

PROPERTY DESCRIPTION:	ERF 9209, STELLENBOSCH
MUNICIPAL AREA:	STELLENBOSCH LOCAL MUNICIPALITY
APPLICATION:	LOCAL AUTHORITY CONSENT USE APPLICATION TO PERMIT ADDITIONAL ANTENNAS ON THE EXISTING <u>ROOFTOP BASE</u> <u>TELECOMMUNICATION STATION</u>
SITE NAME:	PROTEA TECHNOPARK



APPLICANT:	WARREN PETTERSON PLANNING (WPP)
ON BEHALF OF/ FOR	VODACOM
OWNER:	PROTEA HOTEL STELLENBOSCH
DATE:	JULY 2024

Department: Planning and Building Development Management

Stellenbosch Municipality
Municipal Manager
Town House Complex
Plein Street, Stellenbosch
7600

22 July 2024

Dear Sir/Madam

LOCAL AUTHORITY CONSENT USE APPLICATION TO PERMIT ADDITIONAL ANTENNAS ON THE EXISTING ROOFTOP BASE TELECOMMUNICATION STATION ON ERF 9209, STELLENBOSCH

Kindly find attached in this application, the motivation and relevant documentation regarding a consent use application to permit Vodacom additional antennas on the existing rooftop base telecommunication station on Erf 9209, Stellenbosch.

This proposal will be greatly beneficial for the inhabitants of Stellenbosch and surrounds. This benefit relates to the fact that an improvement will be experienced in terms of network provision, coverage, and capacity. In its end, this will enhance the level of health and safety (accessibility to emergency services e.g., ambulances, police, fire department etc.), social interaction (accessibility to social media e.g., Facebook, Instagram, Snapchat etc.) and economic efficiency (accessibility of businesses and individuals to faster, efficient, and reliable internet and communication connectivity).

This application is by no means a careless act as health and environmental aspects are taken into consideration with associated proof that this development holds no threat for inhabitants and/or commuters.

Should the need arise for additional information, please do not hesitate to contact our office. Furthermore, we wish to thank you in advance for the positive consideration of this application.

Yours faithfully,



Dirko Loots

Pr. PIn A/3308/2023

WARREN PETTERSON PLANNING

TABLE OF CONTENTS

SECTION A: BACKGROUND	6
A.1. THE APPLICATION	6
A.2. DETAILS OF THE DEVELOPMENT AREA	6
SECTION B: CONTEXTUAL INFORMANTS	7
B.1. LOCALITY	7
B.2. CURRENT LAND USE AND ZONING	7
B.3. SURROUNDING AREA	8
SECTION C: DEVELOPMENT PROPOSAL	9
C.1. APPLICATION SPECIFICATIONS	9
C.1.1 Development Concept	9
C.2. ACCESS	9
C.3. SECURITY	10
C.4. POWER	10
C.5. ENVIRONMENTAL REGULATIONS	10
SECTION D: POLICY AND LEGISLATION	11
D.1. STELLENBOSCH MUNICIPALITY TELECOMMUNICATION MAST INFRASTRUCTURE POLICY, 2016/2017	11
D.2. SPATIAL PLANNING AND LAND USE MANAGEMENT ACT, 2013	13
D.3. OTHER POLICIES AND LEGISLATION	14
D.3.1. Fifth Generation Five-Year Integrated Development Plan (2022/2027)	14
D.3.2. Stellenbosch Municipal Spatial Development Framework, 2019	14
SECTION E: MOTIVATION	15
E.1. BACKGROUND	15
E.2. DEVELOPMENT MOTIVATION	16
E.2.1. Need and Desirability	16
E.2.2.1. Choice of site	18
E.2.3. Site characteristics	19
E.2.4. Visual Impact	20
E.2.5. Alternative Sites	20
E.2.6. Health concerns	20
SECTION F: CONCLUSION	21

LIST OF FIGURES

Figure 1 - Proposed location.	6
Figure 2 - Locality map.	7
Figure 3 - Zoning extract of 'Education Zone' from Stellenbosch Municipality Zoning Scheme By-law, 2019.	8
Figure 4 - Zoning Erf 9209 and surrounding properties.	9
Figure 5 - Vodacom Network Coverage Map: 5G.	17
Figure 6 - Initial coverage (cell) provided by Telecommunication Base Station.	18
Figure 7 - Coverage decreases due to increase in network users - Cell size decreases.	18
Figure 8 - Additional telecommunication base stations required to fill the gaps.	19

LIST OF TABLES

Table 1 - Definitions	5
Table 2 - Abbreviations	5
Table 3 - Details of the Development Area.....	6
Table 4 - Current land use and zoning	7
Table 5 - Compliance of application with objectives 1-10 of the SMTMIP, 2016/2017	11
Table 6 - Compliance of application with Principles 7a-7e of SPLUMA, 2013	13

LIST OF DEFINITIONS AND ABBREVIATIONS

This section represents the definitions and abbreviations that will be found in this application.

DEFINITIONS:

Please note: For the purpose of this application and its associated descriptions and motivation, and unless it appears otherwise in the text, the terms used herein are as follows:

Table 1 - Definitions

PROPERTY:	Erf 9209, Stellenbosch
CLIENT:	Vodacom
APPLICANT:	Warren Petterson Planning
OWNER:	Protea Hotel Stellenbosch
CONSENT USE	means a land use permitted in terms of a particular zoning with the approval of the municipality
DEPARTURE	means a permanent departure or a temporary departure
RESTRICTIVE CONDITION	means any condition registered against the title deed of land restricting the use, development or subdivision of land concerned, excluding servitudes creating real or personal rights
SURVEYOR-GENERAL	means the Surveyor-General as defined in the Land Survey Act

ABBREVIATIONS:

Please note: For the purpose of this application and its associated descriptions and motivation, and unless it appears otherwise in the text, the terms used herein are as follows:

Table 2 - Abbreviations

SMDMS	Stellenbosch Municipality Development Management Scheme 2019
SMZS	Stellenbosch Municipality Zoning Scheme 2019
SPLUMA	Spatial Planning and Land Use Management Act, 2013
SMTMIP	Stellenbosch Municipality Telecommunication Mast Infrastructure Policy, 2016
RBTS	Rooftop Base Telecommunication Station
FSBTS	Freestanding Base Telecommunication Station
TI	Telecommunication Infrastructure
SG-DIAGRAM	Surveyor-General Diagram

SECTION A: BACKGROUND

A.1. THE APPLICATION

Application is hereby made for the following:

- ✓ **Consent Use in terms of the development management scheme** in terms of Section 15(2)(o) of the Stellenbosch Municipality Land Use Planning By-Law, 2023 to permit additional 5G antennas on the existing RBTS.

A.2. DETAILS OF THE DEVELOPMENT AREA

Table 3 - Details of the Development Area

TITLE DEED DESCRIPTION	Erf 9209 Stellenbosch, In the Municipality of Stellenbosch, Division Stellenbosch, in extent 3000 square meters, held by Deed of Transfer SS480/2002
TITLE DEED NUMBER	SS480/2002
PROPERTY SIZE (m²)	3000m ²
CURRENT ZONING (per SMZS)	Mixed Use
OWNER OF PROPERTY	Protea Hotel Stellenbosch



Figure 1 - Proposed location.

SECTION B: CONTEXTUAL INFORMANTS

The following section includes information relating to the locality, current land use, zoning, and surrounding area.

B.1. LOCALITY

Erf 9209, Stellenbosch is situated on Techno Avenue in Technopark, Stellenbosch. The property utilised as the Protea Hotel.

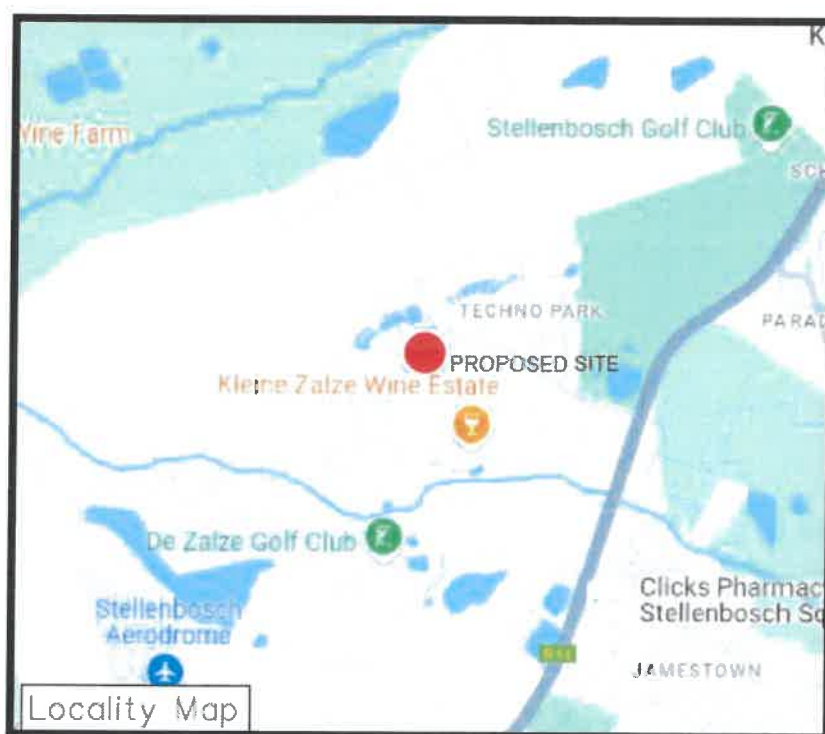


Figure 2 - Locality map

B.2. CURRENT LAND USE AND ZONING

Table 4 - Current land use and zoning

CURRENT LAND USE	Accommodation and conference venue
ZONING	Mixed Use

Primary Uses	Additional Uses (technical approval)	Consent Uses (application required)
<ul style="list-style-type: none"> • Commune • Business premises (including shops, markets, restaurants, office) • Clinic • Community residential building • Extramural facility • Flats • Guest house • Hostel • Hotel • Occasional use (one event/year) • Plant nursery • Public institution • Public parking area • Private road • Tourist dwelling unit • Tourist accommodation establishment • Welfare institution 	None	<ul style="list-style-type: none"> • Adult Entertainment • Builders yard • Commercial gymnasium • Conference facility • Day care • Filling station • Freestanding base telecommunication station • Funeral parlour • Gambling place • Helicopter landing pad • Hospital • Indoor sport • Liquor Store • Motor vehicle fitment centre • Motor showroom • Occasional use (> one event/year) • Parking garage • Place of assembly • Place of education • Place of entertainment • Renewable energy structure • Rooftop base telecommunication station • Tertiary educational institution • Warehouse

Figure 3 - Zoning extract of 'Mixed Use' from Stellenbosch Municipality Zoning Scheme By-law, 2019.

