



STEENBOKPAN TOWNSHIP DEVELOPMENT

Proposed Development of the Steenbokpan Extension 3 Township on the Remainder and Portions 1, 2, 3 and 4 of the Farm Grootdoorn 292 LQ, Portions 20, 22 and 25 of the Farm Theunispan 293 LQ and Portion 3 of the Farm Steenbokpan 295 LQ at Steenbokpan, west of Lephalale in the Lephalale Local Municipality, Waterberg District, Limpopo Province.

Heritage Impact Assessment

Issue Date: 31 January 2014
Revision No.: 1
Client: Flexilor Properties (Pty) Ltd

DECLARATION OF INDEPENDENCE

The report has been compiled by PGS Heritage, an appointed Heritage Specialist for Flexilor Properties (Pty) Ltd. The views stipulated in this report are purely objective and no other interests are displayed in the findings and recommendations of this Heritage Impact Assessment.

HERITAGE CONSULTANT: PGS Heritage

CONTACT PERSON: Marko Hutten
Tel: +27 (012) 332 5305
Fax: +27 (012) 332 2625
Email: marko@gravesolutions.co.za

SIGNATURE:





ACKNOWLEDGEMENT OF RECEIPT

CLIENT: Flexilor Properties (Pty)

CONTACT PERSON: Chris Maritz
PO Box 14058
Sinoville
0129
chrisjmaritz@gmail.com

SIGNATURE:

Report Title	Heritage Impact Assessment for the proposed development of the Steenbokpan Extension 3 Township on the Remainder and Portions 1, 2, 3 and 4 of the Farm Grootdoorn 292 LQ, Portions 20, 22 and 25 of the Farm Theunispan 293 LQ and Portion 3 of the Farm Steenbokpan 295 LQ west of Lephalale in the Lephalale Local Municipality, Waterberg District, Limpopo Province.		
Control	Name	Signature	Designation
Author	Marko Hutten		Heritage Specialist / PGS Heritage
Reviewed	Wouter Fourie		Heritage Specialist / PGS Heritage
Reviewed	Chris Maritz		Flexilor Properties (Pty) Ltd

EXECUTIVE SUMMARY

PGS Heritage was appointed by Flexilor Properties (Pty) Ltd to undertake a Heritage Impact Assessment (HIA) which forms part of the Environmental Impact Assessment (EIA) for the proposed development of the Steenbokpan Extension 3 Township on the Remainder and Portions 1, 2, 3 and 4 of the Farm Grootdoorn 292 LQ, Portions 20, 22 and 25 of the Farm Theunispan 293 LQ and Portion 3 of the Farm Steenbokpan 295 LQ west of Lephalale in the Lephalale Local Municipality, Waterberg District, Limpopo Province.

An archival and historical desktop study was undertaken which was used to compile a historical layering of the study area within its regional context. This component indicated that the landscape within which the project area is located has a rich and diverse history. However, the desktop study did not reveal any historic or heritage sites from within the study area.

The desktop study work was followed by a fieldwork component which comprised coverage of the study area. Seven heritage sites of significance or value were identified within the area proposed for the development of the Steenbokpan Extension 3 Township.

Two of these sites were historical structures. The first structure was in a derelict state, but was known to be the farmstead of the Harmse-family. The second identified site was the shopping complex next to the D175 road. These shops are still in an operational mode. The following mitigation measures are recommended for these structures:

- The structures are most probably older than 60 years and have heritage significance and/or value and are protected under Section 34 of the National Heritage Resources Act (Act 25 of 1999).
- An application for the total destruction of these structures should be filed at the Limpopo Heritage Resources Agency (LIHRA).
- LIHRA will dictate the extent and the standard of recording of the structures. This could include the appointment of a qualified/approved historical architect to document the identified structures.
- Only after the approval/requirements of LIHRA have been fulfilled can the destruction of the structures continue.

Five cemeteries were also identified within the proposed development area. Three of these cemeteries were situated in close proximity of the identified shopping complex, the fourth cemetery was situated on Portion 2 of the Farm Grootdoorn 292 LQ and the fifth cemetery was situated on Portion 4 of the Farm Grootdoorn 292 LQ on the northern extent of the study area. The following mitigation measures are recommended for each of these identified cemeteries:

It is recommended that the areas with the graves should be avoided.

If the developer decides to plan the development around the identified graves and leave them undisturbed, adequate arrangements should be made to protect the graves from the impact of the development. The following guidelines must be taken in to account:

- It is important to understand that the identified graves could have significant heritage value to the relevant families (if identified) and should therefore be preserved.
- The relevant families should be identified (if possible) and should be informed about the proposed activities which could possibly affect their graves.
- It is recommended that the identified graves should be clearly marked with danger tape during the entire duration of the project and especially during earth-moving/bush clearing activities and a 10m buffer zone must be allowed around the graves.
- A watching brief performed by a suitable qualified person is recommended during the bush clearing and construction phases of the project. This person should see to it that the graves are safe and protected during these phases.
- It is advisable to fence the graves to prevent future mistakes. A buffer zone of at least 10m around the graves is recommended.
- The proposed earth-moving/bush clearing activities should be altered and should be planned around the graves in order to protect it from any damage or other negative impacts.
- Bush clearing crews should be made aware of the graves in order that the graves will not be accidentally damaged during the earth-moving activities.
- The planning team should **ensure that access to the graves is not limited in any way**. A small management plan should be set up to ensure the future safety, access and maintenance of the graves next to the proposed development.

If the above recommendations can't be adhered to, further steps and measures should be taken to move the graves and relocate them to an official graveyard in the area. This should

only be done as last resort if no other options deem to be possible. The following process is then required:

- A process of consultation with the affected families and communities, if identified, should then be initiated to start the relocation of the graves.
- Applications to various relevant Departments should be put into motion to obtain the necessary permissions and permits to perform the relocation of the graves. These applications and permits are required by law.

Only after all the required permissions and permits have been obtained, can the relocation of the graves continue as performed by professionals.

If the recommendations as outlined in this report are adhered to the proposed development can continue from a heritage point of view.

TABLE OF CONTENTS:**PAGE**

1	INTRODUCTION	1
1.1	Scope of the Study	1
1.2	Specialist Qualifications	1
1.3	Assumptions and Limitations	1
1.4	Legislative Context.....	2
1.5	Terminology and Abbreviations.....	3
2	TECHNICAL DETAILS OF THE PROJECT	7
2.1	Site Location and Description	7
2.2	Technical Project Description	10
3	ASSESSMENT METHODOLOGY	12
3.1	Methodology for Assessing Heritage Site Significance	12
3.2	Methodology for Impact Assessment.....	14
4	CURRENT STATUS QUO	19
4.1	Description of Study Area.....	19
5	DESKTOP STUDY findings	21
6	FIELDWORK FINDINGS	27
6.1	Site SBP 001:.....	31
6.2	Site SBP 002:.....	33
6.3	Site SBP 003:.....	35
6.4	Site SBP 004:.....	37
6.5	Site SBP 005:.....	40
6.6	Site SBP 006:.....	42
6.7	Site SBP 007:.....	44
7	IMPACT OF PROPOSED DEVELOPMENT ON HERITAGE RESOURCES	47
8	MITIGATION MEASURES and general recommendations	47
9	CONCLUSIONS	50
10	REFERENCES	52

LIST OF APPENDICES:

Appendix A Legislative Requirements – Terminology and Assessment Criteria

LIST OF FIGURES:

<i>Figure 1 – Human and Cultural Time line in Africa (Morris, 2008).....</i>	<i>6</i>
<i>Figure 2 – The proposed study area</i>	<i>9</i>
<i>Figure 3– The proposed development layout plan (as supplied by the client).</i>	<i>11</i>
<i>Figure 4 – General view of a part of the proposed site from the west.....</i>	<i>20</i>
<i>Figure 5 – General view of the vegetation on the properties.....</i>	<i>20</i>
<i>Figure 6 – View of one of the fences across the properties.....</i>	<i>20</i>
<i>Figure 7 – View of the previously ploughed fields on Portion 25 of Theunispan 293 LQ.....</i>	<i>20</i>
<i>Figure 8 – View of the planted orchard on Portion 3 of Steenbokpan 295 LQ.</i>	<i>20</i>
<i>Figure 9 – View of the shops adjacent to the D175 Steenbokpan – Stockpoort road.</i>	<i>20</i>
<i>Figure 10 – The proposed study area with the identified heritage sites.</i>	<i>28</i>
<i>Figure 11 – The proposed study area with track log and identified heritage sites.</i>	<i>29</i>
<i>Figure 12 – The proposed study area with track log and identified heritage sites.</i>	<i>30</i>
<i>Figure 13 - General view of the dilapidated structure from the west.</i>	<i>32</i>
<i>Figure 14 – View of the only remaining wooden window frame.....</i>	<i>32</i>
<i>Figure 15 - View of the clay and mud bricks in the walls.....</i>	<i>32</i>
<i>Figure 16 - View of the identified shop with some of the later modifications.....</i>	<i>34</i>
<i>Figure 17 – Close up view of the Hennie de Lange Kafee.</i>	<i>34</i>
<i>Figure 18 - View of some of the later extensions to the series of buildings.</i>	<i>34</i>
<i>Figure 19 – View of the identified cemetery from the east.</i>	<i>36</i>
<i>Figure 20 – View of one of the “double graves” at the cemetery.....</i>	<i>36</i>
<i>Figure 21 - View of the identified cemetery.</i>	<i>38</i>
<i>Figure 22 – Another view of some of the graves.</i>	<i>38</i>
<i>Figure 23 – Close up view of one of the graves.</i>	<i>38</i>
<i>Figure 24 – General view of the cemetery from the north.</i>	<i>40</i>
<i>Figure 25 – View of some of the formal graves at the cemetery.</i>	<i>40</i>
<i>Figure 26 - View of some of the informal graves.....</i>	<i>40</i>
<i>Figure 27 - General view of the cemetery from the north.....</i>	<i>42</i>
<i>Figure 28 – View of some of the graves at the cemetery.</i>	<i>42</i>
<i>Figure 29 – Another view of some of the graves at the cemetery.....</i>	<i>43</i>
<i>Figure 30 - General view of the cemetery from the north.....</i>	<i>45</i>
<i>Figure 31 – View of some of the graves at the cemetery.</i>	<i>45</i>
<i>Figure 32 – Another view of some of the graves at the cemetery.....</i>	<i>45</i>

1 INTRODUCTION

PGS Heritage was appointed by Flexilor Properties (Pty) Ltd. to undertake a Heritage Impact Assessment (HIA) which forms part of the Environmental Impact Assessment (EIA) for the proposed development of the Steenbokpan Extension 3 Township on the Remainder and Portions 1, 2, 3 and 4 of the Farm Grootdoorn 292 LQ, Portions 20, 22 and 25 of the Farm Theunispan 293 LQ and Portion 3 of the Farm Steenbokpan 295 LQ west of Lephalale in the Lephalale Local Municipality, Waterberg District, Limpopo Province.

1.1 Scope of the Study

The aim of the study is to identify possible heritage sites and finds that may occur in the proposed development area. The Heritage Impact Assessment (HIA) aims to inform the Environmental Impact Assessment (EIA) in the development of a comprehensive Environmental Management Plan (EMP) to assist the developer in managing the identified heritage resources in a responsible manner in order to protect, preserve, and develop them within the framework provided by the National Heritage Resources Act of 1999 (Act 25 of 1999) (NHRA).

1.2 Specialist Qualifications

This Heritage Impact Assessment was compiled by PGS Heritage, the staff of which has a combined experience of nearly 40 years in the heritage consulting industry and have extensive experience in managing Heritage Impact Assessment (HIA) processes. Mr. Marko Hutten, heritage specialist and project archaeologist, has 15 years of experience in the industry and is registered with the Association of Southern African Professional Archaeologists (ASAPA) as a Professional Archaeologist and is accredited as a Field Director.

1.3 Assumptions and Limitations

Not detracting in any way from the comprehensiveness of the fieldwork undertaken, it is necessary to realise that the heritage sites located during the fieldwork do not necessarily represent all the heritage sites present within the area. Should any heritage features or objects not included in the inventory be located or observed, a heritage specialist must immediately be contacted. Such observed or located heritage features and/or objects may not be disturbed or removed in any way, until such time that the heritage specialist has been able to make an

assessment as to the significance of the site (or material) in question. This applies to graves and cemeteries as well.

1.4 Legislative Context

The identification, evaluation and assessment of any cultural heritage site, artefact or find in the South African context is required and governed by the following legislation:

- i. National Environmental Management Act (NEMA) Act 107 of 1998
- ii. National Heritage Resources Act (NHRA) Act 25 of 1999
- iii. Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002
- iv. Development Facilitation Act (DFA) Act 67 of 1995

The following sections in each Act refer directly to the identification, evaluation and assessment of cultural heritage resources.

