SITE SPECIFIC SUPPLEMENTARY INFORMATION

1. Site Details

Site Name:	Wood Street SW	Site Address:	Site to rear of grass verge on Wood Street, Barnsley, S70 1LP
NGR:	434464E 405830N		
Site Ref Number:	14601	Site Type:[1]	Macro/ Streetworks

2. Pre Application Check List

Site Selection

Was an LPA mast register used to check for suitable sites by the operator or the LPA?		No
If no explain why: On site inspection undertaken		
Was the industry site database checked for suitable sites by the operator:	Yes	
If no explain why:		

Annual roll out consultation with LPA

Date of last annual rollout information/submission:	2009
Name of Contact:	Head of Planning
Summary of outcome/Main issues raised:	

Pre-application consultation with LPA

Date of written offer of pre-application consultation:	13.05.10	
Was there pre-application contact:	Yes	
Date of pre-application contact:	17.05.10	
Name of contact:	Mr Steven Kirkham	

[1] Macro or Micro

2010 Cornerstone

Summary of outcome/Main issues raised:
An e-mail response was received from Mr S Kirkham on 17 May 2010 which provided the following positive feedback: " The Authority endeavours to ensure that new telecommunication base stations are sited so that they have a minimal environmental impact. I would acknowledge that in this instance the proposals appear to represent the optimum planning and environment solution. The proposals would appear to have a minimal environmental impact given that they represent an almost like for like replacement. I would also acknowledge that this represents an efficient use of a single monopole which prevents the proliferation of further masts. As such I can offer no comments on any alternative proposals to those detailed within your letters, and I would suggest that you progress with applications under the prior notification procedure."

Ten Commitments Consultation

Rating of Site under Traffic Light Model:		Amber	
Outline Consultation carried out: Consultation letters providing details of the proposal and inviting comments were forwarded to the local Ward Councillors for Central Ward, the occupiers of 3 residential properties nearest the proposal and the manager of New Street Health Centre.			
Summary of outcome/Main issues raised: No responses have been received.			

School/College

Location of site in relation to school/college: There are no schools located in the vicinity of the site
Outline of consultation carried out with school/college: N/A
Summary of outcome/Main issues raised: N/A

Civil Aviation Authority/Secretary of State for Defence/Aerodrome Operator consultation (only required for an application for prior approval)

Will the structure be within 3km of an aerodrome or airfield?		No
Has the Civil Aviation Authority/Secretary of State for Defence/Aerodrome Operator been notified?		No
Details of response:		

Developer's Notice

Copy of Developer's Notice enclosed?		Yes	
Date served:	18.06.10		

3. Proposed Development

The proposed site:
Site to rear of grass verge on Wood Street, Barnsley, S70 1LP

Enclose map showing the cell centre and adjoining cells:
This is included on the coverage plots.

Type of Structure:	
Description:	
The proposed upgrade comprises of the following: - Removal of existing 13.4m high telecommunications mast and to replace it with a 13.8m high installation that will accommodate both Vodafone and O2 antennas. - Provision of 1 no. additional small scale equipment cabinet to house O2's ancillary radio equipment. - Ancillary development.	
Overall Height:	13.8 Metres
Height of existing building N/A	Metres
Equipment Housing: See enclosed drawings	
Length:	Metres
Width:	Metres
Height:	Metres
Materials	
Tower/mast etc – type of material and external	Galvanised steel - Grey

colour:	
Equipment housing – type of material and external colour:	Galvanised steel - green

Reasons for choice of design:
The design of the installation will facilitate mast sharing by two telecommunications operators and preclude the need for an additional mast in the locality. The antennas of both Vodafone and O2 will be sited at the required elevation to meet their technical requirements.

4. Technical Information

ICNIRP Declaration attached ICNIRP public compliance is determined by mathematical calculation and implemented by careful location of antennas, access restrictions and/or barriers and signage as necessary. Members of the public cannot unknowingly enter areas close to the antennas where exposure may exceed the relevant guidelines. When determining compliance the emissions from all mobile phone network operators on the site are taken into account.	Yes	

Frequency:	1944 – 2149 MHz
Modulation characteristics[2]	QPSK
Power output (expressed in EIRP in dBW per carrier) In order to minimise interference within its own network and with other radio networks, Vodafone operates its network in such a way the radio frequency power outputs are kept to the lowest levels commensurate with effective service provision As part of Vodafone's network, the radio base station that is the subject of this application will be configured to operate in this way.	41.5 dBm
Height of antenna (m above ground level)	12.5m to underside

5. Technical Justification

Enclose predictive coverage plots.