B.3. SURROUNDING AREA

Technopark is situated to the southwest of Stellenbosch. Suburbs in the surrounding area include Paradyskloof to the east, De Zalze Golf Estate to the south and Jamestown to the southeast.

The R44 to the east serves as the main distributor in the area connecting to all the way to Bergrivier Municipality in a northern direction, as well as to Overstrand Municipality in a southern direction.

Erf 9209 is zoned as Mixed Use, as well as all of the surrounding properties that form part of Technopark, Stellenbosch. Please see Figure 4 below.

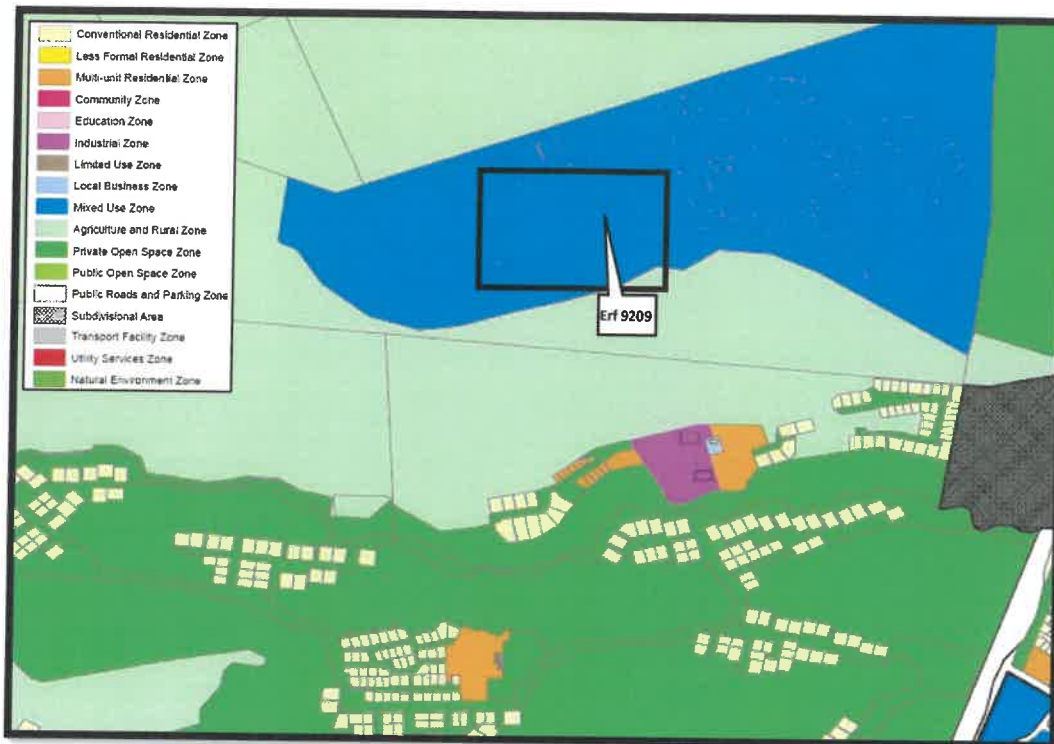


Figure 4 - Zoning Erf 9209 and surrounding properties.

SECTION C: DEVELOPMENT PROPOSAL

C.1. APPLICATION SPECIFICATIONS

The client, Vodacom, wishes to apply for consent use to permit additional antennas to the existing RBTS.

C.1.1 Development Concept

The application comprises the following proposed development parameters:

- A) 3 x Existing antenna to be swapped to a 2,1m Hexaband antenna.
- B) 3 x New 5G antennas to be installed on same pole on top of Hexaband antenna.
- C) Two radios (Wideband & Triband) to be mounted at the back of each pole.

C.2. ACCESS

Access to the proposed infrastructure will be via existing access to the Protea Hotel Stellenbosch. Access to the site will only be necessary during construction, repairs, and maintenance to antennas and / or

equipment units, which does not occur often, therefore no additional access roads is necessary / proposed.

C.3. SECURITY

The equipment located inside the containers will be secure as the equipment containers are locked at all times. Access to the antennas and the containers are controlled and limited to authorised personnel only.

These measures rule out the possibility of any public access to the equipment and serve to protect the equipment from being vandalized. Similar security measures are implemented at similar installations and have proved to be very effective.

C.4. POWER

The base station is already connected to the existing electricity supply to the property.

C.5. ENVIRONMENTAL REGULATIONS

Environmental and social sustainability are regulated by The National Environmental Management Act (Act 107 OF 1998) (NEMA) - published in Government Notice No. R324. When read together with the National Environmental Management Act Regulations Listing Notice 3 of 2017 (promulgated 08 December 2014), an Environmental Impact Assessment (EIA) or Environmental Authorization (EA) is only applicable in the following circumstances:

The development of masts or towers of any material or type used for telecommunication broadcasting or radio transmission purposes where the mast or tower:

- i) is to be placed on a site not previously used for this purpose; and*
- ii) Will exceed 15 meters in height*

But excluding attachments to existing buildings and masts on rooftops.

The requirements in the Western Cape are defined in NEMA Listing Notice 3 of 2014 (as amended 2017):

(i) Western Cape:

i. All areas outside urban areas;

ii. Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority, or zoned for a conservation purpose, within urban areas;

iii. Areas zoned for use as public open space or equivalent zoning within urban areas.

The site is a rooftop base station and does therefore not trigger any listed activities in terms of NEMA. An Environmental Authorization (EA) is therefore not required.

SECTION D: POLICY AND LEGISLATION

D.1. STELLENBOSCH MUNICIPALITY TELECOMMUNICATION MAST INFRASTRUCTURE POLICY, 2016/2017

For ease of reference the table below illustrates how this proposal complies with the STMIP, 2016/2017 (Table 5).

Table 5 - Compliance of application with objectives 1-10 of the SMTMIP, 2016/2017

	Objective content:	Compliance to Objective
O₁	<i>To improve and maintain communication</i>	This application is in line with this objective as it aims at providing the inhabitants of the said neighbourhood with effective and efficient voice and data coverage and capacity.
O₂	<i>To ensure that the TMI is placed in the best possible location</i>	The location of the existing and proposed additional antennas is positioned optimally between existing sites to ensure that no additional masts will be required to serve the surrounding area. Additional coverage and capacity are required as a larger number of users make use of the surrounding base stations, overloading the network.
O₃	<i>To ensure the co-location or sharing of TMI wherever possible</i>	Other service providers can co-locate on the building upon the approval of the municipality.
O₄	<i>To retain the visual integrity, special character and amenity of the Stellenbosch Municipality</i>	This is an existing site. The proposed additional antennas will have no impact on the external engineering services, on transport or traffic related considerations, or on the biophysical environment. Every possible measure has been taken to make the design as aesthetically pleasing as possible. Antennas can be painted the same colour to match the buildings colour.

05	<i>To design with the landscape and use modern mitigation measures to reduce impact</i>	This is an existing site. The proposed additional antennas will have no impact on the external engineering services, on transport or traffic related considerations, or on the biophysical environment. Every possible measure has been taken to make the design as aesthetically pleasing as possible. The existing antenna will be replaced by new 2,1m Hexaband antenna in order to make space for the 5G Antenna. This will be on the same existing pole so that it stays as neat towards the surrounding area. Antennas can be painted the same colour to match the buildings colour.
06	<i>To retain and improve the environmental and heritage quality of the public arena</i>	The proposal has no impact on the environmental and heritage quality of the public arena.
07	<i>To ensure that wherever possible, TMI is not situated within an area of environmental or heritage significance</i>	This application will have no effect on the natural or cultural (heritage) environment.
08	<i>TMI must be situated and operated in a manner so as not to interfere with any other utility functions</i>	This application is in line with this objective as no utility services are nearby and the equipment being used is ICASA approved.
09	<i>Where possible TMI should be placed on other structures such as light posts, road signs etc.</i>	The site is situated on the Protea Hotel building thus fully complying with this objective.
010	<i>To protect the health, safety and wellbeing of the inhabitants of Cape Town</i>	The equipment located inside the containers will be secure as the equipment containers are locked at all times. Access to the antennas and the container are controlled and limited to authorised personnel only. There are no habitable structures within 50m directly in front of the antennas (Please refer to the <i>Health Issues – ICNIRP and World Health Organisation</i> - section in this motivation). Also see public safety zones illustrated on the drawings submitted herewith.

