VISUAL IMPACT ASSESSMENT

FARM 1756, WELLINGTON

CELLULAR MAST

Client:

EnviroAfrica

P.O. Box 5367

Helderberg

7135

Compiled by:

S.C. Lategan

Farm 216

Bredasdorp

7280

Report history:

Version	Date	Amendments
Final Report Ref VIA-1756-01	06/10/2024	

Report to be cited: Visual Impact Assessment for Cellular Mast Erf 1756, Diemersfontein, Wellington, Drakenstein Municipality. September 2024

CONTENT

Photos

Tables

Figures

Relevant Qualifications & Experience of the Author

Ms Sarien Lategan holds an Honours Degree in Geography as well as a Masters Degree in Town and Regional Planning from the University of Stellenbosch. She has 7 years' experience as Town Planner at a local government; 3 years with South African National Parks as planner and project manager of various GEF and World Bank managed, tourist facilities in the Table Mountain National Park; and since 2004 as private practitioner involved in inter alia Site Analysis, Geospatial Analyst, Renewable Energy resources assessment and Visual Impact assessments for various types of developments ranging from housing, tourism to infrastructure developments.

Declaration of Independence

I, Sarah C. Lategan, declare that I am an independent consultant to Highwave Consultant and, has no business, financial, personal, or other interest in the proposed project or application in respect of which I was appointed, other than fair remuneration for work performed in connection with the application. There are furthermore no circumstances which compromise my objectivity in executing the task appointed for.

SC Lategan
06/10/2024

EXECUTIVE SUMMARY

This Visual Impact Assessment (VIA) report evaluates the potential visual effects of a proposed 25m lattice mast on Farm 1756, Diemersfontein, located near Wellington in the Drakenstein Municipal area. The mast, intended to accommodate cell antennae and base stations, is positioned within an agricultural zone and forms part of a mixed-use landscape that combines agricultural, tourism, and residential elements.

The receiving environment is characterized by a predominantly agricultural landscape, with pockets of urban intrusion, particularly residential estates. The site itself is situated on the slopes of the Du Toitskloof/Hawekwa mountain range. The topography, consisting of spurs and ridges, provides natural screening that enhances visual absorption. The landscape, referred to as a "production landscape," integrates infrastructure like masts, but the critical mass of urban or industrial type elements should change the overall rural sense of place. The mast will be visible within the landscape but is considered part of the accepted infrastructure.

Visual receptors, including nearby residential areas, tourism facilities, and important travel routes, are assessed for their sensitivity to the proposed mast. The Imbuko Wine tasting venue, located within a 5km radius, is the closest tourism facility and will have clear visibility of the mast. However, the visual intrusion is rated as medium to low. Residential areas, such as Newton, Vlakkeland, and Diemersfontein Estate, are positioned within the viewshed. The mast will be visible to some properties, but due to distance and natural screening, the visual impact on these areas is rated as low to medium-low.

For key travel routes like Van Riebeeck Drive and Bo Daljosafat Street, which are sensitive to scenic intrusions due to their importance to tourism, the impact is low. Natural screening from buildings and vegetation reduces the visibility of the mast from these routes, and it remains largely insignificant in long-range views. Du Toitskloof pass which provides vistas across the valley is an important tourism asset but the extent of the mast is small enough not to be noticeable in the larger area.

The cumulative visual impact is assessed in accordance with guidelines provided by the Department of Environmental Affairs and Tourism. While there are existing towers in the area, none are within 2km of the proposed mast and thus no space crowding is expected. No significant

fragmentation or cross-boundary effects are identified, and the overall cumulative impact is considered low.

Construction activities, such as the transport of equipment and installation of the mast, will temporarily affect the visual environment. However, these impacts are expected to be short-term and not uncommon for infrastructure development. The local community is generally tolerant of such activities, especially when they contribute to improving infrastructure.

The overall visual impact of the proposed mast is determined to be moderate to low, with no significant effects on heritage landscapes. The mast's design, being a lattice structure, reduces its visual intrusion, and the surrounding topography and vegetation help minimise its visibility. Given Diemersfontein's historical significance and distinctive "sense of place," which is rooted in its Cape Winelands heritage and architectural style, the mast does not fundamentally disrupt the cultural and historical value of the area. With acceptance by nearby residents and stakeholders, the mast is deemed to fall within acceptable levels of visual change for the area.

Given the level of impact, no mitigation measures are deemed necessary.

.

1 BACKGROUND

The objective of this report is to assess the potential visual impact of a 25m lattice mast, to accommodate cell antennae and base stations, on Farm 1756, Diemersfontein, near Wellington in the Drakenstein Municipal area. The site is located on the farmland adjacent to the Diemersfontein Estate residential area. The property is zoned as Agriculture I in terms of the Overstrand Zoning Scheme Regulations.

