at the corner of Panorama and Simonsberg Streets in Pniel (see Figure 3, Photos 1-4). The new pipeline line would be routed in a north-easterly direction to follow an existing gravel road, then turn east and run along the northern boundary of RE 8/1201 (next to a dam), continue onto Ptn1/1674, and then finally terminate at a new connection point located on Ptn16/1685, Boschendal. The total length of the external water pipeline would be 750 m of 250 mm diameter pipe. With respect to water supply, a new 250 mm diameter water connection would be made at the Pniel Lower reservoir on Erf 669 at the corner of Panorama and Simonsberg Streets in Pniel (see Figure 3, Photos 1-4). The new pipeline would be routed in a north-easterly direction (next to a dam), to follow an existing gravel road, then turn east and run along the northern boundary of Remainder Farm 8/1201 (next to a dam), continue onto Farm 1/1674 and then finally terminate at a new connection point located on Farm 16/1685, Boschendal. The total length of the external water pipeline would be 750 m and the diameter would be 250 mm.
	Foul Sewer Line connection

For the external foul sewer line, it is proposed to connect to the existing sewer line of the sports field at the Millennium Hall connection point (See Figure 4, photos 3-10). This line currently runs along the road in the road reserve on the northern side (adjacent to the sports field) and then crosses the road to connect to a manhole. This proposal could require the upgrade of the pump station and rising main in order to increase pump capacity, depending on capacity analyses which must still be undertaken.
<b>Fibre optic cabling</b> New fibre sleeves would be installed across the site. The fibre sleeves would consist of 90 mm PVC-u Class 9 pipes. The total length across the entire site would be 11,250 m. Some sections outside FE are shown in Figure 5, Photos 19-20).
Findings
<b>Pre-colonial archaeology</b> In general, we observed few pre-colonial archaeological resources in the bulk services footprints across the broader Boschendal site, which are for the most part in disturbed areas. A few isolated ESA artefacts were found in disturbed agricultural areas. No LSA or MSA material was observed. No pre-colonial remains were identified in areas where external services will be situated.
Historic remains Visible historic resources in the bulk services footprints on Founders' Estate were very limited, and no new significant resources were identified beyond those described by Hart, such as Nieuwedorp, Goede Hoop, and in the Silvermine precinct (specifically the ore processing mill sub-precinct). No Historic remains were identified in areas where the buried external services will be situated.
<b>Description of impact on heritage resource:</b> No pre-colonial or historic resources were identified in the areas where external services will be situated. As the services are buried, there is no essential change in character to the sites where external services are located. Any work in the significant precincts on Founders Estate has been, and will continue to be monitored in terms of existing SAHRA requirements.
Palaentological resources (ie Fossils):
<b>Description of resource:</b> The palaeo sensitivity map on the SAHRIS database indicates the Boschendal area as being a combination of Blue (Low sensitivity) and Clear (Unknown sensitivity) areas. Most of the area is however highly transformed by years of farming/ploughing. In addition, service trenches are relatively shallow, relatively short linear features, and are unlikely to significantly disturb palaeontological material if it was actually present.
<b>Description of impact on heritage resource:</b> No significant impacts on palaeontological resources are anticipated from the activities.
Graves and burial grounds (eg: ancestral graves, graves of victims of conflict, historical graves & cemeteries):
Description of resource:
 Description of impact on heritage resource:
Other human remains: Description of resource:
Description of impact on heritage resource:
 Sites of significance relating to the history of slavery in South Africa:
Description of resource:
Description of impact on heritage resource:
Other heritage resources:
Description of resource:
Description of impact on heritage resource:

Describe elements in the environs of the site that could be deemed to be heritage resources: As above Description of impacts on heritage resources in the environs of the site: As above

Summary of anticipated impacts on heritage resources: No impacts on significant heritage resources are anticipated in areas where external services will be situated

#### E. ILLUSTRATIVE MATERIAL

Attach to this form a minimum A4 sized locality plan showing the boundaries of the area affected by the proposed development, its environs, property boundaries and a scale. The plan must be of a scale and size that is appropriate to creating a clear understanding of the development.

Attach also other relevant graphic material such as maps, site plans, satellite photographs and photographs of the site and the heritage resources on it and in its environs. These are essential to the processing of this notification.

Please provide all graphic material on paper of appropriate size and on CD/ USB in JPEG format. It is essential that graphic material be annotated via titles on the photographs, map names and numbers, names of files and/or provision of a numbered list describing what is visible in each image.

#### F. RECOMMENDATION

In your opinion do you believe that a heritage impact assessment is required? 🗌 Yes 🛛 No

#### Recommendation made by:

Name: David Halkett

**Capacity:** Heritage Impact Assessor and archaeologist, ACO Associates cc, with 33 years' experience in Heritage Resource Management

PLEASE NOTE: No Heritage Impact Assessment should be submitted with this form or conducted until Heritage Western Cape has expressed its opinion on the need for such and the nature thereof.

