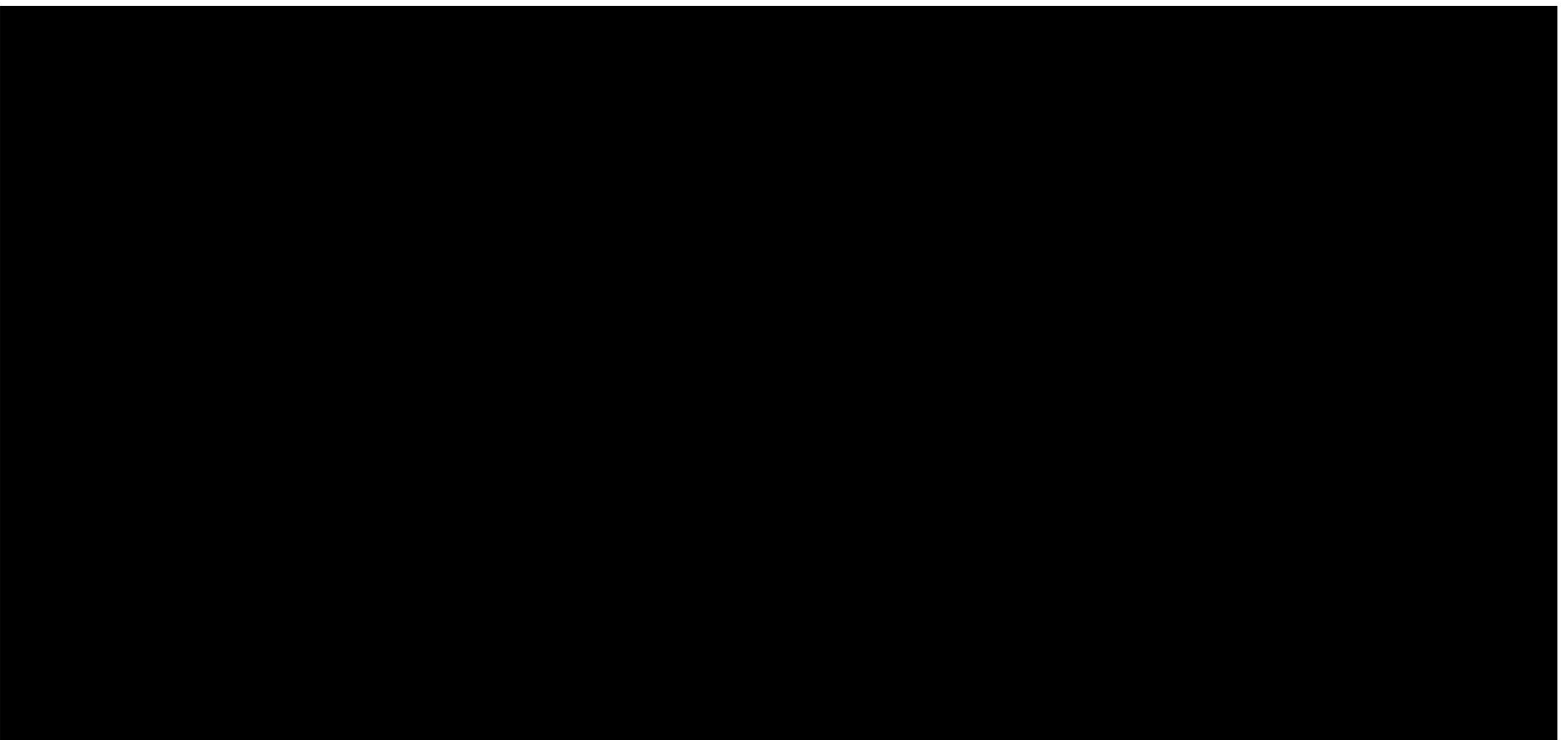


SUPPLEMENTARY INFORMATION

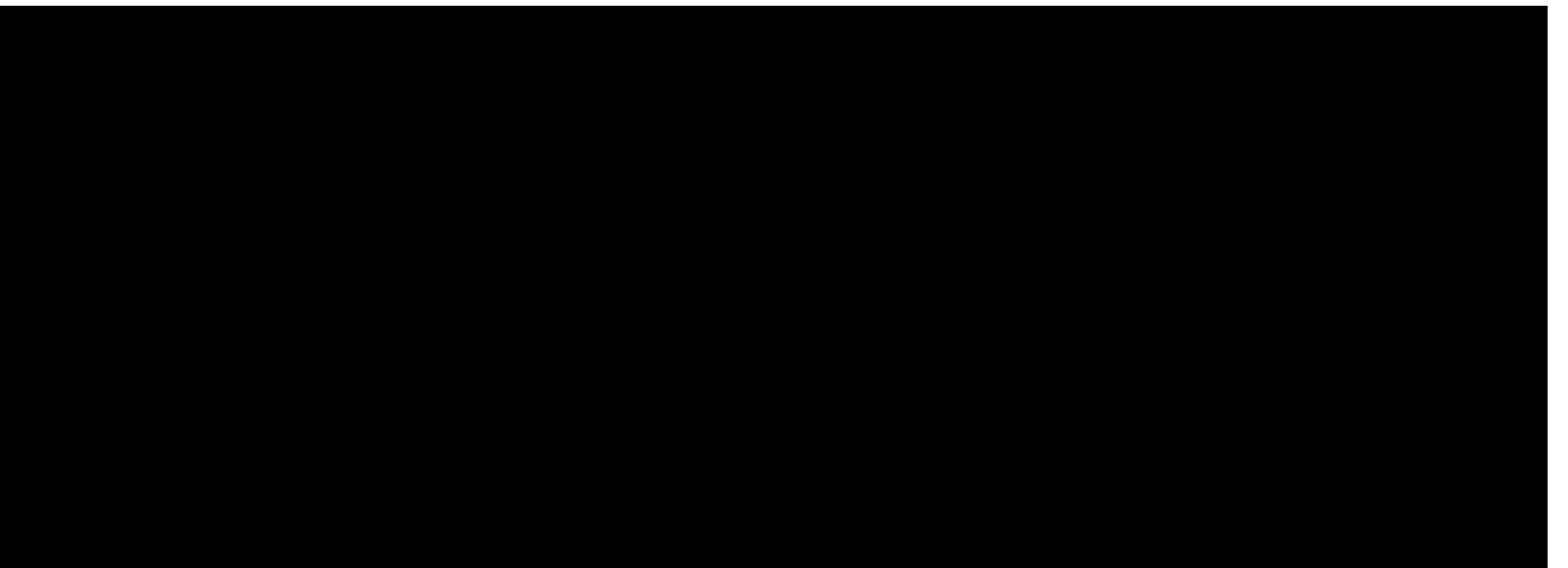
1. Site Details

| | | | |
|--------------------------|---|-------------------------|----------------------------------|
| Site Name: | Watlington Road SW 4 | Site Address: | Verge at Watlington Road |
| National Grid Reference: | E: 456308 N: 203005 | | Oxford Oxfordshire OX4 7UB |
| Site Ref Number: | CTIL_ 30224700 VF_ 18539_0 TEF_ N/A | Site Type: ¹ | Streetworks macro |

2. Pre-Application Check List



Site Specific Pre-application consultation with local planning authority



¹ Macro or Micro

Community Consultation



School/College

| |
|---|
| Location of site in relation to school/college (include name of school/college): There are no schools in close proximity as defined by the search criteria outlined in the CoBP. |
| 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. |

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

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

Developer's Notice

| | | |
|--------------------------------------|------------|--|
| Copy of Developer's Notice enclosed? | Yes | |
|--------------------------------------|------------|--|

| | |
|---|-------------------|
| <p>Date served:</p> <p>Email relayed receipt received 17/03/2021 from Oxfordshire County Council Highway Enquiries Team highway.enquiries@oxfordshire.gov.uk</p> <p>Email auto response received 17/03/2021 from Oxfordshire County Council Highway Enquiries Team highway.enquiries@oxfordshire.gov.uk</p> | <p>17/03/2021</p> |
|---|-------------------|

3. Proposed Development

| |
|---|
| <p>The proposed site:</p> <p>There is an existing streetworks telecommunications installation on the grassed verge to the rear of the pavement area on the eastern side of the B480 Watlington Road at the junction with Transport Way, providing vital local coverage and capacity in this busy part of Oxford. There is now a requirement to upgrade the site, to provide improved coverage and capacity, most notably in relation to 5G services.</p> <p>It should be noted however, that the nature of 5G and the network services it provides, means the equipment and antennas required are quite different to the previous, and existing, service requirements. In particular, the nature of the antennas, and the separation required from other items of associated equipment, is such that it cannot utilise some existing structures that provide an