

Supporting Technical Information for

CTiL

71503 is required to provide coverage and capacity in the area of Bloomsbury to improve indoor coverage to a large dense area of residential houses. The site will also help provide capacity to the surrounding area of Great Ormond St hospital.

Date Prepared: 6/3/2017



KEY TO COVERAGE PLOTS

Key for GSM (2G) 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 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 blue or red circle and dot with the site number. The orientation of the antennas is shown by the arrows.



Site arrows show orientation of antennas

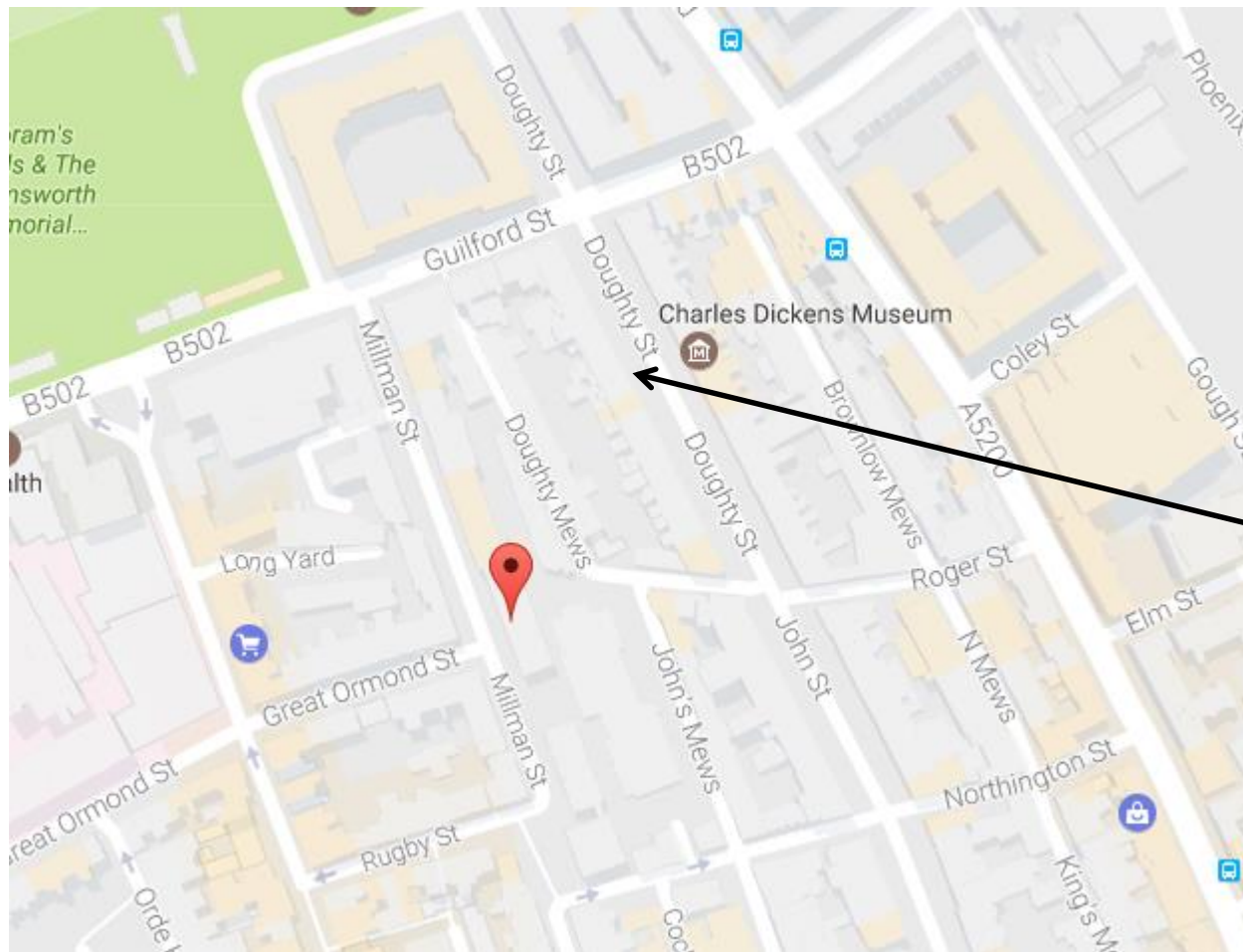
Note on large rooftop sites the antenna can be distributed in different locations from the site location. This is represented by a line extending outwards from the site to the antenna.

