



ENVIRONMENTAL AND SOCIAL ADVISORY SERVICES

Site Management Memorandum

PROPOSED REHABILITATION OF NATIONAL ROUTE R56 SECTION 8, MATATIELE LOCAL MUNICIPALITY IN THE ALFRED NZO DISTRICT MUNICIPALITY, EASTERN CAPE PROVINCE

Prepared for: SANRAL

Prepared by: CES

Date: 2023/01/26

1. Summary

SANRAL is planning the proposed rehabilitation of National Route R56 Section 8 between Matatiele and the KwaZulu-Natal boundary within the Matatiele Local Municipality, Alfred Nzo District Municipality, Eastern Cape Province. A Heritage Impact Assessment (HIA) was conducted by PGS Heritage (PGS) for the proposed project in 2016. The HIA identified 10 sites of heritage potential; 8 Stone Age sites and 2 historical sites. CES was requested to reappraise the HIA findings as a number of years lapsed since the PGS HIA was completed and in preparation for initiation of the proposed project activities. The reappraisal attempted to establish the current state of the heritage landscape and to review significance ratings and recommendations provided in the initial HIA study for sites identified at the time.

During a site assessment for this memorandum, no additional heritage sites or features were noted in the project area. The following table summarises heritage findings for sites identified by PGS, and reassessed by CES for the purposes of this reappraisal. The contents of this table is discussed in detail in following sections of this Memorandum.

Table 1: Heritage Sites / Features in the R56 Project Areas

Site	Description	Significance	Coordinates	Mitigation PGS	Mitigation Updates CES
Mat 1	MSA Site	Medium / Local (GP. B)	S 30.35246 E 28.84519	Small-scale archaeological excavation work which adheres to standard practice and method.	Initial mitigation recommendations applicable. Should the site be maintained <i>in situ</i> a temporary construction barricade should be erected around the occurrence for the duration of construction. The ECO should provide a Close-Out Report after construction to review management procedures and ensure that effective measures were implemented.
Mat 2	MSA Site	Low / Local (GP. C)	S 30.37465 E 28.91934	No Mitigation Required	Initial mitigation recommendations applicable. The ECO should provide a Close-Out Report after construction to review management procedures and ensure that effective measures were implemented.
Mat 3	Historic Bridge	Medium / Local (GP. B)	S 30.37638 E 28.92292	Recording of one façade and plan of bridge by way of measured drawings. Photographic and qualitative recording. Permit application to the relevant heritage authority to allow for the destruction of the bridge.	Initial mitigation recommendations applicable. The ECO should provide a Close-Out Report after construction to review management procedures and ensure that effective measures were implemented.
Mat 4	MSA Site	Medium / Local (GP. B)	S 30.38558 E 28.95260	Small-scale archaeological excavation work which adheres to standard practice and method.	Initial mitigation recommendations applicable. Should the site be maintained <i>in situ</i> a temporary construction barricade

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					should be erected around the occurrence for the duration of construction. The ECO should provide a Close-Out Report after construction to review management procedures and ensure that effective measures were implemented.
Mat 5	ESA Site	Medium / Local (GP. B)	S 30.44292 E 29.19011	Archaeological monitoring of sites during construction phase. Should any significant deposits or artefacts be exposed, small-scale archaeological excavation work will be required which adheres to standard practice and method.	Initial mitigation recommendations applicable. Should the site be maintained <i>in situ</i> a temporary construction barricade should be erected around the occurrence for the duration of construction. The ECO should provide a Close-Out Report after construction to review management procedures and ensure that effective measures were implemented.
Mat 6	MSA Site	Low / Local (GP. C)	S 30.44201 E 29.18297	No Mitigation Required	Initial mitigation recommendations applicable. The ECO should provide a Close-Out Report after construction to review management procedures and ensure that effective measures were implemented.
Mat 7	MSA Site	Low / Local (GP. C)	S 30.44174 E 29.18128	No Mitigation Required	Initial mitigation recommendations applicable. The ECO should provide a Close-Out Report after construction to review management procedures and ensure that effective measures were implemented.
Mat 8	Historic Structures	Medium / Local (GP. B)	S 30.38607 E 29.03455	Developer must be made aware of the presence of the old dwelling (and its outbuildings) as well as the church building and these structures must be avoided during construction. However, should any disturbance to any of these structures be envisaged, further mitigation such as recording and disturbance / destruction permits would be required.	Initial mitigation recommendations applicable. Where applicable, a temporary construction barricade should be erected around the occurrence for the duration of construction. The ECO should provide a Close-Out Report after construction to review management procedures and ensure that effective measures were implemented.
Mat 9	MSA Site	Low / Local (GP. C)	S 30.38759 E 28.96879	No Mitigation Required	Initial mitigation recommendations applicable. The ECO should provide a Close-Out Report after construction to review management procedures and ensure that effective measures were implemented.
Mat 10	MSA Site	Medium / Local (GP. B) Consider downscaling to Low / Local (GP. C)		Archaeological monitoring of sites during construction phase. Should any significant deposits or artefacts be exposed, small-scale archaeological excavation work will be required which adheres to standard practice and method.	It should be considered to downscale initial mitigation recommendation to general site monitoring with small-scale archaeological excavation work which adheres to standard practice and method, should any significant deposits or artefacts be exposed. The ECO should provide a Close-Out Report after construction to review management procedures and ensure that effective measures were implemented.

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2. Background and Brief

2.1 Project Description

SANRAL is planning the proposed rehabilitation of National Route R56 Section 8 between Matatiele and the KwaZulu-Natal boundary within the Matatiele Local Municipality, Alfred Nzo District Municipality, Eastern Cape Province. The project comprises the proposed rehabilitation and reseal of National Route R56 Section 8 which is located between Matatiele at Km 130.15 and the KwaZulu-Natal provincial boundary at Km 168.71 within the Matatiele Local Municipality, in the Alfred Nzo District Municipality, province of Eastern Cape. The project starts at Km 130.15, which is located east of Matatiele at the intersection of East Street and the R56.

For the project, the R56 will be reconstructed on a new off-set alignment (while traffic continues to use the existing R56). Here, the upgrade will be an offset of the existing centreline by 7m to the right hand side (when driving from Matatiele towards the provincial boundary) and constructing half of the new road while traffic is using the existing road. After this has been completed the traffic will be transferred to the newly constructed half road (7.6m) while the old road is being upgraded to the same width as the other half. This will require widening of existing structures as well as constructing new bridges and demolishing old ones. However, the bridge over the Umzimvubu River at Km 155 will not be affected in any way.

2.2 Previous Heritage Assessment

PGS Heritage (PGS) was appointed by Gibb (Pty) Ltd in 2016 to undertake a Heritage Impact Assessment¹ (HIA), which forms part of the Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) for the proposed rehabilitation of National Route R56 Section 8. The HIA included an archival and historical desktop study as well as fieldwork in order to identify heritage resources in the project area.

2.3 Heritage Assessment Reappraisal

CES was requested to reappraise the HIA findings as a number of years lapsed since the PGS HIA was completed and in preparation for initiation of the proposed project activities. It should be noted that the South African Heritage Resources Agency (SAHRA) has a policy whereby HIAs need to be revised after 5 years as the heritage landscape might have changed in that lapsed period or new research on the particular project landscape might have been published in the lapsed period. As such, a site visit was conducted in December 2022 in order to establish the current state of the heritage landscape and heritage sites identified by PGS and to review significance ratings and recommendations provided in the initial HIA study for sites identified at that time. The Memorandum will be submitted along with the PGS HIA to the South African Heritage Resources Authority (SAHRA) and the Eastern Cape Provincial Heritage Authority (EC-PHRA) for perusal.

¹ PGS Heritage. 2016. Heritage Impact Assessment Report for the proposed rehabilitation of National Route R56 Section 8 between Matatiele and the KwaZulu-Natal boundary within the Matatiele Local Municipality, Alfred Nzo District Municipality, Eastern Cape Province.

