Telecommunications Carriers' Forum

PRINCIPLES FOR TELECOMMUNICATIONS INFRASTRUCTURE FOR NEW SUBDIVISIONS

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A. INTRODUCTION

1. Overview

1.1 The purpose of this document is to provide guidelines for Territorial Authorities on minimum standards for telecommunications infrastructure for new subdivisions.

1.2 It is intended that these principles be considered by Territorial Authorities when formulating policies and codes of practice for land use and development.

1.3 The principles are intended to provide background information and a level of support for some of the recurring issues and themes that arise with subdivision infrastructure so that enduring solutions can be found.

1.4 This document provides expert advice from the telecommunications industry; however we recognise that the Telecommunications Carriers Forum (TCF) has no mandate that must be followed or enforced by Local Governments or Territorial Authorities.

2. Background

2.1 Standards for telecommunication infrastructure

Several enquiries from Local Government were received by the TCF regarding standards for telecommunications infrastructure for new subdivisions. Currently the TCF does not have an agreed position on minimum standards for telecommunications infrastructure. The TCF Local Government Working Party agreed that the establishment of a set of TCF principles for new subdivision infrastructure would be beneficial and this document is the output of that work.

2.2 Why it's important

The inclusion of telecommunications infrastructure by property developers at an early stage of subdivision development is essential to ensure future generations of property owners can obtain the telecommunications services they reasonably expect and avoid future disruption to the community and degradation of pavement surfaces.

In today's telecommunications environment, telecommunications infrastructure and services are deployed on a commercial basis only. No telecommunications operator has an obligation to provide services.

2.3 The challenge

The challenge for developers is to find a cost effective infrastructure solution that will endure for many years beyond the developer's direct interest in a subdivision, provide for all future technology and service enhancements, and provide for the services from service providers that property purchasers will find attractive.

Territorial Authorities have the opportunity to ensure future proof, yet affordable infrastructure solutions are deployed through their consent procedures for land use and development. However as this mechanism places obligations on property developers rather than telecommunications infrastructure owners there is some risk that Territorial Authorities may create obligations that cannot be met or impose significant unnecessary cost due to lack of understanding of the

telecommunications market, technological developments, or the ongoing requirements for managing telecommunications infrastructure.

2.4 The Solution

These guidelines seek to apply a framework for establishing telecommunications infrastructure for new subdivisions, clarify roles and responsibilities, and apply specific principles for all parties involved.

3. About the TCF

3.1 Who we are

The Telecommunications Carriers Forum (TCF) is a registered incorporated society, governed by a Board, headed by an Independent Chair, and operated by the CEO and a Forum Administrator.

Our members are New Zealand telecommunications carriers, infrastructure providers and service providers and include:

- 2degrees Mobile
- BayCity Communications
- CallPlus
- Compass Communications
- Enable Networks
- FX Networks
- Kordia
- Northpower
- TeamTalk
- Telecom New Zealand
- TelstraClear
- TrustPower
- Vector Communications
- Vodafone
- Woosh
- WorldxChange

