

**LAND USE PLANNING ASSESSMENT REPORT**

(In terms of Sections 56, 65 & 66 of the Langeberg Land Use Planning Bylaw PN 264/2015, 30 July 2015)

**AANSOEK: VOORGESTELDE VERGUNNINGSGEBRUIK (VBTS) OP ERF 1501, MARKSTRAAT 15, MONTAGU**

Reference number	15/4/8/5	Application submission date	09-02-2022 & 04-07-2022	Date report finalised	28-07-2022
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**PART A: AUTHOR DETAILS**

First name(s) & Surname	Jack van Zyl
Job title	Assistent Bestuurder: Stadsbeplanning
SACPLAN registration number	A/1170/2000

**PART B: PROPERTY DETAILS**

Property description (in accordance with Title Deed)	Erf 1501, Montagu				
Physical address	Markstraat 15	Town	Montagu		
Current zoning	Sakesone I	Extent (m2 /ha)	2120m <sup>2</sup>	Are there existing buildings on the property?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Applicable zoning scheme	Langeberg Geïntegreerde Soneringskema, 2018				
Current land use	Sakesone I			Title Deed number & date	T4384/1976
Any restrictive title conditions applicable	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N	If Yes, list condition number(s)		
Any third party conditions applicable?	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N	If Yes, specify		
Any unauthorised land use/building work	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N	If Yes, explain		

**PART C: APPLICATION DESCRIPTION**

Aansoek ingevolge Artikel 15(2) van die Munisipaliteit Langeberg: Verordening op Grondgebruikbeplanning, 2015 vir vergunningsgebruik op erf 1501, Montagu vir Vrystaande Basis Telekommunikasiestasie (15m boom-mas)

## PART D: BACKGROUND & SUMMARY OF APPLICANTS MOTIVATION

Die aansoek word beslaan deur die huidige Telkom sentrale. Die sonering is Sakesone I, waarvolgens 'n Vrystaande basis-telekommunikasiestasie (VBTS) as vergunningsgebruik ingevolge die Langeberg Geïntegreerde Soneringskema, 2018 toegelaat kan word.



Hierdie aansoek volg op 'n vorige aansoek in 2021, waarin 'n 35m hoë enkelpaalmas in dieselfde posisie voorgestel was, met 'n alternatief (in reaksie op besware) om dit te verlaag na 25m en soos 'n boom te kamoefleer. Die vorige aansoek is afgekeur om die volgende redes:

1. 67 persone, waarvan die meerderheid eienaars/bewoners van nabygeleë residensiële eiendomme is, het beswaar aangeteken teen die voorstel, gebaseer op negatiewe visuele impak, negatiewe impak op karakter van die omgewing en die dorp as geheel, verwagte negatiewe invloed op eiendomsverkoopswaardes en 'n verwagte gesondheidsgevaar.
2. Die voorgestelde mas, hetsy die oorspronklike of gewysigde voorstel, sal alleenstaande wees en baie sigbaar vanaf 'n groot deel van die dorp, met 'n verwagte onaanvaarbare visuele impak op die karakter van die dorp in die algemeen en op die residensiële karakter van die betrokke straat. Die skaal van die voorgestelde mas is uit pas met alle geboue in die omgewing en sal die stedelike toneel op 'n negatiewe wyse oorheers. Die voorgestelde boomkamoeflering sal teen die voorgestelde skaal ook nie natuurlik vertoon nie en steeds visueel afbreuk doen.
3. Die aansoeker het nie voldoende bewys gelewer dat daar 'n behoefte vir die voorgestelde VBTS in die betrokke area bestaan nie of dat die aansoek-eiendom die mees geskikte perseel daarvoor is nie.
4. Die aansoeker het nie voldoende bewys gelewer dat alternatiewe ondersoek is, vir die tribunaal om sondermeer te kan bevind dat daar nie geleentheid vir medegebruik van ander VBTS's is nie of dat daar nie ander meer geskikte liggings vir 'n nuwe VBTS buite of van residensiële gebiede is nie.

Die voorgestelde VBTS is vir gebruik deur Telkom. Die nuwe voorstel is vir 'n 15m hoë mas wat soos 'n boom kamoefleer is, in die suidwestelike hoek van die perseel. Verwante toerusting sal binne die bestaande gebou gehuisves word. Daar word ook voorsiening gemaak vir 3 addisionele gebruikers om die mas te deel, met gepaardgaande drie toerustingkamers/vraghouers wat in 'n area van 64m<sup>2</sup> (8m x 8m) opgerig kan word. Toegang daarheen sal vanaf Markstraat via die bestaande ingang na die perseel wees. Die terreinuitleg en gebou-ontwerp word getoon op aangehegte planne in Bylae 1.

Die aansoeker motiveer die voorstel aan die hand van die volgende (motiveringsverslag aangeheg in Bylae 2):

- a) Voldoen aan beginsels 7a tot 7e van SPLUMA, 2013:
- b) Groeiende getal datagebruikers skep behoefte aan meer VBTS's nader aan mekaar om uit te saai in die hoër frekwensiebande wat deur Telkom gebruik word. Bestaande Telkom persele is onvoldoende om goeie dekking in die teikengebied te lewer.
- c) Daar is geen 3de party mas beskikbaar vir gesamentlike gebruik nie.
- d) Huidige dekking van teikenarea is onvoldoende, soos verduidelik aan die hand van gesimuleerde dekkingskaarte en sal baie verbeter met die oprigting van die voorgestelde VBTS.
- e) Selfoontoring se mikrogolwe hou nie enige bewese gesondheidsgevaar vir die publiek is nie. Geboue in omgewing is slegs enkel en dubbelverdieping, sodat dit buite die riglyn veiligheidsone van 50m val.
- f) Visuele impak word beperk deur 15m hoogte van mas en kamoeflering.

#### PART E: SUMMARY OF PUBLIC PARTICIPATION

Public participation required in terms of Sections 45- 49 of the By-law?				Y	N
Where participation is required, state method of advertising	Press	Notices	Ward Councillor	Other	

#### PART F: SUMMARY OF COMMENTS RECEIVED DURING PUBLIC PARTICIPATION (if applicable)

Die volgende twee besware is ontvang (aangeheg in Bylae 3):

1. S Theron, Hospitaalstraat 1A (Erf

- Op estetiese vlak sal dit die landelike en historiese atmosfeer (*ambiance*) van die dorp skaad.
- Dit sal toerisme skaad, met negatiewe impak op ekonomie.
- Eiendomswaardes sal verlaag word, omdat mense nie naby 'n toring wat lelik vertoon en uitstraling veroorsaak, wil woon nie.
- Die toring is onnodig, in lig van onlangse optiese veselkabel installasie in die dorp.
- Gesondheidsrisikos

2. S Hendon, Piet Retiefstraat 45 (Erf 1635)

- Vorige aansoek het gewys dat die bure dit teenstaan
- Negatiewe impak op beswaarmaker se uitsig op berge vanaf haar eiendom
- Negatiewe impakte soos geraas en beweging van konstruksievoertuie tydens die konstruksietydperk.
- Sal kans om eiendom te verkoop verminder en moontlike verkoopprijs verlaag.



Die aansoeker se reaksie op die besware verskyn in Bylae 4. Dit kan as volg opgesom word:

- Mas sal gekamoefleer word soos 'n boom om visuele impak te versag.
- VBTS sal ontvangs verbeter en dus tot voordeel van die dorp wees e nook dekking aan besoekers (toeriste) bied.
- Daar is geen bevestigde bewyse dat so 'n mas eiendomswaardes sal verlaag nie. Dit sal wel waarde van sake-eiendom verhoog.
- Optiese vesel stelsels verskil van seltorings deurdat eersgenoemde 'n vaste lyn voorsiening is en laasgenoemde fokus op (3G/LTE) selfoondkking. Optiese vesel stelsel sal ook nog lank neem om bekostigbaar vir almal te wees.
- Daar is tans geen sterk bewyse dat blootstelling aan golwe van selfoontorings moontlik gesondheidsprobleme kan veroorsaak. SA Departement van Gesondheid se skrywe van 11 Maart 2019 is aangeheg om te bevestig en dat die vlakke van uitstraling van selulêre basisstasies binne veilige norme is en geen negatiewe gesondheidsrisikos inhou nie.
- Residensiële eiendomme in die nabyheid is ook naby sakegesoneerde eiendomme in 'n deel van die dorp wat altyd onderhewig sal wees aan verandering.
- Al hoe meer mense werk deesdae (na COVID) vanaf die huis en verbeterde dekking sal dus meer mense die geleentheid bied om te hervestig op plattelandse dorpe soos Montagu, tot voordeel van die plaaslike ekonomie.
- Die konstruksie sal minder as 30 dae neem en voldoen aan alle voorgeskrewe veiligheidsregulasies vir dié tipe infrastruktuur. Dit sal dus minimale impak tydens die konstrukiefase hê.

#### **PART G: SUMMARY OF COMMENTS FROM ORGANS OF STATE AND/OR MUNICIPAL DEPARTMENTS (if applicable)**

##### **Siviele Ingenieursdienste**

Geen siviele dienste betrokke. Geen beswaar.

##### **Boubeheer**

Geen kommentaar

##### **Elektriese Ingenieursdienste**

Die Elektriese Departement het geen beswaar teen die aansoek nie.

Die aansoeker is verantwoordelik vir die volgende kostes:

- Indien daar enige verandering aan die bestaande netwerk, meetpunt of aansluitingaangebring moet word.
- 'n Grootmaathewing is betaalbaar teen die toepaslike tarief indien die bestaande aansluiting opgegradeer moet word.
- Slegs een aansluiting word voorsien per erf.

Die aansluitings sal onderworpe wees aan enige beperkende maatreëls wat die Nasionale Regering mag nodig ag vir die besparing van elektrisiteit.

##### **Brandweer**

Geen beswaar

##### **Verkeer**

Geen kommentaar.

##### **Wyksraadslid**

Geen kommentaar ontvang

##### **Omgewingsgesondheid – Kaapse Wynland Distriksmunisipaliteit**

Geen beswaar. Berus by inhoud van Dept, Gesondheid se goedkeuring van die riglyne wat deur die International Commission on Non-Ionizing Radiation Protection (ICNIPR) publiseer is.

