



BASIC ASSESSMENT REPORT

(For official use only)

File Reference Number:

Application Number:

Date Received:

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2014, promulgated in terms of the National Environmental Management Act, 1998(Act No. 107 of 1998), as amended.

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2014 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
3. Where applicable **tick** the boxes that are applicable or **black out** the boxes that are not applicable in the report.
4. An incomplete report may be returned to the applicant for revision.
5. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
6. This report must be handed in at offices of the relevant competent authority as determined by each authority.
7. No faxed or e-mailed reports will be accepted.
8. The report must be compiled by an independent environmental assessment practitioner (EAP).

9. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.



10. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.



SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?

	NO
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If YES, please complete form XX for each specialist thus appointed:

Any specialist reports must be contained in Appendix D.

1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail

A telecommunications mast, including associated infrastructure, is proposed on Portion 84 of Farm 817, East London. The base station will have total developmental size of approximately 100m² and will include a 25m high Tree Mast and four service provider equipment containers. The site will be enclosed by a 2.4m high palisade fencing for security reasons.

The site is located off Main Road (R102), Nompumelelo, East London.

Site co-ordinates: 32°56' 54.53"S 27°55'34.38"E.

Electricity will be supplied by the Municipality.



Figure 1: Google Earth image of the proposed site. The proposed site is indicated by the red dot.

2. FEASIBLE AND REASONABLE ALTERNATIVES

“alternatives”, in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

- (a) the property on which or location where it is proposed to undertake the activity;
- (b) the type of activity to be undertaken;
- (c) the design or layout of the activity;
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

Describe alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific



circumstances of the activity and its environment. After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Paragraphs 3 – 13 below should be completed for each alternative.

- Site Alternatives

Please note that alternative site locations were considered, however, none of these were viable, and therefore not assessed. Please see Figure 2 for the alternative sites that were considered, and the reasons why each site was excluded.



Figure 2: Google Earth image of the alternative sites considered.

Portion 110 of Farm 817: Property owner was not interested in accommodating cell mast.

Remainder of Portion 1 of Farm 1237: Property owner is willing to accommodate cell mast, however, Atlas Tower indicated that it is too far from the search area.

Portion 92 of Farm 816: Proposal was sent to property owner. Atlas Tower did however indicate that this alternative is too far from the search area.



- Design Alternatives

Various design alternatives were considered besides the preferred design of a tree mast, including a monopole mast and a lattice mast design. A height of 25m was required to provide sufficient coverage and to accommodate more service providers (thereby requiring less masts in the area).

Lattice mast – Although this mast would be able to provide sufficient height and be able to accommodate the service providers and is also cheaper to construct than a tree mast, it's visual impact would be higher and would stand out more.

Monopole – This mast design would be also able to provide sufficient height and be able to accommodate the service providers and is also be cheaper to construct than a tree mast, it's visual impact would also be higher than a tree mast and would also stand out more.

A tree mast was therefore the preferred design alternative as it would provide a lower visual impact and was also requested by the property owner.

Paragraph 3 – 13 would therefore be the same for all the various design alternatives. Site locations were not assessed as these were not viable (as described above).



3. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

List alternative sites if applicable.

Alternative:

Alternative S1¹ (preferred or only site alternative)

Alternative S2 (if any)

Alternative S3 (if any)

Latitude (S):

Longitude (E):

32°	56.908'	27°	55.573'
0	'	0	'
0	'	0	'

In the case of linear activities:

Alternative:

Alternative S1 (preferred or only route alternative)

- Starting point of the activity
- Middle point of the activity
- End point of the activity

Alternative S2 (if any)

- Starting point of the activity
- Middle point of the activity
- End point of the activity

Alternative S3 (if any)

- Starting point of the activity
- Middle point of the activity
- End point of the activity

Latitude (S):

Longitude (E):

0	'	0	'
0	'	0	'
0	'	0	'

0	'	0	'
0	'	0	'
0	'	0	'

0	'	0	'
0	'	0	'
0	'	0	'

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

4. PHYSICAL SIZE OF THE ACTIVITY

¹ "Alternative S.." refer to site alternatives.



Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

Alternative:

Alternative A1² (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Size of the activity:

100m ²
100m ²
m ²

or, for linear activities:

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Length of the activity:

m
m
m

Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Size of the site/servitude:

m ²
m ²
m ²

5. SITE ACCESS

Does ready access to the site exist?