installation for another operator, most notably in a streetworks or highways environment. In essence, in order to provide for 5G services in these situations, Vodafone must remove themselves from the existing streetworks installation, and provide for their own, separate, installation (further information is provided in the additional information sheet, 'Vodafone 5G Streetworks Project').</p> <p>The proposed upgrade site has been carefully selected on the northern side of Watlington Road to the rear of a wide grassed verge set against a screening backdrop of hedgerow planting. It has not been possible to site the upgraded installation immediately adjacent to the existing structure due to technical separation requirements and a lack of space within the pavement area and it has therefore been situated approximately 720m to the south east. The site benefits from the screening effects associated with scattered tree and hedgerow planting on the other side of Watlington Road masking views from the nearest residential properties. The site has been carefully selected in a position capable of providing the required essential coverage whilst being as far away as possible from the views of residential properties. The site selection process has also been influenced by the numerous vertical elements of street furniture distributed around the vicinity including street lighting columns, road signage, timber power transmission poles and views of the horizon in the open area to the south are dominated by significantly taller and bulkier high voltage electricity pylons. The proposed new upgraded installation will therefore not appear as an incongruous feature when viewed in the context of these existing vertical structures with similar lines. It should be noted that the colouring of the equipment can be specified to further enhance these merging effects.</p> <p>It is important to note that the height of the pole has been kept down to the absolute minimum capable of providing the required essential new 5G coverage. The site has been situated on a wide grassed verge away from the pavement in a position that will not impede pedestrian flow</p> |
|---|

or the safety of passing motorists. The new pole has been sited nearby to the existing streetworks structure, and thus the visual and environmental issues are unchanged. The cabinets are located at the base of the new pole. This is all considered unlikely to have any material impact on the local area.