D.2. SPATIAL PLANNING AND LAND USE MANAGEMENT ACT, 2013

This application complies with the land development principles (Chapter 2, SPLUMA, 2013) as referred to in section 42 of the *Spatial Planning Land Use Management Act, 2013* (Act 16 of 2013) (SPLUMA):

Table 6 - Compliance of application with Principles 7a-7e of SPLUMA, 2013

	HOW DOES THIS APPLICATION COMPLY WITH THIS PRINCIPLE?
<u>Principle 7a:</u> <i>Spatial Justice</i>	In a broader sense, spatial justice refers to an intentional incorporation of spatial (geographical) aspects. This refers to the fair and equally distributed services and enhanced accessibility of these services. The aim of this proposal is to provide excellent communication service to the inhabitants of an area.
<u>Principle 7b:</u> <i>Spatial Sustainability</i>	Spatial sustainability is an explicit concept which describe the relations between environmental, economic, and socio-cultural facets related to a societal environment. Enhanced coverage and capacity in an area will promote all three the dimensions of sustainability (economic, social, and environmental facets). Economically, businesses in the area will benefit from enhanced connectivity. The social facet is addressed as more people will have access to emergency services (e.g., Healthcare, Police, Fire response etc.). The third dimension (Environmental facets) will be promoted as the sensible placement of rooftop telecommunication base stations and the possibility of co-location will limit the number of base stations should there be sufficient signal in an area.
<u>Principle 7c:</u> <i>Spatial Efficiency</i>	Spatial efficiency relates to the concept of minimum distance to be travelled between a specific location and intended destination. FSTBS and RBTS are placed in an area (optimally situated between planned and existing stations) with a reason. This reason is to incorporate various factors (e.g., number of users, quality of service etc.) when considering the placement to promote effectiveness and is not merely placed by random.
<u>Principle 7d:</u> <i>Spatial Resilience</i>	Spatial resilience can be defined as the ability of a region to withstand possible arising shocks (e.g., economic crisis, social disruptions etc.). However, FSTBS and RBTS will be a service that will always be necessary. In a state of crisis, communication plays an integral role in a societal environment.
<u>Principle 7e:</u> <i>Good administration</i>	This installation will be lawful and reasonable, following an equal and fair public participation process to incorporate the views and opinions of all relevant parties.

D.3. OTHER POLICIES AND LEGISLATION

Other policies and legislative frameworks include Stellenbosch's fifth generation five-Year Integrated Development Plan 2022/2027, and the Stellenbosch Municipality Spatial Development Framework (SMSDF), 2019.

D.3.1. Fifth Generation Five-Year Integrated Development Plan (2022/2027)

The Five-Year IDP (2022/2027) refers to the enhancement of TI to provide Stellenbosch with information communicative technologies as set out in section 6.3.12.

"ICT Systems and Services are playing an ever-increasing role as a strategic enabler of organisational transformation and service delivery in the public sector"

Based on the above, the upgrade of existing telecommunication infrastructure is important so that all requirements in terms of objectives for strategic goals are met. This is highlighted further under 6.3.12.3 on page 169 in IDP where the "ICT Department will continue to strive in achieving its goals to close the gap between the municipality and the community by improving services and engagement" These goals include:

- "Understanding the needs of the community
- Always deliver a consistent and quality service; and
- Manage the relationships with vendors and stakeholders providing a service to the public"

This application is in line with addressing these ICT goals above as the upgraded TI to be installed on the said property will provide the sought-after services (e.g. Optic-Fibre, 4G, 5G and LTE coverage).

The IDP also emphasis that the municipality use information and communication technology to create a Smart City which is part of the Council Term Projects 2022-2027 (Stellenbosch IDP, 2022-2027: 172).

D.3.2. Stellenbosch Municipal Spatial Development Framework, 2019

The proposed application is by no means a careless act as it complies with the Integrated Development Plan (IDP) principles as set out in the Stellenbosch Municipal Spatial Development Framework, 2019. These principles are also echoed in the National Development Plan (NDP) and the Provincial Spatial Development Framework (PSDF). The core focus of the IDP principles and the MSDF, are to ensure the spatial transformation through the integration of communities. Spatial transformation in this sense is only possible through the development of denser and more inclusive neighbourhoods. Denser and more inclusive neighbourhoods are possible through the harness of advances in energy, water, transport and telecommunication to improve resource efficiency. Therefore, this application is in-line with the MSDF of Stellenbosch.

SECTION E: MOTIVATION

This section is the motivation of the application as it provides information regarding the need and desirability, development parameters, site characteristics, visual impact, health and safety and alternative candidates relating to this specific application.

E.1. BACKGROUND

Over recent years cellular communication in South Africa has evolved from merely a means of convenience to an essential business tool, means of communication and safety measure. Initial high tariff rates limited the accessibility of the product and its service. However, over time more reasonable consumer tariffs and packages have been introduced, making cellular communications more accessible to a much larger sector of the population.

Data usage on the mobile networks is also becoming faster, more affordable, and more accessible. User behaviour patterns are continuously changing in reaction to cheap internet, new data intensive smartphones, data intensive applications and websites, and an increasingly social-media-driven society. These factors resulted in the average consumer data usage doubling every year.

The current cellular infrastructure is not equipped to handle this level of high demand. As a result, the networks become congested with connection problems and dropped calls on the voice network and limited or unstable internet connections on the data network.

Cellular service providers are taking steps to improve their network by keeping abreast with the advances in communication technology and providing increased capacity in terms of coverage in the areas where there is an increased demand. Vodacom strives to make this technology available to a wider spectrum of the population.

Newer technology such as LTE provides faster internet to more users which alleviates the pressure on the base station, however its range is very limited. A single old generation GSM voice based base station could cover dozens of kilometres. The new LTE base stations have a maximum coverage range of 500m depending on the number of users.

The congestion of existing sites together with the decrease in its coverage range necessitates that the distance between base stations decreases, resulting in the need for construction of new freestanding and rooftop telecommunication base stations.

It is estimated that cellular network operators in South Africa will build more than 4000 new base stations (upgrades) over the next 5 years.

The proposed site is located at a nominal point as identified by Vodacom. By utilizing sites located at the networks' nominal points the number of future base stations is limited and an effective service network can be developed.

E.2. DEVELOPMENT MOTIVATION

Please read together with previous sections in this application. This consent use to permit additional antennas on the existing rooftop base telecommunication station on Erf 9209, Stellenbosch should be supported based on the following grounds:

E.2.1. Need and Desirability

In a modern-day society, the dependency on communicative technology becomes increasingly higher. This is due to the society's utilisation of more mobile devices and more than one device per household which mainly relies on internet connectivity (e.g., smartphones, portable computers, tablets/iPads etc.). These devices are used for multiple purposes including socialisation, business related uses and accessibility to important emergency services. Due to factors including densification, urbanisation and influx of seasonal guests especially over festive seasons and holidays, in a tourist attractive place like Stellenbosch dropped calls and poor network coverage (related to both voice and data) could be experienced due to some capacity constraints. Since the pandemic of Covid-19, more people are working from home than ever before, putting the existing networks under significant additional pressure, thus the need for capacity in residential areas are justified even though there might be coverage.

Vodacom identified several positions in the area that need to be equipped with base stations to alleviate the pressure and to cater for the ever-increasing demand.

The existing site is located at a nominal point as identified by network planners. By utilizing sites located at the network's nominal points the number of future base stations are limited and an effective service network can be developed.

The existing rooftop base telecommunication station does not interfere with the current use of the property or impact on the surrounding land uses. It does however provide an essential service to the surrounding community.

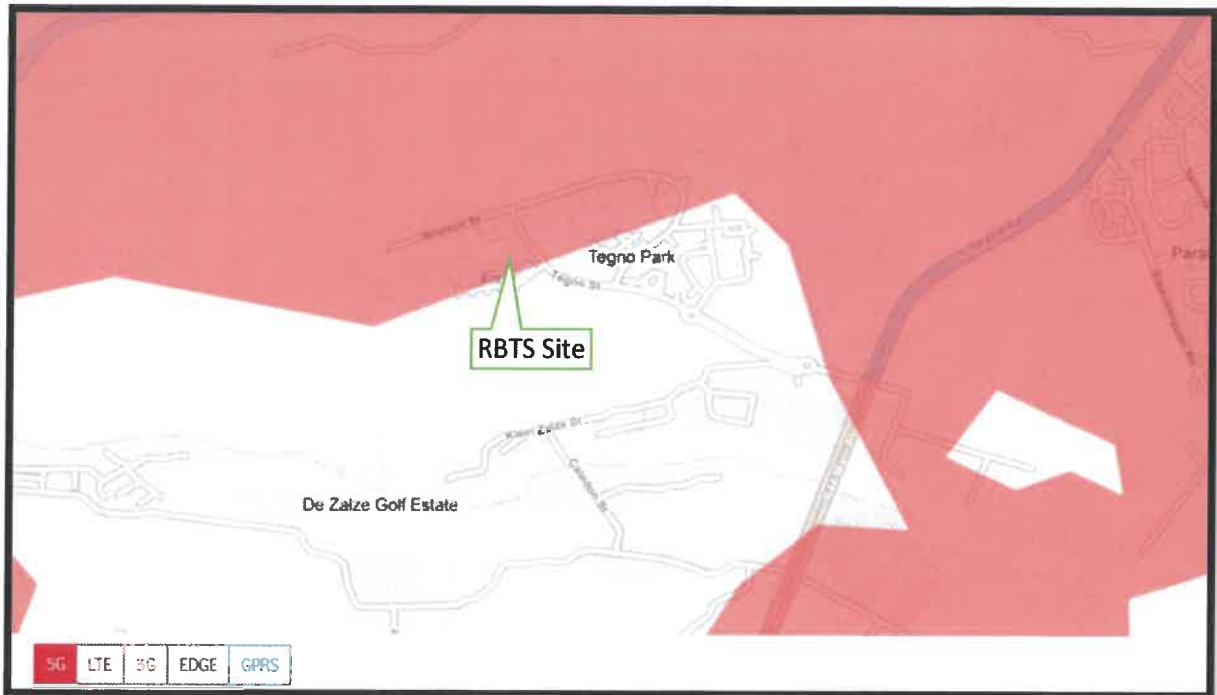


Figure 5 - Vodacom Network Coverage Map: 5G.

