

SUPPLEMENTARY INFORMATION

1. Site Details

Site Name:	Pipe Bridge LP	Site Address:	NW Corner of Lapwing Lane and Palatine Road, Didsbury, Manchester, Greater Manchester, M20 6UR.
National Grid Reference:	E: 384400 N: 392097		
Site Ref Number:	MAN284	Site Type: ¹	Macro (Street furniture)

2. Pre-Application Check List

Site Selection

Was a local planning authority mast register available to check for suitable sites by the operator or the local planning authority?	Yes	
If no explain why:		
Were industry site databases checked for suitable sites by the operator:	Yes	
If no explain why:		
Existing site MAN284 identified as part of this process.		

Site Specific Pre-application consultation with local planning authority

Was there pre-application contact:	Yes
Date of pre-application contact:	18/07/2022
Name of contact:	N/A
Summary of outcome/Main issues raised:	
A pre-application consultation letter, location map and consultation plan were sent to the Chief Planning Officer by email, on 18/08/2022. No comments received to date.	

Annual area wide information to planning authority

Has annual area wide information been provided?	No
If no explain why:	
Summary issues raised:	
The relevant information is being collated and will be distributed accordingly in due course.	

Community Consultation

¹ Macro or Micro

Rating of Site under Traffic Light Model:		Amber	
Outline of consultation carried out:			
Pre-application consultation was carried out with the local councillors for the Didsbury West ward (Greg Stanton, John Leech and Debbie Hilal) and Withington MP Jeff Smith. Pre-application consultation letters, a site location map and an indicative typical proposed streetworks monopole design were sent to these parties on 18/08/2022.			
Summary of outcome/main issues raised (include copies of relevant correspondence):			
No site-specific comments have been received to date.			

School/College

Location of site in relation to school/college (include name of school/college):
West Didsbury Primary School Central Rd West Didsbury Manchester M20 4ZA office@westdidsburyceprimary.co.uk / HT- Mr Matt Whitehead COG- MS Felicity Bradley
Outline of consultation carried out with school/college (include evidence of consultation):
A pre-application consultation letter, site location map and an indicative typical proposed streetworks monopole design were sent to the Headteacher and Chair of Governors on 18/08/2022.
Summary of outcome/main issues raised (include copies of main correspondence):
No responses have been received to date.

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

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

Developer's Notice

Copy of Developer's Notice enclosed?	Yes	
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Date served:	31/08/2022
	A developer's notice and copy of the proposal drawings were sent to the Manchester City Council Highways Department via email on 31/08/2022. A copy of the notice and proof of delivery are included as part of the application's supporting documentation.

3. Proposed Development

The proposed site: Background: MBNL undertakes the management and network deployment of telecommunications sites on behalf of both EE (UK) Ltd and Hutchison 3G UK Ltd (H3G). The proposal is for a new H3G column, in order to provide the latest 4G as well as capability for new technologies to this area of Didsbury. The Government is committed to supporting investment in high-quality, reliable digital connectivity so that communities can benefit from faster economic growth and greater social inclusion. It is essential to keep pace with growing demand for internet bandwidth and mobile data from local businesses, residents and those who visit our communities. As part of MBNL and H3G's continued network improvement program, there is a specific requirement to upgrade the existing installation at this location to provide upgraded services, ensuring that this area of Didsbury maintains access to the latest technologies. There is an existing telecommunications street pole EE_15550_MBNL_MAN284_3UK_M0717, on the footway at Lapwing Lane, Didsbury. This existing street pole is shared by both EE and H3G and provides vital 2G/3G/4G coverage and capacity to the area of Didsbury.  Image 1: Existing site (right pole) (Source: Google)
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MBNL and H3G are seeking to upgrade and enhance their network services in the area by installing infrastructure that will allow them to fulfil their licence obligations and have the capability to bring future technologies to this area.

The proposed new mast has been sited and designed in order to bring capability for new technology for H3G and to support the existing mobile network. As the new pole will eventually replace the existing 2G/3G/4G mast it must be located as close as possible to the existing pole in order to replicate the coverage. The existing pole will be removed once it becomes redundant, after the new monopole is fully operational on all parts of the spectrum and integrated into the network.

The removal of the equipment as soon as reasonably practicable after it is no longer required for electronic communications purposes is in full accordance with the Town and Country Planning (General Permitted Development) (England) (Amendment) (No. 2) Order 2016, Condition A.2 (2), which is an embedded and enforceable condition within the statutory instrument.

The proposed monopole has been designed so that EE will also be able to utilise it for new technologies coverage in the future if they wish to do so.