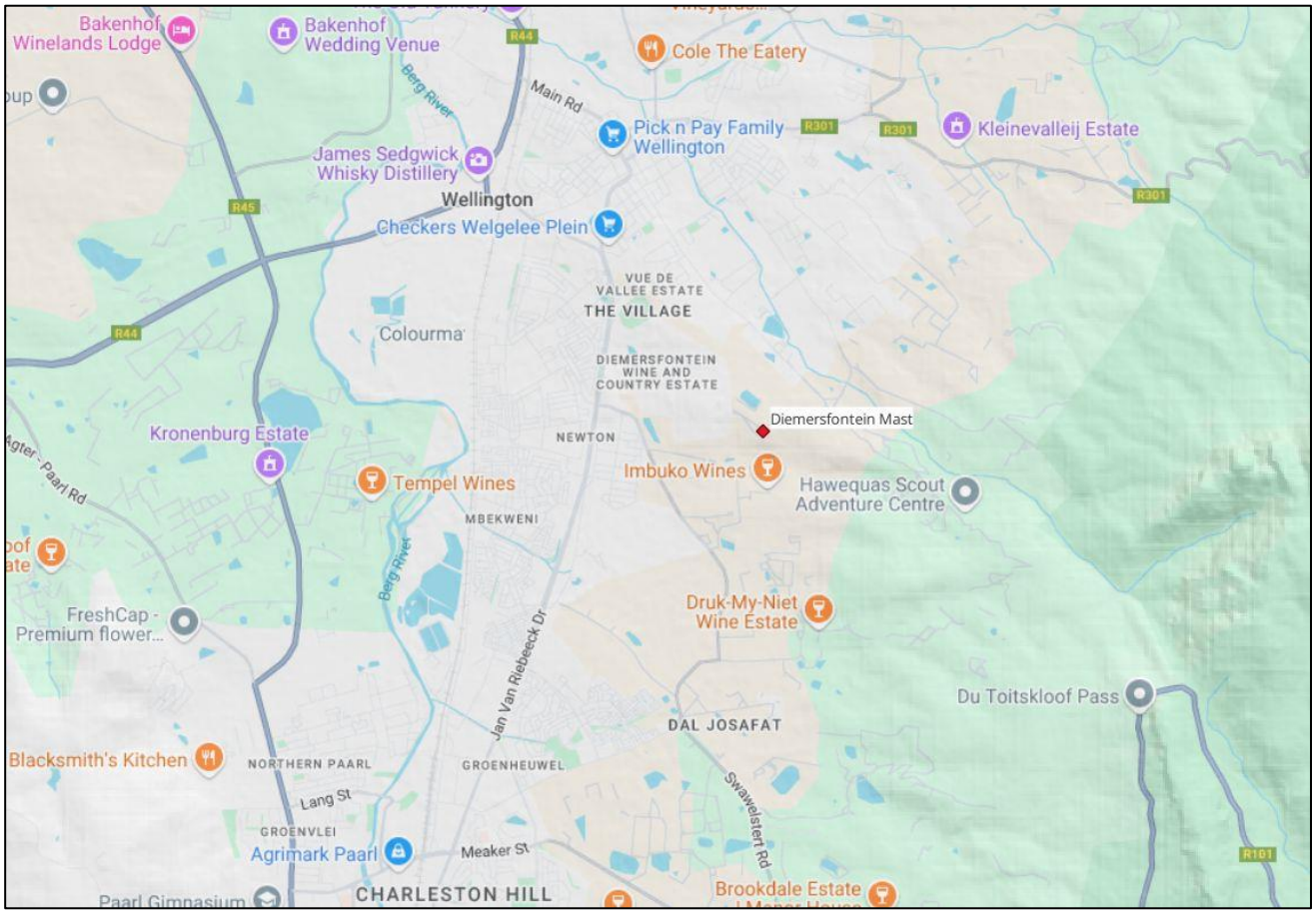

Figure 1: Locality

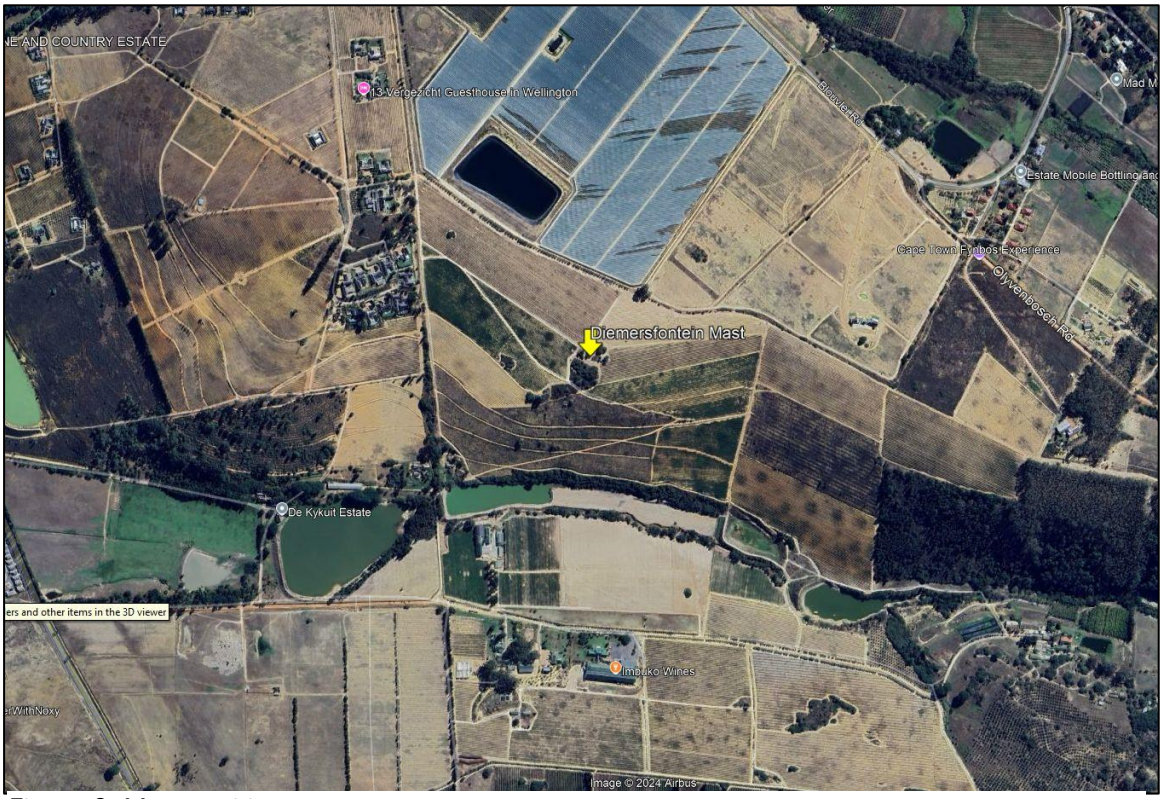

Figure 2: Mast position

2 TERMS OF REFERENCE

The applicant intends to construct a 25m high freestanding lattice mast to accommodate cell antennae and a ground station container on Farm 1756, Wellington.

The objective of the Visual Impact Assessment is to determine the significance of any visual impact which may result from the construction of the proposed cellular mast. This assessment will indicate whether, from a visual perspective, the development constitutes an acceptable level of change and if required what potential mitigation measures can reduce any visual impact.

To determine the potential extent of the VIA required, the following broad criteria are considered.

Table 1: Requirements for visual assessment

Areas with protection status, e.g. nature reserves	Approximately 4km from the mountains which is under the Mountain Catchment Area and 8km from the Paarl Mountain Nature Reserve. The

	site is within the Cape Winelands Biosphere Reserve.
Areas with proclaimed heritage sites or scenic routes	Diemersfontein historical farm buildings, yet not proclaimed
Areas with intact wilderness qualities, or pristine ecosystems	Mountain areas and mountain slopes
Areas with intact or outstanding rural or townscape qualities	The area is known for its scenic beauty and popular destination for wine lovers.
Areas with a recognized special character or sense of place	Rural and agricultural landscape with specific reference to the Cape Winelands character
Areas with sites of cultural or religious significance	None identified
Areas of important tourism or recreation value	The area is popular for its wine tasting venues
Areas with important vistas or scenic corridors	Mountains to the east
Areas with visually prominent ridgelines or skylines.	Mountain slopes

Table 2: Nature of intended development

High-intensity type projects including large-scale infrastructure	25m high lattice tower with related base station
A change in land use from the prevailing use	No. Existing towers at the specific site
A use that conflicts with an adopted plan or vision for the area	None identified (Refer Planning application)
A significant change to the fabric and character of the area	Potentially
A significant change to the townscape or streetscape	Potentially
Possible visual intrusion in the landscape	Potentially
Obstruction of views of others in the area	Potentially

The term visual and aesthetic is defined to cover the broad range of visual, scenic, cultural, and spiritual aspects of the landscape. The terms of reference for the specialist are to:

- Provide the visual context of the site with regard to the broader landscape context and site-specific characteristics.
- Provide input in compiling layout/design alternatives.

- To describe the affected environment and set the visual baseline for assessment
- Identify the legal, policy and planning context related to visual impact
- Identifying visual receptors
- Predicting and assessing impacts
- Recommending mitigation measures

3 Methodology and principles

3.1 Methodology

According to the DEA&DP guidelines (2005) a moderate to minimal visual impact can be expected. A level 3 visual assessment is regarded as sufficient to determine the impact or identify any issues which may require more inputs. Sufficient digital information, as well as photos provided by the Enviroinmental practitioner is available and such combined with the consultant's knowledge of the area, a site inspection for this specific application was not undertaken.

Table 4: Summary of methodology

Task undertook	Purpose	Resources used
A screening of the site and environment. Contextualize the site within the visual resources	To obtain an understanding of the site and area characteristics and potential visual elements	Satellite images, Google Earth street view. Photos,. Specialist: S Lategan
Determine viewshed and potential receptors	Determine specific view impacts	Digital Elevation Model Specialist: S. Lategan
Propose possible mitigation measures	To present practical guidelines to reduce any potential negative impacts.	Specialist: S. Lategan

Throughout the evaluation the following fundamental criteria applied:

- Awareness that "visual' implies the full range of visual, aesthetic, cultural and spiritual aspects of the environment that contribute to the area's sense of place.
- Consideration of both the natural and cultural (urban) landscape, and their inter-connectivity.
- The identification of all scenic resources protected areas and sites of special interest, as well as their relative importance in the region.
- Understanding of the landscape processes, including geological, vegetation and settlements patterns which give the landscape its particular character or scenic attributes.

- The inclusion of both quantitative criteria, such as visibility and qualitative criteria, such as aesthetic value or sense of place.
- The incorporation of visual input as an integral part of the project planning and design process, so that the findings and recommended mitigation measures can inform the final design and quality of the project.

3.1.1 Principles

The following principles to apply throughout the project:

- The need to maintain the integrity of the landscape within a changing land use process
- To preserve the special character or 'sense of place' of the area
- To minimize visual intrusion or obstruction of views
- To recognize the regional or local idiom of the landscape.

3.1.2 Fatal flaw statement

A potentially fatal flaw is defined as an impact that could have a "no-go" implication for the project. A "no-go" situation could arise if the proposed project were to lead to (Oberholzer, 2005):

1. Non-compliance with Acts, Ordinance, By-laws and adopted policies relating to visual pollution, scenic routes, special areas or proclaimed heritage sites.

2. Non-compliance with conditions of existing Records of Decision.

3. Impacts that may be evaluated to be of high significance and that are considered by the majority of stakeholders and decision-makers to be unacceptable.

The initial screening of the site did not reveal any of the above issues which may result in a fatal flaw.

3.1.3 Gaps, limitations and assumptions

1. Information provided: The assessment is based on the information provided by the developer.

2. Level of assessment: Based on the Western Cape Provincial guidelines (Oberholzer, 2005) pertaining to Visual Impact Assessments, a level 3 assessment should suffice to make an informed decision.

3.2 Assessment Methodology

Visual Impact relates not only to the physical visibility of a structure or development, but the context of that structure within the environment. The assessment therefore firstly describes the receiving environment from a socio-cultural-, heritage- and physical landscape perspective to set a baseline from which to evaluate the appropriateness of a new element in that specific environment. Although every effort is made to rate and explain visual impact, it is not an exact science and holds a significant level of intangible community values.

A broad potential viewshed area is then determined using digital elevation modeling techniques. This provides the area within which specific viewpoints, called visual receptors are identified. Specific views from these receptors are then assessed with the use of photo's and/or modelling. Profiles may also be used to explain the visibility of the element from certain viewpoints. Based on these, the significance of the impact is then determined through the rating of the exposure level, receptor sensitivity and the intrusion level (Refers Table 3)

Table 3 Assessment framework to rate impact

Criteria	**High**	**Moderate**	**Low**
Exposure	Dominant, clearly visible	Recognizable to the viewer	Not particularly noticeable to the viewer
Sensitivity	Residential, nature reserves, scenic routes	Sporting, recreational, places of work	Industrial, mining, degraded areas
Intrusion/Obstructive	A noticeable change, discordant with surroundings	Partially fits but clearly visible	Minimal change or blends with surroundings

Exposure is a tangible criterion, which refers to the visibility of the element.
Intrusion or Obstructive is a less tangible criterion which refers to what level an element is "acceptable" within a setting.
Sensitivity deals with the receiving environment and the landscape elements which are appropriate within such an environment.

A sensitive receptor with low exposure and/or low intrusion rate can be regarded as a low significance rating. A receptor of low sensitivity but with high exposure can be of high significance if the intrusion rate is also high but is reduced if the intrusion rate is medium or low.
The overall significance, therefore, depends not only on the sensitivity of the receptor but also on the exposure and intrusion rate and thus a combination of the criteria.