## **PART H: MUNICIPAL PLANNING EVALUATION (REFER TO RELEVANT CONSIDERATIONS GUIDELINE)**

### **WENSLIKHEID**

#### **Versoenbaarheid met ruimtelike planne**

Die Langeberg Ruimtelike Ontwikkelingsraamwerk, (LSDF), 2015 maak nie detail voorstelle vir grondgebruike binne dorpe nie, maar verwys net na voorgestelde stedelike ontwikkeling in die algemeen. Insoverre dit deel vorm van stedelike ontwikkeling, is die voorstel wel versoenbaar met die LSDF.

#### **Sosio-ekonomiese impak**

Die oprigting van die VBTS hou ekonomiese voordele in vir die maatskappy wat dit bedryf. Die aansoeker voer aan dat dit ook 'n ekonomiese voordeel inhou vir besighede in die omgewing.

Die beswaarmakers is egter van mening dat die toring die verkoopswaarde van nabygeleë eiendomme sal verswak, asook dat dit afbreuk sal doen aan die omgewing, met gevolglike negatiewe impak op toerisme.

Die toring sal langs die bestaande Telkom sentrale gebou opgerig word, wat reeds 'n bepaalde impak op die karakter van die betrokke stedelike area het. Die toevoeging van 'n VBTS met 'n boom-gekamofleerde mas van net 15m hoog behoort nie die meer afbreuk aan die residensiële omgewing te doen as wat die bestaande gebou reeds doen nie. Dit behoort dus ook nie by te dra om eiendomswaardes of -verkoopsmoontlikheid te verswak of toerismepotensiaal te benadeel nie.

#### **Versoenbaarheid met omliggende gebruike en karakter van area**

Die aansoekperseel is op die raakvlak van die sakegebied en woongebied. Dit sal versoenbaar wees met die sakegebied en spesifiek met die bestaande gebruik van die perseel as telefoonsentrale. Die voorgestelde ligging daarvan op die perseel is egter aan die woongebied se kant, waar dit nie versoenbaar met die residensiële karakter van die betrokke straatblok en omliggende residensiële omgewing sal wees nie. Die voorgestelde kamouflering en hoogte van die toring wat beperk word tot 15m, kan wel help dat die mas inpas by die residensiële omgewing tot so 'n mate dat dit versoenbaar daarmee kan wees.

#### **Impak op eksterne ingenieursdienste**

Geen verandering aan die eksterne ingenieursdienste word verlang nie en die Departement Siviele Ingenieursdienste het geen vereistes vir die opgradering van dienste gestel nie.

#### **Impak op veiligheid, gesondheid en welstand van die omliggende gemeenskap en op die lewenskwaliteit van die inwoners in die onmiddellike omgewing**

Volgens inligting van die Departement van Gesondheid en die Wêreldgesondheidsorganisasie wat die aansoeker verskaf het, is die tipe – en vlakke van uitstraling binne nasionaal aanvaarde standaarde en is daar nie oortuigende wetenskaplike bewys dat dit 'n negatiewe effek op gesondheid sal hê nie.

Buiten vir die vermeende impak op gesondheid, kan die visuele- en geraas-impakte van die VBTS ook 'n wesenlike invloed op die lewenskwaliteit van die omliggende inwoners hê. Die visuele impak behoort voldoende versag te word met die huidige voorstel. Die gebou op die perseel is sowat 13.3m hoog (volgens goedgekeurde bouplanne op rekord), wat beteken die 15m hoë mas sal net 2m hoër wees. Dit is moontlik dat die boomkamouflering teen hierdie skaal meer natuurlik sal vertoon en dus meer geredelik sal inpas by die stedelike toneel in die algemeen. [Dit blyk dat die aansoeker se kunstenaarsvoorstelling in Figuur 14 op bl 17 van die

motiveringsverslag moontlik die mas ietwat hoër voorstel in vergelyking met die gebou as wat dit in werklikheid sal wees. Sien eie voorstelling hieronder.]



### **Verkeersimpak, parkering, toegang en ander vervoerverwante oorwegings**

Daar word geen onaanvaarbare negatiewe verkeersimpak verwag nie. Die bestaande ingang in Markstraat gaan gebruik word. Die VBTS wek feitlik geen verkeer op wanneer dit in bedryf is nie. Daar is voldoende toegang en - ruimte op die perseel om konstruksievoertuie tydens die konstruksietydperk te akkomodeer. Die konstruksie sal relatief maklik en vinnig (maksimum 30 dae) wees, sodat die impak op verkeer minimaal sal wees.

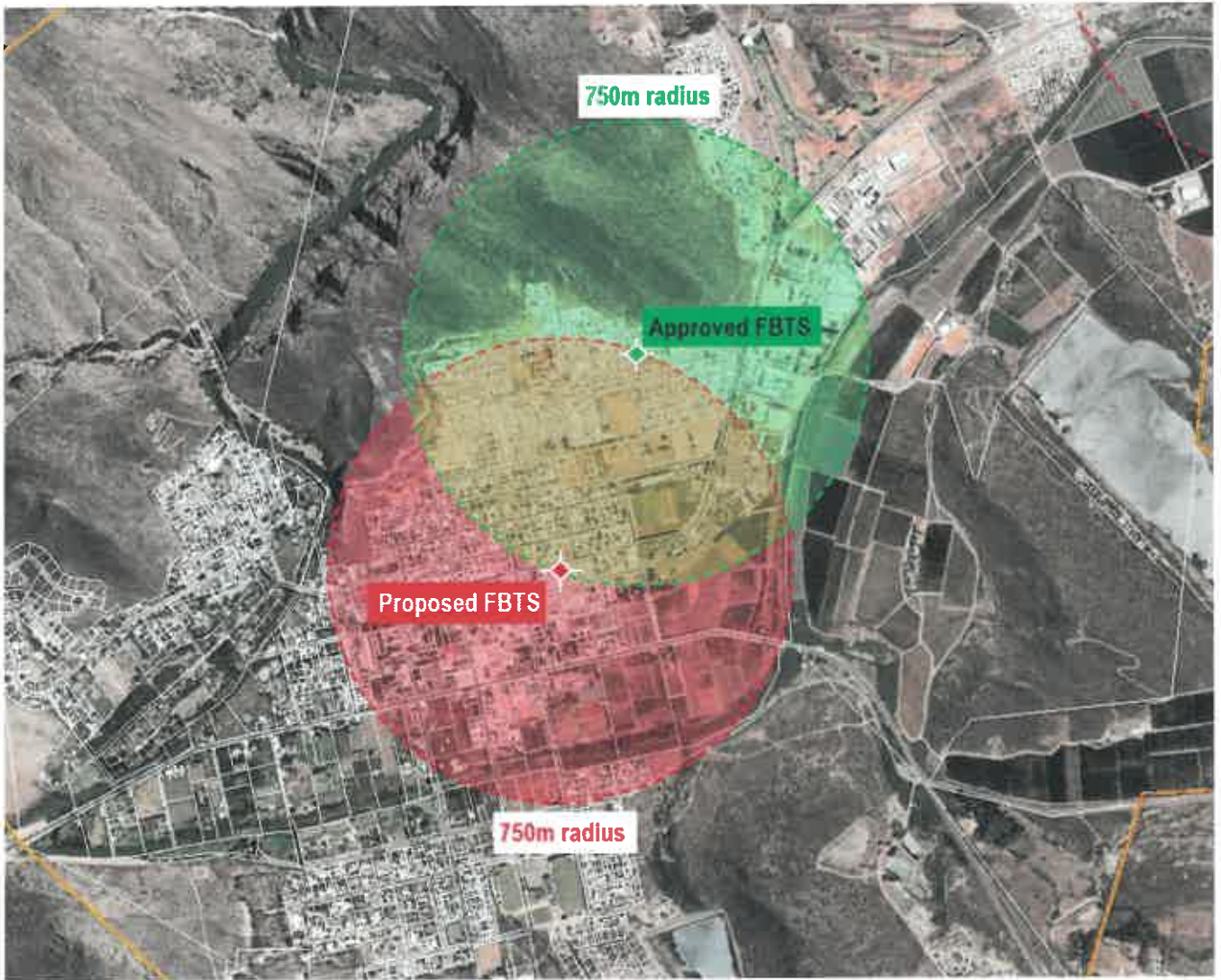
### **Behoeftes**

Die aansoeker se uitgangspunt is dat daar 'n behoefte bestaan vir verbeterde netwerkdekking in die betrokke area en dat die aansoekperseel die beste opsie is om daardie behoefte te bevredig.

Die aansoeker motiveer die behoefte aan meer telekommunikasiestasies vir Telkom aan die hand van 'n toename in datagebruikers in die algemeen. Daar word aangedui dat die behoefte vir en ligging van die spesifieke stasie deur Telkom identifiseer is op grond van kliënteklagtes uit die betrokke area. Geen stawende data is voorgelê nie. Die aansoeker beweer ook dat daar geen bestaande mas in die area beskikbaar is vir gesamentlike gebruik nie,

Daar is baie faktore wat die optimale verspreiding van selfoontorings in stedelike gebiede beïnvloed en die afstand tussen maste bepaal, bv hoogte van die mas, aantal gebruikers, tipe strukture en plantegroei in die omgewing, tipe tegnologie wat gebruik word, data-behoeftes en tegniese besonderhede van die sender en antenna. Die aansoeker motiveer die ligging aan die hand van

gesimuleerde dekingskaarte van die bestaande stasies sowel as die een waarvoor nou aansoek gedoen word. Dié simulاسie sluit egter nie die goedgekeurde VBTS op erf 3717 in nie. Laasgenoemde was ten tyde van die aansoek reeds as vergunningsgebruik goedgekeur en opgerig. Indien die VBTS op erf 3717 'n soortgelyke dekking as die voorgestelde VBTS bied, kan verwag word dat die twee stasies se dekking tot gedeeltelik sal oorvleuel (sien onderstaande voorstelling). Hoewel dit daarvolgens nie noodwendig optimaal geleë is nie, sal die voorgestelde stasie nietemin 'n addisionele area dek om sodoende die meeste van die dorp se beboude gebied te bereik.