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3. The Baseline Heritage Environment

3.1 The Stone Age

The South African Stone Age sequence that comprises the Earlier Stone Age (ESA) (>1.5 million years ago to around 250 000 years ago), the Middle Stone Age (MSA) (>20 000 to <300 000 years ago) and the Later Stone Age (LSA) (<40 000 years ago up to the historical period) is based on the concept of techno- or industrial complexes. Each is formed by a group of industries where the assemblages share attributes or common traditions (Lombard et al 2012). The Stone Age collections at the Albany Museum are particularly important. While the former reflects a strong presence of Stone Age people over most of the Eastern Cape, the archaeology of the Eastern Cape remains under-researched in view of the level of Stone Age occupation in this region (Binneman 2001, 2005; Binneman et al 2010; AGES 2013) In-depth studies on the Stone Age of the study area are lacking. Derricourt (1977) in his review of the Stone Age of the then Transkei and Ciskei, noted that some of the undoubted ESA localities, mostly with handaxes as the diagnostic stone tool, have been recorded at places such as Matatiele, Mount Frere, Mount Ayliff and various others. Three Early Stone Age sites are recorded in the KwaZulu-Natal Museum heritage database in the greater Matatiele area. Stone tools in the form of hand-axes and cleavers have been recorded at these sites (Prins & Hall, 2012). An Early Stone Age site was also identified during the fieldwork within the present study area (see Mat 5). At the Strathalan locality, close to Maclear, three adjacent caves have been utilized from the MSA to the LSA as demonstrated by the stratified living floors. Preserved botanical food waste and the remains of wooden implements were uncovered on one of the excavated occupation levels that date to 300 years ago (Opperman 1999). He also excavated shelters where excellent preservation of botanical and faunal remains is associated with terminal MSA assemblages (Opperman & Heydenrych 1990; Opperman 1992, 1996a, 1996b, 1999). Two occupation floors in Strathalan Cave B have been dated to approximately 29 000 and 26 000 years ago respectively. Berry Malan (1949) noted MSA lithics at Glen Grey and Matatiele. MSA lithics were recorded between Molteno and Sterkstroom during more recent heritage surveys (Binneman et al 2010, 2011).

Middle Stone Age sites in the Drakensberg region occur in both Lesotho and South Africa. Sites occur as surface scatters as well as deep cave deposits. Prime archaeological deposits, however, occur in the Eastern Cape and Free State sections of the region. Archaeological excavations at Strathalan Cave in the Eastern Cape Province indicate that the Middle Stone Age persisted in the Cape Drakensberg, to the immediate south west of the study area, until around 22 000 years ago (Mitchell 2002). Eleven Middle Stone Age sites, all surface scatters, are known from the greater Matatiele area (Prins & Hall, 2012). Apart from the 11 MSA sites mentioned by Prins & Hall (2012), seven of the eight Stone Age sites identified during the fieldwork of the present study area are also Middle Stone Age sites. During a recent AIA, a small shelter, containing vandalized paintings and graffiti, was identified near Mount Fletcher southwest of Matatiele (Binneman and Reichert 2015). The Eastern Cape and KZN regions are particularly rich in fine-line polychrome rock art. Most of the rock art of southern Africa dates to the LSA with only a few instances that have been firmly dated to the MSA. Caves and rock shelters were extensively occupied during the LSA and frequently contain paintings along the walls (Booth 2012a). Late rock art expressions are also present Anderson (2002) refers briefly to a MSA quarry and stone knapping area close to Matatiele in a report on an archaeological survey for the Harry Gwala housing development project but provides no detail.

A large number of LSA sites occur in the greater Matatiele area. Most of these are San rock art sites but four LSA surface scatters have also been recorded in the past (Prins & Hall, 2012). Patricia Vinnicombe recorded a large number of sites around the Matatiele area in the 1960s and 1970s. A high density of rock art was documented in the Tsoelike River valley

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in the Qacha's Nek district, an area which, according to oral traditions (Jolly 2006; Kruger 2011), was occupied by San people into the twentieth century. These rock art images are composed of very finely drawn polychromatic images with narrow lines, small dots and gradated colouring. The images usually depict eland, rhebok, or humans in various states, activities, or postures. Occasionally, lions, other carnivores, other antelope, baboons, cattle, horses, horseback riders, snakes, and extraordinary creatures with human and animal features (known as therianthropes) are depicted (Kruger, 2011). In spite of this previous research, the Matatiele region was identified as under-researched in a doctoral study. The Matatiele Archaeology and Rock Art (MARA, Rock Art Research Institute, University of the Witwatersrand) project was therefore established to redress the imbalance in the history of research in this region of the former apartheid homeland of the 'Transkei', and aiming to further investigate the phenomenon of raiding cultures in the nineteenth century within the context of the heritage of all the regional cultures. Initial fieldwork led to the discovery of more than fifteen rock art shelters in previously unexplored valleys in the Maloti-Drakensberg around Matatiele. Some of these rock art sites contributed to the hypothesis that, in the nineteenth century, this region was home to raiding bands of mixed cultures (including San) who made paintings of their religious beliefs in the sandstone shelters. The first systematic archaeological survey has yielded over 200 sites, 168 containing rock art. Analysis of finds from excavated shelters is ongoing, and has produced material (chiefly lithics, macrobotanicals, and metals) pertaining especially to the period of forager/farmer interaction (Matatiele Archaeology and Rock Art Project, 2014). A vast number of studies on in particular rock art and hunter-gatherer archaeology have been undertaken in this region (e.g. Vinnicombe 1976; Cable et al 1980; Cable 1984; Mazel 1989; Kaplan 1990). Patricia Vinnicombe's (1976) seminal publication on the rock art of the region resulted in a focus on rock art studies. The Rock Art Research Institute (RARI) of the University of the Witwatersrand is also active in recording the rock art of the region (Booth 2012). Vinnicombe recorded several rock art localities in the vicinity of Matatiele – a rock art locality is known within a previous Nature Reserve in a shelter with an archaeological deposit (Anderson 2002).

3.2 The Iron Age Farmer Period

This arrival of the first Iron Age immigrants into the surroundings of the study area initiated a period of contact between the San hunter gatherers and the Nguni and Sotho agro-pastoralists. It is known that San groups in these sections of the north-eastern Cape interacted closely with Bantu speaking groups in a number of ways, including trade, intermarriage, stock herding and raiding (i.e. raiding partnerships as well as raiding of one another) (Henry 2011). San groups entered into alliances with Bantuspeaking groups and gave them a share of the stock they had raided in return for a certain extent of protection from their chiefs. With increasing pressure on San groups in the north-eastern Cape during the nineteenth century, such alliances often resulted in Bantu-speakers joining San groups for periods of time (Henry 2011). During the more recent past, between 1837 and 1990, detailed historical information has shown that the three major San groups were the Thola, another group united under Mdwebo, and a group under Nqabayu (Mallen, 2009). Almost 2 000 Iron Age sites have been identified in the Maloti Drakensberg region, and most occur at altitudes lower than the 1 800 m contour. Stone walled Iron Age settlements have been recorded in the greater Matatiele area and were most probably built by southern Sotho immigrants who settled here after 1870. However, none are known from the project area (Prins & Hall, 2012). This said, in the wider surroundings, excavations at Strathalan Cave A, close to Maclear, have yielded the remains of sorghum grain and calabash fragments on the living floor, indicating that Nguni farmers were in the area before the 1800's (Opperman, 1996). Early Nguni people arrived in the region between 1100 and 1300 AD (Feely 1986, cited in Fischer et al. 2013; Feely 1987) and as suggested above, by the beginning of the nineteenth century the main Cape Nguni-

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speaking agropastoralist groups inhabiting the Eastern Cape were the Mpondo, Mpondomise and Thembu (Soga 1930, cited in Henry 2011).

By the 1820s, the period of unrest and conflict known as the Mfecane, had significantly affected the region, causing disruption amongst these groups (Derricourt 1974, cited in Henry 2011). The effects of the Mfecane were wide-reaching and people were displaced as far as the Zambezi River (Mitchell 2002). No Iron Age sites are known from the study area.

3.3 The Colonial Period

The Basotho Gun War (1880 – 1881) was a significant conflict within the study area and its surroundings and comprised an armed resistance by a section of the Basotho against British Imperial attempts to disarm them. The events of early October 1880 are especially significant for the present study area. On Saturday, 2 October 1880 a meeting between the Chief Magistrate of Griqualand East, Charles Brownlee, and the Basotho under Makwai and Sekaki took place in Matatiele. Concluding that the Basotho were going to rebel, Brownlee ordered all the white residents and traders of Matatiele and surroundings to depart for Kokstad, using the crossing over the Umzimvubu River at Cedarville Drift as a congregation point. Under the protection of the Basotho of Ramhlagwana, Brownlee and his entourage departed from Matatiele on Monday, 4 October 1880. A strong force of Basotho rebels followed Brownlee all the way to the Umzimvubu River (Macquarrie, 1958). Before reaching the river, Brownslee's force was attacked by the Basotho. Shots were exchanged, though without any losses to either side. Brownlee's party managed to reach the river safely and found a number of white farmers and traders with their families at Cedarville Drift. A defensive wagon laager was established which had the hotel on one side, its outbuilding on the other and the wagons in-between. Leaving the position in charge of Mr. Wylde, the Magistrate of Kokstad, Brownlee departed for Kokstad (Brownlee, 1887). The withdrawal of Brownlee from Matatiele to Cedarville Drift and Kokstad would have taken him through at least sections of the present study area. Similarly, the events associated with Cedarville Drift would have taken place in close proximity to sections of the present study area located near Cedarville and the Umzimvubu River.

