

SUPPLEMENTARY INFORMATION

1. Site Details

Site Name:	Capitol Square	Site Address:	Capitol Square, 4-6 Church Street, Epsom, Surrey, KT17 4NR
National Grid Reference:	E521067 N160806		
Site Ref Number:	TEF84396	Site Type: ¹	Macro

2. Pre Application Check List

Site Selection (for New Sites only)

(Would not generally apply to upgrades/alterations to existing site including redevelopment or replacement of an existing site to facilitate an upgrade or sharing with another operator)

Was a local planning authority mast register available to check for suitable sites by the operator or the local planning authority?	<u>Yes</u>	No
If no explain why:		
Were industry site databases checked for suitable sites by the operator:	<u>Yes</u>	No
If no explain why:		

Site Specific Pre-application consultation with local planning authority

Was there pre-application contact	Yes	<u>No</u>
Date of pre-application contact:	18/07/2019	
Name of contact:		
Summary of outcome/Main issues raised:		
<p>A pre-application consultation letter was sent to the LPA on the 18/07/2019 which outlined the need to redevelop the existing base station in the area, site-specific drawings of the draft proposal have been included.</p> <p>To date no comments have been received, therefore it was considered appropriate to progress this application and seek the LPA's formal determination.</p> <p>As this is a resubmission with no major alterations to the design, we have not sought further pre consultation.</p>		

Community Consultation

Rating of Site under Traffic Light Model:	Red	<u>Amber</u>	Green
Outline of consultation carried out:			
<p>A pre-application consultation letter was sent to the Ward Councillors on the 18/07/2019 which outlined the need for a new base station in the area, listed sites considered but discounted and included site-specific drawings of the draft proposal.</p>			
Summary of outcome/main issues raised (include copies of relevant correspondence):			
To date no comments have been received from those consulted.			

School/College

Location of site in relation to school/college (include name of school/college):
No school or college were considered to have a direct or functional relationship with the application site.
Outline of consultation carried out with school/college (include evidence of consultation):
n/a
Summary of outcome/main issues raised (include copies of main correspondence):
n/a

¹ Macro or Micro

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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?	Yes	<u>No</u>
Has the Civil Aviation Authority/Secretary of State for Defence/Aerodrome Operator been notified?	Yes	<u>No</u>
Details of response: n/a		

Developer's Notice

Copy of Developer's Notice enclosed?	<u>Yes</u>	No
Date served:	04/02/2021	

3. Proposed Development

<p>The proposed site:</p> <p>The proposed site is found at Capitol Square, 4-6 Church Street, Epsom, Surrey, KT17 4NR. The building is a 5 storey mixed use residential and commercial property located within Epsom town centre. For reference purposes only please see below a photograph of the site: -</p>  <p style="text-align: center;">Application site</p>
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Enclose map showing the cell centre and adjoining cells if appropriate: To follow
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Type of Structure (e.g. tower, mast, etc):	Rooftop	
Description:	Installation of 6no. antennas fixed to new support poles on concrete plinths with new GRP Shrouding, with 12No RRU Units fixed to support poles behind new GRP Shrouding, 1No GPS module. There will also be 3No radio equipment cabinets on steel grillage and ancillary development thereto.	
Overall Height:	19.3 metres	
Height of existing building (where applicable):	16.0 metres	
Equipment Housing:	4 th Gen PSU OD	
Length:	730mm	
Width:	700mm	
Height:	1800mm	
Equipment Housing:	42U OD F/P Frame x 2	
Length:	600mm	
Width:	750mm	
Height:	1980mm	
Materials (as applicable):		
Tower/mast etc – type of material and external colour:	Galvanised steel support frames. Antennas manufactured in grey (RAL 7035) – GRP Shrouding for the 3 Antennas Sectors	
Equipment housing – type of material and external colour:	Galvanised steel, grey (RAL 7035)	