The purpose of mitigation measures is to lower the exposure or intrusion level in order to lower the overall significance of the rating.

3.3 Legal Context

3.3.1 National Environmental Management Act, 107, 1998 and relevant Guidelines

The application is not subject to the NEMA regulations.

3.3.2 Western Cape PSDF

No specific references on this scale of development

3.3.3 Drakenstein Spatial Development Framework, 2022 - 2027

The SDF put a significant focus on protecting but also developing the rural and natural landscapes for the enhancement of tourism. Van Riebeeckstreet is a potential scenic route and various minor roads giving access to the rural area should be regarded as having scenic value.

3.3.4 Drakenstein Mountain Slope Policy April 2019

The objective of Mountain Slope Policy was to analyse the visual and scenic importance of the various mountain slopes and receiving valleys in the municipal area. The application site is within domain D with the landscape described as – "*A rural pattern of cultivation defined predominantly by vineyards (interspersed with olive trees) an of the Cape Winelands Cultural Landscape. A distinctive pattern of tree planting, usually oaks, forming avenues, windbreaks or clusters around farm buildings. A collection of 'grand set pieces' incorporating an ensemble of farm buildings and an ordering system with an emphasis on the main buildings by, for example, a prominent front gable, decorative plaster work or decorative verandas. A hybrid or rural architectural styles spanning the 18th to 20th Centuries.*"

Domain D in the analysis is divided into two sections respectively the Paarl and Wellington valleys. The application site is more or less on the border between these sections and therefor the principles of both sections apply to the site. The two valleys are described as follows in the policy -

The Paarl Valley Landscape Character Area is defined by natural mountainous areas and large flat urban and agricultural landscapes. It consists mostly of residential, commercial, and agricultural uses. The sub-divisional patterns are informed by the urban edge that separates the urban and agricultural patterns, with some gradual transitional areas from urban to agriculture that are mostly populated by residential/agricultural uses to the east of Paarl Valley. Paarl Town is the most densely

populated area within the Paarl Valley Landscape Character Area. Main Road and the R301 traverse the urban landscape of Paarl and provide direct access from the N1 to Paarl. Development pressure within the Paarl Town area is mostly to the west of Main road, and within the CBD area of Paarl. The Urban Edge clearly defines developable areas, and the rich Heritage elements as well as the surrounding Paarl Farms character delineate the settlement patterns within Paarl/Paarl Valley.

The Wellington Valley Landscape Character Area is defined by the Natural Mountainous areas, and large flat urban and agricultural landscapes. It consists mostly of residential, commercial, and agricultural uses. The sub-divisional patterns dilute distinctively from the west towards the east as the landscape changes from urban to urban-agriculture and from urban-agriculture to agriculture and natural/protected areas" . (p54)

Map 46 of the report (p58) indicates that the area of the application site has a high visual sensitivity.

3.3.5 Drakenstein Zoning Scheme

The site is zoned as Agriculture (Figure 3) and the current landuse correspond with the zoning.

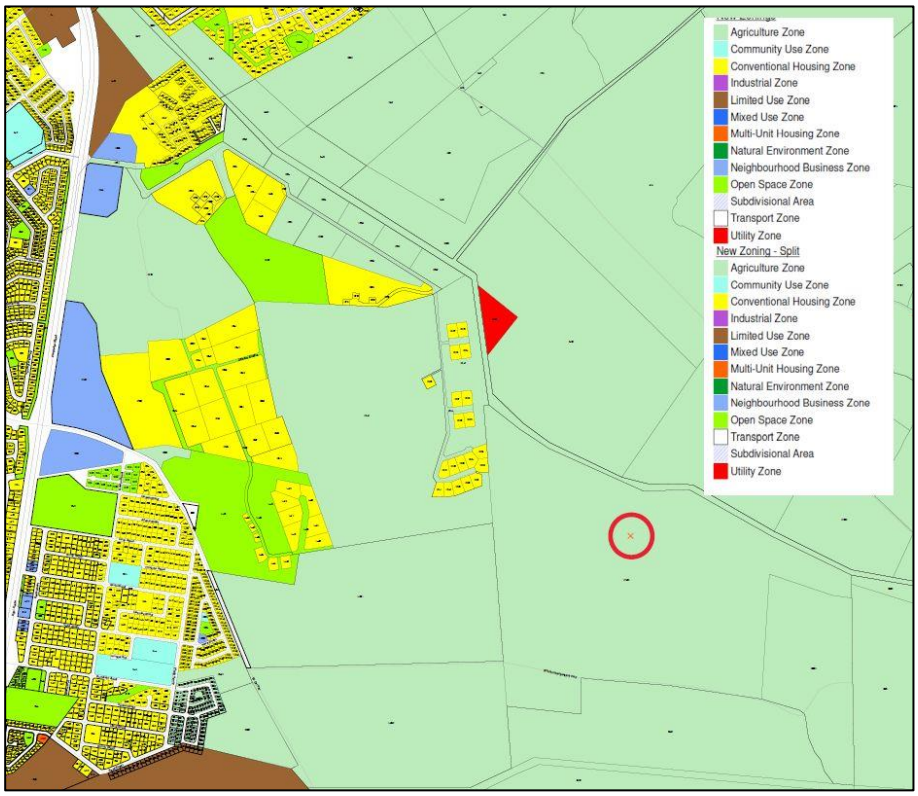

Figure 3 Zoning

4 Development Proposal

A 5 x 7m site is allocated for the mast and equipment housing structures. Access is provided with a gate towards Malva Street. The site will be fenced to secure the equipment from public access. The site is positioned against the existing building.