YES	<input type="checkbox"/>
m	<input type="checkbox"/>

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

N/A. No road is proposed.

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

² "Alternative A.." refer to activity, process, technology or other alternatives.



6. SITE OR ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.

The site or route plans must indicate the following:

- 6.1 the scale of the plan which must be at least a scale of 1:500;
- 6.2 the property boundaries and numbers of all the properties within 50 metres of the site;
- 6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 6.4 the exact position of each element of the application as well as any other structures on the site;
- 6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 6.6 all trees and shrubs taller than 1.8 metres;
- 6.7 walls and fencing including details of the height and construction material;
- 6.8 servitudes indicating the purpose of the servitude;
- 6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
 - rivers;
 - the 1:100 year flood line (where available or where it is required by DWA);
 - ridges;
 - cultural and historical features;
 - areas with indigenous vegetation (even if it is degraded or invested with alien species);
- 6.9 for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- 6.10 the positions from where photographs of the site were taken.



7. SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this form. It must be supplemented with additional photographs of relevant features on the site, if applicable.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

9. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?

R 750,000

What is the expected yearly income that will be generated by or as a result of the activity?

R 150,000

Will the activity contribute to service infrastructure?

YES	NO
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Is the activity a public amenity?

YES	NO
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How many new employment opportunities will be created in the development phase of the activity?

1

What is the expected value of the employment opportunities during the development phase?

R 30,000

What percentage of this will accrue to previously disadvantaged individuals?

70%

How many permanent new employment opportunities will be created during the operational phase of the activity?

1



What is the expected current value of the employment opportunities during the first 10 years?	R1,000,000
What percentage of this will accrue to previously disadvantaged individuals?	50%

9(b) Need and desirability of the activity

Motivate and explain the need and desirability of the activity (including demand for the activity):

According to the Applicant, the current roll out of telecommunication infrastructure by cellular network providers is undertaken to upgrade and improve network coverage and quality to all customers. Telecommunication networks experience peak demand in the evenings between 19:00 and 23:00. This is due to the fact that during these times people are at their homes and use internet intensive devices. As a result, a large portion of the network upgrade is aimed at residential areas. Business and other activity areas have been prioritised over the past 20 years, for commercial reasons and given the fact that legislation and policies steered proposals of this nature, towards non-residential areas.

Modern advances in telecommunication technology (LTE/4G) provide reliable internet connections to an increased number of users which alleviates the pressure on the various base stations, however their operational range are limited in comparison to older technologies. A single old generation GSM voice based base station could cover an area within a radius of 1.0 km. Modern LTE/4G base stations have a significantly smaller operational range, sometimes as little as 200m.

There is the challenge of having to provide coverage in residential areas in order to satisfy both the increase in usage and the smaller operational range of modern telecommunication technology.

Locations for telecommunication infrastructure are primarily chosen within areas where a need exists for coverage. If a need for coverage does not exist in a specific area, no company would invest capital to build a telecommunication base station in said area. The fact that there are only a few telecommunication base stations in the surrounding area supports the statement that there is a clear need for coverage in the area. The need for coverage is however not the only determining factor when identifying a possible position for a telecommunication base station. Other determining factors include altitude, zoning and the visual impact of the proposed base station. In most cases a list of possible positions for the base station is provided to the client, who chooses the optimal location.



In most cases identifying viable options, that meet the above-mentioned criteria, are challenging as in the case of the telecommunication base station in question.

Figures 3 - 5 below illustrate the current coverage for Telkom Mobile, MTN and Cell C in the subject area. It should be noted that some areas have very limited or no LTE coverage. Therefore, a base-station as proposed in this application will increase the amount of coverage in this area.

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



Figure 3 - Telkom Mobile Coverage Map: LTE (Blue)

