PROPERTY DESCRIPTION:	**ERF 18702, GEORGE**
MUNICIPAL AREA:	**GEORGE MUNICIPALITY**
APPLICATION:	**LOCAL AUTHORITY REZONING AND APPLICATION FOR A FREESTANDING CELLULAR COMMUNICATIONS BASE STATION**
SITE NAME:	**OT – NEW LIFE MINISTRIES**

APPLICANT:	**WARREN PETTERSON PLANNING**
ON BEHALF OF/ FOR	**ORION TOWERS**
OWNER:	**PINKSTER PROTESTANTE KERK**
DATE:	**NOVEMBER 2022**

WPP
TOWN AND REGIONAL PLANNING CONSULTANTS

ORION
TOWER SUPPORT

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The Municipal Manager
George Municipality
Town planning Department
71 York Street
George
6529

23 November 2022

Dear Sir/Madam

LOCAL AUTHORITY REZONING APPLICATION FOR A FREESTANDING CELLULAR COMMUNICATIONS BASE STATION (TELECOMMUNICATION INFRASTRUCTURE) ON ERF 18702, GEORGE

Kindly find attached in this application, the motivation and relevant documentation regarding an application to allow for the establishment of a freestanding cellular communication base station on Erf 18702, George.

We believe this proposed development will be greatly beneficial for the inhabitants of Earls Court Lifestyle and Heather Park – which includes local businesses and residents – as well as surrounding communities and commuters. This benefit relates to the fact that an improvement will be experienced in terms of network provision and coverage. 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.

A previous application of the same nature was submitted on Erf 18702 George. This application was never finalized as it was put on hold during the Public Participation phase when it came to light that there is an existing 15m Vodacom Lamppole on the subject property. There is also a lease approval at the Bowling Club towards the south for a cell mast but was never constructed by MTN. Our client therefore proposes this new application together with a support letter from the property owners.
Vodacom will also decommission their 15m lamppost on site and co-locate onto the proposed 25m tower following construction to secure a better height and increase their network coverage simultaneously.
We would therefore like this application to be considered based on these merits and a condition of approval can be imposed that the lamppost needs to be decommission prior to construction of the 25m Tree Mast proposed.

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

Yours faithfully,

Corne Briedenhann
Warren Petterson Planning

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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 18702, George
CLIENT:	Orion Towers
APPLICANT:	Warren Petterson Planning
OWNER:	PINKSTER PROTESTANTE KERK
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
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

SPLUMA	Spatial Planning and Land Use Management Act, 2013
RBTS	Rooftop Base Telecommunication Station
FSBTS	Freestanding Base Telecommunication Station
TI	Telecommunication Infrastructure
TOA	Top of Antenna
SG-DIAGRAM	Surveyor-General Diagram
GMIZS	George Municipality Integrated Zoning Scheme By-Law, 2017

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SECTION A: BACKGROUND

A.1. THE APPLICATION

Application is hereby made for the following:

- ✓ **Rezoning of land (a portion thereof)** in terms of section 15(2)(a) of the George Municipality Land Use Planning By-Law, 2015 from 'Community Zone 2' to 'Utility Zone' for the purpose of erecting a 25m FSBTS (Telecommunication infrastructure).

A.2. DETAILS OF THE DEVELOPMENT AREA

Table 3 - Details of the Development Area

TITLE DEED DESCRIPTION	ERF 18702 GEORGE, IN THE MUNICIPALITY AND ADMINISTARTIVE DISTRICT OF GEORGE, PROVINCE OF THE WESTERN CAPE
TITLE DEED NUMBER	T12529/1996
PROPERTY SIZE (m²)	8 083m²
CURRENT ZONING (per GMIZS, 2017)	COMMUNITY ZONE 2
OWNER OF PROPERTY	PINKSTER PROTESTANTE KERK

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SECTION B: CONTEXTUAL INFORMANTS

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

B.1. LOCALITY

The property within the Municipality of George is located along Airway Road, George.

Figure 1 - Location of the property along Airway Road, George

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B.2. CURRENT LAND USE AND ZONING

Table 4 - Current land use and zoning

CURRENT LAND USE	The property is being used as a place of worship.
ZONING	Community Zone 2

The property in question with the zoning of 'Community Zone 2 (CZII) has the following primary rights and rights permitted upon council's consent:

Community Zone II (CZII)		
The objective of this zone is to provide for places where communities can congregate and worship according to the custom of their specific faith or religion.	**Primary use** • Place of worship	**Consent uses** • Cemetery • Institution • Place of instruction • Rooftop base telecommunication station • Wall of remembrance

Figure 2 - Extract of Community Zone 2

The current zoning of the property (Community Zone 2) only makes provision for a rooftop base telecommunication station. No provision is made for a freestanding telecommunication base station and a rezoning application is required in this case.

B.3. PROPOSED ZONING

In accordance with the GMIZS, 2017 a freestanding telecommunication base station is a primary use on a property zoned as Utility Zone (TUZIV).

UTILITY ZONE (TUZIV)		
The objective of this zone is to reserve land for uses normally undertaken by central, provincial and municipal government agencies as well as land for utility services such as electrical substations, and which do not fall into another zoning category. Some flexibility for the use of land and development parameters is provided.	**Primary uses** • Utility service	**Consent uses** • Authority use

Figure 3 - Extract of Utility Zone

Under Schedule 2 of the GMIZS, 2017 the land use description of Utility Service reads as follows:

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"UTILITY SERVICE"

Land use description: *"utility service"* means a use or infrastructure that is required to provide engineering and associated services for the proper functioning of urban development and—

(a) includes a water reservoir and purification works, electricity substation, storm water retention facilities, and a waste-water pump station and treatment works, rooftop base telecommunication station and freestanding base telecommunication station; and

(b) does not include renewable energy structures or transport use; and

(c) provided that a road is not regarded as a utility service.

Development parameters:

As determined by the Municipality.

Figure 4 - Extract of Utility Service (land use description)

Accordingly, a freestanding base telecommunication station is a primary use on a Utility zoning. This application is therefore to rezone the **footprint** of the base station **(96 square meters)** from *'Community Zone 2'* to *'Utility Zone'* in order to accommodate the freestanding telecommunication base station as a primary right.

B.4. SURROUNDING AREA

Suburbs near the property are Heather Park, Blanco, George Central & George South.

Airway Road and Meent Street serve as the main distributor in the area. The surrounding land uses in the area are predominantly utilised for residential and open space purposes. The Outeniqua Bowling Club is located to the South of the subject property.

Figure 5 – Sport Club to the south

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SECTION C: DEVELOPMENT PROPOSAL

C.1. APPLICATION SPECIFICATIONS

The client (Orion Towers) wishes to apply for the rezoning of a portion of the property in order to erect a FSTBS.

C.1.1 Development Concept

The application comprises the following proposed development parameters:

- ✓ A 25m tree type mast,
- ✓ 4 x 3-sector antennas attached to the mast,
- ✓ Microwave dishes attached to the mast,
- ✓ 4 x Equipment containers, and
- ✓ A 2.4m high palisade fence.

The total ground coverage of the FSBTS 96m².

C.2. ACCESS

Access to the proposed FSBTS will be obtained from the existing place of worship entrance along Airway Road.

C.3. SECURITY

The entire base station site will be surrounded by a 2.4m tall Palisade fence with an access gate that will be locked at all times. The proposed equipment will be secure inside the equipment units that will be kept locked at all times. The antennas will be secure given their position at the top of the mast.