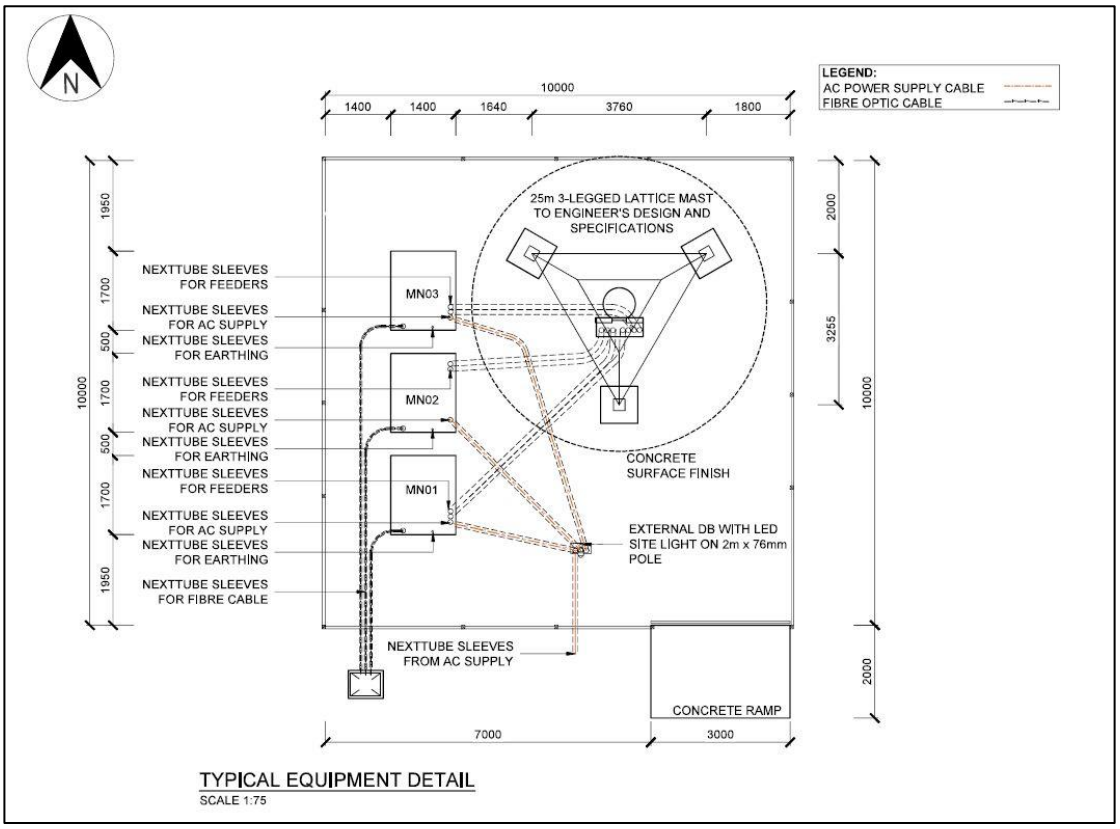

Figure 4 Typical equipment detail

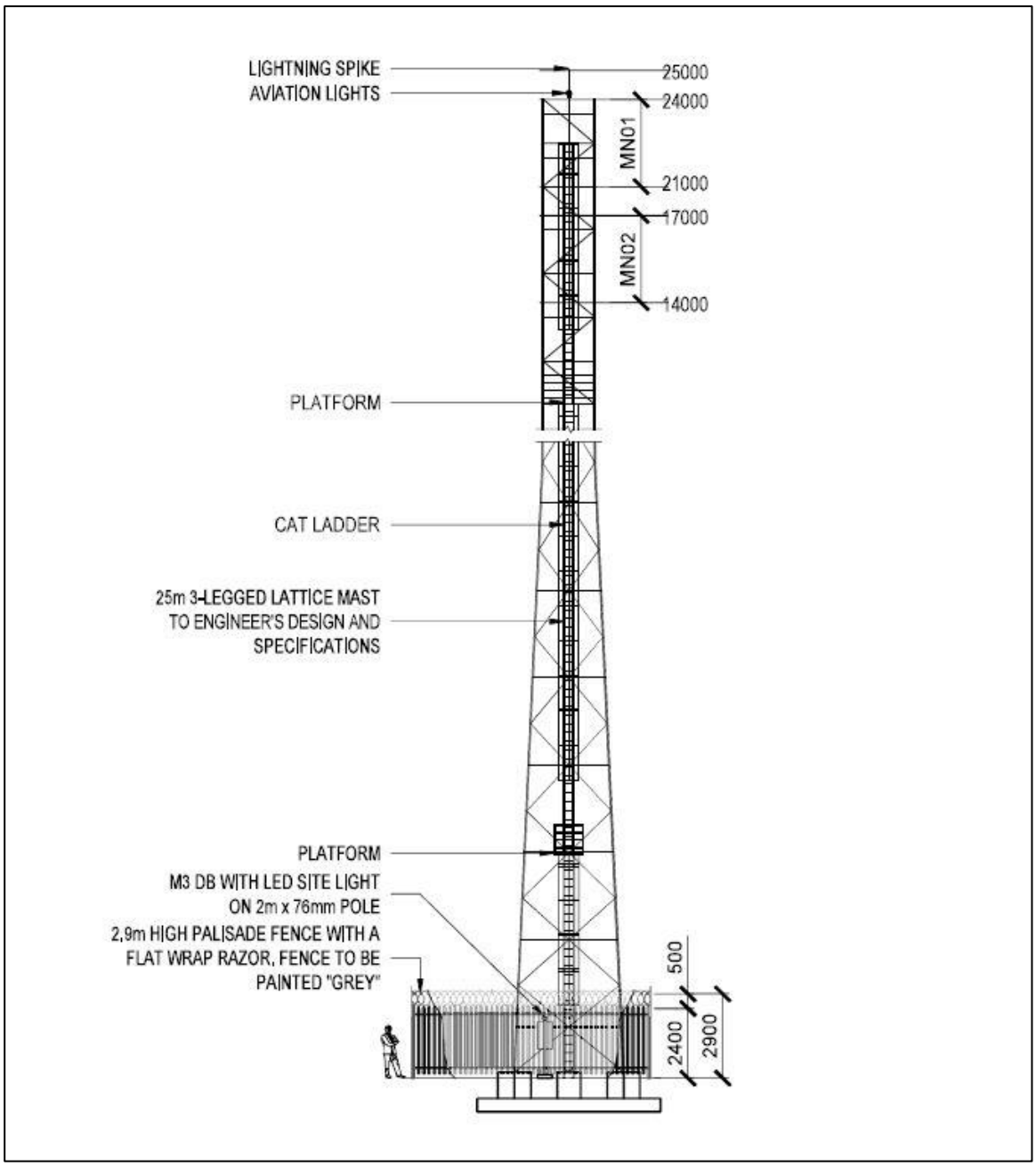

Figure 5: Typical Mast design

4.1 Operational elements

Only occasional maintenance is required. The site is serviced with a light delivery vehicle and potentially climbers to access equipment on the mast. The site will be accessed from Malva street.

4.2 Construction elements

For the construction of the mast, typically LDV or small trucks and cranes may be required.

Construction process entails:

- clearing and leveling of the site,

- construction of mast
- fitting of antenna and equipment
- Fencing and security infrastructure
- Construction of support facilities such as a container, etc.

5 RECEIVING VISUAL ENVIRONMENT

5.1 Description

The site is on the lower slopes of the.Du Toitskloof/Hawekwa mountain range. A number of parallel spurs from the mountains towards the Berg river occur in this area and the mast is located on the southern side slope of such a spur. These spurs create both prominent ridges as well as serve as screening elements in the area, increasing visual absorption (Figure 7). Elements between the spurs are thus screened from each other in a north-south direction.