The proposed development is within the limits set out in Part 16 for permitted development with Prior Approval. The location enables the whole of the surrounding area to benefit from improved 4G network coverage and has been designed to be future proofed, thus enabling other technologies to be deployed depending upon the demand required. As the shift in demand is expected for the foreseeable future and that as central Government considers digital communications to be a critical national infrastructure, the operator intends to support customers and local residents by ensuring as little disruption as possible.

Further information is provided in Section 4 'Technical Justification' below and the additional information sheets.

The site

The application site is positioned on the corner of Lapwing Lane at the junction with Palatine Road, located on the NE side of the Pipe Bridge crossroads. Lapwing Lane continues to the NW and SE of the site, with Palatine Road continuing to the NE and SW of the site. West Didsbury Metrolink station is located immediately south of the application site. To the immediate SE of the site is a series of private, commercial and retail properties. Residential properties are found to the east, north and west of the site. There are a number of existing vertical structures in the immediate area, including lighting columns, road signage, traffic lights and several mature/semi-mature trees. These linear structures help the proposed column and associated equipment assimilate with its surroundings.

The site is located within Ballbrook City of Manchester 1992 conservation area. The site is also located in close proximity to the former West Didsbury District Bank building, which is Grade II listed, on Palatine Road.

The operator is limited in siting options as there is a requirement to provide equivalent 2G/3G/4G coverage and capacity for this area of Didsbury whilst also having the capability to provide new technologies in the future. The requirement to replicate the coverage provided by the existing pole means that the operator has to be located as close as possible to the existing installation

in order to maintain the provision of equivalent coverage and capacity to the surrounding local area.

MBNL and H3G are proposing the installation of an 18.0m column supporting 6 no antennas, together with ground-based equipment cabinets and ancillary development thereto.

MBNL and H3G have specified an 18.0m column as this is the minimum height that can provide the required 3G/4G coverage for H3G within one facility.

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

As part of MBNL's continued network improvement program, there is a specific requirement for a new mast on the footway at Lapwing Lane, to ensure that the latest high quality 2G, 3G and 4G service provision continues to be provided in this area of Didsbury for EE and H3G. The proposed new column will also ensure that new technology can also be provided at this location for H3G. This ensures that coverage and capacity requirements are maintained. The column is designed such that should EE require additional service provision it will be able to utilise the same installation under its joint agreement with H3G to utilise each other's equipment.

The proposed new mast has been sited and designed in order to provide new and future technology to support the existing mobile network. At present it is paramount that digital connectivity is supported and maintained throughout the country. In particular the current massive shift in user demand from city centres and places of work to residential areas and suburbs requires an improvement in coverage and capacity throughout the whole network. The current proposal therefore provides such additional capacity to the network whilst still promoting the improved connectivity.

The 3G and 4G provision allows internet access, video calling, data downstreaming, accessing social media networks and emailing to name just a few of the benefits. Therefore, to maintain high quality indoor 3G and 4G services in to this area would promote activity in line with the general population demand as the ownership of smart devices increases.

The search area is very small for this new installation. The existing site is shared and as such the surrounding network of existing cells and services is configured to the position of that existing site. This means that the complementary site must be in close proximity to fit within that existing network cell configuration. Given this, there will be no change to the existing cell configuration.

Type of Structure (e.g. tower, mast, etc): Phase 7 Street Pole

Description:

The installation of an 18 metre high monopole supporting 6 no. antennas with a wrap around equipment cabinet at the base of the column, the installation of 2 no. new equipment cabinets, and ancillary development thereto.

Cabinet Dimensions:

1 No. H3G RBS6130 Cabinet – 700mm x 650mm x 1100mm (W x D x H)

1 No. H3G Bowler Cabinet – 1900mm x 600mm x 1752mm (W x D x H)

1 No. H3G/EE Wraparound – 1800mm x 750mm x 1570mm (W x D x H)

Overall Height:	18 metres
Height of existing building <i>(where applicable)</i> :	N/A
Equipment Housing:	
Length:	Please see above
Width:	Please see above
Height:	Please see above
Materials <i>(as applicable)</i> :	
Tower/mast etc – type of material and external colour:	Galvanised steel, RAL 7035
Equipment housing – type of material and external colour:	All steel – RAL 6009