**PART I: ADDITIONAL PLANNING EVALUATION FOR REMOVAL OF RESTRICTIONS (REFER TO ROR GUIDELINE)**

NVT

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## PART J: RECOMMENDATION

Dat die aansoek vir vergunningsgebruik op erf 1501, Montagu vir 'n Vrystaande Basis Telekommunikasiestasie (VBTS) met 15m hoë mas, wat soos 'n boom gekamoefleer is, ingevolge Artikel 60 van die Langeberg Munisipaliteit : Verordening op Grondgebruikbeplanning, 2015, **goedgekeur** word, om die volgende **redes**:

- a) Die behoefte vir en ligging van die spesifieke stasie is deur Telkom identifiseer om in die toenemende behoefte vir datagebruik in die betrokke area te voorsien.
- b) Die VBTS sal 'n groter en beter dekking in die beboude gebied van Montagu as wat tans die geval is, moontlik maak.
- c) Die voorgestelde hoogte en kamoeflering van die mas sal die visuele impak daarvan in so 'n mate versag dat dit versoenbaar sal wees met die karakter van die betrokke omgewing en nie 'n negatiewe impak op eiendomswaardes of toerismepotensiaal behoort te hê nie.
- d) Die voorstel is versoenbaar met die bestaande sonering, gebruik en geboue op die betrokke perseel.
- e) Die VBTS sal geen nadelige impak op verkeer hê nie.
- f) Daar is nie oortuigende wetenskaplike bewys dat die VBTS 'n negatiewe effek op gesondheid van mense in die omgewing sal hê nie.

Die goedkeuring is onderhewig aan die volgende **voorwaardes** opgelê ingevolge Artikel 66 van gemelde verordening:

1. Die ontwikkeling – ingesluit terreinuitleg, ontwerp, boumateriaal en kamoeflering van die mas - moet geskied volgens die planne gemerk MON1501-LBM-TP, MON1501-LBM-LO, MON1501-LBM-EL en voorstelle in die motiveringsverslag by die aansoek, ingesluit dat dit beperk word tot 'n hoogte van 15m bo natuurlike grondvlak en soos 'n boom kamoefleer moet word.
2. Volledige bouplanne vir alle nuwe strukture op die terrein moet by die Munisipale Boubeheerafdeling ingedien word en goedgekeur wees voordat enige daarvan opgerig mag word. Dit moet akkurate detail van die voorgestelde kamoeflering van die mas insluit, wat na die oordeel van die Bestuurder Stadsbeplanning voldoende natuurlik moet voorkom om die mas soos 'n boom in die omgewing te laat vertoon.
3. Die volgende geld ten opsigte van elektrisiteit:
  - 3.1 Enige verlangde opgradering of verandering aan die bestaande elektriese netwerk, meetpunt of aansluiting sal vir die aansoeker se rekening wees en sal onderhewig wees aan 'n toepaslike bydrae tot grootmaatsdienste volgens die toepaslike munisipale tariewe.
  - 3.2 Daar word slegs een elektriese aansluiting vir die erf voorsien, wat beteken dat die bestaande elektriese aansluiting ook vir die kommunikasiestasie gebruik moet word.
4. Daar word van die operateur vereis om enige kommunikasiestrukture wat in die toekoms nie voldoen aan die jongste gepubliseerde standaarde van die Wêreld Gesondheidsorganisasie, die Internasionale komitee vir Nie-ioniserende bestralingsbeskerming (wat deur die Departement van Gesondheid aangeneem is) en die Onafhanklike Kommunikasieowerheid van Suid Afrika nie, af te breek (*decommission*) of op te gradeer om wel aan die standaarde te voldoen.

## PART K: ANNEXURES

Bylae 1 - Planne

Bylae 2 - Motivering

Bylae 3 - Beswaar

Bylae 4 – Reaksie op beswaar

PART L: AUTHOR SIGNATURE:



.....  
J L E R VAN ZYL  
ASSISTANT MANAGER: TOWN PLANNING  
REGISTERED PROFESSIONAL PLANNER - NO. A/1170/2000

28-7-2022  
.....  
DATE

**Planne**



**GYRO APPROVAL**

Name: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 SITE NAME & NUMBER  
 Montagu Exchange 05167-P1

**RESPONSIBILITIES**

Name	Contact Number
TX (NIP)	
Property	
Build	
Site ENG	
Survey	
Adilcan	083 299 6198
Consultant	

REV. DATE:	REMARK
B 09/02/2022	Change Mast

**NOTES:**

- \*New Site Build
- \*8m x 6m Site size
- \*1.5m Tree Mast

**TITLE:** New Site Build

**SITE CO-ORDINATES:**  
 Lat: 33.785717° S  
 Long: 20.124764° E

**PROPERTY DESCRIPTIONS:**  
 E1 1501 in Montagu

**HASLI(m)**  
 228m

**ADDRESS:**  
 15 Mark Street  
 Bergsig, Montagu



**TITLE:** Aerial Photos

**SCALE:** NTS

NAME	SIGNATURE	DATE
SURVEYOR: Adilcan		09/02/2022
DRAWN: S. Bisschaff		09/02/2022
APPROVE:		

DWG No: 88\_UA\_05167-P1\_REV B 3 OF 7



**GYRO APPROVAL**  
 Name: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Signature: \_\_\_\_\_

SITE NAME & NUMBER  
 Montagu Exchange 05167-P1

RESPONSIBILITIES	
Name	Contact Number
TX (NIP)	
Property	
Build	
Site ENG	083 299 6198
Survey	Adriaan
Consultant	

REV	DATE	REMARK
B	09/02/2022	Change Mast

NOTES:  
 \*New Site Build  
 \*9m x 6m Site size  
 \*15m Tree Mast

TITLE: New Site Build  
 SITE CO-ORDINATES:  
 Lats: 33.785717° S  
 Longt: 20.124764° E  
 HASL (m) 228m  
 PROPERTY DESCRIPTIONS:  
 EF 1501 In Montagu

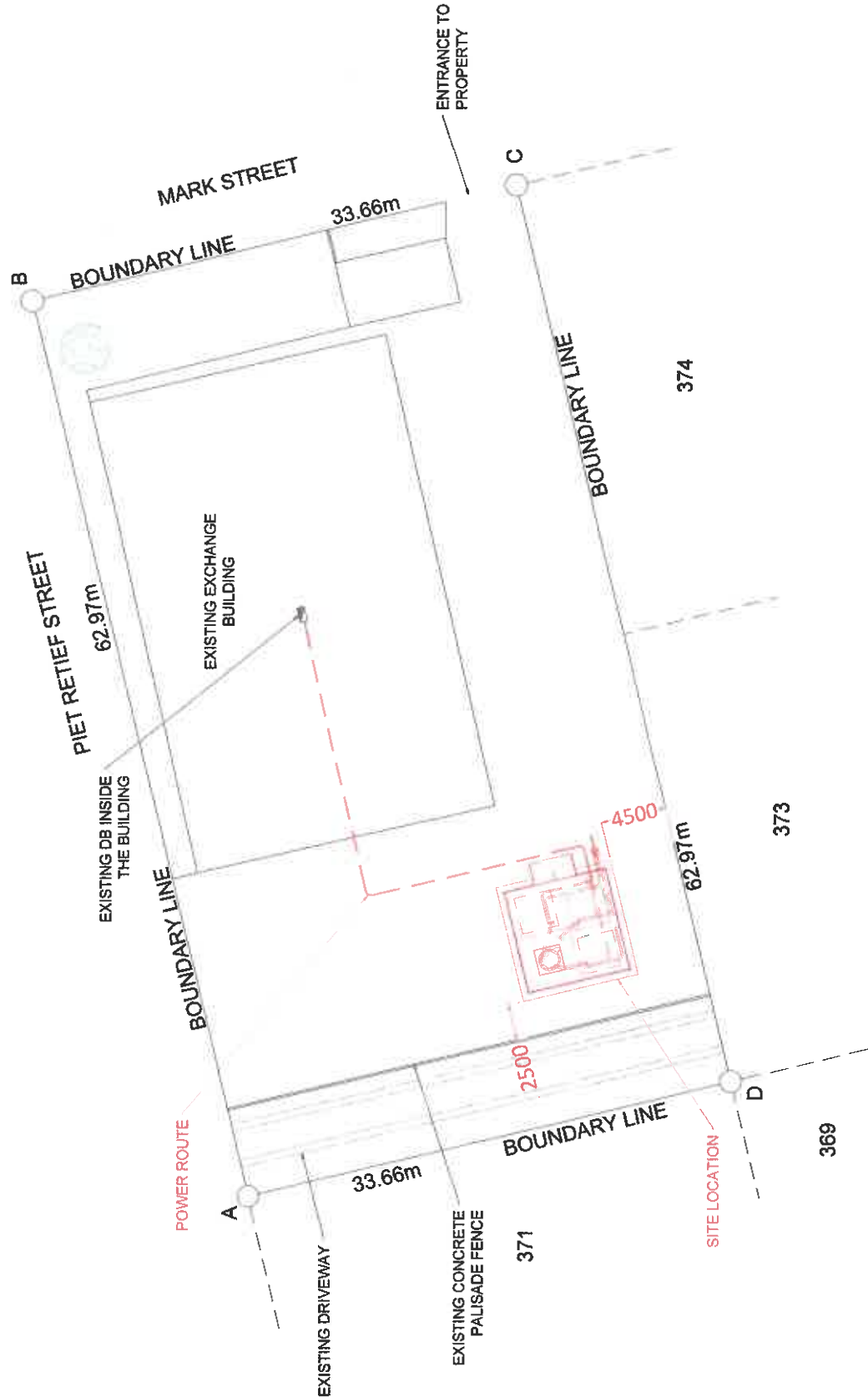
ADDRESS:  
 15 Mark Street  
 Bergsig, Montagu



164 3RD AVE  
 BRIDELL  
 KEMPTON PARK  
 1625  
 Tel: +27 (06) 111 1017

NAME	SIGNATURE	DATE
SURVEYOR: Adriaan		09/02/2022
DRAWN: B. Sschoff		09/02/2022
APPROVE:		

