



NDLAMBE MUNICIPALITY

TELECOMMUNICATION MAST INFRASTRUCTURE POLICY

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DEFINITIONS

Aesthetic or visual environment means the visual beauty, sensitivity to and appreciation of visual beauty of the environment.

Affected property owner means registered property owners within a 500m radius from the proposed telecommunication infrastructure.

Antennas means any system of wires, poles, rods or devices, used for the transmission or reception of electromagnetic waves and includes satellite dishes with a diameter exceeding 1.5m. It excludes domestic TV antennas less than 2m in diameter/ height and where the associated antennas mounting structure is less than 3m in length.

Areas of Environmental and Heritage significance includes environmental and heritage resources, including natural and cultural sites, scenic and tourist routes, which are of special value for the benefit of all, and need to be protected.

Base Station Controller (BSC) means the device that controls what is happening between various base transceiver stations.

Base Transceiver Station (BTS) means base transceiver station, which consists of a configuration of transmit and receive antennas capable of transmitting and receiving electromagnetic fields to and from mobile phone users residing within a specific area of radio coverage.

Biophysical Environment means the material environment of the site and includes the ecological, geological and the hydrological and atmospheric elements of the environment.

Building means building as defined in the National Building Regulations and Building Standards Act No. 103 of 1977.

Building Plan means a schematic reflection of buildings or structures to be erected within a specific zone.

Camouflage means action taken to disguise masts in order to minimize the visual impact of masts on the community. May take the form of tree, lighthouse, windmill or forest outlook.

Control zone and/or “area of Control” refers to the degree of control to be applied in a specific area, i.e. maximum, high, partial or low control zone, according to the sensitivity and developmental status quo of the area.

Council means the Municipal Council of the Ndlambe Municipality and includes Municipal Planning Tribunal, Authorised Official or anybody persons empowered by it to assess and resolve on Telecommunication Mast Infrastructure applications.

Dish antenna bears the same meaning as “antenna” but is normally shaped as a dish or disk and therefore referred to as a dish-antenna.

Distributed Antenna System (DAS) means a network of spatially separated antenna nodes connected to a common source via a transport medium that provides wireless service within

a geographic area or structure. A distributed antenna system may be deployed indoors (an iDAS) or outdoors (an oDAS).

Electromagnetic energy (EME) is a term which includes electromagnetic radiation and applies to all Telecommunication Mast Infrastructure that transmits or receives electronic communication signals.

Emission means the emanation of micro-waves and / or radio frequency emission by the antennas/ base stations.

Environment Impact Assessment (EIA) means an assessment of the possible impact of base stations/ masts on the visual, physical, bio-physical and health and safety of the environment, as prescribed in terms of the National Environmental Management Act, 1998, Act 107 of 1998.

Environmental Management Plan (EMP) is a contractually binding guideline document for use with the implementation of the construction on a site to manage and mitigate environmental impacts associated with that construction.

Equipment room means a structure to house communication equipment associated with Telecommunication Mast Infrastructure. This can be a separate building or container used exclusively for the equipment or it can be a room within a building.

Freestanding Base telecommunication station (FBTS) means a freestanding support structure on land or anchored to land and used to accommodate Telecommunication Mast Infrastructure for the transmitting or receiving of electronic communication signals, and may include an access road to such facility.

Global System for Mobile Communications (GSM) means the international operating standard which is compatible standards and frequencies between different networks around the world in order to allow for features such as international roaming. It provides a system which allows that anybody can make a telephone call anywhere and anytime where there is coverage and capacity and emphasis is on mobility of communication.

Habitable structure means any structure where people may reside.

High control zone means natural areas, rural areas and urban areas of maximum control. Include, but are not limited to, natural open spaces and urban conservation areas, interface of natural landscape with built-up areas, bodies of water, rivers, ridges, forests open recreation areas, characteristic vistas, special tourist areas, skylines, and visual zones along freeways in urban areas, unless the municipality after obtaining a strategic environmental assessment designates areas along such freeways as areas of partial or minimum control.

Land Use means the use of a property for a specific purpose.

Lattice mast means an assembled tower structure consisting of framework of metallic or any other strong material and can also be divided into sections. Also meaning a structure consisting of cuttings or pieces of something cut-off at right angles to an axis and assembled together.

Low control zone means areas which require minimum control such as areas of concentrated economic activity, where business is the main focus (Central Business District), industrial areas, shopping centres (secondary activity nodes), central office precincts, industrial enclaves and shopping centres in industrial areas and industrial parks, entertainment districts or complexes and prominent transport nodes excluding nodes of exceptional historical or architectural value.

Mast farm means several masts located on one land parcel and/or in very close proximity of each other in- order to serve different service providers and/or operators.

Mast means a pole or tower structure.

Maximum control zone means acknowledged and well - known areas of cultural importance, heritage and archaeological sites, historical sites and buildings proclaimed into National Monuments Act and/or National resources Act. It also include, but are not limited to, nature conservation areas, botanical gardens, bird sanctuaries wetlands, dams and pans as well as areas where Red Data species are known to occur.

Minor freestanding base telecommunication station (MFBTS) means a freestanding support structure on land or anchored to land and used to accommodate telecommunication infrastructure for the transmitting or receiving of electronic communication signals. The telecommunication infrastructure will form part of the base station that may be attached to street lamps, traffic lights, road directional signage, camera poles and flag poles or similar support structure which may not exceed:

- 15m in height measured from existing ground level, or
- 300mm diameter for the post or support structure to which the antenna is to be attached.

A screened container for antennas attached to, or included in the mast may not exceed:

- 500mm diameter
- 2m height

An equipment container may not exceed:

- 1m x 1m x 1m cube above existing ground level.

Mobile Switching Centre (MSC) means the device that interfaces with other networks (such as the fixed line networks operated by Telkom). The device decides whether a call stays in the GSM network or whether it should be routed to another network and to check whether the subscriber is legal. The device is making decisions about switching calls.