Figure 5 illustrates the current 5G coverage in and around the area of the site in Technopark, Stellenbosch. It is clear from the map provided above that there is a need for additional TI in the immediate surrounding area of the site. Therefore, the existing RBTS and additional antennas, as proposed in this application, will increase the coverage and capacity in this area.

The increase in network strength brought by the existing and proposed upgrades will aid the local businesses and can unlock growth potential which will have a positive economic impact. Residents, businesses and commuters will have a more secure connection to emergency services and armed response which will have a huge social impact.

The proposed RBTS (upgrade) will not interfere with the current use of the property and there are no negative impacts on the surrounding land uses and environment. No trees need to be removed to build the base station and no buildings with heritage value will be affected.

The proposed/existing use will have no impact on the external engineering services, on transport or traffic related considerations, or on the biophysical environment. Every possible measure has been taken to make the design as aesthetically pleasing as possible.

It is our submission that the proposed/ existing use will have no detrimental impact on the surrounding properties and will provide an essential service to the surrounding community.

E.2.2.1. Choice of site

As an increase in the number of users occurs in the area, the area which is covered by the existing network decreases, leading to poorer network coverage. Figures 6-8 strive to explain how the need for an increase in cellular infrastructure evolves in a typical urban area.

Cellular infrastructure explained:

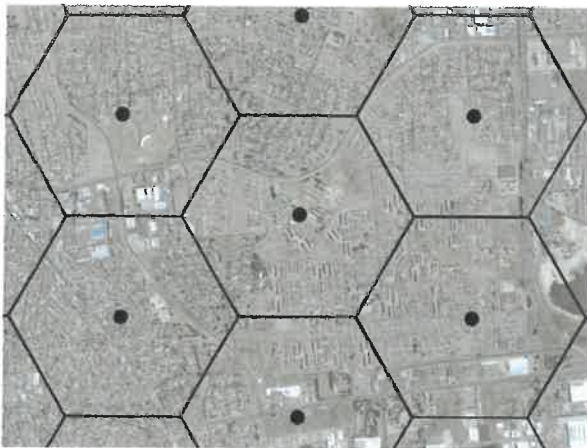
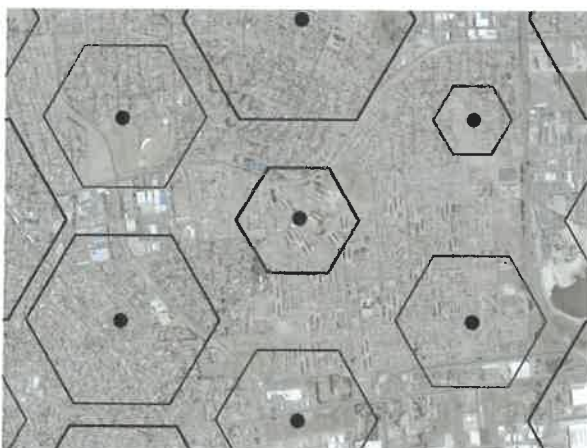


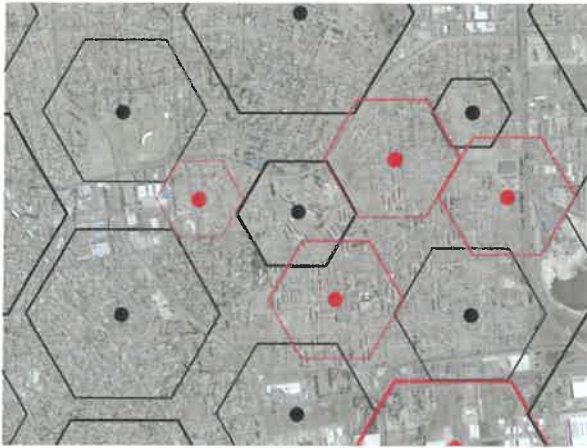
Figure 6 is an illustration of optimum network and data coverage. This is explained by envisioning the octagonal shape of a honeycomb (cells).

Figure 6 - Initial coverage (cell) provided by Telecommunication Base Station.



As network users increase, the cells shrink which leads to gaps within this network of cells. This leads to dropped calls, weak/limited signal and the failure to access the latest technologies in communication innovations.

*Figure 7 - Coverage decreases due to increase in network users
- Cell size decreases.*



Gaps between cells require new/additional telecommunication base stations to be placed in these gaps to retain good network coverage

Figure 8 - Additional telecommunication base stations required to fill the gaps.

Locations for telecommunication infrastructure are primarily chosen within areas where a need exists for coverage (refer to Figure 6-8). This need for coverage arises from the daily use of mobile devices by people in the modern world we live in today. If a need for coverage does not exist in a specific area, no company would invest capital to build a telecommunication base station in the said area.

E.2.3. Site characteristics

Special consideration is given to geographical aspects so that each base station is positioned to ensure optimum functionality. This reduces the number of base stations necessary to provide an optimal network. At the same time, special attention is also given to ensure that there is minimal impact on the local, social, physical, natural and visual environments.

The site was selected for a number of reasons, namely:

- The rooftop base telecommunication station is existing, and this application aims to retain the service currently provided,
- It is situated optimally between planned and existing sites,
- It is accessible to contractors during maintenance,
- The location of the base station is the best solution to the coverage problem of the area with the least negative impacts,
- The rooftop base telecommunication station is secure due to its position on the roof as well as the existing equipment inside the secured containers, and

- Most importantly it serves a complaint area (the area with the lowest levels of cellular reception due to locality and high volumes of users) optimally.
- Currently many people are still working from home since the Covid – 19 lockdown period and more coverage/capacity is needed than before, therefore this highlights the importance of the proposed RBTS (Additional antennas).
- This proposed RBTS (Additional antennas) will be beneficial to the Stellenbosch area and the surrounding communities.

E.2.4. Visual Impact

This is an existing rooftop base telecommunication station, and no additional masts are planned at this site. The visual impact of the above site is therefore argued to be acceptable.

E.2.5. Alternative Sites

Alternative sites have not been considered for this proposal as this is an existing site. Alternatives would mean erecting a mast in a different location which will have a far greater visual impact in the area.

E.2.6. Health concerns

There has been increasing public concern about health risks associated with cellular communication. Current scientific research is yet to produce conclusive evidence suggesting adverse health effects associated with, working with or living close to cellular technology. Although antennas and base stations emit radio waves, their frequency is not considered high enough to pose a health risk. Antennas mounted on towers, masts or any other structures are usually substantially elevated above ground level, and as radio waves are emitted at this level thereby further reducing the amount of radiation at ground level. Furthermore, regular tests regarding the compliance to safety regulations add to reducing the health risk factor.

South Africa's Department of Health has published EMF exposure limit guidelines. These are based on guidelines endorsed by the ICNIRP (International Commission on Non-Ionising Radiation Protection), an independent scientific organization established in 1992. Emissions from the base stations and antennas comply with these guidelines.

In a statement made by the Department of Health dated 8 September 2020 on the Health Effects of base stations states the following:

“Considering the very low exposure levels and research results collected to date, there is no convincing scientific evidence that the weak RF signals from base stations and wireless networks cause adverse health effects”

“A large number of studies have been performed over the last two decades to assess whether mobile phones pose a potential health risk. To date, no adverse health effects have been established as being caused by mobile phone use”

There are no conclusive studies linking emissions at these levels to any health effects and scientific research that may reveal such a link is ongoing. The steps taken by the cellular communication companies to ensure the safety of the public against any possible harmful emissions, along with the above facts, concerns about health issues can be allayed.

SECTION F: CONCLUSION

This consent use application for the proposed additional antennas for Vodacom on Erf 9209 in the Municipality of Stellenbosch, will provide an essential and sought after service to the surrounding community, businesses, university and commuters. This application is in line with the current policy and legislation on a local level. Furthermore, this application complies with the Five-Year Integrated Development Plan (2022/2027), and the Stellenbosch Municipal Spatial Development Framework, 2019.

