SUPPLEMENTARY INFORMATION

1. Site Details

Site Name:	Generator Hostel	Site Address:	Generator Hostel, 37 Tavistock Place, London, WC1H 9SE
National Grid Reference:	E530187, N182488		
Site Ref Number:	147982_VF	Site Type:[1]	Macro

2. Pre Application Check List

Site Selection (for New Sites only)
(Would not generally apply to upgrades/alterations to existing sites)

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

Annual Area Wide Information to local planning authority

Date of information submission to local planning authority	13.10.15
Name of Contact:	Neil.storer@camden.gov.uk; gavin.polkinghorn@camden.gov.uk
Summary of any issues raised:	List of existing sites and general rollout at that time within the authority.

Pre-application consultation with local planning authority

Date of written offer of pre-application consultation:	20.10.15	
Was there pre-application contact:	**Yes**	No
Date of pre-application contact:	21.10.15	
Name of contact:	Seyi Enirayetan	

Summary of outcome/Main issues raised:
A pre-application consultation email was sent to the LPA on the 20.10.15 which included site-specific draft drawings and outlined the need for the proposed telecommunications base station. No comments were received.

In an email dated 21.10.15 the LPA advised that there is a charge for providing pre-application advice. Therefore, it was considered that when balancing the fees of the LPA for informal advice, together with those incurred for a formal determination, the proposal subject to this application would be advanced.

Although no LPA comments were forthcoming, it was considered appropriate to progress an application and seek the LPA's formal determination. A planning application was submitted and registered on the 29.01.16 (ref: 2015/7220/P) for a design which entailed all the equipment being located behind GRP shrouding. In an email dated the 07.04.16 the planning officer Shane O'Donnell stated that the design was in effect an extension to the existing plant room which was considered unsympathetic to the host building which is considered a positive contributor to the surrounding conservation area. The proposed design was re-assessed and the design subject to this application was emailed to the planning officer for comment. In an email dated the 18.07.16 the planning officer stated that he discussed the proposal with the conservation officer and they both considered the design an improvement and combined with an argument regarding the infrastructural importance of the proposed equipment that the proposal could be acceptable. Application ref: 2015/7220/P was subsequently withdrawn.

[1] Macro or Micro

Ten Commitments Consultation

Rating of Site under Traffic Light Model:	Red	**Amber**	Green
Outline Consultation carried out: A pre-application consultation email was sent to the ward councillors, Hunter St Health Centre and Holborn and St Pancras Member of Parliament Keir Starmer on the 20.10.15 which included site-specific draft drawings and outlined the need for the proposed telecommunications base station. A further pre-application consultation email was sent to ward councillors on the 19.09.16 with drawings showing the revised scheme.			
Summary of outcome/Main issues raised: To date no comments have been received.			

School/College

Location of site in relation to school/college *(include name of school/college):* Argyle Primary School - 246 metres
Outline of consultation carried out with school/college *(include evidence of consultation):* A pre-application consultation email was sent to the Head Teacher and Chair of Governors on the 20.11.15 detailing the site-specific proposal and attaching a copy of the draft plans. A further pre-application consultation email was sent to ward councillors on the 19.09.16 with drawings showing the revised scheme.
Summary of outcome/Main issues raised: To date no comments have been received.

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

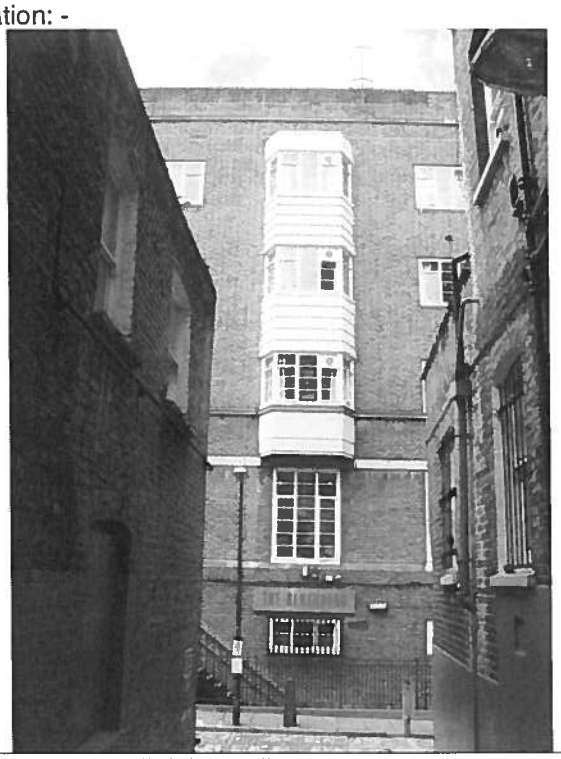
Will the structure be within 3km of an aerodrome or airfield?	Yes	No
Has the Civil Aviation Authority/Secretary of State for Defence/Aerodrome Operator been notified?	Yes	No
Details of response: n/a Full Planning application		