Modification of Telecommunication Mast Infrastructure means the modification to the physical structure or radio frequency emissions of telecommunication infrastructure.

Mono pole means a single pole-structure.

MSA means Local Government Municipal Systems Act 2000 (Act 32 of 2000)

Municipal Area means the jurisdiction area of the municipality.

Municipality means the Ndlambe Municipality (NLM) or any officials, committee or employees of the municipality to whom any of its powers under this applicable By-Laws.

NBR means the National Building Standards and Building Regulations Act 1977 (Act 103 of 1977)

Partial control zone means areas characterized by a greater degree of integration and complexity of land use which require a lesser degree of control, such as high density mixed residential areas, in transition and residential areas where office and commercial encroachment has taken place and low density suburbs, suburban shopping centres and office parks, ribbon development along main streets, educational institutions, sport fields or stadiums, commercial squares, government enclaves and small holdings of an urban nature with a higher population and density than rural small holdings.

Roof top antenna mean antennas and other relevant transceiver equipment which is installed on rooftops of buildings and/or against a building.

Rooftop Base telecommunication station (RBTS) means a support structure attached to a roof, side or any other part of a building and used to accommodate Telecommunication Mast Infrastructure for the transmitting or receiving of electronic communication signals.

Rural area means an area forming a transition between urban areas and un-spoilt natural areas and includes intensive agricultural and peri-urban small holdings of predominantly rural nature and with relative low number of cellular users per square kilometre.

Satellite dish means any device incorporating a reflective surface that is solid, open mesh, or bar configured that is shaped as a shallow dish, cone, horn or other and is used to transmit and/or receive electromagnetic signals.

Scenic Drive Network Plan means as applied to an existing Council approved plan.

Sectional pole bears the same meaning as “Mono pole”.

Site means a property, which includes the area of any building, yard, courtyard or garden on an erf and in relation to FAR, coverage and parking calculations, the whole of the area registered as an erf or other piece of land including the area of any servitude registered over such an erf or other piece of land.

Site share means the sharing of existing telecommunication infrastructure by various cellular communication providers. Normally an additional BTS is provided in the “site” wherein existing infrastructure is provided, and additional antennas are affixed to existing masts.

Support structures means pole, monopole, guyed tower, lattice tower, freestanding tower or any other tall structure that is designed to accommodate antennas.

Telecommunication Centre A land and/or buildings used for telecommunications and may include cell phone masts and base station, satellite dishes, antennas and electronic equipment.

Telecommunication Network means a system, or series of systems, that carries, or is capable of carrying, communications by means of guided or unguided electromagnetic energy.

Telecommunication Provider (TP) means the holder of a telecommunications licence in terms of the Electronic Communications Act (2005).

Telecommunication Services Telecommunication cables and poles, electronic equipment, excluding Telecommunication masts

Telecommunication structure/s means any tower, mast, pole, structure or building designed or constructed to accommodate telecommunication equipment and/or antennas.

Unauthorized person means any person who is not employed by the operator of the infrastructure and who is not trained or conversant with the occupational exposure hazards and precautionary measures required to be taken so as to prevent exposure to Radio Frequency levels that could be harmful to health.

Urban area means a human settlement with a population of more than 2500 people, with a high volume of cellular users per square kilometre.

Zone and/or use zone has the meaning assigned to it in the relevant Town Planning Scheme of the municipality that is revised from time to time. It doesn't have the same meaning as "control zone" as defined above.

ACRONYMS

BSC - Base Station Controller

BTS - Base Transceiver Station

DAS - Distributed Antenna Systems

DEADP - Provincial Department of Environmental Affairs and Development Planning

ECA - Electronic Communications Act 2005 (Act 36 of 2005)

ECPHRA - Eastern Cape Provincial Heritage Resources Authority

EIA - Environment Impact Assessment

EME - Electromagnetic Energy

EMP - Environmental Management Plan

EMR - Electromagnetic radiation

FBTS - Freestanding Base Telecommunication Station

GSM - Global System for Mobile Communications

ICASA - Independent Communications Authority of South Africa

ICNIRP - International Commission on Non-Ionizing Radiation Protection

MF BTS - Minor Freestanding Base Telecommunication Station

MSC - Mobile Switching Centre

NBR - National Building Regulations and Building Standards Act No.103 of 1977.

NDOH - National Department of Health, Directorate Radiation Control

NEMA - National Environmental Management Act No.107 of 1998

NEMPAA - National Environmental Management Protected Areas Act

RBTS - Rooftop Base Telecommunication Station

RF - Radio Frequency

ROD - Record of Decision

TI - Telecommunication Infrastructure

TMI Telecommunication Mast Infrastructure

TP Telecommunication Provider

1. INTRODUCTION

Rapid expansion of the telecommunications industry in recent years has resulted in an increasing demand for radio telecommunication services, and new technologies in the cellular phone industry. The location, siting and development of TMI continues to be an issue of particular interest to both local communities and local government alike, with debate focusing on adequate availability of connectivity, visual amenity and public health.

With the nature of technology, it must be accepted that the future need for TMI sites will increase in the short to medium term. Investment in telecommunications networks not only facilitates economic trade in goods, by bringing together buyers and sellers, but more importantly, also promotes trade in services upon which modern economies are built.

There are significant economic benefits of good Telecommunication Mast Infrastructure, but this must be balanced with the fact that Ndlambe Municipality depends on its scenic resources for tourism. The resources therefore also have an economic value, which could be negatively affected by unsightly or inappropriate structures.

The need for the preparation of a Cellular Telecommunication Policy came about, firstly, due to the need to include all TMI into the policy and not focus only on cellular technology and secondly, due to the need to introduce provisions and guidelines on mitigating impacts of this infrastructure.

This Policy will provide updated guidelines to be utilized by decision makers within the Municipality in assessing and responding to any application for the right to erect or modify TMI.

1.2 Problem Statements

1.2.1 Most of the original infrastructure was approved as temporary departures.

1.2.2. Masts provide a radio signal which is dependent on line of sight for good reception. The signal becomes weaker with distance or obstructions.

