



# SUPPLEMENTARY INFORMATION

1. Site Details

Site Name:	Pilkington Glass	Site Address:	Pilkington House, St Helens, Merseyside, WA10 3XF
National Grid	E: 350375		
Reference:	N: 394630		
Site Ref	CTIL_12248300	Site Type:1	Macro
Number:			

2. Pre Application Check List

### Site Selection (for New Sites only)

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

Was a local planning authority mast register available to check for suitable sites by the operator or the local planning authority?	No	
If no explain why:		
This is an upgrade to an existing site.		
Were industry site databases checked for	No	
suitable sites by the operator:		
If no explain why:		
This is an upgrade to an existing site.		

# Site Specific Pre-application consultation with local planning authority

Was there pre-application contact:	No
Date of pre-application contact:	N/A
Name of contact:	N/A
Summary of outcome/Main issues raised:	
A pre-application consultation letter and a copy of with no site specific comments to date.	the plans were sent on 29/06/21

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<sup>&</sup>lt;sup>1</sup> Macro or Micro





# **Community Consultation**

Rating of Site under Traffic Light Model:	Red	Amber	Green
Outline of consultation carried out:			

Pre-application consultation was carried out with the local ward councillors for Town Centre Ward Cllrs A McCormack, C Gill, M Sweeney and the local MP Marie Rimmer. A copy of the proposed plans together with a covering letter were sent to these parties on 29/06/21.

Summary of outcome/main issues raised:

No response has been received to date.

### School/College

Location of site in relation to school/college (include name of school/college):

No schools nearby.

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?	N/A
Has the Civil Aviation Authority/Secretary of State for Defence/Aerodrome Operator been notified?	N/A
Details of response:	
N/A	

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# Developer's Notice

Copy of Developer's Notice enclosed?	Yes	
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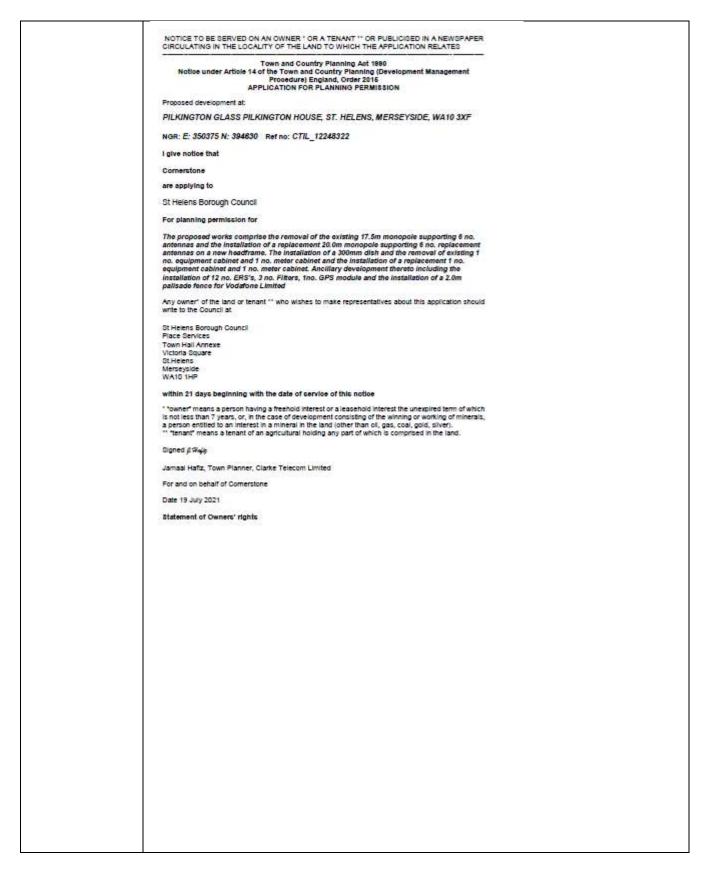


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# 3. Proposed Development

The proposed site:

# Background

As part of Vodafones continued network improvement programme, there is a specific requirement for an upgrade to its existing installation at Land at Pilkington House to provide improved 2G, 3G, 4G and new 5G coverage and capacity, ensuring that this area of the city continues to have access to the latest technologies. This is in line with its legal obligations, as well as the Government aspirations for the UK to be a world leader in 5G.

In addition, the site has been designed to enable Vodafone to utilise this radio base station for new 5G service provision as well, it will also maintain and enhance its 2G, 3G and 4G coverage that it is currently providing from this existing radio base station.

The site is located on private land, located away from residential nature of the area. There are a number of trees within the immediate area.

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

The amendments to the existing, established ground based installation will enable enhanced 2G, 3G and 4G coverage and capacity to the surrounding area as well as new 5G service provision for Vodafone to ensure high quality customer experience is obtained as demands on the network increase and technologies change.

#### Type of Structure: monopole Description:

The proposed works comprise the removal of the existing 17.5m monopole supporting 6 no. antennas and the installation of a replacement 20.0m monopole supporting 6 no. replacement antennas on a new headframe. The installation of a 300mm dish and the removal of existing 1 no. equipment cabinet and 1 no. meter cabinet and the installation of a replacement 1 no. equipment cabinet and 1 no. meter cabinet. Ancillary development thereto including the installation of 12 no. ERS's, 3 no. Filters, 1no. GPS module and the installation of a 2.0m palisade fence for Vodafone Limited. Overall Height: 20m including antennas

Height of existing building (where applicable) N/A

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Equipment Housing: CSC Cabinet (x1)		
Length:		0.600m
Width:		0.800m
Height:		1.770m
Equipment Housing:		
Length:		0.264m
Width:		0.655m
Height:		1.015m
Materials (as applicable):		
Tower/mast etc – type of material and	Galvanised	
external colour:		
Equipment housing – type of material	(as existing)	
and external colour:		

Reasons for choice of design, making reference to pre-application responses: The existing radio base station has been in situ at Land at Pilkington House for a number of years and has become an established part of the area. Technology advances (including 5G service provision) and additional demands on the operator's mobile network system in the area have meant that the replacement monopole with replacement antennas on a new headframe is required to facilitate all the data that is required to be carried for mobile superfast broadband. This enables customers to continue to be able to use their handheld devices for the purposes in which they have become accustomed, and now rely on in the modern world we live in, a similar scenario to the reliance on gas and electricity. However, this new technology and the design of the antennas required for 5G means that the existing monopole is not able to support this new technology and therefore a new bigger and taller monopole is required.

Vodafone requires new 5G technology to be installed into its network in this cell area. This site is currently being utilised by Vodafone as well to provide 2G, 3G and 4G service provision. This operator also needs to be able to provide 5G technology in this area. Due to the large data that is carried by this new technology the existing antennas cannot be utilised for 5G as well as 2G, 3G and 4G services. 6 antennas need to be installed at the top of the replacement monopole on a more wider headframe. In addition, the existing monopole and headframe is not structurally capable of supporting all the operators' latest technologies. Therefore a replacement monopole is required to ensure that the latest technologies can be provided to the surrounding area. The upgrade to the existing scheme are essential in order that customer's handheld devices continue to operate for the purposes in which they have become accustomed, accessible wherever they are whether that is indoors or outside.

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The new antennas need to be slightly bigger in order to support the latest technologies and the high-speed data and capacity needed for customers' handheld devices to continue to operate for the purposes in which they were purchased and therefore required to be supported by a more bulkier headframe and wider lattice tower.