Reasons for choice of design, making reference to pre-application responses:
Central Government attaches great importance to the design of the built environment and outlines this within Section 12 (Paragraph 126) National Planning Policy Framework (Revised). It states: <i>'Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities'.</i> In keeping with the National Planning Policy Framework (NPPF) guidelines of using: "high quality communications infrastructure", the proposed design has been selected to minimise visual impact upon the surrounding environment. The design of any communications infrastructure is dictated primarily by operational requirements and secondly by the development's setting. From an operational perspective, the operators must ensure the following when devising a final design solution for any site: • antennas are specifically orientated to transmit effectively and efficiently without signal being impeded; • dish links (if required) achieve a direct line of site connection with other base station sites within the network; and • GPS modules achieve a direct satellite link. To achieve this the operator undertakes panoramic assessment to determine what is the minimum height for transmission equipment to be located in a context of local topography and clutter, such as manmade or natural features, and in all cases the operator is committed to limiting the size and amount of apparatus to an operational minimum. In terms of setting, given that the subject site is located on the footway of Lapwing Lane at Pipe Bridge, complementary street furniture style development has been deemed to be the most suitable type of base station as this is the most accepted design for urban, suburban and rural roadside locations throughout the UK. The operator carefully considered the design of the proposed column. The operator is proposing the most sensitive design currently available to them which will provide the necessary coverage and capacity to the surrounding area. Due to all the technologies that will be available at this location, 2G, 3G and 4G, 6 antennas need to be installed at the top of the slim-line monopole. These are split into a dual stack formation where 3 antennas will be located at the top of the column and the other 3 will be located underneath the upper set of antennas.

As discussed earlier in this statement, the pole is also capable of hosting 6 no. antennas for EE in the future should they wish to utilise the structure.

The new antennas are all unshrouded for technical reasons. However, they have been designed to be as tight as possible and virtually the same width as the main column, to minimise their visual appearance. The higher the radio frequency the more signal attenuation there is. The higher frequency antennas are unable to operate effectively through the Glass Reinforced Plastic that the 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. An additional installation would be needed elsewhere within the cell area, leading to the proliferation of masts.

This is the slimmest design possible which will enable all technologies to be supported from this site. If the column and shroud width were to be any slimmer then the technology would not fit in the one column and another radio base station would be required, which would lead to an unnecessary proliferation of masts contrary to national Government guidance set out in the NPPF and The Code of Practice. Similarly if the column were to be a uniform width throughout then the overall width would have to increase which would appear more visually prominent in the streetscene, than the proposed design.

The proposed design is more visually sensitive and much easier to assimilate into a streetscene than lattice towers or unshrouded pole designs with bulky headframes. These non-stealth designs are preferred by operators as they are structurally capable of hosting more equipment and give greater scope for antenna orientation and are thus more efficient structures. However, such designs would appear alien in this location. Therefore the operator has compromised on obtaining maximum coverage in order to better assimilate in to the streetscene.

The design of the column resembles as closely as possible the other existing vertical structures within the immediate area including lighting columns, traffic lights and road signage. These vertical structures, as well as nearby trees, will help the proposed radio base station assimilate with the surrounding area.

The design of the column is a simple, functional, vertical structure which will not appear incongruous within the streetscene, which is characterised by similar linear structures. The column will be coloured grey but can be coloured any other colour the LPA consider appropriate.

The cabinets are designed to appear like other statutory undertakers' equipment cabinets, including in the immediate streetscene. The proposed equipment cabinets are small for telecommunications apparatus and proposed to be coloured green. The equipment cabinets can be installed under the operators permitted development rights but have been included on the plans and in the description in order to remain fully transparent.

The proposed solution will ensure mobile telecommunications service within this locale meet the expectation of residents, businesses and visitors, while minimising the visual impact of the infrastructure on the surrounding environment and meeting all ICNIRP certification requirements.

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 technical requirements for the site. Taking all matters into account it is considered that this proposal, to provide the latest 2G, 3G and 4G service provision and

capability for future technology providing high quality dense coverage and capacity, would not appear out of place within the streetscene.

Health and Safety - including ICNIRP compliance

International Commission on Non-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.

In order to minimise interference within its own network and with other radio networks, CK Hutchinson Networks (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 CK Hutchinson Networks (UK) Ltd 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

Coverage plots will not show the improvement in capacity.

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

There is a specific requirement for a new column and associated equipment cabinets at this location to allow H3G to improve their 2G, 3G and 4G coverage and capacity in and around the Didsbury area and be able to provide new service provision to this cell as well as the capability for future technology. This ensures high quality indoor service provision is provided. Furthermore, due to the joint agreement with the two operators EE (UK) Ltd and H3G (UK) Ltd the installation will be designed so that EE can utilise the same equipment. This negates the need for further radio base stations in the vicinity for either of these two operators.

The dynamic nature of technological advances in the telecommunications industry coupled with ever increasing demand from subscribers dictates a continual reinvestment programme on the part of the operators. As a result, and in line with their licence requirements, mobile operators are constantly developing their networks as well as refining and modernising their infrastructure.