# G. INFORMATION TO BE PROVIDED AND STUDIES TO BE CONDUCTED AS PART OF THE HERITAGE IMPACT ASSESSMENT (HIA)

If it is recommended that an HIA is required, please complete this section of the form.

#### DETAILS OF STUDIES TO BE CONDUCTED IN THE INTENDED HIA

In addition to the requirements set out in Section 38(3) of the NHRA, indicate the envisaged studies:

#### | Heritage resource-related guidelines and policies:

Local authority planning and other laws and policies:

Details of parties, communities, etc. to be consulted:

Specialist studies: eg: archaeology, palaeontology, architecture, townscape, visual impact, etc.

Provide details:

**Other:** Provide details:

**PLEASE NOTE:** Any further studies which Heritage Western Cape requires should be submitted must be in the form of a single, consolidated report with a single set of recommendations. Specialist studies must be incorporated in full, either as chapters of the report, or as annexures thereto.

Please refer to the Guidelines for Heritage Impact Assessments required in terms of Section 38 of the National Heritage Resources Act (Act 25 of 1999)

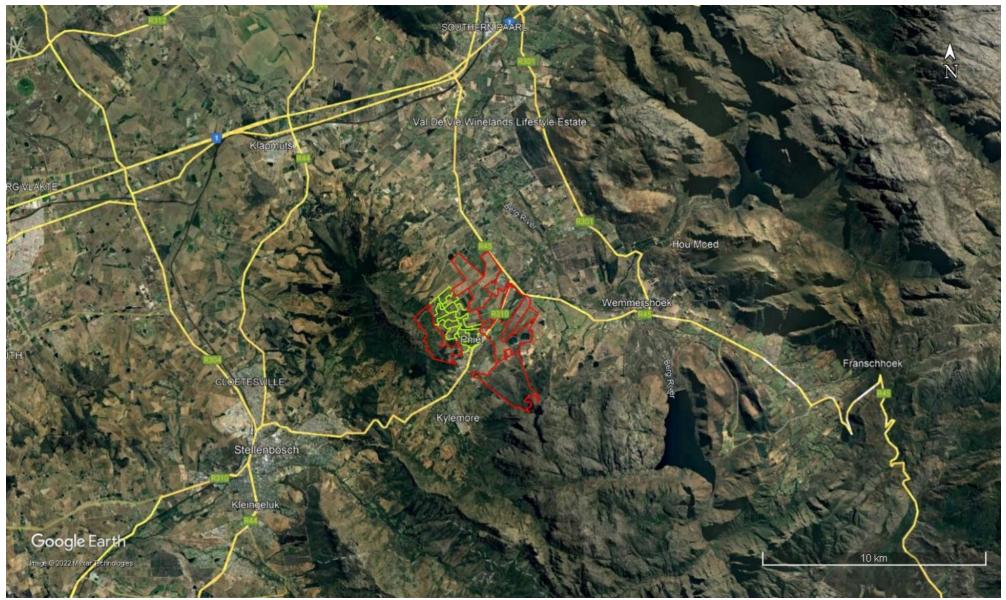


Figure 1: The location of the Boschendal land (red and green) in regional context (: Founders' Estate (yellow farms), other Boschendal farms (red).