1.2.3. Landlords, topography and demand tend to dictate the location of masts. For example, mountainous areas often require high masts due to the topography.

1.2.4. Due to improvements in mobile devices (smart phones), the coverage that each mast is able to provide has shrunk. Thus there is continual need to provide more masts as coverage is lost - the distance between the masts is reducing.

1.2.5. Cell phone providers are having difficulty accessing suitable land, and there have been problems accessing Municipality owned land, even when it is the most suitable location for TMI.

1.2.6. Parastatals such as Telkom, ESKOM and the SABC, who also make use of masts, have traditionally not been subject to approval regulations, or the same stringent requirements as private industry.

2. RATIONALE

2.1 Control over the installation of TMI falls within the ambit of municipal planning, which, in terms of the Constitution is a municipal competency.

2.2 The implementation of the Policy will aid the development of a Municipality with *opportunities* which are *well run, safe and inclusive*.

2.3 In terms of the MSA and the Constitution, Council must satisfy itself that it is addressing its responsibly, inter alia, its duties towards its community placed upon it by such legislation in this case its obligation to provide a safe and healthy environment and to promote the economic wellbeing of the municipal area. Seen in this context, Council has a responsibility to its community to develop and apply policy around TMI.

3. EXCLUSIONS

3.1 Optic fibre installations, Point to Point copper (cable) installations, and undersea cables are excluded from this Policy.

3.2 Masts and antennas incidental to the enjoyment of a dwelling unit

- Television (TV) masts & antennas;
- Satellite dish antennas;
- Radio Amateur masts, poles, antennas & dish antennas;
- Short wave & FM radio antennas;
- Masts & antennas for purposes of safety & security systems and communication radios/systems of the dwelling unit;

3.3 Antennas added on existing telecommunication structure for mast sharing: Antennas added to existing telecommunication structure/mast or tower classified under Types A, B, C1, D1

- (i) Prevent pollution and ecological degradation;
- (ii) Promote conservation; and
- (iii) Secure ecological resources while promoting justifiable economic and social development.

4. LEGISLATIVE FRAMEWORK

4.1 Constitution of the Republic of South Africa as amended

The rights enshrined within the Bill of Rights are applicable to all laws, and binds the legislature, executive, the judiciary and all organs of state. It therefore follows that all Council policies and bylaws should be compliant with the Bill of Rights.

- a) Section 24 of the Bill of Rights, states that everyone has the right to an environment which is not harmful to their health and wellbeing, and

- b) To have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that:

Section 152 of the Constitution under Chapter 7, objects of Local Government provide the specific objects of local government, one of which is, inter-alia

- a) to promote a safe and healthy environment

Apart from the specific powers and functions allocated to local government by the Supreme Law of the country, the Constitution and other relevant legislation, it is clear that local government must therefore take cognizance of Section 24 and 152 in its decision-making processes where ever necessary.

As cellular telecommunications infrastructure has significant environmental impact, which may affect the right referred to in Section 24 and 152 of the Constitution, including inter-alia visual, electromagnetic zoning and spatial, it is therefore a legal requirement of the Bill of Rights.

4.2. National Environmental Management Act 107 of 1998 as amended: Environmental Impact Assessment Regulations, 2014

4.2.1 A list of activity is defined as an activity identified in terms of Section 24(2) and 24D of NEMA, as one which may not commence without as environmental authorization from a competent authority and in respect of which the investigation, assessment and communication of potential impact activities must follow the procedure as described in the Regulations 26 to 35 of the Environmental Impact Assessment Regulations.

4.2.2 In terms of government gazette 38282, issued on 4 December 2014, Section 24(2) and 24D of NEMA, the installation of cellular networks is a listed activity:

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

- (a) is to be placed on a site not previously used for this purpose; and
- (b) will exceed 15 metres in height but excluding attachments to existing buildings and masts on rooftops.

Geographic areas based on environmental attribute:

- (aa) a protected area identified in terms of NEMPAA, excluding conservancies;
- (bb) national protected area expansion strategy focus areas;
- (cc) sensitive areas as identified in an environmental management framework a contemplated in chapter 5 of the Act and as adopted by the competent authority;
- (dd) sites or areas identified in terms of an international conservation;
- (ee) critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;

(ff) core areas in biosphere reserves;

(gg) area which 10 kilometres from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve; or

(hh) area seawards of the development setback line or within 1 kilometre from the high-water mark of the sea if no such development setback line is determined; or

Inside Urban Areas; in

(ii) Areas zoned for use as public open space; or

(jj) areas designed for conservation use in Spatial Development Framework adopted by the competent authority or zoned for a conservation purpose.

Greenfields site, including access roads, which fall outside the thresholds listed above, will be subject to screening and evaluation through the Ndlambe Environmental Management Framework (EMF) process. Environmental sensitivities and/or constraints identified by the EMF may require further evaluation and assessment by the applicant and approved by the Municipal Environmental and Conservation Unit prior to the commencement of any site works.

4.3. National Building Standards and Building Regulations Act 103 of 1977

4.3.1 Section 7 of the National Building Standards and Building Regulations Act 103 of 1977 and the regulations states that *“Council must be satisfied that buildings or structures are not dangerous to life or property”*. Other provisions in the Act are that the buildings / structures must not disfigure the area, that they must not be unsightly or objectionable, and that they must not derogate from the value of adjoining or neighboring properties. TMI such as FBTS is considered to be a structure as defined in the NBR and will therefore require approval in terms of such Act by Council.

4.4. Electronic Communications Act (36 of 2005)

4.4.1 The Electronic Communications Act (36 of 2005) and ICASA regulate all forms of TI and the issue of approvals and licenses.

4.4.2 Documentation must be provided showing that transmitting power levels are in compliance with ICASA licence conditions. The design and operation of TI should be in accordance with the licensing requirements of ICASA, with physical isolation and control of public access to public exposure hazard zones and use of minimum power levels consistent with quality services.