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

Key for UMTS (3G) Plots

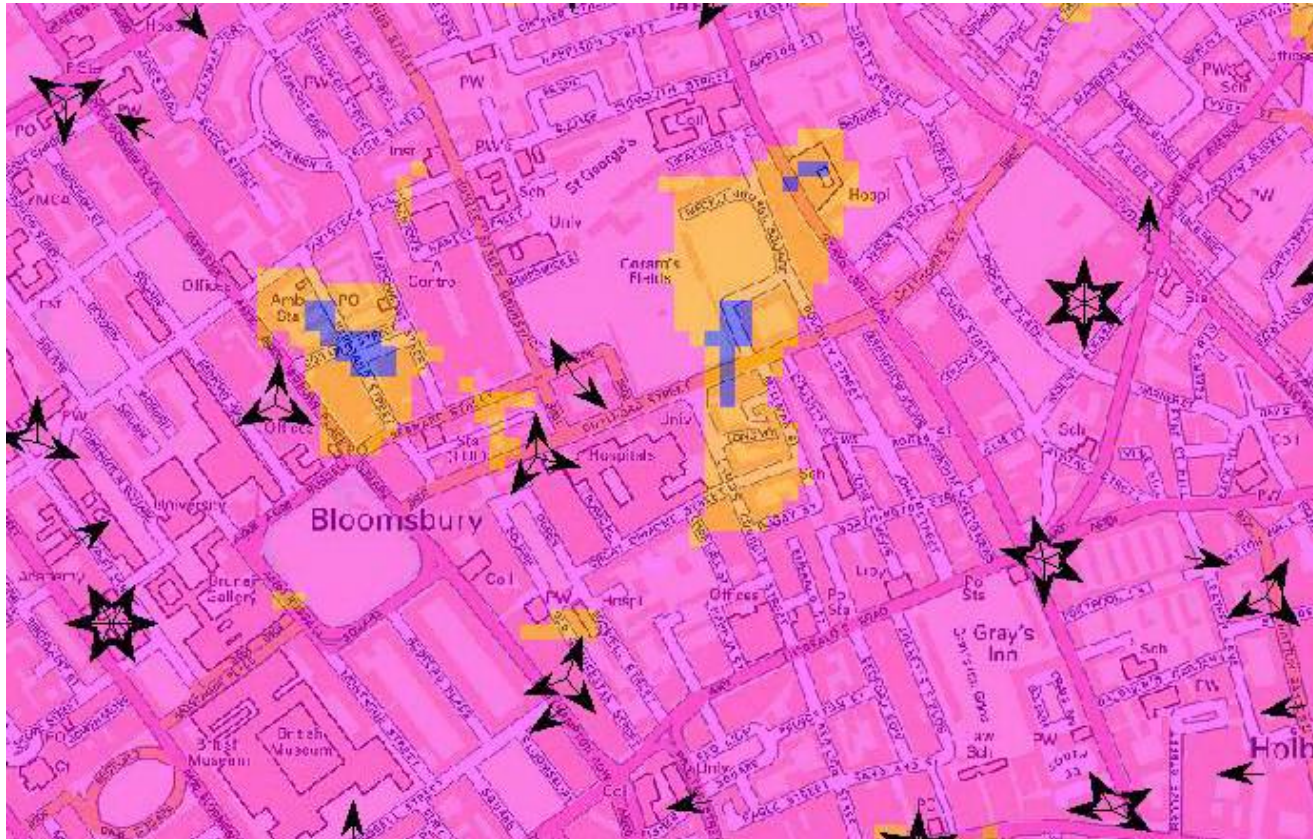
| | | |
|-----------|---|--------------------|
| Pink | Sufficient signal strength to provide adequate service for indoor use of a hand portable mobile in urban areas. | Indoor Dense Urban |
| Orange | Sufficient signal strength to provide adequate service for indoor use of a hand portable mobile in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