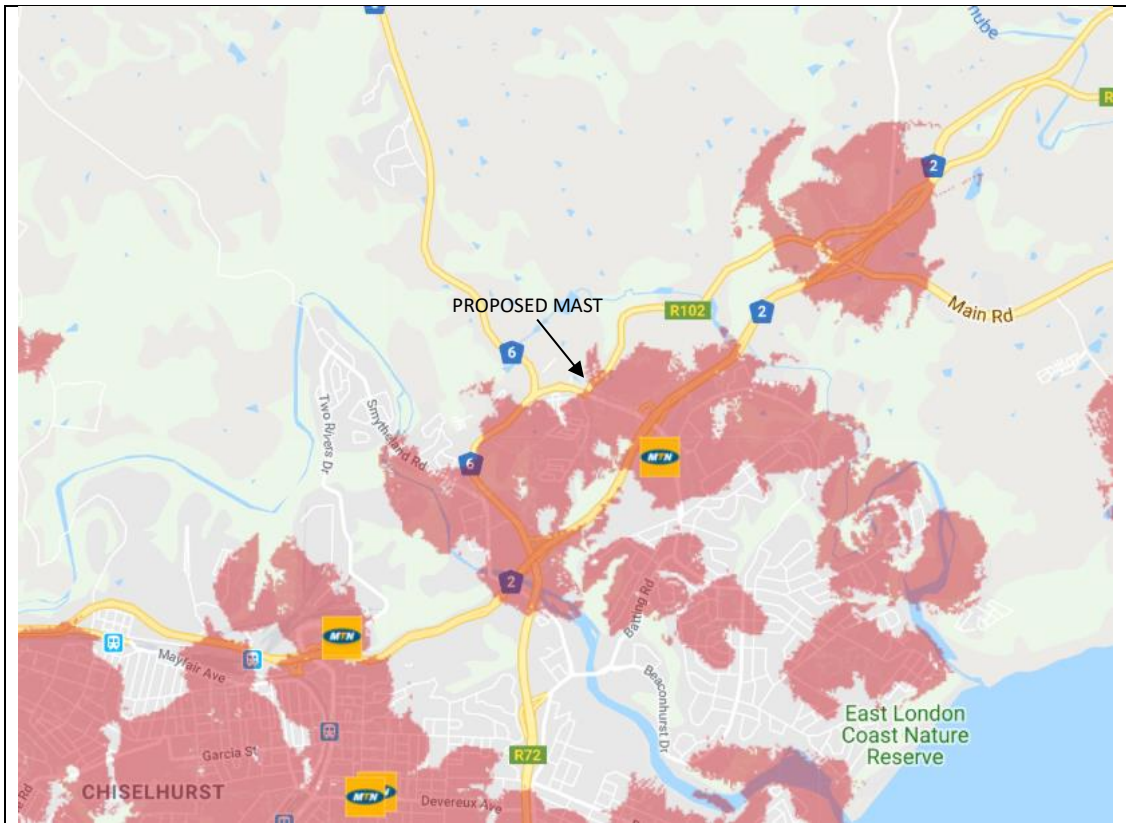


Figure 4 - MTN Coverage Map: Fixed LTE (Red)



Figure 5 - Cell C Coverage Map: LTE (No LTE Coverage)

Indicate any benefits that the activity will have for society in general:

This application is for the construction of a telecommunications mast, which is considered as part of the essential services for the greater community. The benefits of telecommunications services in modern society are potentially limitless. The proposed activity will increase the coverage of these telecommunications services, including providing a more reliable and wider coverage. Please see above.

Indicate any benefits that the activity will have for the local communities where the activity will be located:

See above.

The proposed activity will also provide employment opportunities during the construction phase, as well as a permanent employment opportunity during the operational phase.



10. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline:	Administering authority:	Date:
Spatial Planning and Land Use Management Act, 2013 - Consent use, building line departure and building plan application	Buffalo City Metropolitan Municipality	Not yet submitted

11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

11(a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

YES	NO
m ³	

If yes, what estimated quantity will be produced per month?

How will the construction solid waste be disposed of (describe)?

Minimal amounts of solid waste (general waste and building waste) is expected to be produced. Waste will be consolidated on site and removed on a regular basis (as per the Environmental Management Programme).

Where will the construction solid waste be disposed of (describe)?

Waste will be removed by the contractor and disposed of at the nearest licensed facility/landfill site

Will the activity produce solid waste during its operational phase?

YES	NO
m ³	

If yes, what estimated quantity will be produced per month?

How will the solid waste be disposed of (describe)?

No waste is expected to be produced during the operational phase



Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

N/A. No waste is expected to be produced during the operational phase

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?

YES	NO
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If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility?

YES	NO
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If yes, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

11(b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?

YES	NO
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If yes, what estimated quantity will be produced per month?

m ³	
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Will the activity produce any effluent that will be treated and/or disposed of on site?

Yes	NO
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If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility?

YES	NO
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If yes, provide the particulars of the facility:

Facility name:

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Contact person:

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Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

N/A. Wastewater is not expected to be produced on site

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

YES	NO
YES	NO

If yes, is it controlled by any legislation of any sphere of government?