Reasons for choice of design, making reference to pre-application responses:
<p>In this instance, the choice of design tabled in this application has been influenced by the new base station's siting and appearance and the need to provide 2G, 3G, 4G and future 5G network coverage with and capacity to the Epsom area of Surrey. The area suffers from inadequate coverage, either as a result of no coverage at all leaving a gap in their networks or poor coverage from surrounding cells. A new rooftop installation would provide and/or significantly improve network coverage and capacity to this area of Epsom. Such an approach keeps the numbers of radio and telecommunications masts and the sites for such installations to a minimum consistent with the efficient operation of the network, which is in accordance with NPPF.</p> <p>The proposed apparatus is to be installed at a height of 17.8 metres so as not to compromise on the centre line of the antennas when taking into account the extent of surrounding obstacles that they need to clear, coupled with the extent of the target area in relation to neighbouring sites within the operators single grid network. In this regard, the lowest possible height for the antennas has been progressed here so as to present the optimum angle of projection that allows the antennas to see the target audience as much as possible and so enable a reliable signal to propagate across the target area. Taking this into account and to justify the design yet further, it should be recognised that should the applicant pursue a structure any lower, then this would have a direct impact on the proposed base station performance making it an unsuitable option for the operators to invest in. Its footprint of coverage would be greatly reduced and it may result in the need for another new base station in the area, rather than as proposed just one, so preventing the proliferation of telecommunication in the area. In this respect the height and design of the proposal presents the optimum technical solution and negates the unnecessary need for additional base stations to serve the target audience.</p> <p>The proposed antennas and their positions on the building offer the technically preferred solution, in which where possible the antennas will be titled and orientated so as to provide cell specific coverage to the demands of the target area. Taking into account the arrangement and the character and appearance of the area, the extent of development has been kept to a minimum. It is considered that the proposed telecommunications installation on the roof of the building will have a negligible visual impact on the streetscape and skyline given the scale of the apparatus and their position at height within an urban streetscene, in which it would not be uncommon to find such apparatus.</p> <p>The proposed antennas will be fixed on to 3No support poles on concrete plinths spread across the roofline, with each antenna being covered by GRP Shrouding. The GRP Shrouding provides aesthetically pleasing fibreglass structure around the antennas on the rooftop which helps them blend seemingly to the building. The proposed antennas will be left in their manufactured grey form so as to reduce their visual prominence against the skyline. In this regard although the proposed antennas will be not seen from wider vantage points as they will be enclosed by GRP shrouding, it is considered that the level of visual impact has been kept within reasonable bounds when taking into account the extent of development balanced against the operational requirements of the operators. Also as the</p>

proposed telecommunication development will provide multiple technology platforms i.e. 2G, 3G, 4G and 5G for Telefonica, catering for the areas connectivity demands.

The proposed equipment cabinets are less than 2.5m³ each. It should be recognised that seen on their own merits as single developments they do not normally require a formal determination of the Council and they are permitted development. The proposed ground based development supports multiple technologies and also has provision for a power source. In this regard the number of proposed equipment cabinets has been kept to a minimum when balanced against the technical requirements of this site-specific base station. The sizes of the cabinets are justified as each needs to be large enough inside to ensure a satisfactory airflow around the equipment. This also allows adequate cooling and in turn minimises the noise generated. Furthermore given their outdoor location, they have been designed to be weather proof from rain, snow or freezing temperatures. The proposed ground based development will be painted grey hence helping it to blend into its environment and reducing its prominence within its immediate environment. In this respect it is considered that the design of the ancillary development will not have a detrimental impact upon the visual amenity of the area.

In light of the above it is considered that every effort has been made to limit the visual impact of the new scheme. It is considered that reasonable steps have been taken to achieve this by limiting the extent of development and grouping antennas together, in which the new scheme will have a neutral impact on the host building. Accordingly, it is considered that the proposal when taking into account the siting and design of the new base station cabinets would have a negligible visual impact on the area, thus preserving its character and appearance.