DWG No: 05\_ILA\_05167-P1\_REV B 4 OFF 7



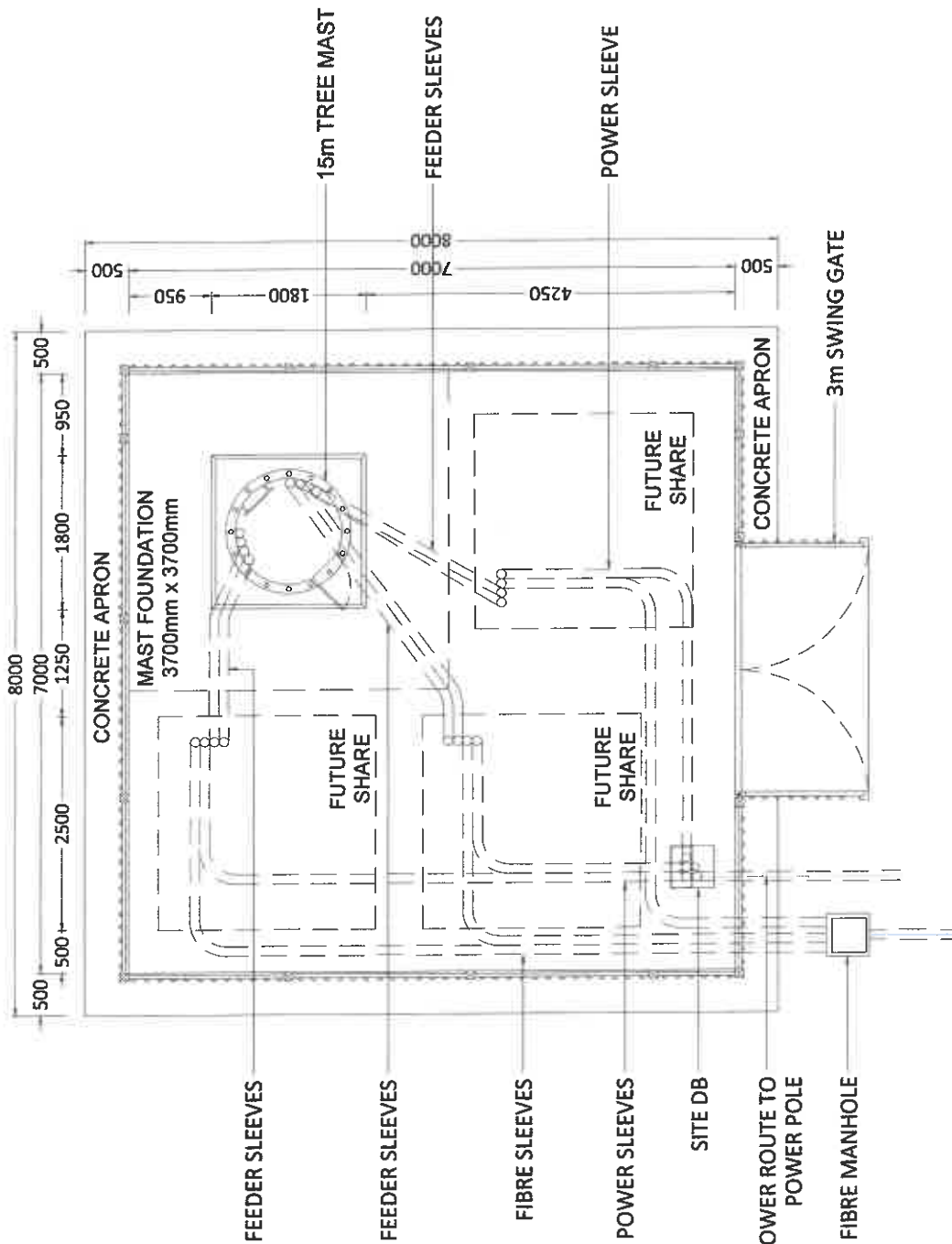
MON 1501 - LBM - TP



MON 1501 - LBM - LO

**BASIC LEDGEND:**

EXISTING GANTRY	PROPOSED GANTRY	EXISTING BUILDING	POWER TRANSMISSION RUN	EARTH ROUTING	GPS RUN	FIBRE RUN



**GYRO APPROVAL**

Name: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Signature: \_\_\_\_\_

SITE NAME & NUMBER  
 Montagu Exchange 05167-P1

**RESPONSIBILITIES**

Name	Contact Number
TX (NIP)	
Property	
Build	
Site ENG	
Survey	083 299 6198
Consultant	

REV	DATE	REMARK
8	09/02/2022	Change Mast

**NOTES:**

- \*New Site Build
- \*8m x 8m Site site
- \*15m Tree Mast

**TITLE:** New Site Build

**SITE CO-ORDINATES:** HASLI(m)  
 Lat: 33,786717° S  
 Long: 20,124764° E

**PROPERTY DESCRIPTIONS:**  
 Erf 1501 In Montagu

**ADDRESS:**  
 15 Mark Street  
 Bergsig, Montagu



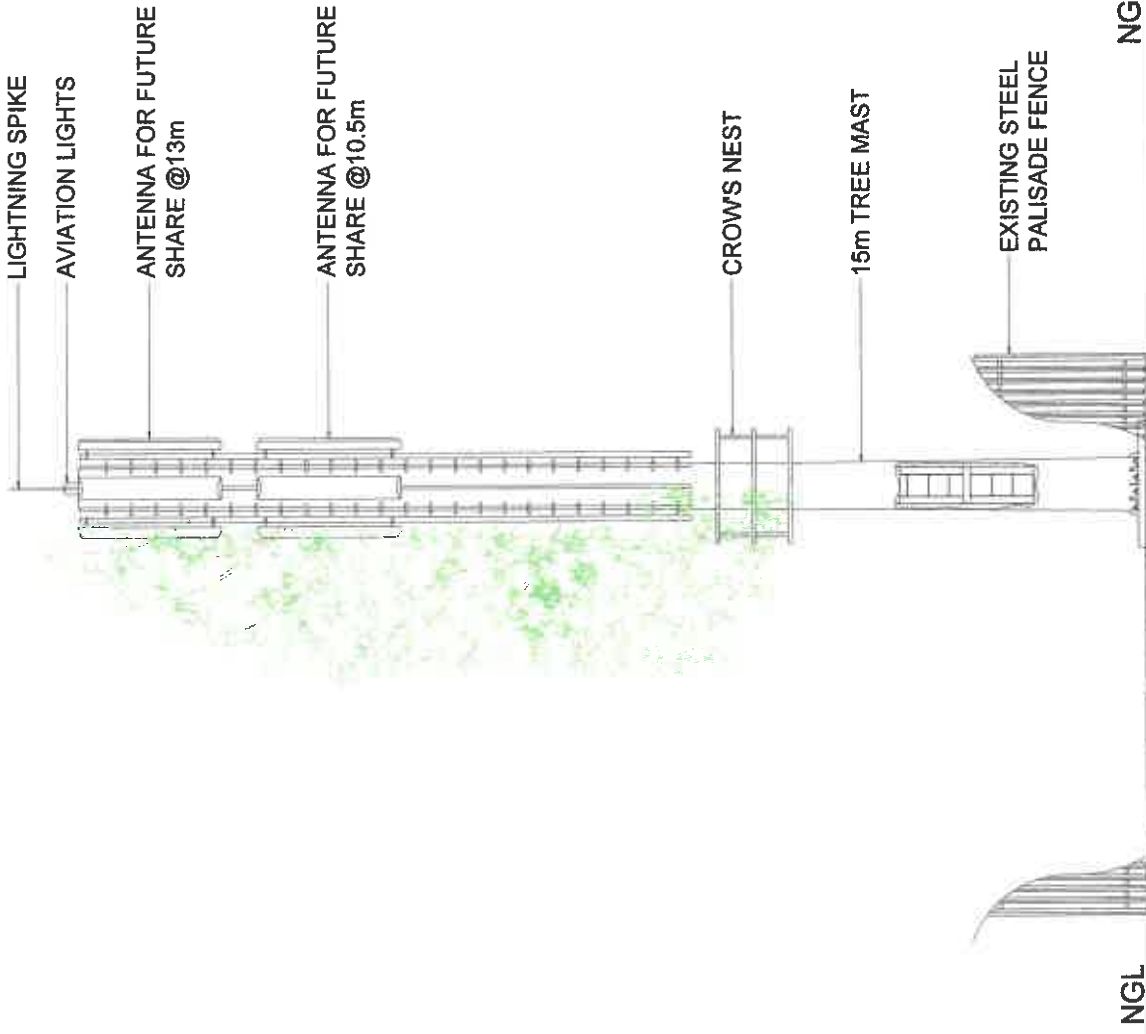
**TITLE:** Site Layout  
**SCALE:** 1:75

NAME	SIGNATURE	DATE
SURVEYOR: Achican		09/02/2022
DRAWN: B.Bisschoff		09/02/2022
APPROVE:		

DWG No: 88\_UA\_05167-P1\_REV 8  
 5 OFF 7

MON 1501 - LBM - EL

15



**GYRO APPROVAL**  
 Name: \_\_\_\_\_  
 Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
 SITE NAME & NUMBER  
 Montagu Exchange 0516741

RESPONSIBILITIES	
Name	Contact Number
TX (NIP)	
Property	
Build	
Site ENG	
Survey	
Adfican	083 299 6198
Consultant	

REV	DATE	REMARK
B	09/02/2022	Change Mast

NOTES:  
 \*New Site Build  
 \*9m x 6m Site Size  
 \*15m Tree Mast

TITLE: New Site Build  
 HASL(m) 228m  
 SITE CO-ORDINATES:  
 Lat: 33.785717° S  
 Long: 20.124744° E  
 PROPERTY DESCRIPTIONS:  
 Er 1501 In Montagu

ADDRESS:  
 15 Main Street  
 Bergsig, Montagu  
 164 BRD AVE  
 BREDELL  
 KEMPTON PARK  
 1619  
 Tel: +27 (86) 111 1017



Elevation View	
NAME	SIGNATURE
SURVEYOR: Adfican	
DRAWN: B. Bisschoff	
APPROVE:	
DWG No: 88_ILA_0016741_REV B	6 OF 7

**Motivering**



# PROPOSED CONSENT USE FOR A TELECOMMUNICATION BASE STATION

ERF 1501, MONTAGUE  
LANGE BERG

*GEWYSIGTE VERSLAG  
ONTVANG PER E-POS  
4/7/2022.*



Town Planners & Applicant:



Client:



**ILANGA TECHNOLOGIES (PTY) LTD**

164, 3<sup>rd</sup> Avenue, Bredell, Kempton Park, Gauteng, South Africa  
P.O. Box 14273, Bredell, 1623  
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## 2 MOTIVATION

### 2.1 HISTORICAL BACKGROUND

Over recent years cellular communication in South Africa 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 products and their service. However, over time more reasonable consumer tariffs and packages have been introduced, making cellular communication more accessible to a much larger sector of the population.