- i. National Environmental Management Act (NEMA) Act 107 of 1998
 - a. Basic Environmental Assessment (BEA) – Section (23)(2)(d)
 - b. Environmental Scoping Report (ESR) – Section (29)(1)(d)
 - c. Environmental Impacts Assessment (EIA) – Section (32)(2)(d)
 - d. EMP (EMP) – Section (34)(b)
- ii. National Heritage Resources Act (NHRA) Act 25 of 1999
 - a. Protection of Heritage Resources – Sections 34 to 36; and
 - b. Heritage Resources Management – Section 38
- iii. Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002
 - a. Section 39(3)

The NHRA stipulates that cultural heritage resources may not be disturbed without authorization from the relevant heritage authority. Section 34(1) of the NHRA states that “no person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority...” The NEMA (No 107 of 1998) states that an integrated EMP should (23:2 (b)) “...identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage”. In accordance with legislative requirements and EIA rating criteria, the regulations of SAHRA and ASAPA have also been incorporated to ensure that a comprehensive and legally compatible HIA report is compiled.

1.5 Terminology and Abbreviations

Archaeological resources

- i. material remains resulting from human activity which are in a state of disuse and are in or on land and which are older than 100 years including artefacts, human and hominid remains and artificial features and structures;
- ii. rock art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including a 10m buffer area;
- iii. wrecks, being any vessel or aircraft, or any part thereof which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the republic as defined in the Maritimes Zones Act, and any cargo, debris or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation;
- iv. features, structures and artefacts associated with military history which are older than 75 years and the site on which they are found.

Cultural significance

This means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance.

Development

This means any physical intervention, excavation or action other than those caused by natural forces, which may according to the heritage agency result in a change to the nature, appearance or physical nature of a place or influence its stability & future well-being, including:

- i. construction, alteration, demolition, removal or change in use of a place or a structure at a place;
- ii. carrying out any works on or over or under a place;
- iii. subdivision or consolidation of land comprising a place, including the structures or airspace of a place;
- iv. constructing or putting up for display signs or boards;
- v. any change to the natural or existing condition or topography of land; and
- vi. any removal or destruction of trees, or removal of vegetation or topsoil

Fossil

Mineralised bones of animals, shellfish, plants and marine animals. A trace fossil is the track or footprint of a fossil animal that is preserved in stone or consolidated sediment.

Heritage

That which is inherited and forms part of the National Estate (historical places, objects, fossils as defined by the National Heritage Resources Act 25 of 1999).

Heritage resources

This means any place or object of cultural significance

Later Stone Age

The archaeology of the last 20 000 years, associated with fully modern people.

Late Iron Age (Early Farming Communities)

The archaeology of the last 1000 years up to the 1800's associated with ironworking and farming activities such as herding and agriculture.

Middle Stone Age

The archaeology of the Stone Age, dating to between 20 000-300 000 years ago, associated with early modern humans.

Palaeontology

Any fossilised remains or fossil trace of animals or plants which lived in the geological past and any site which contains such fossilised remains or trace.

EXPLANATION OF ABBREVIATIONS USED IN THIS DOCUMENT

<i>Abbreviations</i>	<i>Description</i>
AIA	Archaeological Impact Assessment
ASAPA	Association of Southern African Professional Archaeologists
CMP	Conservation Management Plan
CRM	Cultural Resource Management
EIA	Environmental Impact Assessment
EMPR	Environmental Management Programme Report
ESA	Early Stone Age
GPS	Global Positioning System
HIA	Heritage Impact Assessment
LIA	Late Iron Age
LIHRA	Limpopo Heritage Resources Agency
LSA	Later Stone Age
MSA	Middle Stone Age
NEMA	National Environmental Management Act
NHRA	National Heritage Resources Act
PGS	PGS Heritage
PHRA	Provincial Heritage Resources Authority
SAHRA	South African Heritage Resources Agency
SAHRIS	South African Heritage Resources Information System

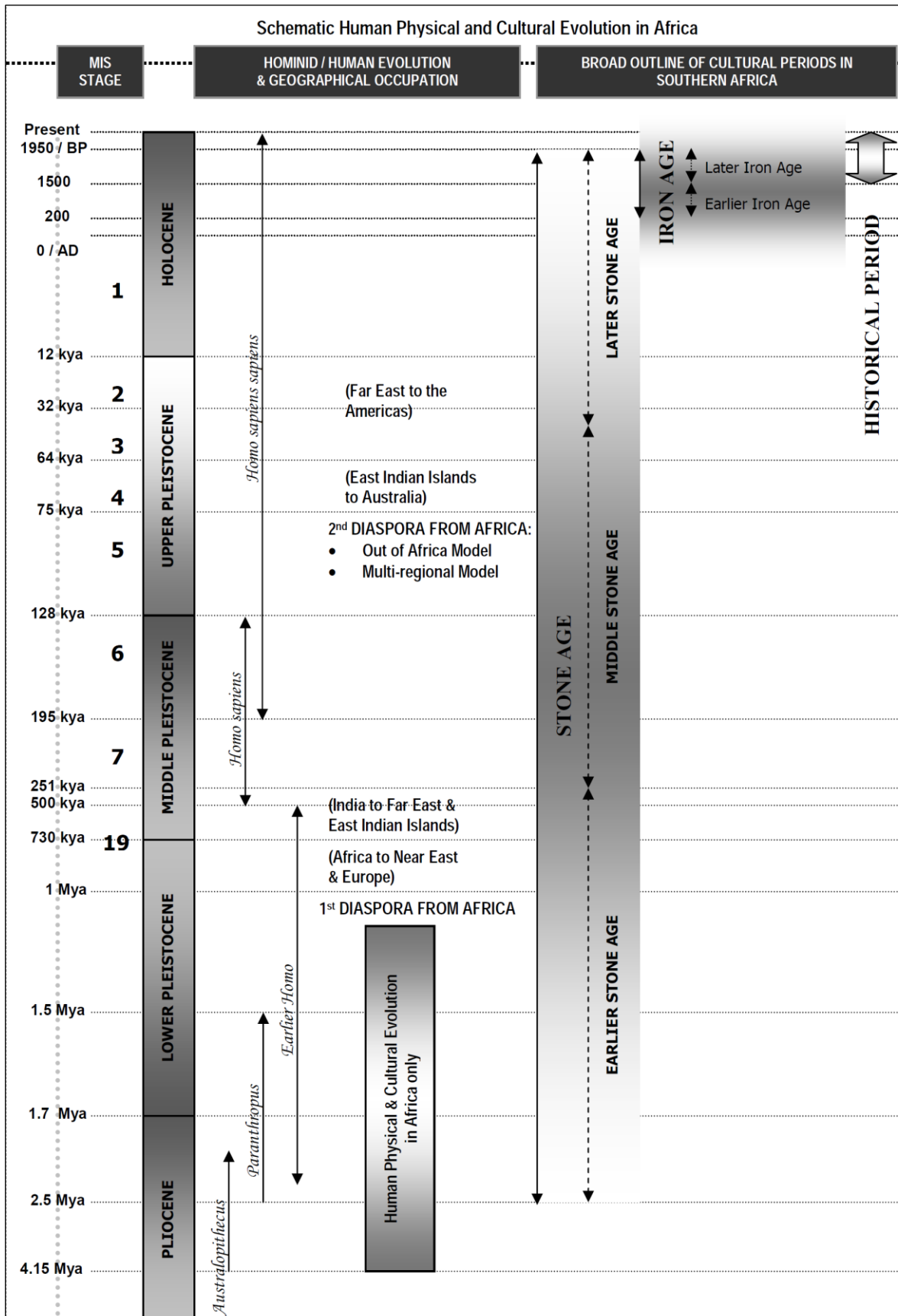


Figure 1 – Human and Cultural Time line in Africa (Morris, 2008)

2 TECHNICAL DETAILS OF THE PROJECT

2.1 Site Location and Description

The developer, Flexilor Properties (Pty) Ltd, proposed the development of the Steenbokpan Extension 3 Township on the Remainder and Portions 1, 2, 3 and 4 of the Farm Grootdoorn 292 LQ, Portions 20, 22 and 25 of the Farm Theunispan 293 LQ and Portion 3 of the Farm Steenbokpan 295 LQ, approximately 50km west of Lephalale in the Lephalale Local Municipality, Waterberg District, Limpopo Province.

The proposed township development will occupy an area of approximately 1800 hectares after completion of all the planned phases. The development will be situated adjacent and on the northern side of the D1675 tar road (Steenbokpan-Lephalale). The D175 gravel road (Steenbokpan-Stockpoort) will cross the site from north to south and will also provide access to other areas further away from the D1675 tar road.

The proposed site was relatively flat and sloped gently down to the north. Most of the proposed properties were used as game farms and/or as cattle farms. These properties were largely undisturbed and were covered with typical vegetation associated with the western Bushveld. The properties were all fenced and were also divided into fenced camps. Tracks crisscrossed the properties and only a few houses with associated storerooms were present on these properties. These structures were all modern and not older than 60 years.

Small sections on the southern extent of the proposed site were previously cleared and used as agricultural fields (Portion 25 of Theunispan 293 LQ), but they are not currently used for agricultural purposes and some pioneer plant growth has returned. Another section (a part of Portion 3 of Steenbokpan 295 LQ) was also used as an orchard.

A series of shops was situated on the western side of the D175 road to Stockpoort. These shops were situated just to the north of the D175 and D1675 intersection. A few houses were also situated at the back of these shops.

Coordinates	Steenbokpan Extension 3 Township: S23° 42' 46.8" E27° 15' 20.3".
Properties	Remainder and Portions 1, 2, 3 and 4 of the Farm Grootdoorn 292 LQ. Portions 20, 22 and 25 of the Farm Theunispan 293 LQ. Portion 3 of the Farm Steenbokpan 295 LQ.
Location	The proposed Steenbokpan Extension 3 Township will be situated on the Remainder and Portions 1, 2, 3 and 4 of the Farm Grootdoorn 292 LQ, Portions 20, 22 and 25 of the Farm Theunispan 293 LQ and Portion 3 of the Farm Steenbokpan 295 LQ, approximately 50km west of Lephalale in the Lephalale Local Municipality, Waterberg District, Limpopo Province.
Extent	The proposed Steenbokpan Extension 3 Township will occupy an area of approximately 1800 hectares.
Land Description	The proposed site was relatively flat and sloped gently down to the north. Most of the proposed properties were used as game farms and/or as cattle farms. These properties were largely undisturbed and were covered with typical vegetation associated with the western Bushveld. The properties were all fenced and were also divided into fenced camps. Tracks criss-crossed the properties and only a few houses with associated storerooms were present on these properties. These structures were all modern and not older than 60 years. Small sections on the southern extent of the proposed site were cleared and were previously used as agricultural fields (Portion 25 of Theunispan 293 LQ), but they are not currently used for agricultural purposes and some pioneer plant growth has returned. Another section (a part of Portion 3 of Steenbokpan 295 LQ) was also used as an orchard.

Steenbokpan Extension 3 Township Development

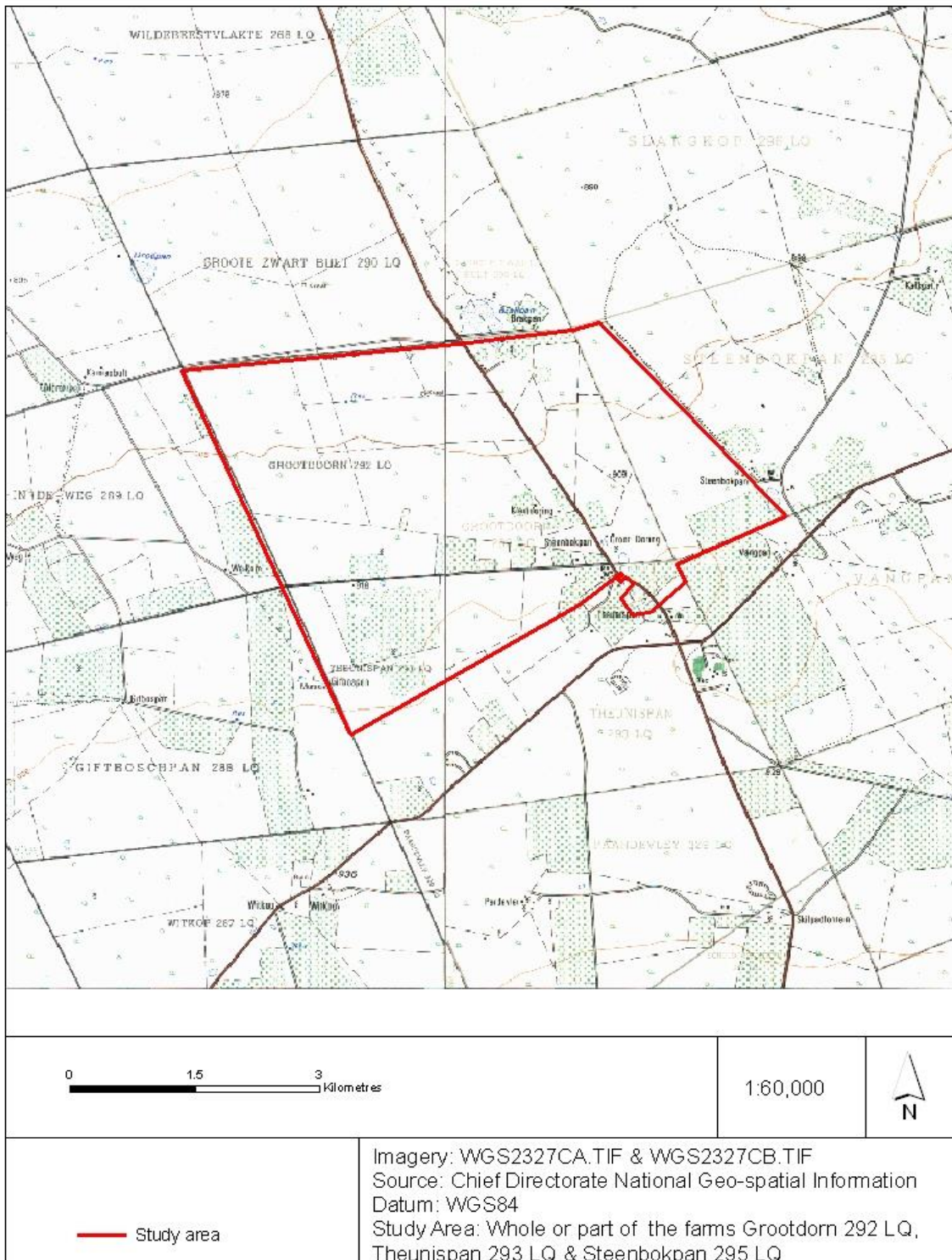


Figure 2 – The proposed study area

2.2 Technical Project Description

The proposed development will occupy an area of approximately 1800 hectares which will be developed and completed in different phases.