Reason(s) why site required e.g. coverage, upgrade, capacity (map attached if required):
The proposed installation is required to provide 3G coverage for O2 to the Wood Street area

[2] The modulation method employed in GSM is GMSK (Gaussian Minimum Shift Keying) which is a form of Phase modulation
The modulation method employed in UMTS is QPSK (Quad Phase Shift Keying) which is another form of Phase Modulation

of Barnsley City centre.

The coverage plan shows the target coverage area (red circle). This comprises the retail area located in proximity to the existing site and the predominately residential area beyond.

Plot 1 shows that within the target coverage area there is currently areas where there is no 3G coverage (absence of colour). Where there is 3G coverage this is very patchy and of a low quality which only allows 3G calls from within vehicles and outdoors (patchy green and yellow colours respectively). There is an absence of the required in building coverage in the target area (blue and orange colours).

Plot 2 shows that the proposed upgrade of the existing telecommunications installation will allow a strong and consistent in-building level of 3G coverage over the majority of the target area (blue and orange colours). The areas where there was an absence of any 3G coverage have been removed. The coverage provided by the installation will link in existing O2 sites in the wider area.

Further detail regarding the general operation of the network can be found in the accompanying document entitled 'General Background Information for Telecommunications Development'. This information is provided to assist the local planning authority in understanding any technical constraints on the location of the proposed development.

6. Site Selection Process – alternative sites considered and not chosen

Site[3]	Site Name and address	NGR	Reason for not choosing[4]
ETS / GF	Existing Vodafone telecommunications installation on Wood Street, Barnsley, S70 1LP		There is an existing Vodafone 13.4m high streetworks installation at this site. The site is suitable to accommodate both Vodafone and O2 and as such a mast share has been identified as the only suitable solution in the cell area.
ETS	Possible mast share/site share with existing H3G telecommunications installation, Junction of Hellis Road and Joseph Street, Barnsley		This installation is located on the pavement at this prominent junction. It is considered that the application proposal is preferable in environmental terms to siting a replacement mast

[3] ETS – Existing Telecomm site, ES – Existing Structure, RT – Roof Top, GF – Greenfield
[4] SP – Site Provider, RD – Redevelopment Not Possible, T – Technical Difficulties, P – Planning, O - Other

			share installation or an additional streetworks installation at this location.
ES	There is an absence of existing buildings within the coverage area which are suitable and available for the siting telecommunications apparatus.		It is considered that the application proposal by mast sharing represents the optimum environmental solution.

If no alternative site options have been investigated, please explain why:

N/A

Additional relevant information:

The Code of Best Practice and PPG8 stresses the Government's aim to facilitate the growth of new and existing telecommunications systems while keeping the environmental impact to a minimum.

PPG8 Paragraph 19 states:
In order to limit visual intrusion, the Government attaches considerable importance to keeping the numbers of radio and telecommunications masts, and the sites for such installations, to the minimum consistent with the efficient operation of the network.

In relation to the new 3rd Generation service requirements, PPG8, Appendix – Supporting Guidance, Paragraph 28 States;

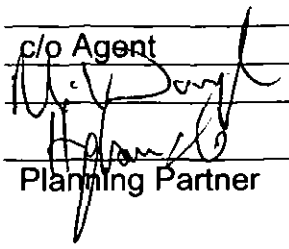
'...They [The Network Operators] are expected to use existing structures where possible (including those owned by other operators and radio site management companies) though they will likely also need to develop a substantial number of new site.'

Paragraph 123 of the Code of Best Practice states **"The Governments General policy on telecommunications development is to facilitate the growth of efficient and effective telecommunications systems whilst keeping the environmental impact of such development to a minimum. The siting and design of telecommunications equipment, if undertaken with care and sensitivity, will be vital in achieving this policy aim. Good siting and design should not only be respected in environmentally sensitive areas but also be applied to all.**

Please refer to the enclosed supporting statement for further information.

Contact Details

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Operator:	Vodafone Limited /Telefonica O2 Limited	Fax no:	0161 493 9333

Address:	c/o Agent	Email Address:	matthew.waugh@highamandco.com
Signed:		Date:	18.06.10
Position:	Planning Partner	Company:	Higham & Co
		(on behalf of above operator)	Vodafone Limited/ Telefonica O2 Limited

PROPOSED VODAFONE LTD / TELEFÓNICA O2 UK LTD INSTALLATION (CORNERSTONE ID – 14601, HOST ID – VF 45757, SHARER ID – O2 46277) – SITE ON WOOD STREET, BARNSLEY, S70 1LP

General background

As you will be aware from previous correspondence Vodafone and O2 has strict Government obligations to meet in terms of the Licence issued to them and the subject proposal would therefore form an integral part of their comprehensive Third Generation (3G) network.