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the emissions in terms of type and concentration:

N/A

11(d) Generation of noise

Will the activity generate noise?

YES	NO
YES	NO

If yes, is it controlled by any legislation of any sphere of government?

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.



If no, describe the noise in terms of type and level:

The activity is not expected to produce noise during the operational phase.

12. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es)

<input type="checkbox"/> municipal	<input type="checkbox"/> water board	<input type="checkbox"/> groundwater	<input type="checkbox"/> river, stream, dam or lake	<input type="checkbox"/> other	<input type="checkbox"/> the activity will not use water
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If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate

the volume that will be extracted per month:

litres

Does the activity require a water use permit from the Department of Water Affairs?

YES

NO

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

13. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

Telecommunications base-stations require minimal amounts of power.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

N/A



SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

- For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area, which is covered by each copy No. on the Site Plan.

Section C Copy No. (e.g.
A):

- Paragraphs 1 - 6 below must be completed for each alternative.

- Has a specialist been consulted to assist with the completion of this section?

YES	NO
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If YES, please complete form XX for each specialist thus appointed:

All specialist reports must be contained in Appendix D.

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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Alternative S2 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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Alternative S3 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

- 2.1 Ridgeline
- 2.2 Plateau
- 2.3 Side slope of hill/mountain
- 2.4 Closed valley
- 2.5 Open valley
- 2.6 Plain
- 2.7 Undulating plain / low hills
- 2.8 Dune
- 2.9 Seafront

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following (tick the appropriate boxes)?

	Alternative S1:		Alternative S2 (if any):		Alternative S3 (if any):	
	YES	NO	YES	NO	YES	NO
Shallow water table (less than 1.5m deep)						
Dolomite, sinkhole or doline areas						
Seasonally wet soils (often close to water bodies)						



Unstable rocky slopes or steep slopes with loose soil	YES	NO	YES	NO	YES	NO
Dispersive soils (soils that dissolve in water)	YES	NO	YES	NO	YES	NO
Soils with high clay content (clay fraction more than 40%)	YES	NO	YES	NO	YES	NO
Any other unstable soil or geological feature	YES	NO	YES	NO	YES	NO
An area sensitive to erosion	YES	NO	YES	NO	YES	NO

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. (Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted).

4. GROUNDCOVER

Indicate the types of groundcover present on the site:

- 4.1 ~~Natural veld – good condition^E~~
- 4.2 ~~Natural veld – scattered aliens^E~~
- 4.3 ~~Natural veld with heavy alien infestation^E~~
- 4.4 Veld dominated by alien species^E
- 4.5 ~~Gardens~~
- 4.6 ~~Sport field~~
- 4.7 ~~Cultivated land~~
- 4.8 ~~Paved surface~~
- 4.9 Building or other structure
- 4.10 Bare soil



The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Natural veld — good condition^E	Natural veld with scattered aliens^E	Natural veld with heavy infestation ^E	with alien	Veld dominated by — alien species^E	Gardens
Sport field	Cultivated land	Paved surface		Building or other structure	Bare soil

If any of the boxes marked with an “E” is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn’t have the necessary expertise.

5. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

- 5.1 Natural area
- 5.2 Low density residential
- 5.3 Medium density residential
- 5.4 High density residential
- 5.5 Informal residential
- 5.6 Retail commercial & warehousing
- 5.7 Light industrial
- 5.8 ~~Medium industrial^{AN}~~
- 5.9 ~~Heavy industrial^{AN}~~
- 5.10 ~~Power station~~
- 5.11 Office/consulting room
- 5.12 ~~Military or police base/station/compound~~
- 5.13 ~~Spoil heap or slimes dam^A~~
- 5.14 ~~Quarry, sand or borrow pit~~
- 5.15 ~~Dam or reservoir~~
- 5.16 ~~Hospital/medical centre~~
- 5.17 ~~School~~
- 5.18 ~~Tertiary education facility~~



- 5.19 Church
- 5.20 Old age home
- 5.21 Sewage treatment plant^A
- 5.22 Train station or shunting yard^N
- 5.23 Railway line^N
- 5.24 Major road (4 lanes or more)^N
- 5.25 Airport^N
- 5.26 Harbour
- 5.27 Sport facilities
- 5.28 Golf course
- 5.29 Polo fields
- 5.30 Filling station^H
- 5.31 Landfill or waste treatment site
- 5.32 Plantation
- 5.33 Agriculture
- 5.34 River, stream or wetland
- 5.35 Nature conservation area
- 5.36 Mountain, koppie or ridge
- 5.37 Museum
- 5.38 Historical building
- 5.39 Protected Area
- 5.40 Graveyard
- 5.41 Archaeological site
- 5.42 Other land uses (describe)

If any of the boxes marked with an "N" are ticked, how will this impact / be impacted upon by the proposed activity.