Enclose map showing the cell centre and adjoining cells if appropriate:

N/A – In essence, this is an upgrade of an existing site.

There is necessarily a very small search area for the subject scheme; the existing site is shared and so the surrounding network of existing cells and services is configured to the position of that existing site. This means that an ‘unshared’ replacement must be in close proximity to fit within that existing network cell configuration. Given this, there will be no change to the existing cell configuration.

Type of Structure (e.g. tower, mast, etc):

Description:

Hutchinson Engineering Apollo ARV-1 Pole on new D9 4-port root foundation.

VF Lancaster XES Cabinet and side pod cabinet on new root foundation.

VF Meter Cabinet on new root foundation with new DNO supply.

Lancaster XES (WxDxH): 1896mm x798mm x 1645mm

Side Pod (WxDxH): 750mm x 798mm x 1648mm

Meter Cabinet (WxDxH): 655mm x 264mm x 1315mm

Overall Height: 20m

Height of existing building (where applicable): N/A

Metres

Equipment Housing:

Length:

As above

Width:

As above

Height:

As above

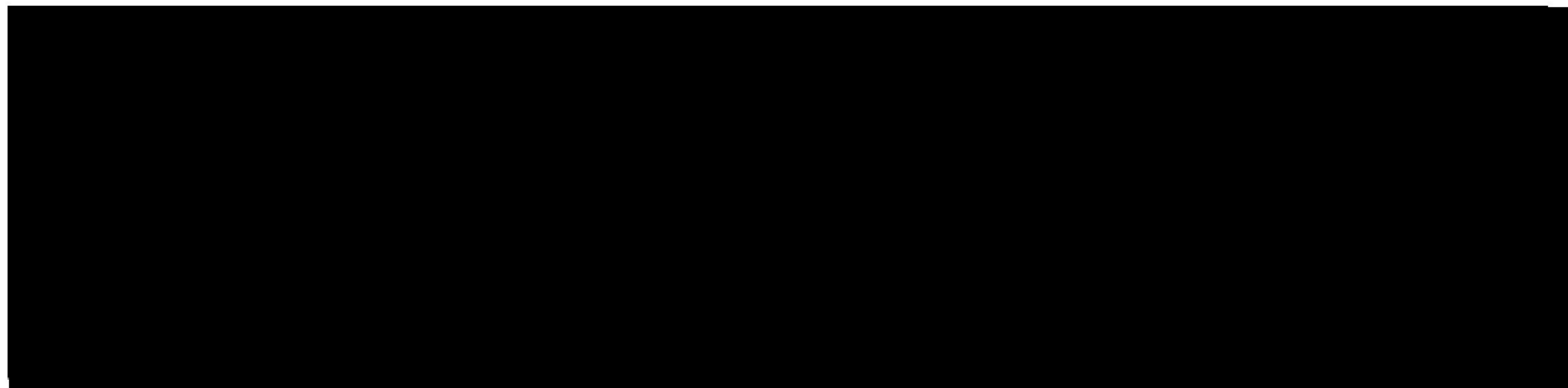
Materials (as applicable):

Tower/mast etc – type of material and external colour:

Grey

Equipment housing – type of material and external colour:

Green



provide an installation for another operator, most notably (for Vodafone) in a streetworks or highways environment. In essence, in order to provide for 5G services in these situations, Vodafone must remove themselves from the existing streetworks installation, and provide for their own, separate, installation.

The 5G antennas are some 3 times as heavy as previous antennas, while the associated Remote Radio Units also now need to be placed at the top of the pole, thus many streetworks designs are no longer structurally capable of hosting all the equipment of 2 operators. It should be noted that the alternative option that could accommodate both operators would be a more traditional 'greenfield' mast, with an open headframe and more bulky design, which would be inappropriate in a streetscene location. In this context, two slimmer, more uniform, poles are a better solution in terms of visual impact and local amenity.

In simple terms, the 5G Vodafone antennas, and associated equipment to be utilised, cannot be accommodated on a traditional shared Streetworks pole design and so separate poles must be provided. As well as enabling the delivery of 5G, it will also increase the capacity of the 2G/3G/4G network which is incredibly stretched in these urban areas due to local demand on the service.

To provide the required 5G services, it is necessary to deploy a new streetworks pole and a new external small cabinet. However, this will be placed within the same context as the existing installation.

Technical Information

| | | |
|---|------------|--|
| <p>International Commission on Non-Ionizing Radiation Protection Declaration attached (see below)</p> <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, Vodafone 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 Vodafone'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</p> | <p>Yes</p> | |
|---|------------|--|

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

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

5G is short for 'fifth generation mobile networks'. It has been designed to be far faster than previous generations and to allow new uses for mobile data.