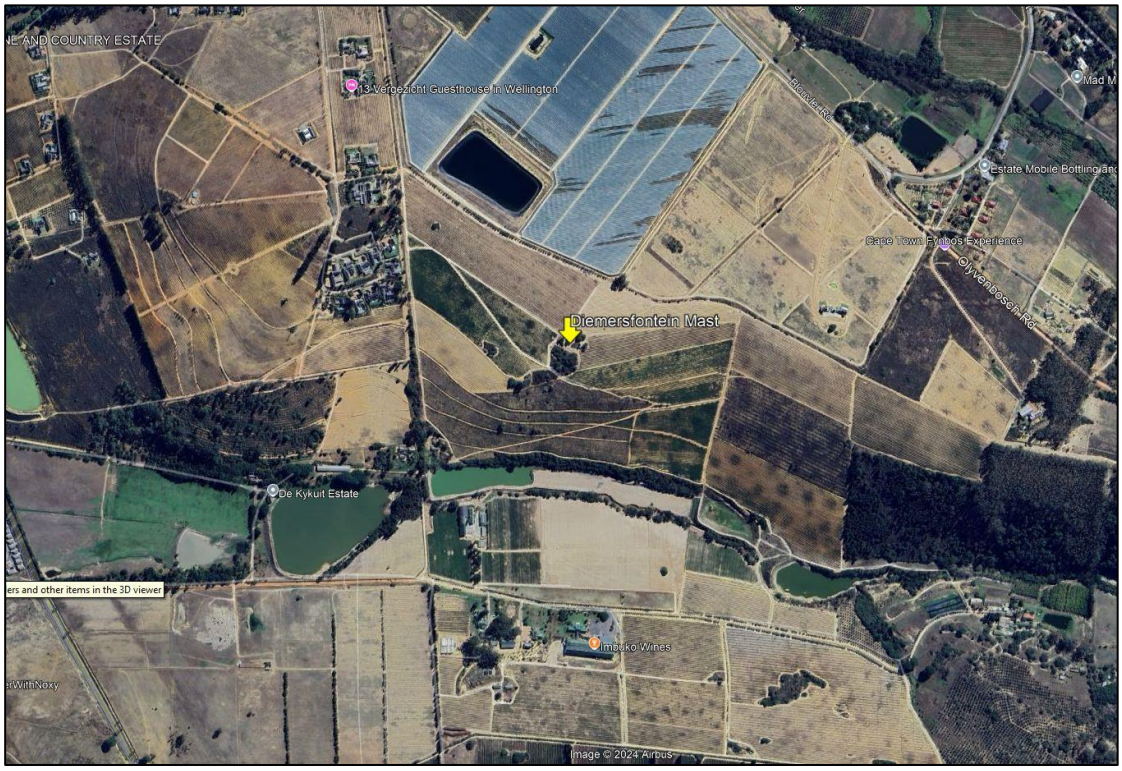

Figure 6 Position of site in relation to local area

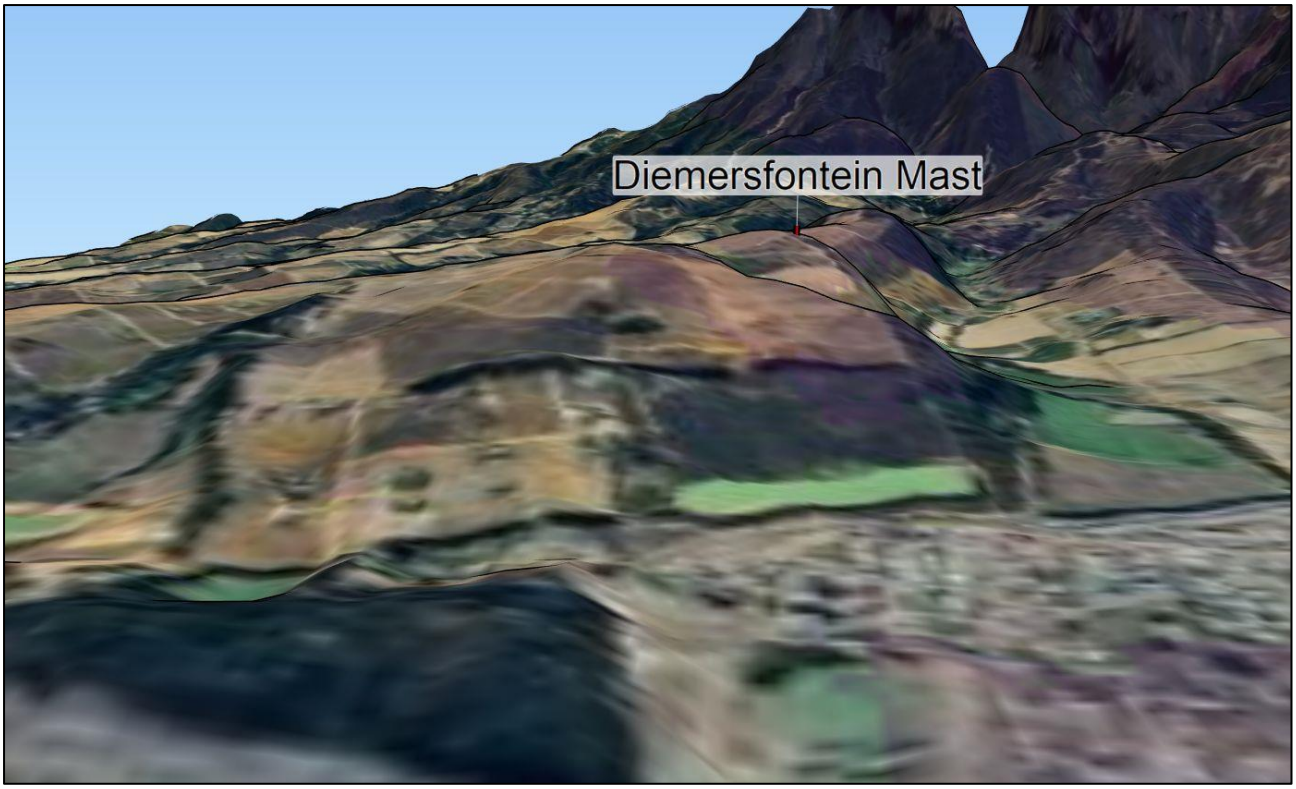

Figure 7 Position of mast on the mountain spur

The landuse of the area is predominantly agriculture with related uses such as agri-processing and tourist facilities. Pockets of residential estates intrude into the agricultural landscape bringing with it an urban component. The landscape is therefor not purely agriculture or urban but a combination which can be decscibed as a production landscape. In such a landscape the presence of infrastructure is not uncommon and readily accepted as part of the landscape. It does however not assume that any infrastructure is acceptable and the critical mass of changing the landscape to a more urban or even industrial feel has to be considered in adding elements to the landscape.

5.2 Viewshed

The viewshed refers to the area from where the mast would potentially be visible. A viewshed was modelled based on the topography but excluding existing buildings and urban elements. The viewshed did take into account the height of the mast of 25m.

On a flat surface, the maximum distance that the human eye can theoretically view an object is 30km due to the curvature of the earth. This is influenced by the size, colour and height of an object as well as the position of the viewer above the altitude of the object.

Landscape elements and the topography hold screening value which can absorb elements to such an extent that they are either not visible or not intrusive..

The theoretical viewshed can be reduced significantly by landscape elements such as buildings and vegetation. Although an object may be visible from a specific point, the view may not be directed towards the object due to various reasons and therefore view lines should also be considered in assessing the visual impact.

The initial viewsheds suggest a large area from where the mast would potentially be visible. This area can however be narrowed down due to the presence of screening elements such as buildings.
The mast is of small horizontal extent and therefore will not be visible from large distances although within the theoretical viewshed area.

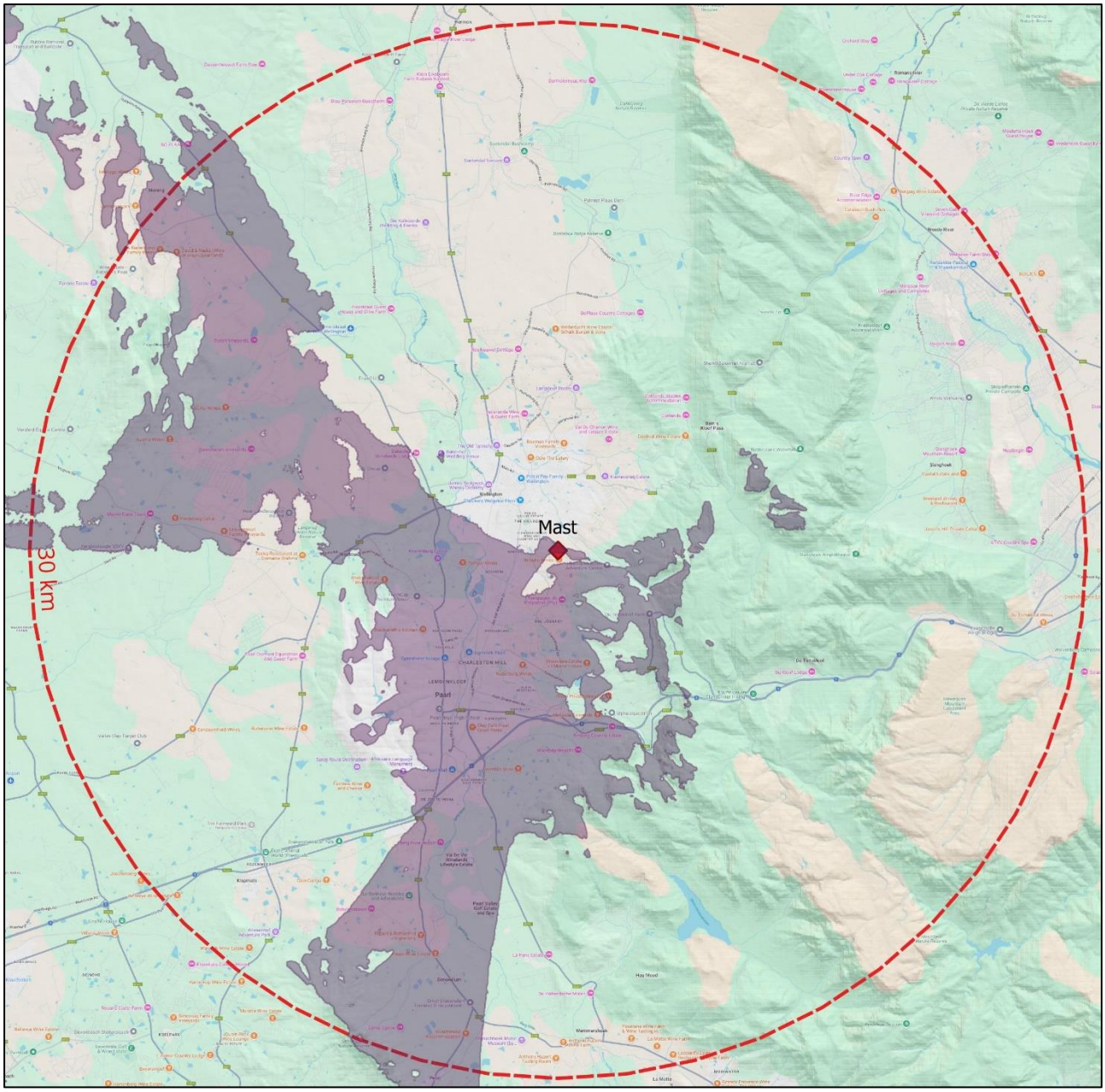

Figure 8 Modelled viewshed within 30km radius

5.3 Sense of Place

The "sense of place" at Diemersfontein and surrounding area is deeply rooted in its distinct location and rich cultural heritage within the broader landscapes of Wellington and Paarl Valley. Nestled on the lower slopes of the Du Toitskloof/Hawekwa mountain range, it enjoys a setting shaped by the area's unique natural features. A series of parallel spurs from the mountains extends toward the Berg River, creating prominent ridges that act as both visual landmarks and natural screens. These features help visually separate different areas of the landscape, enhancing the sense of privacy and uniqueness that characterizes the surroundings.

Diemersfontein's historical significance comes from its long-standing association with the Sonnenberg family since the 1940s. This historic manor house stands as a reminder of a bygone era, adding to the estate's tranquil atmosphere. The farm's rich cultural ties, including its role during World War II when it housed Italian prisoners of war, contribute to its unique narrative. While the estate is not officially listed as a heritage site, it remains a key part of the local cultural fabric.

The landscape surrounding Diemersfontein is typical of the Cape Winelands, with vineyards and olive groves dominating the terrain. The area is also distinguished by avenues of trees, often oaks, which serve as windbreaks and provide structure around the farm buildings. The architectural style of the estates spans from the 18th to 20th centuries, showcasing decorative features such as prominent front gables and verandas, which reinforce the estate's heritage character. Recent buildings complement this air of calm, tranquillity and earthy luxury.
The broader Wellington and Paarl Valley regions feature a blend of natural mountain ranges and flat agricultural landscapes. While the Paarl Valley is more densely developed, with a mix of residential, commercial, and agricultural uses, Wellington retains a more rural feel, where urban elements transition into agricultural and protected natural areas. This mixture of rural charm, historical significance, and stunning natural beauty gives the area its distinctive sense of place, where past and present converge in a landscape that continues to evolve.

Photo 1 View from the mast site towards the mountains

Photo 2 View from site towards Paarl

Photo 3 View towards Diemersfontein estate

6 VISUAL RECEPTORS

Visual receptors are those positions from where the mast is potentially visible and that are sensitive to a change in the visual environment. Generally, residential areas and tourism-related destinations and routes are sensitive to visual intrusions as they relate to the well-being of residents and the tourism quality of the area.

6.1 Tourism facilities in the vicinity

With tourism being an important sector in the region, various tourist facilities ranging from wine-tasting venues, accommodation and other venues exist within the viewshed of the mast. The tourist facilities within a 5km radius from the mast which falls within the viewshed and is within the rural landscape have been identified and shown in Figure 9.
Buildings and urban elements screen facilities within the urban landscape and thus view towards the mast is greatly restricted if at all visible. The intrusion and obstruction level would thus be negligent for such facilities.