For more information about the TCF, visit our website – www.tcf.org.nz

3.2 Purpose

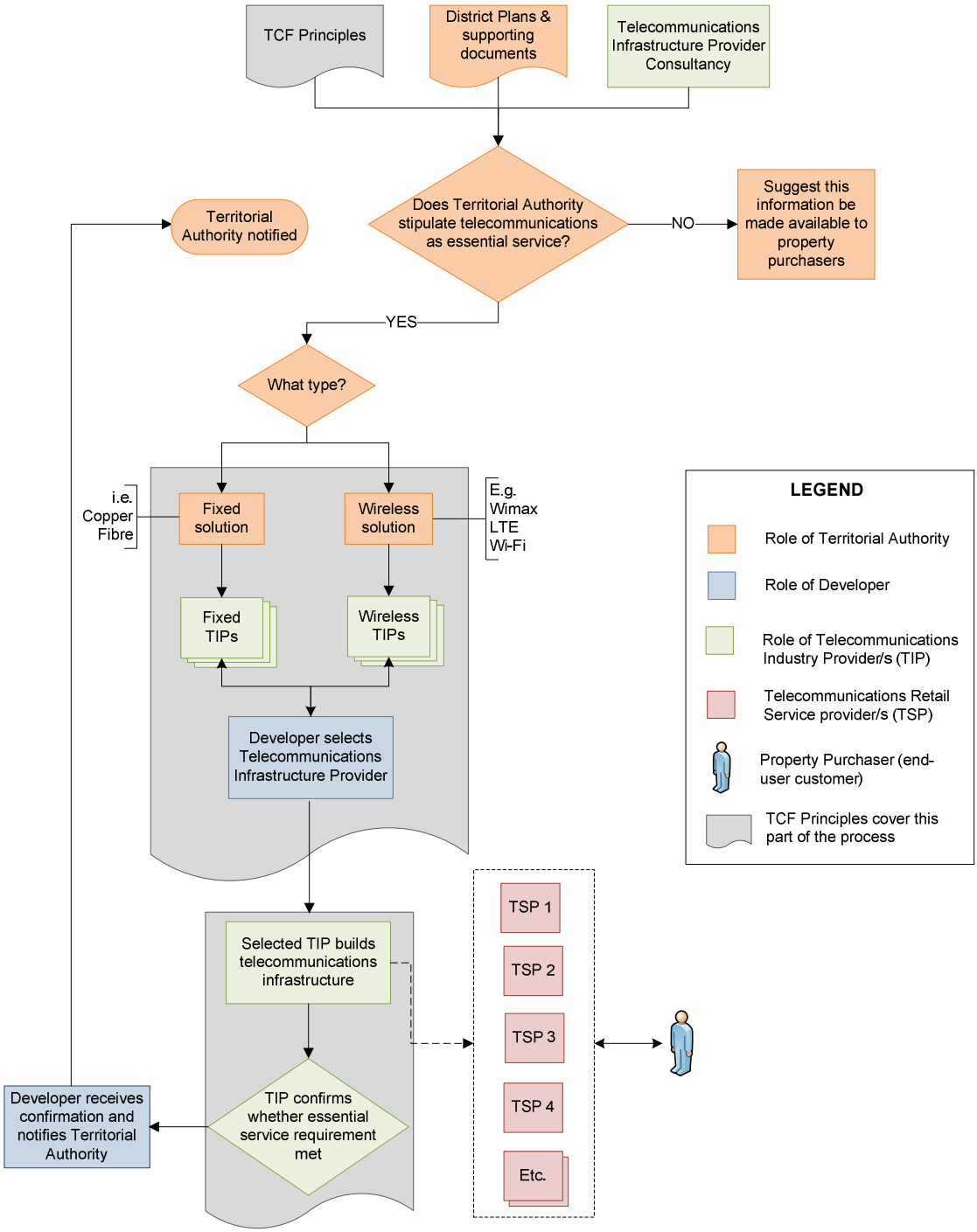
The purpose of the TCF is to actively foster cooperation among the telecommunications industry to enable the efficient provision of regulated and non-regulated telecommunications services.

3.3 Goal

Our goal is to promote competition for the long-term benefit of end-users of telecommunications services in New Zealand.

B. FRAMEWORK

High level framework for the deployment of telecommunications infrastructure to new sub divisions.



C. ROLES & RESPONSIBILITIES

Territorial Authorities	1. Consider TCF principles when stipulating (or not) telecommunications as an essential service for new residential sub divisions. 2. If mandating telecommunications infrastructure, determine whether this should be fixed, wireless, or both. 3. Consult with Telecommunications Infrastructure Providers for expert advice. 4. Consider TCF principles when mandating installation of ducts into new residential subdivisions. 5. Inform property purchasers on what telecommunications infrastructure is available at a property.
Developers	1. Developer must meet territorial authority's requirements. 2. Puts tender to market to satisfy telecommunications infrastructure service requirements, commercially. 3. Selects a telecommunications infrastructure provider to work with and engages on a commercial basis. 4. Verify in writing to territorial authority, that essential service requirement has been met.
Telecommunication(s) Infrastructure Providers (TIP)	1. May provide consultancy/advice to Territorial Authorities when considering stipulation of telecommunications infrastructure as an essential service or what type of telecommunications infrastructure may be appropriate for the area. 2. Respond to Developers tender and if successful, installs required infrastructure under commercial arrangement. 3. Post-installation, verifies in writing to the Developer, that essential service requirement has been met.
Telecommunication(s) Retail Service Providers (TSP)	1. Utilises installed telecommunications infrastructure to deliver services to individual property purchasers – the end-user customers.

D. PRINCIPLES

1. Territorial Authorities have right to stipulate telecommunications infrastructure

1.1 The TCF believes that telecommunications is an essential service. However, Territorial Authorities have the right to stipulate whether telecommunications infrastructure is an essential service; or whether to leave this up to the developer to determine.

1.2 If the territorial authority chooses not to stipulate telecommunications infrastructure as an essential service, then the TCF believes this information should be made available to property purchasers.

1.3 Any plans developed by Territorial Authorities should avoid mandating a particular technology solution as this could unintentionally result in a service provider monopoly and diminish customer choices for the provision of telecommunication services.

2. Minimum requirement in district plans for telecommunications

2.1 All district plans should have a minimum requirement for developers to provide telecommunications infrastructure and the ability to supply telecommunications services to each subdivided lot.

2.2 The TCF believes that it is a central government role to determine the extent of competition, regulation, control and market structure appropriate for the telecommunications industry and the minimum service standards that must be provided by network infrastructure owners, operators and service providers.