5. CLASSIFICATION & TYPES OF TELECOMMUNICATION STRUCTURES AND ANTENNAS

5.1 Types of telecommunication structures and antennas

Type A: Freestanding masts:

Type A1: Mono pole or sectional pole (It may include the “ROCLA-mast” concrete pole);

Type A2: Lattice masts;

Type B: Concrete towers

Type B1: Concrete tower (excluding mono pole);

Type B2: Concrete tower with lattice masts on top (excluding mono pole).

Type C: Camouflaged masts

Type C1: Masts camouflaged as trees;

Type C2: Masts designed to fit in with architecture of building.

Type D: Rooftop antennas & antennas attached to buildings or structures

Type D1: Rooftop antenna;

Type D2: Antenna attached to building or existing structure;

Type D3: Antennas disguised to fit in with architecture, shape or appearance of other structures such as bridges;

Type E: Multi-functional use antennas and structures

Type E1: Masts specifically designed to serve as land mark;

Type E2: Masts which incorporates and/or accommodate advertising;

Type E3: Advertising boards which incorporates and/or accommodate antennas;

Type E4: Masts which accommodates street lighting and street light poles which accommodates antennas.

6. POLICY

6.1 Applications for the erection or modification or the change of physical structure of a cellular telecommunication infrastructure will be considered in accordance with:

Compliance with the ICNIRP public exposure guideline;

(a) Findings of any environmental assessment carried out in terms of the NEMA, and any other relevant legislation, Council policies and bylaws, Council shall approve or refuse any such application, with or without conditions.

(b) No cellular masts or telecommunication infrastructure or combination of such infrastructure may at any time cause the public to be exposed to RF levels that exceed the appropriate ICNIRP public exposure guideline in any location, where the reasonably can access.

(c) Subject to the level of RF exposure within the area to which the public reasonably has access, as certified by a qualified person the ICNIRP public exposure guideline, shall be provided as part of every application (new, changing or modification) of cellular telecommunication infrastructure.

(d) All antenna support structures are to be designed to blend in with the local environment or associated building(s) with the use of natural, non-reflective, compatible colours and finishes where possible.

(e) The base station must be suitably designed to blend in with the surrounding environment, i.e. the equipment room could either be walled or fenced (metal/wood /brick) or could be housed in a specially designed building.

(f) This Policy seeks to strike a balance between cellular telecommunication infrastructure and economic development on the one hand, and the conservation of visual, tourist, environmental and heritage characteristics on the other hand. Therefore, applications with any visual impact are not encouraged on or near heritage sites, national monuments, and urban conservation areas, buildings older than 60 years, special scenic areas, and tourist sites of interest, view sites and scenic drives.

(g) In the event that a container is used as an equipment room on a rooftop, such container must be set back as far as possible from the edges of the roof.

(h) All fenced or walled base station must be suitably fenced and maintained.

(i) For all new application, if surrounding vegetation is to be interfered with, it will be the prerogative of the applicant to retain such vegetation as far as possible. Any proposed removal of vegetation is to be shown on the submission of site plans and is to be approved by Council prior to removal.

(j) No advertising signage will be permitted on cellular telecommunication infrastructure unless agreed by both the municipality and the applicant and are in line with the Municipal Outdoor Advertising Policy.

(k) No antennae will be permitted on listed buildings / monuments, as listed by EC Provincial Heritage Resource Authority, unless written authorisation is obtained thereto from the responsible authority.

(l) The rating of properties bearing cellular telecommunication infrastructure will be done in terms of Council's Rates Policy, as amended, each financial year.

(m) Any redundant cellular telecommunication infrastructure must be removed from the site within thirty days of the date of being declared redundant or where replaced by another antennae on a new site.

7. OPERATIONAL REQUIREMENTS AND IMPLEMENTATION PLAN OF THE POLICY

7.1. Procedural requirements

(a) The application procedure shall be in terms of the National Building Regulations or a special or a written consent of the relevant Town Planning Schemes to which the application relates.

(b) All rooftop antennas that are not higher than 3 m, as measured from the top of the roof of a structure, must be exempted from the application process. (Telecommunication containers and lift structures will not be regarded as part of the roof of a structure.)

(c) All containers utilised with any telecommunications infrastructure must be in the same property with all telecommunications infrastructure and mast. No separate container will be approved if located in a different location/property from the Base station/masts.

(d) Normal building plans processes will be applicable.

(e) The general conditions laid down in terms of the Ndlambe Spatial Planning & Land Use Management Bylaw(2015) regarding the lapse of time for rights not exercised must apply.

(f) All applications whether for a new or modification must be accompanied by a copy of the property deed of transfer and the owner of the property is to certify that the proposal, as applied for, does not conflict in any way with the property deeds of transfer.

7.2. General

(a) The location of all telecommunication masts must be discussed by the applicant with the Municipality prior to any application is submitted.

(b) Access to the proposed site of the telecommunication mast must be discussed with the Municipality prior to the submission of an application.

(c) The location of telecommunication masts outside residential areas is preferred.

(d) The future planning of the area around a telecommunication mast site must be taken into consideration.

(e) Co-location on existing masts must be encouraged and, if co-location is not possible, evidence must be provided that diligent efforts were made to co-locate.

f) Building lines as defined in the relevant town-planning schemes and title deeds must be applicable to all telecommunication structures. The normal process of building line relaxation and the removal of restrictive title deed conditions will be applicable.

g) If the Municipality requires, the applicant must supply at least one alternative type of or site for the telecommunication structure that has a lower visual impact.

h) The permission of the South African Civil Aviation Authority must be obtained and submitted to the Municipality before a telecommunication mast is erected.

i) Environmental Authorization must be obtained from EC DEDEAT and submitted to the Municipality before a telecommunication mast application is submitted.

(j) The municipality may request additional public participation if it is felt that the participation has been inadequate.

(k) Applications on properties which are zoned business, industrial, and agricultural telecommunication mast should be encouraged with a special consent.