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.

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C.4. POWER

Power for the FSBTS will be obtained from the available on-site electrical supply to the property. Advances in technology (telecommunication related equipment) enable the FSBTS to utilise less electricity.

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:

Listing Notice 3, Activity 3: The development of masts or towers of any material or type used for telecommunication broadcasting or radio transmission purposes where the mast or tower;

(a) is to be placed on a site not previously used for this purpose; and

(b) will exceed 15 metres in height,

but excluding attachments to existing buildings and masts on rooftops.

In the Western Cape

I. All areas outside urban areas; or
II. Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority, or zoned for a conservation purpose, within urban areas, or
III. Areas zoned for use as public open space or equivalent zoning within urban areas.

The proposed development is located within an urban area and is not zoned for public open space or an equivalent zoning. The proposed development does not constitute a listed activity as the site has been previously used for this purpose. An Environmental Authorization (EA) is therefore not required.

SECTION D: POLICY AND LEGISLATION

D.1. 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):

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Table 5 - Compliance of application with Principles 7a-7e of SPLUMA, 2013

	HOW DOES THIS APPLICATION COMPLY WITH THIS PRINCIPLE?
Principle 7a: ***Spatial Justice***	In a broader sense, spatial justice refers to an intentional incorporation of spatial (geographical) aspects. This refer 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.
Principle 7b: ***Spatial Sustainability***	Spatial sustainability is an explicit concept which describe the relations between environmental, economic and socio-cultural facets related to a societal environment. Enhanced signal 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 telecommunication base stations and the possibility of co-location will limit the amount of base stations should there be sufficient signal in an area.
Principle 7c: ***Spatial Efficiency***	Spatial efficiency relates to the concept of minimum distance to be travelled between a specific location and intended destination. FSTBS and RTBS is placed in an area (optimally situated between planned and existing stations) with a reason. This reason is to incorporate various factors (e.g. amount of users, quality of service etc.) when considering the placement in order to promote effectiveness and is not merely placed by random.
Principle 7d: ***Spatial Resilience***	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 RTBS will be a service that will always be necessary. In a state of crisis, communication plays an integral role in a societal environment.
Principle 7e: ***Good administration***	This installation will be lawful and reasonable, following an equal and fair public participation process in order to incorporate the views and opinions of all relevant parties.

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SECTION E: MOTIVATION

This section is seen as the motivation of the application as it provides information with regard to 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. MTN, Vodacom and Cell C 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.

Figure 6: Frequencies used for different services

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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 cellular base stations.

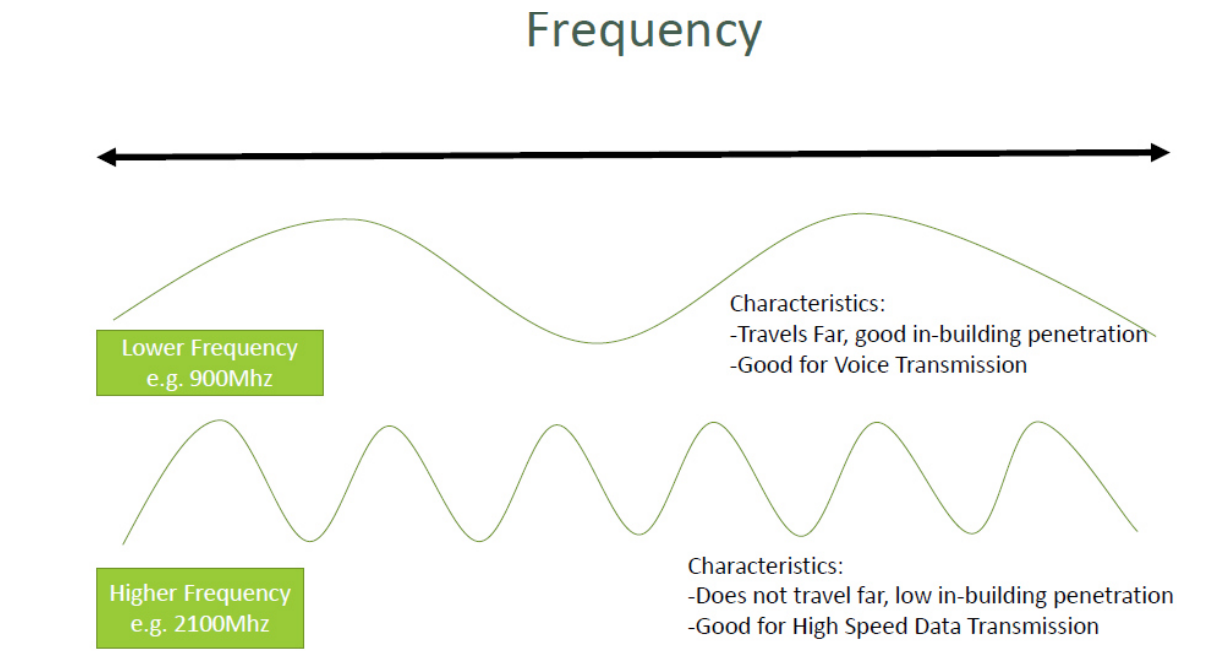

Figure 7: Different frequencies impact on the coverage range of base station

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

The proposed site is located at a nominal point as identified by network planners. 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. ORION TOWERS MOTIVATION

Orion Towers is a company operating as an independent telecommunication infrastructure owner in South Africa. Orion Towers' business model is to assess the location and placement of all existing telecommunication infrastructure, identify where additional infrastructure is required and supply the required infrastructure as the need arise to the various telecommunication service providers (MTN, Vodacom, Cell C and Telkom Mobile). Orion Towers build and invest in vertical and rooftop-based telecommunication infrastructure.

We believe this lease up ration is a testament to Orion Towers' ability to cater to all mobile network operators and internet service provider (ISP's) needs. The MNOs need the best networks, at record speeds to compete for subscribers. We understand this need and run a little faster building infrastructure quickly.

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The process which the application site has followed can be divided into 4 milestones:

Milestone 1: Identify a candidate site (zoning, available space, requirements of MNO's, RF requirements, elevation, competing structures, power source etc.)

Milestone 2: Put site into negotiation (negotiation with said land owners regarding commercial terms etc.)

Milestone 3: Secure site via signed lease agreement

Milestone 4: Commence with permitting

Only after milestone 3 can the location be placed on a marketing list to all our clients. To date Orion Towers has not entered into an agreement with any client to utilize our proposed cellular tower. The reason for this is we cannot confirm the exact date the site will be RFO (ready for occupation). For the most part our clients do not enter into agreement with Orion Towers without some sort of proof land use or building plan approval has been granted. For now, we are forecasting the site to our clients and once we have any sort of formalized approval the drawing up of contracts can commence.

E.3. DEVELOPMENT MOTIVATION

Please read together with previous sections in this application. This rezoning application in order to allow for the erection of a FSBTS should be supported based on the following grounds:

E.3.1. 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 the George, dropped calls and poor network coverage (related to both voice and data) are experienced. This application is motivated by several customer complaints (from residents, businesses and commuters) received by MTN, Vodacom and Cell C in and around the area of George. MTN, Vodacom and Cell C 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.

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Figure 8 - MTN Fixed LTE service coverage for the area of George (Fixed LTE)

Figures 8 illustrate the current coverage for MTN and Rain in George. It should be noted that some areas have very limited or no fixed LTE coverage. Therefore, a FSBTS as proposed in this application will increase the amount of coverage in this area.