In the UK, rollout is now commencing. The main benefits of 5G are that it will be much faster and have higher capacity than 4G, with download speeds in excess of 1Gbps. To place this in context, customers will be able to download - not merely stream - a full HD movie in less than 10 seconds on a 5G network. The same task would take closer to 10 minutes on 4G

The nature of 5G and the network services it provides, means the equipment and antennas it uses are quite different to previous, and existing, service requirements. In particular, the nature of the antennas, and the separation required from other items of associated equipment, is such that it cannot utilise some existing structures that provide an installation for another operator, most notably in a streetworks or highways environment. In essence, in order to provide for 5G services in these situations, Vodafone must remove themselves from the existing streetworks installation, and provide for their own, separate, installation.

Whilst it is the case that Cornerstone remains a jointly owned company, established by the two mobile network operators, Vodafone Limited and Telefonica (UK) Limited (O2), to establish and operate a shared single grid network to provide 2G 3G and 4G coverage, this can no longer be the case with all sites for the provision of 5G service.

Mobile connectivity and service is required where customers live, work and play. 5G coverage and superfast mobile broadband data capacity demand will continue to increase exponentially with the introduction of IoT (Internet of Things), machine to machine connectivity, automated transport/industry and other 'smart' applications. To this end the existing shared infrastructure within the built environment has had to be reviewed and adapted as appropriate.

In those instances where greenfield structures and rooftop installations are currently in place, in the vast majority of cases, these will remain shared base stations. These shared base stations allow for separate antennas on supporting structures that are capable of accommodating the weight, wind loading, and technological requirements associated with providing four technologies (2G, 3G, 4G and 5G) for two separate operators from a single shared location, albeit sometimes via redevelopment of the existing base station.

However, to address some site-specific coverage and data capacity demand, the 5G equipment upon many street furniture base station structures cannot be shared by both operators. This is due to variations in the make-up of the independent Vodafone and Telefonica (O2) networks.

It is critical to understand that the UK's four Mobile Network Operators (MNOs), including Vodafone and Telefonica (O2), all utilise different technology spectrums to provide their mobile service. The spectrums the Operators utilise are allocated by Ofcom, as industry regulators on behalf of UK Government, through licence agreements with each of the individual MNOs. As such, each MNO must utilise the spectrum licenced to them. Each part of the RF spectrum has variations in terms of RF propagation. Therefore, the four individual MNO networks, and their sharing arrangements, cannot be compared directly and there will be variations in how all four networks are deployed and developed. For this reason, all MNOs, including Vodafone and Telefonica (O2), who continue to be competitors but share base stations where possible, have a completely different network configuration they need to fit within and build 5G service around. Therefore, the network has to be built differently, with different antennas and equipment, to take account of those spectrum and licence variations and this will lead to necessary infrastructure variations cell to cell, depending on site specific demand, local constraints and requirement. As such, the various networks will have variations in how their infrastructure is deployed and developed.

As noted, most infrastructure should be capable of sharing, however, the slim line street furniture base stations that have been inserted into the local street scene are not capable of accommodating all of the differing equipment that is required to meet the site specific demand of both operators and customers for this area from a single street furniture pole, being mindful of the spectrum variations. To this end, many existing shared street-work installations are being removed from the 'single grid', meaning the existing pole will become operator unilateral for 5G provision. This creates the necessity for an additional new street furniture base station in the cell to accommodate the technological requirements of the other unilateral operator – either Vodafone or Telefonica (O2).

Given the maturity of the two independent networks, and the single grid consolidation over the last few years, any new street furniture base station needs to be located in close proximity to the existing site – thereby retaining customer coverage and experience within a previously shared 'cell'. The new pole will accommodate all the technologies for the single operator and the 'cell' will benefit from improved service provision from both operators, including the introduction of 5G service to the area. To continue to share an existing structure at this location would require significant redevelopment of the existing structure to a much more structurally robust mast capable of hosting all the differing antennas and equipment from both operators to address their spectrum variations. This would move away from the relatively uniform and slimline street furniture poles proposed and therefore it is felt that a secondary, more slimline, street-pole is a more appropriate and sensitive solution to 5G service provision whilst minimising impact for a street furniture setting.

See additional document, 'Vodafone 5G Streetworks Project'.