The development will comprise the following:

- 4 residential zones - approximately 822 hectares with 12118 stands.
- 3 business zones – approximately 187 hectares with 58 sites.
- Special zones – approximately 11 hectares.
- Institutional zones – approximately 28 hectares.
- Educational zones – approximately 49 hectares.
- Municipal zones – approximately 14 hectares.
- Public open spaces – approximately 255 hectares.
- Private open spaces – approximately 34 hectares.
- Cemetery – approximately 9 hectares.
- Sewerage and Landfill – approximately 30 hectares.
- Governmental zones – approximately 10 hectares.
- Roads – approximately 393 hectares (266 km).

All additional infra-structure such as water, electricity, sewerage and access roads will be within the perimeter of the study area.

The proposed development will be completed in nine different phases of development.

A temporary contractor's camp will be situated on Portion 25 of the Farm Theunispan 293 LQ and will be used during the construction of the proposed Steenbokpan Extension 3 Development (see Hutten 2014: HIA Steenbokpan Constructor's Camp – not listed on SAHRIS as yet).

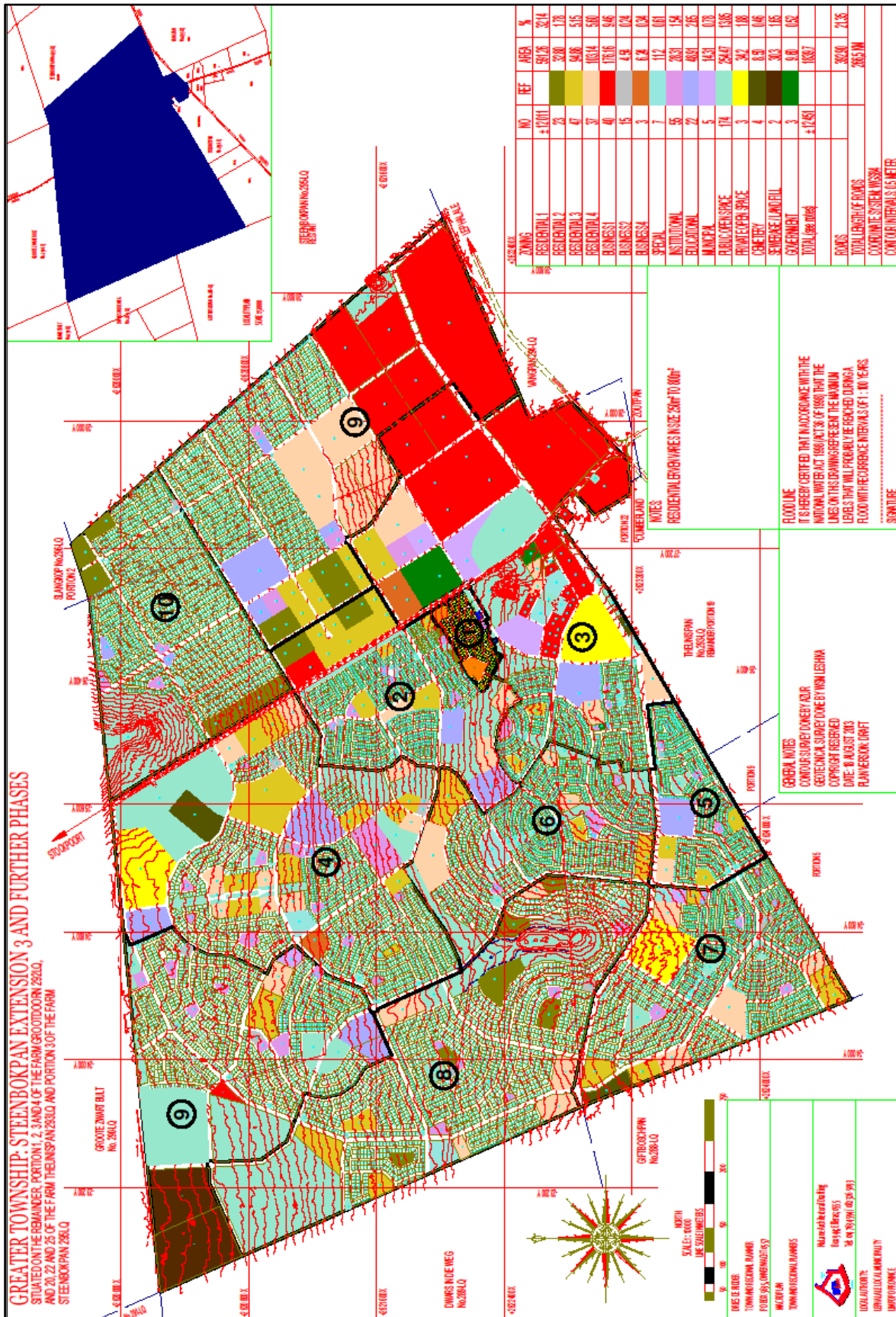


Figure 3– The proposed development layout plan (as supplied by the client).

3 ASSESSMENT METHODOLOGY

3.1 Methodology for Assessing Heritage Site Significance

This report was compiled by PGS Heritage for the proposed development of the Steenbokpan Extension 3 Township on the Remainder and Portions 1, 2, 3 and 4 of the Farm Grootdoorn 292 LQ, Portions 20, 22 and 25 of the Farm Theunispan 293 LQ and Portion 3 of the Farm Steenbokpan 295 LQ west of Lephalale in the Lephalale Local Municipality, Waterberg District, Limpopo Province. The applicable maps, tables and figures are included as stipulated in the NHRA (no 25 of 1999) and the National Environmental Management Act (NEMA) (no 107 of 1998). The HIA process consisted of three steps:

Step I – Literature Review: The background information to the field survey leans greatly on the archival and historical cartographic material assessed as part of the study as well as a study of the available literature.

Step II – Physical Survey: The physical survey was conducted on foot and by vehicle over the entire area proposed for development. Priority was placed on the undisturbed areas. A systematic inspection of the area on foot as well as by vehicle resulted in the maximum coverage of the proposed area.

The author and two experienced field workers surveyed the study area in parallel transects. The field work was conducted on October 21, 22 and 23, 2013 and most of the three days was spent on the survey, which was performed by an archaeologist, M. Hutten and two experienced field workers T. Mulaudzi and E. Khorommbi, who flanked the archaeologist during the survey. An additional day, January 22, 2014 was used to survey Portion 4 of the Farm Grootdoorn 292 LQ, for which access was not possible previously. The survey focused on the indicated study area as provided by the developer where the proposed development will be situated. Areas outside of the indicated study area were not surveyed. No sampling was done.

Step III – Report: The final step involved the recording and documentation of relevant heritage resources, as well as the assessment of resources regarding the heritage impact assessment criteria and report writing, as well as mapping and recommendations.

The significance of heritage sites was based on five main criteria:

- Site integrity (i.e. primary vs. secondary context),
- Amount of deposit, range of features (e.g., stonewalling, stone tools and enclosures),
- Density of scatter (dispersed scatter)
 - Low - <10/50m²
 - Medium - 10-50/50m²
 - High - >50/50m²
- Uniqueness and
- Potential to answer present research questions.

Management actions and recommended mitigation, which will result in a reduction in the impact on the sites, will be expressed as follows:

A - No further action necessary;

B - Mapping of the site and controlled sampling required;

C - No-go or relocate development position

D - Preserve site, or extensive data collection and mapping of the site; and

E - Preserve site

Site Significance

Site significance classification standards prescribed by the South African Heritage Resources Agency (2006) and approved by the Association for Southern African Professional Archaeologists (ASAPA) for the Southern African Development Community (SADC) region, were used for the purpose of this report (see Table 1).

Table 1: Site significance classification standards as prescribed by SAHRA

FIELD RATING	GRADE	SIGNIFICANCE	RECOMMENDED MITIGATION
National Significance (NS)	Grade 1	-	Conservation; National Site nomination
Provincial Significance (PS)	Grade 2	-	Conservation; Provincial Site nomination
Local Significance (LS)	Grade 3A	High	Conservation; Mitigation not advised

Local Significance (LS)	Grade 3B	High	Mitigation (Part of site should be retained)
Generally Protected A (GP.A)	Grade 4A	High/Medium	Mitigation before destruction
Generally Protected B (GP.B)	Grade 4B	Medium	Recording before destruction
Generally Protected C (GP.C)	Grade 4C	Low	Destruction

3.2 Methodology for Impact Assessment

In order to ensure uniformity, a standard impact assessment methodology has been utilised so that a wide range of impacts can be compared. The impact assessment methodology makes provision for the assessment of impacts against the following criteria:

- Significance;
- Spatial scale;
- Temporal scale;
- Probability; and
- Degree of certainty.

A combined quantitative and qualitative methodology was used to describe impacts for each of the aforementioned assessment criteria. A summary of each of the qualitative descriptors, along with the equivalent quantitative rating scale for each of the aforementioned criteria, is given in Table 2.

Table 2: Quantitative rating and equivalent descriptors for the impact assessment criteria

RATING	SIGNIFICANCE	EXTENT SCALE	TEMPORAL SCALE
1	VERY LOW	<i>Isolated corridor / proposed corridor</i>	<u>Incidental</u>
2	LOW	<i>Study area</i>	<u>Short-term</u>
3	MODERATE	<i>Local</i>	<u>Medium-term</u>
4	HIGH	<i>Regional / Provincial</i>	<u>Long-term</u>
5	VERY HIGH	<i>Global / National</i>	<u>Permanent</u>

A more detailed description of each of the assessment criteria is given in the following sections.

3.2.1 Significance Assessment

The significance rating (importance) of the associated impacts embraces the notion of extent and magnitude, but does not always clearly define these, since their importance in the rating scale is very relative. For example, 10 structures younger than 60 years might be affected by a proposed development, and if destroyed the impact can be considered as VERY LOW in that the structures are all of Low Heritage Significance. If two of the structures are older than 60 years and of historic significance, and as a result of High Heritage Significance, the impact will be considered to be HIGH to VERY HIGH.

A more detailed description of the impact significance rating scale is given in Table 3 below.

Table 3: Description of the significance rating scale

RATING		DESCRIPTION
5	VERY HIGH	Of the highest order possible within the bounds of impacts which could occur. In the case of adverse impacts: there is no possible mitigation and/or remedial activity which could offset the impact. In the case of beneficial impacts, there is no real alternative to achieving this benefit.
4	HIGH	Impact is of substantial order within the bounds of impacts which could occur. In the case of adverse impacts: mitigation and/or remedial activity is feasible but difficult, expensive, time-consuming or some combination of these. In the case of beneficial impacts, other means of achieving this benefit are feasible but they are more difficult, expensive, time-consuming or some combination of these.
3	MODERATE	Impact is real but not substantial in relation to other impacts, which might take effect within the bounds of those which could occur. In the case of adverse impacts: mitigation and/or remedial activity are both feasible and fairly easily possible. In the case of beneficial impacts: other means of achieving this benefit are about equal in time, cost, effort, etc.
2	LOW	Impact is of a low order and therefore likely to have little real effect. In the case of adverse impacts: mitigation and/or remedial activity is either easily achieved or little will be required, or both. In the case of beneficial impacts, alternative means for achieving this benefit are likely to be easier, cheaper, more effective, less time consuming, or some combination of these.
1	VERY LOW	Impact is negligible within the bounds of impacts which could occur. In the case of adverse impacts, almost no mitigation and/or remedial activity are needed, and any minor steps which might be needed are easy, cheap, and simple. In the case of beneficial impacts, alternative means are almost all likely to be better, in one or a number of ways, than this means of achieving the benefit. Three additional categories must also be used where relevant. They are in addition to the category represented on the scale, and if used, will replace the scale.

0	NO IMPACT	There is no impact at all - not even a very low impact on a party or system.
---	-----------	--

3.2.2 Spatial Scale

The spatial scale refers to the extent of the impact i.e. will the impact be felt at the local, regional, or global scale. The spatial assessment scale is described in more detail in Table 4.