The last decades of the nineteenth century saw the establishment of a permanent white farming and administrative community in Griqualand East on the one hand, and the increasing marginalisation of the Griqua and Bantu-speaking residents of the area on the other. The establishment of the first exclusively white farming associations in Griqualand East during 1882 provides an early indication for the increasing numbers of permanent white farmers in this area. As their position strengthened, farms were developed and expanded (Besten, 2006). The Cedarville area is renowned to this day as one of the best dairy farming areas in South Africa (Erasmus, 2004). These events in Griqualand East did not always go unchallenged, with rebellions breaking out in 1878 and 1897. These rebellions proved unsuccessful (Erasmus, 2004). At the outbreak of the South African War in 1899, the Cape Colony prepared to stay out of the conflict. However, the need to be prepared for aggression from the Boer forces also required them to plan adequately for the eventuality of war. The uncertainty of the republican intention towards the Transkei Territories, as well as the Eastern Cape regions, pushed the British Army to form a number of white and black units. In 1901, the Matatiele District Defence Force was raised. The unit was raised and commanded by Major Charles Tod, other officers being Captains W. Harley and D. Johnstone, with Lieutenants A. McDonald and Dan B. Menne. An African contingent of about 50 men under Captain H. Davis, formed part of the unit. They were known by the nickname of "The Matatiele Lambs," an appellation not always descriptive of the regiment.

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The Matatiele District Defence Force operated in East Griqualand, parts of the Barkly East district of the Cape and parts of Basutoland and the corps performed valuable services. It was disbanded in 1902 upon the cessation of hostilities, their services being no longer needed with the regular regiment of Griqualand East having returned. Despite numerous brushes with the enemy during its war, the corps sustained no casualties during its short existence (www.angloboerwar.com). Cedarville was formally founded in 1912 when a village management board was established (Raper 2004). It was named after the Cedarberg Mountains, which guards the southern approach to the Umzimvubu river valley (Erasmus 2014). As shown elsewhere, the Cedarville Drift over the Umzimvubu River had long been known as a hotel.

4. The Heritage Landscape and Heritage Sites: Reappraisal

The PGS HIA study identified 10 sites of heritage potential; 8 Stone Age sites and 2 historical sites. During a site assessment for this memorandum, no additional heritage sites or features were noted in the project area. The following section provides heritage findings for sites identified by PGS, and reassessed by CES for the purposes of this reappraisal.

PGS Site Code:	MAT 1
Coordinates:	S 30.35246 E 28.84519
Significance Rating (PGS):	Medium Significance Generally Protected B
Mitigation (PGS):	Small-scale archaeological excavation work which adheres to standard practice and method.
Updated Mitigation Opinion:	Initial mitigation recommendations applicable. Should the site be maintained <i>in situ</i> a temporary construction barricade should be erected around the occurrence for the duration of construction. The ECO should provide a Close-Out Report after construction to review management procedures and ensure that effective measures were implemented.

PGS identified a concentration of MSA lithics occurring over an area that extends approximately 25m along the northern side of the road. The highest density observed at the site is 7 lithics per/m². It is evident from the profile of the road cutting where the lithics were found that they were originally covered by a layer of sand and were exposed during the construction of the road, with erosion continuously revealing more lithics. The lithics include cores, blades, flakes and debitage. However, no hammer stones could be seen. The lithics originate from eroded contexts and do not indicate a high level of formal retouch. However, the locality is important as there seems to be an underlying deposit that contains significant numbers of stone tools. The presence of cores is also important since this reflects stone knapping at this locality. Hornfels was the main material used in the manufacture of the lithics in the assemblage. Quartzite also featured as a raw material but not to the same extent. Due to the underlying deposit and the presence of cores, PGS graded the site to be of Medium Significance.

During the updated site survey (2022) some but not all of the lithics initially documented by PGS were located but the site seemed heavily eroded exposing subterranean stone tools. The site significance grading (Medium Significance) is maintained due to the underlying deposit potentially informing on MSA developments in the region.

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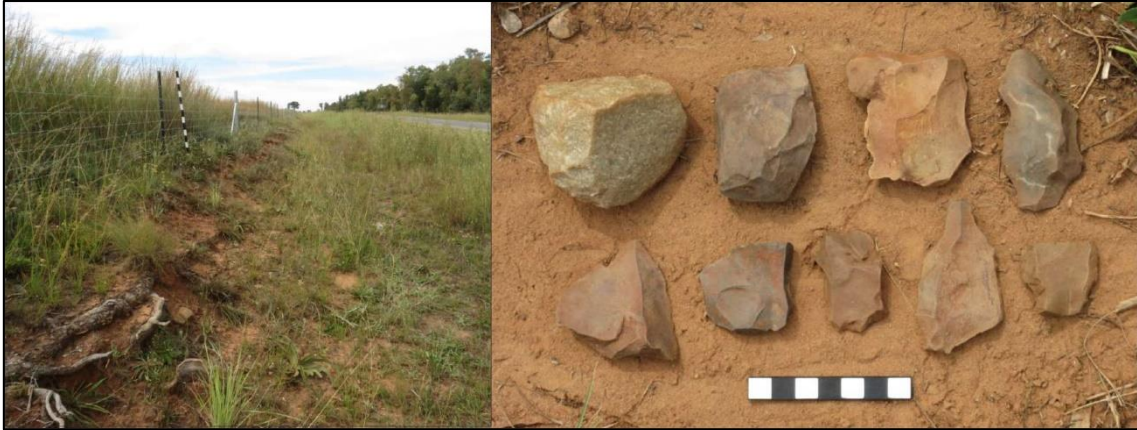


Figure 1: General view of MAT 1 (left) and lithics observed at the site (right) at the time of the PGS HIA study.



Figure 2: General view of MAT 1 (left) and lithics observed at the site (centre and right) at the time of the site survey for this Memorandum.

PGS Site Code:	MAT 2
Coordinates:	S 30.37465 E 28.91934
Significance Rating (PGS):	Low Significance Generally Protected
Mitigation (PGS):	No Mitigation Required
Updated Mitigation Opinion:	Initial mitigation recommendations applicable. The ECO should provide a Close-Out Report after construction to review management procedures and ensure that effective measures were implemented.

PGS noted a low density surface scatter of MSA lithics which extends approximately 40m along the side of the road. The highest density of lithics that could be observed at the site was 2 lithics per/m², whereas the overall number of lithics observed on the site was low. The lithics were evidently exposed during the construction of the road, when a road cutting was made into a low hill. Subsequent erosion may have exposed more lithics. However, no evidence for an in situ lithic concentration could be seen. The lithics observed on the surface of the site comprise flaked blades and triangular flakes produced on prepared cores. Some specimens exhibit utilisation marks. In terms of raw material use, fine-grained

quartzite and hornfels appears to have been preferred. The lithics from the site has a low density and is of small number. PGS graded the site to be of Low Significance.

During the updated site survey (2022) some but not all of the lithics initially documented by PGS were located but the site seemed heavily eroded and the site significance grading (Low Significance) is maintained.



Figure 3: General view of MAT 2 (left) and lithics observed at the site (right) at the time of the PGS HIA study.



Figure 4: General view of MAT 2 (left) and lithics observed at the site (centre and right) at the time of the site survey for this Memorandum.

PGS Site Code:	MAT 3
Coordinates:	S 30.37638 E 28.92292
Significance Rating (PGS):	Generally Protected B (GP.B) Medium Significance
Mitigation (PGS):	Recording of one façade and plan of bridge by way of measured drawings. Photographic and qualitative recording. Permit application to the relevant heritage authority to allow for the destruction of the bridge.
Updated Mitigation Opinion:	Initial mitigation recommendations applicable. The ECO should provide a Close-Out Report after construction to review management procedures and ensure that effective measures were implemented.