If any of the boxes marked with an "An" are ticked, how will this impact / be impacted upon by the proposed activity.

If YES, specify and explain:

If YES, specify:

|



If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity.

If YES, specify and explain:

If YES, specify:

|

|

6. CULTURAL/HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including Archaeological or palaeontological sites, on or close (within 20m) to the site?

YES	NO
Uncertain	

If YES, explain:

--

If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.



Briefly explain the findings of the specialist:

According to the Heritage Screener (**Appendix D1**), During the early to mid-19th century frontier wars between the British settlers and the local Xhosa inhabitants, East London served as a supply port to service the military headquarters at nearby King William's Town, about 50 kilometres away. A British fort, Fort Glamorgan, was built on the West Bank in 1847, and annexed to the Cape Colony that same year. The existing port, in the mouth of the Buffalo River, adjoining the Indian Ocean, began operating in 1870. The establishment of East London harbour rapidly accelerated development of the area into today's city of East London.

The area proposed for development is not located near the historic centre of East London, with the nearest known heritage resources located approximately 2km away from the area proposed for development (SAHRIS ID 31791). The area proposed for the establishment of the telecommunications mast has been previously developed and such, it is very unlikely that any significant archaeological heritage resources will be impacted by the proposed development. In addition, this area is not known to have any particular heritage significance in terms of the built environment or cultural landscapes.

According to the SAHRIS Palaeosensitivity map, the area proposed for development is underlain by geological deposits of very high palaeontological sensitivity. However, due to the limited nature of the proposed development footprint, it is unlikely that the proposed establishment of the telecommunications mast will impact on significant palaeontological resources.

Will any building or structure older than 60 years be affected in any way?	YES	NO
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES	NO

If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.



SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

- (a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the competent authority) at a place conspicuous to the public at the boundary or on the fence of—
 - (i) the site where the activity to which the application relates is or is to be undertaken; and
 - (ii) any alternative site mentioned in the application;
- (b) giving written notice to—
 - (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
 - (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
 - (v) the municipality which has jurisdiction in the area;
 - (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
 - (vii) any other party as required by the competent authority;
- (c) placing an advertisement in—
 - (i) one local newspaper; or
 - (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
- (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and
- (e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to—



- (i) illiteracy;
- (ii) disability; or
- (iii) any other disadvantage.

2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

- (a) indicate the details of the application which is subjected to public participation; and
- (b) state—
 - (i) that the application has been submitted to the competent authority in terms of these Regulations, as the case may be;
 - (ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;
 - (iii) the nature and location of the activity to which the application relates;
 - (iv) where further information on the application or activity can be obtained; and
 - (iv) the manner in which and the person to whom representations in respect of the application may be made.

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the competent authority in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of the EIA regulations.

Advertisements and notices must make provision for all alternatives.

4. DETERMINATION OF APPROPRIATE MEASURES

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case.



Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to this application. The comments and response report must be attached under Appendix E.

6. AUTHORITY PARTICIPATION

Authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least 30 (thirty) calendar days before the submission of the application.

List of authorities informed:

Department of Health Department of Rural Development and Agrarian Reform Department of Economic Development, Environment and Tourism South African Heritage Resource Agency
--

List of authorities from whom comments have been received:

No comments were received from any authorities
--



7. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for linear activities, or where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that subregulation to the extent and in the manner as may be agreed to by the competent authority.

Any stakeholder that has a direct interest in the site or property, such as servitude holders and service providers, should be informed of the application at least 30 (thirty) calendar days before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?

YES NO

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

Comments were received from neighbouring residents. These comments included the following concerns:

- potential health impacts from radiation
- potential visual impacts of the mast
- potential impact on property values

Other queries include:

- the coverage area of the proposed mast

Please refer to the Comments and Response Report (**Appendix E4**) for full comments and the responses provided, and Section D below.



SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2010, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

Comments were received from neighbouring residents. These comments included the following concerns:

- potential health impacts from radiation.
- potential visual impacts of the mast
- potential impact on property values due to potential health and visual impacts

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report):

Potential health impacts

There is no substantiated scientific evidence that radio signals from base stations operating in accordance with recognised safety standards, pose a health risk. That is not merely the Applicant's position, but the established judgment of scientific panels, standards bodies, government agencies and health authorities around the world that are responsible for setting or evaluating guidelines for safe exposure to RF. These include the World Health Organisation, The International Commission on Non-Ionising Radiation Protection (ICNIRP), the European Committee for Electrotechnical Standardisation, the U.K. National Radiological Protection Board, the American National Standards Institute and Standards Australia. The cumulative radiation levels fall safely within the ICNIRP Compliance safety standards. Safety standards are set by the ICNIRP and are adhered to.

There have been over 45 years of RF bio-effects research upon which the national (Dept. of Health) and international (ICNIRP) exposure standards are based. These science-based safety standards provide ample margins of protection against any known health risk. MTN equipment complies strictly with these recognised safety standards.

Please refer to **Appendix G1 – G4** of the Basic Assessment Report for relevant Health documentation, including comment from the Department of Health: Directorate: Radiation Control.



Potential Visual impact

The potential visual impact of the proposed mast has been considered and can be mitigated by the use of tree mast design (see Appendix A), instead of a lattice mast or a monopole design (monopole masts are commonly used in urban areas). A taller mast (greater than 25m) would provide better coverage, however, it is restricted to 25m to decrease the potential visual impact, but still provide the necessary coverage.

It must also be noted that telecommunication masts can be considered as part of the urban landscape. In modern day urban landscapes, it is considered normal and appropriate to have essential urban infrastructure and services such as electrical poles and lines/powerlines, light poles, satellite dishes and other amateur internet antennae and dishes that form part of the communications backbone of the city and its people.

It must also be noted that the design and the intention of the proposed communication mast allows for multiple service providers to attach and house their equipment on the mast, decreasing the need for additional communications masts to be erected in the area.

Potential impact on Property value

Currently, there is no evidence available to suggest that property values will be negatively or positively affected by a telecommunications mast of this design. Some studies may suggest there is a slight negative impact, while others show no effect, and in some cases a positive impact (due to better, faster and more reliable mobile connectivity and mobile internet in the area).

Negative impacts are associated with the public's perceptions on the health risk, and the visual impact of the mast. As indicated above, there is no substantiated scientific evidence that radio signals from base stations operating in accordance with recognised safety standards, pose a health risk. The visual impact of the mast is expected to be low, due to the mast being disguised as a tree.

Alternative sites

Although other sites were investigated, no other options for the applicant were found in close vicinity. The site is an open plot with a willing Landowner. Please also refer to Section A(2) of the Basic Assessment Report for a description of the site alternatives that were considered, but found not to be viable.

Cellular networks in South Africa are in the process of rolling out Long Term Evolution (LTE). LTE, also marketed as 4G LTE, is a standard for wireless communication of high-speed data for mobile phones and data terminals. The LTE network requires additional towers in areas where there is a high cellular user demand. The area surrounding the proposed site has been identified as an area where cellular voice and data users require additional capacity.



As cell phone user demand (voice and data) increases in the area, reception will continue to worsen in future resulting in calls being dropped and wireless internet speeds to decline or not be available at all.

It should be noted that with LTE/4G and data services, sites need to be closer together and here a move of as little as 100m would impact on the coverage in that area.

2. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed.

Alternative (preferred alternative)

Construction phase.

Geographical aspects – **The activity is not expected to have any impact on physical and/or geographical aspects on the site**

Biological aspects – **Very Low (Negative)**

Job creation – **Low (Positive)**

Loss of cultural or historic aspects – **Negligible**

Noise impact - **Low (Negative)**

Visual impact – **Low (Negative)**

Operational Phase

Geographical and/or physical aspects – **The activity is not expected to have any impact on geographical and/or physical aspects on the site**

Biological aspects - **The activity is not expected to have any impact on biological aspects on the site**

increased coverage of telecommunications services and its associated benefits – **Medium (Positive)**

Loss of cultural or historic aspects – **The activity is not expected to have any impact on cultural or historic aspects on the site**

Noise impact – **The activity is not expected to have noise impacts during the operational phase.**

Visual impacts – **Medium-low - (Negative)**

Cumulative Visual impacts - **Low (Positive)**

Decommissioning

The project as proposed does not require 'decommissioning' or 'closure', as such the potential impacts thereof is considered irrelevant.



3. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Alternative A (preferred alternative)

Impacts that may result from the planning, design and construction phase (briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the planning, design and construction phase.

Potential impacts on geographical and physical aspects:	The activity is not expected to have any impacts on any geographical or physical aspects on the site.
Nature of impact:	
Extent and duration of impact:	
Probability of occurrence:	
Degree to which the impact can be reversed:	
Degree to which the impact may cause irreplaceable loss of resources:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Cumulative impact post mitigation:	



Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	
Potential impact on biological aspects:	
Nature of impact:	Loss of vegetation Direct loss of vegetation type and associated habitat due to construction and operational activities.
Extent and duration of impact:	Local, temporary
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	Low
Degree to which the impact may cause irreplaceable loss of resources:	Unlikely
Cumulative impact prior to mitigation:	Insignificant
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Very-Low negative
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	<ul style="list-style-type: none"> - All invasive alien plant species encountered on the property should be removed responsibly and follow-up work must be done during the construction period. - Clearance of vegetation to be limited to the development footprint and required work area as per the EMP and in consultation with the ECO prior to vegetation removal
Cumulative impact post mitigation:	Very-Low to Insignificant
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Very-Low to Insignificant
Potential impacts on socio-economic aspects:	
Nature of impact:	Temporary jobs will be created in the construction industry during the construction phase.



Extent and duration of impact:	Local. During the construction phase of the activity
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	N/A. This is a positive impact
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	Low - positive
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low - positive
Degree to which the impact can be mitigated:	N/A.
Proposed mitigation:	No mitigation measures are required. Temporary jobs will be created during the construction phase
Cumulative impact post mitigation:	Low - positive
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low - positive
Potential impacts on cultural-historical aspects:	
Nature of impact:	The loss of cultural or historic aspects during construction
Extent and duration of impact:	Local, during construction phase
Probability of occurrence:	Highly unlikely, no cultural or historic aspects of significance were identified on site
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	Highly Unlikely
Cumulative impact prior to mitigation:	Very Low – Negative



Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Very low - Negative
Degree to which the impact can be mitigated:	Limited
Proposed mitigation:	<ul style="list-style-type: none"> If any archaeological remains (including but not limited to fossil bones and fossil shells, coins, indigenous and/or colonial ceramics, any articles of value or antiquity, stone artefacts and bone remains, structures and other built features, rock art and rock engravings) are discovered during construction they must immediately be reported to South African Heritage Resources Agency (SAHRA) and must not be disturbed further until the necessary approval has been obtained from SAHRA. Should any human remains/burial or archaeological material be disturbed, exposed or uncovered during construction, these should immediately be reported to the SAHRA. The ECO and Engineer are also to be informed.
Cumulative impact post mitigation:	Negligible
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Negligible

Potential noise impacts:	
Nature of impact:	Noise impact from machinery and plant on the neighbouring residential properties during construction
Extent and duration of impact:	Local, Duration of construction phase
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	Negligible



Cumulative impact prior to mitigation:	Low - negative
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium Low - negative
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	<p>The following measures should be implemented amongst others:</p> <ul style="list-style-type: none"> • The Contractor shall endeavor to keep noise generating activities to a minimum. • Construction only to take place during normal working hours • Compliance with the appropriate legislation with respect to noise shall be mandatory.
Cumulative impact post mitigation:	Low - negative
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low - negative

Potential visual impacts:	
Nature of impact:	Unightly views due to construction site.
Extent and duration of impact:	Local, during duration of construction
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	Low
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	Medium - negative
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium - negative
Degree to which the impact can be mitigated:	Probable



Proposed mitigation:	<p>Visual impact mitigation measures will be dealt with in the EMP. The EMP must be enforced and monitored by the ECO.</p> <ul style="list-style-type: none"> - The Contractor shall restrict all his activities, materials, equipment and personnel to within the area specified. - Construction material must be stored in areas designated by the site agent and in a neat and orderly manner. - The Contractor must ensure that all structures, equipment, materials and facilities used or created on site for or during construction activities are removed once the project has been completed. The construction site must be cleared and cleaned to the satisfaction of the ECO. - Immediately after the demolition of the camp site, the contractor shall restore the site to its original state, paying particular attention to its appearance relative to the general landscape.
Cumulative impact post mitigation:	Low - negative
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low - negative

Impacts that may result from the operational phase (briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the operational phase.