Table 4: Description of the spatial significance rating scale

RATING		DESCRIPTION
5	Global/National	The maximum extent of any impact.
4	Regional/Provincial	The spatial scale is moderate within the bounds of possible impacts, and will be felt at a regional scale (District Municipality to Provincial Level). The impact will affect an area up to 50 km from the proposed site / corridor.
3	Local	The impact will affect an area up to 5 km from the proposed site.
2	Study Area	The impact will affect an area not exceeding the boundary of the study area.
1	Isolated Sites / proposed site	The impact will affect an area no bigger than the site.

3.2.3 Temporal/Duration Scale

In order to accurately describe the impact, it is necessary to understand the duration and persistence of an impact in the environment.

The temporal or duration scale is rated according to criteria set out in Table 5.

Table 5: Description of the temporal rating scale

RATING		DESCRIPTION
1	Incidental	The impact will be limited to isolated incidences that are expected to occur very sporadically.
2	Short-term	The environmental impact identified will operate for the duration of the construction phase or a period of less than 5 years, whichever is the greater.
3	Medium-term	The environmental impact identified will operate for the duration of life of the project.
4	Long-term	The environmental impact identified will operate beyond the life of operation of the project.
5	Permanent	The environmental impact will be permanent.

3.2.4 Degree of Probability

The probability or likelihood of an impact occurring will be outlined in Table 6 below.

Table 6: Description of the degree of probability of an impact occurring

RATING	DESCRIPTION
1	Practically impossible
2	Unlikely
3	Could happen
4	Very likely
5	It's going to happen / has occurred

3.2.5 Degree of Certainty

As with all studies, it is not possible to be 100% certain of all facts, and for this reason a standard “degree of certainty” scale is used, as discussed in Table 7. The level of detail for specialist studies is determined according to the degree of certainty required for decision-making.

Table 7: Description of the degree of certainty rating scale

RATING	DESCRIPTION
Definite	More than 90% sure of a particular fact.
Probable	Between 70 and 90% sure of a particular fact, or of the likelihood of that impact occurring.
Possible	Between 40 and 70% sure of a particular fact, or of the likelihood of an impact occurring.
Unsure	Less than 40% sure of a particular fact or the likelihood of an impact occurring.
Can't know	The consultant believes an assessment is not possible even with additional research.

3.2.6 Quantitative Description of Impacts

To allow for impacts to be described in a quantitative manner, in addition to the qualitative description given above, a rating scale of between 1 and 5 was used for each of the assessment criteria. Thus the total value of the impact is described as the function of significance, spatial and temporal scale, as described below:

$$\text{Impact Risk} = (\text{SIGNIFICANCE} + \text{Spatial} + \text{Temporal}) \times \text{Probability}$$

3

5

An example of how this rating scale is applied is shown below:

Table 8: Example of Rating Scale

IMPACT	SIGNIFICANCE	SPATIAL SCALE	TEMPORAL SCALE	PROBABILITY	RATING
	Low	Local	Medium Term	Could Happen	Low
Impact on heritage structures	2	3	3	3	1.6

Note: The significance, spatial and temporal scales are added to give a total of 8, which is divided by 3 to give a criterion rating of 2.67. The probability (3) is divided by 5 to give a probability rating of 0.6. The criteria rating of 2.67 is then multiplied by the probability rating (0,6) to give the final rating of 1,6.

The impact risk is classified according to five classes as described in the table below.

Table 9: Impact Risk Classes

RATING	IMPACT CLASS	DESCRIPTION
0.1 – 1.0	1	Very Low
1.1 – 2.0	2	Low
2.1 – 3.0	3	Moderate
3.1 – 4.0	4	High
4.1 – 5.0	5	Very High

Therefore, with reference to the example used for heritage structures above, an impact rating of 1.6 will fall in the Impact Class 2, which will be considered to be a low impact.

4 CURRENT STATUS QUO

4.1 DESCRIPTION OF STUDY AREA

The developer, Flexilor Properties (Pty) Ltd, proposed the development of the Steenbokpan Extension 3 Township on the Remainder and Portions 1, 2, 3 and 4 of the Farm Grootdoorn 292 LQ, Portions 20, 22 and 25 of the Farm Theunispan 293 LQ and Portion 3 of the Farm Steenbokpan 295 LQ, approximately 50km west of Lephalale in the Lephalale Local Municipality, Waterberg District, Limpopo Province.

The proposed Township development will occupy an area of approximately 1800 hectares after completion of all the planned phases. The development will be situated adjacent and on the northern side of the D1675 tar road (Steenbokpan-Lephalale). The D175 gravel road (Steenbokpan-Stockpoort) will cross the site from north to south and will also provide access to other areas further away from the D1675 tar road.

The proposed site was relatively flat and sloped gently down to Limpopo Valley to the north. Most of the proposed properties were previously used as game farms or as cattle farms and are currently still being used as game or cattle farms (figure 4). These properties were largely undisturbed and were covered with typical vegetation associated with the western Bushveld (figure 5). The properties were all fenced and were also divided into fenced camps (figure 6). Tracks crisscrossed the properties (figure 4) and only a few farmsteads with associated storerooms were present on these properties. These structures were all modern and not older than 60 years.

Small sections on the southern extent of the proposed site were previously cleared and used as agricultural fields (Portion 25 of Theunispan 293 LQ), but they are not currently used for agricultural purposes and some pioneer plant growth has returned (figure 7). Another section (a part of Portion 3 of Steenbokpan 295 LQ) was also used as an orchard (figure 8).

A series of shops was situated on the western side of the D175 road to Stockpoort (figure 9). These shops were situated just to the north of the D175 and D1675 intersection. A few houses were also situated at the back of these shops.



Figure 4 – General view of a part of the proposed site from the west.



Figure 5 – General view of the vegetation on the properties.



Figure 6 – View of one of the fences across the properties.



Figure 7 – View of the previously ploughed fields on Portion 25 of Theunispan 293 LQ.



Figure 8 – View of the planted orchard on Portion 3 of Steenbokpan 295 LQ.



Figure 9 – View of the shops adjacent to the D175 Steenbokpan – Stockpoort road.

5 DESKTOP STUDY FINDINGS

The examination of heritage databases, historical data and cartographic resources represents a critical additional tool for locating and identifying heritage resources and in determining the historical and cultural context of the study area. Therefore an internet literature search was conducted and relevant archaeological and historical texts were also consulted. Relevant topographic maps and satellite imagery were studied. Researching the SAHRA APM Report Mapping Project records and the SAHRIS online database (<http://www.sahra.org.za/sahris>), it was determined that a number of previous archaeological or historical studies had been performed within the wider vicinity of the study area.

Previous Studies

Previous studies listed for the area in the APM Report Mapping Project included the following listed in chronological order:

Van Schalkwyk, L.O. 2006. **Heritage Impact Assessment of Mashashane Dam, Polokwane, Limpopo Province, South Africa.** An unpublished report by eThembeni Cultural Heritage on file at SAHRA as 2006-SAHRA-0369.

Murimbika, M. 2006. **Archaeological Impact Assessment Study for the Proposed Construction of Electricity Distribution Power lines Within, Limpopo Province.** An unpublished report by Nzumbululo Heritage Solutions on file at SAHRA as 2006-SAHRA-0443.

Roodt, F. 2007. **Phase 1 Heritage Resources Impact Assessment (Scoping & Evaluation) Lunds Egg and Rearing Houses Polokwane, Limpopo.** An unpublished report by R & R Cultural Resource Consultants on file at SAHRA as 2007-SAHRA-0102.

Van Schalkwyk, J.A. 2007. **Heritage Impact Assessment for the Planned Tabor-Witkop Power Line, Limpopo Province.** An unpublished report by the National Cultural History Museum on file at SAHRA as 2007-SAHRA-0166.

Munyai, R. & Roodt, F. 2007. **Phase 1 Heritage Impact Assessment Proposed Extraction of Gravel from an Existing Borrow Pit Site Associated with the Upgrading of Road D3377 in Matla's Location Farm, Aganang Municipality.** An unpublished report by Vhufa Hashu Heritage Consultants on file at SAHRA as 2007-SAHRA-0202.

Murimbika, M. 2007. **Proposed Establishment of Cemeteries at Kalkspruit in Aganang Local Municipality Capricorn District, Limpopo Province.** An unpublished report by Nzumbululo Heritage Solutions on file at SAHRA as 2007-SAHRA-0317.

Roodt, F. 2008. **Phase 1 Heritage Resources Scoping Report Mogalakwena Bulk Water Supply Scheme - Phase 1 of Zone 1 Mokopane: Limpopo.** An unpublished report by R & R Cultural Resource Consultants on file at SAHRA as 2008-SAHRA-0263.

Murimbika, M. 2008. **Cultural and Archaeological Heritage Assessment Specialist Study for the Proposed Construction of 1 453.29 km Powerline at Mapeding Village in Aganang Municipality of Capricorn District, Limpopo Province.** An unpublished report by Nzumbululo Heritage Solutions on file at SAHRA as 2008-SAHRA-0495.

Researching the SAHRIS online database (<http://www.sahra.org.za/sahris> accessed 28th October 2013) further studies were identified in the wider vicinity of the study area:

SAHRIS case number 566. 2013. **Heritage Impact Assessment for the Proposed Platreef Mining Project on the farms Bultongfontein 866 LR, Turfspruit 241 KR, Macalacaskop 243 KR and Rietfontein 2 KS in Mokopane, Limpopo Province.**

SAHRIS case number 762. 2012. **Basic Assessment and Environmental Management Programme, Mining Permit and Water Use Licence for the proposed rehabilitation of National Route (N11) Section 13 in Mokopane, Limpopo Province.**

SAHRIS case number 562. 2012. **Amendment [sic] to the Environmental Management Programme Report for Anglo American Platinum's De-Bottlenecking Project at the North Concentrator, Mogalakwena Platinum Mine, near Mokopane in the Limpopo Province.**

SAHRIS case number 1574. 2013. **Consultation of Amended Environmental Management Plan submitted in terms of Section 102 of the Mineral and Petroleum Resources Development Act 2002, (Act 28 of 2002) in respect of the farms Moordkopjes 813 LR and Zwartfontein 814 LR, situated in the Magisterial District of Polokwane.**

SAHRIS case number 1799. 2013. Rescue of human skeletal remains discovered accidental during construction of a road, near Mogalakwena Platinum Mine, near Mokopane, Mogalakwena Municipality, Limpopo Province.

SAHRIS case number 2289. 2011. Consultation in terms of Section 40 of the Mineral and Petroleum Resources Development Act 2002, (Act 28 of 2002) for the approval of an Environmental Management Plan for mining permit in respect of the Farm Vaalkop 819 LR, situated in the Magisterial District of Molgalakwena, Limpompo [sic] region.

SAHRIS case number 2236. 2011. Consultation ion Terms of Section 40 of the Mineral and Petroleum Resources Development Act 2002, (Act 28 of 2002) for the approval of an Environmental Management Plan for mining permit on the Portion 3 of the farm Rietfontein 34 KS, situated in the Magisterial District of Polokwane: Limpompo Region [sic].

SAHRIS case number 1681. 2011. Proposed construction of 33km 132kv power line from Witkop substation to Pietersburg in Polokwane.

SAHRIS case number 2058. 2013. Nomination for the declaration of the Pietersburg Dutch Reformed Church Building, Erf 5699, Polokwane, Limpopo Province as a National Heritage Resource.

SAHRIS case number 2118. 2013. A Phase I Heritage Impact Assessment (HIA) study for Eskom's proposed new 66kv power lines running between the Polokwane and Chloe substations and between the Chloe and Gilead substations as well as a t-off to the Moletsi substation in the Limpopo Province of South Africa.

Some of the studies listed above located a number of heritage sites of various categories whereas most did not locate any heritage sites or artefacts (e.g. Van Schalkwyk 2006: Murimbika 2006; Roodt 2007; Munyai & Roodt 2007; Murimbika 2007; Murimbika 2008), some had no documentation available (SAHRIS case number 562; SAHRIS case number 2289; SAHRIS case number 2236), some documents did not address heritage impacts (e.g. SAHRIS case number 762) and one case was for the relocation of a grave exhumed accidentally during development (SAHRIS case number 1799).

Roodt (2008) undertook a study for the Mogalakwena Bulk Water Supply Scheme, overlapping the current study area, and noted the presence of stone tools although no Iron Age sites were identified. One study in Mokopane just to the south of the study area located a total of three archaeological sites, 55 burial grounds and one historical site (SAHRIS case number 566). Some 20 km north-west of Mokopane a study noted the presence of stone tools, Late Iron Age metal working sites and historical sites including graves (SAHRIS case number 1574). In an extensive survey for a power line beginning some 25 km to the north east of the study area Van Schalkwyk (2007) noted the presence of surface scatterings of stone tools, rock art sites, Iron Age sites (including a 700 A.D. Early Iron Age site on the farm De Gladde Klipkop some 50 km further to the north east) and historic sites including early gold mines and the remains of capitals of different groups of Sotho and Ndebele speakers. Another extensive study for a power line in the area, some 20 km east of Mokopane, identified heritage resources including Late Iron Age stone walled settlements, a graveyard and other possible graves (SAHRIS case number 1681). Another extensive study for a power line passing some 40 km to the north of the study area noted a number of significant Iron Age settlements as well as more recent graves; however, all of these were located some distance to the north west of the current study area (SAHRIS case number 2118).

