

SUPPLEMENTARY INFORMATION FORM

1. Site Details

Site Name:	3UK Head Office	Site Address:	Grass Verge Adjacent to 450 Longwater Avenue, Green Park, Reading, RG2 6GF
National Grid Reference:	469910, 169782		
Site Ref Number:	RDG18760	Site Type: ¹	Macro

2. Pre-Application Check List

Site Selection (for New Sites only)

Was a local planning authority mast register available to check for suitable sites by the operator or the local planning authority?	Yes	No
If no explain why: No mast register available. A physical search of the area was carried out.		
Was the industry site database checked for suitable sites by the operator?	Yes	No
If no explain why: N/A		

Site Specific Pre-application consultation with local planning authority

Was there pre-application contact:	Yes
Date of pre-application contact:	6 th September 2021
Name of contact:	Beatrice Malama
Summary of outcome/Main issues raised: Formal written pre-application advice was received from the Local Planning Authority on 6 th September 2021 under reference 211118/PREAPP. The Officer's response can be summarised as follows: <i>The proposed erection of a 20m telecommunications street works monopole, 4no. equipment cabinets and ancillary works at 3UK Head Office would likely gain officer support. However, as this is a new monopole installation, any future applications should demonstrate that alternative sites have been investigated appropriately and sufficient justification for the chosen site provided. In addition, a tree survey would be required should the proposed development considered likely to harm the existing trees/landscape. Finally, a certificate of ICNIRP compliance would be required when submitting any future planning applications.</i>	

¹ Macro or Micro

Community Consultation

Rating of Site under Traffic Light Model:	Red	Amber	Green
Outline of consultation carried out: Pre-application correspondence including a covering letter and plans was emailed to the Whitley Ward Councillors– Cllr Eden, Leng and Mpofu-Coles – on 5 th August 2021.			
Summary of outcome/main issues raised (include copies of relevant correspondence): No comments were received.			

School/College

Location of site in relation to school/college (include name of school/college): There are no schools, colleges or nurseries known to be in close proximity of the site.
Outline of consultation carried out with school/college (include evidence of consultation): N/a – none in close proximity.
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?	Yes	No
Has the Civil Aviation Authority/Secretary of State for Defence/Aerodrome Operator been notified?	Yes	No
Details of response: N/A.		

Developer's Notice

Copy of Developer's Notice enclosed?	Yes	No
Date served:	8 th September 2021	

3. Proposed Development

The proposed site:

This application seeks consent with regard to the siting and appearance of:

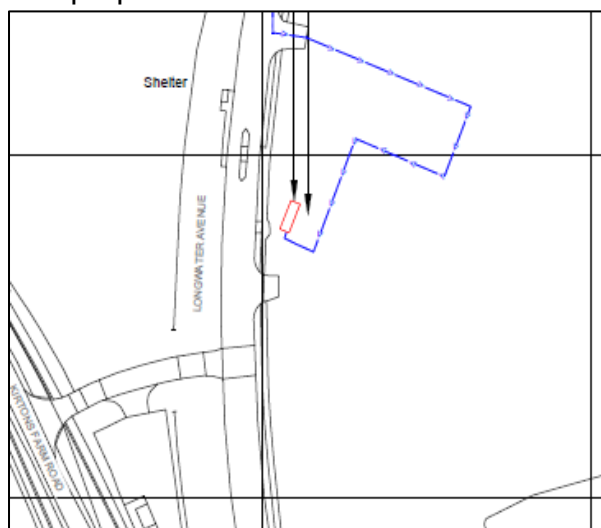
The installation of a 20-metre-high telecommunications monopole supporting 6 no. antennas, 4 no. equipment cabinets at ground level, the installation of a 1.8 metre high mesh wire fence surrounding the site compound with access gate, and development works ancillary thereto

The development is proposed within the grounds of the new 3UK Head Office which has been recently constructed and is within the modern Green Park Employment Area. Green Park has seen significant development in recent years and benefits from a number of existing permissions which will ensure that development and growth of the area continues for the foreseeable future. This future development includes both employment and residential uses as well as the construction of key infrastructure such as a new station (due to open in 2022), new schools and leisure facilities.