The additional top height of the monopole and antennas is required to be 20m to provide the latest technologies. 5G new radio technologies operate in higher frequency bands than older technologies. Since it operates at higher frequencies where attenuation of the radio signal is naturally higher and the effects of clutter are greater it will normally require a higher structure to achieve the same coverage footprint. To increase capacity and data speeds to the user, the antenna will normally need to be mounted higher than conventional antennae. These factors drive a requirement for an increase in antenna height in 5G. Due to technical purposes the antennas cannot be reduced in height as they would not be able to reach their target coverage area. Therefore, existing customers would have a poor user experience if the installation were to be reduced in height, with buffering and dropped calls becoming a significant issue.

The new antennas are all unshrouded like the existing antennas they replace for technical reasons. The higher the radio frequency the more signal attenuation there is. The higher frequency 5G antennas are unable to operate effectively through the Glass Reinforced Plastic that a typical telecommunications shroud is made up of and as such if these antennas were to be shielded then they would not be able to provide the necessary coverage to the target coverage area. Since each GRP antenna is capable of serving a smaller area than an unshrouded antenna, an additional installation would be needed elsewhere within the cell area, leading to the proliferation of masts. As such, the antenna headframe and new antennas have been designed to resemble as closely as possible the existing apparatus which is already in situ, whilst providing the latest high quality, reliable service provision to this area of St Helens.

The ERSs are small each one about the size of a shoe box. Whilst the GPS is the size of a tennis ball. They are designed to make the antennas more efficient and reduce the amount of ground based equipment cabinets thus minimising the visual impact on the surrounding area. Given their height above ground level underneath the antennas, at approximately 17m for the ERS's and the GPS at the top of the antennas, they will not be overly prominent in the area.

The cabinets are designed to appear like other statutory undertakers equipment cabinets, they are to be located next to the proposed column on private land. The proposed equipment cabinet is small for telecommunications apparatus As a result, each cabinet will be less than 2.5m<sup>3</sup> and therefore can be installed under the

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operators permitted development rights, once the column is in situ. However, they have been included on the plans and in the description in order to remain fully transparent. Their colour is proposed to be grey however again can me coloured to what the LPA considers appropriate.

It is therefore considered that the proposal before you strikes a good balance between environmental impact and operational considerations. The proposed height and design represents the best compromise between the visual impact of the proposal on the surrounding area and meeting the multi technical requirements for the site. Taking all matters into account, it is considered that these minor amendments to the existing installation, on an established radio base station site, to enable the enhancement of 2G, 3G and 4G service provision and new 5G coverage to the surrounding area, would not appear out of place within its surroundings and would provide enhanced high quality, reliable and secure coverage and capacity, delivering the capability for a multi hi tech service from an existing ground based installation.

# **Technical Information**

International Commission on Non-	Yes	
Ionizing Radiation Protection		
Declaration attached (see below)		
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.		

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In order to minimise interference within its own network and with other radio networks, Vodafone 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 Vodafone 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

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Registered Address: Cornerstone Telecommunications, Infrastructure Limited, Hive 2, 1530 Arlington Business Park, Theale, Berkshire, RG7 4SA. Registered in England & Wales No. 08087551. VAT No. GB142 8555 06





Cornerstone, Hive 2, 1530 Arlington Business Park, Theale, Berkshire, RG7 4SA





# 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

A mobile phone transmitter is designed to cover a specific area and links its coverage to the next site in the network, creating a patchwork of overlapping coverage 'cells' across the country. So, if a person is on the move, the network will transfer their calls from one site to the next. However, in certain areas there will be gaps between these cells, resulting in a loss of coverage. This can be for a variety of reasons, the most common being topography or buildings which block the path of the signal. The operators' network rollout programme is designed to identify and address these gaps within their coverage and ensure that people can use their phones whenever and wherever they are.

There is a specific requirement to upgrade the existing radio base station at this location to enable Vodafone to enhance its 2G, 3G and 4G coverage and capacity to this busy and populated area of St Helens and provide new 5G service provision.

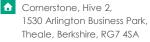
### 5. Site Selection Process

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 including National Grid pylons;
- 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.

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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.

In accordance with the above sequential approach, the proposal is to upgrade the existing radio base station in this location to provide enhanced 2G, 3G and 4G coverage and new 5G service provision.

Whilst it is the case that Cornerstone remains committed to the promotion of shared infrastructure and maximising opportunities to consolidate the number of base stations required in operating 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

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.

Site Type	Site name and address	National Grid Reference	Reason for not choosing site

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If no alternative site options have been investigated, please explain why: As referred to above, the applicant has taken a sequential approach and is seeking to retain the existing radio base station by replacing the existing monopole and antennas with capable equipment for 5G technology. These minor amendments to the existing radio base station will ensure that the latest superfast technologies will be able to be accessed by users in this area of Newton-Le-Willows, in line with the operators legal license obligations, and the Government's aspirations that everyone has access to the information super highway network, that the UK becomes a world leader in 5G and the customers' expectations that their handheld devices are able to operate wherever they are located whether that be indoors or outside. It is considered that utilising an existing established radio base station installation is preferable to pursuing a second base station within the immediate vicinity, as it would reduce the visual impact therefore preserving the character and appearance of the surrounding area. Given the makeup of the area and the siting of existing telecoms infrastructure on the site, it was established that the upgrading of facilities through the use of existing infrastructure would be the most viable solution. Based on this sequential approach no other sites have been considered.

Environmental Information:

No specific environmental considerations identified to date.

Land use planning designations:

No specific land designations.

Additional relevant information (include planning policy and material considerations):

# National Planning Guidance

Planning policy is provided at the national level by the National Planning Policy Framework (NPPF). It is a material consideration in planning decisions.

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It is not necessary to quote extensively from this document but the following points are highlighted.

# National Planning Policy Framework (February 2019)

The governments National Planning Policy Framework (NPPF) was published on 24 July 2018 and updates the 2012 version. In February 2019 the NPPF was revised again, with minor alterations to wording relating to housing supply and not any parts relating to telecommunications. The Government's latest thinking continues to strongly support communications infrastructure. The NPPF remains very supportive of high quality communications. Indeed, a whole chapter is dedicated to high quality communications, emphasising the importance that the Government attaches to digital connectivity. Paragraph 112 states that advanced, high quality and reliable communications infrastructure is essential for economic growth and social well-being. This wording echoes guidance set out in paragraph 42 of the 2012 version of NPPF. However, it also includes the importance of *reliable* communications infrastructure for both economic growth and social well-being.

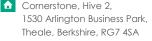
The NPPF continues to support the expansion of electronic communications networks at paragraph 112. It notes that policies should set out how high quality digital infrastructure, providing access to services from a range of providers, is expected to be delivered and upgraded over time. The economic and social benefits of providing high quality and reliable communications infrastructure are well documented and can be found later in this Supporting Information Statement.

The NPPF makes reference to 5G:

'Planning policies and decisions should support the expansion of electronic communications networks, including next generation mobile technology (such as 5G)...'

With the above in mind, the Government is already forward thinking the evolution of data networks and seeks planning decisions to take account of this. 5G technology provides increased speed of data and more capacity in the network, to ensure that handheld devices can continue to be used for the purposes in which they were purchased. This will bring even greater economic and social benefits to the area.

Paragraph 113 of the NPPF retains the requirement to minimise the number of installations consistent with the efficient operation of the network but also includes being consistent with the needs of consumers and providing reasonable capacity for future expansion.



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Paragraph 116 of the NPPF retains the guidance set out in paragraph 46 of the 2012 NPPF version which relates to determining 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.

Paragraph 200 of the NPPF states 200. Local planning authorities should look for opportunities for new development within Conservation Areas and World Heritage Sites, and within the setting of heritage assets, to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to the asset (or which better reveal its significance) should be treated favourably.