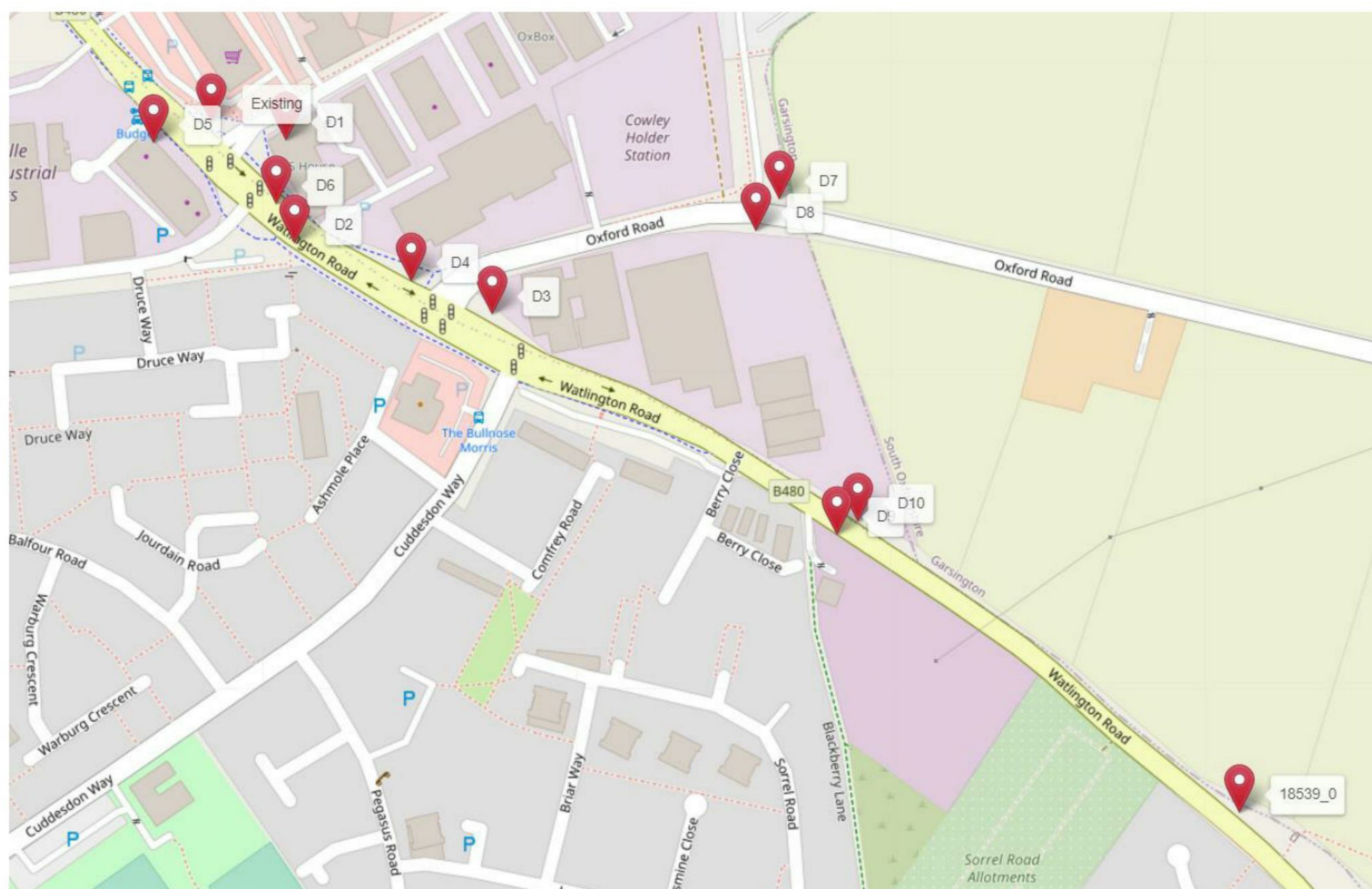
5. Site Selection Process

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)

NOTE:

There is necessarily a very small search area for the subject scheme; the existing site is shared and so the surrounding network of existing cells and services is configured to the position of that existing site. This means that an 'unshared' replacement must be in close proximity to fit within that existing network cell configuration. Given this, there will be no change to the existing cell configuration. This also means available options are extremely limited

Discounted Options Map



| Site | Site Name and address | National Grid Reference | Reason for not choosing |
|---------|---|-------------------------|--|
| RT – D1 | Rooftop Antenna at CMS House Transport Way Oxford Oxfordshire OX4 6LX | 455727, 203404 | This option was discounted from a coverage perspective as the relatively low roof height would restrict coverage at this location. |

| | | | |
|----------|--|-------------------|--|
| SW – D2 | Streetworks Monopole at Verge at Watlington Road Oxford Oxfordshire OX4 6SS | 455733, 203342 | This option was discounted from a planning perspective due to the site being situated closer to the views of residential properties than the site that has been put forward. |
| SW – D3 | Streetworks Monopole at Verge at Watlington Road Oxford Oxfordshire OX4 6LN | 455853, 203301 | This option was originally selected but was not able to proceed due to issues with underground services. |
| SW – D4 | Streetworks Monopole at Verge at Watlington Road Oxford Oxfordshire OX4 6NF | 455804, 203320 | This option was discounted from a planning perspective due to the site being situated closer to the views of residential properties than the site that has been put forward. |
| RT – D5 | Rooftop Antenna at Topps Tiles Harrow Road Oxford Oxfordshire OX4 6NF | 455647, 203402 | This option was discounted from a coverage perspective due to the relatively low roof height. |
| SW – D6 | Streetworks Monopole at Verge at Watlington Road Oxford Oxfordshire OX4 6NF | 455722, 203366 | This option was originally selected but was not able to proceed due to issues with underground services. |
| SW – D7 | Streetworks Monopole at Verge at Oxford Road Oxford Oxfordshire OX44 9AY | 456026, 203372 | This option was discounted from a build perspective due to issues with underground services. |
| SW – D8 | Streetworks Monopole at Verge at Oxford Road Oxford Oxfordshire OX44 9AY | 456012, 203353 | This option was discounted from a build perspective due to issues with underground services. |
| SW – D9 | Streetworks Monopole at Verge at Watlington Road Oxford Oxfordshire OX4 6NB | 456063, 203170 | This option was discounted from a build perspective due to issues with underground services. |
| SW – D10 | Streetworks Monopole at Verge at Watlington Road Oxford Oxfordshire OX4 6NB | 456075, 203178 | This option was discounted from a build perspective due to issues with underground services. |

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

N/A

Environmental Information:

None

Land use planning designations:

The area that the site is situated within is free from planning constraints.