In the context of this continuing development, there is an existing identified need coupled with growing demand for network coverage and increased capacity to the area. To meet this demand two sites to the north east and south east have already been upgraded to facilitate enhanced 4G and provide new 5G coverage to the area. Technical assessment of existing coverage patterns demonstrate that in spite of these upgrades, there remains insufficient coverage and capacity within the network to meet existing and future demand. As such, there remains a requirement for a new installation to provide infill coverage for the H3G network (known as '3'). This site would therefore provide enhanced 4G coverage and capacity to the area surrounding the site, as well as new 5G coverage.

The site is located to the north west of the wider Green Park employment area within land associated with the new 3UK Head Office and adjacent to Longwater Avenue. Longwater Avenue benefits from existing street furniture including lighting columns, bus stops, meter cabinets and bollards. There is also an established mature tree line to the western side of the road. There are no known constraints on the land which would discourage the siting of an installation in this location.

The proposed location is shown below:



Proposed site location

Type of Structure (e.g. tower, mast, etc):		Streetworks Monopole
Description:		
The installation of a 20-metre-high telecommunications monopole supporting 6 no. antennas, 4 no. equipment cabinets at ground level, the installation of a 1.8 metre high mesh wire fence surrounding the site compound with access gate, and development works ancillary thereto		
Overall Height:		20 metres
Height of existing building (where applicable):		N/A
Equipment Housing:		
Commscope Bowler Cabinet:	1.9m (width) x 0.6m (depth) x 1.752m (height)	
Ericsson 6130 Cabinet:	0.65m x 0.7m x 0.95m	
Commscope AC Transmission Cabinet:	0.6m x 0.5m x 1.585m	
Wrap around cabinet:	2.0m x 0.7m x 1.54m	
Materials (as applicable):		
Tower/mast etc – type of material and external colour:	Steel with a grey finish.	
Equipment housing – type of material and external colour:	Steel with a grey finish.	
Landscaping:		
Hard landscaping details	1.8m high wire mesh fence, with access gate and climbing planting fixed to perimeter. Compound measuring 9m x 3.0m 10 no. 60cm x 60cm Paving slabs to be installed to front of cabinets. 15 no. 60cm x 60cm paving slabs to be installed as walkway between car park and installation.	
Soft landscaping details	1 no. recently planted tree sapling to be removed to accommodate installation. Climbing planting fixed to perimeter of fenced compound will offset removal of sapling tree. Grass to be retained within fenced compound.	

Reasons for choice of design, making reference to pre-application response:

This application proposal is made in accordance with the Code of Best Practice (2016) and has taken a sequential approach to the development of telecommunications equipment. First ensuring that there are no appropriate opportunities for mast / site sharing and / or that there is not an existing rooftop or structure that is available, suitable and viable to host telecoms equipment. This assessment has been undertaken through a physical search of the area. As a result of this search, it was concluded that there are no existing sites, rooftops or structures which would be suitable or available for new telecommunications equipment and therefore a new ground-based installation has been proposed to meet the demand in this area.

The proposed installation has sought to achieve a balance between the technical requirements of the operator and, as far as is practicable, planning and environmental considerations when considering its siting and design. Notwithstanding this, telecommunications equipment, and particularly 5G masts, are heavily influenced by technical constraints and are significantly limited in terms of the options available.

The design and type of equipment to be deployed in this case is a ground-based installation which has been chosen specifically to take account of and minimise the impact of the installation on the streetscene. The design involves a relatively slimline monopole with tightly stacked antennas and ancillary equipment contained within smaller highways cabinets at ground level. This design has been selected over other available design options which use bulkier and wider masts or lattice towers, with open headframes, level antennas, large round dish links, larger cabinets or bulky cabins, visible lengths of cable and trays.

In this case the ground-based equipment has also been camouflaged where possible to help to the installation integrate into its surroundings through the use of a 1.8m high mesh fence finished with climbing plants. This design is considered to be much more sensitive than alternative solutions such as exposed palisade or chain link fencing. With regard to hard standing, unobtrusive paving slabs have been proposed to mark a clear path to the mast and to provide a stable surface for engineers to the front of the cabinets. Aside from this, the main compound of the mast remains laid to grass with no large areas of hard standing as is often used in other designs.