Potential impacts on the geographical and physical aspects:	No geographical and/or physical aspects are expected to be impacted during the operational phase
Nature of impact:	
Extent and duration of impact:	
Probability of occurrence:	
Degree to which the impact can be reversed:	
Degree to which the impact may cause irreplaceable loss of resources:	



Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	

Potential impact biological aspects:	No biological aspects are expected to be impacted during the operational phase
Nature of impact:	
Extent and duration of impact:	
Probability of occurrence:	
Degree to which the impact can be reversed:	
Degree to which the impact may cause irreplaceable loss of resources:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	



Potential impacts on the socio-economic aspects:	
Nature of impact:	<p>The proposed activity will increase the coverage of telecommunications services, including providing a more reliable and wider coverage.</p> <p>The proposed mast will have a <u>positive impact</u> on the socio-economics of the surrounding area as it will provide communication users with the option of faster internet coverage and more reliable cellular coverage.</p>
Extent and duration of impact:	Regional, long-term
Probability of occurrence:	Highly probable
Degree to which the impact can be reversed:	N/A. This is a positive impact
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	Medium - positive
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium - positive
Degree to which the impact can be mitigated:	N/A.
Proposed mitigation:	N/A. This is a positive impact. No mitigation measures are required.
Cumulative impact post mitigation:	Medium - positive
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium - positive
Potential impacts on the cultural-historical aspects:	
Nature of impact:	No heritage or cultural aspects are expected to be directly impacted during the operational phase.
Extent and duration of impact:	



Probability of occurrence:	
Degree to which the impact can be reversed:	
Degree to which the impact may cause irreplaceable loss of resources:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	

Potential noise impacts:	The activity is not expected to have noise impacts during the operational phase.
Nature of impact:	
Extent and duration of impact:	
Probability of occurrence:	
Degree to which the impact can be reversed:	
Degree to which the impact may cause irreplaceable loss of resources:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be mitigated:	
Proposed mitigation:	



Cumulative impact post mitigation:	
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	
Potential visual impacts:	
Nature of impact:	Potential visual impact of a telecommunication mast in a residential area.
Extent and duration of impact:	Local, permanent
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	Low
Degree to which the impact may cause irreplaceable loss of resources:	Low -negative
Cumulative impact prior to mitigation:	Medium - negative
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium - negative
Degree to which the impact can be mitigated:	High
Proposed mitigation:	<ul style="list-style-type: none"> • Restrict the height of the mast to 25m; • Use a tree disguised type mast, which is expected to blend in more with the surrounding neighbourhood as there are other relatively tall trees in the surrounding area. • Allow multiple service providers to use mast, preventing the need for additional masts to be erected in the vicinity
Cumulative impact post mitigation:	Low - negative
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium -Low - negative



Potential cumulative visual impacts:	
Nature of impact:	Due to the design of the proposed communication mast, the mast allows for multiple service providers to attach and house their equipment on the mast, decreasing the need for additional communications masts to be erected in the area. This will therefore have a positive cumulative impact on the area.
Extent and duration of impact:	Regional, long-term
Probability of occurrence:	Highly probable
Degree to which the impact can be reversed:	N/A. This is a positive impact
Degree to which the impact may cause irreplaceable loss of resources:	N/A.
Cumulative impact prior to mitigation:	Medium - Low - positive
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium - Low - positive
Degree to which the impact can be mitigated:	N/A. This is a positive impact. No mitigation measures proposed
Proposed mitigation:	N/A. This is a positive impact
Cumulative impact post mitigation:	Low - positive
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low - positive

Impacts that may result from the decommissioning and closure phase (briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the decommissioning and closure phase.

The project as proposed does not require 'decommissioning' or 'closure', as such the potential impacts thereof is considered irrelevant.



No-go alternative (compulsory)

This is the option of not installing the proposed mast, and its associated infrastructure.

Although this option would result in no potential negative environmental or social impacts, the social benefits from implementing the activity would not be achieved. A more efficient telecommunications service, considered as essential for the business sector and private/social communication, would therefore not be achieved.



SECTION E. RECOMMENDATIONS OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?

YES	NO
YES	NO

Is an EMPr attached?

The EMPr must be attached as Appendix F.

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment):

N/A

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

Compliance with the EMP and appointment of an ECO during the construction phase.



SECTION F: APPENDICES

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

Appendix E: Comments and responses report

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Other information