(l) A photo montage and a schedule of colours and finishes for the proposed TMI may be re- requested by the municipality.

(m) A visual impact assessment prepared by a suitably qualified independent professional, to the municipality's satisfaction, may be requested by the municipality. The assessment shall include the visual sensitivity indicating low, medium, high, very high at each scale of visibility including local, distant and skyline, and include recommendations on mitigation.

(n) For every new or upgraded FBTS site, the municipality must consider whether landscaping or the provision of public amenities is appropriate in the context to both enhance the local environment and to benefit the public amenity. If it is considered appropriate, a landscape plan must be provided by the applicant, to demonstrate to Council how landscaping will be implemented and maintained on the subject site prior to plan approval.

(o) Signage, camera poles and flag poles, co-location must be encouraged.

7.3. Residential areas

7.3.1 Telecommunication antennas and masts in residential areas are not recommended because of the community resistance and therefore not ideal to encourage them, but due to the lack of space or suitable vacant properties in urban areas, the need to accommodate them is vital, as they provide access to internet and enable businesses and residents to stay in touch with the rest of the globe. However, the following conditions have to be taken into consideration when investigating or approving a site for telecommunication antennas and masts:

(a) The location of telecommunication antennas and masts on buildings is recommended if the buildings are multi-storey buildings.

(b) If it is not possible to locate the antennas and masts on buildings or if it is not possible to locate them with existing antennas and masts, the best alternative locations are neighbourhood centres or church grounds.

(c) School grounds can be investigated as a location option, but the public resistance to these locations must be taken into account. Applications regarding school property must be accompanied a power of attorney from the respective governing body. The placement of telecommunication antennas on school grounds should be handled with care and not place in the direct vicinity of any classroom.

(d) The location of antennas and masts on sites such as schools and churches must take the surrounding uses, e.g. residential use, into account.

(e) Masts in particular on sports grounds, in formal parks and on golf courses may be considered if they are placed with care as far as the functions of the site are concerned and if they are camouflaged so that they blend in with the surrounding environment. Existing lighting structures can also be used as masts on sports fields and in residential areas.

(f) Masts may only be permitted on a single residential property in special circumstances. The special circumstances will be evaluated on merit. If application is made on a single residential property, the applicant must provide proof that there are no alternative sites available.

7.4. Commercial, business and industrial areas

(a) The location of telecommunication antennas and masts on buildings is recommended.

(b) The co-location of antennas on masts of different service providers is recommended.

(c) The location of telecommunication masts in close proximity to architectural landmarks, e.g. national monuments and historic buildings, must be avoided.

(d) The location of telecommunication masts in town squares and formally designed open space and town scapes must be avoided.

(e) Antennas and masts may be disguised with elements such as signage, lighting and place name boards.

7.5. Impact on Existing Services and Utilities

- (a) Power supply to base station sites must not interfere with existing radio equipment installed in the vicinity.
- (b) Rooftop installations must be situated in such a manner that they do not interfere with other utility functions.
- (c) Electricity supply to telecommunication infrastructure must, where practically possible, be by underground cables.
- (d) All electrical installations must be as per ESKOM or Council's requirements and standards.
- (e) Where power to a base station site is required and excavation works are undertaken, all vegetation is to be reinstated and maintained by the Applicant.

7.6. Sharing/Co-location

In any application, the benefits of co-location shall be assessed against any possible negative effects (e.g. a possible increase of antenna support structure height needed to accommodate the other providers and the possible increase of power output from one location). Council may refer such assessment for further investigation.

When preparing conditions of approval, Council shall have regard to the following:

- (a) The possibility of network providers entering into a legal agreement to share a location in order to minimize the total number of structures across the Municipality.
- (b) Unless the investigation provided for otherwise, provision shall be made by the applicant, in the design of the mast or tower that it can physically cope with accommodating infrastructure of all other network providers.
- (c) Unless otherwise recommended based on independent technical advice, no antenna support structures shall be closer than 1km of each other in urban areas.
- (d) For any application submitted, Council reserves the right to request and be furnished with more information, such as, inter-alia, a map and photographs showing other existing tall structures (for example, masts, or towers, tall buildings and other structure), all exceeding a given height and for a radius specified around the site.
- (e) The proximity to other developments including the potential to restrict the Development of future infrastructure and expansion of existing infrastructure.
- (f) Each Network Operator shall supply to Council and electronic spread sheet indicating the latitude and longitude co-ordinates of their cellular communication structures in the municipal area (existing and applied for).

7.7. Base stations on rooftops

7.7.1 Quite often in urban environments, base stations are installed on the rooftops of buildings. In some cases the antennas of the base station site might be installed against the wall of a building. The reason behind these rooftop installations is to provide cellphone coverage in the area without erecting a mast.

7.7.2 Similar to base stations on masts, installations on rooftops lead to public exposure in the immediate vicinity of the building that are thousands of times below the international safety guidelines. Exposure right below the installations (on the top floor of a building) or right behind a wall mounted installation is also well below the guidelines.

7.7.3 The only extra precaution that should be taken in the case of rooftop installations is that access to the areas directly in front and within 10 to 20 meters of the antennas should be controlled, because this is the area where the exposure levels would approach the safety guidelines.

7.8. Environmental conditions applicable

(a) If evidence in future link RF emissions with health issues, the Municipality will have the right to review existing masts, ask for modifications or demolition at the cost of its owner if the situation calls for it.

(b) Special precaution has been taken to ensure that no airstrip, road or other public transport structure used by the public are endangered due to impairment of movement or visibility of aircraft, vehicles etc.

(c) All structures are fenced or walled to limit public access to it. If the base station is a secured building, sufficient precaution must be made to prevent access to the antenna support structure. Access to the area must be strictly controlled through a locked gate.

(d) If the structure will be co-used to put up lights for security purposes, written consent of surrounding land users must be obtained.

(e) The applicant must ensure that the structure has an on-going maintenance schedule to keep it visually attractive.