Data usage on the network is also becoming faster, more affordable, and more accessible. User behavior 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 demand which leads to a congested network with connection problems and dropped calls on the voice network and limited and unstable internet connections on the data network.

The cellular service provider is 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. We strive to make this technology available to the wider spectrum of the population.

Newer technology like LTE provides faster internet to more users which alleviates the pressure on the base station, but its range is very limited. A single old generation GSM voice-based base station could cover dozens of kilometers. 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 a decrease in its coverage range necessitates that the distance between base stations decreases resulting in the construction of new freestanding and rooftop cellular base stations.

It is calculated that cellular network operators in South Africa will build 2800 new base stations in the next 5 years.

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

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### 3 INTRODUCTION

#### 3.1 APPLICATION

- **Consent Use in terms of** the Langeberg Land Use Planning Bylaw (P.N.34/2018) to erect a 15m free-standing telecommunication base station (15m tree mast).

#### 3.2 CLIENT

On behalf of Telkom SA, Gyro appointed Ilangatech to submit this application on their behalf. The relevant powers of attorney and resolutions are attached.

#### 3.3 PROPERTY DESCRIPTION

The property is Telkom SA, the property is registered as Erf 1501, Montagu, Langeberg, under Title Deed T4384/1976.

The property measures 2120m<sup>2</sup> in extent and is currently used for a Telkom exchange site.

### 4 REGISTERED DETAIL

#### 4.1 TITLE DEED & CONVEYANCER'S INVESTIGATION

Table 1 reflects the currently registered detail of Erf 1501, Montagu, Langeberg. Please see a copy of the title deed attached.

REGISTERED DESCRIPTION	TITLE DEED NO.	REGISTERED OWNER	EXTENT
Erf 1501, Montagu, Langeberg	T4384/1976	TELKOM S A LTD	2120m <sup>2</sup>

#### 4.2 SURVEYOR GENERAL'S DIAGRAM

Copies of the relevant Surveyor General's diagrams are attached.

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## 5 SITE & CONTEXTUAL ANALYSIS

### 5.1 LOCATION



Erf 1501, Montagu, Langeberg, is located in the Central Business District (CBD), of Montagu. (Please see figure 1. and attached locality plan)

Figure 1. Locality

### 5.2 LAND USE AND SURROUNDING PROPERTY

The property is currently zoned Business Zone 1 and therefore a consent use application has to be submitted council. (Please see Figures 2. and 3. below).



Figure 2. Extract from zoning map

The property surrounding Erf 1501, Montagu, is predominately used for business purposes as depicted in figure 2 above.

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## 6 DEVELOPMENT PROPOSAL

### 6.1 APPLICATION SPECIFICATIONS

The client, Gyro wishes to apply for consent use to erect a 15m tree mast as recommended by Langeberg Municipality.

### 6.2 DEVELOPMENT CONCEPT

The application comprises the following proposed development parameters:

- Antenna for future share to be mounted inside @13m
- Cat ladder 15m tree tower

The total ground coverage of the proposed tree tower is 64m<sup>2</sup>. (Please see attached building plan and figure 3. below)

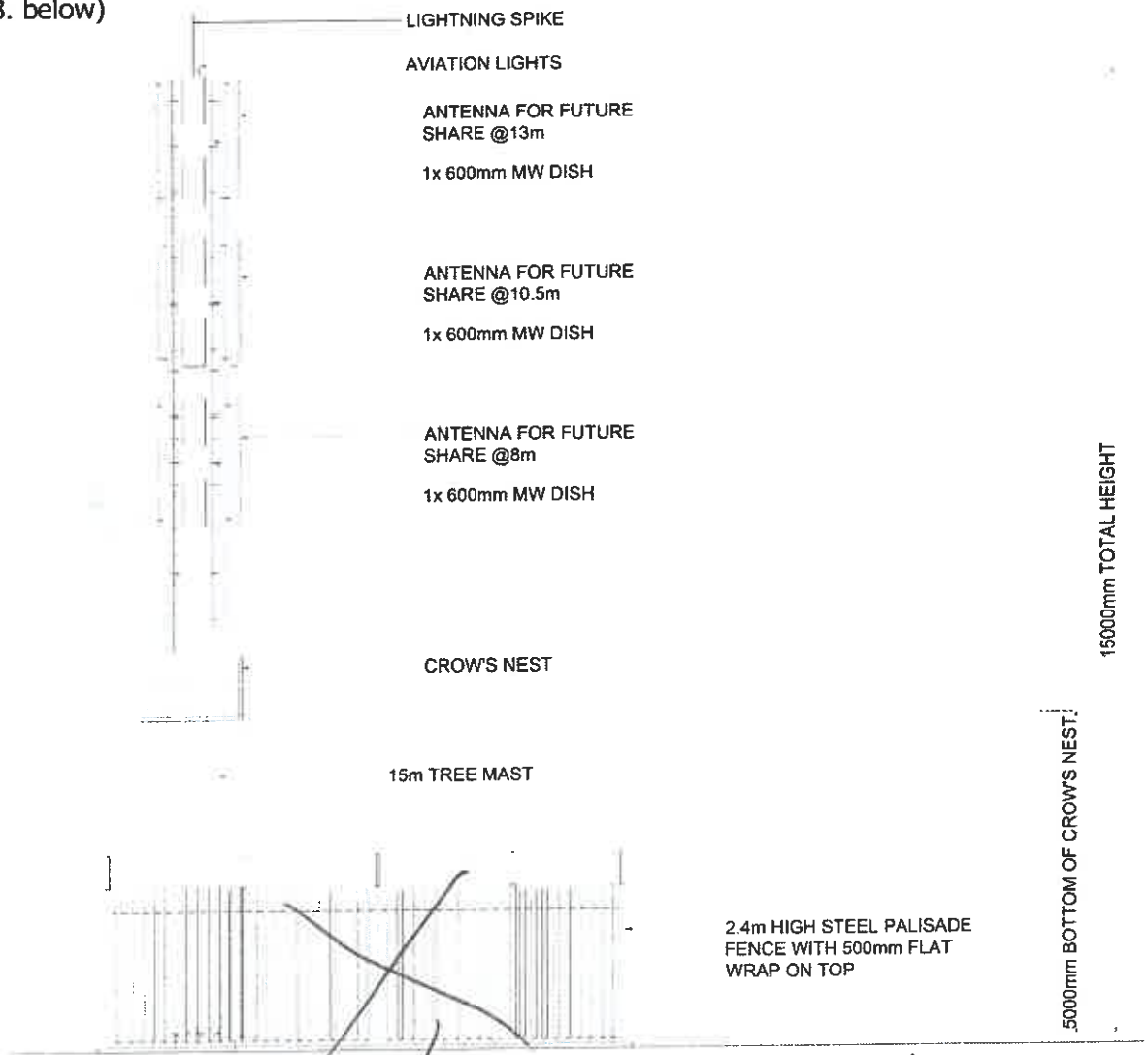


Figure 3. Proposed 15m tree mast

See par. 6.6 - no fence required

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# PROPOSED CONSENT USE APPLICATION FOR A TELECOMMUNICATION BASE STATION

## 6.3 BUILDING LINE RELAXATION

No building line relaxation is required as the building line parameters for Business Zone 1 is as follows:

- Street building – 0m - **Comply**
- Common building – 0m - **Comply**
- Street centerline setback – 8m - **Comply**

## 6.4 TITLE DEED RESTRICTIONS

Erf 1501, Montagu is held against title deed no T4384/1976 and indicates that the property is owned by TELKOM SA LTD. There are no restrictive title deed conditions that hinder the erection of the proposed freestanding telecommunication base station on the subject property.

## 6.5 ACCESS

The property gains access from Mark Street as depicted in figure 4. below.



*Figure 4. Existing access*

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# PROPOSED CONSENT USE APPLICATION FOR A TELECOMMUNICATION BASE STATION

## 6.6 SECURITY

The proposed Freestanding Base Station site is situated within the existing Telkom property and therefore will not need to be fenced. Access to the site is limited to authorized persons and access points will always be kept locked, for security and safety purposes.

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

## 6.7 POWER

The base station will be connected to the existing power supply on the property. The electricity supply will be surveyed by a professional electrical engineer who will confirm if the existing power supply has the spare capacity required to operate the proposed base station successfully and safely. If an upgrade is required, then a power upgrade application will be submitted to Langeberg Municipality.

## 6.8 SOCIOECONOMIC IMPACT

The proposed freestanding telecommunication base station will be an asset for the town of Montagu and its tourism industry as it will provide the town with much-needed coverage that will provide coverage for its visitors.

The mobile communications system has developed from infrastructure for communications to that for people's daily lives. 5G, which is rolling out worldwide, will develop to even infrastructure for our society. Beyond 5G, the next generation of 5G, is expected to be a backbone of Society 5.0 by integrating cyberspace with physical space.

Consumers continuously expect more out of their service providers, in terms of larger data buckets, faster speeds, more reliable connectivity, and more advanced services.

A key advantage of 5G technology is that it is a more cost-effective way to serve more subscribers. The 5G roll-out will enable networks to serve more South Africans in rural areas like in this case Montagu, at lower cost, and begin to empower more people through access to connectivity.

As a consequence of the covid, 19 pandemic, more and more people are working remotely and therefore gives people the opportunity to relocate to rural areas like Montagu, and therefore stimulates the economies of these small towns.

## 6.9 IMPACT ON THE SURROUNDING AREA

The residential properties in the area are located near the CBD of Montagu and therefore will always be near to properties that are zoned for business and had to take into consideration and acknowledge the fact that this part of town will always be more acceptable to change as time goes on.

## 6.10 ENVIRONMENTAL REGULATIONS

The proposed mast will be 15m high. In terms of the NEMA Regulations promulgated on 4 December 2014, activity 3 of Listing Notice 3 published in Government Notice No. R895, the proposed development does not constitute a listed activity and as such does not require an Environmental Authorization.



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## 7 POLICY AND LEGISLATION

### 7.1 LANGEBERG MUNICIPALITY INTEGRATED ZONING SCHEME BY-LAW.

According to the Langeberg Municipality Integrated Zoning Scheme, a freestanding telecommunication base station is permitted as a consent use and therefore this formal land use application (Consent use) will be lodge to Langeberg Municipality to erect a 15m tree mast. Please see figure 5, extract from Schedule 1 use Zones Table below.