PGS documented a slab type low level reinforced concrete bridge over the Edendale Stream. The structure is a three-span concrete bridge which has a very narrow pedestrian sidewalk on each side and is roughly 20 m by 7 m in extent. The condition of the bridge is not pristine, and a section of the precast concrete handrails on the northern end of the bridge had been severely damaged by presumably a vehicle or truck. The construction date “1951” appears on the north-eastern end of the bridge. According to information found in the Western Cape Archives (TBK, PAA (A-WS), M/190, MT4/E), the bridge was known as the “Edendale Sluit Bridge” and was designed to have three 20-foot-long spans, a roadway width of 22 feet and 12 inch sidewalks on either side with precast concrete handrails. The earliest record relating to the bridge was found in letter by the District Roads Engineer for Umtata written during December 1948. By 20 June 1949 the specifications for the construction of the bridge had been finalised, whereas the bridge was completed in November 1951. The construction of the bridge cost an estimated £2,500 to complete. The completion date obtained from the archival information (November 1951) supports the construction date (1951) which appears on the bridge, and both indicate that the bridge is 65 years old. According to the archival information obtained from the Western Cape Archives, the bridge was completed at roughly the same time as the so-called “Commonage Bridge”. It is not presently known where this bridge is located. A stone and concrete drift is located a short distance south of the bridge with evidence for a road continuing in a western direction from this drift before joining the modern tar road. It is possible that this concrete drift and road formed part of the construction of the slab type bridge at MAT 3, or alternatively that the drift and road represent tangible remains of the earlier road and crossing point over the stream. The bridge is certainly more than 60 years old. PGS graded the site to be of Medium Significance.

During the updated site survey (2022) it was noted that the bridge was more or less in the same state of preservation with minor structural deterioration as a result of natural elements. The site significance grading (Medium Significance) is maintained.



Figure 5: General view of the bridge at MAT 3 at the time of the PGS HIA study.



Figure 6: General view of the bridge at MAT 3 at the time of the site survey for this Memorandum

PGS Site Code:	MAT 4
Coordinates:	S 30.38558 E 28.95260
Significance Rating (PGS):	Medium significance Generally Protected B
Mitigation (PGS):	Small-scale archaeological excavation work which adheres to standard practice and method.
Updated Mitigation Opinion:	Initial mitigation recommendations applicable. Should the site be maintained <i>in situ</i> a temporary construction barricade should be erected around the occurrence for the duration of construction. The ECO should provide a Close-Out Report after construction to review management procedures and ensure that effective measures were implemented.

PGS noted another concentration of MSA lithics was identified here. The lithics extend over a distance of approximately 100m along the southern side of the road. Only one lithic was identified on the northern end of the road. The highest density recorded was 7 lithics per/m². Furthermore, a large number of lithics were observed on the surface of the site. The lithics were revealed when a road cutting was made during the construction of the road. Subsequent erosion activity may have further facilitated this process. Based on the sample that was identified, a high frequency of blades and triangular flakes seems evident. Several cores and a quartzite hammer stone suggest *in situ* stone knapping activities at this particular locality. The range of raw materials used includes hornfels and fine-grained Cryptocrystalline Silicas (CCS). Hornfels and CCS materials were extensively used in lithic assemblages from the Kwazulu-Natal region in particular. The raw materials are derived from the Drakensberg volcanics and were sourced by the prehistoric hunting and gathering communities from river systems and outcrops. The evidence for stone tool manufacture at this site is important in the context of the importance of the MSA and the presence of Anatomically Modern Humans with complex cognition and innovative technologies that form the focus of southern African MSA research (Wadley 2013, 2015). Therefore, PGS graded the site to be of Medium significance.

During the updated site survey (2022) some of the lithics initially documented by PGS were located but the surface artefact densities seemed lower. This might be the result of erosion and surface wash displacing stone tools or even collection of

artefacts from the surface. The site significance grading (*Medium Significance*) is nonetheless maintained due to the site potentially being a manufacturing area of MSA tools.



Figure 7: General view of MAT 4 (left) and lithics observed at the site (right) at the time of the PGS HIA study.



Figure 8: General view of MAT 4 (left) and lithics observed at the site (centre and right) at the time of the site survey for this Memorandum.

PGS Site Code:	MAT 5
Coordinates:	S 30.44292 E 29.19011
Significance Rating (PGS):	Medium Significance Generally Protected B
Mitigation (PGS):	Archaeological monitoring of sites during construction phase. Should any significant deposits or artefacts be exposed, small-scale archaeological excavation work will be required which adheres to standard practice and method.
Updated Mitigation Opinion:	Initial mitigation recommendations applicable. Should the site be maintained <i>in situ</i> a temporary construction barricade should be erected around the occurrence for the duration of construction. The ECO should provide a Close-Out Report after construction to review management procedures and ensure that effective measures were implemented.

A small number of lithics were identified by PGS along the northern end of the road. As is the case with most of the other Stone Age sites, these lithics were exposed when a road cutting was made during the construction of the road. The highest density of lithics that could be identified here, was 2 lithics per/m². The lithics identified here include typical Large Cutting Tools (LCTs) associated with the ESA, including a cleaver and a handaxe. Whereas the density of lithics is low, this is the only occurrence of ESA tools that has been recorded during the survey. Therefore, PGS graded the site to be of Medium Significance.

During the updated site survey (2022) many of the LCTs initially documented by PGS were located on eroded surfaces and the site significance grading (Medium Significance) is maintained for this unique ESA occurrence.



Figure 9: General view of MAT 5 (left) and lithics observed at the site (right) at the time of the PGS HIA study.



Figure 10: General view of MAT 5 (left) and lithics observed at the site (centre and right) at the time of the site survey for this Memorandum.

PGS Site Code:	MAT 6
Coordinates:	S 30.44201 E 29.18297
Significance Rating (PGS):	Low significance Generally Protected C
Mitigation (PGS):	No Mitigation Required
Updated Mitigation Opinion:	Initial mitigation recommendations applicable. The ECO should provide a Close-Out Report after construction to review management procedures and ensure that effective measures were implemented.

PGS identified a MSA site extending approximately 40m along the southern side of the road where it was exposed by a road cutting during the construction of the existing road. A very low density of 1 lithic per/m² has been established. The raw materials used for the stone tools include quartzite and hornfels. In view of the very low density of the lithics, PGS graded the site to be of Low significance.

During the updated site survey (2022) some but not all of the lithics initially documented by PGS were located but the site seemed heavily eroded and the site significance grading (Low Significance) is maintained.



Figure 11: General view of MAT 6 (left) and lithics observed at the site (right) at the time of the PGS HIA study.



Figure 12: General view of MAT 6 (left) and lithics observed at the site (centre and right) at the time of the site survey for this Memorandum.

PGS Site Code:	MAT 7
Coordinates:	S 30.44174 E 29.18128
Significance Rating (PGS):	Low Significance Generally Protected C
Mitigation (PGS):	No Mitigation Required
Updated Mitigation Opinion:	Initial mitigation recommendations applicable. The ECO should provide a Close-Out Report after construction to review management procedures and ensure that effective measures were implemented.

A low density scatter of MSA lithics that extends approximately 25m along the southern side of the road was documented by PGS. The locality was exposed by a cutting during the construction of the existing road. A very low density of 1 lithic per/m² was established. A similar range of raw materials for stone tool manufacture was used as found at the other sites, including the use of hornfels and quartzites. The convergent flakes and blade flakes were mostly produced on prepared cores. Evidence for utilization could be observed on some of the lithic specimens. Due to the very low density of the lithics, PGS graded the site to be of Low Significance.

During the updated site survey (2022) some but not all of the lithics initially documented by PGS were located but the site seemed heavily eroded and the site significance grading (Low Significance) is maintained.



Figure 13: General view of MAT 7 (left) and lithics observed at the site (right) at the time of the PGS HIA study.



Figure 14: General view of MAT 7 (left) and lithics observed at the site (centre and right) at the time of the site survey for this Memorandum.

PGS Site Code:	MAT 8
Coordinates:	S 30.386072 E 29.034557
Significance Rating (PGS):	Medium Significance Generally Protected B
Mitigation (PGS):	Developer must be made aware of the presence of the old dwelling (and its outbuildings) as well as the church building and these structures must be avoided during construction. However, should any disturbance to any of these structures be envisaged, further mitigation such as recording and disturbance / destruction permits would be required.
Updated Mitigation Opinion:	Initial mitigation recommendations applicable. Where applicable, a temporary construction barricade should be erected around the occurrence for the duration of construction. The ECO should provide a Close-Out Report after construction to review management procedures and ensure that effective measures were implemented.