With regards to height, it is acknowledged that this newly proposed installation would be taller than the existing street furniture and trees within the locality. Whilst it would be preferable to propose the mast at a lower height which is more in keeping with the heights of the surrounding infrastructure, it is unfortunate that the technical requirements of the mast mean that this is not possible. This is because 5G signal does not propagate (travel) as well as lower frequencies and is prone to 'clipping'. This means it does not pass well through different materials and needs a clear space free of obstructions (such as trees and buildings) to deliver signal. As such, there is a need to ensure that the antennas are able to rise above any obstructions such as trees and taller buildings to deliver the required levels of coverage.

In terms of ground-based equipment, the mast and antennas are supported by the 4 no. cabinets, one of which is proposed to wrap around the base of the mast. The number of cabinets proposed has been kept to a technical minimum with the wrap around cabinet used to streamline the design and prevent the sprawl of cabinets within the streetscene. The cabinets are of the smallest possible sizes whilst still meeting technical requirements. The fenced compound with climbing planting is proposed to shield the cabinets and root of the mast and as such, will not be visible to the wider streetscene.

The monopole and equipment cabinets are proposed as grey. The applicant would however be open to amending the proposed colour if considered necessary or appropriate by the Council.

In summarising, a location has been proposed within the required search area which is considered to balance the technical requirements of the operator and provides the least detrimental solution with regards to siting and appearance.

Technical Information

International Commission on Non-Ionizing Radiation Protection Declaration attached (see below).	Yes	No
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, Hutchison 3G UK Ltd operates its network in such a way the radio frequency power outputs are kept to the lowest levels commensurate with effective service provision. As part of Hutchison 3G UK Ltd'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

Reasons why a new mast is required:

As already set out above, Green Park has experienced significant development in recent years with development set to continue into the foreseeable future.

The two existing installations closest to the Green Park development have already been upgraded to provide enhanced 4G and new 5G coverage however technical assessment has demonstrated that there remains a gap in coverage and capacity to parts of the development, particularly to the north and east.

There is therefore a requirement to provide improved coverage and capacity, most notably in relation to new 5G services, but also in relation to the provision of upgraded 4G services. The proposed development is therefore required to provide new infill coverage for the H3G network (known as '3').

The search area is extremely limited due to technical constraints and the need to ensure that coverage is delivered to the areas which need it most. Moving beyond the scope of the selected search area is extremely difficult as it has technical implications including the potential for interference with nearby masts and not providing the required levels of coverage to the areas that need it most.

The proposed mast location therefore seeks to balance the technical needs of the operator with available options, whilst also taking into consideration the relevant planning constraints. A mast in this location would be capable of providing new and improved signal to areas where signal is limited and improve capacity where existing pathways are overloaded. The site is proposed to deliver improved coverage to the area to ensure that it benefits from adequate coverage levels as well as new 5G coverage. 5G coverage is currently being rolled out by all operators across the country and is supported and encouraged at government level.

The accompanying coverage plots provided by network radio planners at 3 demonstrate the existing 4G coverage levels and the levels that could be achieved through the installation of a new mast in this location. As you can see there are two types of 4G coverage that would be provided by the mast, L800 and L1800. The existing plots demonstrate that there is insufficient coverage levels to this area for 4G. The installation of a new mast in this location would therefore result in significant improvement to the area for both types of 4G coverage. These plots also demonstrate that 5G coverage is currently very limited / non-existent within the surrounding area and that the Green Park Development. Therefore a new installation would be able to provide new, high quality 5G coverage to the surrounding area which is not currently available. This is particularly important given the level of new development which has occurred in recent years and the sites location within a designated employment area which would greatly benefit from 5G coverage.

Why is 5G coverage required?