The increase in network strength brought by the proposed FSBTS 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 FSBTS will be erected at a cost of approximately R1.5 mil. These high costs are a very good reason to rather co-locate on existing freestanding base stations or to settle for a rooftop base station in lieu of building a new freestanding base station.

The mix of land uses range from low density residential to open space. The proposed base station 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 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 use will have no detrimental impact on the surrounding properties and will provide an essential service to the surrounding community.

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E.3.2. Site selection methodology

The current roll out of telecommunication infrastructure by cellular network providers is undertaken to upgrade and improve network coverage and quality to all customers. Telecommunication networks experience peak demand in the evenings between 18:00 and 23:00. This is because during these times people are at their homes and use internet intensive devices. Thus, a large portion of the network upgrade is aimed at residential areas. Business and other activity areas have been prioritised over the past 20 years, for commercial reasons and given the fact that legislation and policies steered proposals of this nature, towards non-residential areas. Due to the tourism value of the said area, upgrading the coverage of LTE, 4G technology and accessibility to Fibre will be beneficial for George. This area includes tourist and economic attractions which include wineries, estates and route towards tourist destinations along the coast. Telecommunication networks experience peak demand in the holidays and festive seasons. Thus, a large portion of the network upgrade is aimed at areas with tourism and economic potential.

When choosing a site for a telecommunication base station, service providers are guided by nominal points indicating the areas where poor signal is being experienced.

E.3.2.1. Choice of site

These points are selected because of an increase of customer complaints, within an area. As an increase in the number of users occurs, the area which is covered by the existing network decreases, leading to poorer network coverage. Figures 10-12 strive to explain how the need for an increase in cellular infrastructure evolves in a typical urban area.

Cellular infrastructure explained:

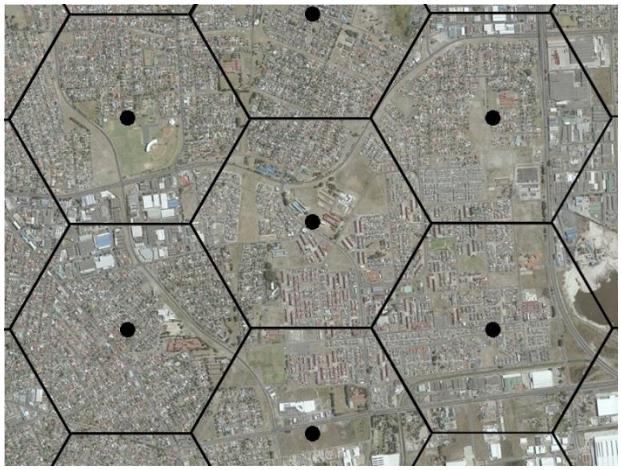

Figure 9 - Initial coverage (cell) provided by Telecommunications Base Stations

Figure 9 is an illustration of optimum network and data coverage. This is explained by envisioning the octagonal shape of a honeycomb (cells).

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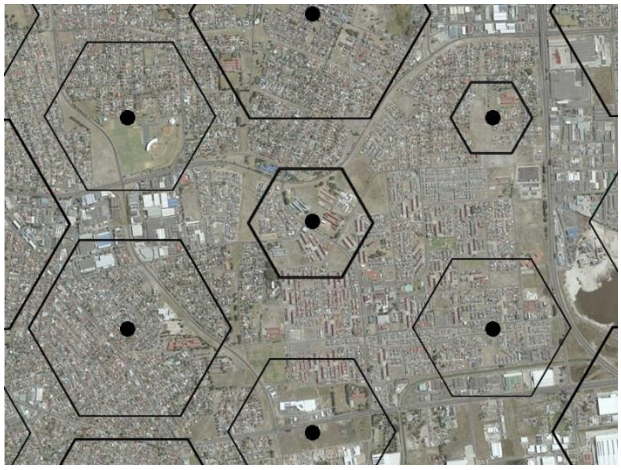
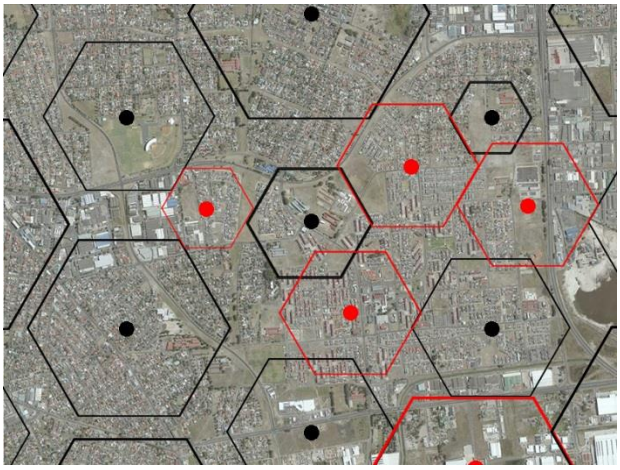


As network users increase, the cells shrink which leads to gaps within this network of cells. This leads to dropped calls, weak/ limited signal and the failure to access the latest technologies in communication innovations.

Figure 10 - Coverage decreases due to increases 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 11 - Additional telecommunications 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 11). 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. The fact that there are only a few telecommunication base stations in the surrounding area supports the statement that there is a clear need for coverage in the area.

The need for coverage is however not the only determining factor when identifying a possible position for a telecommunication base station. Other determining factors include altitude, zoning and the visual impact of the proposed base station.–Distance away from existing base stations in the surrounding area is also an influencing factor.

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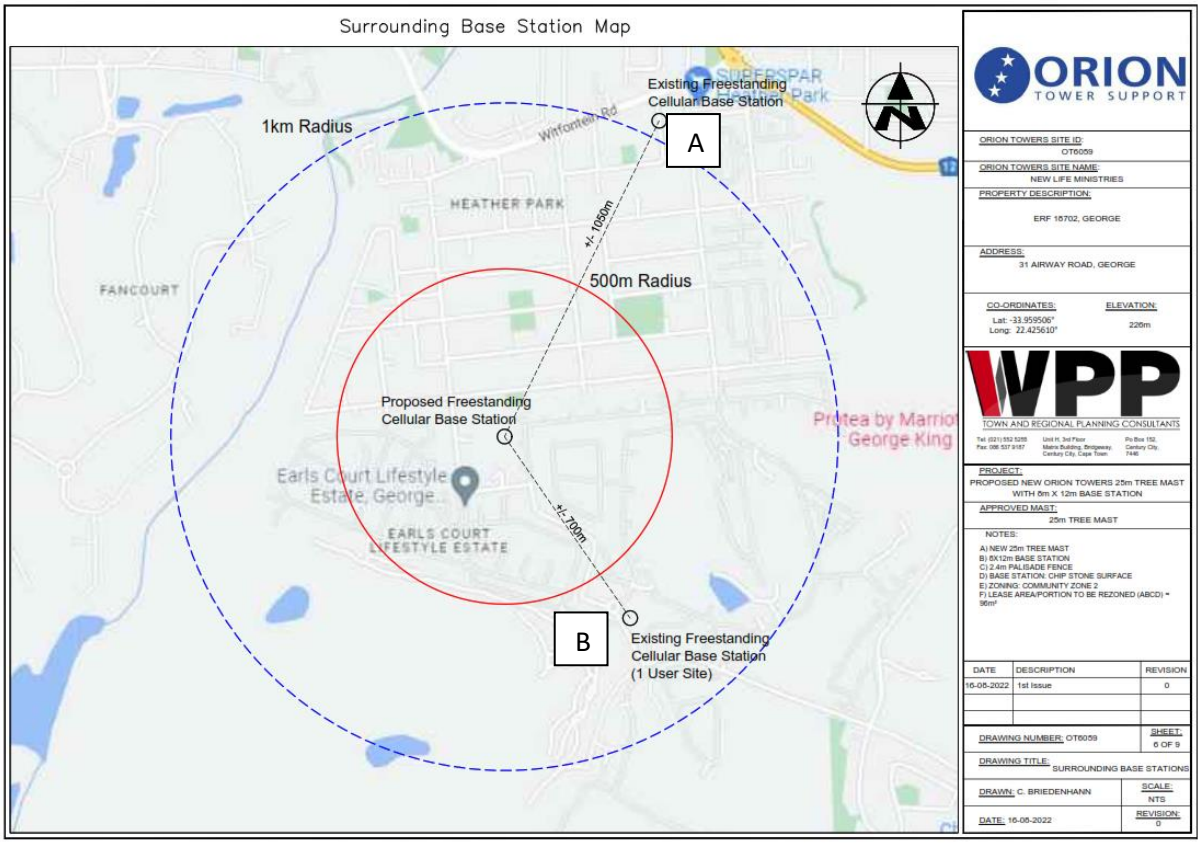