BUSINESS ZONES		
<b>Business Zone I (BZI)</b>		
<i>The objective of this zone is to provide for intensive business and mixed-use development with relatively few restrictions in order to promote urban vitality and economic growth. This can, however, also include low intensity commercial and mixed-use development.</i>	<b>Primary use</b> <ul style="list-style-type: none"> <li>Business premises</li> </ul>	<b>Consent uses</b> <ul style="list-style-type: none"> <li>Adult entertainment</li> <li>Adult services</li> <li>Adult shop</li> <li>Freestanding base telecommunication station</li> <li>Gambling place</li> <li>Helicopter landing pad</li> <li>Motor repair garage</li> <li>Open air motor vehicle display</li> <li>Place of entertainment</li> <li>Place of instruction</li> <li>Place of worship</li> <li>Renewable energy structure</li> <li>Self-storage facility</li> <li>Transport use</li> <li>Warehouse</li> </ul>

Figure 5. Extract from zoning scheme

### 7.2 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 3 - Compliance of application with Principles 7a-7e of SPLUMA, 2013

	HOW DOES THIS APPLICATION COMPLY WITH THIS PRINCIPLE?
<b>Principle 7a:</b> <b>Spatial Justice</b>	In a broader sense, spatial justice refers to the intentional incorporation of spatial (geographical) aspects. This refers to the fair and equally distributed services and enhanced accessibility of these services. This proposal aims to provide excellent communication service to the inhabitants of an area.
<b>Principle 7b:</b> <b>Spatial Sustainability</b>	Spatial sustainability is an explicit concept that describes the relations between environmental, economic, and socio-cultural facets related to a societal environment. Enhanced signal in an area will promote all three 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

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## PROPOSED CONSENT USE APPLICATION FOR A TELECOMMUNICATION BASE STATION

	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 number of base stations should there be sufficient signal in an area.
<b><i>Principle 7c: Spatial Efficiency</i></b>	Spatial efficiency relates to the concept of minimum distance to be traveled between a specific location and the intended destination. The proposed free-standing base station is placed in an area (optimally situated between planned and existing stations) for a reason. This reason is to incorporate various factors (e.g. amount of users, quality of service, etc.) when considering the placement to promote effectiveness and is not merely placed by random.
<b><i>Principle 7d: Spatial Resilience</i></b>	Spatial resilience can be defined as the ability of a region to withstand possible arising shocks (e.g., economic crisis, social disruptions, etc.). However, the proposed free-standing base station will be a service that will always be necessary. In a state of crisis, communication plays an integral role in a societal environment.
<b><i>Principle 7e: Good administration</i></b>	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.

## 8 MOTIVATION

The consent use application for the construction of a free-standing telecommunication base station site should be supported on the following grounds:

### 8.1 NEED AND DESIRABILITY

The propagation of cell phone signals is very much dependent on the environment. Foliage, zinc roofs, concrete, bricks, etc. all have a cause and effect on the intensity of the radio signal.

Cell phone frequencies are transmitted in three main frequency bands, namely:

- The 800MHz band
- The 900MHz band
- The 1800MHz band
- The 2100MHz band
- The 2300MHz band

A correlation exists between the frequencies of transmission versus the propagation distance. Lower frequencies travel further when compared to higher frequencies.

Frequencies in the 800MHz and 900MHz bands can travel further and diffract around the corners of buildings. Frequencies in the 800MHz and 900MHz bands are used to provide coverage for the subscribers. Typically, the distance covered by frequencies in the 800MHz and 900MHz bands can be around 0~3.5KM.

The frequencies in the 1800MHz, 2100MHz, and 2300MHz bands have a shorter range of coverage. It will provide the coverage and capacity for the subscribers. Typically, the distance covered by

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frequencies in the 1800MHz, 2100MHz, and 2300MHz band can be around 0~1.5KM.

To provide good quality calls and data download rates in a built-up suburban environment, we use these three frequency bands in tandem to achieve optimal radio coverage.

### 8.2 SITE LOCATION AND OTHER ALTERNATIVES INVESTIGATED:

Referring to figure 6. below, the site is ideally located to provide assisted coverage and capacity.

The existing TELKOM sites on their own are unable to provide good radio coverage in this area due to the hilly terrain and don't hold enough capacity to serve the dense population in the area. This compromised radio coverage and capacity has resulted in customer complaints in the vicinity of the area that is demarcated by the yellow circle.



**Figure 6. Elevation profile**

Due to an increase in data users 50% Year on Year, current sites cannot meet our customer service quality requirements. This increase in users substantiate Telkom's request to build new sites within 500m of a radius of existing Telkom sites

No other 3<sup>rd</sup> party mast is available in the area that is depicted in figure 7. below.



**Figure 7. Surrounding base stations**

### 8.3 SITE LOCATION AND OTHER ALTERNATIVES INVESTIGATED:

Figure 8. below shows the Google Earth view of the area from a different angle. From this viewpoint, we can see many populations in this area without site support cell phone signals.

The site will provide much-needed coverage in the areas highlighted by the red circle. Other cell phone operators are invited to share Telkom's mast.

In the future, the area will require more planned sites due to enhanced wireless technology which ultimately leads to an increase in data usage demands.

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**Figure 8. Google Earth view.**

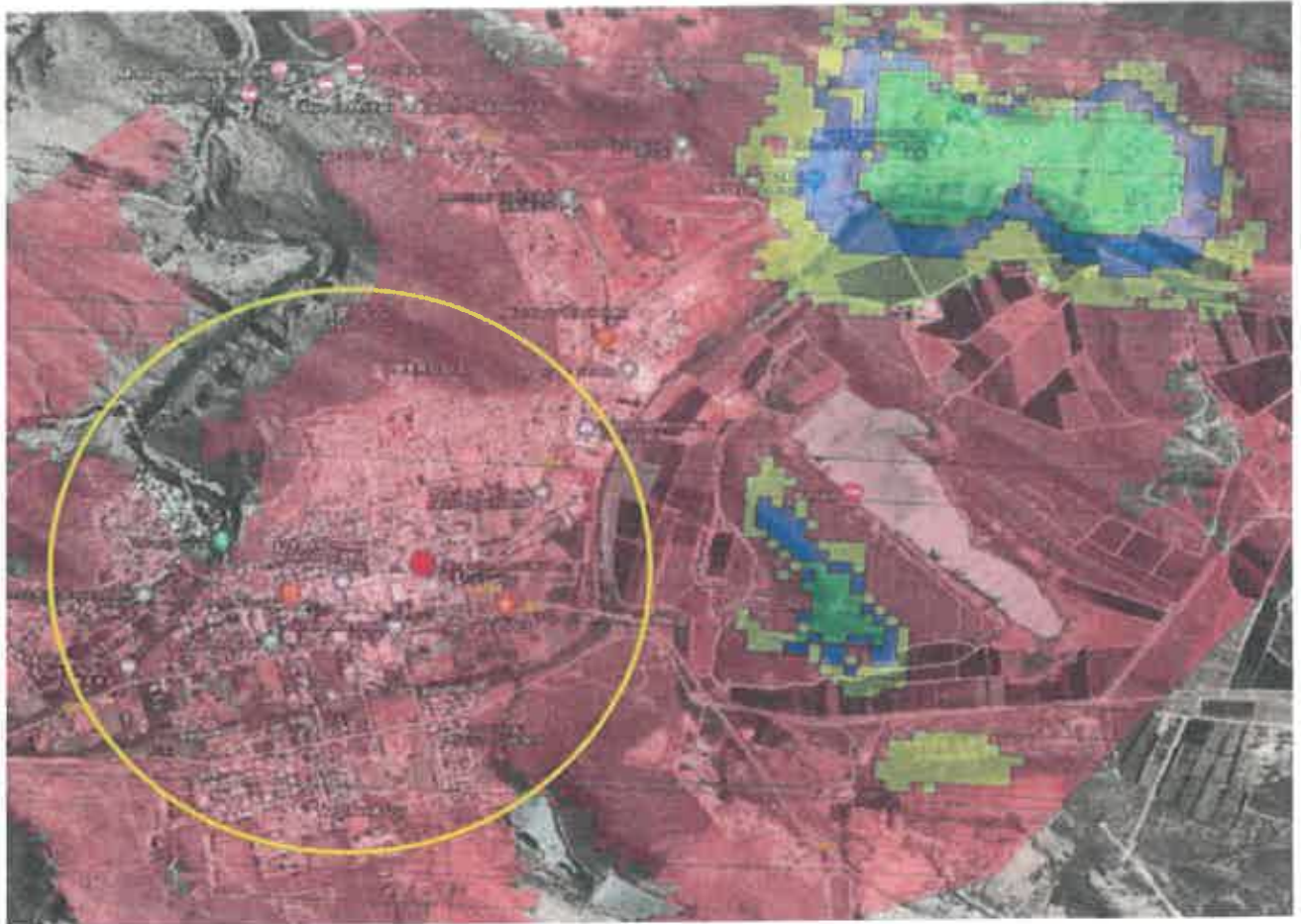
#### 8.4 SIMULATED COVERAGE WITH EXISTING TELKOM SITES:

Figure 9 below depicts the current coverage in the area with 2 operational sites. The color legend is classified as follows:

- RED –Extremely poor Coverage
- YELLOW – Poor Coverage
- BLUE – Good Coverage
- GREEN – Excellent Coverage

Due to the inter-transmission tower distance and variation in terrain, the radio signal is unable to penetrate the deep valleys. Currently, there is no dominant transmitter site servicing this area. The area with the red pixels indicates poor coverage and also means that the probability of in-building radio coverage is non-existent. This results in customer complaints being logged at Telkom center regarding poor network quality and low data throughputs.