Cellular networks are made up of several individual cell areas, each of which has a base station within it. A good analogy for describing a cellular network is that of a patchwork quilt with each cell area being one of the many patches that are sewn together making up the network 'quilt'.

Notably, there are 3 main elements to a radio base station; the cabin or cabinets contain the equipment used to generate the radio signals(s), the supporting structure that holds the antennas in the air or fixes them to a building or structure and the antennas themselves, which emit the radio signals (along with the necessary amplifier or receiver units). Other elements necessary for the base station to function are a power source, feeder cables that link the equipment housing to the antennas and the various support structures, grillages and fixings, often referred to in general terms as '*development ancillary to*' the base station.

These base stations then receive and transmit to mobile devices using radio waves. The antennas operate like an aerosol spray with signal transmitted along a central orientation and dissipating with distance. The dishes operate on a direct line of sight basis, linking with dishes on other base station sites elsewhere within the wider network. The dish links also link the base station to a master control centre that manages the call handover process that occurs when a mobile user moves from one cell area to another. They also provide telemetric monitoring to ensure the site is working properly and offer remote maintenance.

In the early days of mobile communications, peripheral locations, high-level topographies and large-scale masts were often identified in order that transmission from a new base station could cover an expansive geographical area. However, whilst this approach was viable for early network generations, the number of mobile handset users has dramatically increased with time, as have the advancements in mobile technology itself. As a result, the cellular network construction and operational criteria have changed too. Because modern networks use higher frequencies with faster data rates whilst serving significantly increased numbers of mobile device users, typical network cell areas (i.e. the geographical area targeted for coverage for which a base station development provides a solution), are now smaller in their geographical expanse and tend to be directly proportionate to the number of users within it. They are also therefore greater in their number with base stations operating at a lower power output than their predecessors.

Mobile phone base stations operate on a low power and accordingly base stations therefore need to be located in the areas they are required to serve. Increasingly, people are also using their mobiles in their homes and this means the operator needs to position base stations in, or close to, residential areas.

Mobile connectivity and service is required where customers live, work and play. New advanced coverage and superfast mobile broadband data capacity demand will continue to increase exponentially with the introduction of IoT (Internet of Things), machine to machine connectivity, automated transport/industry and other 'smart' applications. To this end the existing shared infrastructure within the built environment has had to be reviewed and adapted as appropriate. Good connectivity allows people to access a wide range of essential services including emailing; downloading apps; social media; helping with homework; researching local events, businesses or transport timetables; managing personal finances; shopping; contacting local authorities; arranging medical appointments; general business functions; and much, much more.

Site Selection Process

In accordance with the licence obligations and advice in the National Planning Policy Framework and the Code of 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.

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.

The proposal is for the upgrade of an existing site. As such, the new monopole needs to be located as close as possible to the existing in order to replicate the coverage and cover the same target coverage area. The existing pole will be removed as soon as reasonably practicable once it becomes redundant. This will be once the new monopole is installed and fully integrated into the network on all parts of the spectrum.

For the avoidance of doubt, the existing monopole is not structurally capable of hosting the antennas required to enable Three UK Ltd to provide 3G/4G and capability for future technology to this area. It also would not be capable of being upgraded to allow EE to provide future technology.

As the proposal is for the upgrade of an existing site, no alternative sites were considered.

Alternative sites considered and not chosen:

Site Type	Site Address	National Grid Reference	Reason for not choosing site
N/A	N/A	N/A	N/A

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

The proposed new monopole has been sited and designed in order to provide new coverage and technologies to support the existing mobile network. As the new pole will eventually replace the existing 2G/3G/4G mast it must be located as close as possible to the existing pole in order to replicate the coverage.

Paragraph 115 of the NPPF states '*The number of radio and electronic communications masts, and the sites for such installations, should be kept to a minimum consistent with the needs of*

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

Environmental Information:

N/A

Land use planning designations:

Ballbrook Conservation area (1992)

Additional relevant information:

From the outset, it should be appreciated that irrespective of the proposed installation's use as a telecommunications base station, any change in form in the street scene will always be, to some degree, a noticeable alteration to those residents and regular passers-by found closest. However, it should be recognised that visibility or a development's siting and appearance, does not automatically result in overwhelming adverse harm.

The provisions of the GPDO require the local planning authority to assess the proposed development solely on its **siting and appearance**.

The principle of development has been established by the Government when the new permitted development rights came in to force in April 2022, which enabled sites such as this one to be built under the operators permitted development rights, (as the column height does not exceed 25m), with prior approval for siting and appearance being the only matters that the local planning authority can take in to consideration.