Figure 12 - Surrounding base stations (500m Radius)

Table 6 - Surrounding base stations as alternatives

	FSTBS/RTBS	Site location	Distance	Lack of sufficiency
A	25m Tree Mast	Witfontein Road	+/- 1050m	Existing site too far away to cover complaint area with excellent coverage.
B	15m LAMPPOST MAST	Kingston Road	+/- 700m	This is a 15m Lamppost Mast which is only able to accommodate 1 user. Our client's solution caters for multiple operators to utilize 1 mast which will reduce the need for additional masts in the future.

Considering the information in Figure 13 and Table 6 the need for the proposed FSTBS is clear. Existing TI are not sufficient to provide coverage as the closest TBS is approximately 700m away from the proposed FSTBS. There are no other base stations within a 1km radius of the proposed FSTBS.

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E.3.3. 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.

This site was selected for several reasons, namely:

- It is situated optimally between planned and existing sites,
- There is a huge demand by cellular users in this area and the surrounding base stations are unable to provide an acceptable level of coverage to the area,
- It is accessible to contractors during construction and maintenance,
- The proposal and location of the base station is the best solution to the coverage problem of the area with the least negative impacts,
- The proposal is secure due to its locality, and
- Most importantly it will serve the complaint area (the area with the lowest levels of cellular reception due to locality and high volumes of users) optimally.

It is important to note that the nature of such development is dependent on a "willing landlord" scenario. The theoretically best position is determined by the radio engineers and the closest properties that adhere to the above guidelines are targeted. Often several properties are targeted before a willing landlord is discovered that terms can be agreed with.

E.3.4. Visual Impact

The proposed FSTBS will create an opportunity for other service providers to co-locate, as other structures of this height do not exist in this area.

The impact of the site, proposed at the height of 25m is designed as a tree type structure, which will blend in with the surrounding green open areas and therefore reduce the visual impact.

In addition, the proposed equipment can be colour coded to match the backdrop to further mitigate the visual impact and ultimately blend in with its surroundings.

Alternatively, the mast can be proposed as a monopole structure to fit in with the surrounding lamp poles.

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Figure 13 - Superimposition of the proposed FSTBS

Illustrated in Figure 14 is a superimposition of the proposed FSTBS which indicates that the mast will neatly blend in with the surrounding environment.

E.3.5. Health concerns

Recent development shown the concerned among the public related to the health effect of RF radiation emitting from the Freestanding Base Telecommunication Station (FSTBS).

This is obvious from the frequent report in the newspaper and the electronics media concerning the complaint of residence nearby FSTBSs. As results, the telecommunication company has faced many problems and protest from the public in the installation of new FSTBS.

Along with popularity of mobile telephones and other devices, the increase in number of FSTBSs installations in the country provide better coverage services to consumer have raised anxiety to the general public about whether it have an adverse effect on human health. They are generally perceived as hazardous because of the radiation they produced.

Misconceptions are held by the general public in South Africa about the radiation (non-ionising radiation) of the electromagnetic waves used for telecommunications especially from FSTBSs. This perception has often led to public opposition on the construction and existence of these facilities in many parts of the country. The general public often misunderstand the concept that non-ionizing radiation (produced by the FSTBS) can cause cancer and other health related issues. Although both forms of energy are correctly called radiation, their biological effects are vastly different. Half-true or

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inaccurate information written in web sites, newspaper and circulated materials by some groups of people with vested interest has caused a lot of opposition by public on the development of telecommunication infrastructures.

Current research on telecommunications base stations has reached a point whereby scientists are satisfied that the base stations do not pose a health threat. Research on handsets is however ongoing, as it is deemed that placing the handset against your head could pose a greater threat to health. Mobile phones are low powered radiofrequency transmitters. They operate at frequencies between 450 and 2700 MHz. The handset only transmits power when turned on. Using the phone in areas of good reception decreases exposure as it allows the phone to transmit at reduced power.

In a statement made by the World Health Organisation (WHO) it is stated that effects from base stations and wireless networks are so low that the temperature increases are insignificant and do not affect human or animal health.

The WHO in 2004 said:

> *"In the area of biological effects and medical applications of non-ionizing radiation approximately 25,000 articles have been published over the past 30 years. Despite the feeling of some people that more research needs to be done, scientific knowledge in this area is now more extensive than for most chemicals. Based on a recent in-depth review of the scientific literature, the WHO concluded that current evidence does not confirm the existence of any health consequences from exposure to low level electromagnetic fields."* – World Health Organization (WHO) – website: *http://www.who.int/peh-emf/research/database/en/*

Radio waves are emitted by numerous instruments including microwave ovens and television screens inside our households. Walking along any street exposes us to RF emissions. RF emissions are part of modern day society and scientists continuously monitor the impacts of these.

ICNIRP (International Commission on Non-Ionizing Radiation Protection), an independent scientific organization established in 1992 published guidelines providing a means of limiting and guiding human exposure to electromagnetic fields.

These guidelines have become the world standard for human exposure to electromagnetic fields. ICNIRP considers both the thermal and non-thermal effects of RF exposures as well as all other identified hazards of RF exposure. Cellular equipment needs to comply with all the regulations of ICNIRP as well as the WHO and also National Legislation governing the use of this equipment and the emissions of radio waves. Cellular companies monitor the health impact of their base stations carefully, and spend large sums of money researching this topic annually.

South Africa's Department of Health has also published EMF exposure limit guidelines. These are based on guidelines endorsed by the ICNIRP. Emissions from all existing and proposed base stations are in compliance with these guidelines and are far below international standards.