We would like to emphasise the positive contribution this base station will have on the immediate as well as the surrounding community and passing commuters:

- Most households in the surrounding area depend on the services of the cellular telecommunications providers, including internet and social networking media (Facebook, Twitter etc.) – especially since the pandemic of Covid-19 resulted in more people working from home, putting the existing networks under significant additional pressure, thus the need for capacity in residential areas are justified even though there might be coverage. With such a high demand for their products, it follows that service providers are responsible for supplying a high level of network coverage.
- *Please note:* The residents in the area are not the only ones being provided with these services. Visitors to the area, school learners and university students, businesses and daily commuters will benefit by having access to improved communication facilities.
- Mobile communication has become an important safety and security element in modern society. In an emergency, such as housebreaking, medical alert or fire, a member of a household can quickly and easily contact the emergency services for help. However, if the coverage of mobile service providers’ is poor, then contacting emergency services becomes a difficult task.

Finally, we would like to emphasize that communications companies deliver an important service to the wider public, and in terms of their license with ICASA they must meet certain standards in order to retain their licenses. One of these standards is to supply adequate network coverage to their demanding

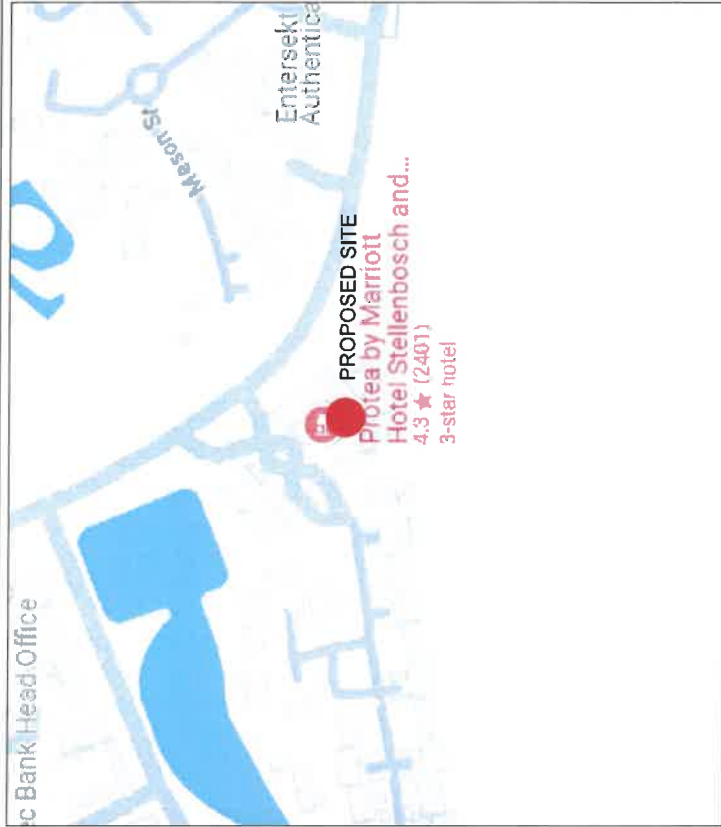
customers. The proposal also allows for all other service providers to share this installation and refrain from constructing another base station in this area.

Please notify us should any additional information be required. We look forward to your positive consideration of this application.

Yours faithfully,



Dirko Loots
Pr. Pln A/3308/2023
WARREN PETTERSON PLANNING



VODACOM SITE ID:
BS16499

VODACOM SITE NAME:
PROTEA TECHNOPARK

PROPERTY DESCRIPTION:
ERF 9209 STELLENBOSCH

ADDRESS:
TECHNO AVENUE, TECHNO PARK,
STELLENBOSCH, WESTERN CAPE

CO-ORDINATES:
Lat: -33.966234°
Long: 18.834243°

ELEVATION:
136m

TOWN AND REGIONAL PLANNING CONSULTANTS
Unit H, 3rd Floor
Main Building, Bridgeway,
Century City, Cape Town
Tel: 021 552 5255
Fax: 086 537 6187

PROJECT:
EXISTING ANTENNAS TO BE REPLACED WITH
HEXABAND AND 5G ANTENNAS

NOTES:
A) EXISTING ANTENNAS TO BE REPLACED WITH
HEXABAND AND 5G ANTENNAS
B) EXISTING ROOFTOP BASE STATION
C) ZONING: MIXED USE ZONE

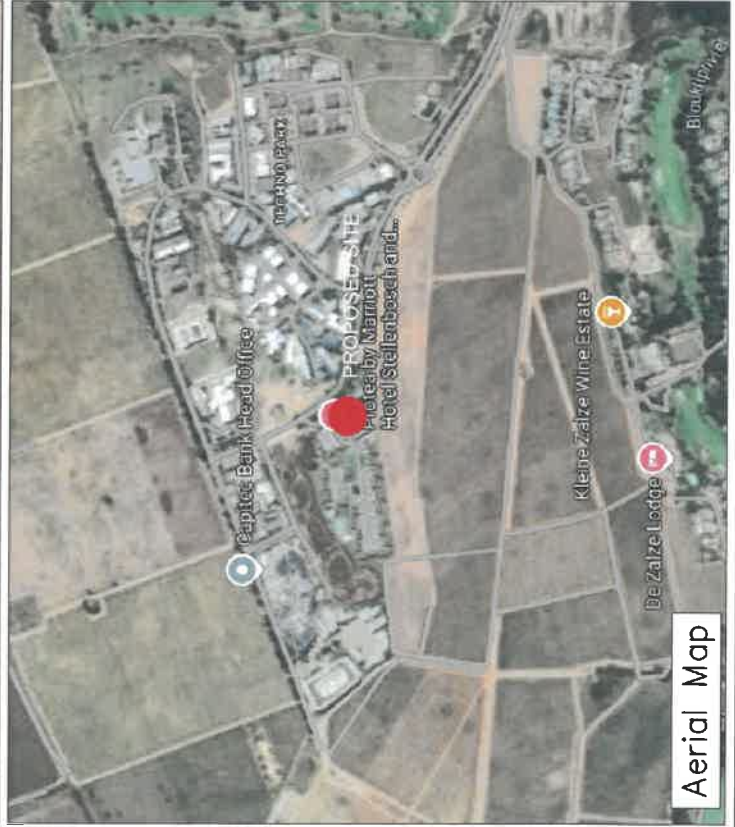
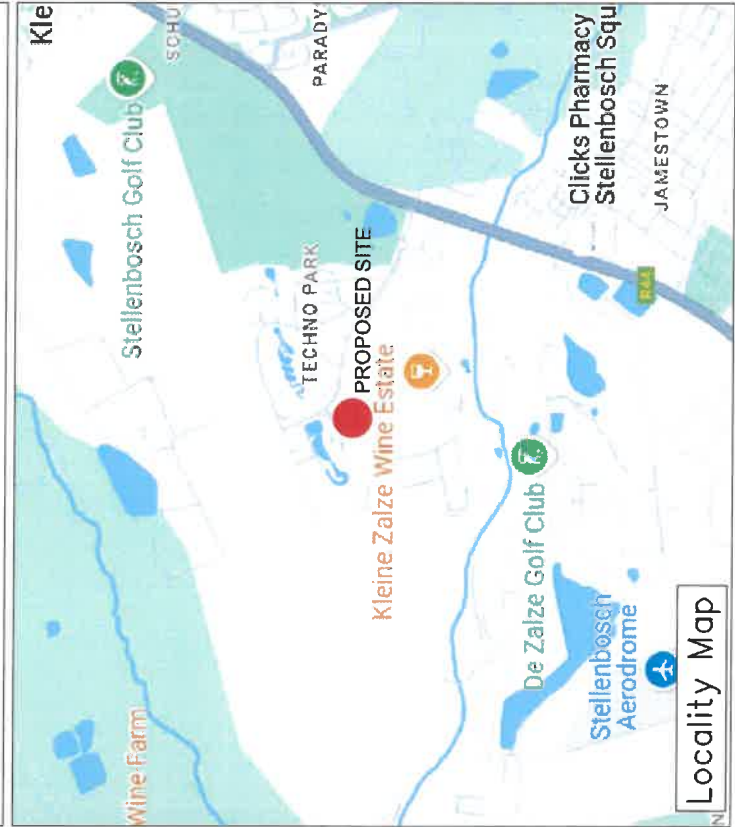
DATE: 05-04-2024
DESCRIPTION: 1st Issue
REVISION: 0

DRAWING NUMBER: BS16499
SHEET: 1 OF 7

DRAWING TITLE: LOCALITY MAP

DRAWN: D. LOOTS
SCALE: NTS

DATE: 2024-04-05
REVISION: 0



TOWN AND REGIONAL PLANNING CONSULTANTS
Unit H, 3rd Floor
Main Building, Bridgeway,
Century City, Cape Town
Tel: 021 552 5255
Fax: 086 537 6187

PROJECT:
EXISTING ANTENNAS TO BE REPLACED WITH
HEXABAND AND 5G ANTENNAS

NOTES:
A) EXISTING ANTENNAS TO BE REPLACED WITH
HEXABAND AND 5G ANTENNAS
B) EXISTING ROOFTOP BASE STATION
C) ZONING: MIXED USE ZONE

DATE: 05-04-2024
DESCRIPTION: 1st Issue
REVISION: 0

DRAWING NUMBER: BS16499
SHEET: 1 OF 7

DRAWING TITLE: LOCALITY MAP

DRAWN: D. LOOTS
SCALE: NTS

DATE: 2024-04-05
REVISION: 0

Site Plan



vodacom

VODACOM SITE ID:

BS16499

VODACOM SITE NAME:

PROTEA TECHNO PARK

PROPERTY DESCRIPTION:

ERF 9209 STELLENBOSCH

ADDRESS:

TECHNO AVENUE, TECHNO PARK,
STELLENBOSCH, WESTERN CAPE

CO-ORDINATES:

Lat: -33.966234°
Long: 18.834243°

ELEVATION:

135m



TOWN AND REGIONAL PLANNING CONSULTANTS

Tel: (021) 552 5255
Fax: 066 537 9187
Unit H, 3rd Floor
Matrix Building, Bridgeway,
Century City, Cape Town
7445
Po Box 152,
Century City,
7445

PROJECT:

EXISTING ANTENNAS TO BE REPLACED WITH HEXABAND AND 5G ANTENNAS

NOTES:

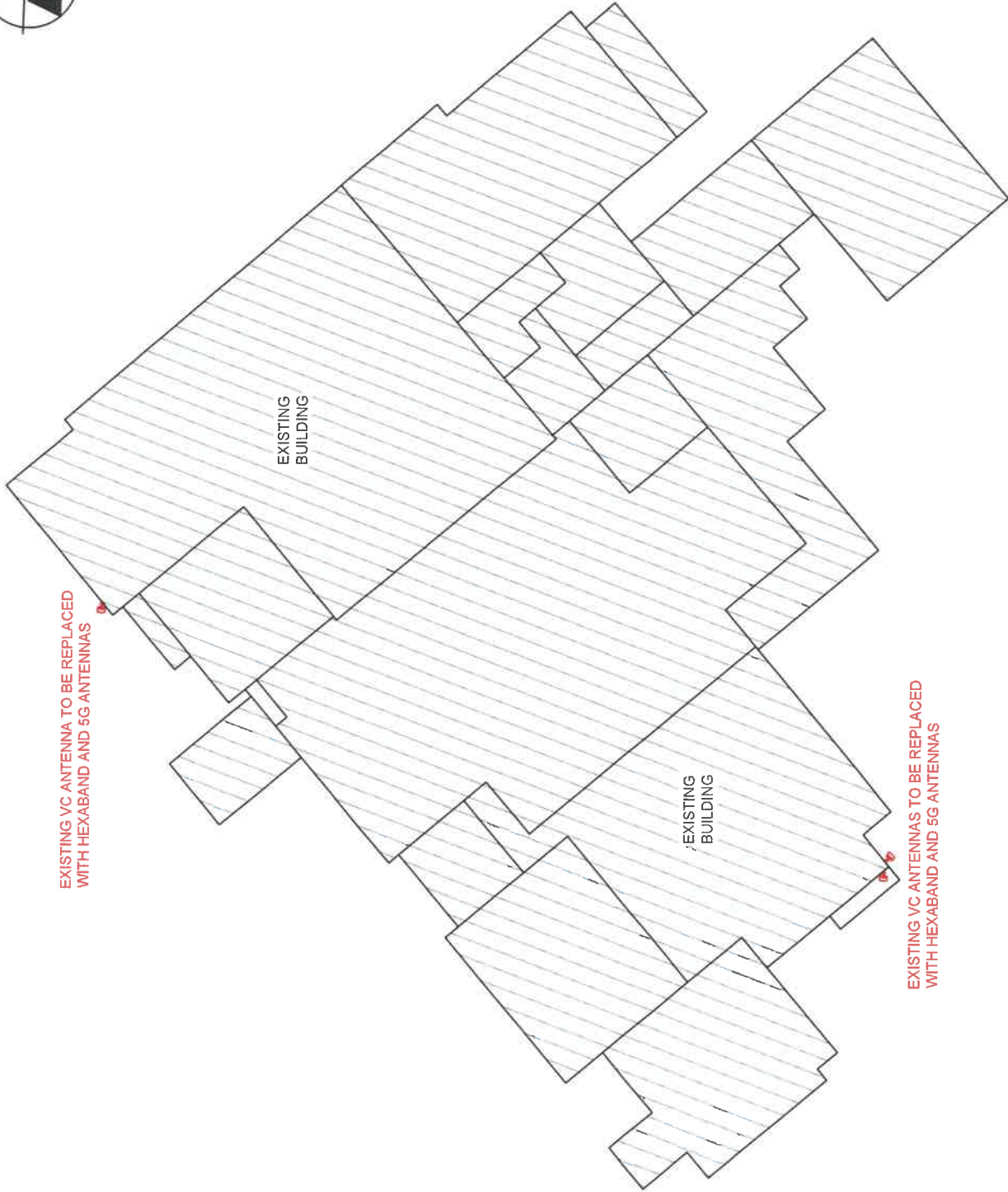
- A) EXISTING ANTENNAS TO BE REPLACED WITH
HEXABAND AND 5G ANTENNAS
B) EXISTING ROOFTOP BASE STATION
C) ZONING: MIXED USE ZONE

BUILDING LINES CALCULATION:

$$\frac{1}{2}(H-25m) = \frac{1}{2} \times 2m = 1m$$

DATE	DESCRIPTION	REVISION
05-04-2024	1st Issue	0
DRAWING NUMBER: BS16499		SHEET: 2 OF 7
DRAWING TITLE: SITE PLAN		
DRAWN: D. LOOTS		SCALE: 1"=2000
DATE: 2024-04-05		REVISION: 0

Top View



vodacom

VODACOM SITE ID:

BS16499

VODACOM SITE NAME:

PROTEA TECHNOPARK

PROPERTY DESCRIPTION:

ERF 9209 STELLENBOSCH

ADDRESS:

TECHNO AVENUE, TECHNO PARK,
STELLENBOSCH, WESTERN CAPE

CO-ORDINATES:

Lat: -33.966234°

Long: 18.834243°

ELEVATION:

136m



TOWN AND REGIONAL PLANNING CONSULTANTS

Unit H, 3rd Floor

Main Building, Bridgeway,

Century City, Cape Town

Po Box 152,

Century City,

7446

PROJECT:

EXISTING ANTENNAS TO BE REPLACED WITH
HEXABAND AND 5G ANTENNAS

NOTES:

A) EXISTING ANTENNAS TO BE REPLACED WITH

HEXABAND AND 5G ANTENNAS

B) EXISTING ROOFTOP BASE STATION

C) ZONING: MIXED USE ZONE

DATE	DESCRIPTION	REVISION
05-04-2024	1st Issue	0

DRAWING NUMBER: BS16499

SHEET:

3 OF 7

DRAWING TITLE:

TOP VIEW

DRAWN: D. LOOTS

SCALE:

1:500

DATE: 2024-04-05

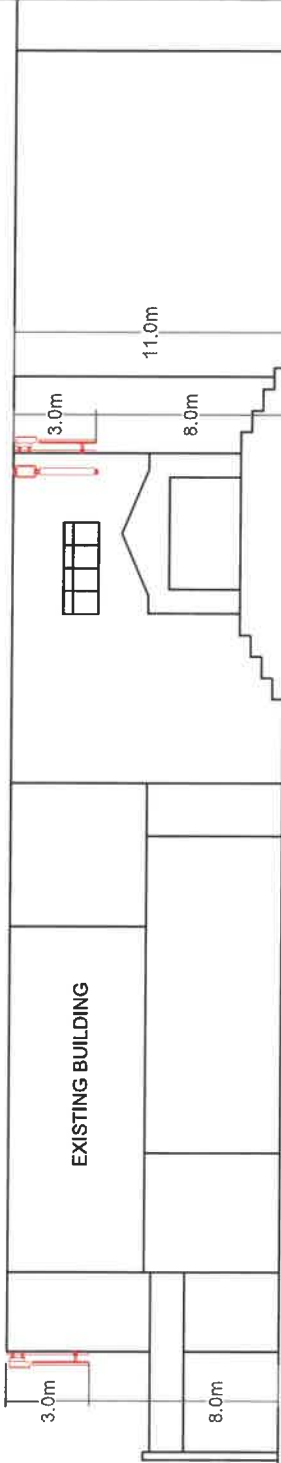
REVISION:

0

Elevation

EXISTING VC ANTENNA TO BE REPLACED
WITH HEXABAND AND 5G ANTENNAS

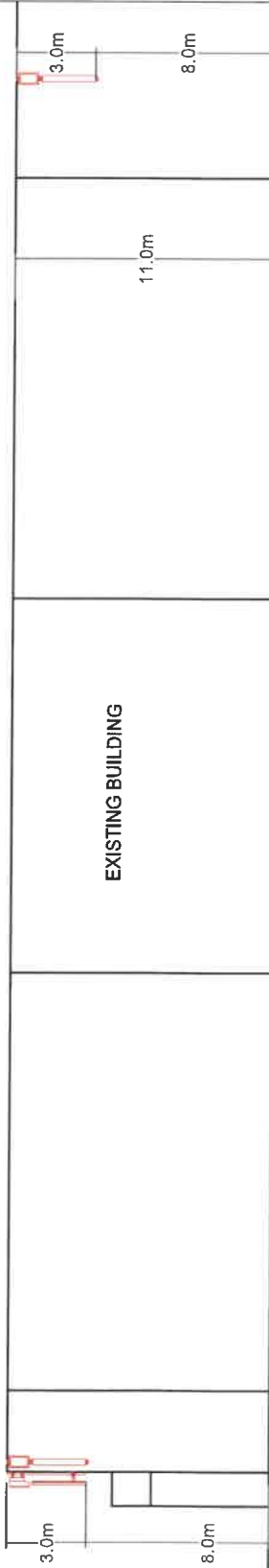
EXISTING VC ANTENNAS TO BE REPLACED
WITH HEXABAND AND 5G ANTENNAS



SOUTHWESTERN ELEVATION

EXISTING VC ANTENNA TO BE REPLACED
WITH HEXABAND AND 5G ANTENNAS

EXISTING VC ANTENNAS TO BE REPLACED
WITH HEXABAND AND 5G ANTENNAS (OTHER
SIDE OF BUILDING)