Due to the character of the mast, being a lattice type which allows a “through view” similar to a fence, is hardly visible from a distance of 5km. At this distance, if viewed from a certain angle with the perfect lighting will be merely a faint silhouette.
The closest facility to the mast is the Imbuko Wine tasting venue. The mast will be clearly visible similar to the high-voltage pylons in the background as illustrated in

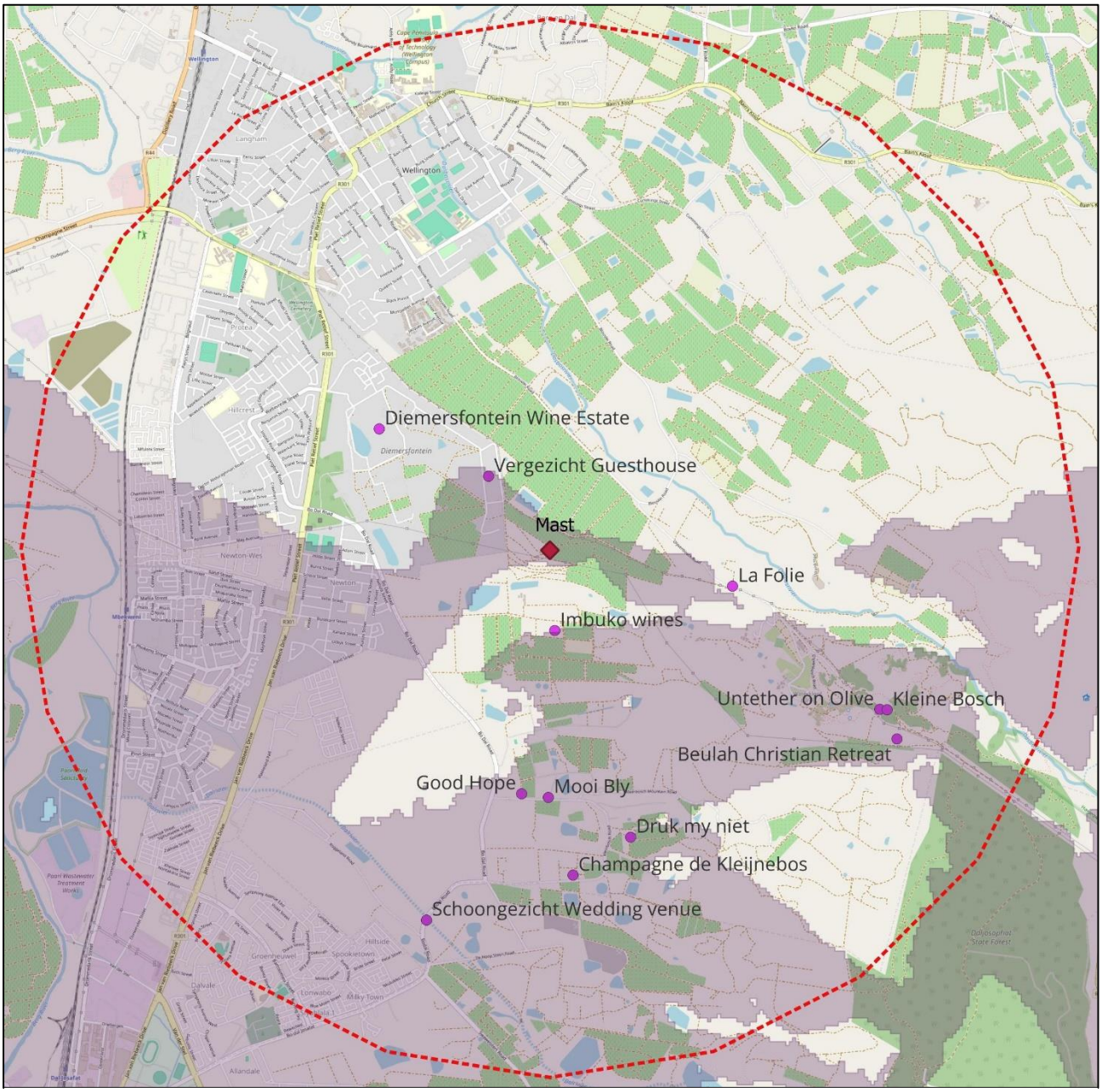

Figure 9 Tourist faciliites within viewhsed

Photo 4 View from Imbuko Wine

Although the Vergezicht guesthouse is close to the mast, it is screened by the topography and the top of the mast may be barely visible from a second storey (Figure 10). The impact is thus negligent.

All other facilities are either far enough from the site or screened by landscape elements as to absorb the mast in the landscape.

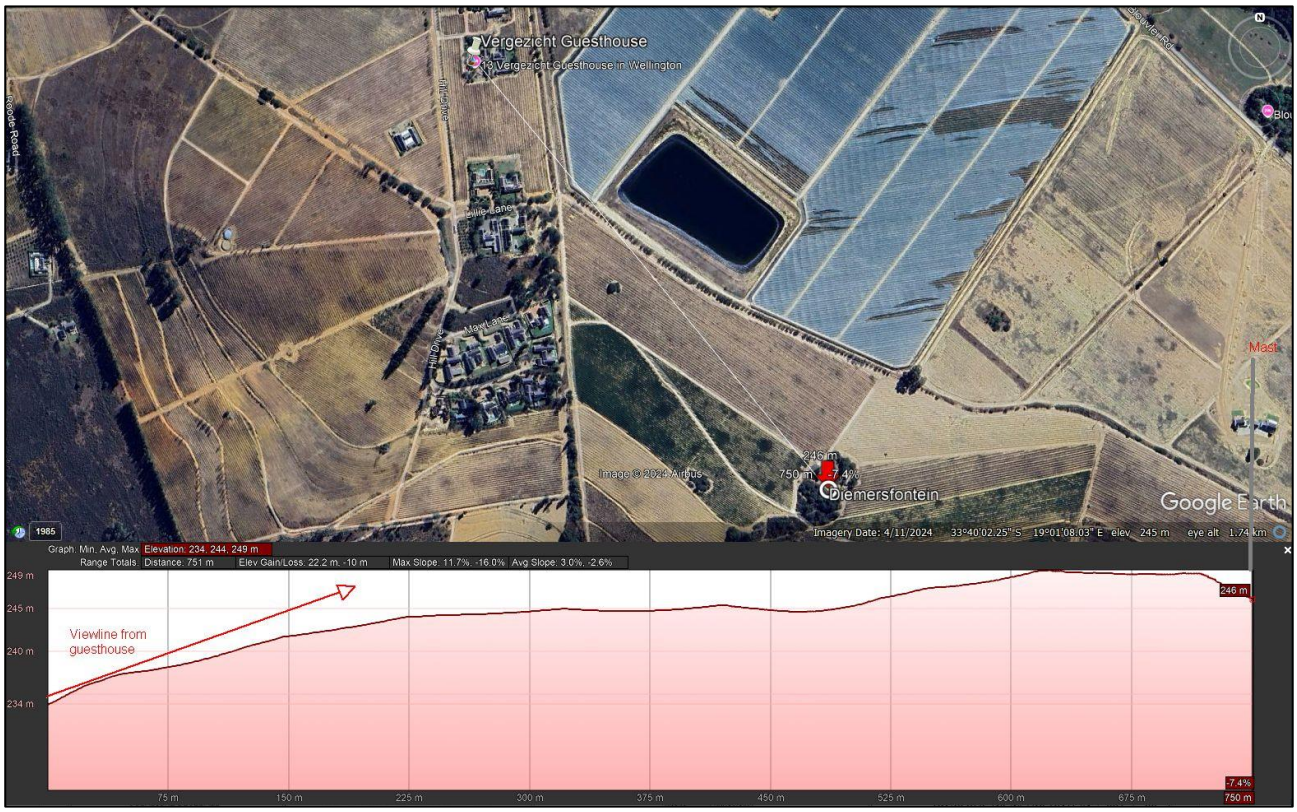

Figure 10 Viewline from Vergezicht Guesthouse

Table 4 Assessment of Imbuko Wines

Criteria	**High**	**Moderate**	**Low**
Exposure	dominant, clearly visible	recognizable to the viewer	not particularly noticeable to the viewer
Sensitivity	residential, nature reserves, scenic routes	sporting, recreational, places of work, national road	industrial, mining, degraded areas
Intrusion/Obstructive	noticeable change, discordant with surroundings	Partially fits but clearly visible	minimal change or blends with surroundings

The overall impact on tourist facilities in the immediate area is thus low and the impact on Imbuko wine medium to low.

6.2 Residential Estates

The closest residential areas to the mast site which is within the viewshed, are Diemersfontein Estate, Newton and Vlakkeland. Within a residential area, individual residents' views are focused within the neighbourhood and only those properties on the edge of the area may have direct sightlines towards the mast (Figure 11).