Operational Context

As more people want to use their phones in their homes, at work and on the move, the operator is obliged by their licence agreement to provide the high quality indoor coverage that the operator's customers expect. Please refer to the enclosed coverage plots providing specific evidence as to how the Operators networks have been planned over the local area and demonstrating how the subject site will integrate in this regard.

Establishing a 3G network

As you may be aware, Second Generation (2G) networks cater specifically for voice calls and text messaging, and their base stations could provide significant levels of network coverage for from locations outwith the target area.

However, in a contrast to this, 3G technology, which provides multimedia and internet data access, operates at a much lower power capacity. As such, 3G cell areas are geographically smaller than their 2G counterpart and require base station development to be located within the target coverage area. This restricts transmission levels and therefore limits the number of phone users being serviced by each base station facility, ensuring a high quality service to customers. In this regard we would highlight that on average 3G cells are required to be located between 500-1000m of each other within urban areas.

As your Department will understand, the establishment of an effective 3G network has several planning implications as the amount of base station sites being required continues to rise. However, the operator is committed to minimising the impact of their infrastructure within local environments by ensuring that only the most appropriate planning solutions are taken forward to a formal application stage.

Description of Proposal

The Vodafone Group has formed a strategic partnership with the Telefónica Group to share mobile assets here in the UK and across Europe. In the UK this means Vodafone is working closely together with O2. In essence this agreement allows both organisations to:

- Consolidate the number of base stations required through sharing which is in accordance with Government Policy; and

- Significantly reduce the environmental impact of network development.

Accordingly the key focus is on the joint build of new sites and consolidation of existing 2G and 3G sites. In this instance, it means that a new proposal for a dual user installation at Wood Street is required.

The Operator proposes the following:

- Removal of existing 13.4m high telecommunications mast and to replace it with a 13.8m high installation that will accommodate both Vodafone and O2 antennas.

- Provision of 1 no. small scale equipment cabinet to house O2's ancillary radio equipment.

- Ancillary development.

The proposed installation will allow mast sharing thereby negating the need for two separate installations in the area, which would be likely to result in street clutter.

Siting and Design

The principle of a telecommunications installation at the site is established. The key consideration represents the possible impact of the proposed replacement mast over and above the mast already in situ at the site, balanced with the benefits of mast sharing by telecommunications operators. The context of the proposal represents an incremental increase of an existing installation through its replacement with an installation that will facilitate mast sharing by two telecommunications operators. This is considered preferable to the alternative option of an additional freestanding mast in the locality.

The fact that the replacement facility will be visible at points in the surrounding area (as is the existing installation), does not itself demonstrate that the proposal will cause unacceptable harm to the visual amenity of locality.

The existing site has previously been considered suitable for a telecommunications installation by your Authority. It is located to the rear of a grass verge set back from the main highway. The proposal has been brought forward following consultation with your Authority whereby positive feedback was received in regard to the principle and design of the proposal. Pre-application consultation has also been undertaken with residential properties, and health centre in the locality and Ward councilors and no response has been received.

In respect of alternative sites, the application site is currently in telecommunications use and therefore the redevelopment of the site is considered preferable to the siting of an additional telecommunications structure elsewhere in the locality. It is considered that the application proposal represents the optimum location based on an assessment of suitable and available sites including a location for an additional streetworks structure.

The replacement structure will only be marginally taller than the existing mast (that is to be replaced) and only minor ancillary development is proposed. It is considered that the utilisation of an existing established installation will minimise the proliferation

of telecommunications mast in the area and represents the most acceptable environmental solution which will minimise its visual impact.

National Planning Policy Guidance

Planning guidance on telecommunications in England is currently contained in the following two documents:

A. Planning Policy Guidance Note (PPG) 8 'Telecommunications' (August 2001);

B. The Code of Best Practice on Mobile Phone Network Development 2002.

PPG8 outlines the Government's policy on telecommunications, which includes the aims of facilitating the growth of new and existing systems. It also seeks to ensure that people have a choice as to who provides their telecommunications service and have a wider range of services from which to choose as well as access to the latest technologies as they become available.

PPG8 also recognises that the greatest need for base station sites is usually in built-up areas where there is the greatest density of mobile users and within a mile or two of main roads where demands on networks are greatest. In addition, planning authorities are encouraged to have regard to technical constraints on locations of proposed developments.