3. Confirmation of telecommunications infrastructure installation

3.1 The TCF believes that prior to the release of final local authority clearance for a subdivision developers should be required to provide written confirmation that the telecommunications infrastructure owner's installation requirements have been met along with written evidence from a telecommunications provider that the appropriate network capacity is available or planned to be available to service the subdivision.

3.2 The TCF suggests that information about what telecommunications infrastructure is available at a property should be made available by the local authority so that land purchasers can access this information.

3.3 Purchasers of developed land will normally have a reasonable expectation that they will be able to connect to telecommunications services without further abnormal costs or abnormal delay. It can come as a surprise to land purchasers that a developer's decision not to make provision for telecommunications infrastructure, or for example, not to include a particular telecommunications infrastructure owner's cables will exclude some service providers from providing service without further significant cost. For example, decisions to provide landline based infrastructure and services after the completion of a subdivision will be based on commercial considerations of return on investment and at significantly greater expense than if provided for during the construction of the development

4. Installation and management of ducts

4.1 The TCF believes that telecommunications infrastructure owners are best able to assess the need for ducts for future proofing as part of their network design. However, if Local Government does intend to mandate the installation of ducts for future proofing purposes as a condition of the subdivision consent then the TCF recommends the following:

a. The owner of the ducts and the purpose of the ducts (i.e for telecommunications as compared to electricity or gas) should be readily identified by appropriate colour coding and markings.
b. The owner of the ducts has an ongoing management and maintenance plan in place for the ducts.
c. Developers should be required to provide written confirmation that the installed ducts are certified by a telecommunications infrastructure owner as being acceptable and suitable for their future network installation (to the extent that can be confirmed).

4.2 Fixed line telecommunications infrastructure technology and services are currently at an evolutionary point between copper based and fibre based infrastructure.

4.3 The accepted end game within the industry is for fibre delivery to the premises and many greenfield developments are now being provided with fibre only infrastructure. However there are many factors that may mean fibre delivery is not appropriate for a particular subdivision in the short to medium term, and despite current government policy such as the Ultra Fast Broadband initiative there remains much uncertainty about the actual transition period from copper to fibre infrastructure.

4.4 Some Territorial Authorities and government agencies are advocating that greenfield subdivisions should be future proofed to enable later installation of fibre infrastructure, for example by mandating as a consent condition for the development the installation of spare ducts which will increase the cost of the development.

4.5 There is a risk that a developer could satisfy the consent requirement but the installed ducts may not be suitable for installing telecommunications infrastructure in the future.

4.6 There are a number of issues that Local Government should consider before mandating a developer to provide spare ducts such as who will own, maintain and administer access to the ducts at some unknown time in the future, and ensuring that the design and specification of the ducts is suitable for a telecommunications infrastructure owner's particular network architecture which may vary from owner to owner.

5. Cost of telecommunications infrastructure installation

5.1 Costs to install telecommunications infrastructure is a commercial arrangement between the developer and their selected telecommunications infrastructure provider.

5.2 The location of a development relative to other supporting and enabling telecommunications infrastructure can significantly influence the cost of providing telecommunications services.

5.3 The attractiveness of a particular development due to location and available amenities are influenced by developers and their assessment of the land market.

5.4 The pace of construction and occupation of dwellings and therefore speed of take-up of telecommunications services may occur over a long period of time resulting in considerable delay between the investment made in telecommunications infrastructure and a return on that investment.

6. Allocation of areas for wireless telecommunications infrastructure

6.1 The TCF believes that all district plans or related codes of practice should consider zoning and suitable locations for wireless telecommunications infrastructure to support increasing demand for high speed internet access and mobility. The location of these sites should afford good line of sight coverage of the subdivision.

6.2 Although consideration for telecommunications infrastructure within subdivisions is given to fixed line infrastructure within most current subdivision consent frameworks there is little consideration for mobile wireless services and fixed wireless services at subdivision stages.

6.3 Customer demand is strong for mobile and fixed wireless services, however communities are concerned about the location of wireless base stations within their neighbourhoods. Much of this concern stems from a lack of visibility of the possible location of base station sites at the time a property purchase decision is being made, and the possible future impact on property values.

7. Easements for telecommunications infrastructure owner where network not located in road reserve

7.1 The TCF believes that developers should be required to provide easements in favour of the telecommunications infrastructure owner where the network is not located in road reserve.

7.2 Telecommunications infrastructure owners must have ongoing and clear title and access to their infrastructure to be able to manage ongoing network and service performance, carry out maintenance, repair, replacement, and augmentation for subsequent development to ensure service continuity to their customers. These obligations may continue many decades into the future.

8. Consistency across district plans

8.1 The TCF believes it is desirable to have a degree of consistency across different district plans to ensure everyone's reasonable expectations are met, and to minimise the risk of non-compliance due to plan variances.