3UK have 11.5 million UK customers. The average monthly customer data usage for Three in the UK is 10.4GB, significantly higher than the average user (4.5GB per month). In fact, customers of Three UK use on average three times more data than the industry average. It is predicted that an average Three UK Customers will use 90GB per month by the year 2025. 5G will be a key part of meeting demand for data. Three UK are accelerating their plan to meet customer demands for better connectivity by providing 9,500 upgrade sites, 2,500+ new build sites and 12,000 4G supercharge and 5G sites.

With regard to the history of mobile telecommunications development, the first generation of services provided voice calls, the second generation (2G) allowed basic data such as texting and the third generation (3G) offered internet access and the development of apps. Since then the smart phone has developed further and the fourth generation has brought video and much faster data speeds allowing the integration of the smart phone into wider use.

The next generation of mobile telephony is 5G which brings greatly increasing data speeds. The advantages this presents range from near-instant downloads of HD films to connected cars, smart medical devices and smart cities.

Although 5G will undoubtedly bring new opportunities and huge benefits to society, we cannot escape from the requirement that new structures, antennas and ancillary equipment will be needed to deliver it.

To bring this new technology into use H3G will need to provide a mix of upgrades to existing sites in addition to the building of new sites. New sites are needed for many reasons, including that the higher radio frequencies used for 5G do not travel as far as those frequencies currently in use, which can leave gaps in the network. The implications to the built environment will be that more infrastructure needs to be deployed, as in this case.

It has been acknowledged by Government that we must ensure that we have the infrastructure in place to deliver 5G across our major centres and transport networks. Matt Warman MP (Minister for Digital Infrastructure) and the Rt Hon Christopher Pincher MP (Minister for housing state) states within the 'Changes to permitted development rights for electronic communications infrastructure: technical consultation' published in April 2021, that:

"Digital connectivity is – now, more than ever – vital to enable people to stay connected and businesses to grow. The demand for mobile data in the United Kingdom is increasing rapidly, and the COVID-19 pandemic has highlighted how important it is that we all have access to reliable, high quality mobile connectivity. We intend to be a global leader in 5G, the next generation of wireless connectivity, and for communities and businesses to benefit from investments in this new technology. The case for 5G is compelling: it will provide faster, more responsive and more reliable connections than ever before. Through our £200 million 5G Testbeds and Trials programme we are already seeing its value to manufacturing, farming, transport networks and healthcare.....It is welcome that all four Mobile Network Operators have started to deploy 5G networks, meaning 5G is now available in over 200 towns and cities across the United Kingdom.....We must, however, continue to ensure people have access to fast, reliable digital connectivity and mobile coverage. The planning system plays a key role in delivering the infrastructure that we need as households and businesses become increasingly reliant on mobile connectivity"

Upgrading digital telecommunications is therefore a key Government priority and one that is also set out in detail in the NPPF (2021). Furthermore, the Government wants the UK to be a world leader in 5G and has set a target for “the majority of the UK population to have access to a 5G signal by 2027. Critical to achieving this is the ability of operators to deploy appropriate infrastructure. This is one of the many additional structures that will be needed to provide enhanced services and new 5G coverage to the UK.

Benefits of 5th Generation Wireless Technology (5G)

The upgraded installation will bring next generation technology. The full extent of benefits of 5G technology is still unknown and will, to a significant degree, depend on the ability to provide a comprehensive network coverage. However, the possibilities and potential of the technology seem endless. If allowed, the benefits could include:

Much faster download/upload speed and latency. The next generation of mobile internet connection offers much faster data download and upload speeds. Through greater use of the radio spectrum it will allow far more devices to access the mobile internet at the same time. Producing quicker upload and download speeds of up to 10Gbs and decreased latency.

Improved home working. 5G would rival the speed of fibre broadband.

5G supports the development of the “Internet of Things”. This encompasses all the ‘smart’ and connected devices we’re starting to see in homes and beyond, from smart light bulbs and thermostats, to connected kettles, security cameras and more, most of which can be controlled by an app on a mobile phone, or by voice when paired with an AI Assistant such as Amazon Alexa.