In Paragraph 1 to the Appendix to PPG8 the Government acknowledges that modern telecommunications systems are an essential element in the life of the local economy and in the national economy.

Government Policy seeks to encourage Operators, wherever practicable, to share masts and sites as a means of reducing overall mast numbers. Paragraph 20 of PPG8 states that:-

> **"20. The sharing of masts and sites is strongly encouraged where that represents the optimum environmental solution in a particular case."**

The proposed installation will accommodate both Vodafone and O2's equipment and meet both operator's coverage requirements for the area. This is a proposed mast share, and will negate the need for two separate installations in the area.

The Government indicates that the use of existing buildings and structures as sites for installations is an established measure which has greatly helped to reduce environmental impact. Paragraph 21 of PPG8 states that:-

> **"21. Use should also be made of existing buildings and other structures, such as electricity pylons, to site new antennas."**

There are no suitable existing buildings or pylons available, however, we have followed the sequential approach to site selection, and proposed a mast share development.

Government Policy seeks to encourage the use of existing installations, tall buildings or other structures in order to accommodate new telecommunications apparatus. It does however acknowledge that there will be instances where there is no feasible

alternative to a free standing ground based mast (Paragraph 146, Code of Best Practice). Such instances may occur where there is an absence of alternative structures or where the use of such a structure would be environmentally inappropriate or would fail to satisfy the suitability criteria outlined later in this statement.

Relevant to this specific proposal, PPG8 states, in paragraph 64, that:-

> **"64 Protection from visual intrusion and the implications for subsequent network development will be important considerations in determining applications. The nature of some telecommunications development may in some cases bring it into apparent conflict with established local and national planning policies. Masts and antennas often require a particular operating height, which allows signals to clear trees and urban clutter. Telecommunications development may therefore need particular locations in order to work effectively ..."**

The height of the installation has been kept to the minimum required to allow both operator's to meet their technical requirements whilst having due regard to environmental matters. Indeed the proposal will facilitate mast sharing whilst not significantly increasing the overall height of the installation. The installation will allow both operators to transmit their signal without being impeded by surrounding clutter, such as existing vegetation and man-made developments, ensuring its effectively integrated into the networks.

The Development Plan

In coming forward with this proposal sue regard has been has to the relevant policies of The Barnsley Unitary Development Plan (adopted 2000), in particular Policies UTL1 – Utilities and UTL5 - Telecommunications. It is considered that the proposal is compliant with these policies for the following reasons:

1. The proposal is essential for the effective operation of the O2 telecommunication network operated in the Wood Street area of Barnsley. It will provide in-building 3G coverage and capacity to an area where the required 3G coverage and capacity levels are currently absent;

2. It is considered that the application site represents the optimum location in environmental terms for an installation to meet the technical requirements of O2. The design of the proposal will facilitate mast sharing by two telecommunications operators. This is considered preferable to the alternative solution of siting an additional telecommunications installation in the locality;

3. It is proposed to utilise a street furniture style pole design which will facilitate mast sharing by two telecommunications operators. The development has been specifically designed for urban and suburban locations so as to minimise its visual impact and it is considered that the street scene will not be adversely impacted upon by the proposal.

4. A certificate of ICNIRP compliance is included with the application

Due regard has also been had to your Authority's emerging Core Strategy. It is therefore considered that the proposal will accord with national guidance and local policy.

Health and Safety

All Vodafone and O2 installations are designed to be fully compliant with the public exposure guidelines established by the International Commission on Non-Ionizing Radiation Protection (ICNIRP). These guidelines have the support of UK Government, the European Union and they also have the formal backing of the World Health Organisation. A certificate of ICNIRP compliance is included with this planning submission.

Summary

It is considered that in identifying the specific location and design of the proposed installation, we have taken into account the possible effect on the townscape and visual amenity of the area and have endeavored to minimise any such impact.

Furthermore, we have investigated alternative locations within the area prior to selecting the proposed site as the best available option. Given the efforts made by the operators to use a sensitively designed solution, the proposal suitably allows for the provision of the required telecommunication infrastructure whilst avoiding any undue impact upon the amenity of those living, working and travelling within the locale. As such, we would consider that an effective and appropriate balance has been struck between the operational requirements of the operator and all relevant environmental considerations.

It is our opinion that this proposal complies with the policy guidance given both locally and nationally in that there is a clear and confirmable need for the proposal. Due consideration has been given to all practicable solutions for providing the telecommunications service and the proposal has been designed in such a way as to minimise visual impact.

Given all of the above we request that due consideration is given to the submitted application and we look forward to your determination in due course.

Higham & Co
18 June 2010