Planning Practice Guidance explains how a prior approval application differs from a planning application at paragraph 28. It states that:

'The statutory requirements relating to prior approval are much less prescriptive than those relating to planning applications. This is deliberate, as prior approval is a light-touch process which applies where the principle of the development has already been established (emphasis added). Where no specific procedure is provided in the General Permitted Development Order, local planning authorities have discretion on what processes they put in place. It is important that a local planning authority does not impose unnecessarily onerous requirements on developers, and does not seek to replicate the planning application system' (emphasis added).

The Planning Portal also provides Application Type Guidance. This guidance states that:

'Certain forms of telecommunication development, for example, mobile telephone masts, are known as 'permitted development' and subject to prior approval from the local planning authority. The prior approval procedure means that the principle of development is not an issue. The LPA can only consider the siting and appearance of the proposal'.

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. The NPPF is pro – development with a 'presumption in favour of sustainable development' being seen as a golden thread, running through both plan making and decision taking'.

The thrust of this guidance is positive and a reminder to LPAs that we need to build the requisite infrastructure to enable economic growth.

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

National Planning Policy Framework (July 2021)

The Government's 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 NPPF was updated in July 2021, in order to strengthen sections including requirements on improved design quality, a new requirement for Councils to produce local design codes or guides, an emphasis on using trees in new developments, revised policies on plan-making, removing statues and opting out of PD rights relating to residential conversions.

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 114 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 114. 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 115 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.

Paragraph 118 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.

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 81 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 any weaknesses and address the challenges of the future. This is particularly important where Britain can be a global leader in driving innovation⁴²...

Footnote 42 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'.

The NPPF makes reference to Heritage:

The NPPF provides guidance on proposals affecting heritage assets in Section 16. Paragraph 194 states that *"in determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance."*

Paragraph 195 goes on to state that local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset).

The NPPF goes on to provide guidance on considering the potential impacts of development on heritage assets. Paragraph 199 states that when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance.

Paragraph 202 retains advice provided in the 2012 version of NPPF relating to the degree of harm. It states that 'where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use.

Public benefits are defined within the NPPF and could be anything that delivers economic, social or environmental progress. Benefits do not always have to be visible or accessible to the public in order to be genuine public benefits.

Code of Practice for Wireless Network Development in England (March 2022)

The Code of Practice provides guidance to Code Operators (referred to as 'operators' throughout the Code of Practice), including the Mobile Network Operators and wireless infrastructure providers, their agents and contractors, local planning authorities, and all other relevant stakeholders in England on how to carry out their roles and responsibilities when installing wireless network infrastructure. It is also a useful tool for other interested stakeholders such as community groups, amenity bodies and individuals with an interest in mobile connectivity.

The aim of the Code of Practice is to support the government's objective of delivering high quality wireless infrastructure whilst balancing these needs with environmental considerations. It also has an important role in making sure that appropriate engagement takes place with local communities and other interested parties.

The Code of Practice covers all forms of wireless infrastructure development, including mobile masts and cabinets. It is recommended that other wireless communications operators follow the principles of this Code of Practice, where appropriate.

Unlike previous iterations this Code of Practice has been led by the Department for Digital, Culture, Media and Sport (DCMS) and developed in collaboration with representatives of the mobile network industry, other government departments and public bodies, local planning authorities, and protected landscapes. This document replaces the previous Code of Best Practice on Mobile Network Development, which was published in 2016 and is now published by DCMS.

The Code of Practice sets out the legal and policy framework for the delivery of wireless infrastructure development.

Paragraphs 8 – 12 of the Code of Practice set out the importance of connectivity:

'8. Digital connectivity is vital to enable people to stay connected and businesses to grow. Fast, reliable digital connectivity can deliver economic, social and well-being benefits for the whole of the UK.

9.As the demand for mobile data in the United Kingdom is increasing rapidly, it is important that everyone has access to dependable and consistent mobile coverage where they live, work and travel.

10. The [Future Telecoms Infrastructure Review \(FTIR\)](#) and the [National Infrastructure Strategy](#) set out the government's long-term strategy for meeting its digital connectivity targets and delivering high quality, reliable digital infrastructure that works across the UK².

11. The government has committed to extending mobile coverage across the UK. The government has committed to extending mobile coverage across the UK. The government's Levelling Up White Paper has set a mission that the UK will have nationwide 4G coverage, with 5G coverage for the majority of the population by 2030. In support of this, the government and the UK's mobile network operators agreed a [£1 billion Shared Rural Network deal](#) to extend 4G mobile geographical coverage to 95% of the UK by the end of the programme.