At the heart of the NPPF is the retained presumption in favour of sustainable development (para 11). For decision-taking this means approving development proposals that accord with an up-to-date development plan without delay or where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless the application of policies within the revised Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed or any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the revised Framework taken as a whole.

The NPPF continues to provide guidance on decision-making. At paragraph 38 it states that:

'Local planning authorities should approach decisions on proposed development in a positive and creative way. They should use the full range of planning tools available, including...permission in principle, and work proactively with applicants to secure developments that will improve the economic, social and environmental conditions of the area. Decision-makers at every level should seek to approve applications for sustainable development where possible'.

The NPPF builds on the aspiration to build a strong, competitive economy. Paragraph 80 states:

'Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking in to account both local business needs and wider opportunities for development. The approach taken, should allow each area to build on its strengths, counter

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any weaknesses and address the challenges of the future. This is particularly important where Britain can be a global leader in driving innovation<sup>40</sup>'...

Footnote 40 of the NPPF states:

'The Government's Industrial Strategy sets out a vision to drive productivity improvements across the UK, identifies a number of Grand Challenges facing all nations, and sets out a delivery programme to make the UK a leader in four of these: artificial intelligence and big data; clean growth; future mobility and catering for an ageing society. HM Government (2017) Industrial Strategy: Building a Britain fit for the future'.

# Code of Best Practice on Mobile Network Development in England (24 November 2016)

The Code of Best Practice has been fully revised in November 2016 and is now even more supportive of mobile network provision in line with Government aspirations that everyone should have access to the information super highway no matter where they are located whether that be in rural or urban areas. This Code provides guidance to mobile network operators, their agents and contractors and equally to all local planning authorities in England. It supersedes the Code of Best Practice on Mobile Phone Network Development (2013).

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.

Section 2 of the Code highlights the Government's Communications Policy and Planning Policy. It acknowledges that 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 (para 2.1).

Paragraph 2.2 goes on to state that consumers, businesses and public bodies increasingly rely on mobile communications and expect to receive a signal wherever they are. The Code indicates that 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. Section 2 of this Code also

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reiterates NPPF guidance in strongly supporting high quality communications infrastructure, which is seen as essential for sustainable economic growth.

Section 3 of this Code acknowledges that there are special operational and technical considerations associated with mobile network development, which have changed over time due to changes in technology and associated changes in demand. The Code acknowledges that there remains a reliance on radio masts to provide the main umbrella of coverage. Paragraph 3.1 explains that radio signals operate like light and must "see" over the target coverage area, they cannot be hidden and so there will always be a degree of visual impact.

Paragraph 3.2 clearly indicates that in assessing the visual impact, greater emphasis than previously should now be placed on the radio planning requirements to achieve mobile coverage (as shown in the recent changes to permitted development rights, at the end of November 2016, and the reduced test in the most recent NPPF.

Paragraph 3.3 goes on to highlight that the [operator systems tend to be demandled 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 on to a superfast highway, so the need to bring coverage to 'not spots' and improve coverage in 'partial not spots' intensifies.

Paragraph 3.4 of The Code provides advice to local Planning authorities who are concerned about proposals, stating that they should not 'look for problems' but should work proactively with the Mobile Network Operators to find solutions, in line with paragraph 187 of the NPPF.

Paragraph 4.1 of the Code acknowledges that customer expectations have evolved with technology. The expectation is that they will always be connected and able to access services in exactly the same way as fixed broadband for personal, educational and business purposes.

Paragraph 4.2 acknowledges that data, i.e. using the internet, puts increased demand on capacity and therefore the need for additional base stations to keep abreast of customer demand. However, changes in working practices for the operators, in line with national guidance, streamlining networks, sharing base stations has reduced the overall amount of infrastructure required.

The Code goes on to acknowledge that operators maximise the use of their existing network infrastructure for the provision of 4G services and are similarly upgrading their



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3G network infrastructure to improve capacity and coverage. However, the revised Code continues to advise that this does not mean that there will not be a need for any new base stations. Indeed, for example, more base stations will be needed in areas where there has previously been only limited or no coverage and where coverage and capacity needs to be enhanced in line with Government commitments and customer demand.

Similarly, some new sites will be required to replace existing sites that are lost, for example, through redevelopment of an existing building. Some masts may need to be redeveloped or replaced to enable an upgrade in services to take place.

Section 5 relates to mobile connectivity in the 21st Century, explaining that mobile phones and other devices are now everywhere. Mobile connectivity is not just making calls and texts but also mobile broadband. The majority of mobile phones in the UK are Internet-enabled smartphones and large numbers of people also now own tablet devices. People are increasingly choosing to access the internet using a mobile device even when they have fixed broadband connection available.

The Code acknowledges that by the second decade of the 21<sup>st</sup> Century, the greatest increase in traffic across mobile networks was in data i.e. internet use (para 5.3). Paragraph 5.4 states that in terms of the wider economic impact of mobile connectivity, research by Deloitte on the economic impact of mobile broadband across a range of countries, showed that a doubling of mobile data use leads to an increase of 0.5% in the Gross Domestic Product per capita, while another study put the benefit of 4G mobile broadband to the UK economy at £75 billion over a decade.

Section 5 of the Code goes on to highlight that connectivity promotes social inclusion. In recent years, more people rely on a mobile phone than they rely on a landline. Furthermore, people on lower incomes are even more likely to live in a mobile only household, or to access the Internet using a mobile connection (para 5.5).

The Code illustrates that mobile connectivity helps in the delivery of public services e.g. to access Central and Local Government via online services, acknowledging that lives are more likely to be saved when a 999 call is made from a mobile than from a landline, Telehealth is becoming increasingly important and text message reminders also improve compliance with medication and keeping NHS appointments.

Good mobile connectivity also promotes sustainability e.g. it reduces the need to travel and thus carbon emissions (para 5.7). The Code continues to support mobile telecommunications network as it is seen as a crucial piece of national infrastructure in economic, community and social terms (para 5.8).

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Paragraph 5.9 states that there is a need to continually upgrade and improve mobile networks, which will not function without the necessary infrastructure on which they rely. This is driven by increasing consumer demand for data, improved connectivity and more capacity, together with Government aspirations for improving connectivity and coverage.

The Code provides guidance on siting and appearance principles at Appendix A. It sets out a number of design principles in respect of telecommunications development. However, the code acknowledges that the options for design used by an operator will be affected by site conditions including requirement to link the site to the network, landscape features and coverage and capacity requirements. The main options for the operator include:

Mast and/or site sharing (including redevelopment of a site to enable upgrade or sharing with another operator);

- Installation on existing buildings and structures;
- Erecting new ground based masts;
- Camouflaging or disguising equipment where appropriate;
- Using small scale equipment (although small cells themselves are generally used to address capacity issues as opposed to providing coverage).

The Code in Appendix A acknowledges that it has been a long standing Government policy objective to support the sharing of masts and sites. Operators also aim to site share wherever viable.

Concerning the erection of new ground based masts; The Code at Appendix A page 27 provides examples of where the environmental and visual impact of the mast can be greatly reduced.

• Placing the mast near similar structures. For example, industrial and commercial premises, road signs and lamp posts;

• Placing a mast within or adjacent to an existing group of trees. This option is more successfully implemented in or near wooded areas. It should also be noted that the top of the mast placed in trees will need to be above the treeline in order for the equipment to work for the allowance of future tree growth;

• Using simple and unfussy designs. Masts which have complex designs are more likely to dominate and be in discord with the landscape and have adverse visual impacts, and

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• Appropriate colouring. Masts seen against the sky are best left in their galvanised state or painted pale grey. Against a wooded backdrop, a matt green or brown colour scheme would be more applicable.