Technical Information

International Commission on Non-Ionizing Radiation Protection Declaration attached (see below)*	<u>Yes</u>	No
<p>International Commission on Non-Ionizing Radiation Protection 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.</p> <p>When determining compliance the emissions from all mobile phone network operators on or near to the site are taken into account.</p> <p>In order to minimise interference within its own network and with other radio networks, Telefonica UK Limited operates its network in such a way the radio frequency power outputs are kept to the lowest levels commensurate with effective service provision</p> <p>As part of Telefonica's network, the radio base station that is the subject of this application will be configured to operate in this way.</p> <p>All operators of radio transmitters are under a legal obligation to operate those transmitters in accordance with the conditions of their licence. Operation of the transmitter in accordance with the conditions of the licence fulfils the legal obligations in respect of interference to other radio systems, other electrical equipment, instrumentation or air traffic systems. The conditions of the licence are mandated by Ofcom, an agency of national government, who are responsible for the regulation of the civilian radio spectrum. The remit of Ofcom also includes investigation and remedy of any reported significant interference.</p> <p>The telecommunications infrastructure the subject of this application accords with all relevant legislation and as such will not cause significant and irremediable interference with other electrical equipment, air traffic services or instrumentation operated in the national interest.</p>		

4. Technical Justification

Reason(s) why site required e.g. coverage, upgrade, capacity

This proposal is required to provide 2G, 3G and 4G coverage and capacity for Telefónica, commonly known as O2 together with the provision for future 5G.

Details regarding the general operation of the Vodafone and Telefónica networks 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. Supporting information can also be found in the attached CTIL document called 'Radio Planning and Propagation', which discusses how radio networks are planned, the need for height and the limitations associated with the technology.

Furthermore the new Code of Best Practice on Mobile Phone Network Development published by the Mobile Operators Association (MOA) in June 2016 explains the special operational and technical considerations, which the telecommunications industry encounters. It also details the evolution of mobile networks and discusses the implications of mobile connectivity in the 21st Century. The new Code of Best Practice on Mobile Phone Network Development explains how mobile networks function and the challenges faced in providing sufficient signal, coverage and capacity to supporting customer experiences. It is also of note that the MOA has produced a new guidance document to clarify some of the technical aspects of network development entitled 'Mobile Networks: What They Are and How They Work', August 2013.

Mobile UK in their publication **Councils and Connectivity - How local government can help to build mobile Britain** states:- *"The UK's mobile connectivity is getting better and better. Indoor call coverage from all four mobile networks is now available in 92% of UK premises; data coverage from all operators is now available in 88% of UK premises. This has been achieved by the mobile industry investing billions of pounds every year into network capacity, coverage and capability.*

The investment in mobile infrastructure will continue and it will evolve. Just as the use of 4G mobile technology becomes widespread, the adoption and use of 5G mobile technology needs to be planned and implemented. Getting this right is important for three reasons:

- 1. Mobile connectivity is essential to the future success of the economy. The combined value of 4G and 5G mobile connectivity is estimated to add £18.5bn to the economy by 2026.*
- 2. Mobile connectivity is essential to creating a better society. Digital inclusion can help people gain employment, become more financially secure and improve health and well-being.*
- 3. Mobile connectivity is essential to fulfilling the potential of new technologies. Innovations such as Artificial Intelligence and connected cars will change how we work, spend our leisure time and run our public services.*

The mobile industry has been able to enhance mobile connectivity across most of the country. But there is more to be done:

- There is demand for mobile connectivity in areas where geography, logistics or economics – or a combination of all three – make it difficult.*
- Mobile network capacity needs to grow to meet the demand of mobile users, who are consuming ever increasing amounts of data.*

Local government has a key role in addressing these issues because the mobile industry cannot address them alone. Therefore, this report makes recommendations and offers guidance for how mobile network operators and local government can collaborate to create an environment that encourages the build of mobile infrastructure. The recommendations and guidance are presented under three themes:

- Adopting a proactive approach – Leadership and political will can provide impetus that improves the mobile connectivity outcomes for residents.*
- Planning for the long-term – Because of its importance to economic outcomes, mobile connectivity needs embedding into every aspect of local government's strategic thinking.*
- Build partnerships and share best practice – The full potential of mobile connectivity cannot be realised unless there is collaboration and exchange of ideas.*

The recommendations and guidance under these themes have been designed so that they can be applied despite significant financial pressures faced by local government, e.g. Local Authority spending on planning and development services fell by more than 50% in real terms between 2011-12 and 2016-17.