Developer's Notice

Copy of Developer's Notice enclosed?	**Yes**	No
Date served:		19.09.16

3. Proposed Development

The proposed site:
This application relates to a proposed telecommunications installation. For reference please see below a photograph of the proposed location: -



Enclose map showing the cell centre and adjoining cells:
n/a

Type of Structure	
Description: The proposal entails the installation of 4no. antennas grouped into sets of two on yoke brackets mounted off the chimney and painted to match the existing brickwork. The installation of 2no. antennas fixed onto a yoke bracket on a new support pole fixed to the plantroom, along with 3no. RRU's (Remote Radio Units) and 6no. ERS. The scheme also includes the installation of 5no. equipment cabinets on the flat roof of the building on new steel grillage along with hand railing, an access ladder and a 300mm wide cable tray.	
Overall Height:	25.22 metres
Equipment Housing:	CSC
Length:	800 mm
Width:	660 mm
Height:	1770 mm
Equipment Housing:	ERS Rack and RRU Rack
Length:	620 mm
Width:	620 mm
Height:	2000 mm
Equipment Housing:	Outdoor Rack
Length:	750 mm
Width:	600 mm
Height:	2100 mm
Tower/mast etc – type of material and external colour:	Galvanised steel – 4no. antennas painted brick effect to match building, 2no. antennas galvanised
Equipment housing – type of material and external colour:	Galvanised steel - painted grey (RAL 7035)

Reasons for choice of design:
In this instance, the choice of design tabled in this application has been influenced by the buildings siting and appearance, the technologies it will support, most notably the added emphasis to cater for 4G coverage requirements. The proposed antennas and their positions on the building offer a 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 existing building and the character and appearance of the Conservation Area, the extent of development has been kept to a minimum. Taking into account the existing layout of stairwells, plant rooms etc on the roof, it is considered that the proposal will have a negligible visual impact on the streetscape and skyline. Technological advances have enabled a mast share that breaks the barriers of conventional schemes which in the past have typically involved even taller heights due to the separation needed between each operators set of stacked antennas and or large exposed antenna head-frames. The height of the antennas will be 25.22 metres to top. The proposed height is necessary to provide both coverage and capacity for the existing networks. The overall height of the antennas at 25.22 metres to top has been kept to its technical minimum given the structure types which are available to the aforementioned operators. The proposed height of 25.22 metres is necessary so as not to compromise on the centre line of the antennas and to allow for adequate coverage to the target area. The proposed height and structure type will also cater for future 4G coverage demands which will enable network restructuring towards a single grid network that can serve both operators. Allowing for the proposed height and once this phase of rollout is complete it will allow existing base stations elsewhere in each respective network to be reviewed and decommissioned where technically feasible. In this regard the height and robust extent of development proposed will aid network consolidation and limit future infill requirements. It is highlighted that the antennas in this instance have dual user capabilities. Furthermore the dimensions of the structure are the thinnest available so as to be able to support the technically preferred antennas and feeder cables. The 4no. proposed antennas will be mounted off the existing chimney and painted to match the existing brickwork onto the plant room with 2no. antennas mounted off the plant room and left galvanised. In this regard it should be acknowledged that 4no. of the antennas will not punctuate the roofline thus preserving the silhouette of the host building and keeping the skyline of the Conservation Area intact as much as possible. It is considered that the proposed antennas camouflaged form will reduce their visibility on the exterior of the building. Coupled with their position at height, it is considered that their visual impact will be softened and their presence is likely to go unnoticed when seen in perspective from ground level. The 2no. proposed antennas mounted of the plant room will be left in their manufactured form. In this regard although the proposed antennas will be seen from wider vantage points, it is considered that the level of visual impact has been kept within reasonable bounds. It is of note that the proposed rooftop equipment cabinets are less than 2.5 cubic metres in volume and will be set back from the edge of the building. In this respect it is considered that the siting of the ancillary development makes best use of the existing facilities thus maintaining the appearance of the host building. In light of the above it is considered that every effort has been made to limit the visual impact of the scheme. It is considered that reasonable steps have been taken to achieve this by limiting the extent of development and grouping antennas together painting them, where possible, to match the existing brick work therefore the 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 existing rooftop base station would have a negligible visual impact on the Conservation Area, thus preserving its character and appearance.