The Code continues to support sympathetic design and camouflaging including concealing antennas in familiar features such as flagpoles, street lamp posts, telegraph pole style designs and signs.

Section 38 (6) of the Planning and Compulsory Purchase Act 2004 states that "If regard is to be had to the development plan for the purpose of any determination to be made under the planning Acts the determination must be made in accordance with the plan unless material considerations indicate otherwise".

# Local Policy

Section 38 (6) of the Planning and Compulsory Purchase Act 2004 states that "If regard is to be had to the development plan for the purpose of any determination to be made under the planning Acts the determination must be made in accordance with the plan unless material considerations indicate otherwise". Decisions on planning applications must therefore be made in line with the development plan, unless there are clear material considerations which dictate why this should not be the case.

# St Helens Local Plan Core Strategy (October 2012)

The St.Helens Local Development Framework Core Strategy is a very important document in providing a step towards regenerating and developing the Borough to 2027. It provides the key elements on which future planning policy is built. The Core Strategy contains a very clear Vision of how the Council, its stakeholders and the community see the Borough together with a suite of more detailed objectives to achieve this.

The St.Helens Plan 2011-2014 Vision is: "To make St.Helens a modern, distinctive, economically prosperous and vibrant Borough"

There are no relevant policies in relation to telecommunications however saved UDP policies still apply.

# Unitary Development Plan Saved Policies (2013 Addendum)

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The majority of policies in the UDP were saved indefinitely from 27 September 2007 by the Secretary of State. On 31 October 2012, the St Helens Core Strategy was adopted. Several Core Strategy policies replace saved UDP policies. Appendix 4 of the Core Strategy identifies which UDP policies continue to be saved and which are replaced.

The following policy are relevant:

Policy GEN11 -

Planning permission will be granted for telecommunications developments provided that the following general principles are satisfied:

- (i) wherever possible, non-domestic apparatus should be sited within the urban areas;
- (ii) wherever possible, masts and towers should be shared and mounted apparatus should otherwise be grouped to minimise visual clutter;
- (iii) apparatus in the countryside and close to open land within the urban areas should normally either be sited so that it is out of sight of the general public or where the landform, buildings, established trees and opportunities for new woodland planting make it possible to ensure that views are masked or broken up;
- (iv) apparatus should normally be unobtrusive in relation to primary residential areas, areas of mixed use, Conservation Areas and the setting of Listed Buildings;
- (v) in areas frequented by the general public for their business, shopping and pleasure, apparatus should be out of sight from street level, so far as practicable;
- (vi) siting at ground level, with appropriate screening, is to be preferred to mounting on buildings or other structures;
- (vii) wall-mounted dishes and apparatus should be placed in the least obtrusive position possible, taking account of the architectural detailing of the building and its neighbours;
- (viii) dishes and antennae should not normally be placed above the highest part of the roof of a building, on chimneys or otherwise, except where they would be no more obtrusive than a conventional television aerial;
- (ix) apparatus, mountings and ancillary structures should be coloured in a durable finish appropriate to the background against which they will be seen, usually so as to merge into it.

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# Online Nation 2020 Report (June 2020)

Online Nation is an annual research report, published for the first time in 2019. Using research produced both by Ofcom and others, it looks at what people in the UK are doing online, how they are served by online content providers and platforms, and their experiences of using the internet, alongside business models and industry trends. As well as looking at long-term trends, this year's report includes more recent data looking at online behaviour in the UK during the coronavirus (Covid-19) pandemic.

The Report sets out its findings:

With respect to the consumer and industry it found that time spent online, and associated revenues grew in 2019.

- In September 2019 the average time spent online each day by adults aged 18+ was 3 hours 29 minutes. In comparison, on average, adults spent 3 hours 19 minutes watching TV on a TV set each day,2 and 2 hours 40 minutes listening to radio each day.
- 71% of all measured time spent online was on smartphones. 35% of internet users only accessed the internet on mobile devices (smartphone or tablet).
- Just 13% of adults do not use the internet
- In 2020, a fifth (22%) of UK adults have a smart speaker in the home and 11% of all UK households own some kind of 'smart home' technology (including devices such as smart home security, smart lighting and smart heating).

Key Matrics Online Consumer Market

UK online consumer market	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Internet take-up (%)	76	79	80	82	85	86	88	87	87	89
Smartphone take-up (%)	27	39	51	61	66	71	76	78	79	82
Tablet take-up (%)	2	11	24	44	54	59	58	58	54	52
Laptop take-up (%)	55	61	62	63	65	64	64	63	60	57
Consideration that the smartphone is the most important device	n/a	n/a	n/a	32	32	38	46	48	52	60

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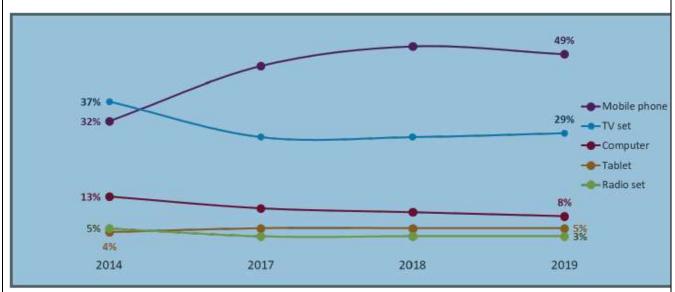


#### for internet access (%)

As the table above highlights 60% of the consumer market consider Smartphones are now the most important device for internet access.

In September 2019, 81% of all measured time spent online was on a mobile device (both tablet and Smartphone).

The table below indicates the most-missed device among adults: 2014-2019 were it be taken away from them. As can be seen, nearly half of all adults say that their mobile device is the device they would miss most were it taken away from them.



Source: Ofcom Adults' Media Literacy Tracker 2014-2019

The Report found that social media and messaging sites reach 98% of the UK adult digital population. On average, visitors aged 18+ spent 49 minutes per person per day on social media sites, considerably more time on average than in key areas such as news sites (12 minutes per user), e-commerce sites (14 minutes) and even gaming sites (31 minutes).

Ninety-two per cent of time spent on social media sites took place on a mobile device (smartphones and tablets) rather than on a computer, compared to 81% of total time spent online.

The Ofcom Connected Nations 2019 Report (published December 2019 and reissued in March 2020) measures progress in broadband and mobile services in the UK and highlights the work Ofcom is doing, alongside UK and devolved governments and

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communications companies, to improve the availability of these services. Ofcom has aspirations for people in the UK to be able to easily access good broadband and mobile connections wherever they live, work and travel.

The report notes that over the last few years, the availability and take up of superfast and ultrafast broadband and the coverage and take-up of 4G mobile services have dramatically increased. The UK holds a leading position on current 4G mobile network coverage compared with other large European countries. It highlights that this demonstrates that policy and regulatory decisions made in the past few years have supported investment in new networks and technology and delivered a good outcome for consumers.

The Report goes on to state in the Overview that 'emphasis must now turn to the initiatives needed to ensure that the next wave of network deployment can meet future needs as quickly as possible by further extending the reach of full fibre and <u>mobile networks</u>' (emphasis added).

The Connected Nations Report 2019 found that 5G services have been launched by all four mobile network operators over the past year and are now operating in over 40 towns and cities across the UK. Initial offerings are focused on densely populated areas. As well as providing improved broadband services for consumers via public networks, future 5G networks could provide specialist services to organisations and businesses.

