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POLICY

AND

GUIDELINES

**FOR THE ERECTION OF
TELECOMMUNICATION
INFRASTRUCTURE**

POLICY AND GUIDELINES FOR THE ERECTION OF TELECOMMUNICATION INFRASTRUCTURE

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POLICY AND GUIDELINES FOR THE ERECTION OF TELECOMMUNICATION INFRASTRUCTURE

1. Introduction

Base stations and cellular telephone masts form part of the infrastructure required for an effective communication system. Cell phones are now vital communication tools for both business and society.

1.1 Obligations

In terms of their licence the service provider is obliged to provide an adequate coverage for their clients and to achieve this they must provide an infrastructure of base stations and masts capable of meeting their legal requirements. The Council's responsibilities in this regard are to ensure the safety and health of the residents of Nelson Mandela Bay and to maintain an urban environment that is aesthetically pleasing.

1.2 Objectives

There are concerns about potentially negative impacts on both the social (e.g. health) and physical (e.g. aesthetics) aspects of base stations and masts. The public's perceptions of the problems revolve around issues such as health risks, mast density, location, mast height, plus the difficulty of camouflaging the masts. This policy's objectives are to provide guidelines that take into account these concerns and to provide a means with which to assess applications to erect telecommunication infrastructure within the metropolitan area

2. Legal Requirements

2.1. Environment Conservation Act 1989 (Act no. 73 of 1989)

The construction or upgrading of any structure associated with communication networks, including the access road leading to the structure has been identified as an activity that may have a detrimental effect on the environment and as such an environmental impact assessment (EIA) must be conducted

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Any decision in principle by Council to approve the construction or upgrading of any structure associated with communication networks shall be conditional on the applicant, upon submission of a site development plan for approval, providing proof that an EIA has been completed for the particular base station/mast and that authorisation to proceed with its construction has been obtained as required in terms of section 22 of the Environment Conservation Act 1989.

2.2. Local Spatial Planning Legislation

Currently, land use management within the jurisdiction of the Nelson Mandela Metropolitan Municipality is governed by Zoning Schemes introduced in terms of the Land Use Planning Ordinance (Cape) No 15 of 1985 or Town Planning Schemes introduced by regulations made in terms of the erstwhile Black Communities Development Act No 4 of 1984. These planning tools provide mechanisms whereby, in certain circumstances planning permissions in the form of Re-zonings, Special Consents, or Departures/Relaxations/Waivers have to be obtained prior to introducing site-specific development and changes of land use

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Where prior planning permission for the establishment of telecommunication base stations and masts is necessary in terms of the applicable land use management systems, the necessary planning processes and procedures shall be complied with.

No building plans will be approved before a site development plan has been approved.

2.3. Civil Aviation Act 1962 (Act 74 of 1962)

The Civil Aviation Act requires that Civil Aviation Authority approval is obtained prior to the erection of any mast. In addition, any mast exceeding 45m has to be marked red and white. It must also have intermediate lights and a top light.

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The applicant shall provide proof that the Civil Aviation Authority's approval has been obtained for the mast being erected.

A special motivation is required from the service provider for a mast exceeding 25 (twenty-five) metres in height and only under extra-ordinary circumstances, motivated by the applicant, will masts requiring visually prominent markings be permitted within the urban area.

3. HEALTH

3.1. Radio Frequency (RF) Exposure

Base stations receive and transmit electromagnetic signals. Concerns have been raised about their effect on Human health due to emissions of radio frequency (RF) radiation, over both the short and long terms. The National Department of Health has issued no written notification stating that RF emissions are hazardous to the general public. However, the trend worldwide in siting base stations is a precautionary one.

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On receipt of scientific evidence and written advice from the National Dept of Health to the effect that radio frequency emissions are hazardous to the general public's health all

authorizations granted for cellular installations shall be subject to review and the appropriate steps taken (e.g. decommissioning at the service providers cost)

The applicant shall provide proof that the RF emissions are within the limits set in the International Commission on Non- Ionising Radiation Protection (ICNIRP) public exposure guidelines.

In the event of service providers sharing a base station/mast, the combined emissions shall not exceed the limits set down in the ICNIRP guidelines

The service provider shall, upon request of the Council, record RF outputs and make the details available.