A statement made by the Department of Health dated 23 June 2015 on the Health Effects of cellular communications base stations states the following (see letter attached in application):

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> *" 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".*

Also mentioned in the statement of the Department of Health another WHO fact sheet was published in June 2011 and reviewed in October 2014 (i.e. *Electromagnetic fields and public health: mobile phones* viewable online at http://www.who.int/mediacentre/factsheets/fs193/en/) and subsequently concluded the following:

> *"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."*

Further on in the document (attached in application), the Department of Health goes on to say that*:*

> *"The Department is therefore satisfied that the health of the general public is not being compromised by their exposure to the microwave emissions of cellular base stations. This also means that local and other authorities, in considering the environmental impact of any particular base station, do not need to and should not attempt, from a public health point of view, to set any restrictions with respect to parameters such as distance to the mast, duration of exposure, height of the mast, etc."*

Furthermore, a test done by the City's Department: City Health – Specialised Services at a similar installation in Camps Bay proved that emissions from base stations are a mere fraction of a percentage point of the ICNIRP guideline.

The test was also conducted by EMSS, a private company specialising in this RF emission testing. This study as an example is available on request. The City of Cape Town is more than welcome to take its own readings once the cellular communications infrastructure is operational.

We are therefore of the opinion that all health aspects regarding the proposed base station were taken into consideration and that this proposal will not be in violation of any individual's constitutional right to an environment that is not harmful to their health or general wellbeing.

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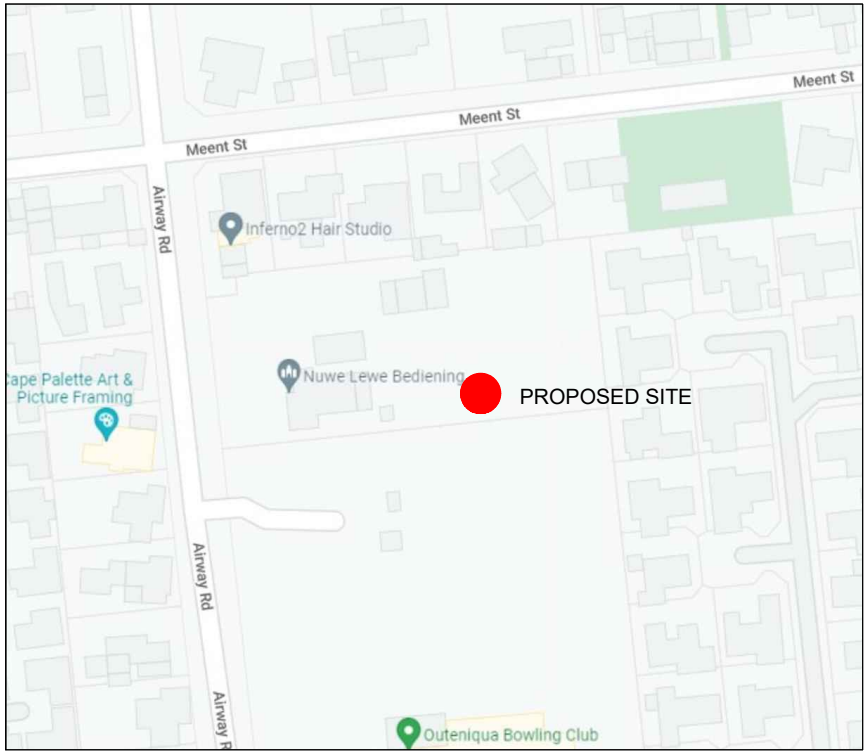
SECTION F: CONCLUSION

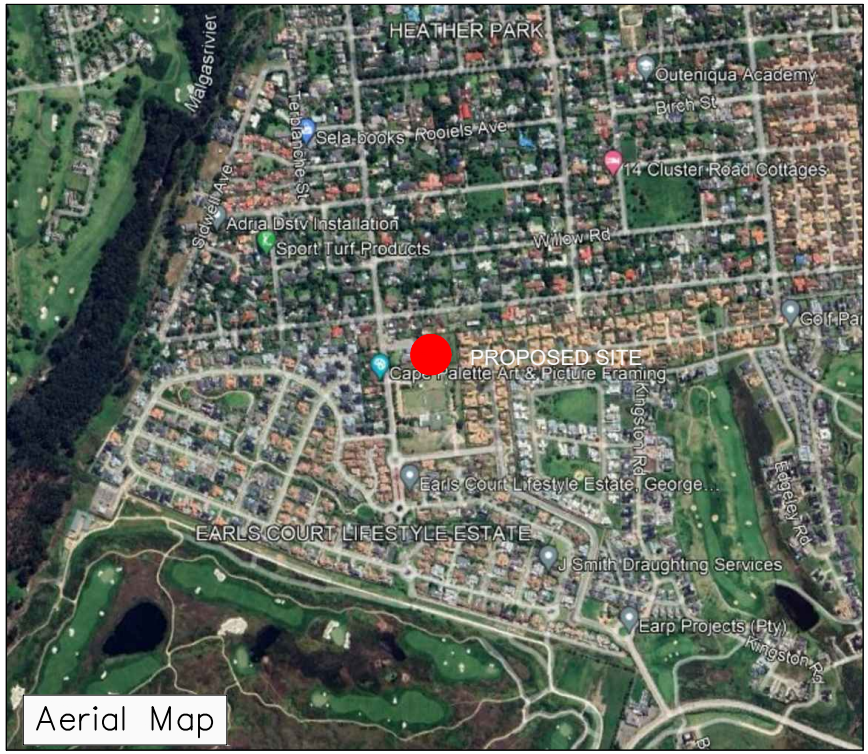
We would like to emphasise the positive contribution this base station will have on the immediate area of Erf 18702 George as well as the surrounding community and passing commuters:

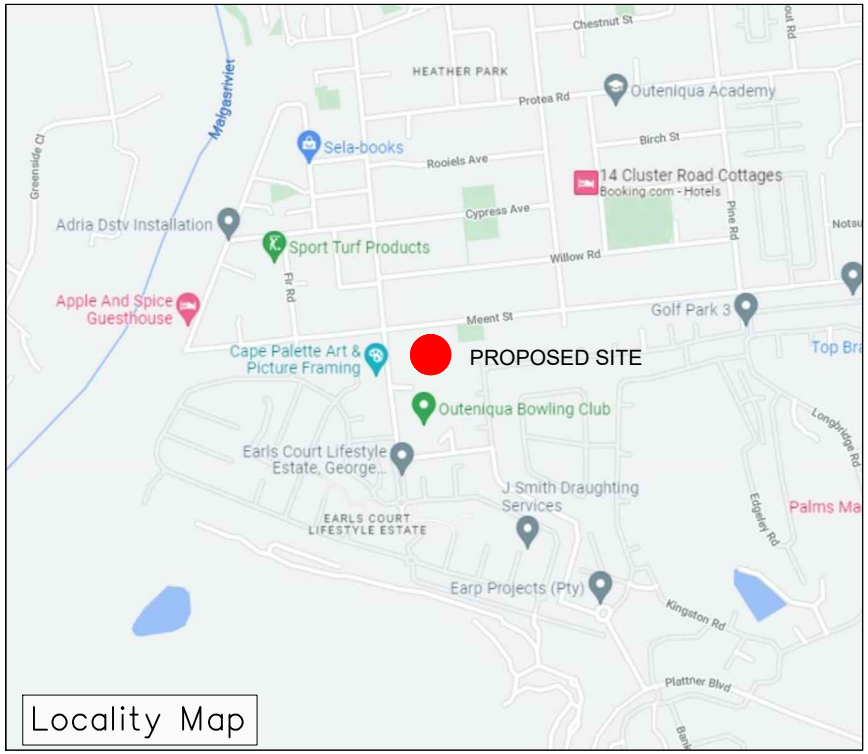
- Most households in the surrounding area depend on the services of the cellular telecommunications providers, including internet and social networking media (Facebook, Twitter etc.). With such a high demand for their products, it follows that service providers are responsible for supplying a high level of network coverage.
- Please note that the residents in the area are not the only ones being provided with these services. Visitors to the area, 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 have to 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.