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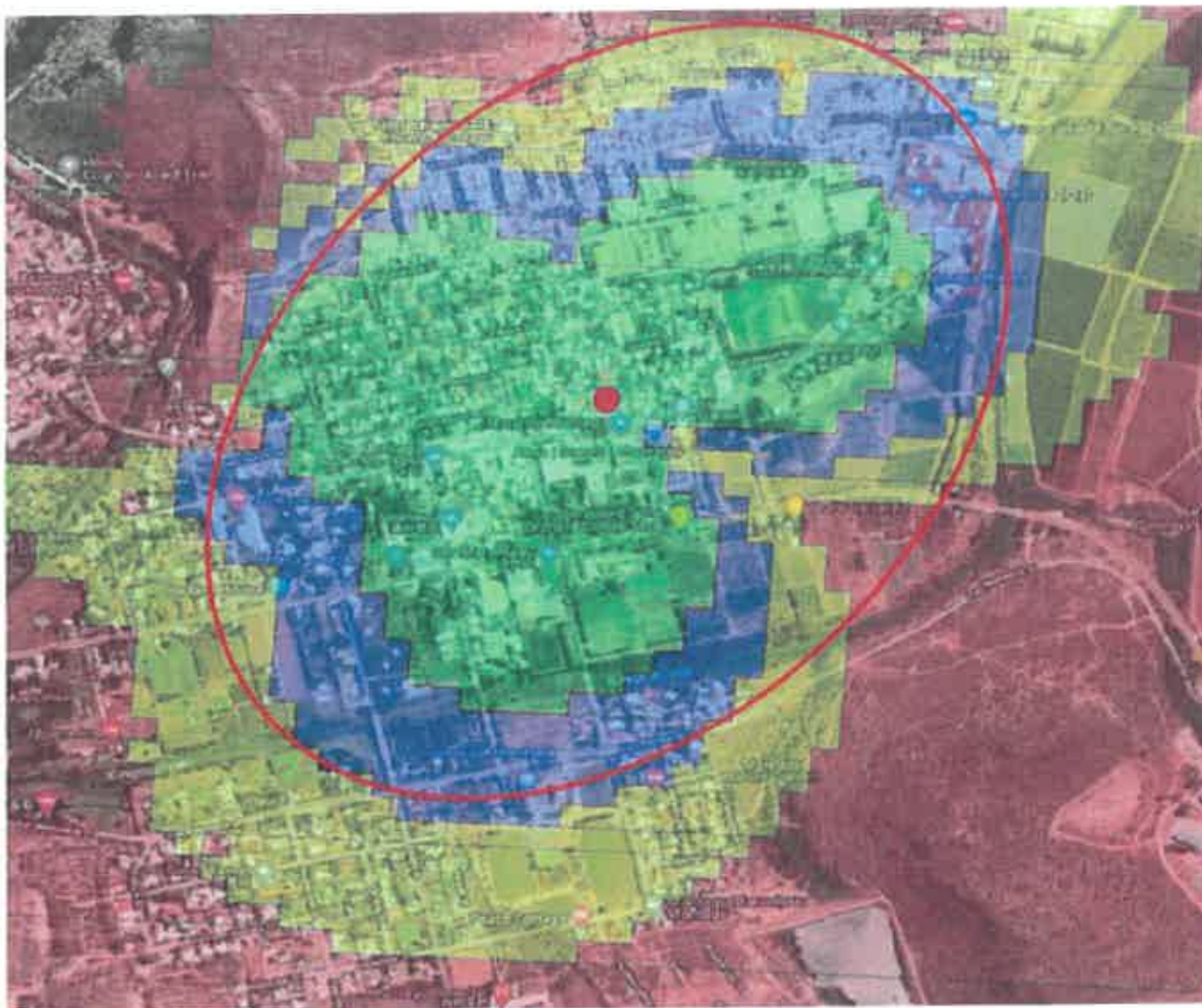
*Figure 9. Current coverage map.*

## 8.5 SIMULATED COVERAGE WITH PLANNED TRANSMITTER

Figure 10. below depicts the predicted current coverage in the area with the transmitter site activated. The color legend is classified as follows:

- RED –Extremely poor Coverage
- YELLOW – Poor Coverage
- BLUE – Good Coverage
- GREEN – Excellent Coverage

Note the improvement of the coverage in the areas that are demarcated by the red enclosures. From the improved coverage in this plot, we can justify that this area requires more sites to provide better network coverage and capacity.



**Figure 9. Coverage map with Transmitter Site 05167-P1 activated**

The area with the red pixels indicates poor coverage and means that the probability of in-building radio coverage is non-existent. This results in customer complaints being logged at Telkom's call center regarding poor network quality and low data throughputs.

## 8.6 HEALTH

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 antennae 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 radio waves are emitted at this level thereby further reducing the amount of radiation at ground level. Furthermore, regular tests regarding compliance with safety regulations add to reducing the health risk factor.

# PROPOSED CONSENT USE APPLICATION FOR A TELECOMMUNICATION BASE STATION

South Africa's Department of Health has published EMF exposure limit guidelines. These are based on guidelines endorsed by the ICNIPR (International Commission on Nonionizing Radiation Protection), an independent scientific organization established in 1992. Emissions from the base station and antennae follow these guidelines.

In a statement made to the Department of Health dated 23 June 2015 on the Health Effects. 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 were taken by the cellular communication companies to ensure the safety of the public against any harmful emissions, along with the above facts, concern about health issues can be allayed.

Furthermore, all the structures in the area are single or double-story buildings. This ensures that no building can be situated within the guideline public safety zone of 50m directly in front of the antennas as prescribed in objective 10.3 of the TMIP, 2015.

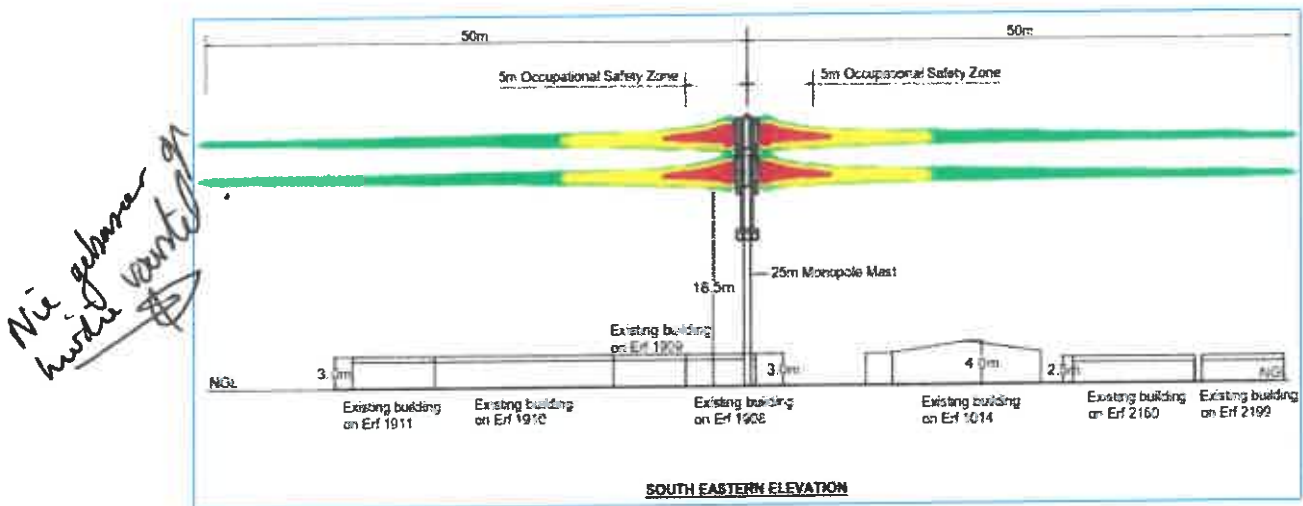


Figure 12 - 50m Public Safety Zones

## 8.7 VISUAL IMPACT

The visual impact of the above site is argued to be acceptable due to the placement of the antennas on the side of the proposed freestanding base station. The impact of the site proposed at a minimal height of 15m above the ground.

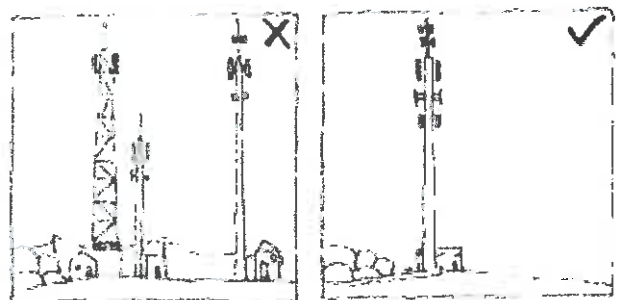


Figure 13 - Masts designed to encourage co-location



## 8.8 ARTIST IMPRESSION OF THE PROPOSED 15M TREE TOWER



**Figure 14 – Artist impression of proposed 15m tree mast on Erf 1501**



## 9 CONCLUSION

Due to the increasing data demands and technology Upgrade requirements especially in the urban and built-up areas, many more sites are required within an area to meet user requirements. Sites need to have overlapping coverage with smaller coverage areas, which means more sites are required in an area.

Capacity sites are sites that are intended to cover a small area (< 500m) but are accurately positioned to relieve existing sites that are congested. So, at times moving locations further from the required areas could create more issues with quality.

Telkom will always look at utilizing third-party mast/buildings to meet coverage requirements before opting to build a mast.

Aesthetics and mast placement are carefully considered when a site is being planned/built.

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## PROPOSED CONSENT USE APPLICATION FOR A TELECOMMUNICATION BASE STATION

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The Consent Use application for the proposed Telecommunication mast / Base station site on Erf 1501, Montagu, will provide an essential and sort after service to the surrounding community, businesses, and commuters. The proposed Telecommunication site is in line with the Langeberg Land Use Planning Bylaw (P.N.34/2018) and has a minimal impact on the surrounding property.

We trust that the application will meet your requirements and will receive your positive consideration.



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**Besware**

The Manager: Town Planning

3 Piet Retief Street, Montagu, 6720

6 April 2022

*Dear Sir/Madam,*

*Re: Objection to the Proposed 'Free Standing Base Telecommunication Station' on Erf 1501, Market Street, Montagu*

*My name is Sylvia Theron from 1A Hospital Street, Montagu. I strongly object to the erection of the above mentioned base station on the following grounds:*

- 1) **Aesthetic considerations** – a huge steel cell phone tower in the middle of our town will ruin the rural and historical ambiance of our town. Since tourism is one of our biggest income spinners, this tower will be a BIG negative to our economy!
- 2) **Property values** – people do not want to live or work next to cell phone towers....not only do they look ugly, but residents do not wish to be irradiated 24/7 by Wireless Electromagnetic Frequencies in close proximity.
- 3) **Not needed** – our town has recently acquired fibre connections, which in my opinion, are safer connections and just as fast. One just has to hardwire the router with cables...to avoid the health issues from WI FI radiation.
- 4) **Health issues** - The Bio Initiative Studies ( from 10 countries) Updated Research Summaries (bioinitiative.org) summarizes conditions caused by electromagnetic frequencies: "brain tumor risks from cell phones, damage to DNA and genes, effects on memory, learning, behavior, attention; sleep disruption and cancer and neurological diseases like Alzheimer's disease. Effects on sperm and miscarriage (fertility and reproduction), effects of wireless on the brain development of the fetus and infant, and effects of wireless classrooms on children and adolescents".