One study consulted (SAHRIS case number 2058) was an application for the registration of the Pietersburg Dutch Reformed Church, constructed in 1917/18, as a National Heritage Resource due to its architectural significance and historical interest. Consulting the SAHRA Heritage Register it was found that the town of Mokopane has two listed Provincial Heritage Sites, namely the Moorddrift Monument and the Old Stone School while the Makapans Valley to the east is a National Heritage Site. Polokwane has two declared provincial heritage sites, the First National Bank building and Irish House while the surrounding area has two provincial heritage sites, the first gold crushing site and the first gold power plant site (accessed 28th October 2013).

Stone Age sites

The Stone Age is divided into the Early; Middle and Late Stone Age. The *Early Stone Age* includes the period from 2.5 million years B.P. to 250 000 years B.P. and is associated with Australopithecines and early *Homo* species who practiced stone tool industries such as the Oldowan and Acheulean. The *Middle Stone Age* covers various tool industries, for example the Howiesons Poort industry, in the period from 250 000 years B.P. to 25 000 years B.P. and is associated with archaic and modern *Homo sapiens*. The *Late Stone Age* incorporates the period from 25 000 years B.P. up to the Iron Age and Historical Periods and contact between hunter-

gatherers and Iron Age farmers or European colonists. This period is associated with modern humans and characterised by lithic tool industries such as Smithfield and Robberg.

Excavations at Makapansgat south-east of the study area provided evidence of occupation by *Australopithecus africanus* from approximately 3.3 million years ago. There is evidence of long occupation from the Cave of Hearths with stone tools and associated debris from a date of 400,000 B.P. while upper strata are characterised by Middle Stone Age assemblages of 110,000 to 50,000 B.P. and Late Stone Age assemblages dating from 10,000 to 5,000 years B.P. characterised by the Smithfield B industry. The site is one of the few to exhibit Acheulean assemblages in Southern Africa and also contains overlying Middle Stone Age Howiesons poort industry tools and early evidence of fire use. (Bergh, 1999; Mitchell, 2002) To the west and south west the Waterberg is known for its many rock art sites including those containing shaded paintings such as at Haakdoorndraai (Pager, 1973) while to the north-west the Makgabeng plateau has over 460 recorded rock art sites (Eastwood et. al., 2002). Evidence from Late Stone Age tool sites also attests to the long occupation of the wider area by hunter-gatherers.

Iron Age

The Iron Age incorporates the arrival and settlement of Bantu speaking people and overlaps the Pre-Historic and Historical Periods. It can be divided into three phases. The *Early Iron Age* includes the majority of the first millennium A.D. and is characterised by traditions such as Happy Rest and Silver Leaves. The *Middle Iron Age* spans the 10th to the 13th Centuries A.D. and includes such well known cultures as those at K2 and Mapungubwe. The *Late Iron Age* is taken to stretch from the 14th Century up to the colonial period and includes traditions such as Icon and Letaba.

A number of Early Iron Age sites are known from the wider area representative of two distinct pottery assemblages. The oldest assemblage belongs to the Mzonjani facies of the Urewe tradition and dates to between 450 and 750 A.D. The Kalundu tradition is represented in the wider area by the Doornkop and Diamant facies which date to between 750 and 1000 A.D. The Middle Iron Age is represented in the area by the Eiland facies of the Kulundu tradition, dating from between 1000 and 1300 A.D. Around the town of Mokopane to the south of the study area several Late Iron Age sites are characteristic of the continuing Kalundu tradition, belonging either to the Icon facies (1300 to 1500 A.D.) or the Madikwe facies (1500 to 1700 A.D.) (Huffman, 2007).

Successive waves of both homogenous and heterogeneous groups entered and occupied the area since 1600 A.D., the latter including Ndebele, Shangaan and Koni people (Loubser, 1994). During the 17th Century Iron Age Nguni farmers moved from the Hlubi tribe in present day Kwa-Zulu Natal and settled in the former Transvaal as the Transvaal Ndebele. They were split into two major groupings of which the Northern Ndebele settled in the Mokopane - Polokwane region. While it is not clear which groups they settled alongside or displaced, several accounts of contact with the Northern-Sotho and Ba-Pedi are reported in the ethnology of these peoples.

The people currently living in the vicinity of the study site are affiliated with Northern Sotho groups who first settled in the area around modern day Polokwane around 1730 A.D. (Krige, 1937) before moving north and west towards Makgabeng and founding a settlement at Ga Matlala a' Thaba. The people here are not a homogenous group and most of the Koni people for example regard their ancestry as being Nguni and originating in Swaziland (Mönnig, 1967). Excavations in 1980 by the University of the Witwatersrand at the site of the Bokoni Malapa museum south of Polokwane indicated settlement from 1600 to 1900 A.D. comprising a sequence of Northern Ndebele, Northern Sotho and Shangaan people, finally being occupied by the Koni of Matlala (Jordaan, 1992). The establishment of a museum based on the culture and history of the latter people is described in the historical period section below.

Historical Period

The beginning of the Historical Period overlaps the demise of the late Stone and Iron Ages and is characterised by the first written accounts of the region from 1600 A.D. to the present.

Early European travellers, hunters and missionaries such as Cornwallis Harris and Robert Moffatt visited the region in the 1830's and they were followed by the first colonists under Louis Trichardt in 1837. Considerable tensions arose between the settlers and the local people and there were a number of skirmishes including the famous siege of the Ndebele ruler Mokopane in the Makapans Caves and the forced abandonment of Potgietersrus (now Mokopane) in 1870.

Under the increasingly European control of the area French and German missionaries became active (Loubser, 1994) and the town of Pietersburg (now Polokwane and one of the first places in South Africa to change its name after the fall of apartheid to Polokwane, meaning 'Place of Safety' in Sesotho) was established following the purchase of the farm Sterkloop in 1892 (South African History Online). Christoph Sonntag's account of the Maleboch War makes considerable mention of the Boers using Matlala or 'Matlaleo' Commandos recruited from the area of Ga

Matlala (just to the north of the study area) to fight in the battle against the Bahananoa of the Blouberg but no fighting took place in the vicinity (Sonntag, Undated). In 1984 the then Pietersburg Town Council completed the construction of the Bakoni Malapa Northern Sotho Open Air Museum south of the town, having consulted and utilised the traditional knowledge and labour of the Matlala tribe (Jordaan, 1992).

6 FIELDWORK FINDINGS

A systematic coverage of the study area was undertaken by a fieldwork team comprising an archaeologist and two field assistants. One member of the team carried a hand-held GPS, and their track logs are depicted in black on the maps provided.

Seven sites of heritage significance were identified. The sites were given an abbreviated name of SBP (Steenbokpan) and were numbered from SBP 001 to SBP 007 respectively. Each identified heritage site will be discussed below:

Steenbokpan Extension 3 Township Development

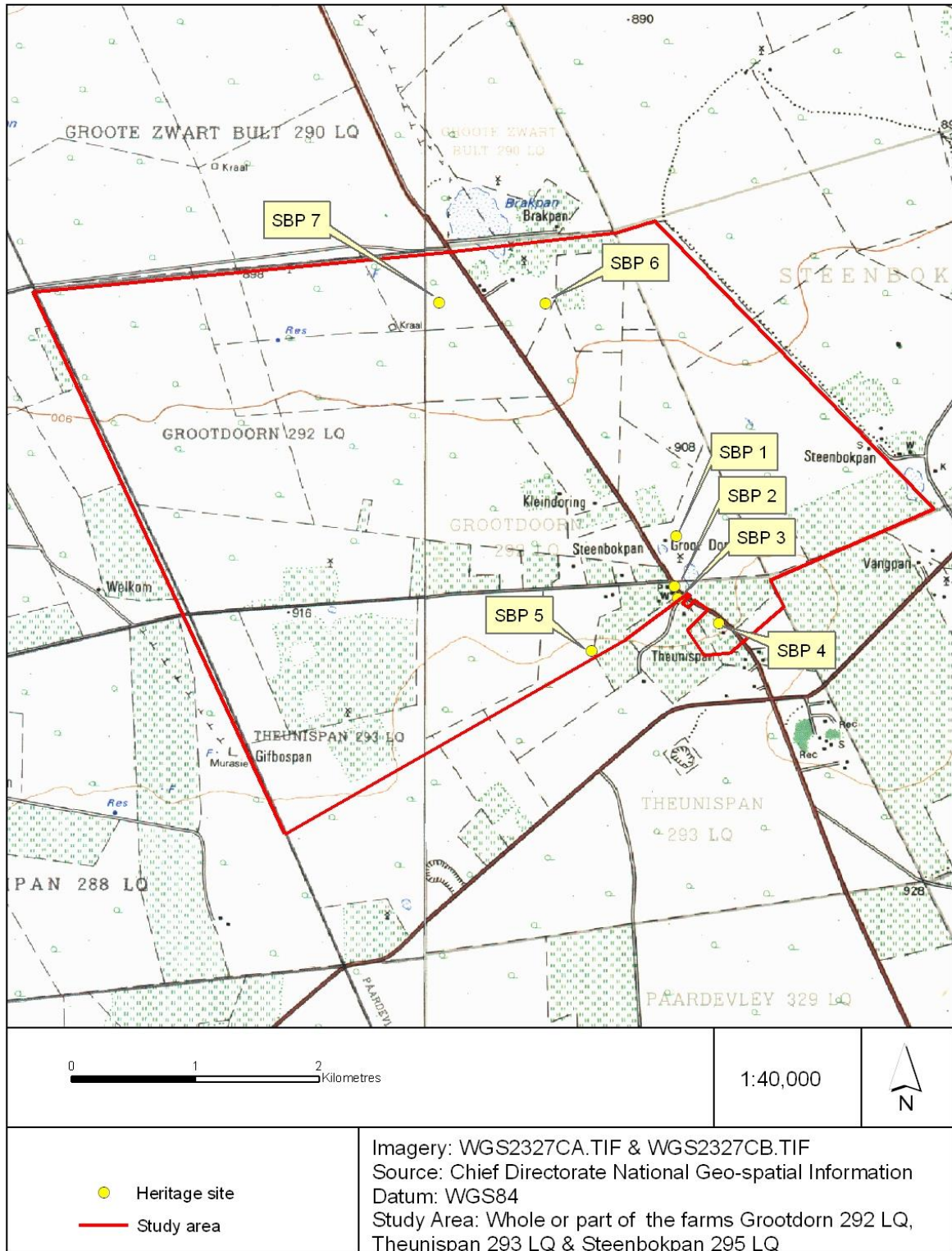


Figure 10 – The proposed study area with the identified heritage sites.