SOUTHEASTERN ELEVATION



vodacom

VODACOM SITE ID: BS16499

VODACOM SITE NAME: PROTEA TECHNOPARK

PROPERTY DESCRIPTION:

ERF 9209 STELLENBOSCH

ADDRESS:
TECHNO AVENUE, TECHNO PARK,
STELLENBOSCH, WESTERN CAPE

CO-ORDINATES: ELEVATION:
Lat: -33.966234° 136m
Long: 18.834243°



TOWN AND REGIONAL PLANNING CONSULTANTS
Tel: (021) 552 5295 Unit H, 3rd Floor Po Box 152,
Fax: 086 537 9187 Matrix Building, Bridgeway, Century City,
Century City, Cape Town 7448

PROJECT:
EXISTING ANTENNAS TO BE REPLACED WITH
HEXABAND AND 5G ANTENNAS

NOTES:

- A) EXISTING ANTENNAS TO BE REPLACED WITH
HEXABAND AND 5G ANTENNAS
- B) EXISTING ROOFTOP BASE STATION
- C) ZONING: MIXED USE ZONE

DATE	DESCRIPTION	REVISION
05-04-2024	1st Issue	0

DRAWING NUMBER: BS16499 SHEET: 4 OF 7

DRAWING TITLE: ELEVATION

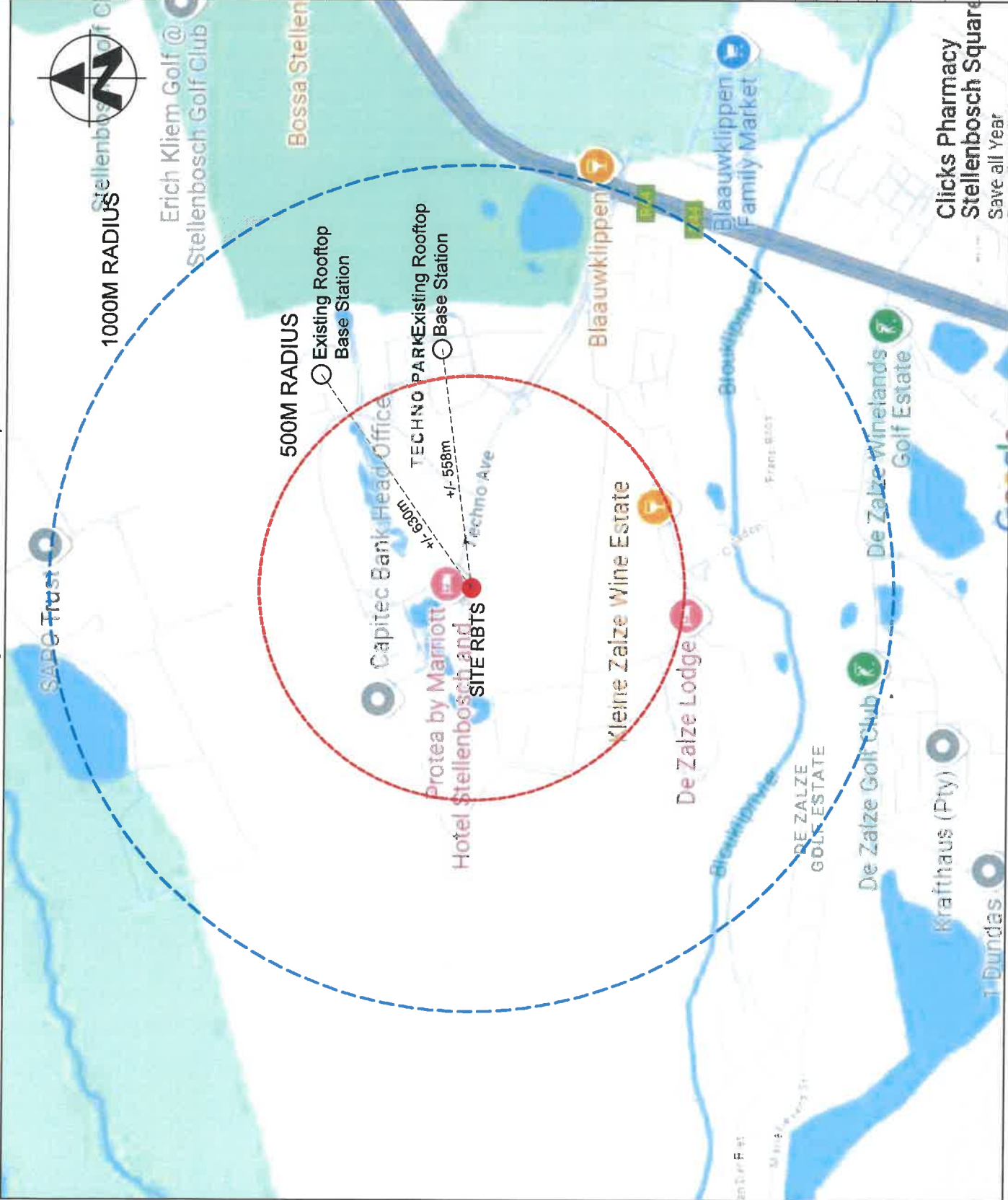
DRAWN: D. LOOTS

SCALE:
NTS

DATE: 2024-04-05

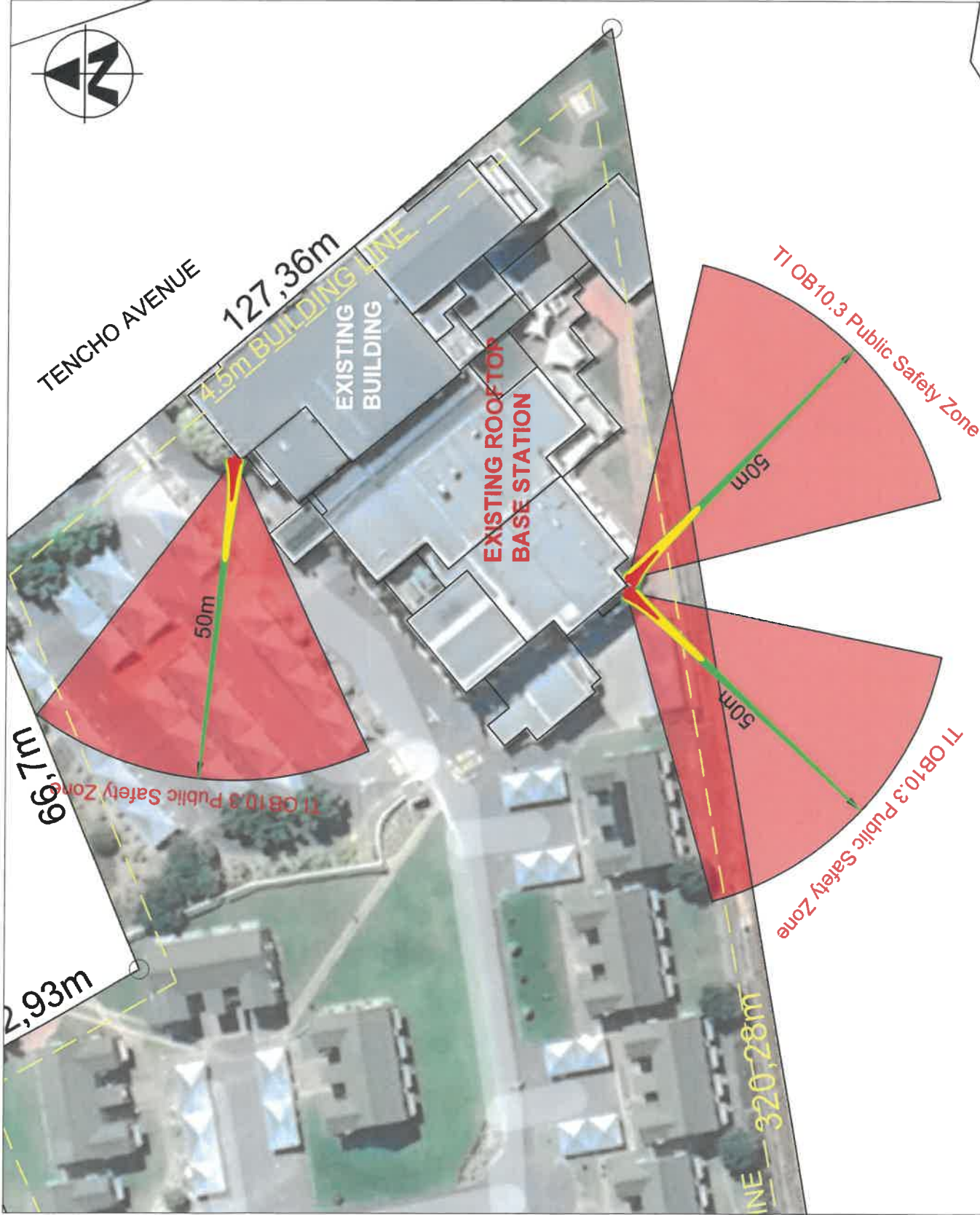
REVISION:
0

Surrounding Base Station Map



<div> vodacom</div>		
<u>VODACOM SITE ID:</u> BS16499		
<u>VODACOM SITE NAME:</u> PROTEA TECHNOPARK		
<u>PROPERTY DESCRIPTION:</u> ERF 9209 STELLENBOSCH		
<u>ADDRESS:</u> TECHNO AVENUE, TECHNO PARK, STELLENBOSCH, WESTERN CAPE		
<u>CO-ORDINATES:</u> Lat: -33.966234° Long: 18.834243° <u>ELEVATION:</u> 138m		
<div> TOWN AND REGIONAL PLANNING CONSULTANTS Unit H 3rd Floor Maritz Building, Bridgeway, Century City, Cape Town Tel: (021) 592 5259 Fax: 086 537 9187 P.O. Box 152, Century City, 7446</div>		
<u>PROJECT:</u> EXISTING ANTENNAS TO BE REPLACED WITH HEXABAND AND 5G ANTENNAS		
<u>NOTES:</u> A) EXISTING ANTENNAS TO BE REPLACED WITH HEXABAND AND 5G ANTENNAS B) EXISTING ROOFTOP BASE STATION C) ZONING: MIXED USE ZONE		
DATE	DESCRIPTION	REVISION
05-04-2024	1st Issue	0
<u>DRAWING NUMBER:</u> BS16499		
<u>SHEET:</u> 5 OF 8		
<u>DRAWING TITLE:</u> SURROUNDING BASE STATIONS		
<u>DRAWN:</u> D. LOOTS		<u>SCALE:</u> NTS
<u>DATE:</u> 2024-04-05		<u>REVISION:</u> 0

Public Safety Zone Map



vodacom

VODACOM SITE ID:

BS16499

VODACOM SITE NAME:

PROTEA TECHNOPARK

PROPERTY DESCRIPTION:

ERF 9209 STELLENBOSCH

ADDRESS:

TECHNO AVENUE, TECHNO PARK,
STELLENBOSCH, WESTERN CAPE

CO-ORDINATES:

Lat: -33.966234°
Long: 18.834243°

ELEVATION:

136m



TOWN AND REGIONAL PLANNING CONSULTANTS

Tel: (021) 652 5255

Unit 11, 3rd Floor

Metropole Building, Bridgeway,

Century City, Cape Town

Post Box 152,

Century City, 7746

PROJECT:

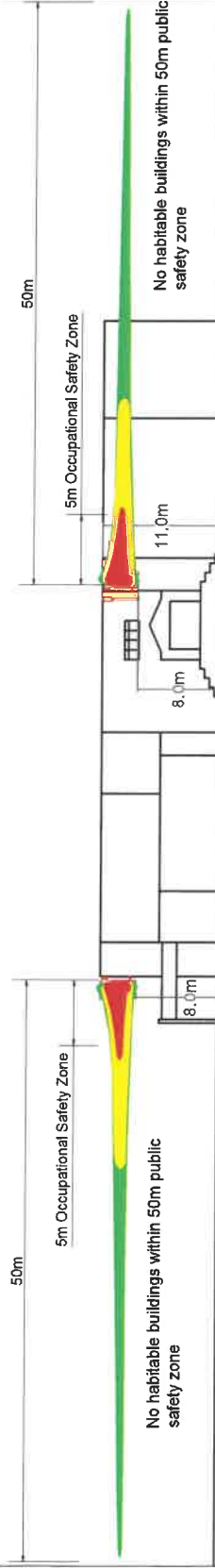