PGS noted that, according to the road reserve provided by the client, the proposed development footprint on the western side of Cedarville ends directly adjacent to an old house. This house is located on the southern side of the existing road. It was also noted that the road reserve ends against the stand of an old church on the northern side of the road. Although the church is located on the eastern end of the stand (with no structures or buildings evident on the remainder of the stand), this old corrugated iron church building has significant historical value and is located only 48m from the point where the road reserve ends. The house on the southern side of the road is certainly older than 60 years, and a number of outbuildings are associated with it, including a rondavel. The old church building is in all likelihood even older, and may very well be older than 100 years. The church appears to be the St. Michael Anglican Church (www.artefacts.co.za), but the exact history or age of this church building is not presently known. An area of roughly 100m by 100m incorporates both the old house and its stand, as well as the old church and its stand. Both buildings are older than 60 years, with the church quite likely older than 100 years as well. As a result, PGS graded the site to be of Medium Significance.

During the updated site survey (2022) it was noted that the dwelling and the church remains more or less in the same state of preservation and the site significance grading (Medium Significance) is maintained.



Figure 15: General view of MAT 8 at the dwelling (left) and the old church (right) at the time of the PGS HIA study.



Figure 16: General view of MAT 8 at the dwelling (left) and the old church (right) at the time of the site survey for this Memorandum.

PGS Site Code:	MAT 9
Coordinates:	S 30.38759 E 28.96879
Significance Rating (PGS):	Low Significance Generally Protected C
Mitigation (PGS):	No Mitigation Required
Updated Mitigation Opinion:	Initial mitigation recommendations applicable. The ECO should provide a Close-Out Report after construction to review management procedures and ensure that effective measures were implemented.

Another MSA site was identified by PGS. While widely scattered lithics of very low density were observed over an area that extends approximately 30m along the northern side of the road, the highest density recorded at the site was 5 lithics per/m². This latter concentration of lithics was found to be highly localised and seems to have been the result of the

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excavation of a drainage channel next to the tar road. It is clear therefore that the lithics from the site are all in secondary context. The sample of lithics observed at the site contains typical MSA tool types such as blades and a convergent flake, again produced on prepared cores. Several of the stone tools exhibit utilization marks. In view of the secondary context of the lithics as well as the relatively low density of lithics found across the site, PGS graded the site to be of Low Significance.

During the updated site survey (2022) none of the lithics initially documented by PGS were located and the site seemed heavily eroded. The site significance grading (Low Significance) is maintained.



Figure 17: General view of MAT 9 (left) and lithics observed at the site (right) at the time of the PGS HIA study.



Figure 18: General view of MAT 9 (left) and lithics observed at the site (centre and right) at the time of the site survey for this Memorandum.

PGS Site Code:	MAT 10
Coordinates:	S 30.38100 E 28.93091
Significance Rating (PGS):	Medium significance Generally Protected C <i>A downscale of the site significance grading from Medium Significance to Low Significance should be considered.</i>
Mitigation (PGS):	Archaeological monitoring of sites during construction phase. Should any significant deposits or artefacts be exposed, small-scale archaeological excavation work will be required which adheres to standard practice and method.
Updated Mitigation Opinion:	It should be considered to downscale initial mitigation recommendation to general site monitoring with small-scale archaeological excavation work which adheres to standard practice and method, should any significant deposits or artefacts be exposed. The ECO should provide a Close-Out Report after construction to review management procedures and ensure that effective measures were implemented.

PGS noted another MSA site over an area that extends approximately 30m along southern side of the road where the stone tools were exposed by a cutting made during the construction of the road. The highest density of lithics observed at the site is 3 lithics per/m². The sample of lithics observed at the site includes typical MSA cores and blade flake forms. Even though the site exhibits a relatively low density of lithics, the presence of some cores resulted in PGS grading the site to be of Medium significance.

During the updated site survey (2022) only a few of the lithics initially documented by PGS (and no cores) were located and the site seemed heavily eroded. A downscale of the site significance grading from Medium Significance to Low Significance should be considered due to the low density of lithics and the general absence of formal tools.



Figure 19: General view of MAT 10 (left) and lithics observed at the site (right) at the time of the PGS HIA study.



Figure 20: General view of MAT 10 (left) and lithics observed at the site (centre and right) at the time of the site survey for this Memorandum

5. Conclusion and Further Recommendations

SANRAL is planning the proposed rehabilitation of National Route R56 Section 8 and a HIA conducted by PGS identified 10 sites of heritage potential; 8 Stone Age sites and 2 historical sites. CES was requested to reappraise the HIA findings and no additional heritage sites or features were noted in the project area during the updated site assessment.

PGS assessed the impact of the proposed development on the located heritage sites and it was established that the proposed development will have a High Impact Risk on Mat 3, a Moderate Impact Risk on Mat 1, Mat 4, Mat 5, Mat 8 and Mat 10 and a Low Impact Risk on Mat 2, Mat 6, Mat 7 and Mat 9 and it was noted by PGS that mitigation measures would be required for sites Mat 1, Mat 3, Mat 4, Mat 5, Mat 8 and Mat 10. CES found that all initial mitigation recommendations remain applicable except for site MAT10, where a downscale of the site significance grading and a Low Impact Risk is foreseen.

Apart from the site-specific mitigation measures, the following general mitigation measure would also be required:

- Due to the subterranean nature of many of the lithic sites identified during the fieldwork, it is recommended that an archaeological watching brief be implemented during the course of the construction work on the project. Such a watching brief would assist in the early identification of any Stone Age (or other archaeological) sites which may be located in a subterranean position within the proposed development footprint.
- Should any such significant lithic or other archaeological material be identified, a site assessment will be made by the archaeologist conducting the watching and brief, and if required mitigation measures will also be outlined. Any such mitigation measures and recommendations will also have to be adhered to.
- The above-mentioned archaeological watching brief should comprise a field visit by a suitably qualified and experienced archaeologist once every three weeks during the duration of the construction.
- It should be stressed that it is the continued responsibility of the project environmental team / SHEQ Team and the appointed Environmental Control Officer (ECO) to assess the short- and long-term site conservation, management and monitoring of the site. The responsible parties must ensure that all actions and planned development that might have an impact (indirectly or directly) on heritage resources are subject to the



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requirements and guidelines in this memorandum. On the condition that the recommendations made in this report are adhered to, no heritage reasons can be given for the development to be halted.

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6. References

Beaumont, P.B., De Villiers, H. and Vogel, J.C. 1978. Modern man in sub-Saharan Africa prior to 49 000 years BP: a review and evaluation with particular reference to Border Cave. *South African Journal of Science* 74: 409-419.

Binneman (eds) Guide to Archaeological Sites in the Eastern and North-eastern Cape, pp. 117-134. Grahamstown: Southern African Association of Archaeologists.

Binneman, J.N.F. 2001. An introduction to a Later Stone Age coastal research project along the south-eastern Cape coast. *Southern African Field Archaeology* 10:75-87.

Booth, C. 2012a. A Phase 1 Archaeological Impact Assessment (AIA) for the proposed Jachtlakte Precinct sustainable human settlement plan, Nelson Mandela Bay Municipality, Eastern Cape Province.

Booth, C. 2012b. An archaeological desktop study for the proposed Elliot wind energy facility on a site west of Elliot, Sakhisizwe Local Municipality Prepared for: Savannah Environmental (Pty) Ltd.

Cain, C.H. 2009. Cultural heritage survey of Lesotho for the Maloti-Drakensberg Transfrontier Project, 2005-2006: palaeontology, archaeology, history and heritage management. *South African Archaeological Bulletin* 64(189): 33-44.

Deacon, H.J. and Deacon, J. *Human beginnings in South Africa*. Cape Town: David Phillips.

Deacon, J. 1972. Wilton: an assessment after 50 years. *South African Archaeological Bulletin* 27: 10-45.

Derricourt, R.M. 1977. *Prehistoric man in the Ciskei & Transkei*. Cape Town: Struik.

Doman, S.S. 1909. *Notes on the Bushmen of Basutoland*. *South African Journal of Philosophy* 18:437-450. Published online: 28 Jun 2010.

Feely, J.M. 1987. The early farmers of Transkei, Southern Africa. BAR International Series 378.