12. [Next Generation Mobile Technologies: A 5G Strategy for the UK](#), and the [update](#) to this, set out the government's ambition for the UK to be a global leader in 5G to take early advantage of its potential and help to create a world-leading digital economy that works for everyone. The government also wants businesses and communities to benefit from investments in 5G as soon as possible. Through the government's 5G Testbeds and Trials programme we have seen its value to manufacturing, farming, transport networks and healthcare.

The Government recognises the key role that the Planning System plays in delivering the digital infrastructure that we need, in a sustainable and well-designed way, especially as households and businesses become increasingly reliant on mobile connectivity.

The Code of Practice sets out 'How wireless networks function.

Para. 16 states "Cellular wireless networks use base stations to provide an area of radio coverage. Wireless technology uses the radio spectrum to broadcast radio waves between base stations and devices. Different radio frequencies have different characteristics which, along with the density of cell site locations, affect the extent of coverage and how much data can be carried over the network. Depending on the radio frequencies used, base stations can deliver coverage over a wide area or provide extra network capacity in areas where there is a high demand for network bandwidth".

Para. 17 sets out that "Wireless technology continues to evolve rapidly, and mobile devices are now capable of much more. Second generation (2G) technology gave us voice calls and text messages, 3G led to the launch of smartphones, and 4G, which enabled faster browsing, allowed us to do things like watching videos on the move. 5G, the latest generation of wireless technology, is much faster than previous generations of wireless technology and can offer greater capacity and lower latency, allowing thousands of devices in a small area to be connected at the same time. 5G networks, and future mobile generations, will be vital for a range of Internet of Things uses (IoT) and Smart City applications".

The Code of Practice establishes 'Principles and commitments' by which operators should develop their networks and that Local Planning Authorities should demonstrate their support by.

Paragraph 18 of the Code of Practice sets out the principles and commitments that operators should follow when developing their networks inter alia:

- Site sharing and use of existing structures: make use of existing structures, sites

² The [Statement of Strategic Priorities for Telecommunications, The Management of the Radio Spectrum, and Postal Services](#) followed the publication of the FTIR and reflects its conclusions

- and masts wherever possible to reduce the need for new development.
- Consultation with local planning authorities, local communities and other stakeholders.
- Standardised and high-quality approach to planning applications, and the notification procedure: provide standardised supporting documentation for planning applications (where appropriate) within the context of national and local requirements.
- Compliance with guidance laid out in the International Commission on Non-Ionizing Radiation (ICNIRP) public exposure levels guidance.

The Code of Practice also sets out the requirements of the LPA in relation to the deployment of digital infrastructure:

- Incentivising connectivity: support the expansion of telecommunications networks, and take a 'joined-up' approach to the wireless infrastructure planning process, including ensuring that Local Plans effectively support the deployment of digital infrastructure.
- Facilitating sites: engage with operators when new sites have been proposed and discuss site requirements.
- Engagement with operators: respond positively to requests for engagement and make decisions in line with national policy and Local Plans. For planning applications, find solutions to issues and ensure timely decisions are made.

The added emphasis on support from Local Planning Authorities in the deployment in digital infrastructure is even more evident in the revised Code of Practice. The Code of Practice recognises the importance of collaboration and partnership to help drive network coverage across the country. It goes on to state that *'In all instances, it is important for all parties involved in the process to take a positive approach to consultation and engagement'*.

Siting and Design Principles

The government's objective is to deliver high quality, reliable wireless infrastructure whilst ensuring the impact of new network development is kept to a minimum. The siting and design of wireless network infrastructure is central to achieving this. The Code of Practice acknowledges that *'good siting and design principles should apply to all wireless network development and take into account any site specific considerations and context. Both can create better places in which to live and work and help make development acceptable to communities'*.

The Code provides guidance on siting and appearance principles. It sets out several design principles in respect of telecommunications development and acknowledges that the options for design used by an operator will be affected by site conditions including requirements to link the site to the network, landscape features and coverage and capacity requirements. The guidance includes at Para. 22 *'the choice over the site selection and design of equipment is primarily dependent upon the coverage and capacity requirements and technical constraints of a specific location, although operators should make efforts to reduce visual impacts where possible'*.

Para. 23 confirms that there should be a **'presumption in favour of facilitating sustainable network development'** and, as such, operators and local planning authorities, as well as all other bodies involved in the deployment process, should work together to ensure connectivity needs are met and find viable solutions to deployment issues (emphasis added).

Paragraphs 24 - 27 sets out general siting and site selection principles which Operators should consider. The Code of Practice acknowledges at Para. 24 that *'Operators use a range of*

sophisticated, computer-based planning tools to predict levels of signal strength and coverage from sites for 2G, 3G, 4G and now 5G. Once an operator has identified a requirement for a new cell site, a suitable site needs to be found. Elements that make a site favourable include: having existing or ready access to a power supply, access to fibre optic cables, vehicular access, and, other buildings and development which may provide a level of existing screening. Operators will typically look to upgrade existing infrastructure prior to considering a new deployment, in particular for initial 5G deployment'.