It is important to note that alongside the recommendations made in this report other improvements are required to streamline network rollout – such as reduced regulatory burdens, a consistent planning regime, and a supportive tax system. As such, while the recommendations discussed in this document will provide opportunities to improve the environment mobile operators and local government work within, they are not guarantees to enhance connectivity and coverage."

Alternative sites considered and not chosen (not generally required for **upgrades/alterations to existing sites** including redevelopment of an existing site to facilitate an upgrade or sharing with another operator)

	Site Type	Site Name & Address	National Grid Reference	Reason for not choosing
1	Rooftop	Pitt Place, Church St, Epsom, Surrey, Kt17 4PY	E: 521392 N: 160454	The site is found within the Church Street Conservation Area, in which it is envisaged that on balance an installation in this location would be visually prominent and impact on such a designation.
2	Rooftop	The Kirkgate, 19-31 Church St, Epsom, Surrey, KT17 4PF	E: 521164 N: 160782	No feasible design solution could be envisaged due to the layout and design of the buildings roof, consequently this option has to be discounted.
3	Streetworks	Corner of Church Street & Dulshott Green SW, Epsom, Surrey, KT17 4PF	E: 521153 N: 160738	There is insufficient space available on this stretch of pavement to implement a streetworks style base station due to the dimensions of the operator's equipment cabinet and the implications its siting would have on restricting pedestrian movements.
4	Rooftop	Epsom Fire Station, 10-11 Church Street, Epsom, Surrey, KT17 4PW	E: 521178 N: 160748	Structural suitability of the training tower is a concern. Therefore an option here could not be progressed due to build issues, consequently this option has to be discounted.
5	Rooftop	St Martin's Parish Church, Church St, Epsom, Surrey, KT17 4PX	E: 521377 N: 160518	The church was assessed as to the viability of a sensitively designed rooftop installation, however the only place for any antennas would be restricted to the louver openings in the main tower. However these are located too low down the church tower in relation to the surrounding obstacles and topography of the wider area, in order to allow any sort of adequate coverage to propagate across the target area. Also it is noted that the church is a listed building and set in the Church Street Conservation Area so taking into account the sensitivity of this heritage asset, weighed up against the limited technical performance of any such proposal here, the church was discounted.
6	Streetworks	Church Road SW, Church Road, Stoneleigh, Epsom, Surrey, KT17 4EF	E:521459 N:160668	There is insufficient space available on this stretch of pavement to implement a streetworks style base station due to the dimensions of the operator's equipment cabinet and the implications its siting would have on restricting pedestrian movements. Also it is noted that this location is within the Church Street Conservation Area.
7	Rooftop	Odeon, Upper High Street, Stoneleigh, Epsom, Surrey, KT17 4QR	E: 521136 N: 160879	Due to the pitched roof no feasible design solution could be envisaged due to the layout and design of the buildings roof, consequently this option has to be discounted.
8	Rooftop	Kings Lodge, 28 Church Street, Epsom, Surrey, KT17 4BQ	E: 521328 N: 160451	Due to the pitched roof no feasible design solution could be envisaged due to the layout and design of the buildings roof, consequently this option has to be discounted. It is also set within the Church Street Conservation Area.
9	Rooftop	Epsom Ambulance Station, Church Street, Epsom, Surrey, KT17 4PP	E: 521174 N: 160674	The site is relatively low rise and found within the Church Street Conservation Area, in which it is envisaged that on balance an installation in this location would be visually prominent and impact on such a designation.
10	Rooftop	Old Police station, Church Street, Epsom, Surrey, KT17 4PP	E: 521191 N: 160652	The building has recently been acquired and the site provider has confirmed that they have intentions to re-develop this property. Notwithstanding this, the building in its current form is unsuitable for telecoms due to its pitched roof and limited space. Consequently this option has to be discounted.