EXISTING ANTENNAS TO BE REPLACED WITH
HEXABAND AND 5G ANTENNAS

NOTES:

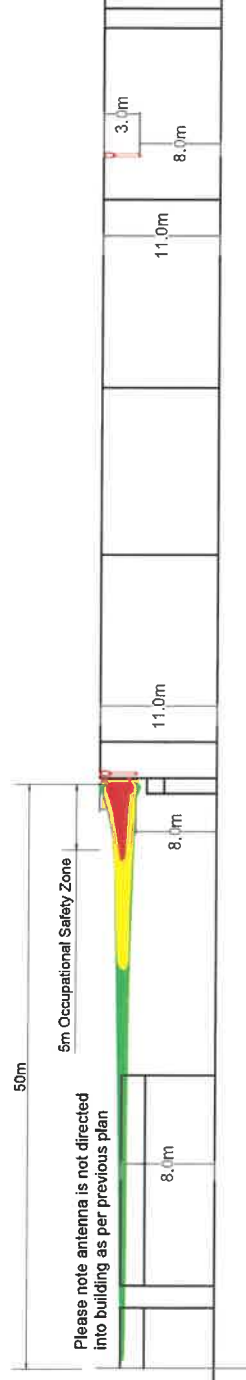
- A) EXISTING ANTENNAS TO BE REPLACED WITH
HEXABAND AND 5G ANTENNAS
- B) EXISTING ROOFTOP BASE STATION
- C) ZONING: MIXED USE ZONE

DATE	DESCRIPTION	REVISION
05-04-2024	1st Issue	0
DRAWING NUMBER: BS16499		
SHEET: 5 OF 7		
DRAWING TITLE: PUBLIC SAFETY ZONE MAP		
DRAWN: D. LOOTS		
SCALE: NTS		
DATE: 2024-04-05		
REVISION: 0		

Public Safety Zone Elevation



NORTHEASTERN ELEVATION



NORTHWESTERN ELEVATION



vodacom

VODACOM SITE ID: BS16499

VODACOM SITE NAME:
PROTEA TECHNO PARK

PROPERTY DESCRIPTION:

ERF 9209 STELLENBOSCH

ADDRESS:

TECHNO AVENUE, TECHNO PARK,
STELLENBOSCH, WESTERNCAPE

CO-ORDINATES:

Lat: -33.956234°
Long: 18.834243°

ELEVATION:

136m



TOWN AND REGIONAL PLANNING CONSULTANTS

Tel: (021) 552 5255
Fax: 086 537 9187

PROJECT:

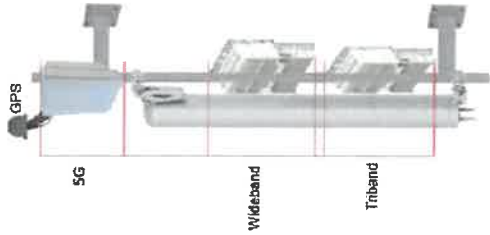
**EXISTING ANTENNAS TO BE REPLACED WITH
HEXABAND AND 5G ANTENNAS**

NOTES:

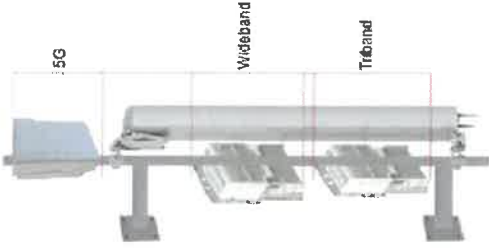
- A) EXISTING ANTENNAS TO BE REPLACED WITH
HEXABAND AND 5G ANTENNAS
B) EXISTING ROOFTOP BASE STATION
C) ZONING: MIXED USE ZONE

DATE	DESCRIPTION	REVISION
05-04-2024	1st Issue	0
	DRAWING NUMBER: BS16499	SHEET: 6 OF 7
	DRAWING TITLE:	PUBLIC SAFETY ZONE ELEVATION
	DRAWN: D. LOOTS	SCALE: NTS
	DATE: 2024-04-05	REVISION: 0

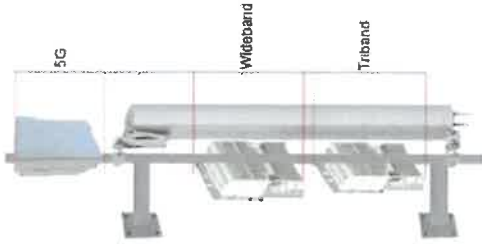
Artist Impression



Sector 1 – Existing Antenna to be replaced with Hexaband and 5G antenna



Sector 2 – Existing Antenna to be replaced with Hexaband and 5G antenna



Sector 3 – Existing Antenna to be replaced with Hexaband and 5G antenna



Existing rooftop site



vodacom

VODACOM SITE ID:

BS16499

VODACOM SITE NAME:

PROTEA TECHNOPARK

PROPERTY DESCRIPTION:

ERF 9209 STELLENBOSCH

ADDRESS:

TECHNO AVENUE, TECHNO PARK,
STELLENBOSCH, WESTERN CAPE

CO-ORDINATES:

Lat: -33.966234°

Long: 18.834243°

ELEVATION:

136m



TOWN AND REGIONAL PLANNING CONSULTANTS

Tel: (021) 552 8255 Unit H, 3rd Floor
Main Building, Bridgeway,
Century City, Cape Town 7946

PROJECT:

EXISTING ANTENNAS TO BE REPLACED WITH
HEXABAND AND 5G ANTENNAS

NOTES:

- A) EXISTING ANTENNAS TO BE REPLACED WITH
HEXABAND AND 5G ANTENNAS
- B) EXISTING ROOFTOP BASE STATION
- C) ZONING: MIXED USE ZONE

DATE	DESCRIPTION	REVISION
05-04-2024	1st Issue	0
DRAWING NUMBER: BS16499		SHEET: 7 OF 7
DRAWING TITLE: ARTIST IMPRESSION		
DRAWN: D. LOOTS		SCALE: NTS
DATE: 2024-04-05		REVISION: 0