Steenbokpan Extension 3 Township Development

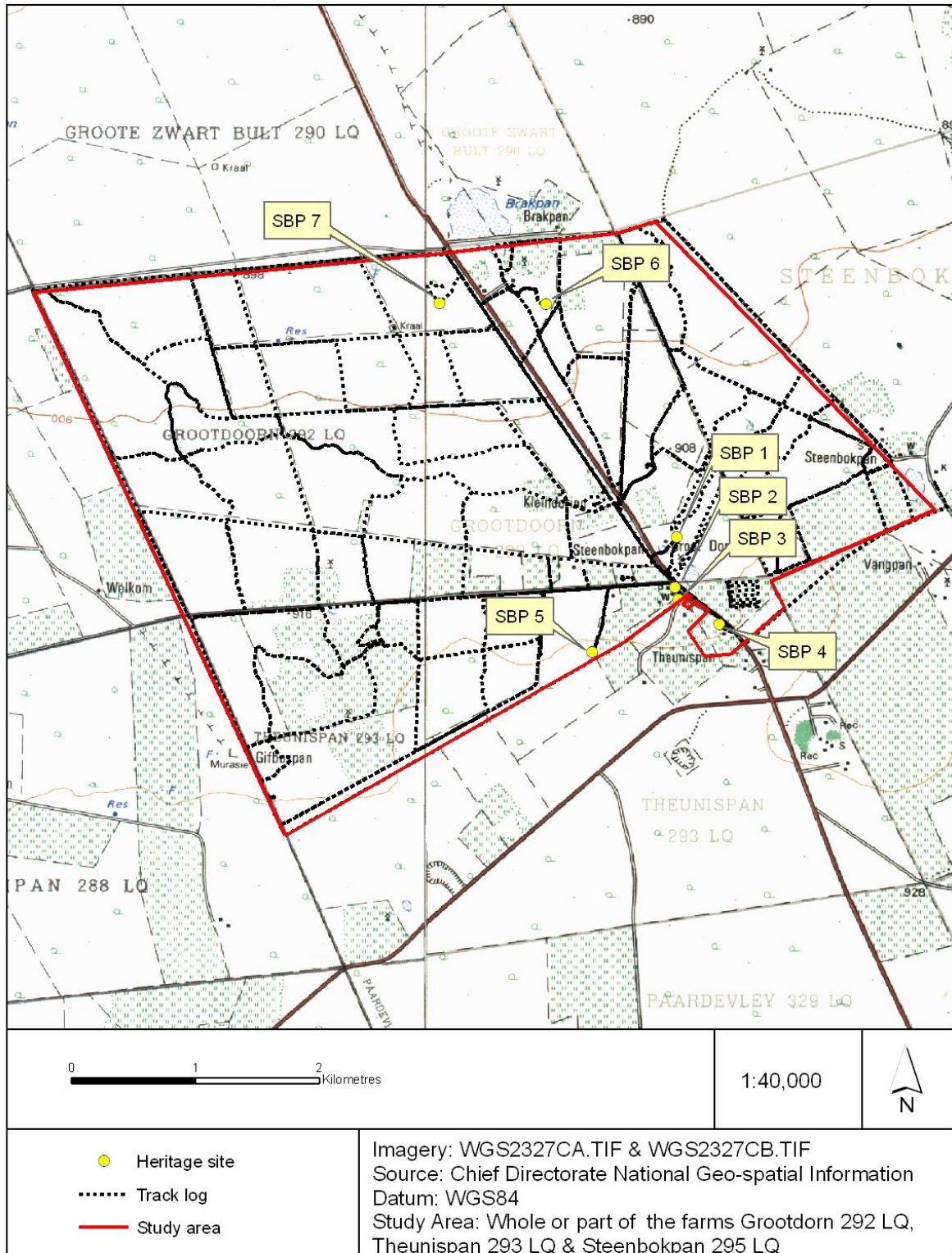
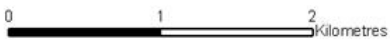
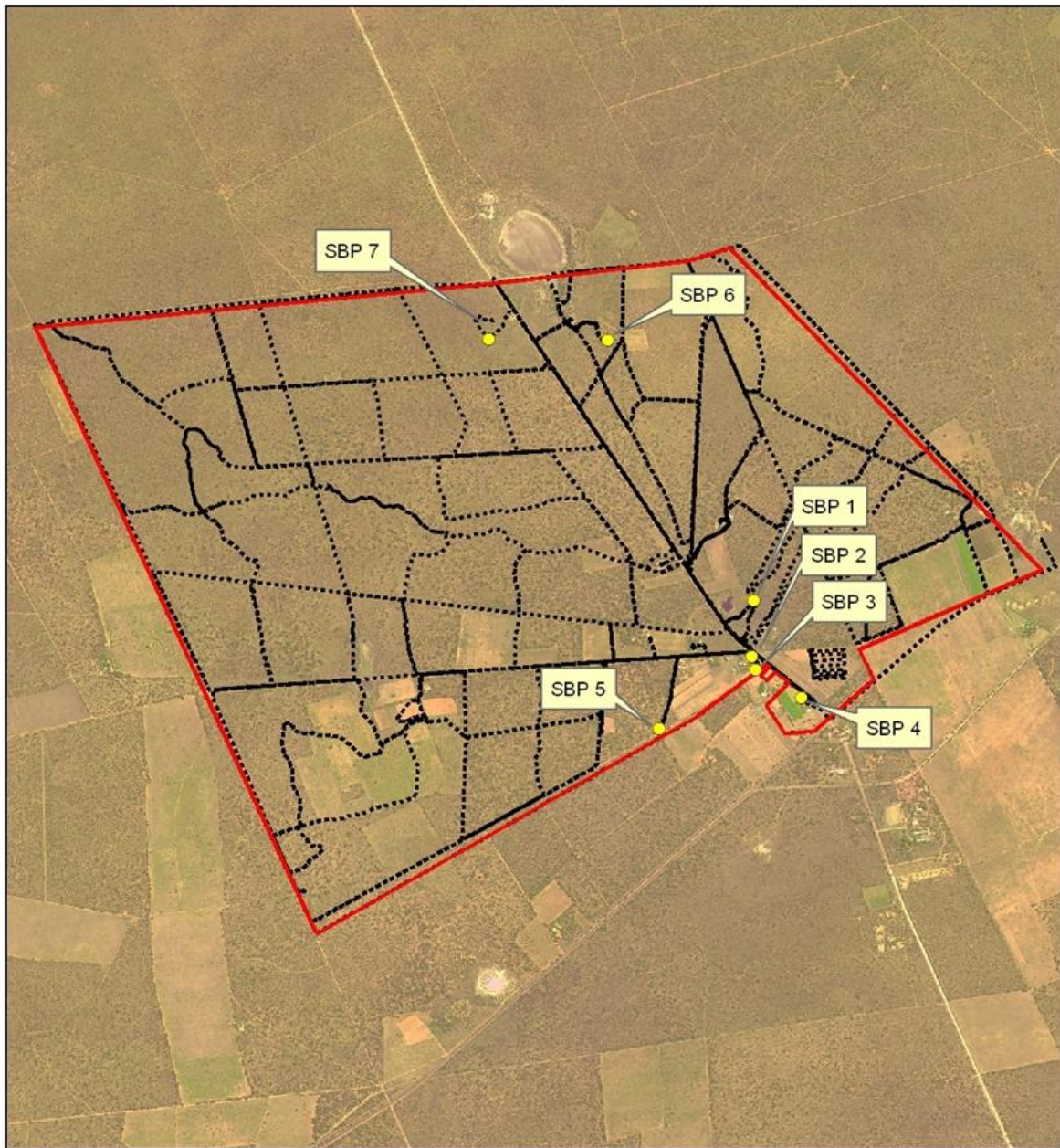


Figure 11 – The proposed study area with track log and identified heritage sites.

Steenbokpan Extension 3 Township Development



1:40,000



- Heritage site
- Track log
- Study area

Image: 2327C.jp2.
 Source: Spot Image / CSIR
 Datum: WGS84
 Study Area: Whole or part of the farms Grootdorn 292 LQ,
 Theunispan 293 LQ & Steenbokpan 295 LQ

Figure 12 – The proposed study area with track log and identified heritage sites.

6.1 Site SBP 001:

GPS: S23° 42' 05.4" E27° 16' 04.6"

A derelict brick-built structure was identified at this location. The structure had only a few of its walls still partially standing (**Figure 13**). Most of the structure was destroyed. The walls consisted of a mixture of baked clay bricks and mud bricks with cement (**Figure 15**). The walls were plastered with cement and most of them were also painted over. Most of the doors and windows were removed except for one window frame. This was a wooden window frame of which the glass was removed (**Figure 14**). The structure did not have a roof and it was not possible to determine which kind or style of roof the structure had before it was removed. It also had a cement floor which was covered with rubble. No signs of internal plumbing or an electrical system were identified.

An informant, Ms. Hennie Engelbrecht, who was the wife of the shopkeeper from across the road, stated that this structure was the house of the Harmse-family who was farmers in this area. Ms. Engelbrecht went to the Steenbokpan Laerskool (primary school) during the 1950's which was situated next to the Harmse's house. The school closed in 1955 and was abandoned and demolished afterwards. Nothing of this structure has remained. The Harmse-family also moved away after the school was closed and the house was vandalized and demolished since then. Ms. Engelbrecht could not recall when the house was built, but she thought that it could have been during the 1930's or early 1940's.

The exact extent of the derelict homestead and its associated yard (garden) and/or out buildings could not be determined. But it seemed as if this structure and its associated features covered an area of approximately 80m x 100m.



Figure 13 - General view of the dilapidated structure from the west.



Figure 14 – View of the only remaining wooden window frame.



Figure 15 - View of the clay and mud bricks in the walls.

The site is graded as **Grade 4B** with medium heritage significance and should be recorded before it may be destroyed. The Provincial Heritage Resources Agency (LIHRA) will dictate the extent and the standard of recording of a structure in a dilapidated state as this one.

Impact Evaluation

IMPACT	SIGNIFICANCE	SPATIAL SCALE	TEMPORAL SCALE	PROBABILITY	RATING
Impact on heritage resources	2	2	3	3	1.4

Mitigation:

- The structure is most probably older than 60 years and has heritage significance and/or value and is also protected under the National Heritage Resources Act (Act 25 of 1999).
- An application for the total destruction of this structure should be filed at the Limpopo Heritage Resources Agency (LIHRA).
- LIHRA will dictate the extent and the standard of recording of the structure. This could include the appointment of a qualified/approved historical architect to document the structure.
- Only after the requirements of LIHRA have been fulfilled can the destruction of the structure continue.

6.2 Site SBP 002:

GPS: S23° 42' 18.6" E27° 16' 04.1"

An old shop was identified at this location (**Figure 16**). The shop formed part of a series of buildings which were situated adjacent and on the western side of the D175 road to Stockpoort. The shop was still in operation and was being managed as the “Hennie de Lange Kafee” (**Figure 17**).

The shop was brick-built with a pitched corrugated iron roof and a cement floor. The original shop measured approximately 20m x 15m in size. Several modifications and additions were made to the original structure over the years. Internal electrical and plumbing systems were added and extended. The structure now has metal doors and frames with metal window frames and metal burglar bars as well.

The owner of the shop, Mr. Hans Engelbrecht, stated that the original shop was built by his father-in-law, Mr. Hennie de Lange, during the 1940’s. The shop has since then transformed over the years to the series of shops and structures which were present there today. He was not

sure when all the modifications were done, but some of the more recent additions (such as parts of the front facade), were obvious.

The original shop and the more recent additions covered an area of approximately 120m x 50m along the D175 road (**Figure 18**).



Figure 16 - View of the identified shop with some of the later modifications.



Figure 17 – Close up view of the Hennie de Lange Kafee.



Figure 18 - View of some of the later extensions to the series of buildings.

The site is graded as **Grade 4B** with medium heritage significance and should be recorded before it may be destroyed. The Provincial Heritage Resources Agency (LIHRA) will dictate the extent and the standard of recording of a structure in a dilapidated state as this one.

Impact Evaluation

IMPACT	SIGNIFICANCE	SPATIAL SCALE	TEMPORAL SCALE	PROBABILITY	RATING
Impact on heritage resources	3	3	3	3	1.8

Mitigation:

- The structures are most probably older than 60 years and have heritage significance and/or value and are also protected under the National Heritage Resources Act (Act 25 of 1999).
- A consultation process with the current owners of the shops should be initiated if it is planned to destruct these structures during the course of the development.
- An application for the total destruction of these structures should be filed at the Limpopo Heritage Resources Agency (LIHRA). This could include the appointment of a qualified/approved historical architect to document the structure.
- If a permit for destruction is granted, LIHRA will dictate the extent and the standard of recording/documentation of the structures.
- Only after the requirements of LIHRA have been fulfilled can the destruction of the structures continue.

6.3 Site SBP 003:

GPS: S23° 42' 21.6" E27° 16' 04.9"

A small informal cemetery was identified at this location (**Figure 19**). The cemetery was situated approximately 50m to the south and to the back of the series of shops identified at site SBP 002. The cemetery was fenced and had the graves of 8 individuals. All of the graves had formal granite headstones and dressings. Two of these graves were “double graves” of which the deceased couple shared a combined headstone and dressing (**Figure 20**). The graves were placed in two unequal lines and all were orientated from west to east. The burials ranged from between the 1970’s up to the 2000’s. The cemetery belonged to the De Lange and Engelbrecht families who owned the shop as described in site **SBP 002** and also resided in a house at the back of the shop. The graves were recently attended to and were cleared of vegetation.



Figure 19 – View of the identified cemetery from the east.



Figure 20 – View of one of the “double graves” at the cemetery.

The site is graded as **Grade 4A** with high heritage significance and should be mitigated and recorded before it may be destroyed.

Impact Evaluation

IMPACT	SIGNIFICANCE	SPATIAL SCALE	TEMPORAL SCALE	PROBABILITY	RATING
Impact on heritage resources	4	3	5	2	2.4

Mitigation:

- It is important to understand that the identified graves could have significant heritage value to the relevant families (if identified) and should therefore be preserved.
- The relevant families should be identified (if possible) and should be informed about the proposed activities which could possibly affect their graves.
- It is recommended that the identified graves should be clearly marked with danger tape during the entire duration of the project and especially during earth-moving/bush clearing activities and a 10m buffer zone must be allowed around the graves.
- A watching brief performed by a suitable qualified person is recommended during the bush clearing and construction phases of the project. This person should see to it that the graves are safe and protected during these phases.

- It is advisable to fence the graves to prevent future mistakes. A buffer zone of at least 10m around the graves is recommended.
- The proposed earth-moving/bush clearing activities should be altered and should be planned around the graves in order to protect it from any damage or other negative impacts.
- Bush clearing crews should be made aware of the graves in order that the graves will not be accidentally damaged during the earth-moving activities.
- The planning team should **ensure that access to the graves is not limited in any way**. A small management plan should be set up to ensure the future safety, access and maintenance of the graves next to the proposed development.

If the above recommendations can't be adhered to, further steps and measures should be taken to move the graves and relocate them to an official graveyard in the area. This should only be done as last resort if no other options deem to be possible. The following process is then required:

- A process of consultation with the affected families and communities, if identified, should then be initiated to start the relocation of the graves.
- Various applications to various Departments should be put into motion to obtain the necessary permissions and permits to perform the relocation of the graves. These applications and permits are required by law.

Only after all the required permissions and permits have been obtained, can the relocation of the graves continue as performed by professionals.