Land use planning designations

The application site is set within area of mixed land uses predominantly residential with some commercial use, the impact of the development, whether that be positive, negative or neutral on the site's land use designation will be considered in more detail in the planning assessment section of this submission.

It is also recognised that the application site is found close to the boundary of the Church Street Conservation Area, in which again this surrounding context and impact of the development, whether that be positive, negative or neutral on the site's neighbouring land use designation will be considered in more detail in the planning assessment section of this submission.

Additional relevant information (planning policy and material considerations):

Local Planning Policy

It is acknowledged that the Council's approach to the plan-led system has evolved over the years. The Core Strategy is normally the key document that forms the new Development Plan and this is supported by various types of detailed information about the local and sub-regional matters. As a result decisions will be made in accordance with the adopted Development Plan and/or saved policies unless material considerations indicate otherwise.

It is highlighted at this juncture that there are no telecoms specific planning policies within the local authorities adopted Development Plan, therefore the most relevant planning policies for the proposal to be reviewed against in this case are the below national planning policy documents.

National Planning Policy Framework (2018)

It is recognised that in seeking to adopt a new Local Plan and Core Strategy national guidance on the matter suggests that repetition, should be avoided thus the most up-to-date policy stance regarding telecommunication development should be taken from National Planning Policy Framework.

10. Supporting high quality communications

112. Advanced, high quality and reliable communications infrastructure is essential for economic growth and social well-being. Planning policies and decisions should support the expansion of electronic communications networks, including next generation mobile technology (such as 5G) and full fibre broadband connections. Policies should set out how high quality digital infrastructure, providing access to services from a range of providers, is expected to be delivered and upgraded over time; and should prioritise full fibre connections to existing and new developments (as these connections will, in almost all cases, provide the optimum solution).

113. The number of radio and electronic communications masts, and the sites for such installations, should be kept to a minimum consistent with the needs of consumers, the efficient operation of the network and providing reasonable capacity for future expansion. Use of existing masts, buildings and other structures for new electronic communications capability (including wireless) should be encouraged. Where new sites are required (such as for new 5G networks, or for connected transport and smart city applications), equipment should be sympathetically designed and camouflaged where appropriate.

114. Local planning authorities should not impose a ban on new electronic communications development in certain areas, impose blanket Article 4 directions over a wide area or a wide range of electronic communications development, or insist on minimum distances between new electronic communications development and existing development. They should ensure that:

- a) they have evidence to demonstrate that electronic communications infrastructure is not expected to cause significant and irremediable interference with other electrical equipment, air traffic services or instrumentation operated in the national interest; and*
- b) they have considered the possibility of the construction of new buildings or other structures interfering with broadcast and electronic communications services.*

115. Applications for electronic communications development (including applications for prior approval under the General Permitted Development Order) should be supported by the necessary evidence to justify the proposed development. This should include:

- a) the outcome of consultations with organisations with an interest in the proposed development, in particular with the relevant body where a mast is to be installed near a school or college, or within a statutory safeguarding zone surrounding an aerodrome, technical site or military explosives storage area; and*
- b) for an addition to an existing mast or base station, a statement that self-certifies that the cumulative exposure, when operational, will not exceed International Commission guidelines on non-ionising radiation protection; or*

c) for a new mast or base station, evidence that the applicant has explored the possibility of erecting antennas on an existing building, mast or other structure and a statement that self-certifies that, when operational, International Commission guidelines will be met.

116. Local planning authorities must determine applications on planning grounds only. They should not seek to prevent competition between different operators, question the need for an electronic communications system, or set health safeguards different from the International Commission guidelines for public exposure.

Code of Best Practice on Mobile Phone Network Development (2016)

1.3 The principal aim of this Code is to ensure that the Government's objective of supporting high quality communications infrastructure, which is vital to continued economic prosperity and social inclusion for all, is met. The development of such infrastructure must be achieved in a timely and efficient manner, and in a way which balances connectivity imperatives and the economic, community and social benefits that this brings with the environmental considerations that can be associated with such development.