ORION TOWER SUPPORT

ORION TOWERS SITE ID:
OT6059

ORION TOWERS SITE NAME:
NEW LIFE MINISTRIES

PROPERTY DESCRIPTION:
ERF 18702, GEORGE

ADDRESS:
31 AIRWAY ROAD, GEORGE

CO-ORDINATES:	ELEVATION:
Lat: -33.959506° Long: 22.425610°	226m

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PROJECT:
PROPOSED NEW ORION TOWERS 25m TREE MAST WITH 8m X 12m BASE STATION

APPROVED MAST:
25m TREE MAST

NOTES:
A) NEW 25m TREE MAST
B) 8X12m BASE STATION
C) 2.4m PALISADE FENCE
D) BASE STATION: CHIP STONE SURFACE
E) ZONING: COMMUNITY ZONE 2
F) LEASE AREA/PORTION TO BE REZONED (ABCD) = 96m²

DATE	DESCRIPTION	REVISION
16-08-2022	1st Issue	0

DRAWING NUMBER: OT6059 — SHEET: 1 OF 9

DRAWING TITLE: LOCALITY MAP

DRAWN: C. BRIEDENHANN — SCALE: NTS

DATE: 16-08-2022 — REVISION: 0

Site Plan

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DATE	DESCRIPTION	REVISION
16-08-2022	1st Issue	0

DRAWING NUMBER: OT6059

SHEET: 2 OF 9

DRAWING TITLE: SITE PLAN

DRAWN: C. BRIEDENHANN

SCALE: 1:750

DATE: 16-08-2022

REVISION: 0

Site Plan

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DRAWING NUMBER: OT6059

SHEET: 3 OF 9

DRAWING TITLE: SITE PLAN

DRAWN: C. BRIEDENHANN

SCALE: 1:750

DATE: 16-08-2022

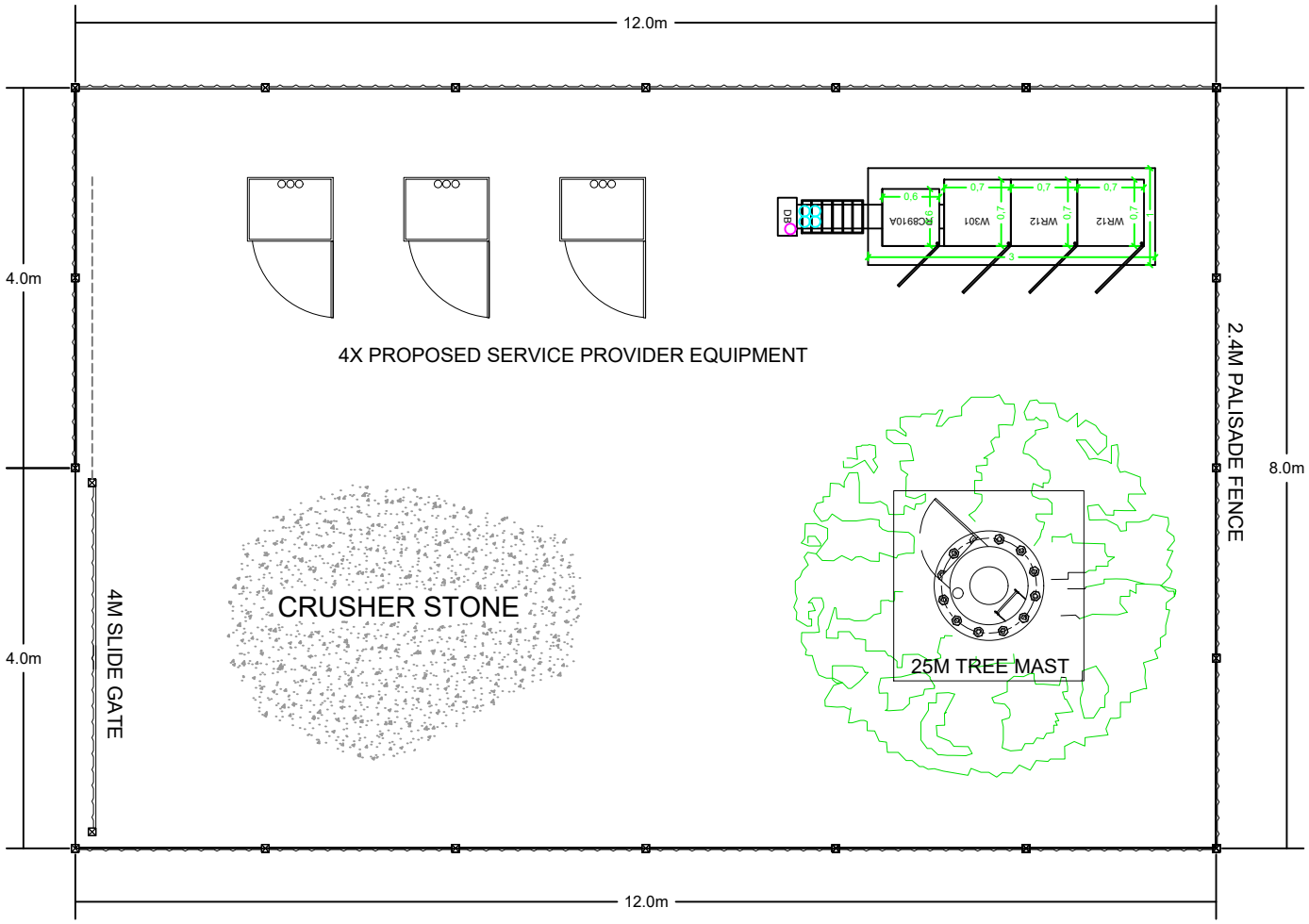
REVISION: 0

LEGEND:

CZII (EXISTING ZONE) =

UT (PROPOSED ZONE) =

Top View



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16-08-2022	1st Issue	0

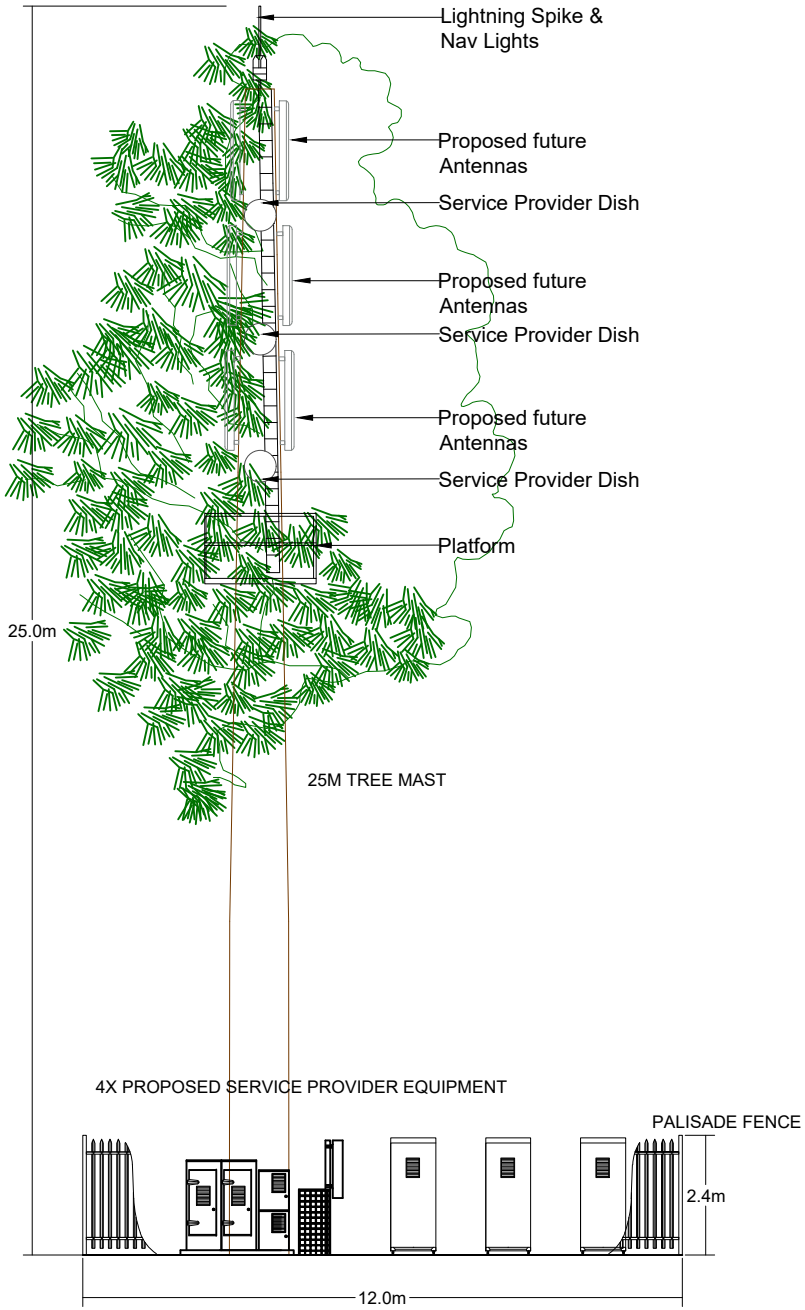
DRAWING NUMBER: OT6059
SHEET: 4 OF 9

DRAWING TITLE: TOP VIEW

DRAWN: C. BRIEDENHANN
SCALE: 1:75

DATE: 16-08-2022
REVISION: 0

Elevation



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16-08-2022	1st Issue	0

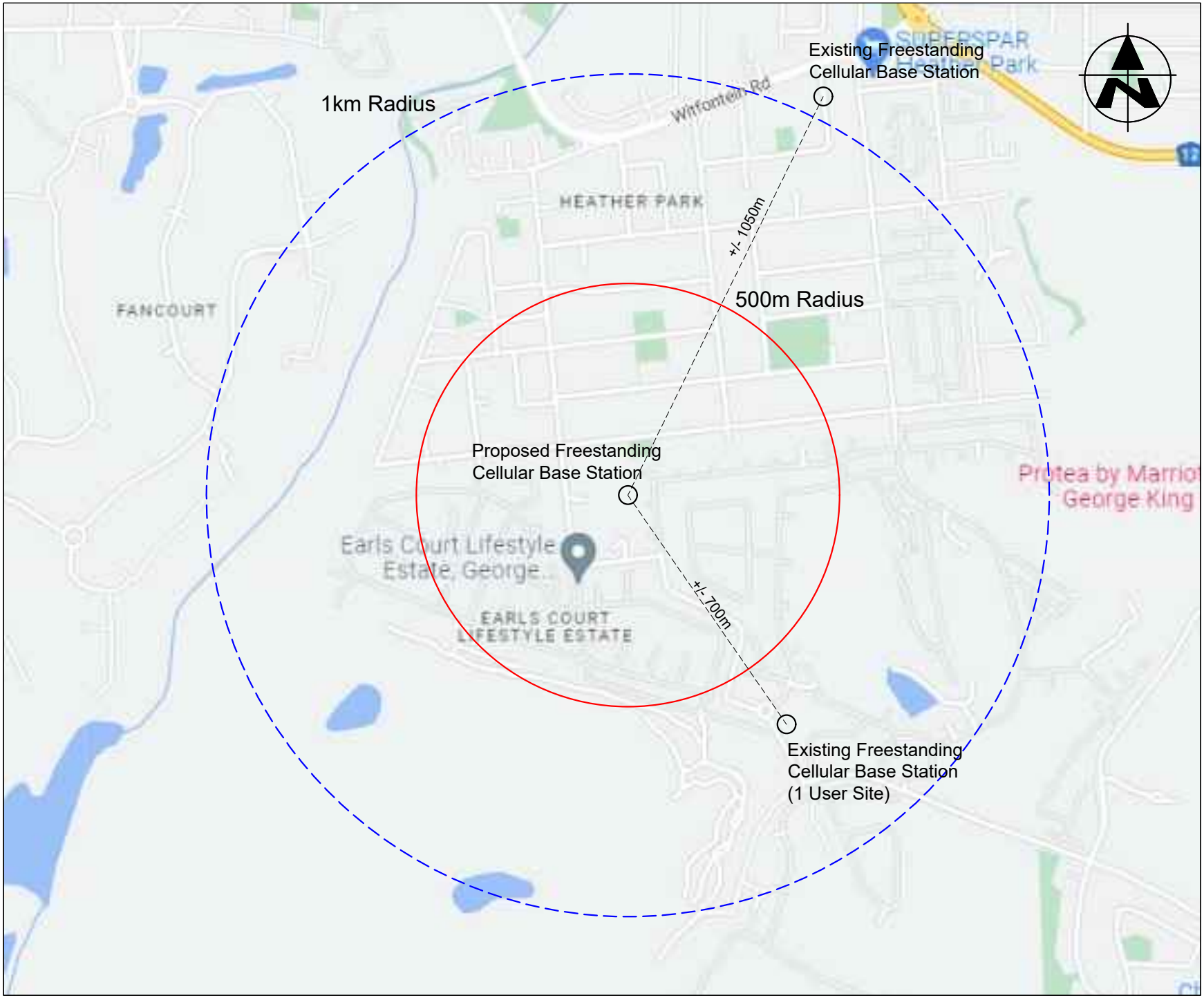
DRAWING NUMBER: OT6059
SHEET: 5 OF 9

DRAWING TITLE: ELEVATION

DRAWN: C. BRIEDENHANN
SCALE: NTS

DATE: 16-08-2022
REVISION: 0

Surrounding Base Station Map



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DATE	DESCRIPTION	REVISION
16-08-2022	1st Issue	0

