

PHASE 1 HERITAGE RESOURCES SCOPING REPORT



SUB-STATION EXTENSION AND POWERLINE UPGRADE MODIMOLLE, LIMPOPO

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1. INTRODUCTION AND TERMS OF REFERENCE

The application constitutes an activity, which may potentially be harmful to heritage resources that may occur in the demarcated area. The National Heritage Resources Act (NHRA - Act No. 25 of 1999) protects all structures and features older than 60 years (section 34), archaeological sites and material (section 35) and graves and burial sites (section 36). In order to comply with the legislation, the Applicant requires information on the heritage resources, and their significance that may occur in the demarcated area. This will enable the Applicant to take pro-active measures to limit the adverse effects that the development could have on such heritage resources.

In terms of the National Heritage Resources Act (1999) the following is of relevance:

Historical remains

Section 34(1) 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.

Archaeological remains

Section 35(4) No person may, without a permit issued by the responsible heritage resources authority-

(a) destroy, damage, excavate, alter, deface, or otherwise disturb any archaeological or palaeontological site or any meteorite

Burial grounds and graves

Section 36 (3)(a) No person may, without a permit issued by SAHRA or a provincial heritage resources authority-

(c) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or

(b) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in detection or recovery of metals.

Culture resource management

Section 38(1) Subject to the provisions of subsection (7), (8) and (9), any person who intends to undertake a development* ...

must at the very earliest stages of initiating such development notify the responsible heritage resources authority and furnish it with details regarding the location, nature, and extent of the proposed development.

*'development' means any physical intervention, excavation, or action, other than those caused by natural forces, which may in the opinion of the heritage authority

in any way result in a change to the nature, appearance or physical nature of a place, or influence its stability and future well-being, including-

- (a) construction, alteration, demolition, removal or change of use of a place or a structure at a place;
- (b) carry out any works on or over or under a place*;
- (e) any change to the natural or existing condition or topography of land, and
- (f) any removal or destruction of trees, or removal of vegetation or topsoil;

****place** means a site, area or region, a building or other structure* ...”

****structure** means any building, works, device or other facility made by people and which is fixed to the ground, ...”

The author was contracted to undertake a heritage scoping survey of the proposed sub-station extension and power line upgrade, Modimolle, Limpopo (Refer to map, South Africa 1:50 000 2428 CD) surrounding the town Modimolle . The aim was to determine the presence or not of heritage resources such as archaeological and historical sites and features, graves and places of religious and cultural significance, and to submit appropriate recommendations with regard to the cultural resources management measures that may be required at affected sites / features.

The report thus provides an overview of the heritage resources that may occur in the demarcated area where development is intended. The significance of the heritage resources was assessed in terms of criteria defined in the methodology section. The impact of the proposed development on these resources is indicated and the report recommends mitigation measures that should be implemented to minimize the adverse impact of the proposed development on these heritage resources.

2. METHOD

2.1 Sources of information

The source of information was primarily the field reconnaissance and referenced literary sources.

A pedestrian survey of selected areas of the demarcated area was undertaken, during which standard methods of observation were applied. As most archaeological material occur in single or multiple stratified layers beneath the soil surface, special attention was given to disturbances, both man-made such as roads and clearings, as well as those made by natural agents such as burrowing animals and erosion. Locations of heritage remains were recorded by means of a GPS (Garmin 60). Heritage material and the general conditions on the terrain were photographed with a Panasonic Lumix Digital camera.

2.2 Limitations

The scoping survey was thorough, but limitations were experienced due to the fact that archaeological sites are subterranean and only visible when disturbed. Vegetation was moderate and visibility fair. It is thus possible that sites have been missed.

2.3 Categories of significance

The significance of archaeological sites is ranked into the following categories.

- | |
|---|
| • No significance: sites that do not require mitigation. |
| • Low significance: sites, which <i>may</i> require mitigation. |
| • Medium significance: sites, which require mitigation. |
| • High significance: sites, which must not be disturbed at all. |

The significance of an archaeological site is based on the amount of deposit, the integrity of the context, the kind of deposit and the potential to help answer present research questions. Historical structures are defined by Section 34 of the National Heritage Resources Act, 1999, while other historical and cultural significant sites, places and features, are generally determined by community preferences.

A crucial aspect in determining the significance and protection status of a heritage resource is often whether or not the sustainable social and economic benefits of a proposed development outweigh the conservation issues at stake. Many aspects must be taken into consideration when determining significance, such as rarity, national significance, scientific importance, cultural and religious significance, and not least, community preferences. When, for whatever reason the protection of a heritage site is not deemed necessary or practical, its research potential must be assessed and mitigated in order to gain data / information which would otherwise be lost. Such sites must be adequately recorded and sampled before being destroyed. These are generally sites graded as of low or medium significance.