Technical Information

International Commission on Non-Ionizing Radiation Protection Declaration attached 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. When determining compliance the emissions from all mobile phone network operators on or near to the site are taken into account. In order to minimise interference within its own network and with other radio networks, Vodafone Limited operates its network in such a way the radio frequency power outputs are kept to the lowest levels commensurate with effective service provision.	**Yes**	No

As part of Vodafone Limited's network, the radio base station that is the subject of this application will be configured to operate in this way. 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. 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.		

4. Technical Justification

Enclose predictive coverage plots if appropriate, e.g. to show coverage improvement. Proposals to improve capacity will not generally require coverage plots.

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

It was announced in mid 2009 that the Vodafone Group were to form a strategic partnership with the Telefónica Group to share their telecommunication infrastructure assets across Europe. In the UK this project was called 'Cornerstone' as saw both Vodafone Ltd and Telefónica UK Ltd, commonly known as O2 working closely together to pool their resources and infrastructure making substantial improvements to their 2G and 3G networks. This initial agreement between the two aforementioned operators broke barriers in addressing the historical limitations encountered in conventional mast share schemes. It allowed both organisations to consolidate a number of base stations through, where appropriate, sharing each others sites and in turn significantly reducing the environmental impact of their network deployment. Although infrastructure development formed part of Cornerstone, Vodafone and Telefónica have continued to actively compete in the telecommunications market place to retain and win mobile phone customers and both operators differentiate themselves on the quality of their customer experience. Although Vodafone and Telefónica share their infrastructure, they operate entirely independently as businesses with their own separate strategies and networks. Accordingly the key focus as part of Cornerstone was to build new sites which had the capabilities to provide coverage for both operators.

In February 2013, the Office of Communications, commonly known as Ofcom, who are the independent regulator and competition authority for the UK's communications industries announced the winners of the 4G mobile spectrum auction. 4G is the fourth generation of mobile phone technology and follows on from 2G and 3G. 2G technologies is predominately used for making calls and sending text messages, whilst 3G enables access to internet services more effectively through a mobile device. 4G services are intended to improve mobile broadband services into the future, enabling greater capacities of data to be shared via mobile technologies with speeds likely to be nearer those currently experienced via home broadband. Both Vodafone and Telefónica were awarded 4G licenses, hence they have entered into a new agreement in which the two companies now plan to jointly operate and manage a single network grid across the UK. This initiative strengthens the network infrastructure partnership between the two companies, previously rolled out as part of Cornerstone. This next phase of consolidation will primarily involve upgrading existing base stations to accommodate 4G technology and will be facilitated by Cornerstone Telecommunications Infrastructure Limited (CTIL), a newly formed joint venture company owned equally by Vodafone and Telefónica. The single grid infrastructure will enable both organisations to pool and consolidate their respective networks yet further while running two, independent, nationwide networks.

The rollout of multiple technology networks to support the growth of mobile devices has had an impact on more conventional ways of communications. Latest figures from the regulator, Ofcom, show that consumers are spending less time using their landlines in the year to June 2014, a reduction of 12.7% in one year alone. In this respect it is thought that fixed line call volumes are declining as people are using mobiles speak to each other. Also the way people communicate on mobile devices is changing as they have instant access to video calls and may choose to utilise the in-built capabilities of various messenger and social media applications.

In December 2014, Ofcom published their finding on the status of electronic communications networks and services in the UK. The Infrastructure Report 2014 acknowledges that robust telecommunication networks present vital enablers towards supporting a vast amount of economic and social activity, by both general consumers and

businesses. The report provides an overview of the state of telecommunications infrastructures in the UK in terms of its coverage, capacity and reliability. In Ofcom's Infrastructure Report 2014 it suggests that fixed broadband connections are now almost universally available throughout the UK, however internet and downloads speeds can be patchy. However it is said that 18% of households do not have any home fixed line internet access at all and with about 16% of households already having no voice landline, it is apparent that mobile connectivity is a society choice that has importance.