Additional relevant information:

Siting

We have considered the detailed siting and design carefully to ensure that the scheme has a limited impact on the locality and general visual amenity. In this case, the installation of a new streetworks pole, 1 no. small equipment cabinet and 1 no. meter cabinet positioned in proximity to the existing installation, should have no appreciable impact on the area.

Visual appearance

We would repeat that we have carefully placed and designed the scheme to ensure the principles of good siting and appearance are adhered to. The overall impact of the installation on the environment and building is very limited.

Cornerstone and Vodafone are seeking to closely replicate the existing streetworks structure, although the antennas at the top of the streetworks pole, and the overall dimensions of the structure itself, may look a little different, which is simply down to the essential specification and support needed.

In addition, we are seeking to place the new pole in as close proximity to the existing one as possible, taking account of technical constraints, together with issues of safety, highway visibility splays, availability of power and fibre connections, and of course, ensuring that, as far as practically possible, any visual impact is minimised.

In this case, there is a requirement to plan for a structure that is higher than the existing pole on which Vodafone are accommodated. This is in view of the following:

- 5G uses higher frequencies which does not propagate through material and potential obstructions as well as lower frequencies, thus there is a need to ensure that the antennas clear local clutter
- 5G antennas are on the lower aperture of the structure, thus there is an immediate loss of around 2.5m height in antenna position – this must be compensated for effective service provision

Consultation

In accordance with the industry '10 commitments' and the Code of Best Practice, consultation has been attempted with the planning department prior to submission of this proposal.

Practical Applications of 5G Connectivity as Examples of Material Socio-Economic Benefits:

Education

The relationship between 5G and education is evolving at a massive rate with educators exploring the relevance of Virtual Reality (VR) technologies for education and training. Crucially, VR can support remote learning, allowing students a presence in the classroom even when working elsewhere.

5G's ability to deliver real-time information (low latency), ultra-fast speeds (critical for high definition images and video), increased capacity and heightened security will also allow learning on the job, thanks to technologies such as Augmented Reality (AR) goggles, which can give engineers real-time instructions on how to fix a machine on a production line, for example.

Health

Patients across the country are now becoming accustomed to relying on remote healthcare services such as NHS 111, virtual GP appointments, and ordering online deliveries of essential medical supplies.

5G will prove critical in providing the infrastructure required to deliver remote health services over the next decade. By design, 5G's ability to deliver real-time information (low latency), ultra-fast speeds (critical for high definition images and video), increased capacity and heightened security are going to be fundamental in scaling the patient benefits of remote healthcare and keeping medical records secure and private. For instance, trials have shown that connecting ambulance crews to expert resources using 5G allows paramedics to work with doctors and conduct specialist procedures in real time whilst on the road.

Planning Policy

National Planning Policy

This proposal and the work undertaken prior to submission has had full and proper regard to both central Government guidance and Local Plan Policy.

The National Planning Policy Framework Details Government guidance on planning for telecommunications development. This confirms the principle policy of the Government to facilitate the growth of new and existing telecommunication systems, whilst keeping the environmental impact to a minimum.

Relevant extracts from the (revised) NPPF are as follows:

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.

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

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.

This application includes the requisite ICNIRP certification.

In addition, the revised Code of Best Practice (November 2016) also emphasises the government's commitment to improved communications infrastructure and coverage. Relevant extracts from this document are as follows:

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.

2.3 Recent changes in planning policy [and regulation] are intended to align with Government communications policy, where the ultimate goal is to achieve mobile coverage wherever it is needed.

2.4 The National Planning Policy Framework ('NPPF') acknowledges that high quality communications infrastructure is essential for sustainable economic growth and sets out the Government's planning policies for England, and how they are expected to be applied.

2.5 The NPPF advises that the purpose of the planning system is to contribute to the achievement of sustainable development, which it states has three dimensions: economic, social and environmental and that local planning authorities should work proactively with applicants to secure developments that improve the economic, social and environmental conditions of the area.

3.3 The NPPF is clear that local planning authorities should not seek to prevent competition between operators or question the need for the telecommunications system. The systems tend to be demand-led or to fulfil coverage obligations. With the ever-increasing demand for data hungry applications available to a range of connected devices, such as smart phones and tablets, the requirement to upgrade and improve networks through changes to existing sites and the development of new sites is constant. As most parts of the country move onto a superfast highway, so the need to bring coverage to 'not spots' (i.e. areas where there is

no mobile coverage from any operator) and improve coverage in 'partial not spots' (i.e. where there is some coverage, but not from all operators) intensifies.

5.8 The mobile telecommunications network is a crucial piece of national infrastructure in economic, community and social terms. However, it is delivered locally, with planning permission, where applicable, being decided by the local planning authorities of England.

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.