Para 25 notes that 'When selecting sites for mobile infrastructure, operators should examine local plans and designations for the area, as well as carrying out an in-person site search to identify potential options which meet their requirements. Operators should follow these general siting and site selection principles:

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

Para. 26 highlights that the installation of all wireless infrastructure requires a balanced approach between the technical needs and constraints of the proposed site and the potential impact of the development. The three key technical and operational considerations for installation sites are:

- **Coverage:** wireless infrastructure needs to provide an appropriate level of coverage over the intended geographical area. This involves ensuring that antennas are elevated sufficiently (often via masts) to provide clear lines of sight for signals.
- **Capacity:** where existing network infrastructure can no longer meet the demand for network capacity in a particular area, additional sites may be required within that coverage area to meet the demand. This is more likely to be required in densely populated areas or areas of high footfall.
- **Backhaul:** the radio access network requires a connection to the core network. Backhaul is sometimes provided by a microwave link, which requires a clear line of sight between the two ends of the link.

Para 27 requires that Local Planning Authorities consider these issues and consider the need for a site within a limited search area alongside the public benefit of improved connectivity. Para. 27 further considers that in general, it should not, therefore, be appropriate for planning authorities to seek wider evidence of alternative sites (beyond that required by the NPPF), unless they consider the proposed development is unacceptable having regard to the relevant material planning considerations

In respect of 'Design', the Code of Practice at Para 28 acknowledges that the siting of wireless infrastructure will influence which design options are most appropriate for reducing the visual impact including

- **Protecting visual amenity**
- **Mitigating visual impacts**

Para. 29 acknowledges that these factors along with location and the coverage and capacity requirements can influence the type of infrastructure structure that is deployed and requires that *'planning authorities should be aware of these constraints when considering proposals. In particular:*

- *In urban areas, where there is a high level of demand for mobile data, mobile base stations are likely to need to be deployed more densely. In these settings you can expect to see more use of streetwork monopoles and rooftop installations and, in future, we are likely to see a larger number of smaller units (so-called "small cells") deployed on buildings and on street furniture.*

The Code of Practice establishes radio equipment housing (cabinets) principles. It states at Para. 30 states that *"cabinets protect radio transmitters and receivers, provide the power source for mobile equipment, and are connected to antennas via cables. Equipment cabinets are likely to be needed at most sites. The cabinets must be of sufficient size to facilitate hosting various operating equipment whilst also allowing air circulation to reduce the potential for overheating"*. The Code of Practice establishes the planning and visual considerations for siting radio housing. These include:

- Colouring
- Siting on highways and footways:
- Highway safety:
- Listed buildings/ scheduled monuments and Conservation Areas:
- Access
- Trees

The Code of Practice notes that new ground-based masts will sometimes be required to accommodate the ever-increasing coverage and capacity needs of the country. 4G and 5G are likely to require further network densification in order to meet growing customer demand for data. Where higher frequencies are used, with lower signal propagation characteristics, apparatus will need to be located in closer proximity to user devices. The type of mast deployed will depend upon the location and setting, as well as the coverage requirements of the site. The Code acknowledges that there are many ways by which the potential for environmental and visual impact of a ground-based mast can be reduced.

Paragraph 39 advises that all new masts should be sited, so far as practicable, so as to minimise their impact on their setting, including the landscape and any buildings. This includes siting next to similar structures – e.g. streetworks masts should ideally be sited in line, and in harmony, with existing vertical structures such as lighting columns, to minimise their visual impact. Placing a mast within or adjacent to an existing group of trees, vegetation and other natural features can reduce visual impact. Antennas will however, need to be sufficiently elevated to clear the tree-line.

Paragraph 40 relates to colouring and camouflage and states that where appropriate masts should be coloured to match their backdrop to minimise contrast in an urban setting. Streetworks monopoles can utilise design features such as shrouding or banding to protect visual amenity, though, for some infrastructure, camouflage design solutions may not be practicable. Simple designs should be encouraged. Masts which have a complex design are more likely to dominate and be in discord with the landscape and have adverse visual impacts.

The Code of Practice states again in paragraph 64 that there are three primary technical and operational considerations for installation of radio base stations which are: ensuring that wireless infrastructure provides an appropriate level of coverage over the intended geographical area; ensuring that sites have sufficient capacity to meet user demand; and, requiring a connection to

the wider network 'backhaul'. Paragraph 65 notes that planning authorities should take account of these constraints on network deployment and siting and design, when considering proposals.