(f) The applicant must take all reasonable steps to ensure that the telecommunications structure and its equipment do not cause a noise nuisance.

(g) The Environmental section will have the right to inspect the site at regular intervals to determine the state of the environment on and around it and take any steps it deems necessary if the environment is harmed/neglected in any way.

(h) The applicant must give proof that all methods available to assimilate the proposed structure with the environment have been made.

- (i) The applicant must ensure that sites with high erosion potential due to steep slopes, soil type, poor vegetation etc. have specific erosion control measures in place. Erosion control measures apply for the site itself as well as the access road.
- (j) Environmental sensitive construction methods must be applied to ensure that disturbance of the environment is minimized.
- (k) All environmentally damaged areas, in and outside the fenced area must be rehabilitated to their original condition as soon as possible.
- (l) All waste generated during construction must be disposed of at Ndlambe LM disposal sites.
- (m) The structure and all related elements must be removed from the site when the structure ceases to be used for telecommunication purposes. The site must be rehabilitated to a condition that is similar to surrounding vegetation.
- (n) The applicant must have specific visual and biological mitigation procedures in place if sensitive land-use areas can't be avoided. Such mitigation procedures have to be approved by the Ndlambe LM before construction commences.

8. MONITORING AND COMPLIANCE

- 8.1. All cellular telecommunication infrastructures in the area of jurisdiction of Council shall be monitored by Council in the field on a regular and a random basis to ensure compliance with this policy and the conditions of approval, and to verify sharing and co-location considerations as put forward by the network provider.
- 8.2 The right of Council to enter the property and the installation at reasonable times and to carry out such measurements and testing as may be necessary shall be embodied in the conditions of approval.
- 8.3 An electronic report shall be furnished to Council in this regard on a regular basis, and as and when requested.
- 8.4 In the event that evidence of non-compliance with the conditions imposed in terms of land use approvals and/or zoning scheme regulations and/or building plan approval is found by Council or its agents, the Council shall immediately notify the relevant network provider of such in writing. Such operator shall then be entitled to test such findings and to conduct measurements on the relevant cellular telecommunication infrastructure, and submit a written report with the measurement findings, endorsed by a qualified authority (such as the SABS) to Council within fourteen (14) days of receipt of Council's written notification.

9. PUBLIC PARTICIPATION

- 9.1 Public participation shall be carried out by the applicant in accordance with the municipal land use application process. Any proposal for an antenna mounted on a

building or roof which will protrude more than 3 meters above the roof-top shall be subject to a public participation process in accordance with SPLUM Bylaw 2015 processes.

10. INFORMATION REQUIRED WITH APPLICATIONS

Applications must be accompanied by the following:

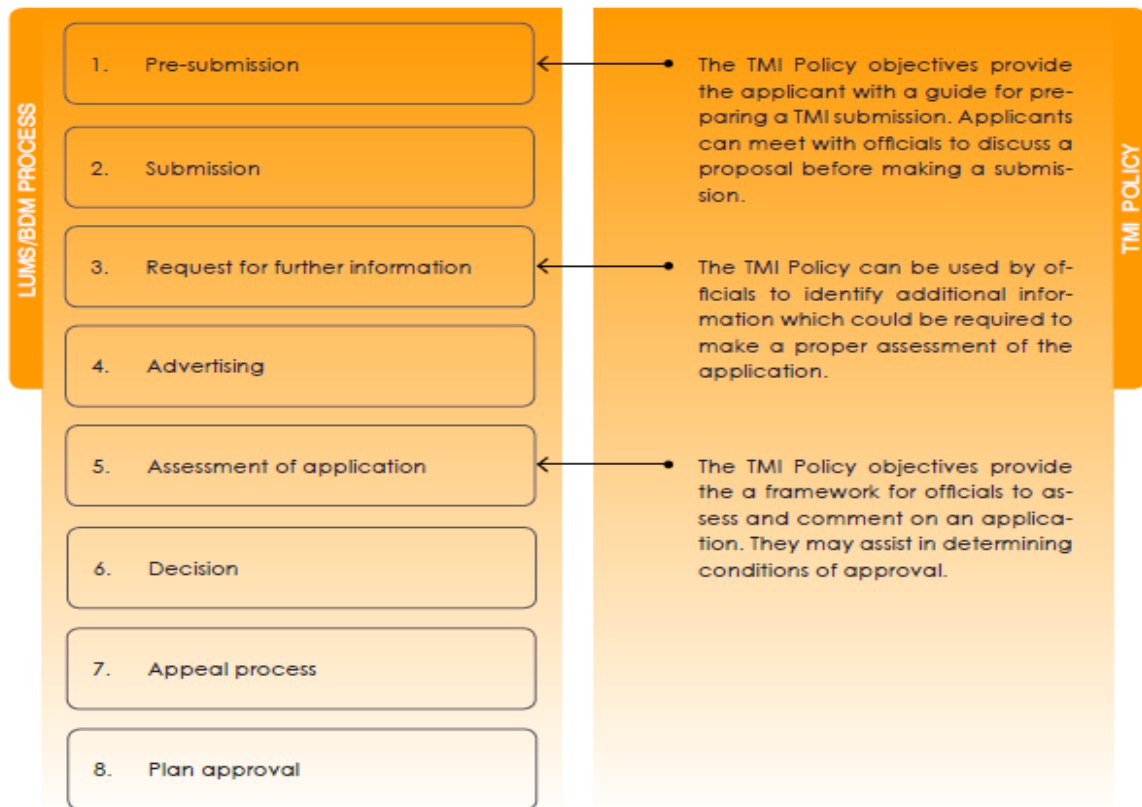
Documents	Required
Application form	All applications
Site Plan	All applications
Proposed site layout plan	All applications
Zoning Certificate	If necessary
Site Coordinates	All applications
EC Department of Environmental and Tourism (ROD) or letter confirming that no environmental authorisation is necessary	To the discretion of the local authority
Radiation Frequency report by qualified person	Approved by ICASA
Building plans	Proposed Plans
SA Aviation authorisation	All application especially in rural areas or mountains
LIRHA authorization	If located next to Heritage sites
Eskom authorisation letter	If services by Eskom
Title Deed	All applications
Locality Plan	All applications
Lease agreement	If the property is leased
Neighbours comments	All properties in the Urban area
SGB authorization Letter	If on school property

11. IMPLEMENTTION

The Telecommunication Mast Infrastructure Policy will be effective from the date it is approved by Council and will not be retrospectively applied to applications that are already in the system. The Policy will be applied within the Municipality's existing development application process and will need to be considered by officials in the assessment of development applications.