2.1 The continued expansion and development of mobile networks is a key element of the National Infrastructure Delivery Plan 2016 – 2021. This recognises that digital communications are now a crucial component of everyday life, with improvements in connectivity being key to a vibrant economy.

2.2 Consumers, businesses and public bodies increasingly rely on mobile communications and expect to receive a signal wherever they are. Coverage in rural areas is recognised as a vital component for maintaining economic activity and social inclusion.

4.1 As technology has evolved, we have been able to do more and more with our mobile devices. Second Generation (2G) technology gave us voice calls and text messages, and Third Generation (3G) gave us access to the Internet and other data on the move. More recently, 4G brings superfast mobile broadband at speeds roughly equivalent to those you would expect from a fixed broadband connection. At the same time customer expectations have evolved with the technology – the expectation is that they will always be connected and able to access services in exactly the same way as fixed broadband for personal, educational and business purposes.

4.3 In line with the NPPF, Operators anticipate maximising the use of their existing network infrastructure for the provision of 4G services, and are also similarly upgrading their 3G network infrastructure to improve capacity and coverage. However, this does not mean that there will not be a need for any new base stations. For example, more base stations will be needed in areas where there has previously been only limited or no coverage, and where coverage and capacity needs to be enhanced in line with Government commitments and customer demand. Similarly, some new sites will be required to replace existing sites that are lost, for example, through redevelopment of an existing building. Some existing masts may need to be redeveloped or replaced to enable an upgrade in services to take place.

5.1 Mobile phones and other devices are now everywhere. Mobile connectivity is now about far more than simply making calls and texts, but is also about mobile broadband. The majority of mobile phones in the UK are Internet-enabled smartphones, and large numbers of people also now own tablet devices.

5.2 Even when they have a fixed broadband connection available, people are increasingly choosing to access the Internet using a mobile device, and the numbers doing so are growing, as ownership of Internet enabled devices rises.

5.3 By the start of the second decade of this century, the greatest increase in traffic across mobile networks was in data, i.e. Internet use. As the Government's productivity plan, 'Fixing the Foundations: Creating a More Prosperous Nation' states 'reliable and high quality fixed and mobile broadband connections support growth in productivity, efficiency and labour force participation across the whole economy. They enable new and more efficient business processes, access to new markets and support flexible working and working from home'.

5.9 Increasing consumer demand, especially for data is putting demands on mobile operators for improved connectivity and more capacity on their networks. This is driven by the widespread adoption of smartphones and the rapid uptake of tablet devices, and the way consumers are now using them, often choosing to do so when they have a fixed connection available. In addition, the Government has ambitious aspirations for improving connectivity and coverage, especially in rural areas. All these factors result in the need to continually upgrade and improve mobile networks, which will not function without the necessary infrastructure on which they rely.

6.6 In urban areas, increased call and data transfer volumes put high demand on the networks, potentially leading to the need for more infrastructure. In some urban areas, such as conservation areas, the number of potential sites suitable for base stations might be constrained.

National Infrastructure Delivery Plan 2016 – 2021 (2106)

Central Government's Infrastructure and Projects Authority who report to HM Treasury and Cabinet Office have produced a national plan that aims to improve the planning and delivery of infrastructure based projects and in turn will help to increase investment in the UK and accelerate achieving.

Chapter 7 relates to Digital Communications in which it is said in paragraph 7.1 that *"Digital communications are now a crucial component of everyday life. Technologies such as mobile phones and broadband have revolutionised the way we work, socialise and enjoy our leisure time. Improvements in connectivity mean the UK is rapidly embracing a vibrant digital economy, currently worth around £120 billion a year.¹ Over 30% of UK premises have taken up superfast broadband and there are more than 23 million 4G subscriptions."*

It then goes on to state in paragraph 7.2 that *"Reliable and high quality fixed and mobile broadband connections support growth in productivity, efficiency and labour force participation across the whole economy. They enable new and more efficient business processes, open-up access to new markets and support more flexible working practices."*