The report highlights that the UK is a 5G leader in Europe, because it is one of the first countries where all of the Mobile Network Operators have started 5G deployment. These initial 5G networks target mobile broadband services, providing several enhancements over 4G networks, including higher speeds and the capability to deliver extra capacity where needed, such as in urban areas or sports stadiums. It goes on to state that future evolutions of these initial 5G networks will enable additional services that rely on a near instantaneous network response and need high reliability, with applications in sectors such as manufacturing, logistics, agriculture, transport/automotive, energy, media and entertainment and healthcare. Examples include controlling vehicles at distance e.g. in mines, or enabling robots in automated factories to communicate with each other.

The Report acknowledges that 5G roll out has so far focused on areas with higher populations, where capacity demands are likely to be greatest. In the near term, operators are likely to continue rollout in areas where 5G will deliver significant quality of service improvements needed to meet consumer demand.

The Report highlights the benefits of 5G for organisations and businesses noting that Public mobile networks, in addition to providing broadband services for consumers,

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could also be used to provide specialist services to organisations and businesses. Organisations and businesses could also decide to access 5G services via a local private 5G network, either self-deployed or deployed by a third party.

The Report also notes that 4G carries 90% of data traffic, but only 21% of voice traffic, with 3G and 2G carrying 73% and 6% of voice traffic respectively. The vast majority of traffic (82%) is generated in urban areas, and data growth in these urban areas is continuing rapidly, up 35% on 2018.

# **Planning Assessment**

The main issues arising from this application to upgrade the existing radio bases station at land at Pilkington House, is whether the replacement monopole, antennas and ancillary development thereto would be a visually obtrusive feature which would be detrimental to the character and appearance of the area. Whether any perceived harm would outweigh the significant social and economic benefits associated with the increased service provision attributed to the proposal and other valid material considerations as outlined within NPPF, the vision and objectives of the core strategy and saved policy GEN11.

The proposed replacement monopole, replacement cabinets and antennas is in full accordance with the vision and objectives of the core strategy and saved policy GEN11. The changes to the existing base station layout will ensure that 5G is able to be provided to the operator without an additional installation in this part of St Helens maximising the use of existing facilities and sharing facilities avoiding duplication and clutter.

To this end, the top height of the antennas will be higher at 20m above ground level, the new antennas will resemble as closely as possible the existing antennas already in situ and they will be located on the replacement monopole which is required to support the latest antenna design. As previously stated the existing monopole is unable to support these antennas and therefore has required the operator to opt to a replacement monopole design with a with a wider headframe which is not uncommon in such private land locations. The new antennas will be made from the similar type of materials, same colour and a similar size to the existing antennas they replace although they will need to be slightly bigger and wider in order to support all the latest technologies on the one installation. This minimises visual amenity and will not detrimentally affect the character of the surrounding area in line with the vision and objectives of the core strategy and saved policy GEN11.

The cabinets will be positioned next to the column and given the location on private land will not be overbearing to the highway or surrounding views as previously stated

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they will be less than 2.5m<sup>3</sup> and therefore can be installed under the operators permitted development rights, once the column is in situ. However, they have been included on the plans and in the description in order to remain fully transparent.

The transmission dish is required to provide link into the network and therefore requires a centre line height of 16.4m. If the height of the dish was any lower the site would not be able to link into the operators network and therefore not operate effectively. Given the makeup of the area the 300mm dish will not cause substantial harm to the area and thus in line with objectives of the core strategy and saved policy GEN11.

In line with the the vision and objectives of the core strategy and saved policies GEN11 the replacement monopole, antennas and equipment cabinets are part of essential infrastructure and therefore will not cause any loss of privacy nor will any occupants of nearby properties be overlooked. The replacement monopole and antennas do not emit any noise, odour, vibration, artificial light or disturbance from air. The proposed changes will not cause any traffic generation as it is not a visitor destination. Maintenance of the equipment cabinets is usually once a year, where the engineer can walk to site with hand held tools and will be no more regular than is currently the case. The site is located on private land away from the highway. This ensures that there will be no loss of highway safety in line with the vision and objectives of the core strategy and saved policy GEN11.

Government guidance states that in order to limit visual intrusion, the number of radio and telecommunication masts and the sites 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 should be encouraged. Where new sites are required equipment should be sympathetically designed and camouflaged where appropriate.

This is an existing radio base station which enables Vodafone to continue to utilise the same St Helens area. The amendments to this site are needed to ensure the latest 3G and 4G services are available to the operator's customers as well as the new 5G technology enabling access to the latest superfast data in this area of St Helens as technologies change and greater demands on the network are experienced as more people use their handheld devices to stream data and access the internet. The upgrade will ensure greater capacity in the network and as such prevent the requirement for an additional installation elsewhere within this cell area.

The proposed upgrade to the existing radio base station will enhance Vodafone's customer experience by providing improved 2G, 3G and 4G coverage and capacity as well as new 5G services to the surrounding area of St Helens. It will enable their customers to continue to utilise their handheld devices for the purposes in which they

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have become accustomed, as well as being able to access the latest technology wherever they are whether that be indoors or outside. This is in full accordance with the NPPF and The Code of Best Practice. It offers the best environmental solution, limiting the amount of new sites required whilst allowing the the operator to continue to utilise the same existing established site, limiting the visual intrusion in the area. This is in full accordance with NPPF and the Code of Best Practice, as well as the vision and objectives of the core strategy and saved policy GEN11.

The replacement antennas are required to ensure that all the operators' latest technologies can be provided from the existing radio base station. Given the installation is set well back from the main road and the replacement antennas will not be significantly prominent over and above the current situation. The upgraded site will also help reduce the varying levels of coverage for the operator in the St Helens area and boost the signal for its customers.

# Lack of Coverage – Material Consideration

In accordance with the NPPF, the proposed upgrade to the existing installation is significant to enable continuous coverage of the telecommunication network, ensuring that this area of Newton-Le-Willows continues to get the mobile coverage it needs for Vodafone customers as well as new 5G coverage. It will also maintain and improve coverage for the Mobile Virtual Network Operator's (MVNOs) which use the Vodafone and Telefonica network which includes VOXI, Lebara Mobile and Talkmobile on the Vodafone network and GiffGaff, Tesco Mobile, Sky Mobile, Talk Talk Mobile, and Lyca Mobile on the Telefonica network. So the proposal will not only provide a service for two operators but those who buy network space off them, which is at least 3 with Vodafone. This will provide a choice for those customers who consider the level of coverage in their area when selecting which operator they agree future contracts with.

The current proposals will facilitate the development of an advanced broadband telecommunications infrastructure in line with National Government guidance contained within the NPPF which supports infrastructure especially where growth takes place. By providing the latest 4G technology and new 5G service provision the proposals will also help meet the aspiration of the Core Strategy.

The proposals will also support the area of having world-class connectivity digitally with the infrastructure to digitalise all sectors in line with the core strategy which supports the development of 5G, the proposals will provide world-class connections and access to opportunity for all in this cell area, as well as providing world-class digital infrastructure which provides the platform for Newton-Le-Willows to embrace emerging technologies and societal changes. As noted in the Infrastructure Framework 5G infrastructure is fundamental to enable digital technologies to

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function. The proposals will ensure that any Vodafone customers in this cell area will be able to access resilient, seamless connectivity at a speed they need anywhere at any time.

Mobiles can only work with a network of base stations in place where people want to use their mobile phones or other wireless devices. Without base stations, the mobile phones and other devices we rely on simply won't work.