Smart Cities It also supports the development of “Smart Cities”. Examples include traffic lights that can adapt automatically based on traffic flow, automatic deployment of road repair vehicles when potholes are detected, smart power distribution (e.g. so that buildings are not being lit when they are empty) and rubbish bins automatically reporting when they require emptying, all leading to cleaner, safer, more efficient cities, and all with minimal human oversight.

Cars of the future. When connected to 5G, the cars would communicate and share data with other vehicles and connected infrastructure, avoiding accidents and traffic as a result, and telling smart cities where traffic is building up, so routes for other vehicles can be adjusted. This will also play a large role in self-driving cars, with its speed and reliability key to them rapidly sending and receiving information about the road and other vehicles.

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)

In accordance with the licence obligations and advice in the National Planning Policy Framework and the Code of Best Practice in England the applicant's network rollout team investigated the following siting and design options using this sequential approach to site selection:

- Upgrading their own existing base stations;
- Using existing telecommunications structures belonging to another communications operator. i.e. Mast and/ or site sharing, co-location;
- Installations on existing high buildings or structures;
- Using small scale equipment; and finally
- Erecting a new ground-based mast site – (1st) Camouflaging or disguising equipment. (2nd) A conventional installation e.g. a lattice mast and compound.

The applicant's site selection strategy is to keep the overall environmental impact to a minimum. Utilising existing masts is always progressed where it is technically and legally possible and where it is the local planning authority's preferred environmental solution. New sites are only developed where there are no viable or accessible alternatives or it is the local planning authority's preferred approach. The feasibility of the acquisition, build and maintenance of the site also needs to be taken into account.

Site Type	Site Name and address	NGR	Reason for not choosing site
GF/RT	Alternative locations within boundaries of 450 Longwater Avenue, Green Park, Reading, RG2 6GF	469931 , 169846	A number of alternative locations within the boundaries of 450 Longwater Avenue were explored but were not found to be as suitable as the option proposed for the following reasons: • Unable to position the mast to ensure that it met ICNIRP guidance and regulations and was safe for users of the site. • Mast would be too close to the building and signal would be blocked to some orientations meaning it would not be effective. • Issues with access and installation, unable to crane installation over car park. Not possible to build in this location. 3 alternative locations within the site were discounted for these reasons. The rooftops of the building in this location were also discounted as a result of the water membranes on the roof being under warranty which would be void by the installation of telecommunications. The landlord of the

			buildings would therefore not allow an installation on the roofs of these buildings.
RT	Existing buildings within / Green Park Estate, Green Park, Reading, RG2 6GF	Numerous NGR's	As discussed within this document, an installation for 5G coverage must be of a suitable height to ensure that the antennas can oversail most of the clutter within the existing environment including existing trees and buildings, to ensure that coverage is of high quality and efficiently delivered to the surrounding area. Some of the buildings within the locality are not of sufficient height to accommodate an installation. In addition to this, the landlord of the Green Park Estate does not want telecommunications equipment to be placed on the rooftops of the buildings within the estate.
SW/ GF	Existing verges, open space and land within the Green Park Estate, Green Park, Reading, RG2 6GF	Numerous NGR's	As above, the Landlord of Green Park Estate will not allow a greenfield installation on the verges of the wider estate but has agreed to the proposal for a mast within the grounds of the 3 HQ building as proposed.
ES	Existing telecoms site RDG042, Northern Way, Reading, RG2 0SA	470848 , 170094	This existing installation has already been upgraded to provided enhanced 4G and new 5G signal. The is located too far away to provide the required levels of coverage to this location.
ES	Existing Telecoms site RDG049, Basingstoke Road, A33, Reading, RG7 1NR	471530 , 168533	This existing installation has already been upgraded to provide enhanced 4G and new 5G signal. The site is located too far away to provide the required levels of coverage to this location.
ES	Existing telecoms site WBE059, Pylon adjacent to M4, Reading, RG2 6UW	469491 , 169469	This existing installation is located on a pylon. A review of the site has been undertaken to see if it could provide the required levels of coverage to the area. Unfortunately, this site not suitable for upgrade due to technical constraints associated with new 5G technology and the potential for interference with power being carried by the pylon.
GF	New Green Park Station, Flagstaff Road, Green Park, Reading RG2 6AT	469611, 170536	Given the immediate need for the installation, this site has been discounted in favour of the current proposal.