It is the applicant's responsibility to ensure that where parallel processes are required, in terms of other legislation, that these are integrated as far as possible and to ensure that design considerations are considered in order to streamline all levels of approvals and minimise risk.

Prospective applicants who are considering projects to which the policy would apply are welcome to engage the Municipality in pre-submission consultation.



12. REVIEW

The TMI policy will be reviewed every five years. The TMI industry as a primary stakeholder must play an active role in the monitoring and evaluation of this policy.

The effectiveness of the policy in facilitating decision making process will be ongoing.

ANNEXURE 1: REQUIREMENTS FOR SUBMISSION

A1.1 Site selection and co-location

1.1.1. All applications for TMI must be accompanied by a Site Analysis Plan which clearly illustrates the proposal in the context of the existing landscape and receiving environment and drawn to an appropriate scale. Accompanying the Site Analysis Plan must be a Report detailing the motivation for the selected site, detailing how the siting and design of the facility has responded to the site analysis and satisfactorily demonstrating to Council that all alternatives on the site itself have been explored.

1.1.2. A Zoning and Land Use Map to a scale of 1:2000 (A4) indicating zoning and land use must be submitted. Indicate on such map all areas of environmental and heritage significance, if applicable, and any habitable structure that is within a 50m zone directly in front of the antennas at the same height.

A Report and Map that demonstrates how the proposed site relates to the existing and proposed network telecommunications infrastructure and confirming that the applicant has looked at all possible existing options for co-location. A radius of 1 kilometer around the site must be shown, showing existing or proposed TMI and other possible support structures. If no available alternative is possible, this fact must be motivated in this report to the satisfaction of the Municipality. This Report must detail possible sharing opportunities with other TP's in the future. This may include making provision in the design of the TMI so that it can physically cope with accommodating infrastructure of all other TP's or that the building that is to accommodate the equipment room should be constructed so as to be able to contain additional TP's containers in the future.

1.1.3. Where TMI can be placed on other structures such as lamp posts, traffic lights, road direction signage, camera poles and flag poles, co-location must be encouraged. Technical advances in the industry must also look to minimising the size/scale and impact of infrastructure, which can also make co-location more practical.

A1.2 Visual impact, landscaping and public amenity

1.2.1. The applicant should demonstrate in the Report that all efforts available to assimilate the structure with its surrounding environment have been made.

1.2.2. If required by Council, the applicant must supply at least one alternative design option e.g. height, type (monopole, lattice or disguised) and colour or locality that has a lower visual impact.

1.2.3. A photo montage and a schedule of colours and finishes for the proposed TMI may be requested by the Municipality.

1.2.4. A visual impact assessment prepared by a suitably qualified independent professional, to the Municipality's satisfaction, may be requested by the Municipality. The assessment shall include the visual sensitivity indicating low, medium, high, very high at each scale of visibility including local, distant and skyline, and include recommendations on mitigation.

1.2.5. For every new or upgraded FBTS site, the Municipality should consider whether landscaping or the provision of public amenities is appropriate in the context to both enhance the local environment and to benefit the public amenity.

If it is considered appropriate, a landscape plan must be provided by the applicant, to demonstrate to Council how landscaping will be implemented and maintained on the subject site prior to plan approval.

A1.3 Utilities

1.3.1. Advisory or warning signage including a pictogram may be a requirement for TMI. Such signage shall identify the property and the TMI and shall warn the general public as required. Such signage shall be to the Municipality's satisfaction and may not be larger than 400mm x 500mm.

A1.4 Public health and safety

1.4.1. If a habitable structure is within the 50m zone at the same height and in front of the antennas; this being typical panel antennas, at an approximate 60 degree angle, or any other type of installation e.g. omni directional antennas, Council may request further information or verification from the applicant, which may include numerical simulations of predicted RF EME levels done by an independent certified institution. These readings must be submitted with reference to compliance with the latest public exposure limits, i.e. what percentage it is of the ICNIRP guidelines.

1.4.2. Once a site is operational, the Municipality may request a test report to be carried out by an independent certified institution providing the results of measurements showing the actual RF EME levels from that site, with necessary detail as determined at that time. The cost of carrying out such tests shall be borne by the applicant.

ANNEXURE 2: INFORMATION TO BE SUBMITTED WITH APPLICATIONS

when applying for the construction of TMI:-

A2.1 Site Analysis Plan

(Scale 1:2000) with accompanying Report

A Site Analysis should include a Map and Report that provides sufficient information relating to the site and its surroundings to assist in the assessment of TMI proposals. This is to ensure that it is designed and located in the best possible manner so as to minimise visual impact and any concerns over RF EME exposure levels.