It is our view that this particular scheme falls squarely in line with the above guidance and policy

National Infrastructure Commission

In March 2016, the National Infrastructure Commission was asked to consider what the UK needs to do to become a world leader in 5G deployment, and to ensure that the UK can take early advantage of the potential applications of 5G services. It reported as follows:

"The Commission's central finding is that mobile connectivity has become a necessity. The market has driven great advances since the advent of the mobile phone. But Government must now play an active role to ensure that basic services are available wherever we live, work and travel...."

The mobile sector contributes an estimated £4.5 billion per annum to national economic output and is a major British industry in its own right, with the four largest mobile operators providing over 35,000 full-time equivalent jobs, and supporting some 140,000 UK jobs overall

The introduction of 4G services, since 2012, has provided access to considerably faster data speeds and lower latency, and given rise to the various new services and applications we are now accustomed to in the smart phone age. This has resulted in an enormous increase in data rate usage per user, as streaming of services, such as video becomes commonplace. 2014 saw total data demand increased by 53 per cent in the UK (per active mobile SIM), similar to the increase seen in 2013.

As a result of these advances and the ability for increasingly sophisticated mobile devices to reach a mass market, mobile telecommunications and mobile services more broadly, are now established at the heart of our society and economy. They have fundamentally changed how we stay in touch, make purchases, view entertainment and participate in wider networks, and are increasingly important to business, where a digital transformation is underway. Indeed, a basic level of mobile service provision is increasingly regarded as a utility."

National Report & Reviews

There have been various reports and reviews over the last year or so, highlighting the importance of 5G, and its place in creating a more prosperous and resilient society and economy. Extracts from a number of these are detailed below:

‘Lowering Barriers to 5G Deployment’ – A Report by Analysys Mason for The Broadband Stakeholder Group, July 2018

5G – a natural progression in the constantly evolving world of technology – is also a monumental leap forwards in an increasingly digitized and connected world. Removing the hurdles highlighted in this report will place the UK on a far better footing for the 5G race that is already underway around the world.

Recommendation 16

Local authorities should prioritise the deployment of sustainable, long-term digital infrastructure in their local plans.

Local authorities should establish digital infrastructure teams with responsibility for managing digital infrastructure related issues

Councils and Connectivity 2 – A report by Building Mobile Britain and Mobile UK, May 2019

Mobile operators have ambitious plans to further enhance their networks and will soon be starting initial commercial rollout of 5G, the next generation in mobile technology. This ambition matches the Government’s objective for the UK being a world leading digitally connected economy. However, mobile operators cannot achieve this objective alone – action is needed by all stakeholders, including national and local government. It is vitally important that residents and businesses can access 5G in the future. It promises to radically transform our economy and society for the better

...it is vital that councils attempt to understand why good quality mobile connectivity will become more important, and what they need to do to ensure that local residents and businesses have access to the best possible mobile connectivity in the future

A councillor’s guide to digital connectivity – published by the Local Government Association, September 2019

With better access to high speed and reliable broadband and mobile connections, local communities can access public services more conveniently and purchase goods online at a lower cost. People can work from home, cutting out their commute and improving their quality of life. Businesses can grow, become more productive, sell their products in a global market and access a raft of services not available to those offline. Tourists can find out more information about local attractions and share photographs of their experiences with friends and on social media. In contrast, areas stuck in the digital slow lane are less attractive places to live, work and visit, and risk being left behind as other areas reap the benefits of our digital revolution

5G will enable exciting new services and applications including:

- faster mobile broadband and a more consistent experience in congested areas with a very high number of devices*
- industrial applications, enabling businesses to improve their productivity, for example through predictive maintenance and real-time analytics*

- *Internet of Things (IoT) services, many of which will help councils and businesses deliver services more efficiently including:*
 - *transport and logistics: connected parcels and fleet tracking*
 - *health and social care*
 - *environmental monitoring: sensors monitoring air quality and water pollution in real-time*
 - *smart agriculture and smart animal farming, smart retailing*
 - *connected and autonomous cars: allowing cars to communicate with each other,*
 - *other road users and even the road infrastructure*

Future Telecoms Infrastructure Review – Published by DCMS, July 2018

When looking at the speed, resilience and reliability that consumers want and businesses need in order to grow, it is clear that full fibre and 5G are the long-term answer. These technologies have the potential to transform productivity, and to open up new business models. Full fibre networks are faster, more reliable, and more affordable to operate than their copper predecessors. 5G will deliver faster and better mobile broadband, and enable revolutionary uses in industry sectors like manufacturing, health and transport

Alongside finishing the roll out of 4G networks to meet existing mobile demand, we want the UK to be a world leader in 5G to take early advantage of this new technology. We have set a target that the majority of the population will have 5G coverage by 2027

The technical capabilities and performance characteristics of 5G are clear. 5G is expected to deliver faster and better mobile broadband services to consumers and businesses, and to enable innovative new services for industry sectors, including manufacturing, transport, immersive technologies and healthcare

Statement of Strategic Priorities for telecommunications, the management of radio spectrum, and postal services – updated version published by DCMS October 2019

The Government is committed to providing the UK with world-class digital connectivity that is gigabit-capable, reliable, secure and widely available across the UK. We want the nationwide deployment of gigabit-capable broadband networks at pace. We also want to be a world leader in the next generation of 5G mobile technology, with deployment to the majority of the country by 2027

Alongside improving 4G coverage to meet existing mobile demand, the Government wants the UK to be a world leader in 5G, and for the majority of the population to have 5G coverage by 2027. 5G is expected to deliver faster and better mobile broadband services to customers and businesses, and to enable new services for industry sectors, including manufacturing, logistics and immersive technologies.