According to Ofcom in November 2014, UK 4G speeds were more than twice as fast as 3G. However in a report of the same year compiled by OpenSignal, who studies mobile phone signal strengths, it was suggested that 4G speeds had almost halved in the past year as more people sign up to such services. In this respect, as well as providing coverage representation a base station will also provide much needed capacity to a network. Added capacity will create a reliable customers experience by reducing not-spots, call dropping and provide a more consistent mobile internet connectivity which people expect from their mobile devices whenever and wherever they are using them.

A retained base station site is required in this location in order to maintain existing network coverage and capacity, as well as catering for added multiple technologies, most notably 4G for both Vodafone and Telefónica, commonly known as O2.

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 July 2013 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.

5. Site Selection Process

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
Rooftop	Medway Court, Judd Street	E530193, N182566	Taller buildings nearby which would block the signal but this option is also on the edge of the search area and therefore would not provide the require coverage.
Rooftop	Hunter Health Care, 8 Hunter St, Camden	E530272, N182465	The Landlord is not interested in accommodating this type of development in this location.
Rooftop	Egmont House, 25-31 Tavistock Place, Camden	E530166, N182444	The Landlord has not responded to enquiries made.
Rooftop	Albany House, 41 Judd St, London	E530221, N182471	The Landlord is not interested in accommodating this type of development in this location.
Rooftop	Knollys House, 39 Tavistock Place, London	E530202, N182461	The Landlord is not interested in accommodating this type of development in this location.

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

Land use planning designations:

The application site is set within an area characterised as predominantly mixed use. It is also noted that the application site is found with designated Article 2(3) land, notably being set within Bloomsbury Conservation Area.

In this regard 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 Supplementary Information submission.

Additional relevant information (planning policy and material considerations):

Planning Policies

Local Planning Policy

It is acknowledged that the Council's approach to the plan-led system has evolved. Central Government now seek to streamline the process for the preparation and adoption of Development Plans, in which Local Planning Authorities are now required to adopt a new Development Plan in accordance with section 20 of the Planning and Compulsory Purchase Act 2004 (as amended) and the National Planning Policy Framework. The documents that provide local planning policies are referred to within the 'Local Plan', in which they describe the spatial strategy for the authority. The Core Strategy is the key document that forms the Local Plan and this is supported by various types of detailed information about the local and sub-regional matters. Once adopted decisions will be made in accordance with the Local Plan unless material considerations indicate otherwise.

In this regard, the Local Plan has now been adopted by the Council, in which there is no policy specific to telecommunications development.

National Planning Policy

National Planning Policy Framework (2012)

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.

5 - Supporting high quality communications infrastructure
The National Planning Policy Framework (NPPF) set out Central Government's planning policies for England and how these are expected to be applied. It replaces a number of planning documents including Planning Policy Guidance 8 – Telecommunication. NPPF sets out the Central Government's requirements for the planning system only to the extent that it is relevant, proportionate and necessary to do so. It provides a framework within which local people and their accountable councils can produce their own distinctive local and neighbourhood plans, which reflect the needs and priorities of their communities.

Pertinent to telecommunications development section 5 of NPPF sets out the Governments general overview regarding supporting high quality communications infrastructure and is stated as follows: -

"42. Advanced, high quality communications infrastructure is essential for sustainable economic growth. The development of high speed broadband technology and other communications networks also plays a vital role in enhancing the provision of local community facilities and services.

43. In preparing Local Plans, local planning authorities should support the expansion of electronic communications networks, including telecommunications and high speed broadband. They should aim to keep the numbers of radio and telecommunications masts and the sites for such installations to a minimum consistent with the efficient operation of the network. Existing masts, buildings and other structures should be used, unless the need for a new site has been justified. Where new sites are required, equipment should be sympathetically designed and camouflaged where appropriate.

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

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

45. Applications for telecommunications development (including for prior approval under Part 24 of the General Permitted Development Order) should be supported by the necessary evidence to justify the proposed development. This should include:

- *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 or technical site; and*
- *for an addition to an existing mast or base station, a statement that selfcertifies that the cumulative exposure, when operational, will not exceed International Commission on non-ionising radiation protection guidelines; or*
- *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.*

46. Local planning authorities must determine applications on planning grounds. They should not seek to prevent competition between different operators, question the need for the telecommunications system, or determine health safeguards if the proposal meets International Commission guidelines for public exposure."

