

# **Cornerstone Community Information Sheet**

# Upgrades and height increases

Base stations use radio signals to connect mobile devices and phones to the network, enabling people to send and receive calls as well as access the internet, apps and services. Without base stations, mobiles and devices will not work. Base stations are made up of three main elements. The cabin which contains the equipment used to generate the radio signal. The supporting structure such as a mast, which holds the antennas in the air and the antennas themselves. Only the antennas emit radio signals.

Over time we may need to upgrade existing mobile phone base stations due to changes in the local environment, a drop in our customer's experience, network consolidation (mast sharing) and new technologies. Often, when a site is upgraded we will need to increase the height of the antennas. There are a number of reasons why an operator may require a height increase on existing structures. The main ones are described below.

#### Maintaining existing coverage

When adding a second operator's equipment to an existing mast it is optimal that the second set of antennas are located under the existing antennas. However, antennas need to be located at a reasonable height or they will provide poor coverage. As a result, to ensure good coverage, we may need to increase the height of the whole structure.

## **Clutter changes**

When there has been local property development, or tree lines have changed, mobile signal quality can be reduced. To provide sufficient services to customers height increases on existing masts or additional new masts are required. The former is the preferred option in many cases.

## For further information please contact:

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