2.4 Terminology

Early Stone Age: Predominantly the Acheulean hand axe industry complex dating to + 1Myr yrs – 250 000 yrs. before present.

Middle Stone Age: Various lithic industries in SA dating from ± 250 000 yr. - 30 000 yrs. before present.

Late Stone Age: The period from ± 30 000-yr. to contact period with either Iron Age farmers or European colonists.

Early Iron Age: Most of the first millennium AD

Middle Iron Age: 10th to 13th centuries AD

Late Iron Age: 14th century to colonial period. *The entire Iron Age represents the spread of Bantu speaking peoples.*

Historical: Mainly cultural remains of western influence and settlement from AD1652 onwards – mostly structures older than 60 years in terms of Section 34 of the NHRA.

Phase 1 assessment: Scoping surveys to establish the presence of and to evaluate heritage resources in a given area

Phase 2 assessments: In depth culture resources management studies which could include major archaeological excavations, detailed site surveys and mapping / plans of sites, including historical / architectural structures and features. Alternatively, the sampling of sites by collecting material, small test pit excavations or auger sampling is required.

Sensitive: Often refers to graves and burial sites although not necessarily a heritage place, as well as ideologically significant sites such as ritual / religious places. *Sensitive* may also refer to an entire landscape / area known for its significant heritage remains.

3. DESCRIPTION OF THE PROPOSED DEVELOPMENT AND TERRAIN

The proposed extension to the sub-stations and upgrading of the power line is to take place around Modimolle. The area has been extensively disturbed by urban development. The power

line runs through an existing golf estate, retirement estate and outside urban Modimolle. Archaeologically the area is disturbed.

4. RESULTS OF THE SCOPING SURVEY

GPS points taken during scoping.

S24° 43' 03.5" E28° 24' 44.7"	Sub-station extension preferred site 1
S24° 43' 04.5" E28° 24' 43.8"	Sub-station extension site 2
S24° 43' 04.7" E28° 24' 43.0"	Sub-station extension site 3
S24° 41' 57.6" E28° 25' 14.5"	Phomolong sub-station
S24° 40' 52.8" E28° 23' 28.3"	New sub-station site 1
S24° 41' 02.8" E28° 23' 34.8"	New sub-station site 2
S24° 41' 07.5" E28° 23' 32.3"	New sub-station site 3
S24° 40' 21.9" E28° 22' 26.5"	End of powerline near Elandspoort
S24° 42' 42.3" E28° 23' 11.4"	Powerline point as meeting R101

RESULTS APPLY TO ALL AREAS

4.1 HISTORICAL PERIOD

No remains from the Historical period were noted on the terrain.

4.2 GRAVES

No formal graves were noted, however the possibility of subterranean graves still exists.

4.3 IRON AGE REMAINS

No remains from the Iron Age were noted on the terrain.

4.4 STONE AGE REMAINS

No remains from the Stone Age were noted on the terrain.

5. ARCHAEOLOGICAL BACKGROUND INFORMATION

The Modimolle Region has a rich archaeological tradition, starting from the Stone Age period, right up to the Historical period, the following Iron Age material may occur in the region:

According to the most recent archaeological cultural distribution sequences by Huffman (2007), this area falls within the distribution area of various cultural groupings originating out of both the Urewe Tradition (eastern stream of migration) and the Kalundu Tradition (western stream of migration). The facies that may be present are:

Urewe Tradition: Moloko Branch –	<i>Icon facies</i>	AD 1300 - 1500	(Late Iron Age)
	<i>Madikwe facies</i>	AD 1500-1700	(Late Iron Age)
Blackburn Branch-	<i>Uitkomst facies</i>	AD 1650-1820	(Late Iron Age)
	<i>Rooiberg facies</i>	AD 1650-1750	(Late Iron Age)
Kwale branch-	<i>Mzonjani facies</i>	AD 450 – 750	(Early Iron Age)
Kalunda Tradition: Benfica sub-branch –	<i>Bambata facies</i>	AD 150-650	(Early Iron Age)
Happy Rest sub-branch –	<i>Diamant facies</i>	AD 750-1000	(Early Iron Age)
	<i>Eiland facies</i>	AD 1000-1300	(Middle Iron Age)
	<i>Doornkop facies</i>	AD 750 - 1000	(Early Iron Age)

None of the above-mentioned archaeological remains or other heritage remains of importance were noted on the terrain.

6. DISCUSSION


The proposed development does not appear to pose any potential impact as no archaeological or heritage remains were noted on the terrain.