6.4 Site SBP 004:

GPS: S23° 42' 28.3" E27° 16' 15.6"

Another small informal cemetery was identified at this location (**Figure 21**). The cemetery was situated approximately 300m to the south-east of the graves identified at site **SBP 003**. It was also in close proximity of the D175 road and adjacent to an occupied homestead. The cemetery was fenced and had the graves of 12 individuals (**Figure 22**). All of the graves had formal granite headstones and dressings (**Figure 23**). The graves were placed in two unequal lines and all were orientated from west to east. The burials ranged from between the 1940's up to the 1980's. The cemetery was used by local Europeans during this period. The graves were not recently attended to and were overgrown with grass and other vegetation.



Figure 21 - View of the identified cemetery.



Figure 22 – Another view of some of the graves.



Figure 23 – Close up view of one of the graves.

The site is graded as **Grade 4A** with high heritage significance and should be mitigated and recorded before it may be destroyed.

Impact Evaluation

IMPACT	SIGNIFICANCE	SPATIAL SCALE	TEMPORAL SCALE	PROBABILITY	RATING
Impact on heritage resources	4	3	5	2	2.4

Mitigation:

- It is important to understand that the identified graves could have significant heritage value to the relevant families (if identified) and should therefore be preserved.
- The relevant families should be identified (if possible) and should be informed about the proposed activities which could possibly affect their graves.
- It is recommended that the identified graves should be clearly marked with danger tape during the entire duration of the project and especially during earth-moving/bush clearing activities and a 10m buffer zone must be allowed around the graves.
- A watching brief performed by a suitable qualified person is recommended during the bush clearing and construction phases of the project. This person should see to it that the graves are safe and protected during these phases.
- It is advisable to fence the graves to prevent future mistakes. A buffer zone of at least 10m around the graves is recommended.
- The proposed earth-moving/bush clearing activities should be altered and should be planned around the graves in order to protect it from any damage or other negative impacts.
- Bush clearing crews should be made aware of the graves in order that the graves will not be accidentally damaged during the earth-moving activities.
- The planning team should **ensure that access to the graves is not limited in any way**. A small management plan should be set up to ensure the future safety, access and maintenance of the graves next to the proposed development.

If the above recommendations can't be adhered to, further steps and measures should be taken to move the graves and relocate them to an official graveyard in the area. This should only be done as last resort if no other options deem to be possible. The following process is then required:

- A process of consultation with the affected families and communities, if identified, should then be initiated to start the relocation of the graves.
- Various applications to various Departments should be put into motion to obtain the necessary permissions and permits to perform the relocation of the graves. These applications and permits are required by law.

Only after all the required permissions and permits have been obtained, can the relocation of the graves continue as performed by professionals.

6.5 Site SBP 005:

GPS: S23° 42' 35.5" E27° 15' 42.4"

A small informal cemetery was identified at this location (**Figure 24**). The cemetery was situated approximately 800m to the west and to the back of the series of shops identified at site **SBP 002**. The cemetery had 31 x graves and was situated along a boundary fence and it was fenced itself. Four of the graves had formal granite headstones and dressings (**Figure 25**) and two of the graves had cement headstones. The rest of the graves had informal mounds of packed rocks as dressings (**Figure 26**). The graves were placed in four unequal lines and all were orientated from west to east. The inscribed burials ranged from between the 1980's up to the 2000's. The cemetery belonged to various families of farm workers who were employed on nearby farms. The graves were showed to us by one of the family members and an employee of the shop. The graves were recently attended to and were cleared of vegetation.



Figure 24 – General view of the cemetery from the north.



Figure 25 – View of some of the formal graves at the cemetery.



Figure 26 - View of some of the informal graves.

The site is graded as **Grade 4A** with high heritage significance and should be mitigated and recorded before it may be destructed.

Impact Evaluation

IMPACT	SIGNIFICANCE	SPATIAL SCALE	TEMPORAL SCALE	PROBABILITY	RATING
Impact on heritage resources	4	3	5	2	2.4

Mitigation:

- It is important to understand that the identified graves could have significant heritage value to the relevant families (if identified) and should therefore be preserved.
- The relevant families should be identified (if possible) and should be informed about the proposed activities which could possibly affect their graves.
- It is recommended that the identified graves should be clearly marked with danger tape during the entire duration of the project and especially during earth-moving/bush clearing activities and a 10m buffer zone must be allowed around the graves.
- A watching brief performed by a suitable qualified person is recommended during the bush clearing and construction phases of the project. This person should see to it that the graves are safe and protected during these phases.
- It is advisable to fence the graves to prevent future mistakes. A buffer zone of at least 10m around the graves is recommended.
- The proposed earth-moving/bush clearing activities should be altered and should be planned around the graves in order to protect it from any damage or other negative impacts.
- Bush clearing crews should be made aware of the graves in order that the graves will not be accidentally damaged during the earth-moving activities.
- The planning team should **ensure that access to the graves is not limited in any way**. A small management plan should be set up to ensure the future safety, access and maintenance of the graves next to the proposed development.

If the above recommendations can't be adhered to, further steps and measures should be taken to move the graves and relocate them to an official graveyard in the area. This

should only be done as last resort if no other options deem to be possible. The following process is then required:

- A process of consultation with the affected families and communities, if identified, should then be initiated to start the relocation of the graves.
- Various applications to various Departments should be put into motion to obtain the necessary permissions and permits to perform the relocation of the graves. These applications and permits are required by law.

Only after all the required permissions and permits have been obtained, can the relocation of the graves continue as performed by professionals.

6.6 Site SBP 006:

GPS: S23° 41' 04.5" E27° 15' 30.3"

A small informal cemetery was identified at this location (**Figure 27**). The cemetery was situated in the open veld and was approximately 400m to the south-east of a farm stead. The cemetery was fenced and had the graves of 16 individuals. All of the graves had formal granite headstones and dressings (**Figure 28**). The graves were placed in three unequal lines and all were orientated from west to east. The burials ranged from between the 1960's up to the 1990's. The cemetery belonged to the Harmse-family as the majority surnames were of this family. The graves were not recently attended to and were overgrown with grass and other vegetation (**Figure 29**).



Figure 27 - General view of the cemetery from the north.



Figure 28 – View of some of the graves at the cemetery.



Figure 29 – Another view of some of the graves at the cemetery.

The site is graded as **Grade 4A** with high heritage significance and should be mitigated and recorded before it may be destructed.

Impact Evaluation

IMPACT	SIGNIFICANCE	SPATIAL SCALE	TEMPORAL SCALE	PROBABILITY	RATING
Impact on heritage resources	4	3	5	2	2.4

Mitigation:

- It is important to understand that the identified graves could have significant heritage value to the relevant families (if identified) and should therefore be preserved.
- The relevant families should be identified (if possible) and should be informed about the proposed activities which could possibly affect their graves.
- It is recommended that the identified graves should be clearly marked with danger tape during the entire duration of the project and especially during earth-moving/bush clearing activities and a 10m buffer zone must be allowed around the graves.
- A watching brief performed by a suitable qualified person is recommended during the bush clearing and construction phases of the project. This person should see to it that the graves are safe and protected during these phases.
- It is advisable to fence the graves to prevent future mistakes. A buffer zone of at least 10m around the graves is recommended.

- The proposed earth-moving/bush clearing activities should be altered and should be planned around the graves in order to protect it from any damage or other negative impacts.
- Bush clearing crews should be made aware of the graves in order that the graves will not be accidentally damaged during the earth-moving activities.
- The planning team should **ensure that access to the graves is not limited in any way**. A small management plan should be set up to ensure the future safety, access and maintenance of the graves next to the proposed development.

If the above recommendations can't be adhered to, further steps and measures should be taken to move the graves and relocate them to an official graveyard in the area. This should only be done as last resort if no other options deem to be possible. The following process is then required:

- A process of consultation with the affected families and communities, if identified, should then be initiated to start the relocation of the graves.
- Various applications to various Departments should be put into motion to obtain the necessary permissions and permits to perform the relocation of the graves. These applications and permits are required by law.

Only after all the required permissions and permits have been obtained, can the relocation of the graves continue as performed by professionals.

6.7 Site SBP 007:

GPS: S23° 41' 04.2" E27° 15' 02.5"

A small informal cemetery was identified at this location (**Figure 30**). The cemetery was situated in the open veld and was approximately 300m to the west of the Steenbokpan/Stockpoort gravel road. The cemetery was crudely fenced and had the graves of 3 individuals. The graves had informal cement headstones and rectangular shaped brick and cement frames as dressings (**Figure 31**). The graves were placed in one line next to each other were orientated from west to east. The burials ranged from between the 1962 up to the 1969 (**Figure 32**). The cemetery belonged to the Mathe-family as the surnames of the deceased were of this family. The graves were not recently attended to and were overgrown with grass and other vegetation.



Figure 30 - General view of the cemetery from the north.



Figure 31 – View of some of the graves at the cemetery.



Figure 32 – Another view of some of the graves at the cemetery.

The site is graded as **Grade 4A** with high heritage significance and should be mitigated and recorded before it may be destroyed.

Impact Evaluation

IMPACT	SIGNIFICANCE	SPATIAL SCALE	TEMPORAL SCALE	PROBABILITY	RATING
Impact on heritage resources	4	3	5	2	2.4

Mitigation:

- It is important to understand that the identified graves could have significant heritage value to the relevant families (if identified) and should therefore be preserved.
- The relevant families should be identified (if possible) and should be informed about the proposed activities which could possibly affect their graves.
- It is recommended that the identified graves should be clearly marked with danger tape during the entire duration of the project and especially during earth-moving/bush clearing activities and a 10m buffer zone must be allowed around the graves.
- A watching brief performed by a suitable qualified person is recommended during the bush clearing and construction phases of the project. This person should see to it that the graves are safe and protected during these phases.
- It is advisable to fence the graves to prevent future mistakes. A buffer zone of at least 10m around the graves is recommended.
- The proposed earth-moving/bush clearing activities should be altered and should be planned around the graves in order to protect it from any damage or other negative impacts.
- Bush clearing crews should be made aware of the graves in order that the graves will not be accidentally damaged during the earth-moving activities.
- The planning team should **ensure that access to the graves is not limited in any way**. A small management plan should be set up to ensure the future safety, access and maintenance of the graves next to the proposed development.

If the above recommendations can't be adhered to, further steps and measures should be taken to move the graves and relocate them to an official graveyard in the area. This should only be done as last resort if no other options deem to be possible. The following process is then required:

- A process of consultation with the affected families and communities, if identified, should then be initiated to start the relocation of the graves.
- Various applications to various Departments should be put into motion to obtain the necessary permissions and permits to perform the relocation of the graves. These applications and permits are required by law.

Only after all the required permissions and permits have been obtained, can the relocation of the graves continue as performed by professionals.

7 IMPACT OF PROPOSED DEVELOPMENT ON HERITAGE RESOURCES

Seven heritage sites of significance or value were identified within the area proposed for the development of the Steenbokpan Extension 3 Township. It is possible that all of the identified heritage site could be adversely affected by the proposed development. It is known however, through conversations with the shop owner, Mr. Hans Engelbrecht, that the developers are of the intention not to intrude on the existing business (shops at site **SBP 002**) or on the identified cemeteries (sites **SBP 003 – 007**). The old Harmse farmstead will however, probably be further demolished due to its current derelict state, health risk and its central location in the planned development. These sentiments of intention should be backed up by the formulation and implementation of an effective Heritage Management Plan and be part of the larger Environmental Management Plan (EMP). If the developers decide in future to intrude or develop in the areas where the heritage sites were identified, they need to follow the recommendations as provided in this report.

8 MITIGATION MEASURES AND GENERAL RECOMMENDATIONS

Seven heritage sites of significance or value were identified within the area proposed for the development of the Steenbokpan Extension 3 Township.

Two of these sites were historical buildings. The first structure was in a very dilapidated state, but was known to be the farmstead of the Harmse-family. The following mitigation measures are recommended for the identified structure at site SBP 001:

- The structure is most probably older than 60 years and has heritage significance and/or value and is protected under Section 34 of the National Heritage Resources Act (Act 25 of 1999).
- An application for the total destruction of this structure should be filed at the Limpopo Heritage Resources Agency (LIHRA).
- LIHRA will dictate the extent and the standard of recording of the structure. This could include the appointment of a qualified/approved historical architect to document the structure.
- Only after the requirements of LIHRA have been fulfilled can the destruction of the structure continue.

The second identified site was site SBP 002, the shopping complex next to the D175 road. These shops are still in an operational mode. The following mitigation measures are recommended for these buildings:

- The structures are most probably older than 60 years and have heritage significance and/or value and are also protected under the National Heritage Resources Act (Act 25 of 1999).
- A consultation process with the current owners of the shops should be initiated if it is planned to destruct these structures during the course of the development.
- An application for the total destruction of these structures should be filed at the Limpopo Heritage Resources Agency (LIHRA). This could include the appointment of a qualified/approved historical architect to document the structure.
- If a permit for destruction is granted, LIHRA will dictate the extent and the standard of recording/documentation of the structures.

Five cemeteries were also identified within the proposed development area. Three of these cemeteries were situated in close proximity of the identified shopping complex, the fourth cemetery was situated on Portion 2 of the Farm Grootdoorn 292 LQ and the fifth cemetery was situated on Portion 4 of the Farm Grootdoorn 292 LQ on the northern extent of the study area. The following mitigation measures are recommended for each of these identified cemeteries:

The identified graves fall within the proposed area of the development and could possibly be affected by the proposed development. The developer should take note of the location of these graves and also of the recommendations as outlined in this report regarding them.