It is also recognised in paragraph 7.4 that *"Demand for digital services and applications will continue to rise rapidly, with a consequent acceleration in the amount of data being carried over networks. Over the next decade we can expect the emergence of new services, applications and devices which will create additional demands on networks. To support this demand, the UK needs infrastructure that is high capacity, reliable, resilient, secure, affordable and fast."*

It is acknowledged in paragraph 7.10 that *"The government will work to provide greater freedoms and flexibilities for the deployment of mobile infrastructure, including reducing planning restrictions for existing telecoms infrastructure and allowing taller new ground based masts to be built."*

The National Infrastructure Delivery Plan details key projects and programmes including voice coverage to 90% of the UK geographic area by the end of 2017. With regards 4G rollout it is said that by 2017, 98% of premises should have access to 4G mobile broadband.

Planning Assessment

In taking a sequential approach to site selection, in accordance with Government guidance the starting point for consideration should always be with an operator's own existing masts and/or sites in the first instance and secondly using existing telecommunications structures belonging to another code system operator, i.e. mast sharing. The next appropriate steps are to consider co-location or site sharing alongside existing telecommunications development then installing antennas on existing buildings or tall structures before erecting a new ground based mast. If a new mast or base station is required, evidence that the applicant has explored the possibility of erecting antennas on an existing mast, building or other structure is necessary in accordance with paragraph 45 of NPPF.

The preferred option is for a new rooftop installation. The new Telefónica rooftop site seeks to consolidate Telefónica's 2G, 3G, 4G and future 5G network onto one structure to form part of a single network grid restructuring across the UK, building on and improving the existing sites capabilities, coverage and capacity, creating a robust infrastructure network.

Following a technical review of the cell area, it was concluded that there is no better site in balancing the technical requirements of the operators, whilst minimising environmental impact. Therefore, the site remains the operators technically preferred location as it firstly fulfils their primary coverage objectives for 2G, 3G, 4G and future 5G technology within the cell area. The proximity of each base station is an influential factor from a radio perspective and this ensures that the installation has sufficient separation from existing and planned new cells within the shared network, preventing the base station from causing any technical interference between sites. Each cell site sends and receives signals within its intended area of coverage and as the user travels from one area to another, the base station where the call originated weakens and hands over the call to the neighboring base station. If the distance between base station sites is too large a gap between cells will form resulting in a dropped call. Similarly should telecommunications sites be too close together, this creates technical interference between the two sites and within the wider network as sites compete with each other to become the dominant cell.

Furthermore, the reduction (or decay) in signal power is affected by a number of variables, in which the main factors are frequency, distance (from transmitter), terrain (such as hills), clutter (such as buildings, foliage, vehicles, and water) and atmospheric conditions (such as rain). Any physical object such as buildings and geographical terrain

(hills and trees) together with changes to the landscape (new developments and tree growth) that obstructs the propagation of radio signals, causes a reduction in signal strength reaching a customer's device. A reduction in the strength of the radio signal increases the likelihood of lower quality or dropped calls and significantly reduced or no data rates for internet browsing, for example.

It should be recognised suitable and available alternative sites are limited in this cell area, given the constraints of the built form and topography as well as the primary coverage objective to provide coverage to the area with a single grid network. It is considered that there is the need for a new site and that the selection of the site has been justified.

The height of the new antennas will be between 17.8 – 19.3 metres on the building so that they can be justified from a technical perspective as the antennas need to clear the immediate roof so as not to create signal clipping and reflection. The height of a proposed antenna has to be offset against its positions on the roof, whereby the closer to the centre of the roof of the building the more height that is needed to clear the immediate roof space in front of the antenna. The height is necessary to provide the continued need for both coverage and capacity of the 2G, 3G, 4G and future 5G network.