Code of Best Practice on Mobile Phone Network Development (2013)

A new English Code of Best Practice on Mobile Network Development has replaced the original guidance document that was first published in 2002. Since the previous version, there have been significant changes in planning policy with NPPF replacing PPG8, as well as in technology and infrastructure rollout due to consolidation agreements. The planning process and tools in the new Code of Best Practice remains much the same as previous, in which the following is considered relevant in this particular case: -

The opening paragraphs of the new Code of Best Practice acknowledge the material weight that should be given to NPPF, in particular Section 5 - Supporting high quality communications infrastructure as noted above. It is noted in paragraph 3.2 that special operation and technical considerations should be taken into account in which it is stated that due to increased demands of mobile device users there will be *"the requirement to upgrade and improve networks through changes to existing sites and the development of new sites"*

It is highlighted in paragraph 7.5 and in Appendix A which sets out the operators Ten Commitments that there will always be an emphasis on site sharing. Operators will *"continue to work together to locate base stations on existing structures, and to share sites wherever viable in order to reduce the need to build new masts on which to locate their equipment and to minimise the number of base station sites in the UK."*

Appendix B discusses the general principles for telecommunications development. It is stated that "*The Government's general policy on telecommunications development is to facilitate the growth of efficient and effective telecommunication 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 should also be applied to all telecommunications development. In all circumstances, the sensitivity to context of the proposed development should be considered.*

In particular, the following general design principles should be regarded as important considerations in respect of telecommunications development:

- *Proper assessment of the character of the area concerned*
- *Design should be holistic and three dimensional showing an appreciation of context;*
- *Analysis of the near and far views of the proposal and to what extent these will be experienced by the public and any residents;*
- *Proposals should respect views in relation to existing landmarks and distant vistas;*
- *Proposals should seek to consider the skyline and any roofscapes visible from streets and spaces;*
- *Choice of suitable designs, materials, finishes and colours to produce a harmonious development and to minimise contrast between equipment and its surroundings.*

The options for the design used by an operator will be affected by site conditions, technical constraints, landscape features and coverage and capacity requirements. The main options would include:

- *Mast and/or site sharing;*
- *Installation on existing buildings and structures;*
- *Camouflaging or disguising equipment where appropriate;*
- *Using small scale equipment;*
- *Erecting new ground based masts."*

Appendix B goes on and recognises that mast and site sharing is a longstanding Government policy objective. In this regard the Government encourages telecommunications operators, wherever viable, to share masts and sites as a means of minimising overall mast numbers. It is stated in Appendix B that *"If operators are able to share sites, and install more equipment on each site, this reduces the overall visual impact of network infrastructure, because even though shared sites will tend to be slightly bigger, it means that fewer sites are needed to improve coverage and capacity, infrastructure becomes more feasible, and is more cost-effective to deploy. In fact, sharing of sites is now the norm, and network operators now share much of their network infrastructure via joint venture commercial arrangements."*

Mobile Networks: What They Are And How They Work (2013)

It is highlighted that the new Code of Best Practice is supplemented by a document titled 'Mobile Networks: What They Are And How They Work'. It explains the main factors that affect radio signals such as shadowing, attenuation, diffraction and reflection. In this regard it should be appreciated that antennas need to be sited with the clearest possible view of the area for which they are intended to provide coverage. It is stated that *"there are various reasons that can lead to the need for new cell sites. Two main ones are the need for additional coverage and capacity. Other factors that can lead to the need for new sites include the introduction of new technologies and services; new property developments in an area requiring new coverage or additional capacity; or redevelopment of an area requiring existing sites to be replaced."*

London Plan (2015)

The London Plan sets out the Mayor's planning strategy for Greater London and contains strategic thematic policies, general crosscutting policies and more specific guidance for sub-areas within the Metropolitan Area. In Paragraphs 1.38-1.41 *'Ensuring the infrastructure to support growth'*, the London Plan recognises the strategic importance of providing the necessary infrastructure, including modern communications networks, that the city requires to secure its long-term growth. Such matters are further echoed by the Mayor's Offices long term strategy as documented in the London Infrastructure Plan 2050.

It is considered that the Vodafone and Telefónica networks are an integral element in securing the Mayor's vision for the delivery of modern communications networks across London. More specifically, the proposed development is entirely consistent with and will help to implement the strategic objectives contained in Policy 4.11 'Encouraging a Connected Economy' of the London Plan. Policy 4.11, and its written justification, is clearly supportive of the proposal and the role that it will perform in allowing Vodafone and Telefónica to provide additional 3G and 4G coverage to the surrounding area.