No management or mitigation measures are required at this time. This report serves to confirm that *no significant heritage resources* such as archaeological or historical material or places of social or religious significance were found on the site of the proposed development. *From a heritage resources management point of view, we have no objection with regard to the development.*

The discovery of previously undetected subterranean heritage remains on the terrain must be reported to the Limpopo Heritage Authority or the archaeologist, and may require further mitigation measures.

7. BIBLIOGRAPHY

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




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Fig. 1 View of sub-station site 1

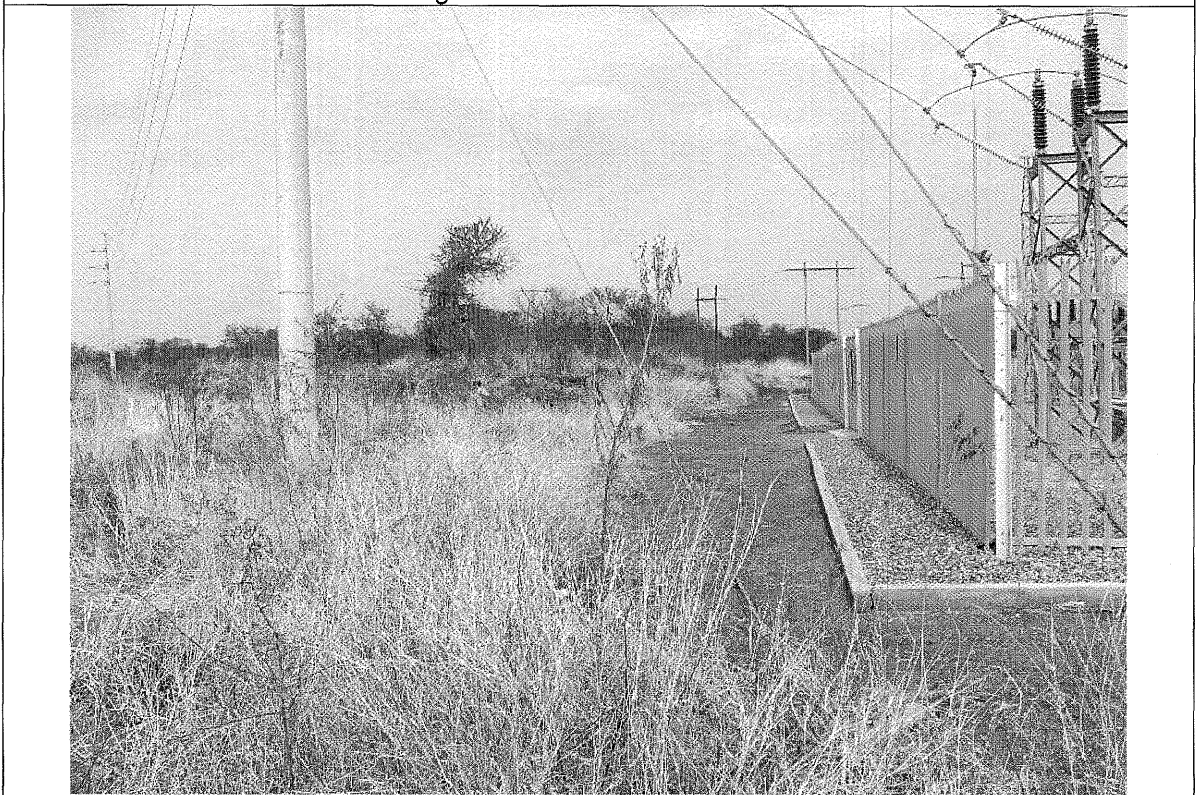