With regards the need for the development it has been highlighted previously that the operator requires a radio base station in this location in order to meet existing and future demands of mobile users. The public benefits of the telecommunication development in providing coverage and capacity should be seen as a material planning consideration. The use of mobile devices has become an essential part of everyday life for the vast majority of people in the UK. Indeed mobile technology is important for personal communications, but it is becoming more and more important for businesses, making a vital contribution to overall economic prosperity. In this respect the network infrastructure development progressed by the operators is largely determined by consumer demand. These customers wish to be able to use their devices wherever they are, in which in designated areas this coverage requirement is no different. It is considered that there would be material changes between the existing rooftop and proposed telecommunications development and skyline and within the immediate street scene and wider locality resulting in a negligible impact. However, the impact, if any is clearly outweighed by the public benefit of having a high quality communications infrastructure and the availability of mobile broadband with good mobile connectivity, which plays a vital role in economic growth, social inclusion, accessibility to services and sustainability.

From the outset, it should be appreciated that irrespective of the installation's use as a telecommunications base station, its change in form will always be, to some degree, a noticeable alteration to those residents and regular passers by found closest. However it should be recognised that visibility or a development's siting and appearance within the context of a sensitive designation, most notably in this instance the site being found within the adjacent Conservation Area does not automatically result in an overwhelming adverse harm. Similarly, it should be acknowledged that the presence of the existing telecommunications installation on-site may result in a number of preconceptions regarding the new proposal now subject to this application. In reflection it should be appreciated that these opinions may actually derive from the previous planning history and or the siting and appearance relating to the now existing mast. Irrespective of these viewpoints and what has gone before, it should be acknowledged that the existing base station is now established on-site, in which this provides a good reference point for the upgrade scheme's siting and appearance.

In light of the above it is considered that the planning assessment of this case should concentrate on whether the proposed changes in terms of its form when compared to the existing development are significant as to outweigh other material planning matters. Indeed it should also be ascertained as to whether there is still a need for the base station and if there have been any notable changes in terms of the site specific siting and surroundings which should be given material weight. Also the latest proposal subject to this application should be reviewed against the up to date planning policy regarding telecommunications development.

It should be acknowledged that a sequential approach to site selection has been taken. The new proposal will provide multiple technologies on the rooftop of the building, which would be inconspicuous. These are all considered features and a context that would help assimilate the new base station into this particular environment. In light of the above, it is considered that the new proposal would not be overly intrusive in this particular environment. Taking all matters into account, it is the applicant's opinion that the visual impact as a result of the proposed changes to the rooftop would not outweigh the other material merits of this case.

In light of the case presented above, the applicant considers that the new proposal strikes a good balance between environmental impact and operational considerations.

Health & Safety

Court cases have confirmed that the public perception of health risks can be a material consideration within the planning system. That said the weight to be attached to this issue has to be determined accordingly in each case by the decision maker when assessing the evidence provided. However it has been generally upheld and widely established that health concerns are not a sufficient matter alone to refuse a planning application providing it has

been demonstrated that the proposed base station will comply with the International Commission on Non-Ionizing Radiation Protection guidelines.

It should be recognised that it has been long since established that it is Central Government's stance that the planning system is not the appropriate mechanism for determining health safeguards. It remains their responsibility to decide what measures are necessary to protect public health. Most notably they take the stance that if a proposed development meets the ICNIRP guidelines for public exposure it should not be necessary for a Local Planning Authority, in processing and determining a planning application to consider further the health aspects and concerns about them.

In this respect the operators believe that it is not necessary to consider health effects further. Telefónica and Vodafone are committed to ensuring that all new and upgraded installations are ICNIRP compliant. In this regards there should be no basis for this case to be refused on health and safety grounds or for reasons relating to public concerns about the perception of health fears. An ICNIRP compliance certificate is attached as part of this submission, as required by NPPF, in which it takes into account the cumulative effect of the radio frequency emissions from the proposed installation. Albeit the proposal has dual user capabilities and seeks to provide multiple technologies, the levels from the proposed development will be many times lower than the ICNIRP standards in all publicly accessible areas around the installation. In the light of this, it is clear that the weight to be given to such health and safety concerns should not be so great as to warrant a refusal of the case on these grounds.

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