Without this new radio base station the operator's customers would experience increasing numbers of dropped calls and buffering unable to access the internet on their handheld devices. They would also not be able to access the 5G network, a demand which is increasing rapidly as customers update their handheld devices to ones that are 5G compatible. If the 5G network is not available then the customers' would not be able to utilise these handheld devices for the purposes in which they were purchased. This is contrary to the aspirations of Central Government which aspires to everyone having access to the superfast highway network wherever they are.

The replacement monopole and antennas will help improve the area's economic prosperity, strengthen the urban economy's by supporting local businesses to start, grow, adapt and diversify. It will support a better environment for today and tomorrow by reducing the need to travel and in turn minimise carbon emissions. The radio base station will support the delivery of healthcare provision and accessibility by enabling people greater access to online services, NHS appointment reminders, reminders to take medicines, make appointments etc.

By enhancing the 2G, 3G and 4G service provision to the surrounding area and providing new 5G coverage into the operator's network. It will also be in accordance with the vision and objectives of the core strategy and saved policy GEN11 as it will improve the digital infrastructure.

The way 5G works, it is closely connected with the Smart City agenda and will enable centralized control of lots of different street infrastructure owned or managed by councils, such as street lights, water meters and bus stops. As such it needs the 21<sup>st</sup> century infrastructure to enable this objective to become a reality. An upgraded installation in this location enabling 5G service provision to the St Helens area will ensure that this aspiration is fully met.

The Councillor's Guide to Digital Connectivity notes that a survey conducted by the Confederation of British Industry found that 81% of firms said that they see more reliable mobile connectivity as essential. Studies have also shown that mobile broadband is associated with positive impacts nationally, such as higher GDP and increased employment.

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Therefore the Government fully supports high quality communications infrastructure, even more so with the advent of 5G. The NPPF continues to strongly support telecommunications connectivity and states at paragraph 112 that local planning authorities should support the expansion of electronic communications networks. It acknowledges that advanced, high quality and reliable communications infrastructure is essential for economic growth and social well-being.

The demand for mobile data in the UK is increasing rapidly, and as households and businesses become increasingly reliant on mobile connectivity, the infrastructure must be in place to ensure supply does not become a constraint on future demand.

An installation in this location will fill the current gap in the latest high quality service provision and enable Vodafone and MVNOs who buy network space off these operators to maintain access to their handheld devices wherever they are for the purposes in which they were purchased. This is fully in line with the Government's aspirations that everyone has access to the superfast communications network, the NPPF.

Access to the internet in whatever medium now impacts every facet of our lives but only benefits those who can access and use it. The benefits of internet connectivity are key for both residents and businesses alike and an upgrade to the existing established radio base station in this location providing the latest 2G, 3G, 4G and 5G technologies.

In line with guidance contained within the NPPF, the vision and objectives of the core strategy and saved policy GEN11 an upgraded radio base station in this location will enable fast, reliable, secure internet accessibility wherever the user is located. An installation in this location would fully meet the latest operators' coverage and capacity requirements for 3G, 4G and new 5G provision. This would be wholly in line with the Government's latest aspirations to strongly support advanced, high quality and reliable communications infrastructure, essential for economic growth and social well-being. Where the NPPF notes that decisions should support the expansion of electronic communications networks. An installation outside this search area, regardless of whether there are existing sites, would not allow the operator to provide their desired level of coverage and therefore would not adequately maintain and provide new coverage and capacity.

As part of the operators 4G licence obligations, many customers will benefit significantly from a vastly improved service provision in this locality. They will be able to gain access to the very latest technologies and connectivity, including 5G, to high speed data services. Indeed, these documents acknowledge that Digital technology has catalysed the interconnection of the global economy, with the internet enabling

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the free exchange of goods and services, providing consumers with greater choice and businesses with access to skills, resources and customers. The replacement lattice tower and antennas in this location will help St Helens into the latest of technologies.

The Code of Best Practice acknowledges that upgrading and improving mobile networks will not be possible without the necessary infrastructure on which we rely. With increasing consumer demand and the Government's aspirations for high quality communications infrastructure it is ever more important to improve connectivity and capacity.

The Code of Best Practice acknowledges that there will be times when there is a need for a new radio base station, where sites have been lost, where areas have limited or no coverage and where coverage and capacity need to be enhanced. This application is one such example where there is a need to enhance 3G and 4G provision and provide new 5G services within this area.

In the Code of Best Practice it acknowledges 'the pressure on networks to upgrade and improve networks through changes to existing sites and the development of new sites is constant. With the increasing consumer demand and the Government's ambitious aspirations it is becoming more important to improve connectivity and capacity. This is due to the ever increasing demand for data hungry applications to be available to a range of connected devices, such as smartphones and tablet computers. However, The Code notes that upgrading and improving mobile networks will not be possible without the necessary infrastructure on which they rely'. Therefore there is a significant need to locate the equipment in this area.

The Online Nation 2020 Report highlights the importance of continued access to the latest technology on mobile devices, with 35% of the internet users only accessing the internet on mobile devices (Smartphone or tablet).

The Report goes on to note that 60% of the consumer market consider smartphones are now the most important device for internet access. In September 2019, 81% of time spent online was on a mobile device (both tablet and Smartphone). Furthermore, nearly half of all adults consider that their mobile device is the device they would miss most if it were taken away.

The Online Nation 2020 Report found that until early this year, online video calling was used much less than other online communication services, with 35% of online adults using online video calling at least weekly in the 12 months to February 2020. In May 2020, this had doubled to 71% of online adult consumers using online video calling services at least weekly, with 38% using them at least daily. Their research suggests that 7% of adult internet users used video calling for the first time as a result of the coronavirus pandemic.

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Consumers in the UK continue to decrease their use of landline calls in favour of using mobile calls and mobile data. Between 2012 and 2018, the total volume of outgoing landline calls in the UK more than halved, decreasing by 59 billion minutes, from 103 to 44 billion minutes. Over the same period the volume of outgoing mobile phone calls increased, but only by 29 billion minutes, from 132 to 161 billion minutes. This suggests that consumers are not simply substituting landline calls with mobile networks calls. There are indications that they are substituting at least some landline calls with online voice and video calls. On smartphones, online calling can offer a lower cost alternative to making calls using a voice tariff: 87% of UK adults who have ever used online voice or video calls did so using a smartphone.

The operator not only has a license requirement to provide a certain level of 2G/3G/4G coverage to the population the operators' are obliged to meet the growing consumer demand for 5G coverage, especially as more people are purchasing 5G enabled devices, in line with their license obligations and the operators competitive market driven "requirement" to provide a high quality service. Customers expect to be able to access their portable hand held devices wherever they are, whether that be indoors or outside. There is currently no 5G service provision that is provided by Vodafone in this cell area. The least impact on the surrounding environment in order to fill this gap is by upgrading the existing installation at Pilkington House.

It is therefore imperative that the operator continues to invest in ensuring that the latest technologies are available on its network, so that customers are able to continue to use their handheld devices wherever they are, for whatever reason, for the purposes in which they were purchased.

### **Economic and Social Benefits**

The NPPF strongly supports sustainable development, as does the authority's core strategy. Mobile communication plays a significant role in sustainable development. Being able to access the internet via a mobile device allows people to access a wide range of central and local government services buy groceries, manage finances, apply for jobs/university, and carry out school projects, send emails, download applications, send and receive instant messages, participate in social media, streaming and downloading data to name just a few of the benefits of being able to use an internet enabled handheld device. It also allows people to work from home or on the move without needing to return to the office. Residents and businesses will enjoy better accessibility, assisting home-base working by improving the electronic means of communication and the roll-out of high-speed broadband helping to promote live-work development. This reduces travel time, carbon emissions and increases the speed in which information is processed/shared. The proposals therefore fully comply with NPPF and the Local Plan Core Strategy including its Vision,

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to minimise the effects of climate change reducing the need to travel and therefore the carbon footprint.