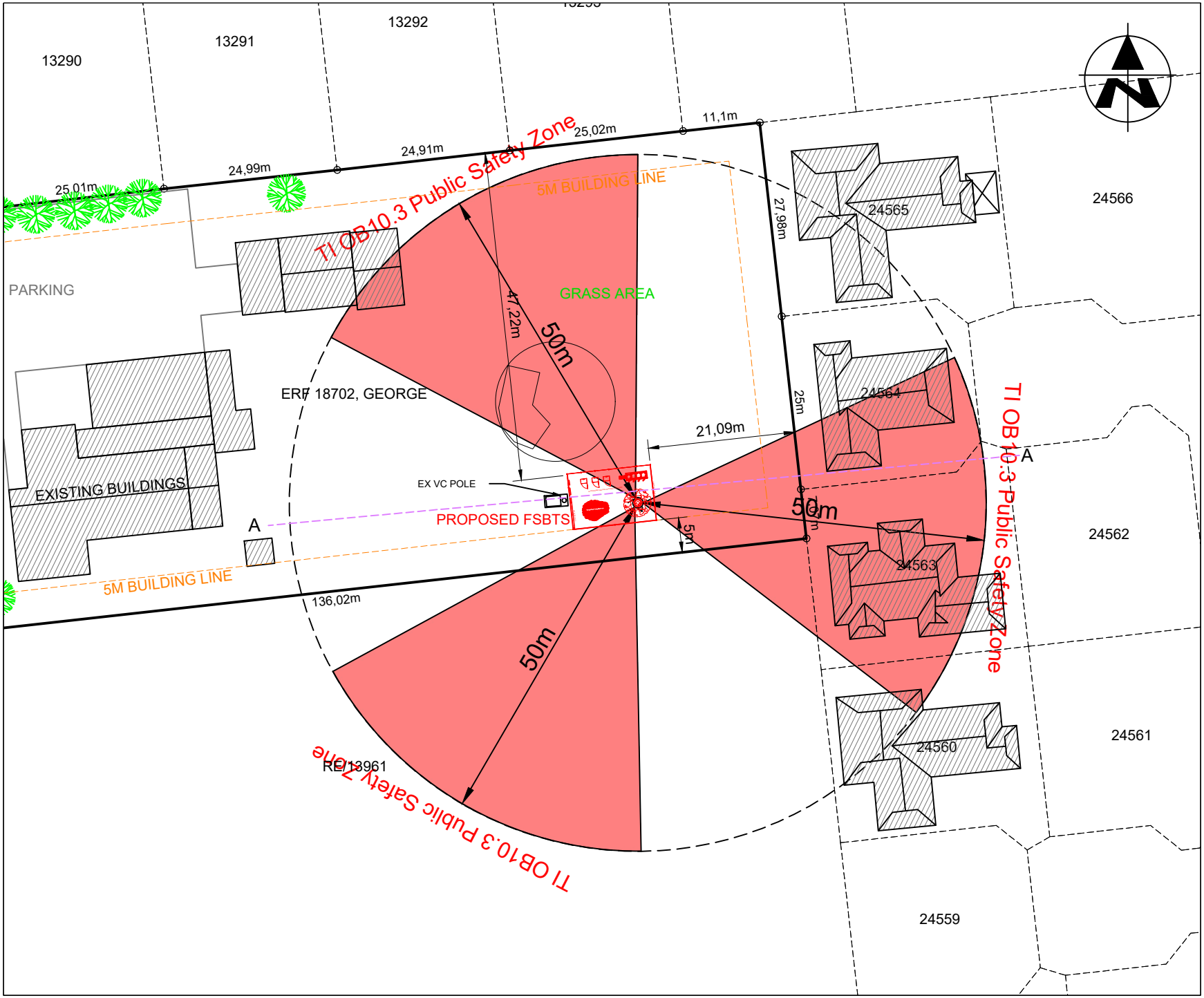
DRAWING NUMBER: OT6059 — SHEET: 6 OF 9

DRAWING TITLE: SURROUNDING BASE STATIONS

DRAWN: C. BRIEDENHANN — SCALE: NTS

DATE: 16-08-2022 — REVISION: 0

Public Safety Zone Map



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DATE	DESCRIPTION	REVISION
16-08-2022	1st Issue	0

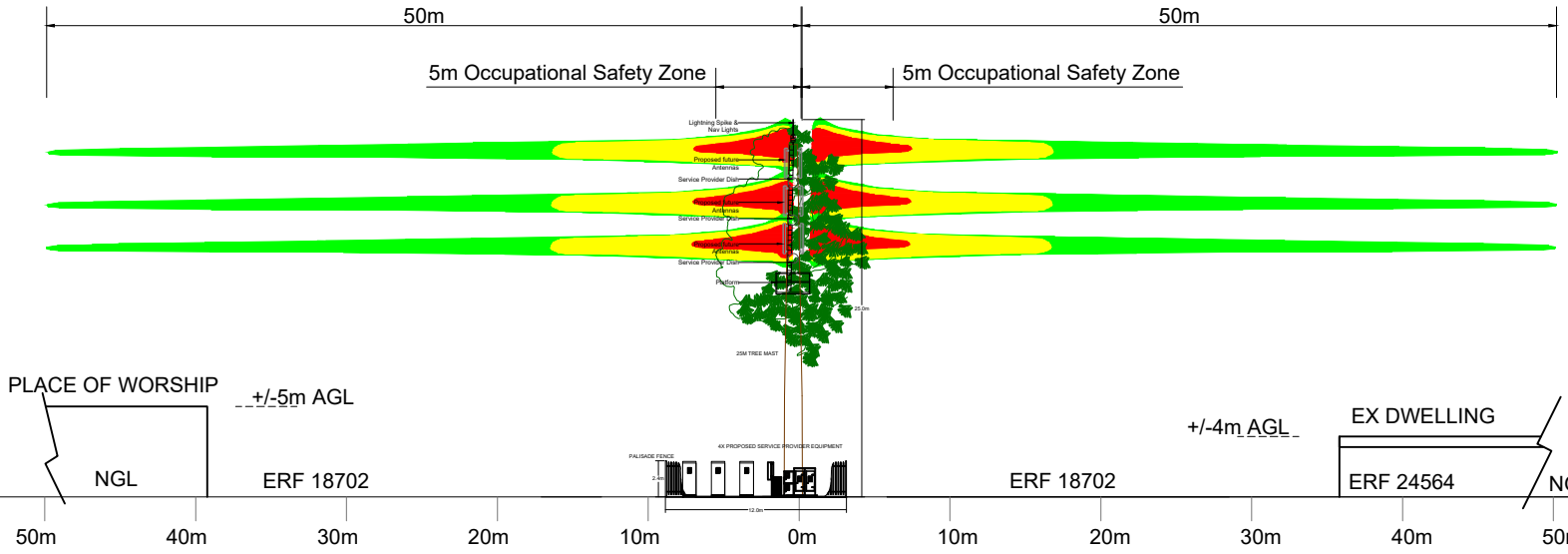
DRAWING NUMBER: OT6059 — SHEET: 7 OF 9

DRAWING TITLE: PUBLIC SAFETY ZONE MAP

DRAWN: C. BRIEDENHANN — SCALE: NTS

DATE: 16-08-2022 — REVISION: 0

Public Safety Zone Elevation



PUBLIC SAFETY ZONE SOUTHERN ELEVATION (A-A)

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DATE	DESCRIPTION	REVISION
16-08-2022	1st Issue	0

DRAWING NUMBER: OT6059

SHEET: 8 OF 9

DRAWING TITLE: PUBLIC SAFETY ZONE ELEVATION

DRAWN: C. BRIEDENHANN

SCALE: NTS

DATE: 16-08-2022

REVISION: 0

Artist Impression

Superimposition of Proposed 25m Tree Mast (As Viewed from Airway Road)

ORION TOWER SUPPORT

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OT6059

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DATE	DESCRIPTION	REVISION
16-08-2022	1st Issue	0

DRAWING NUMBER: OT6059 — SHEET: 9 OF 9

DRAWING TITLE: ARTIST IMPRESSION

DRAWN: C. BRIEDENHANN — SCALE: NTS

DATE: 16-08-2022 — REVISION: 0