Fisher, E.C., Albert, R., Botha, G., Cawthra, H.C., Esteban, I., Harris, J., Jacobs, Z., Jerardino, A., Marean, C.W., Neumann, F.H., Pargeter, J., Poupert, M. & Venter J. 2013. Archaeological Reconnaissance for Middle Stone Age Sites along the Pondoland Coast, South Africa. *PaleoAnthropology* 2013: 104-137.

Fourie, W. 2008. Archaeological Impact Assessments within South African Legislation. *South African Archaeological Bulletin* 63 (187): 77-85, 2008.

Jackson, A. O. 1975. The Ethnic Composition of the Ciskei and Transkei. Ethnological Publications no. 53, Government Printers. Pretoria

Layard, E.L. 1872. Note on the stone implements of South Africa. *The Journal of the Anthropological Institute of Great Britain and Ireland* 1: xcvi-c.

Legassick, M. C. (2010). The Politics of a South African Frontier: The Griqua, the Sotho-Tswana and the Missionaries, 1780-1840. Basler Afrika Bibliographien.

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Lewis, C.A. and Mrara, A.Z. 1986. Rural Settlements, Mission Settlements and Rehabilitation in Transkei. *GeoJournal*, Vol. 12, No. 4 (June 1986).

Opperman, H. 1987. The Later Stone Age of the Drakensberg area and its foothills. Oxford: British Archaeological Reports. International Series 339.

Palmer, A. Spatial assessment of coastal development and land use change in the Eastern Cape, South Africa. *South African Geographical Journal* 92(2): 117-128).

Raper, P.E. 2004. *New Dictionary of South African Place Names*. Jeppestown: Jonathan Ball

Rudner, J. 1968. Strandloper pottery from South and South West Africa. *Annals of the South African Museum* 49: 441-663.

SAHRA. 1999. *National Heritage Resources Act No. 25 of 1999*. Cape Town: RSA Government Gazette.

SAHRA. 2007. *SG 2.2 SAHRA APM Guidelines: Minimum Standards: Archaeological and Palaeontological Components of Impact Assessment Reports*. Cape Town: South African Heritage Resources Agency.

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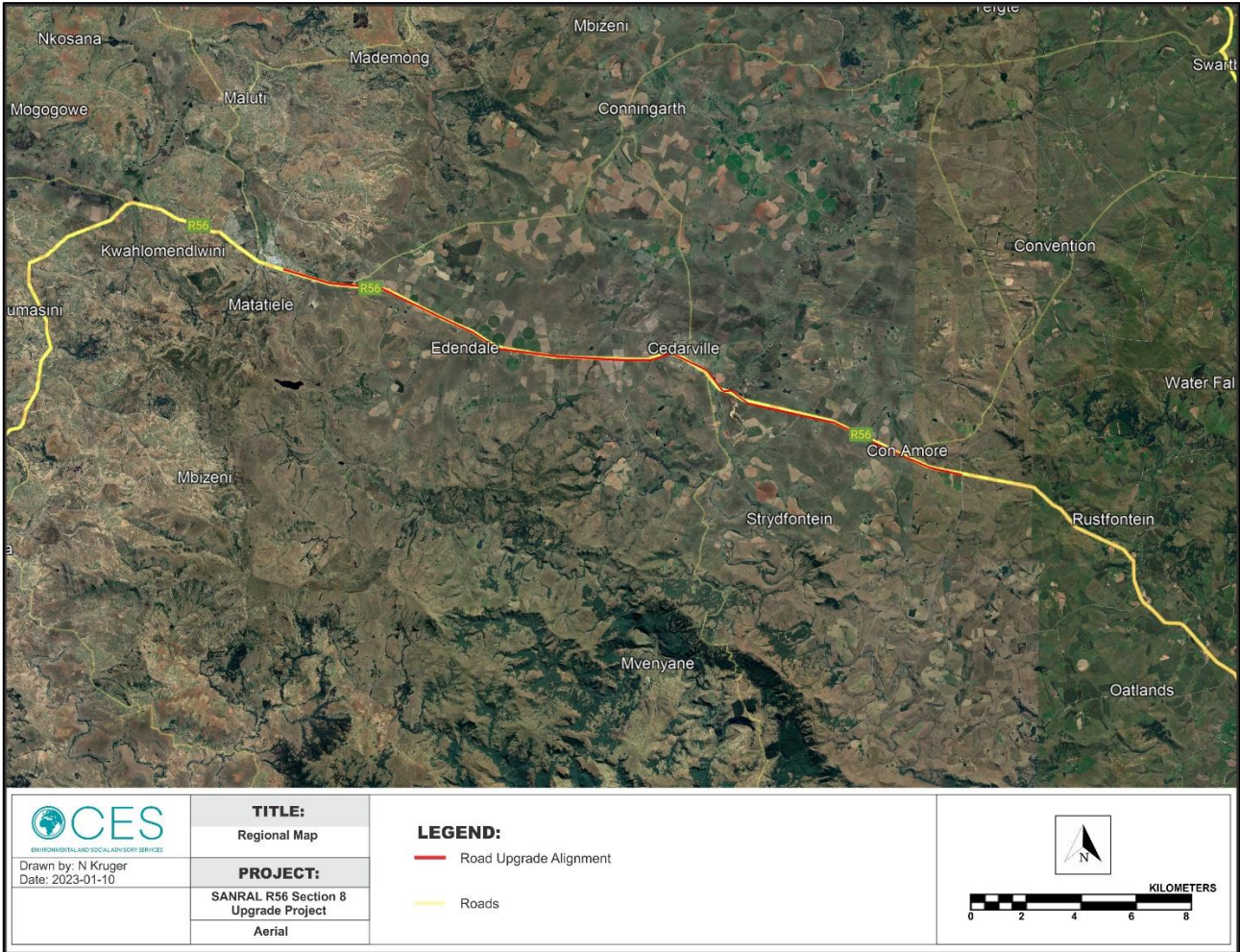
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7. Maps



Map 1: The study area within its immediate surroundings.

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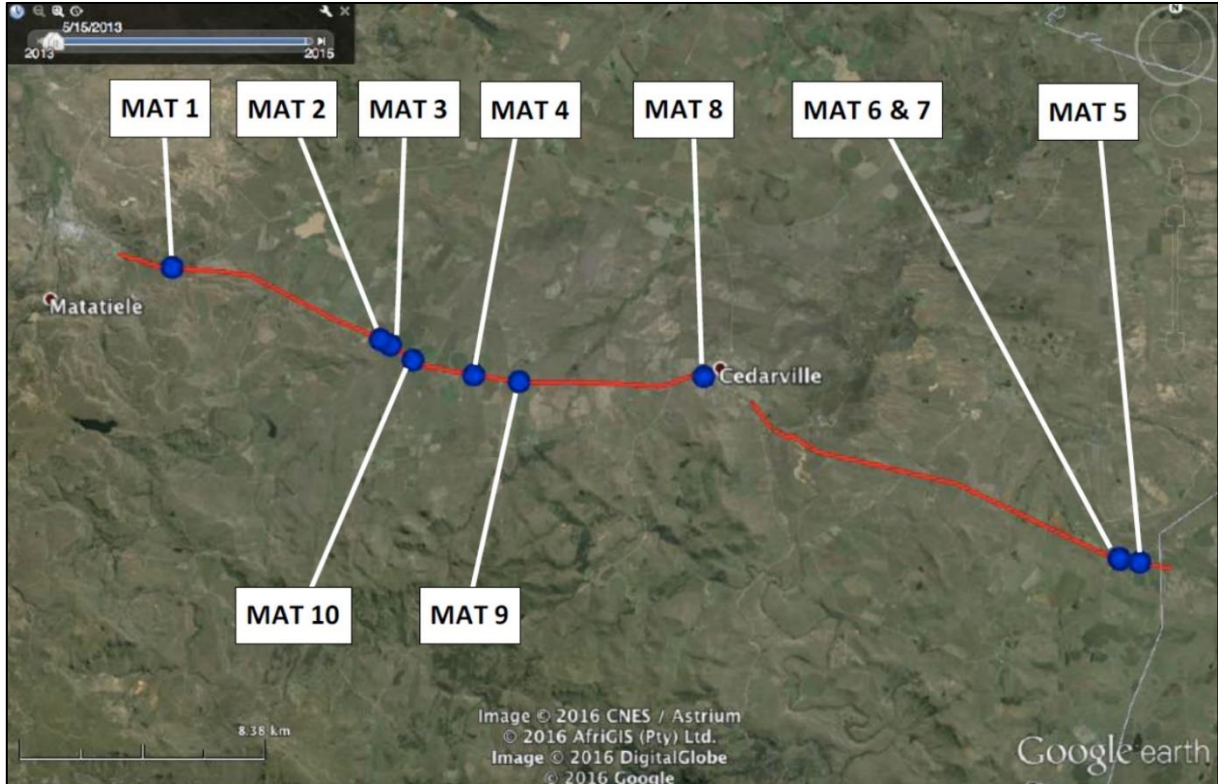
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Map 2: Google Earth image depicting the distribution of identified heritage sites in blue and the proposed road project in red (PGS).