In such instances, as described above, the NPPF supports development that improves the economic, social and environmental conditions in the area. Enhancing the 2G, 3G and 4G coverage and capacity in this area and providing new 5G services will fully meet this national policy objective. Continuing to transform the digital connectivity of the city-region to drive economic growth and innovation, working to meet national targets of full roll-out of 5G technology for most people by 2027.

Mobile connectivity is essential to the future success of the economy. The combined value of 4G and 5G mobile connectivity is estimated to add £18.5bn to the economy by 2026 (Councils and Connectivity Sept 2018). Mobile connectivity is essential to creating a better society. Digital inclusion can help people gain employment, become more financially secure and improve health and well-being. Mobile connectivity is essential to fulfilling the potential of new technologies. Innovations such as artificial intelligence and connected cars will change how we work, spend our leisure time and run our public services. This is in line with St Helens aspirations which makes a positive contribution to the health, safety and well-being of residents, and which considers the needs of all members of the community, as well as improving access to jobs, services, and education, whilst being able to reduce the need to travel.

Providing the latest digital infrastructure to enable improvements in digital technology empowers and enables residents to have the highest quality of life, supports the creation of high quality jobs and achieves the maximum productivity levels. It will help Newton-Le-Willows and one which its businesses, public service providers and citizens are using digital technology by default and to the fullest to grow their businesses and improve productivity to access skills, training and employment opportunities to address global challenges that have a local impact such as ill health, social isolation, homelessness and pollution; to improve living standards and wellbeing; and to improve the quality and value for money of public services.

There is a demand for mobile connectivity in areas where geography, logistics or economics – or a combination of all 3, make it difficult. Mobile network capacity needs to grow to meet the demand of mobile users, who are consuming ever increasing amounts of data.

Paragraph 38 of the revised NPPF states that:

'Local planning authorities should approach decisions on proposed development in a positive and creative way. They should use the full range of planning tools available, including...permission in principle, and work

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proactively with applicants to secure developments that will improve the economic, social and environmental conditions of the area. Decision-makers at every level should seek to approve applications for sustainable development where possible'.

The social and economic benefits are a significant material consideration which should be weighed against the visual impact associated with a radio base station in this location. HM Treasury outlined such benefits in its report '*Fixing the Foundations*: *Creating a More Prosperous Nation'* – July 2015. Paragraph 7.1 of the plan stated that reliable and high quality fixed and mobile broadband connections support growth in productivity, efficiency and labour force participation across the whole economy. They enable new and more efficient business processes, access to new markets and support flexible working and working from home.

Paragraph 7.2 goes on to highlight strong support for high quality communications infrastructure. It states

'by reducing 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 March, of near universal 4G and ultrafast broadband coverage.'

Indeed, MPs have noted in parliament that the UKs Superfast Broadband connectivity was 'relatively poor' and businesses were losing out from patchy coverage.

The Government recognises that widespread coverage of mobile connectivity is essential for people and businesses. People expect to be connected where they live, work, visit and travel. That is why the Government is committed to extending mobile geographical coverage further across the UK, with continuous mobile connectivity provided to all major roads and to being a world leader in 5G.

This will allow everyone in the country to benefit from the economic advantages of widespread mobile coverage. As well as improved mobile signal, 5G networks are also crucial to drive productivity and growth across the sectors that local areas are focusing on.

The Government is determined to ensure the UK receives the coverage and connectivity it needs. To this end, the Government wants to be a world leader in 5G,



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the next generation of wireless connectivity, and for communities to benefit from the investments in the new technology.

The case for 5G is compelling as it will bring faster, more responsive and reliable connections than ever before. More than any previous generation of mobile networks, 5G has the potential to improve the way people live, work and travel, and to deliver significant benefits to the economy and industry through the ability to connect more devices to the Internet at the same time, creating the so-called "Internet of Things". This will enable communities to manage traffic flow and control energy usage, monitor patient health remotely, and increase productivity for business and farmers, all through the real-time management of data.

The Local Government Association (LGA) has produced a Councillor's Guide to Digital Connectivity and sets out some of the benefits of 5G technology:

- 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 council's 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.

Further to the Government's commitment to improve connectivity, on 24<sup>th</sup> November 2016 the new permitted development rights for telecommunication operators came in to force, designed to lift the restrictions on mobile operators such is the significance and weight the Government place upon the benefits attached to modern connectivity.

A National Needs Assessment – A Vision for UK Infrastructure was also published in October 2016 (<u>https://www.ice.org.uk/getattachment/media-and-policy/policy/national-needs-assessment-a-vision-for-uk-infrastr/National-Needs-Assessment-PDF-(1).pdf.aspx</u>). It sets out the infrastructure needs for the UK which includes the importance of digital technology. An extract of this assessment can be found below:

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'A lack of digital connectivity has a detrimental effect on business operations, productivity and output and hence competitiveness in the global market place. Securing digital connectivity is thus critical to the UK's long term prosperity. A key challenge for the digital sector is a persistent digital divide between those who have access to the latest technologies and those who do not, with resulting social and economic exclusion, particularly as dependence on e-services and digital communications increases'

The Assessment goes on to note that 'Universal digital connectivity would serve as an equaliser of economic opportunity in that it enables participation in a modern digital economy'. Therefore this Needs Assessment further explains the consequences of a lack of coverage and the effects this has on social and economic prosperity. This clearly highlights the importance of maintaining and enhancing high quality 2G, 3G and 4G coverage and capacity in Newton-Le-Willows as well as providing new 5G in this area, where the social and economic benefits will outweigh the environmental considerations.

The Government's continued strong support for connectivity is further evidenced by the DCMS who launched their UK wide Digital Connectivity Portal on 20 December 2018. The Digital connectivity portal provides guidance for local authorities and network providers on improving connectivity in local areas. The Government wants everyone in the UK to benefit from world-class connectivity no matter where they live, work or travel. The Future Telecommunications Infrastructure Review outlines a package of measures to create the right market and policy conditions to deliver world-class connectivity for citizens and businesses. As a result, the pressure to provide an upgrade to the existing radio base station in St Helens to provide enhanced 2G, 3G, 4G and new 5G is significant.

On the 23 September 2020, the Digital Infrastructure Minister Matt Warman MP spoke about the ongoing work by the Government and telecoms industry to boost the UK's world class digital connectivity in his keynote speech at Connected Britain 2020<sup>2</sup>

...'I'd like to take this opportunity to thank everyone in the industry for their tireless efforts at keeping us all connected through an unprecedented period of disruption.

...COVID has altered the way we live, work and most importantly, stay connected with our family and friends. The digital infrastructure that keeps us



<sup>&</sup>lt;sup>2</sup> <u>https://www.gov.uk/government/speeches/matt-warmans-keynote-speech-at-connected-britain-</u> 2020?utm\_source=01ad07cc-6884-4d9b-a0ca-8c212f0a4289&utm\_medium=email&utm\_campaign=govuknotifications&utm\_content=immediate

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all connected was essential to our daily way of life under lockdown – and is now more important than ever as we head into recovery. Many of these changes – such as increased working from home – will stay with us for the foreseeable future.

People have referred to the internet as "the fourth utility" – and it's true. For countless people across the country, having fast and reliable broadband and a good mobile connection is as essential and vital to our daily lives as gas, water and electricity.

