Cornerstone: Supporting Technical Information for Vodafone:

Grouse Hill Caravan Park

Site required to provide 3G coverage to Grouse Hill Caravan Park

Vodafone Site - 6848



Date Prepared: 18nd March 2011







KEY TO VODAFONE COVERAGE PLOTS

The enclosed radio propagation plots are based on Ordnance Survey geographical information.

The level of coverage provided by a particular site is dependant on a number of variables. The main factors which determine the extent of coverage are: the frequency of the signal emitted, the height of the antenna above ground level, the characteristics of the surrounding topography and the type and occurrence of ground clutter such as buildings and trees which can cause 'shadows' or reflections and can absorb the signal.

The Vodafone Radio Planners have produced accurate visual representations of the level of coverage available in this particular area by using advanced computer modelling software based on a Geographical Information System. The programme takes the numerous variables as above into account and can then calculate and plot the strength of the signal.

Existing and proposed sites are indicated by a red circle and dot with the site number. The orientation of the antennas is shown by the arrows.

Site arrows show orientation of antennas



Note on large rooftop sites the antenna can be distributed in different locations from the site location. This is represented by a line extending outwards from the site to the antenna

Key for GSM (2G) Plots

No Colour	Yellow	Green	Blue	Orange
Insufficient signal strength to provide reliable service.	Sufficient signal strength to provide adequate service for outdoor use of a hand portable mobile.	Sufficient signal strength to provide adequate service for use of a hand portable mobile in a car	Sufficient signal strength to provide adequate service for indoor use of a hand portable mobile in suburban areas	Sufficient signal strength to provide adequate service for indoor use of a hand portable mobile in urban areas.
No Coverage	Outdoor	In Car	Indoor Suburban	Indoor Urban

Key for UMTS (3G) Plots

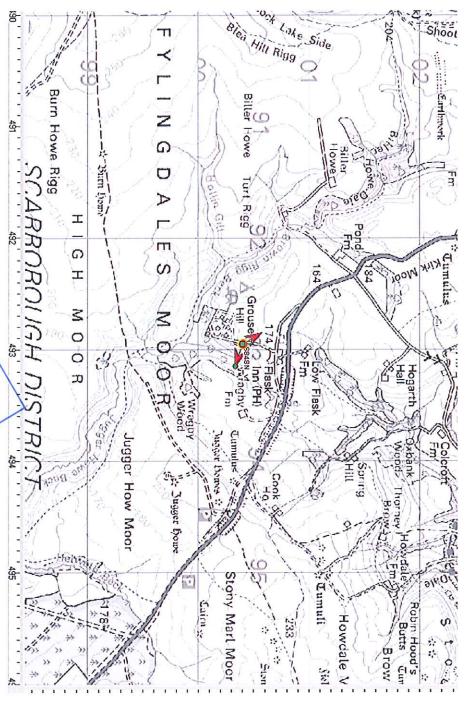
No Colour	Yellow	Green	Blue	Orange
Insufficient signal strength to provide reliable service.	Sufficient signal strength to provide adequate service for outdoor use of a hand portable mobile.	Sufficient signal strength to provide adequate service for use of a hand portable mobile in a car	Sufficient signal strength to provide adequate service for indoor use of a hand portable mobile in suburban areas	Sufficient signal strength to provide adequate service for indoor use of a hand portable mobile in urban areas.
No Coverage	Outdoor	In Car	Indoor Suburban	Indoor Urban







Vodafone - Existing UMTS (3G) Coverage



3G Coverage by Signal Level Dense Urban/Urban

In Car Outdoor

Suburban

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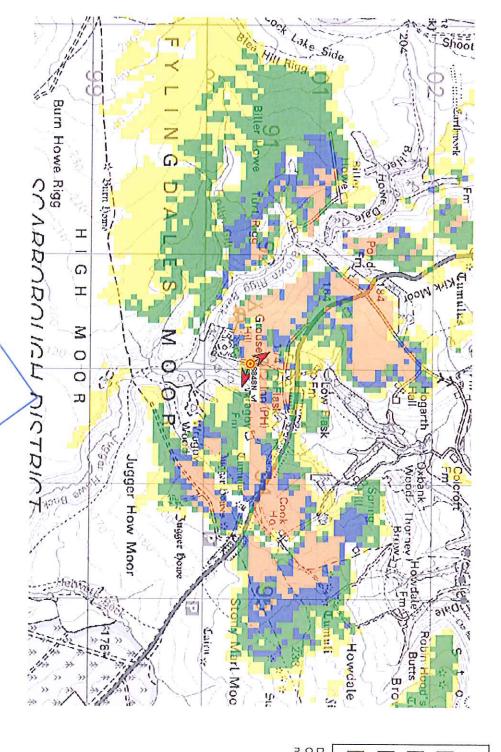
Each colour block represents 10 metres square. This coverage plan must be read in conjunction with the key and site specific supplementary information.

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AGMMYM



Vodafone - Proposed UMTS (3G) Coverage



3G Coverage by Signal Level
Dense Urban/Urban
Suburban

In Car

Outdoor

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MOS AGANAVA

This coverage plan must be read in conjunction with the key and site specific supplementary information. Each colour block represents 10 metres square.





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