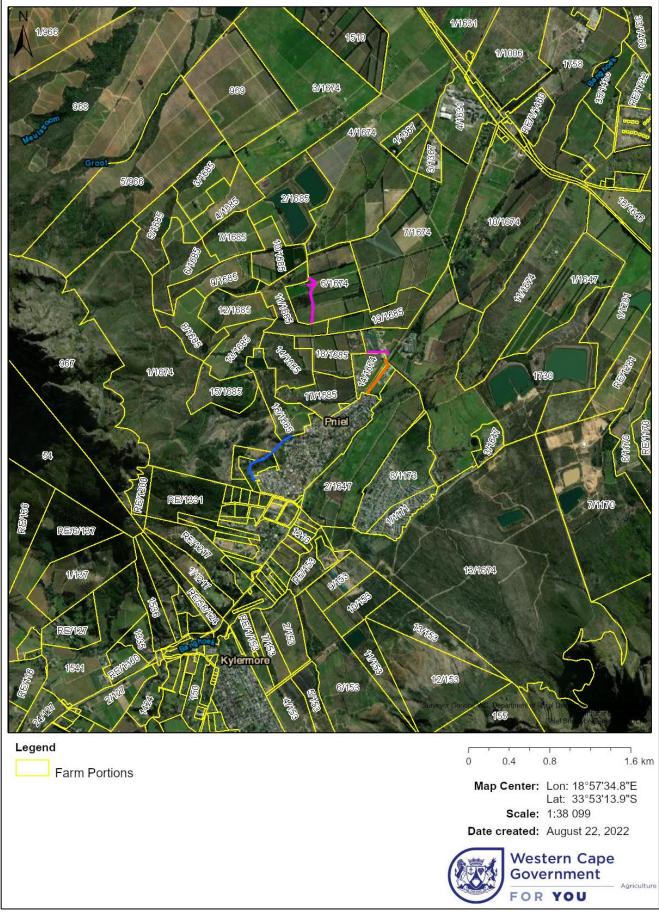
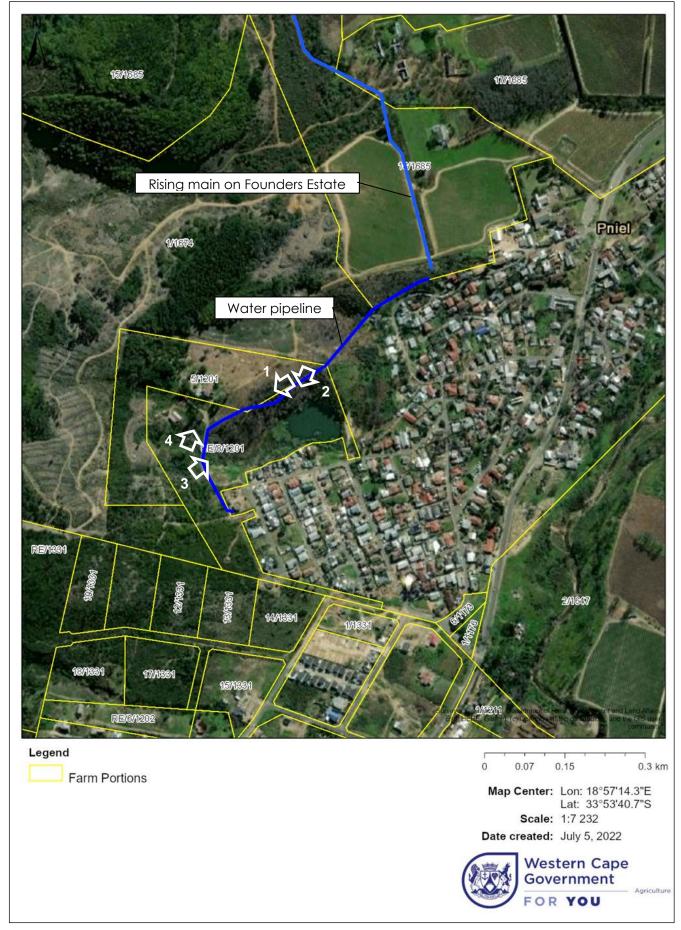


Figure 2: Line features indicating the location of works outside of the Boschendal Founders Estate that are the subject of the NID. Fiber optic (purple), Foul sewer (orange), Water pipeline (blue) (see detail in Figs 3-5).



**Figure 3:** The cadastral units relevant to the external water main (dark blue). The rising main is on Founders Estate (Arrows indicate Plates 1-4). Note: Despite the appearance, the engineers have confirmed that the water pipeline will not cross Ptn5/1201 (based on their coordinates design drawings and the cadastral from the Surveyor General).



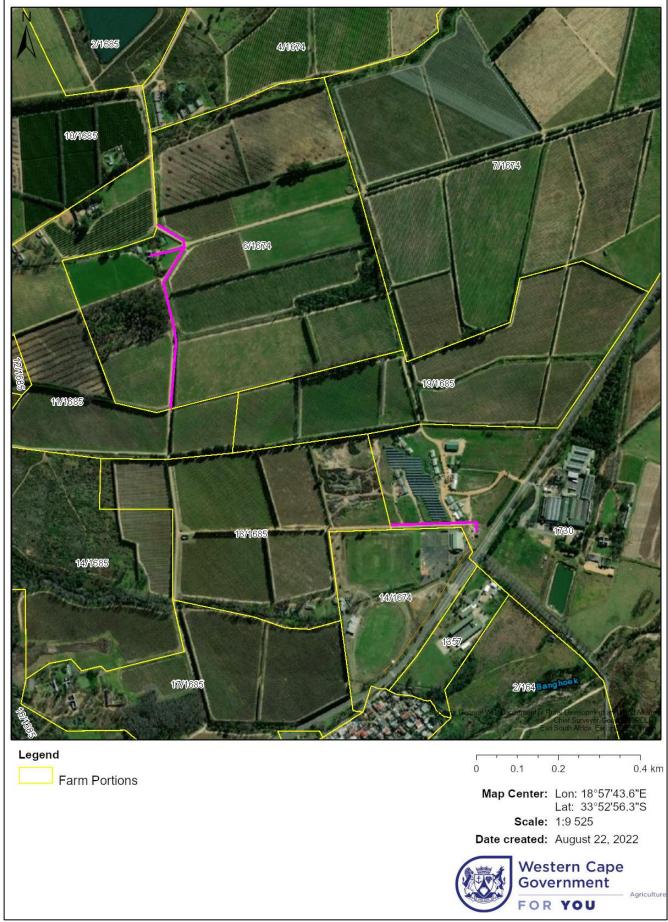


Figure 5: The cadastral units relevant to the fiber optic cabling routes.

#### Photographs

Context photos along the external water main north west of Pniel (see Figure 3)



Plates 1 and 2



Plates 3 and 4

## Context photos along external sewer route (see Figure 4)



Plates 5 and 6



Plates 7 and 8



Plates 9 and 10





Plates 11 and 12



Plates 13 and 14