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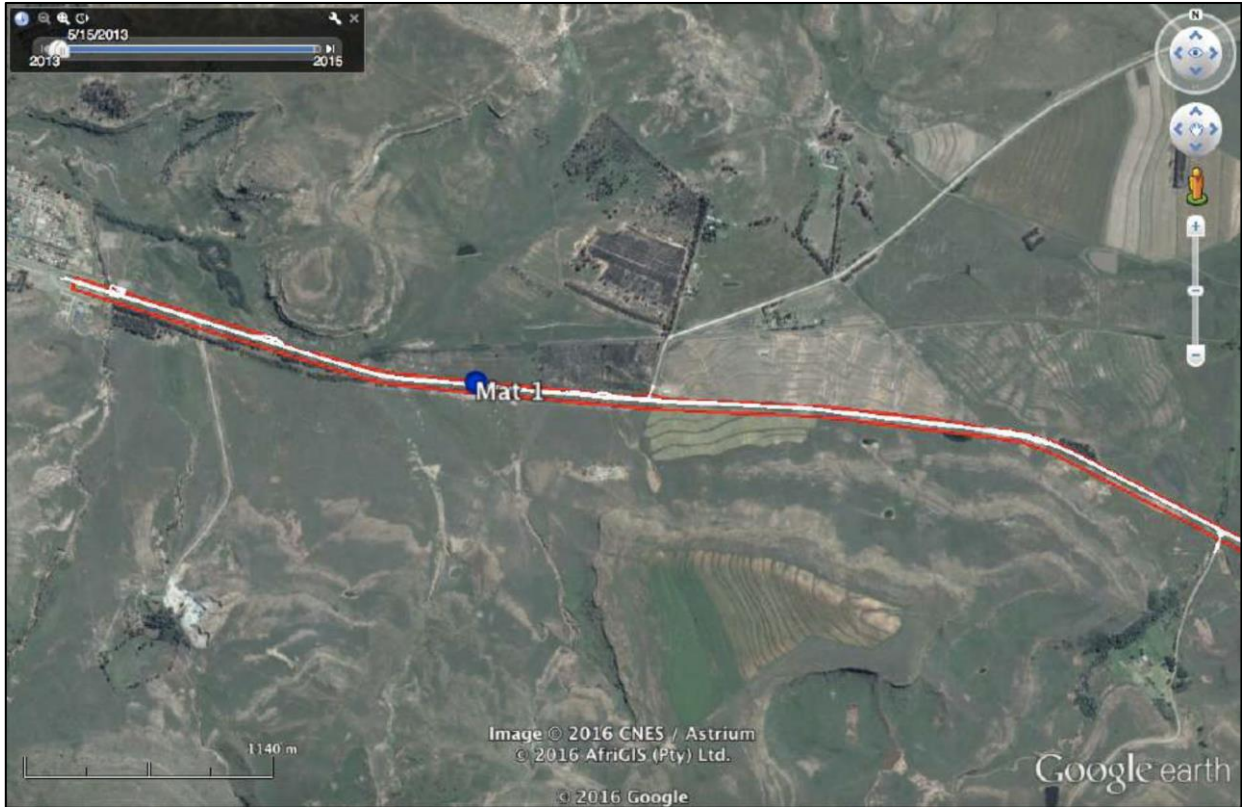
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Map 3: Google Earth image depicting a closer view of the position of Mat 1 (PGS).

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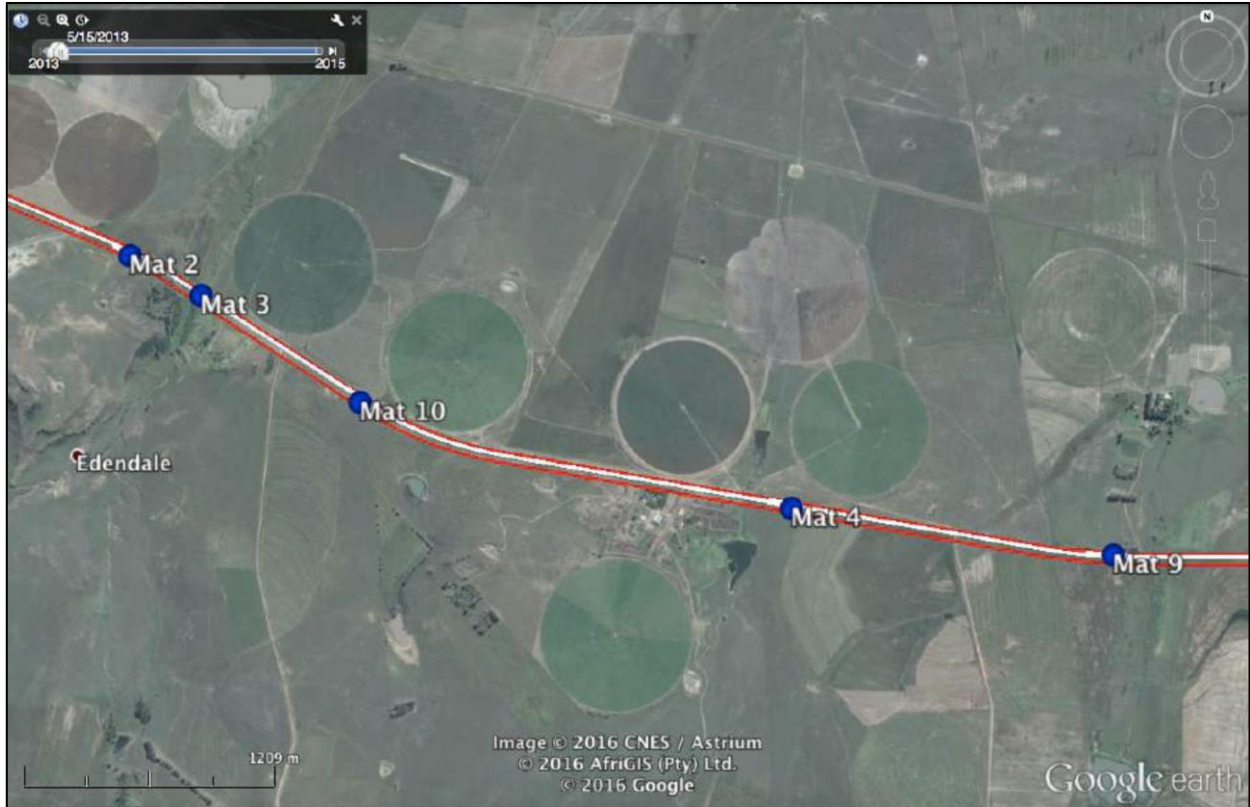
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Map 4: Google Earth image depicting a closer view of the positions of sites Mat 2, Mat 3, Mat 4, Mat 9 and Mat 10 (PGS).