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

N/A – alternatives set out above.

Additional relevant information (planning policy and material considerations):

Relevant Planning Policy

The following documents are considered relevant to the assessment of this application:

- The Town and Country Planning (General Permitted Development) (England) (As Amended) - Schedule 2, Part 16
- National Planning Policy Framework (2021) – Chapter 10
- National Planning Policy Guidance
- Reading Borough Local Plan (November 2019) – OU3 Telecommunications Development

OU3: TELECOMMUNICATIONS DEVELOPMENT

Proposals for telecommunications development will be permitted provided that:

- They do not have an adverse impact on the visual amenity of the surrounding area or on the significance of a heritage asset;
- The apparatus will be sited and designed so as to minimise its visual impact by the use of innovative design solutions such as lamp column 'swap-outs' or concealment/camouflage options; and
- Alternative sites and site-sharing options have been fully investigated and it has been demonstrated that no preferable alternative sites are potentially available which would result in a development that would be less visually intrusive.

Planning Assessment

Principle of Development

This is a prior notification application. As such, the only issues that can be considered when assessing this application are the siting and appearance of the proposed telecommunications monopole and cabinets. The principle of development is therefore not an issue of consideration for this prior approval application.

Notwithstanding this, it is useful to highlight the following paragraphs of the National Planning Policy Framework:

The NPPF directly addresses the need for enhanced wireless communication services, at **paragraph 20**, which states that an LPA's strategic policies must make sufficient provision for:

*b) infrastructure for transport, **telecommunications** (our emphasis), security, waste management, water supply, wastewater, flood risk and coastal change management, and the provision of minerals and energy (including heat)"*

Chapter 10 [Para's 114-118] (Supporting High Quality Communications) is most relevant to this application.

Paragraph 114 states that “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”.

Paragraph 115 states that “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”.

It should be noted that **paragraph 118** states that “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 proposal seeks to expand the electronic communications network to provide advance, high quality and reliable communications infrastructure in accordance with para 114 of the NPPF. The mast is proposed following an identified need for an additional base station to meet customer demands, to ensure the efficient operation of the network and provide reasonable capacity for future expansion. The operator has taken a sequential approach to development and has explored the use of existing masts, sites and buildings in accordance with para 115 of the NPPF. This application is supported by an ICNIRP declaration with regards to health and safety. As such the proposed development would meet the requirements of the NPPF (2021) with regards to principle.

Siting and Appearance

Hutchinson 3G (UK) Ltd benefits from permitted development rights for this development as set out under Schedule 2, Part 16 of The Town and Country Planning (General Permitted Development) (England) (As Amended). Under paragraph A.3.(3) of Part 16, H3G (UK) Ltd are required to apply to the local planning authority for a determination as to whether the prior approval of the authority will be required to the siting and appearance of the development.

The development has met the requirements of Policy OU3 of the Reading Local Plan (2019) in that:

The location of the mast has been selected in the absence of viable alternatives. Notwithstanding this, the proposed location is an existing employment area which already benefits from the presence of functional infrastructure including street lighting columns, bollards, bus stops and meter cabinets. The site would benefit from shielding to the east and west as a result of the existing buildings and established vegetation and would be read within the context of the streetscene and nearby employment uses.

The mast has been designed to minimise impact on amenity, by locating equipment away from more sensitive residential areas and public amenity space and within a commercial / employment area.

The mast has been designed where possible to take account of its location and surroundings to ensure that it does not have an adverse impact on the visual amenity of the surrounding area. The design involves a relatively slimline monopole with tightly stacked antennas and ancillary equipment contained within smaller highways cabinets at ground level. This design has been selected over other available design options which use bulkier and wider masts or lattice towers, with open headframes, level antennas, large round dish links, larger cabinets or bulky cabins, visible lengths of cable and trays. The ground based equipment has also been camouflaged where possible to help to the installation integrate into its surroundings through the use of a 1.8m high mesh fence finished with climbing plants. This design is considered to be much more sensitive than alternative solutions such as exposed palisade or chain link fencing. With regard to hard standing, unobtrusive paving slabs have been proposed to mark a clear path to the mast and to provide a stable surface for engineers to the front of the cabinets. Aside from this, the main compound of the mast remains laid to grass with no large areas of hard standing as is often used in other installations. The colour of the mast is proposed as grey to assimilate with the nearby lighting columns.