Graves older than 60 years (or presumed older) and/or not in a municipal graveyard are protected in terms of Section 36 of the National Heritage Resources Act (No. 25 of 1999). Human remains (graves) younger than 60 years may only be handled by a registered undertaker or institution declared under the Human Tissues Act.

The developer is required to follow the process described in the legislation (Section 36 of Act No. 25 and its associated regulations) if he wants to develop in or near an area where there are graves present.

It is therefore recommended that the areas with the graves should be avoided.

If the developer decides to plan the development around the identified graves and leave them undisturbed, adequate arrangements should be made to protect the graves from the impact of the development. The following guidelines must be taken in to account:

- It is important to understand that the identified graves could have significant heritage value to the relevant families (if identified) and should therefore be preserved.
- The relevant families should be identified (if possible) and should be informed about the proposed activities which could possibly affect their graves.
- It is recommended that the identified graves should be clearly marked with danger tape during the entire duration of the project and especially during earth-moving/bush clearing activities and a 10m buffer zone must be allowed around the graves.
- A watching brief performed by a suitable qualified person is recommended during the bush clearing and construction phases of the project. This person should see to it that the graves are safe and protected during these phases.
- It is advisable to fence the graves to prevent future mistakes. A buffer zone of at least 10m around the grave is recommended.
- The proposed earth-moving/bush clearing activities should be altered and should be planned around the graves in order to protect it from any damage or other negative impacts.
- Bush clearing crews should be made aware of the graves in order that the graves will not be accidentally damaged during the earth-moving activities.
- The planning team should **ensure that access to the graves is not limited in any way**. A small management plan should be set up to ensure the future safety, access and maintenance of the graves next to the proposed development.

If the above recommendations can't be adhered to, further steps and measures should be taken to move the graves and relocate them to an official graveyard in the area. This should only be done as last resort if no other options deem to be possible. The following process is then required:

- A process of consultation with the affected families and communities, if identified, should then be initiated to start the relocation of the graves.
- Various applications to various Departments should be put into motion to obtain the necessary permissions and permits to perform the relocation of the graves. These applications and permits are required by law.

Only after all the required permissions and permits have been obtained, can the relocation of the graves continue as performed by professionals.

9 CONCLUSIONS

PGS Heritage was appointed by Flexilor Properties (Pty) Ltd. to undertake a Heritage Impact Assessment (HIA) which forms part of the Environmental Impact Assessment (EIA) for the proposed development of the Steenbokpan Extension 3 Township on the Remainder and Portions 1, 2, 3 and 4 of the Farm Grootdoorn 292 LQ, Portions 20, 22 and 25 of the Farm Theunispan 293 LQ and Portion 3 of the Farm Steenbokpan 295 LQ west of Lephalale in the Lephalale Local Municipality, Waterberg District, Limpopo Province.

An archival and historical desktop study was undertaken which was used to compile a historical layering of the study area within its regional context. This component indicated that the landscape within which the project area is located has a rich and diverse history. However, the desktop study did not reveal any historic or heritage sites from within the study area.

The desktop study work was followed by a fieldwork component which comprised coverage of the study area. Six heritage sites of significance or value were identified within the area proposed for the development of the Steenbokpan Extension 3 Township.

Two of these sites were historical buildings. The first structure was in a very dilapidated state, but was known to be the farmstead of the Harmse-family. The second identified site was the shopping complex next to the D175 road. These shops are still in an operational mode. The following mitigation measures are recommended for these structures:

- The structures are most probably older than 60 years and have heritage significance and/or value and are also protected under Section 34 of the National Heritage Resources Act (Act 25 of 1999).
- An application for the total destruction of these structures should be filed at the Limpopo Heritage Resources Agency (LIHRA).
- LIHRA will dictate the extent and the standard of recording of the structures. This could include the appointment of a qualified/approved historical architect to document the identified structures.
- Only after the requirements of LIHRA have been fulfilled can the destruction of the structures continue.

Five cemeteries were also identified within the proposed development area. Three of these cemeteries were situated in close proximity of the identified shopping complex, the fourth cemetery was situated on Portion 2 of the Farm Grootdoorn 292 LQ and the fifth cemetery was situated on Portion 4 of the Farm Grootdoorn 292 LQ on the northern extent of the study area. The following mitigation measures are recommended for each of these identified cemeteries:

It is recommended that the areas with the graves should be avoided.

If the developer decides to plan the development around the identified graves and leave them undisturbed, adequate arrangements should be made to protect the graves from the impact of the development. The following guidelines must be taken in to account:

- It is important to understand that the identified graves could have significant heritage value to the relevant families (if identified) and should therefore be preserved.
- The relevant families should be identified (if possible) and should be informed about the proposed activities which could possibly affect their graves.
- It is recommended that the identified graves should be clearly marked with danger tape during the entire duration of the project and especially during earth-moving/bush clearing activities and a 10m buffer zone must be allowed around the graves.
- A watching brief performed by a suitable qualified person is recommended during the bush clearing and construction phases of the project. This person should see to it that the graves are safe and protected during these phases.
- It is advisable to fence the graves to prevent future mistakes. A buffer zone of at least 10m around the graves is recommended.
- The proposed earth-moving/bush clearing activities should be altered and should be planned around the graves in order to protect it from any damage or other negative impacts.
- Bush clearing crews should be made aware of the graves in order that the graves will not be accidentally damaged during the earth-moving activities.
- The planning team should **ensure that access to the graves is not limited in any way.** A small management plan should be set up to ensure the future safety, access and maintenance of the graves next to the proposed development.

If the above recommendations can't be adhered to, further steps and measures should be taken to move the graves and relocate them to an official graveyard in the area. This should only be done as last resort if no other options deem to be possible. The following process is then required:

- A process of consultation with the affected families and communities, if identified, should then be initiated to start the relocation of the graves.
- Various applications to various Departments should be put into motion to obtain the necessary permissions and permits to perform the relocation of the graves. These applications and permits are required by law.

Only after all the required permissions and permits have been obtained, can the relocation of the graves continue as performed by professionals.

If the recommendations as outlined in this report are adhered to the proposed development can continue from a heritage point of view.

10 REFERENCES

Baines, T. 1877. *The Gold Regions of South-Eastern Africa*. London: Edward Stanford.

Bergh, J.S. 1999. *Geskiedenisatlas van Suid-Afrika. Die vier Noordelike Provinsies*. Pretoria: J.L. van Schaik.

Birkholtz, P.D. & Steyn, H.S. 2002 *Cultural Resource management Plan for Marakele National Park*. Produced for SANParks, Report: SANP – MNP - 2002-05-17/Final Report. Helio Alliance.

Eastwood, E., van Schalkwyk, J. & Smith, B. 2002. *Archaeological and Rock Art Survey of the Makgabeng Plateau, Central Limpopo Basin*. *The Digging Stick*. Vol. 19, No. 1.

Hall, S.L. 1981 *Iron Age sequence and settlement in the Rooiberg, Thabazimbi Area*. M.A. Thesis, University of the Witwaterstrand.

Huffman, T. N., 1990. *The Waterberg Research of Jan Aukema*. *South African Archaeological Bulletin*, 45:117-119.

Huffman, T.N. 2007. *Handbook to the Iron Age. The Archaeology of Pre-Colonial Farming Societies in Southern Africa*. Durban: University of KwaZulu-Natal Press.

Loubser, J.H.N. 1994. *Ndebele Archaeology of the Pietersburg Area*. *Navorsinge van die Nasionale Museum Bloemfontein*. Vol. 10, Part 2.

Mason, R.J. 1962. Prehistory of the Transvaal. University of the Witwatersrand Press, Johannesburg.

Mitchell, P. 2002. The Archaeology of Southern Africa. Cambridge: Cambridge University Press.

Naudé, M., 1998. Oral Evidence of Vernacular Buildings and Structures on Farmsteads in the Waterberg (Northern Province). Research by the National Cultural History Museum, 7:47-91.

Pager, H. 1973. Shaded rock-paintings in the Republic of South Africa, Lesotho, Rhodesia and Botswana. The South African Archaeological Bulletin.

Pistorius, J.C.C. 2007. A Phase 1 Heritage Impact Assessment Study for the ESKOM Mmamabula Delta Project near Lephalale in the Limpopo Province of South Africa. An unpublished report prepared for PBA International.

Pont, A.D., 1965. Die Nededuitsch Hervormde Gemeente Waterberg. Kerkraad van die Nederduitsch Hervormde Gemeente Waterberg. Krugersdorp.

South African Heritage Resources Agency, 2009. Archaeology and Palaeontology Report Mapping Project. DVD Version 1.0. Cape Town.

South African Heritage Resources Information System, <http://www.sahra.org.za/sahris>. Accessed 8th October 2013.

Van der Ryst, M.M., 1998. The Waterberg Plateau in the Northern Province, Republic of South Africa, in the Later Stone Age. BAR International Series 715, Archaeopress, Oxford.

Van Warmelo, N.J. 1935. A Preliminary survey of the Bantu Tribes of South Africa. Ethnological Publications No. 5. Pretoria: Government Printer.

Van Schalkwyk, J. 2012. Heritage Impact Assessment for the Proposed Mixed Use Development and Solar Park on Portion 1 of the Farm Steenbokpan 295LQ and the remainder of Farm Vangpan 294LQ in the Lephalale Region, Limpopo Province. An unpublished report prepared for Interdesign Landscape Architects

Appendix A

LEGISLATIVE REQUIREMENTS – TERMINOLOGY AND ASSESSMENT CRITERIA

1. General principles

In areas where there has not yet been a systematic survey to identify conservation worthy places, a permit is required to alter or demolish any structure older than 60 years. This will apply until a survey has been done and identified heritage resources are formally protected.

Archaeological and palaeontological sites, materials, and meteorites are the source of our understanding of the evolution of the earth, life on earth and the history of people. In terms of the heritage legislation, permits are required to damage, destroy, alter, or disturb them. Furthermore, individuals who already possess heritage material are required to register it. The management of heritage resources is integrated with environmental resources and this means that, before development takes place, heritage resources are assessed and, if necessary, rescued.

In addition to the formal protection of culturally significant graves, all graves which are older than 60 years and are not located in a cemetery (such as ancestral graves in rural areas), are protected. The legislation also protects the interests of communities that have an interest in the graves: they should be consulted before any disturbance takes place. The graves of victims of conflict and those associated with the liberation struggle are to be identified, cared for, protected and memorials erected in their honour.

Anyone who intends to undertake a development must notify the heritage resources authority and, if there is reason to believe that heritage resources will be affected, an impact assessment report must be compiled at the construction company's cost. Thus, the construction company will be able to proceed without uncertainty about whether work will have to be stopped if an archaeological or heritage resource is discovered.

According to the National Heritage Resources Act (Act 25 of 1999 section 32) it is stated that: An object or collection of objects, or a type of object or a list of objects, whether specific or generic, that is part of the national estate and the export of which SAHRA deems it necessary to control, may be declared a heritage object, including –

- objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects, meteorites and rare geological specimens;
- visual art objects;

- military objects;
- numismatic objects;
- objects of cultural and historical significance;
- objects to which oral traditions are attached and which are associated with living heritage;
- objects of scientific or technological interest;
- books, records, documents, photographic positives and negatives, graphic material, film or video or sound recordings, excluding those that are public records as defined in section 1 (xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996), or in a provincial law pertaining to records or archives; and
- any other prescribed category.

Under the National Heritage Resources Act (Act No. 25 of 1999), provisions are made that deal with, and offer protection to, all historic and prehistoric cultural remains, including graves and human remains.

2. Graves and cemeteries

Graves younger than 60 years fall under Section 2(1) of the Removal of Graves and Dead Bodies Ordinance (Ordinance no. 7 of 1925) as well as the Human Tissues Act (Act 65 of 1983) and are under the jurisdiction of the National Department of Health and the relevant Provincial Department of Health and must be submitted for final approval to the Office of the relevant Provincial Premier. This function is usually delegated to the Provincial MEC for Local Government and Planning or in some cases the MEC for Housing and Welfare. Authorisation for exhumation and re-internment must also be obtained from the relevant local or regional council where the grave is situated, as well as the relevant local or regional council to where the grave is being relocated. All local and regional provisions, laws and by-laws must also be adhered to. In order to handle and transport human remains, the institution conducting the relocation should be authorised under Section 24 of Act 65 of 1983 (Human Tissues Act).

Graves older than 60 years, but younger than 100 years, fall under Section 36 of Act 25 of 1999 (National Heritage Resources Act) as well as the Human Tissues Act (Act 65 of 1983) and are under the jurisdiction of the South African Heritage Resources Agency (SAHRA). The procedure

for Consultation regarding Burial Grounds and Graves (Section 36(5) of Act 25 of 1999) is applicable to graves older than 60 years that are situated outside a formal cemetery administrated by a local authority. Graves in the category located inside a formal cemetery administrated by a local authority will also require the same authorisation as set out for graves younger than 60 years, over and above SAHRA authorisation.

If the grave is not situated inside a formal cemetery but is to be relocated to one, permission from the local authority is required and all regulations, laws and by-laws set by the cemetery authority must be adhered to.