CTiL – Map of required Coverage Area



Centre of
Search Area

CTiL – Existing UMTS Telefonica (3G) Coverage



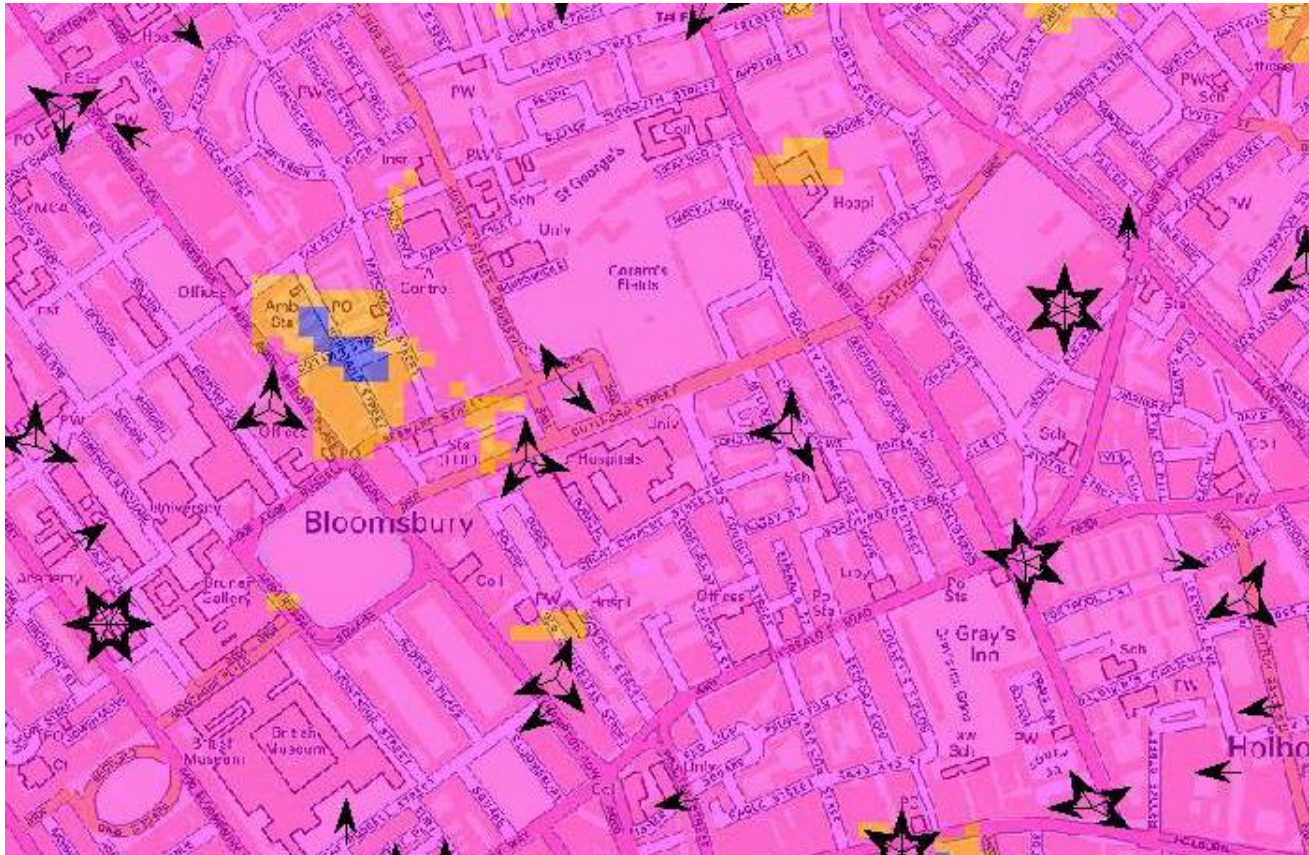
3G Coverage by Signal Level

- Indoor Dense Urban
- Indoor Urban
- Indoor Suburban
- In Car
- Outdoor

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This coverage plan must be read in conjunction with the key and site specific supplementary information. Each colour block represents 50 metres square.

CTiL - UMTS Telefonica (3G) Coverage without 9288



3G Coverage by Signal Level

- Indoor Dense Urban
- Indoor Urban
- Indoor Suburban
- In Car
- Outdoor

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