Regards,

Sylvia Theron

PROPOSED CONSENT USE APPLICATION FOR A TELECOMMUNICATION BASE STATION

SOUGHT

The Consent Use application for the proposed Telecommunication mast / Base station site on Erf 1501, Montagu, will provide an essential and sort after service to the surrounding community, businesses, and commuters. The proposed Telecommunication site is in line with the Langeberg Land Use Planning Bylaw (P.N.34/2018) and has a minimal impact on the surrounding property.

We trust that the application will meet your requirements and will receive your positive consideration.

45 Pier Relief Street  
(ERF 1635)

In response to the above application, my reply is an absolute NO. The previous application showed that the nearby neighbours were against it.

The artist's impression is exactly the view I would get from the front of my house.

I chose my house for an uninterrupted view of the mountains. I do not want to see this mast spoiling this.

There would be noise, temporary toilets, lorries etc. during the building of this monstrosity. Further, it would impact my chances of selling and no doubt having offers at a lower value.

Do not approve this application. Montagu is a beautiful dorp and this would not help to attract buyers and tourists.

Yours sincerely Sheila Hendon

Ontvang:  
6/11/2022  
Dial



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**Aansoeker se reaksie op besware**

Subject: Erf 1501, Montagu  
 Date of the subject letter: 25 April 2022  
 Received date: 21 April 2022

**RESPOND TO COMMENTS RECEIVED FROM SURROUNDING PROPERTY OWNERS IN REGARDS TO THE PROPOSED FREESTANDING TELECOMMUNICATION MAST ON A PORTION OF ERF 1501, Montagu.**

COMMENTS RECEIVED	ILANGA TECHNOLOGIES REponce TO COMMENTS
<b>Sylvia Theron</b>	
1. Aesthetic consideration – a huge steel cell phone tower in the middle of our town will ruin the rural and historical ambiance of our town. Since tourism is one of our biggest income spinners, this will be a big negative to our economy.	<p>The proposed freestanding telecommunication base station will be an asset for the town of Montagu and its tourism industry as it will provide the town with much-needed coverage that will provide coverage for its visitors.</p> <p>The proposed freestanding telecommunication base station will also be disguised as a tree to mitigate the visual impact.</p>
2. Property values – people do not want to live or work next to cell phone towers, not only do they look ugly, but residents do not wish to be irradiated 24/7 by wireless electromagnetic frequencies in close proximity.	<p>At present no confirmed evidence exists that property in close proximity to a freestanding telecommunication base station (tree tower) results in the decrease of the property. In contrast, it will definitely increase the value of the business properties in the area.</p>
3. Not needed- our town has recently acquired fibre connections, which in my opinion, are safer connections and just as fast. One just has to hardwire the router with cables to avoid heath issues from Wi Fi radiation.	<p>Fiber cables and tower infrastructure are very different from one another. Fiber entails fixed-line provisions and 3G/LTE is focused on mobile coverage.</p> <p>While cellular wireless started out as a voice network, text messaging became very popular, eclipsing voice for most users. Smartphones brought the internet to the phone, and soon data became the largest traffic generator for cellular networks.</p> <p>To provide the bandwidth needed to the tower or cell site, fiber is being used to connect the towers to the phone system.</p> <p>It must also be noted that fiber optics will take many years before it will be affordable for most of the population and therefore we have to provide coverage for the population in general and not only for the rich.</p>

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	<p>At this time there's no strong evidence that exposure to waves from cell phone towers causes any health effects. Please see the letter from the Health Department regarding the risk of cellular mast attached as Annexure A</p>
<p>4. Heath issues – The Bio Initiative Studies, summarizes conditions caused by electromagnetic frequencies: “brain tumor risks from cell phones, damage to DNA and genes, effects on memory, learning, behavior, attention; sleep disruption and cancer and neurological diseases like Alzheimer’s diseases. Effects on sperm and miscarriage (fertility and reproduction), effects of wireless on the brain development of the fetus and infant, and effects of wireless classrooms on children and adolescents.</p>	<p>Many people understandably are concerned about whether the RF (Radiofrequency) waves they give off might possibly have health effects.</p> <p>This perception has often led to public opposition to the construction and existence of these facilities in many parts of the country. The general public often misunderstands the concept that non-ionizing radiation (produced by base stations) can cause cancer and other health-related issues.</p> <p>Although both forms of energy are correctly called radiation, their biological effects are vastly different. Half-true or inaccurate information written on websites, media, and some groups of people with vested interest has caused a lot of opposition by the public to the development of telecommunication infrastructures.</p> <p>At this time there's no strong evidence that exposure to waves from cell phone towers causes any health effects. Please see the letter from the Health Department regarding the risk of cellular mast attached as Annexure A</p>
<p><b>Sheila</b></p>	
<p>1. The previous application showed that the nearby neighbors were against it.</p>	<p>The residential properties in the area are located within the CBD of Montagu and therefore will always be in close proximity to properties that are zoned for business and have to take into consideration and acknowledge the fact that this part of town will always be more acceptable to change as the time goes on.</p> <p>The proposed freestanding telecommunication base station will be an asset for the town of Montagu and its tourism industry as it will provide the town with much-needed coverage that will provide coverage for its visitors.</p>
<p>2. The artist impression is exactly the view I would get from the tour from my house.</p>	<p>The residential properties in the area are located within the CBD of Montagu and therefore will always be in close proximity to properties that are zoned for business and have to take into consideration and acknowledge the</p>

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	fact that this part of town will always be more acceptable to change as the time goes on.
3. I chose my house from an uninterrupted view of the mountains	The residential properties in the area are located within the CBD of Montagu and therefore will always be in close proximity to properties that are zoned for business and have to take into consideration and acknowledge the fact that this part of town will always be more acceptable to change as the time goes on.
4. There would be noise, temporary toilets, lorries ect. during the construction.	The construction phase of the proposed FSBS is a minor construction project and will not exceed the time period of 30 days and therefore will have a minimal impact on the surrounding area.  The erection of the proposed freestanding telecommunication base station will adhere to all safety regulations set out for the construction of telecommunication infrastructure.
5. Will demote buyers and tourists from the town.	As a consequence of the Covid 19 pandemic more and more people are working remotely and therefore the proposed FSBS will give people the opportunity to relocate to rural areas like Montagu, and therefore stimulated the economies of these small towns.



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## Department of Health

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### To whom it may concern

#### HEALTH EFFECTS OF CELLULAR BASE STATIONS AND HANDSETS

The Directorate: Radiation Control is the section within the National Department of Health that is responsible, from the viewpoint of human health, for regulating electronic products producing **non-ionising** electromagnetic fields (EMF), i.e. where the frequency of such EMF is less than 300 GHz. In carrying out this responsibility, the Directorate has been utilising the World Health Organization's (WHO) International EMF Project ([www.who.int/peh-emf/en/](http://www.who.int/peh-emf/en/)) as its primary source of information and guidance with respect to the health effects of EMF. The International EMF Project was established by the WHO in 1996 to (i) assess the scientific evidence for possible adverse health effects of non-ionising electromagnetic fields on an ongoing basis, (ii) initiate and coordinate new research in this regard, and (iii) compile health risk assessments for different parts of the electromagnetic spectrum. The Department of Health has been a member of the International Advisory Committee of the International EMF Project since 1998.

In June 2005 the International EMF Project hosted a workshop that was specifically aimed at considering the possible health consequences of the emissions from cellular base stations and wireless networks. The findings of this workshop were summarised in a 2-page Fact Sheet (<http://www.who.int/peh-emf/publications/facts/fs304/en/>). The following extract from this Fact Sheet is still considered by the WHO as a summary of the findings to date, i.e. ***“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.”***

Another WHO Fact Sheet was published in June 2011 and reviewed in October 2014, i.e. *Electromagnetic fields and public health: mobile phones*. This Fact Sheet can be found at <http://www.who.int/mediacentre/factsheets/fs193/en/> and the conclusion is stated as follows:

***“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.”***

The WHO recommends utilising internationally recognised exposure guidelines such as those published in 1998 by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) and reconfirmed in 2009 for the frequency range 100 kHz – 300 GHz (i.e. including all the frequencies employed by the cellular industry). The Department of Health likewise recommends the use of these ICNIRP guidelines to protect people against the known adverse health effects of EMF.

The numerous measurement surveys, which have been conducted around the world and in South Africa, have shown that the actual levels of public exposure as a result of base station emissions invariably are only a fraction of the ICNIRP guidelines, even in instances where members of the public have been really concerned about their exposure to these emissions. At present there is **no** confirmed scientific evidence that points to any health hazard associated with the very low levels of exposure that the general public would typically experience in the vicinity of a cellular base station. 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.

The Department of Health is not able to make any pronouncements about the specific levels of EMF that a member of the public would experience at any particular base station site when it is in operation. However, generally-speaking unless a person would climb to the top of a mast (or other structure supporting an antenna) and position him/herself not more than a few meters away right in front of the active antenna, such a person would have no real possibility of being exposed to even anywhere near the afore-mentioned ICNIRP guideline limits. Since these base stations are typically cordoned off by means of barbed wire fencing and locked gates/doors in order to protect the sensitive and expensive technology, getting to a mast and actually climbing it despite the afore-mentioned security measures would certainly not be considered responsible behaviour. Even then the only real threat to the health of the person would be falling at any height from the structure in question. Based on the results of numerous global and local surveys, the experience has been that the exposure to base station EMF at ground level is typically in the range of between 0.001 – 1.0 % of the afore-mentioned ICNIRP guideline limits. Against this background of available data, there

would be no scientific grounds to support any allegation that adverse health effects might be suffered by a responsible member of the public due to the EMF emitted by a base station.

Although the Department of Health currently neither prescribes nor enforces any compulsory exposure limits for electromagnetic fields, the Department does advise all concerned (whether they be a government department, the industry or the public) that voluntary compliance with the afore-mentioned ICNIRP exposure guidelines is the recommended and science-based way to deal with any situation involving human exposure to the non-ionising electromagnetic fields emitted by cellular base stations and handsets.

Yours sincerely,



**LL du Toit**  
DEPUTY DIRECTOR: RADIATION CONTROL