No base station shall be sited within a school ground without the schools governing body providing proof that parents have been consulted and that the parents are aware that concern has been expressed about the lack of knowledge concerning the effect of radio frequency emissions on the health of humans.

3.2. Exclusion Zone

Radio frequency emissions are highest at source, close to the antennae, and diminish with increased distance from the source.

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Fences and walls erected around base stations shall be constructed and maintained, by the applicant, to the satisfaction of the Metropolitan Building Control Officer

The applicant shall be responsible for the maintenance, safety and security of base stations/mast sites and all appurtenances contained therein

Advisory/warning signage, including a pictogram, is required on exclusion zone boundaries. The size of the sign shall be approximately 600mm x 400mm.

4. PLANNING

4.1. Visual Impact

Visual impact is greatest in natural and residential areas where tall structures are obtrusive.

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Visual impact assessments are required from applicants at Councils discretion, and must be made in a holistic manner, taking into account the landscape, habitat and cultural aspects and guided by the contents of Annexure A: Guidelines to mitigate the visual impact of telecommunication infrastructure.

Masts are to be located so as to minimise visual impact and inconvenience to adjacent communities.

Council may request a service provider to improve the camouflage or mitigate the impact of an existing structure or to remove the facility altogether.

Applicants are to be encouraged to develop and / or maintain facilities to benefit the adjacent communities (e.g. play parks, lighting). Council may, at its discretion, direct that such facilities or features be provided and maintained as part of the approval process.

Other than regulatory operators signs and/or warning signs, no signage or advertising will be permitted on the Base station/mast

4.2 Cell Mast Density

The typical cell mast is 25m high with three aerials that divide the area served by the mast into three sectors. The area covered by the mast is known as a cell and the number of cells required to cover the town or suburb's extent governs the density of masts

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The mast density within the Metro shall be governed by the proven/demonstrated need for masts. The erection of new masts will not be considered unless it can be shown that other alternatives e.g. co-location, have been considered and proven to be ineffective.

Co- location and roof top installations will be considered as first choice.

All applications shall be accompanied by a location map indicating the position of nearby masts.

In instances of a new service provider entering the market, that service provider shall be required to submit a rough overall plan of proposed location of masts, plus an estimate of their base-station/mast requirements.

Existing service providers shall be required to provide an estimate of the number and approximate location of masts anticipated within the next five years with each new application.

Piecemeal applications from service providers are to be avoided.

Annexure: "A" - GUIDELINES TO MITIGATE THE VISUAL IMPACT OF TELECOMMUNICATION INFRASTRUCTURE

Site/property characteristics	Mitigation Guidelines
Existing fences with a common style/ predominant colour (that are a positive feature in the environment).	Fence around the base station site must match the style and colour of the other fences on the property.
Mostly brick walls instead of fences (that are a positive feature in the environment).	Brick wall around the base station site must match the style of the other walls on the property.
Existing buildings have a single architectural theme.	The base station site must carry this theme through.
Open exposed locations where the background is mostly sky.	Structure to be left unpainted in a galvanized finish.
Existing building with one or two predominant colours/design elements e.g. brick building with pitched roof.	Structures to be painted the same colour as the building. House the base station equipment in a similar building with similar roof.
All antenna support structures.	The requirements of the Civil Aviation Authority must be determined and met.
An open space or natural areas dominated by large rocks.	Equipment container may be camouflaged physically e.g. flintstone containers. Otherwise the equipment room, fence and antenna support structure should be suitably painted.
Natural, semi-natural or suburban area or an open space area.	Antenna support structure and equipment room should be suitably painted (dark matt green is usually appropriate).
Trees are an important feature of the residential landscape.	Camouflage antenna support structure as a tree (this should not include pine trees or palm trees where they are not part of the local landscape). Otherwise the antenna support structure should be painted a suitable colour (dark matt green is usually appropriate).
Sites that have mature trees that could screen the antenna support structure from view.	The trees at the location are important for the screening/lessening of the visual impact on the structure. Place the antenna support structure in between the trees in such a way that it will not cause any long term damage to the trees.
Sites in visually exposed positions with poor screening.	A mixture of fast and slow growing indigenous trees that are suitable for the area should be planted around the base station site to lessen its long term visual impact.
Industrial areas or high-rise urban areas or where the existing structures have a predominant colour.	Antenna support structure and base station site should be painted to blend in with the predominant colour.