The aim of the Infrastructure Plan is to enable for fast, ubiquitous access to the internet from mobile and fixed devices. Chapter 16 of the Plan indicates how the London Mayor's Office shall support an economically viable mix of technologies including fibre broadband, mobile broadband and future methods of wireless internet delivery to address the capacity crunch in the short term as well as aiming to make London the first capital city in the world to deploy 5G in the 2020s. This document is supported by the report Raising London's High Speed Connectivity to World Class Level. As detailed within these Digital Connectivity is now considered the fourth utility. Internet access not only affects the productivity of businesses and proves essential to the future growth of many firms, it is also vital for many residents to take part in modern society as more services move online.

The Mayor's Office shall work with central government and London's local authorities to ensure that strategic communication networks are enabled rather than inhibited by the planning and other regulatory systems whilst ensuring the utility works themselves are properly managed.

The Vodafone and Telefónica networks are integral elements in securing the Mayor's vision for the delivery of modern communications networks across London. More specifically, the proposed development is entirely consistent with and shall help to implement the strategic objectives contained in the London Plan and London Infrastructure Plan.

Fixing the foundations: Creating a more prosperous nation
The Productivity Plan sets out the drivers of productivity, and sets out reforms to deliver a step change for higher productivity. This was released by the government post budget this year and emphasises the vital role modern telecoms service (and the infrastructure that provides it) amongst other thing will play in the continued economic growth of the UK. Pertinent to telecommunications development is Chapter 7 World-class digital infrastructure in every part of the UK and is stated as follows

7.1 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. Investment in high speed broadband will support long-term economic growth, with GVA increasing by £6.3 billion, causing a net increase of 20,000 jobs in the UK by 2024.1 Geographic coverage and take-up of superfast broadband in the UK is already the highest of the 5 largest EU economies.2 The government's superfast broadband programme is passing an additional 40,000 premises every week – superfast speeds of at least 24Mbps will be available to 95% of UK households by 2017.

7.2 By reducing regulatory red tape and barriers to investment, the government will support the market to deliver the internationally competitive fixed and mobile digital communications infrastructure the UK's businesses need to thrive and grow, and which will enable the UK to remain at the forefront of the digital economy. The government is working with business so that the market can play the lead role in delivering against the ambitions set out in the Digital Communications Infrastructure Strategy, published in March, of near-universal 4G and ultrafast broadband coverage.

7.3 **The government will take decisive action to make it easier for the market to roll out the fixed and mobile infrastructure that the UK needs:**

- the government proposes to **extend permitted development rights to taller mobile masts in both protected and non-protected areas in England**. A call for evidence on these proposals has been published today
- the government intends to **introduce legislation in the first session of this Parliament to reform the Electronic Communications Code**, which regulates the relationship between electronic communications network operators and site providers
- the government **will be consulting later this year on implementation of the EU Directive on measures to reduce the cost of deploying high-speed communications networks**
- the government is also **considering making the 2013 planning relaxations supporting fixed high speed broadband infrastructure rollout permanent.**

Planning Assessment
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. As such, there is a need to improve the existing 2G and 3G network as the area suffers from poor coverage as a result of a weak signal strength, which in turn impacts on its capacity and the services that can be offered. 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. In addition to improving the existing networks, 4G would also be provided. Therefore, a multiple technology network requires robust signal levels to provide the capacity and speeds needed to make calls, send texts and access the internet either on the move or static for all its users wherever they are in the country. However, none of this can happen without the necessary infrastructure network in place that delivers mobile communications service. However, priority has been given to improving 3G and establishing a new 4G service.

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.

To find a new site an assessment of possible alternative sites were considered which explored existing masts, buildings/structures and new sites for mast within the search area. The starting point was with the operator's own existing masts and/or sites, which were discounted as there aren't any. Also, the operators own surrounding base station sites cannot be upgraded to improve the signal and compensate for the inadequate coverage in the

immediate area as they have been subject to their own upgrades to maximise their performance within the single grid. Consequently, there are no existing telecommunications structures and sites belonging to another code system operator to share or site share, however, it was considered that the Generator Hostel building is a suitable building in which to accommodate this type of development.