When applying for a FBTS Council may require the following information to be included in the submission:-

- zoning, site boundaries and dimensions
- location and height of the TMI
- natural landforms and waterflow through the site
- surrounding land uses to a radius of 200m
- surrounding areas of environmental & heritage significance
- existing vegetation
- details of any significant environmental constraints and, where relevant, commitments stating how these constraints will be managed to prevent a negative impact on the environment
- views and vistas to and from the site
- location of areas of environmental significance
- proximity to adjacent or nearby buildings or other tall structures
- proximity of TMI to other existing TMI sites. Show km radius around application site for urban areas.
- other info as required by the Municipality

When applying for a RBTS, the Municipality may require the following information to be included in the submission:-

- site boundaries and dimensions
- location and height of the TMI
- proximity to adjacent or nearby buildings and use of such buildings
- views to and from the site
- use of the building and position of such use relative to TMI
- proximity of TMI to other TMI and other possible support structures
- photographic illustrations of the proposal within its setting
- other info as required by the Municipality

A2.2 Telecommunication Mast Infrastructure Plan

(scale 1:1000 as well as a reduced A4)

The following information is required with an application for TMI:-

- dimensioned plans showing detail of the TMI;
- graphic illustrations including photographs of similar facilities or computer generated simulations showing the type of facility and its relationship with adjacent development;
- elevations showing the extent, height and appearance of the proposed facility as viewed from any adjacent street, public place and adjacent property;
- proposed materials and colour of the facility, and proposed arrangements for maintenance and future modifications in response to changes to any adjacent buildings or structure;
- any screening or fencing proposed in conjunction with the facility, including arrangements for maintenance;
- any external lighting of the proposed facility or the facility site; details of any existing vegetation to be removed and any proposals for landscaping or restoration of any disturbed land;
- details of the timing of works involved in establishing the facility and any arrangements for temporary access or changes to existing access facilities during the course of construction;
- how the proposed facility relates to the existing and proposed network of telecommunications infrastructure, and what, if any, additional facilities are known by the proponent to be under consideration to meet projected future increases in demand;
- how the proposed TMI facility addresses Section

A2.3 Compliance certificate and Lease agreement

- The Municipality may require a statement that the site will be compliant with the current public exposure guidelines prepared by ICNIRP.
- If the site is leased from the Municipality, a letter of consent or the lease agreement is required.

A2.4 Environmental Management Plan (EMP)

- An EMP must be included in the submission if the site is within an area of environmental & heritage significance and no EIA is triggered in terms of NEMA.

ANNEXURE 3: MODEL CONDITIONS OF APPROVAL

Standardized conditions of approval for cell masts and other Telecommunication Mast Infrastructure

With an approval of a site for telecommunication structures, the following pro forma conditions may apply. When formulating conditions of approval, any further site specific issues or conditions which are not dealt with in the general conditions must also be included as conditions of approval. [Note that if the TMI is in an area of environmental significance an EMP must be submitted to Council for approval prior to final approval and not as a condition of approval].

A3.1 General

3.1.1. This approval shall be valid for maximum period of 5 years for temporary departures or extended period.

3.1.2. After 5 years, or if the site is decommissioned before such time, the applicant must remove all site infrastructure and the site must be rehabilitated, within one month, to its former state or to a condition that is in line with the land use and character of the area at the time, as required by the Municipality. If the TMI are still operational at this time, the period can only be extended by a further application to the Municipality.

3.1.3. Ongoing maintenance of the entire installation must take place by the applicant.

3.1.4. Conditions of approval must be made known to any new owner of the site and are binding on the successor in title.

3.1.5. The combined or weighted RF exposure of a person may not exceed the public exposure guideline as set by the ICNIRP.

3.1.6. The applicant shall grant the Municipality access at all reasonable times to the installation, for the purpose of monitoring inspection and compliance certification.

3.1.7. No unauthorized person should be able to come within 5m in front of the panel antennas. Clearly marked warning signs, must define this no go zone.

3.1.8. Should any further research link electromagnetic radiation to health issues, the Municipality may impose further conditions to keep it in line with CNIRP.

3.1.9. The finishing and colour of the panel antennas for rooftop sites must be in keeping with the building to which it is attached.

3.1.10. That for freestand sites the consent use or departure be restricted to the fenced compound of the mast and equipment room as depicted on the building plan.

3.1.11. This approval does not exempt the applicant from any other Bylaws or Regulations that may be applicable including any lease/wayleave approval that may be required for location in a Council road reserve or on other Council owned property.

3.1.12. The mast or equipment room should not be utilised for outdoor advertising purposes.

A3.2 Visual impact, landscaping and public amenities

3.2.1. Paintwork, materials and finishes used for the fencing, posts, antennas and equipment container must be in accordance with the specifications on the approved plans, and also maintained as such.

3.2.2. The equipment room for rooftop sites must be set back as far as possible from the edges of the roof.

3.2.3. Any lighting of structures shall be shielded from adjacent properties (tilted downwards), and should avoid upward light pollution.

A3.3 Impact on existing services and utilities

3.3.1. Rooftop Installations should be situated in such a manner that they do not interfere with other utility functions.

3.3.2. In the event that interference occurs with Council's services, this shall be rectified by the cellular operator and at the cost of the operator, within the timeframe stipulated by Council.

A3.4 Public health, safety and security

3.4.1. If access to the rooftop is prevented, for example, by a locked door, ensure that this conforms with fire escape procedures.

3.4.2. Access to the antennas and or mast and equipment room must be strictly controlled by means of a fence or wall with locked gate and adequate warning signs in the official languages must be displayed on the gate.

A3.5 Lease

3.5.1. This temporary departure shall become effective upon the approval of the lease application for a part of the property for the erection of cell phone communication infrastructure.

3.5.2. If for any reason any condition of the lease agreement is breached or the lease ceases to exist, the temporary departure shall expire.

3.5.3. Prior to approval of building plans, the applicant must provide the Municipality with an indemnity form, indemnifying the Municipality against any possible public claim arising from the erection or use of this installation.

A3.6 Special conditions

3.6.1. Any special conditions relevant to a particular site (e.g. mitigating factors such as landscaping required), should be added under this section.

3.6.2. Council may require a master plan to be approved that indicates the grid network of existing and proposed TMI for each service provider to manage the integration of MFBTS into existing services within Councils road reserves.

THE ABOVE STANDARD CONDITIONS WILL BE UPDATED, AND MAY BE APPLICABLE, IN ADDITION TO ANY SPECIFIC CONDITIONS OF CONSENT WHICH MAY ALSO / ALTERNATIVELY BE IMPOSED