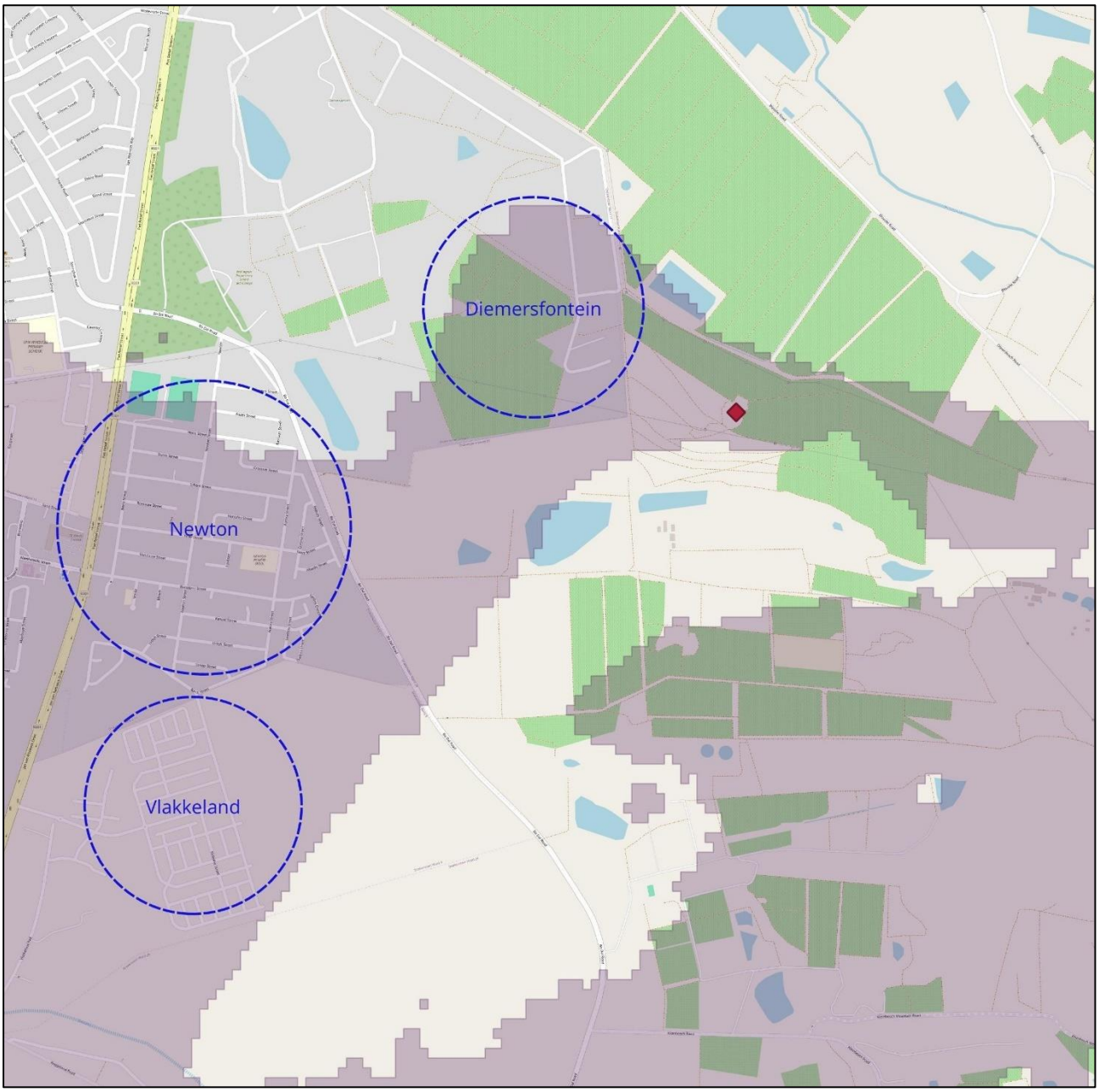

Figure 11 Residential Areas within viewshed

In Newton the view of properties are primarily towards internal streets with the mountain range in the distant backdrop. The avenue of trees along Bo Daljosafat Road acts as a prominent screening element (Figure 12). The overall impact is thus low to insignificant.

Figure 12 View from Newton

Vlakkeland is further from the mast but the properties on the perimeter has a line of sight towards the mast. The view is however in the distance and although the mast may be visible in the distance, it has minimal intrusion and obstruction level (Figure 13).

Diemersfontein estate is the closest residential area from the mast. The portion of the estate that is within the viewshed orientates to the south with the mast slightly to the periphery but still visible. The intrusion and obstruction level is however low.

Figure 13 View from Vlakkeland

Figure 14 View from Diemersfontein

Table 5 Assessment of impact from Diemersfontein Estate

Criteria	High	Moderate	Low
Exposure	dominant, clearly visible	recognizable to the viewer	not particularly noticeable to the viewer
Sensitivity	residential, nature reserves, scenic routes	sporting, recreational, places of work, national road	industrial, mining, degraded areas
Intrusion/Obstructive	noticeable change, discordant with surroundings	Partially fits but clearly visible	minimal change or blends with surroundings

The overall impact on residential areas are thus medium-low to low.

6.3 Routes

As the area has a strong focus on tourism, the views along routes are important. The major routes through the area which may be sensitive to visual intrusion are Van Riebeeck Drive and Bo Dal Jossafat street (reference 1 and 2 on Figure 15). Du Toitskloof pass (refer 3 on Figure 15) is the main access from the hinterland to the Winelands and thus traversing across the mountain, the view of the winelands is a valuable asset. Although most traffic will use the Hugenote tunnel, tourist may still use the old mountain pass due to its scenic value.

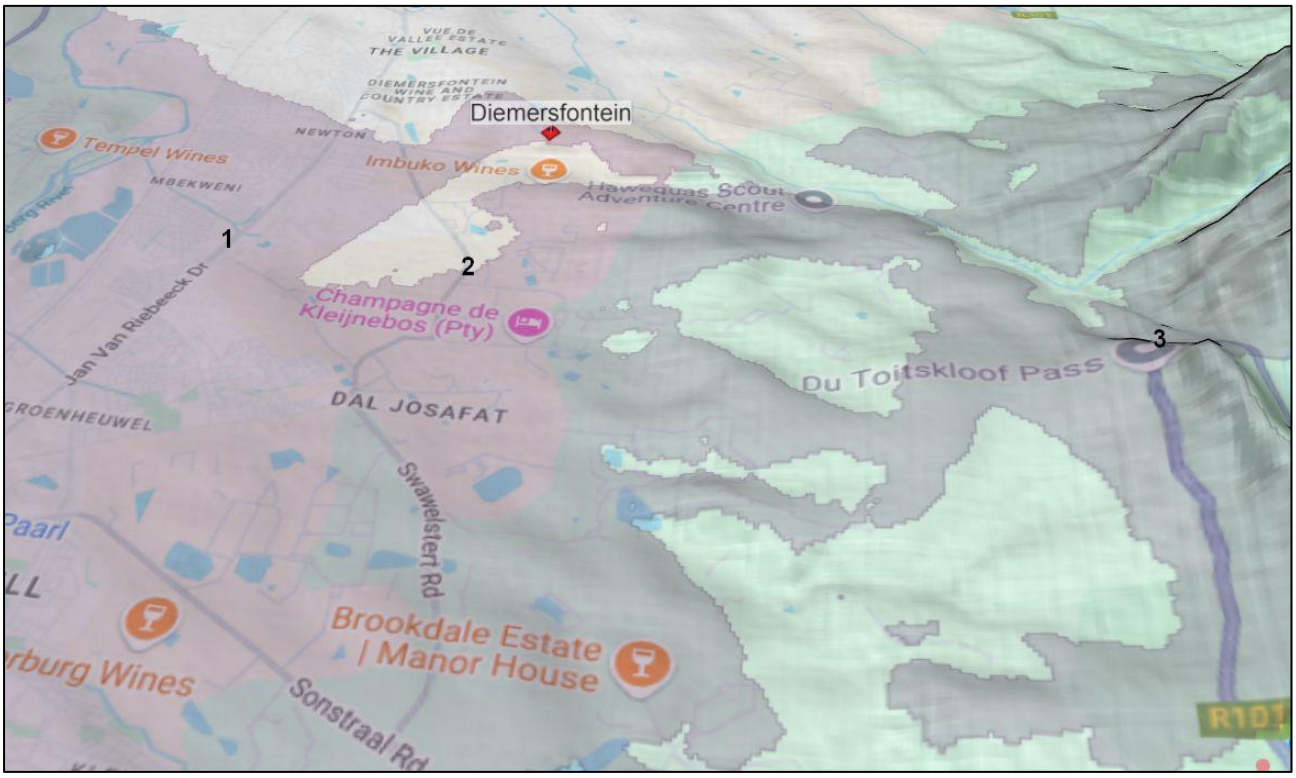

Figure 15 Routes

Van Riebeeck Drive traverse primarily through the urban area and views are limited to the immediate urban environment and the mast is either not visible due to urban screening or in the distance outside the attention and focus level of the traveller.

From the viewpoint on Du Toitskloof pass (Figure 16), the winelands, peninsula and swartland lies beneath the viewer. This is an extensive view and the mast will be insignificant in the total picture as well as hardly visible.