5G creates an opportunity for market expansion - in the type of wireless services available and in the number of providers of networks and services. The Government's view is that there would be strategic advantages in a model that maintains the benefits of network competition between multiple mobile network operators, while enabling new solutions to connectivity challenges, including in-building coverage, rural coverage and industrial applications

Local Plan Policy

In terms of Local Plan Policies, by virtue of Section 70 of the Town & Country Planning Act 1990 [further enshrined in section 38(6) of the Planning and Compulsory Purchase Act 2004], development should be in accordance with development plan policies, unless material considerations indicate otherwise.

The Oxford Local Plan 2001 – 2016 (Adopted November 2005) does reference specific telecommunications policy which together with the NPPF are therefore of relevance. The National Planning Policy section of this supporting statement goes into detailed analysis of why this site complies with the NPPF.

The relevant policies from the Oxford Local Plan 2001 – 2016 (Adopted November 2005) have been listed below:

POLICY CP.24 – TELECOMMUNICATIONS

Planning permission, or prior approval, will only be granted for the installation of external apparatus necessary for the transmission or receipt of telecommunications where it is demonstrated that:

- a. alternative existing sites are unavailable for site sharing, and applicants have fully explored the possibility of erecting antennas on an existing building, or other structure, and have demonstrated the need for the development;
- b. the siting and appearance of the apparatus, including any location or landscape design requirements, have been designed to minimise the impact on amenity;
- c. installations are sited to be as unobtrusive as possible;
- d. applicants who propose to carry out telecommunications development have considered the need to include additional capacity to take account of the growing demands for network development, including that of other operators; and
- e. applicants have submitted a Health and Radiation Impact Analysis (HRIA)

The relevant policies from the Oxford Core Strategy (Adopted 14th March 2011) have been listed below:

Policy CS18

Urban design, townscape character and the historic environment

Planning permission will only be granted for development that demonstrates high-quality urban design through:

- responding appropriately to the site and its surroundings;
- creating a strong sense of place;
- being easy to understand and to move through;
- being adaptable, in terms of providing buildings and spaces that could have alternative uses in future;
- contributing to an attractive public realm;
- high quality architecture.

Development proposals should respect and draw inspiration from Oxford's unique historic environment (above and below ground), responding positively to the character and

distinctiveness of the locality. Development must not result in loss or damage to important historic features, or their settings, particularly those of national importance and, where appropriate, should include proposals for enhancement of the historic environment, particularly where these address local issues identified in, for example, conservation area character appraisal or management plans. Views of the skyline of the historic centre will be protected.

Policy Analysis:

In accordance with Policy CP.24 aspect b and Policy CS18 the visual effects of the proposed upgraded 5G installation have been reduced by siting it nearby to numerous vertical elements of street furniture. The proposed installation has similar lines to these features of the urban street scene, and it will therefore not appear as a discordant feature in this setting. The site has been situated in a position capable of providing the required coverage whilst being as far away as possible from the views of residential properties. The materials and colouring have been specified to merge with the local street scene and the site benefits from the screening effects associated with nearby scattered tree and hedgerow planting.

This scheme seeks to ensure the scale and mass of the design is such that it is sympathetic to its surrounds (street lighting columns) and the proposed works would not be to the detriment of the surrounding area or neighbouring amenity (it would not appear as a discordant feature in this urban location, with similar vertical structures in close proximity), and would maintain the character of the area, so according with the principles of the policy. The proposal fully accords with the requirements of the NPPF.

Health & Safety

We would remind the Council that the Government has set out its clear view on the issue of health and perceived view of health risks in paragraph 116 of the NPPF:

“Local planning authorities must determine applications on planning grounds. They should not...set health safeguards different from the International Commission guidelines for public exposure.”

In addition, on 3rd October 2019, Public Health England published updated guidance, with specific reference to 5G, which concluded:

“It is possible that there may be a small increase in overall exposure to radio waves when 5G is added to an existing network or in a new area. However, the overall exposure is expected to remain low relative to guidelines and, as such, there should be no consequences for public health.”

<https://www.gov.uk/government/publications/5g-technologies-radio-waves-and-health/5g-technologies-radio-waves-and-health>

As above, and included within this application, Vodafone have confirmed this installation will be fully ICNIRP compliant.

Conclusion

Vodafone have a clear requirement for an upgraded installation within this particular area, to provide for 5G services.

Vodafone considers that the proposed development strikes an appropriate balance between the technical needs of the site and the advantages that this type of technology brings, with the requirement to ensure that any impact on the appearance and character of the area and building is the minimum possible, in accordance with both national and local planning policy and guidance.

Confirmation that submitted drawings have been checked for accuracy

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| Signed: | <u>Tony Hosker</u> | Date: | <u>18/03/2021</u> |
| Position: | <u>Planning Consultant</u> | Company: | <u>Sitec Infrastructure Services</u> |
| | | (on behalf of Cornerstone and above operator) | <u>████████████████████</u> |