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 and 4G technology within the cell area but also given that it has an established coverage footprint within the respective networks and therefore forms part of a cohesive network of cells for each operators network. 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 neighbouring 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 must be appreciated that the way we use our mobile devices are changing. We are watching more videos, playing more games and are streaming, tweeting and browsing more than ever before. Furthermore mobile communications enable businesses and individuals to be more productive and offer new and innovative services. Demand for access to mobile communications on the move has increased significantly over the last 10 years with many people now seeing this as an everyday necessity. A high quality communications infrastructure with good mobile connectivity and the availability of mobile broadband play a vital role in economic growth, social inclusion, accessibility to services and sustainability. In this regard the rollout of 4G networks is seen as a major investment which will facilitate social and economic benefits through greater connectivity. Consumers and businesses should be confident that their mobile technology will work wherever they are in the country. However, none of this can happen without the necessary infrastructure network in place that delivers mobile communications service.

The proposal is in accordance with paragraph 42 of NPPF which states "Advanced, high quality communications infrastructure is essential for sustainable economic growth. The development of high speed broadband technology and other communications networks also plays a vital role in enhancing the provision of local community facilities and services". Furthermore, it is complies with paragraph 43 as it 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. Moreover, it is considered that an extensive and robust search has been undertaken. Indeed, such an approach to site selection conforms to paragraph 43 and 45 of NPPF.

As discussed previously with regards the choice of design when comparing the appearance of the existing building with the proposed scheme, it is considered that the development will not undermine the visual amenity of the area. The proposal has dual user capabilities whereby balanced against the other material planning matters as below, it is considered that the CTIL scheme is acceptable.

The application site is found within Bloomsbury Conservation Area and therefore in this respect the proposal has been designed sensitively to respect the historic environment. Furthermore the extent of telecommunication development in this case has been kept to a minimum and has been progressed proportionate to the asset's importance. In this regards it should be appreciated that the proposal seeks to mimic where best possible existing features of the building and is designed with no more development than is sufficiently needed to fulfil the technical requirements of this site.

The proposed telecommunications antennas placed on the roof will be discretely located mounted off the chimney and plant room and painted where possible, the same colour as the existing brickwork and so it is considered that the proposed equipment would not form an incongruous features within the context of the host property. In this regard, it is the applicant's opinion that the telecommunication development will not appear

untoward within the context of the Conservation Area. It is considered that the installation would be barely noticeable to the casual glance and it is considered that their presence are likely to go unnoticed to the untrained eye. Therefore the applicant deems that the siting and appearance of the proposed new additions would preserve the character and appearance of the Conservation area.

In terms of siting the applicant has taken advantage of the building's tall height, whereby it is of note that 4no. of the new antennas will not appear to break the silhouette of the building and undermine the character and appearance of the Conservation Area and the 2no. that are galvanised will blend in with the skyline and similarly it is considered that the rooftop base station will not appear overly pronounced within the context of host building. The proposed equipment cabinets will be set back from the edge of the building and so will not be readily viewed from ground level.

In conclusion it is considered that when balanced against all material factors of this case, the proposal's siting and appearance will not have a significance impact on this designated heritage asset. It is clear that the telecommunications development respects the historic qualities of the site and its surroundings, whereby it would not undermine those specific features as listed that warranted the site's designation.

Irrespective of a site designation, 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. Albeit Conservation Areas can present difficulties in terms of their built and natural character, it is considered that the technical needs have been addressed by taking a responsible and sensitive approach to the siting and appearance of this base station development. In this regard it is considered that the wider public benefit of providing multiple technologies for two operators is sufficient to outweigh any undue harm to the designated asset.

In light of the case presented above, the applicant considers that the upgrade 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. However it has been generally upheld and widely established at planning appeal, that health concerns are not a sufficient basis alone for withholding planning permission 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 Central Government's responsibility to decide what measures are necessary to protect public health. Most notably it is Central Government's view 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 an application for planning permission or prior approval, 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. Vodafone and Telefónica as well established operators 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 health and safety. An ICNIRP compliance certificate is attached as part of this submission, as required by NPPF paragraph 45. As previously noted in this submission statement the ICNIRP declaration takes into account the cumulative effect of the emissions from the proposed upgrade installation and all radio base stations present, at or co-located near to the proposed installation. Albeit the upgrade proposal has dual user capabilities and seeks to provide multiple technologies the radio frequency emissions from the proposed development will be may times lower than the ICNIRP reference standard in all publicly accessible areas around the installation. In the light of the above information, 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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