That's why I'm committed to working with you to ensure the entire nation has access to world-class, next generation gigabit connectivity that is secure and resilient enough to deal with all sorts of future challenges.

This Government is ambitious for the UK's digital infrastructure.

And because we know that more citizens are increasingly living their lives online, we will be one of the earliest adopters of 5G coverage, with the majority of the population able to access 5G by 2027.

...We know how important local authorities are to the delivery of digital infrastructure, which is why I have written to them, together with the Local Government Minister, to outline how they can work more effectively with the industry...

....Turning to 5G, while the commercial rollout of 5G continues at pace, we're pushing ahead with plans to make sure all sorts of industries benefit from this game-changing technology.

....since the start of the 5G Testbeds and trials programme, we've now funded 24 5G testbeds across the UK. Between them, those testbeds have trialled almost 70 different 5G technologies, products and applications. And more importantly than ever, we are investing in a range of sectors to foster, build and grow 5G cross wider industry...

...The world is in the middle of a digital revolution. COVID has accelerated this process, digitising almost every part of our everyday lives and making the infrastructure that connects us more important than ever. That's why it is at the top of the government's agenda...

This Keynote Speech my Mat Warman MP highlights the importance that Government places on 5G and advanced, reliable, high quality 5G technology. To prevent this

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technology from being brought into the area would be contrary to the Government's key aims.

On the 1 October 2020, as part of the Speed up Britain Campaign, The Centre of Policy Studies Report published 'Upwardly Mobile: How the UK can gain the full benefits of the 5G revolution'<sup>3</sup>. The report identifies what the 5G opportunities are and what the Government needs to do so we can all benefit from this vital new technology. It states that delays to the rollout of 5G could cost the country tens of billions of pounds in lost economic output. The former Government advisers Alex Jackman and Nick King argue that Government's 'levelling up' agenda and the UK's recovery from the COVID-19 pandemic is at risk without a faster 5G rollout – to the tune of £41 billion.

The report highlights that if delays continue at their current rate, by 2027, over 11 million households and businesses could be missing out on vital digital connectivity. Improving digital infrastructure supports the Government's 'levelling up' agenda, by helping local areas to retain and attract businesses and talent as well as by reducing regional inequalities.

The report states that 'the UK must have a functioning network to now support the recovery from the pandemic, empowering businesses and communities with wider coverage, and preparing the ground for the services that 5G can provide'.

Using analysis by the independent consultancy Policy Points, the report estimates that if 5G coverage reaches a quarter more of the population than the Government's current target of 51%, it will produce GDP gains of  $\pounds$ 41.7 billion by 2027. It highlights that the difference between the UK being a leader and a laggard in 5G adoption could be as much as  $\pounds$ 173 billion in incremental GDP over the coming decade, as estimated by the Future Communications Challenge Group.

The manufacturing, construction and agricultural sectors have been hit particularly hard by the pandemic, and these would benefit significantly from improved connectivity. However, onerous planning rules and loopholes in existing legislation are slowing down the infrastructure upgrades needed to make the most of this mobile revolution in these much-needed industries.

Digital networks and services have underpinned our resilience to the COVID-19 pandemic and they will drive our recovery. By expanding them, we deliver not only immediate benefits but also the essential foundation stone for future prosperity.

#### <sup>3</sup> https://www.cps.org.uk/research/upwardly-mobile

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The report highlights that while 5G promises to create economic benefits through increased capacity, reliability and speed – vastly improving business productivity and removing barriers imposed by poor digital connectivity – the system is plagued by red tape.

The report acknowledges that the gains are not just at national level. A more extensive digital infrastructure helps local areas to attract and retain businesses and talent, thereby playing a vital role in reducing regional inequalities. Providing a supportive environment for digital infrastructure is one of the few things the Government can do that costs little, boosts growth and helps level up the UK....the key is speed. The faster a network is built, the bigger the regional gains (emphasis added). The telecommunications industry faces challenges on this front. The COVID-19 pandemic has increased demand on networks but delayed the availability of new spectrum to provide additional capacity.

The report notes that the reliability and reach of 4G is more important than ever. It is needed both to quench immediate demand, and also to facilitate future 5G rollout, as the underlying passive infrastructure will initially support both technologies. Every failure to provide better coverage not only presents an immediate opportunity loss for local business and consumers but also has a bigger downstream economic impact. It acknowledges that productivity gains to business, equality gains for regions and economic gains for the country are only as achievable as the networks they can access.

The report recommended that the Government should reform the strategic planning framework to compel local authorities to ensure that the needs of future mobile connectivity are adequately addressed in Local Plans and that new developments are assessed on how they might impact, or could support, local connectivity.

The proposed installation in this location will allow the operator to provide new and improved high quality 2G, 3G and 4G coverage and capacity and new 5G service provision supporting the Government's aim of 'focusing on ensuring that everyone is connected to the information superhighway'. This fully meets the aspirations of the NPPF.

An upgraded installation in this location providing 5G will ensure that the expansion of the electronic communications network is facilitated and that high quality communications infrastructure is provided to the immediate area. This is in full accordance with the operator's 4G license obligations and the St Helens aims and aspirations to be a smart city region and have high quality 5G infrastructure, promoting and growing the digital sector and increasing digital inclusion.

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# <u>Practical Applications of 5G Connectivity as Example of Material Socio-Economic</u> <u>Benefit:-</u>

# **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.

# <u>Health</u>

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.

The proposed upgrade to the existing installation in this location will allow the operator to provide improved high quality 2G, 3G and 4G coverage and capacity and new 5G service provision supporting the Government's aim of 'focusing on ensuring that everyone is connected to the information superhighway'. This fully meets the aspirations of the NPPF.

An upgrade to the existing installation in this location will ensure that the expansion of the electronic communications network is facilitated and that high quality communications infrastructure is provided to the immediate area. This is in full accordance with the operator's 4G license obligations and the Council's aims and aspirations to be a smart city and have high quality 5G infrastructure, promoting and growing the digital sector and increasing digital inclusion.

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# Summary

The existing radio base station has become an established part in this area. The proposed replacement monopole with antennas are essential and will enhance the customer experience for Vodafone to ensure that the operators' customers are able to continue to utilise their handheld devices for the purposes in which they were purchased, whilst also enabling new 5G service provision to be provided.

On balance, the amendments to the radio base station will not have a detrimental impact on the visual amenity of the surrounding streetscene given its location on private land. However, these amendments will provide enhanced 2G, 3G and 4G coverage and capacity to the surrounding area and new 5G coverage. Thus providing a high quality service to its customers and access to the latest technologies whenever and wherever they are. Any limited harm will be outweighed by the benefits associated with providing and maintaining the latest high quality communications in line with NPPF and the Governments strong commitment to a world leader in 5G. If the challenge is to be met to provide pervasive, affordable, resilient digital connectivity, the challenge is early roll out of 5G especially in areas where mobile data use is congested.

Site selection was progressed in accordance with the applicants licence obligations, advice in NNPF and the Code of Best Practice and represents the least environmentally intrusive, technically suitable, available option.

The social and economic benefits of providing reliable and high quality mobile broadband connections support growth in productivity, efficiency and labour force participation across the whole economy. This is fully supported by the NPPF, the Government and the Council's Core Strategy. These benefits are strong material considerations which outweigh any minor loss of visual amenity to the surrounding area.

### Confirmation that submitted drawings have been checked for accuracy

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	Northampton Road, Newton-Le- Willows, M40 5AG	_	
Signed:	J.Hafiz	Date:	19 July 2021
Position:	Town Planner	Company:	Clarke Telecom Limited
		(on behalf of CTIL and above operator)	

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