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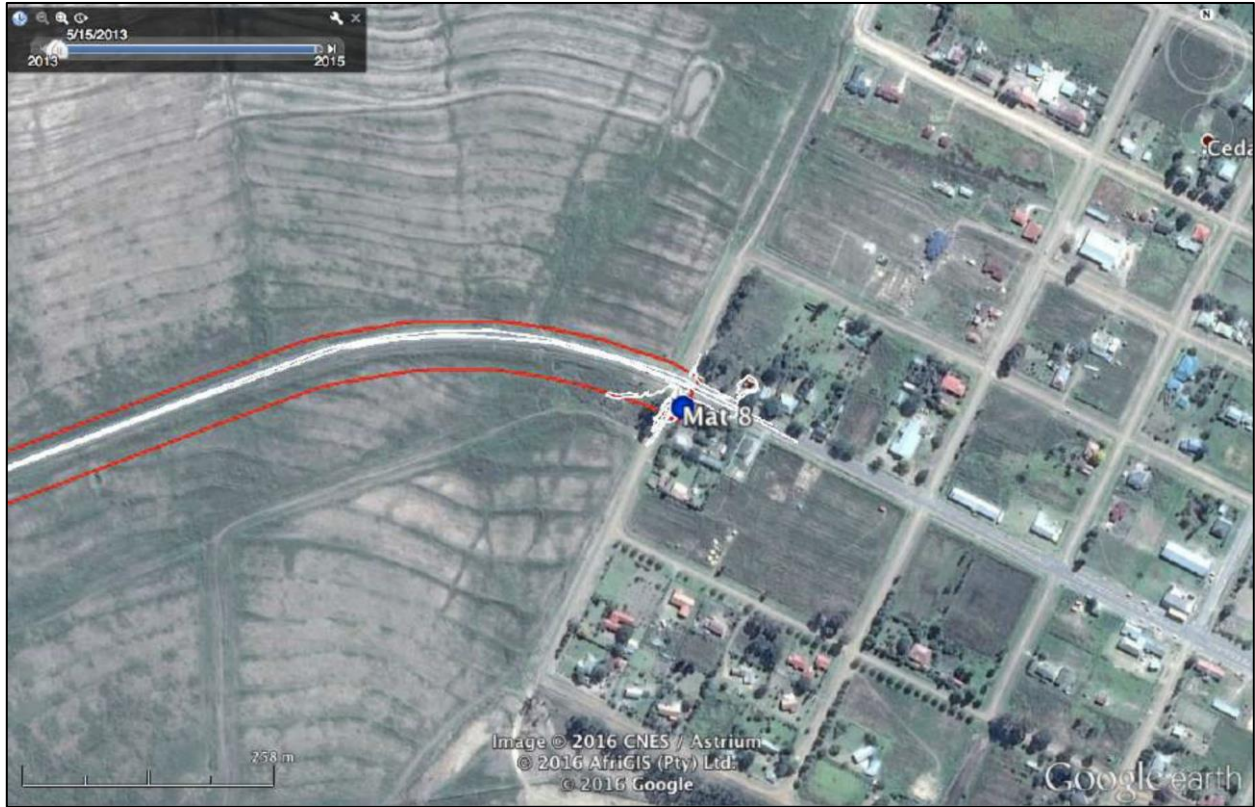
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Map 5: Google Earth image depicting a closer view of the positions of site Mat 8 (PGS).

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Map 6: Google Earth image depicting a closer view of the positions of sites Mat 5, Mat 6 and Mat 7 (PGS).

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8. Guidelines on Monitoring Protocols

8.1 Heritage Monitoring

Construction activities pose the greatest threat to tangible heritage resources within the cultural landscape and monitoring activities will primarily be required throughout the construction phase of the project. These requirements must be reviewed in line with any project changes, altered where necessary, and requirements withdrawn where no longer relevant. **In essence, the heritage monitoring will aim to ensure the continued conservation of heritage sites during all phases of development.** Frequent monitoring must be conducted by either the Construction Contractor, the SHEQ / project environmental team, the Project Manager/s and/or the ECO. In addition, the following actions will be required:

- **Training:** All contractors and staff should attend an information brief involving general information on the heritage sites, it's significance and conservation requirements. This brief may be presented by the SHEQ / project environmental team, the Project Manager/s, the ECO familiar with the site and it's conservation status and / or the heritage specialist.
- **Site monitoring and Monitoring report:** The Construction Contractor, the SHEQ / project environmental team or the Project Manager/s should monitor all project related activities on a weekly to ensure the continued conservation of the heritage sites. It is essential that monitoring updates on the status of the heritage sites be provided to the ECO on a weekly basis. In addition, the ECO must also monitor the site on a frequent basis as situated in the EMP. If any heritage resources are found, the chance finds procedure must be followed as outlined in this SMP.

Monitoring requirements for the project are summarized in the table below and should be implemented together with the specific management actions outlined in this document.

Table 2: Monitoring Requirements

ACTIVITY	RESPONSIBILITY	REQUIREMENTS	TIMEFRAME
Construction activities in relation to defined heritage sensitivities.	Construction Contractor, the SHEQ / project environmental team, the Project Manager/s, ECO, Heritage Consultant.	On-site inspection and monitoring of earthworks, ensure conservation of heritage sites. Monitoring updates on the status of the heritage sites to be provided to the ECO on a frequent basis Guide construction to avoid possible impacts to chance finds. Record and assess identified chance finds.	Weekly, ongoing during construction
		Implement requirements of NHRA and NHRA Regulations.	If required
		Heritage Consultant to compile a monitoring plan before construction starts / at the soonest opportunity that will detail the roles and responsibilities during monitoring of construction activities.	Pre-construction / at the soonest opportunity
	Construction Contractor, the SHEQ/ project environmental team, the Project Manager/s, ECO	On-site inspection, ensure conservation of heritage sites. Monitoring updates on the status of the heritage sites to be provided to the ECO on a frequent basis. Guide construction to avoid possible impacts to chance finds. Monitoring of earthworks and Implement Chance Find Procedure.	Ongoing during construction.
	Construction Contractor, the SHEQ/ project environmental team, the Project Manager/s, ECO	Implement Chance Find Procedure.	Ongoing during construction and after completion.
Performance indicator		Preservation of the heritage sites. Heritage sites are discovered and mitigated with the minimum amount of unnecessary disturbance.	
Monitoring		Successful conservation of the historical fabric of the heritage resource. Location of previously undetected heritage sites by person/s monitoring.	

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8.2 Chance Find Procedure (CFP)

The Chance Find Procedure or CFP applies to permanent employees, contractors and subcontractors, and service providers. The aim of this procedure is to establish monitoring and reporting procedures to ensure compliance with this policy and its associated procedures. Construction crews must be properly briefed to ensure they are fully aware of the procedures regarding chance finds relating to heritage resources.

The following procedural guidelines must be considered if previously unknown heritage resources or burial grounds are exposed or found during the life of the project:

- Identification and/or Exposure of a Chance Find

If during the construction, operations, or closure phases of this project, any person employed by the engineering company, one of its subsidiaries, contractors and subcontractors, or service provider, find any artefact of cultural significance or burial ground, this person must cease work at the site of the find. They must report this find to their immediate supervisor, and through their supervisor to the senior on-site manager and the SHEQ / project environmental team. The initial procedure when such sites are found aim to avoid any further damage. If during the construction, operations or closure phases of this project, any person employed for the project, one of its subsidiaries, contractors and subcontractors, or service provider, finds any artefact of cultural significance the following steps and reporting structure must be followed in both instances:

- The person or group (identifier) who identified or exposed the heritage resource or burial ground must cease all activity in the immediate vicinity of the site;
- The identifier must immediately inform the senior on-site Manager and the SHEQ / project environmental team of the discovery;
- The senior on-site Manager must make an initial assessment of the extent of the find, and confirm the extent of the work stoppage in that area and ensure that the site is secured and control access;
- The senior on-site Manager / the SHEQ / project environmental team must inform the ECO of the chance find and its immediate impact on operations. The ECO will then contact the heritage specialist.

- Heritage Resources

If previously unidentified heritage resources are identified and/or exposed during construction or operation of the Project, the following steps must be implemented after those outlined above:

- The heritage specialist must be notified of the discovery;
- The heritage specialist will visit the site for a field-based assessment of the finds and appropriate mitigation measures will then be presented to the client;
- Should the specialist conclude that the find is a heritage resource protected in terms of the NHRA (1999) Sections 34, 35, 37 and NHRA (1999) Regulations (Regulation 38, 39, 40), the project archaeologist will notify the South African Heritage Resources Agency (SAHRA).

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- **Burials / Graves**

If previously unidentified burial grounds and graves are identified and/or exposed during construction or operation of the Project, the following steps must be implemented after those outlined above:

- The heritage specialist must immediately be notified of the discovery to take the required further steps:
- The local South African Police Service (SAPS) will be notified on behalf of the developer;
- The heritage specialist will inspect the exposed burial and determine in consultation with the SAPS if any additional graves may exist in the vicinity as well as the temporal context of the remains, i.e.:
 - forensic
 - authentic burial grave (informal or older than 60 years, NHRA (1999) Section 36); or
 - archaeological (older than 100 years, NHRA (1999) Section 38);
- Should the specialist conclude that the find is a heritage resource protected in terms of the NHRA (1999) Section 36 and NHRA (1999) Regulations (Regulation 38, 39, 40), the project archaeologist will notify SAHRA;
- SAHRA may require that an identification of interested parties, consultation and /or grave relocation take place;
- Consultation must take place in terms of NHRA (1999) Regulations 39, 40, 42; and 5. Grave relocation must take place in terms of NHRA (1999) Regulations 34.

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