It should be noted that the installation is wider than those previously seen within the streetscene. This is required due to the weight of the antennas and the need to ensure that they are structurally supported. Unlike older installations 5G antennas are much larger and heavier, they therefore require a wider installation to support them to ensure that the mast is structurally sound. Whilst the mast would result in a wider support pole than that used for the adjacent lighting columns, it is argued that the monopole would only be marginally wider than the lighting columns and that the mast would be viewed as functional infrastructure within this commercial environment. This wider installation would ensure that high quality 5G coverage can be rolled out to the locality and ensure that there is sufficient capacity to meet future demand within the network (i.e. to future proof the site).

In terms of height, it is accepted that the proposed mast would be taller than the existing street furniture, trees and the surrounding buildings, albeit much closer in height. Whilst it would be preferable to propose the mast at a lower height which is more in keeping with the surrounding infrastructure, it is unfortunate that the technical requirements of the mast mean that this is not possible. This is because 5G signal does not travel as far and is prone to 'clipping' than lower frequencies such as 3G and 4G. It does not pass well through different materials and needs a clear space free of obstructions (such as trees and buildings) to deliver signal. As such, there is a need to ensure that the antennas are able to rise above any obstructions. Taller masts are being proposed across the country to accommodate the delivery of 5G coverage. By ensuring that the mast is of sufficient height to effectively transmit signal to the surrounding area, the number of additional installations needed to deliver 5G signal can be minimised.

Alternative sites and site-sharing options have been fully investigated, as set out above, and it has been demonstrated that no preferable alternative sites are potentially available which would result in a development that would be less visually intrusive.

Allowing a new mast to be sited in this location would provide new 5G, and enhanced 4G coverage to the surrounding area for H3G in an area which currently within a 'not spot'. As such, it is considered the significant public benefits of the proposal outweigh any potential minor impacts of the proposal. The siting and appearance of the development is therefore considered to be in accordance with the requirements of the NPPF and the local plan.

Summary

National planning policy is to facilitate the growth of new and existing telecommunications systems, and operators have obligations to meet customer demands for improved quality of service. This development proposes improved coverage to the surrounding area for H3G.

The operator is limited with regards to available options for siting telecommunications within the locality. 5G coverage requires more masts to deliver the same levels of coverage than lower frequencies and as such, the search areas and available options within each has become smaller and often heavily constrained by technical and planning considerations. A list of discounted options has been provided within this document which demonstrates that alternative options have been considered and discounted in favour of the option submitted under this application. Whilst it is accepted that the installation as proposed would cause a change in outlook, it is considered that this would be relatively minimal within the context of the sites location within an employment area and given the efforts to shield the ground based equipment from view. The installation has been carefully designed to take account of its surroundings and complies with the criteria set out under Policy OU3 of the Rading Local Plan (2019) with regards to siting and design. Furthermore, it is argued that the benefits of the proposal would outweigh the relatively minimal harm associated with the siting of the mast in this location, particularly within this growing employment area.

The proposal is fully compliant with ICNIRP guidelines, and a declaration of compliance has been provided.

As such, it is respectfully requested that this application is approved.

Confirmation that submitted drawings have been checked for accuracy

Name: (Agent)	Rowena Maslen	Telephone:	07854707752
Operator:	H3G UK Ltd		
Address:	C/o Agents Sinclair Dalby Ltd, KBF House, 55 Victoria Road, Burgess Hill, RH15 9LH	Email Address:	Rowena.maslen@sinclairdalby.co.uk
Signed:		Date:	9 th September 2021
Position:	Surveyor	Company: (For and on behalf H3G UK Ltd)	Sinclair Dalby Ltd