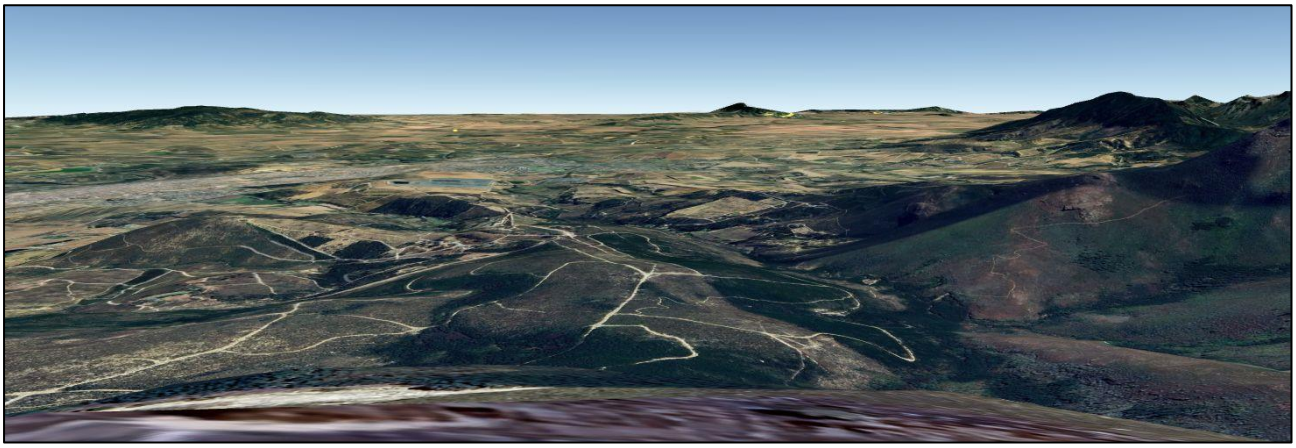

Figure 16 View from Du Toitskloof pass

Table 6 Assessment of impact on Du Toitskloof Pass

Criteria	**High**	**Moderate**	**Low**
Exposure	dominant, clearly visible	recognizable to the viewer	not particularly noticeable to the viewer
Sensitivity	residential, nature reserves, scenic routes	sporting, recreational, places of work, national road	industrial, mining, degraded areas
Intrusion/Obstructive	noticeable change, discordant with surroundings	Partially fits but clearly visible	minimal change or blends with surroundings

The overall impact on routes are low.

6.4 Night view

The mast is fitted with aviation warning lights which will flash red in poor light conditions. . The site itself will be fitted with a light for security purposes. The aviation lights will be visible at night but should not detract from the visual quality of the area as many lights are spread out through the rural area.

7 CUMULATIVE IMPACT

The Department of Environment and Tourism issued a guideline document in terms of which cumulative impacts should be assessed.[1] This guideline document identifies types and characteristics of different cumulative effects as summarized in the table below.

There are existing masts at the position of the proposed mast. These are however lower and screened by the vegetation. The addition of the mast will not significantly increase the node created by the adding this mast.

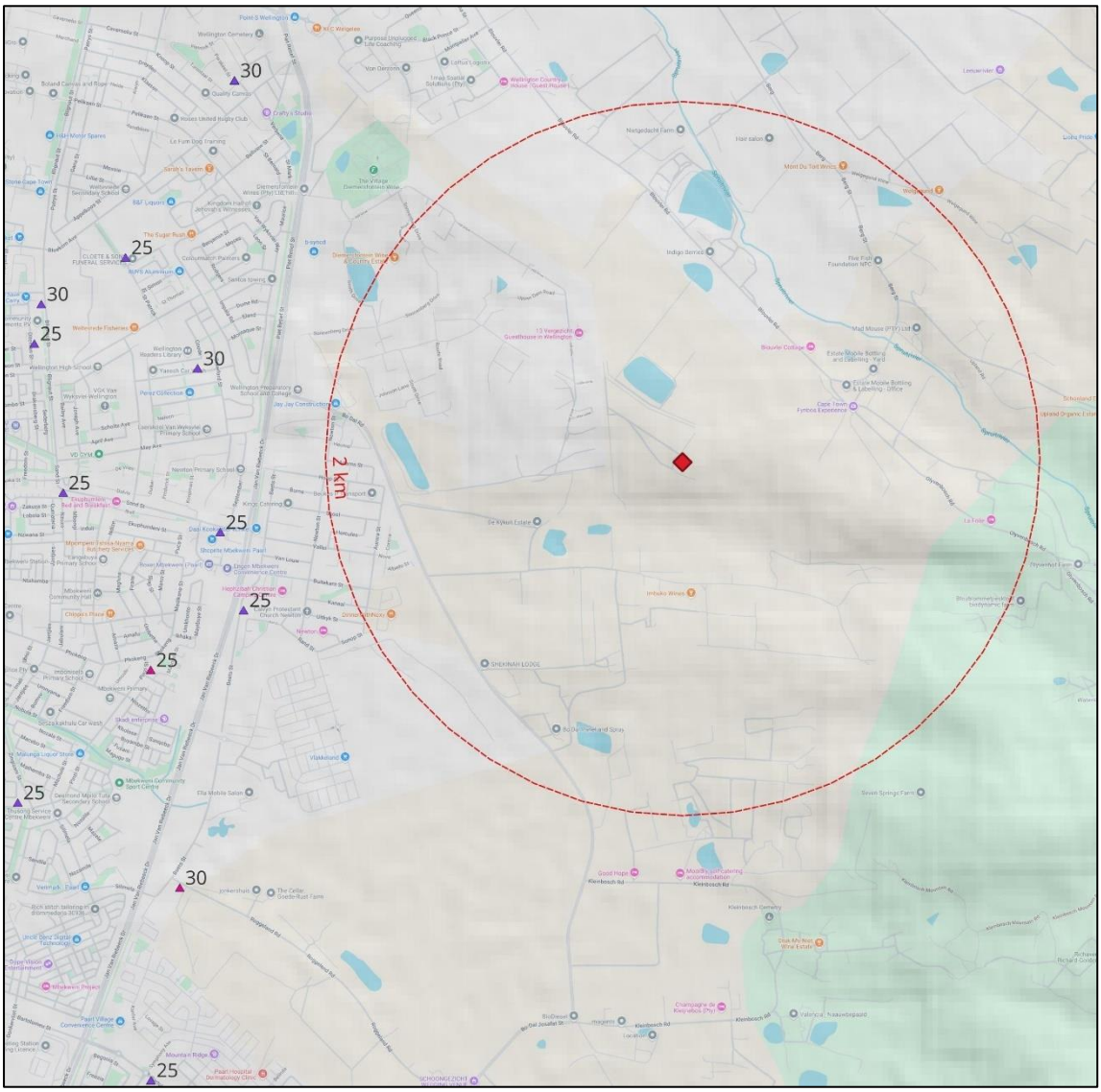

Figure 17 Towers in the area

[1] DEAT (2004) Cumulative Effects Assessment, Integrated Environmental Management, Information Series 7, Department of Environmental Affairs and Tourism (DEAT), Pretoria

The data from Civil Aviation Authority, listing all obstacles indicates that there are no cell towers within a distance of 2km from the application site (Figure 17).

Table 7: Types and characteristics of cumulative effects

TYPE	CHARACTERISTIC	IDENTIFY POTENTIAL IMPACT
Time Crowding	Frequent and repetitive effects.	Activity remains at the same pace, frequency and intensity over time. No time crowding impacts.
Time Lags	Delayed effects.	No time lag impacts.
Space Crowding	High spatial density of effects.	No space crowing.
Cross-boundary	Effects occur away from the source.	No impact
Fragmentation	Change in landscape pattern.	No impact.
Compounding Effects	Effects arising from multiple sources or pathways.	No compounding impacts.
Indirect Effects	Secondary effects.	No impact
Triggers and Thresholds	Fundamental changes in system functioning and structure.	The height of the mast exceeds the height restrictions of buildings in the area and needs municipal approval. The urban functioning is not impacted on.

The cumulative impact of this cell mast within the existing landscape, is low.

8 CONSTRUCTION

During construction, various types of vehicles will transport equipment to the site and work on the site. This will impact on the general experience for viewers. These impacts are however temporary and not uncommon during the construction of infrastructure. Communities have fairly high tolerance levels for such activities if it contribute to the infrastructure of the area and are of short duration.

The visual impact during construction is therefore low and also temporary.

9 FINDINGS

The assessment of the receptors indicates the overall visual impact of the proposed cellular mast is moderate to low. It will not result in a significant change in the visual landscape.

Given Diemersfontein's historical significance and distinctive "sense of place," which is rooted in its Cape Winelands heritage and architectural style, the mast does not fundamentally disrupt the cultural and historical value of the area.

Given that above mentioned residence accepts the mast, the mast can be regarded as within acceptable levels of change.

10 MITIGATION MEASURES

These masts are usually grey in colour. Since it is less than 45m it does not need to be painted red and white in accordance with the CAA requirements. The grey colour range is acceptable and no further mitigation measures are required in this regard.
In order to avoid potential lighting pollution is suggested that the security lights are directed downward.

References:

Department of Environmental Affairs and Tourism. (2004). *Cumulative effects assessment* (Integrated Environmental Management, Information Series 7). Department of Environmental Affairs and Tourism, Pretoria.

Oberholzer, B. (2005). *Guideline for involving visual and aesthetic specialists in EIA processes* (Edition 1). CSIR Report No. ENV-S-C 2005 053 F. Republic of South Africa, Provincial Government of the Western Cape, Department of Environmental Affairs & Development Planning, Cape Town.

Google Earth. (2024). *Satellite images*. Retrieved from https://earth.google.com/web/

Google Earth. (2023, March). *Streetview images*. Retrieved from https://earth.google.com/web/

South African Civil Aviation Authority. (n.d.). Retrieved from https://www.caa.co.za/