Fig. 2 View of sub-station site 2



Fig. 3 View of sub-station site 3

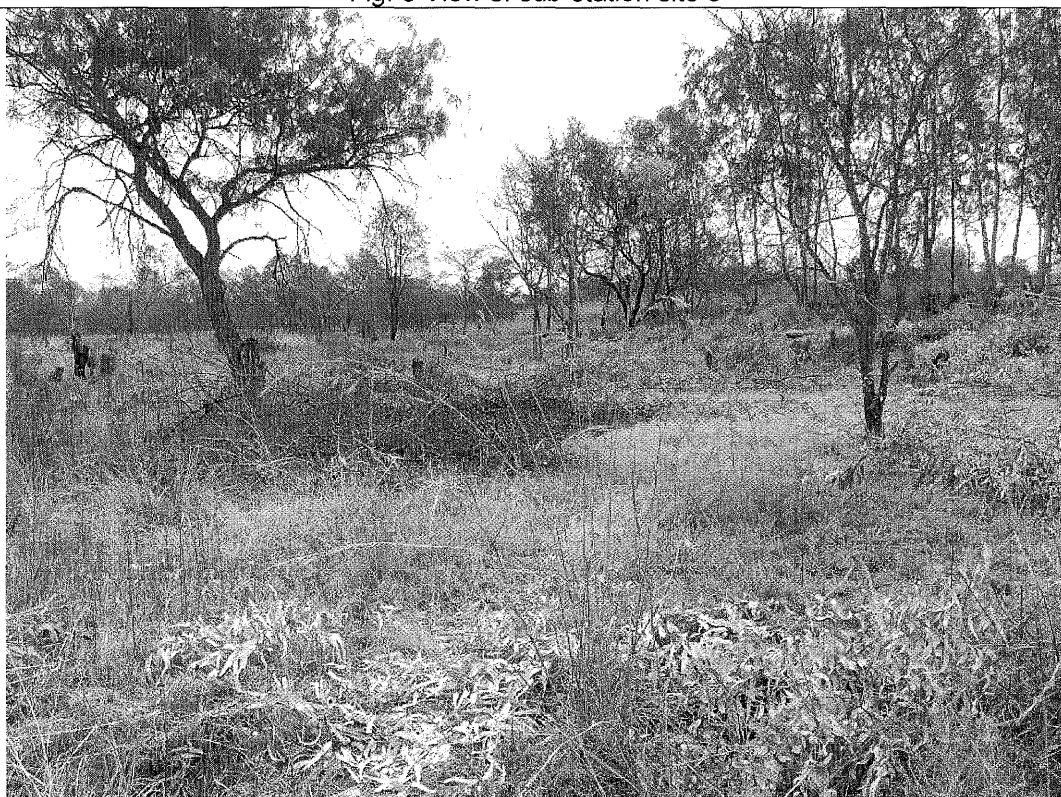


Fig. 4 View of New sub-station site 1



Fig. 5 View of new sub-station site 2



Fig. 6 View of new sub-station site 3

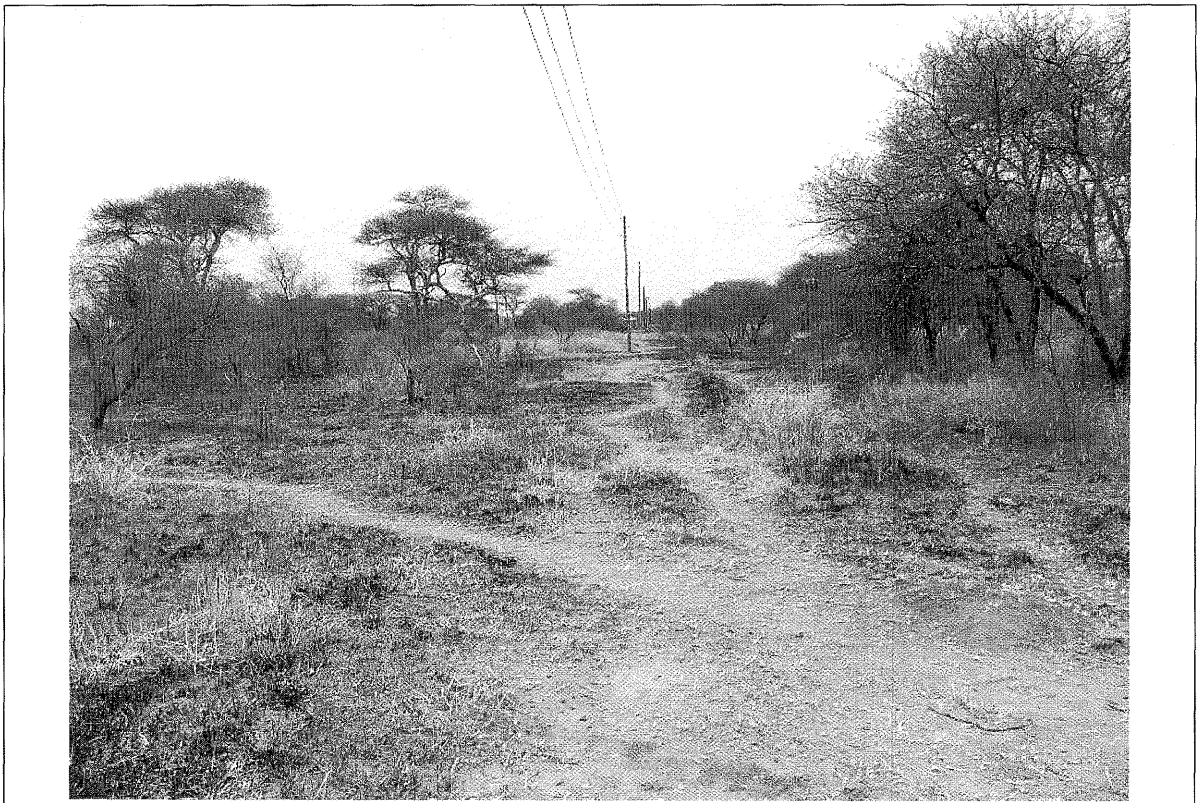
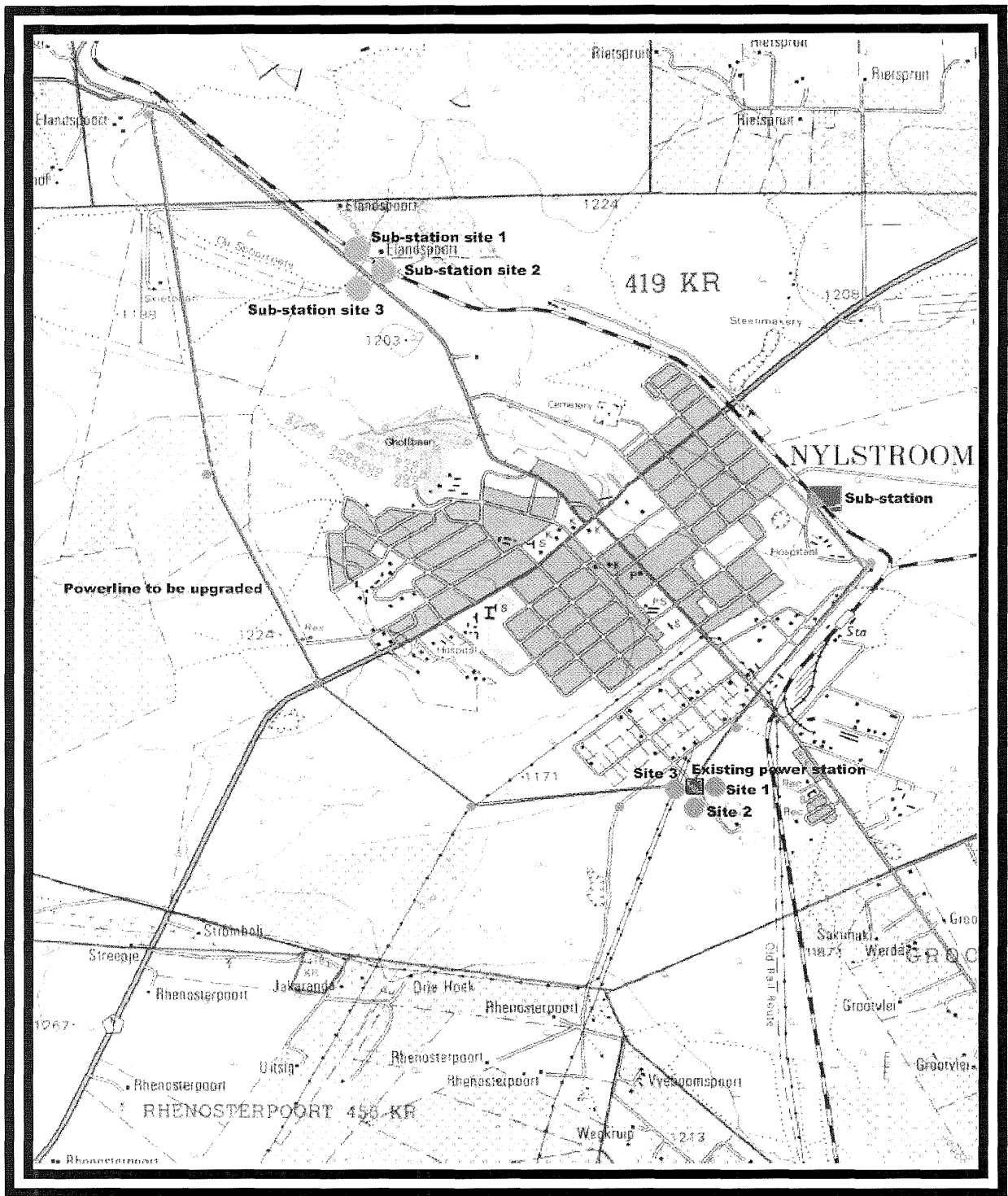


Fig. 7 General view of powerline route



Fig. 8 General view of powerline route



LOCALITY MAP 2428 CB