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".

The statutory development plan as defined by the Planning and Compulsory Purchase Act 2004 comprises the extant Unitary Development Policies of the Manchester Unitary Development Plan and the Manchester Core Strategy Development Plan Document.

Manchester Unitary Development Plan (Adopted July 1995)

The Manchester Unitary Development Plan (UDP) was adopted in July 1995 as the strategy document which set out guidelines for all development in Manchester and provided a framework from which to base decisions about planning applications.

The Manchester Core Strategy was adopted on 11 July 2012 which is the key development plan document in the LDF. It replaces significant elements of the UDP. However, a number of policies remain extant following the adoption of the Core Strategy including Policy DC 17.1 relating to telecommunications.

Policy DC 17.1 states that applications for telecommunications development will normally be approved if the Council can be satisfied that the development has been sited and designed to minimise its impact on residential amenity and in environmentally sensitive areas. Wherever possible the Council will expect the potential of existing buildings and masts, including the sharing of such facilities, to be fully explored before agreeing to additional separate development.

In the justification to Policy DC 17.1 the Council recognises the need for Manchester to be at the forefront in the field of telecommunications. The Council therefore starts from the presumption in favour of sustainable development and investment in the telecommunication systems serving the city. Equally, it wishes to ensure that new developments are brought forward in a way which protects residential amenity and minimises the visual impact of such development particularly in conservation areas and other environmentally sensitive areas in parks and the river valleys. The Council is also concerned to make maximum possible use of existing buildings and facilities by encouraging operators to share facilities wherever possible in order to avoid unsightly duplication and clutter.

Manchester Core Strategy DPD (Adopted July 2012)

The Manchester Core Strategy was adopted in July 2012 and sets out the long term strategic policies for Manchester's future development and will form the framework that planning applications will be assessed against.

The Core Strategy Vision states that:

'By 2027 Manchester will be:

- A successful and accessible city in the front rank of cities in Europe and the world.

- A city with a growing economy driven by the strength of the Regional Centre and Manchester Airport which supports a successful City Region. The knowledge based economy flourishes with an entrepreneurial community, characterised by a fully skilled, inclusive working population.
- Meeting the challenge of climate change at the forefront of environmental initiatives and improvement and continuing to deliver sustainable development and a more effective green infrastructure.
- A city with an increased and sustainable healthy population and a community which both benefits from and drives the City's productivity upwards.
- A city with neighbourhoods where people choose to live all their lives.

In order to help meet this vision the Core Strategy sets out a number of spatial objectives.

Spatial Objective SO1 relates to spatial principles and aims to provide a framework within which sustainable development of the city can contribute to halting climate change.

Spatial Objective SO2 relates to the economy and supports a significant further improvement of the City's economic performance and spread the benefits of this growth across the City to reduce economic, environmental and social disparities, and to help create inclusive communities.

SO4 relates to Centres and aims to provide a network of distinctive, attractive and high quality centres, strengthening local identity, providing essential services close to homes and local access to healthy foods.

Policy SO1 relates to spatial principles and states inter alia that development in all parts of the City should:

- Make a positive contribution to neighbourhoods of choice including making a positive contribution to the health, safety and well-being of residents.
- Considering the needs of all members of the community regardless of age, gender, disability, sexuality, religion, culture, ethnicity or income.
- Minimise emissions.
- Improve access to jobs, services, education and open space by being located to reduce the need to travel.

Policy EC1 relates to employment and economic growth in Manchester. The policy states that the priorities for economic growth include:

- Ensuring the continued social, economic and environmental regeneration of the city.
- Ensuring the connectivity to international markets for the import and export of goods to ensure competitiveness in international markets.

Policy DM1 relates to development management. It is a general design policy which is not specifically related to telecommunications but contains some relevance for such applications. The policy states that all development should have regard to the following inter alia:

- Appropriate siting, layout, scale, form, massing, materials and detail.
- Impact on the surrounding areas in terms of design, scale and appearance of the proposed development. Development should have regard to the character of the surrounding area.
- Effects on amenity including privacy, light, noise, vibration, air quality, odours, litter, vermin, road safety and traffic generation.

Policy CC9 Design and Heritage

Design of new buildings will need to be of the highest standard in terms of appearance and function. The standards and guidance explained in other LDF policies should be the basis for the approach to design, with particular attention to be given to the City Centre context and character. Development in Manchester City Centre should preserve or enhance the heritage assets that have been identified, including listed buildings, conservation areas and scheduled ancient monuments.

Greater Manchester Digital Strategy (2018-2020)

The foreword to this Digital Strategy states:

'We live in a world where the number of digital devices has now passed the number of people. Digital technology is now shaping every aspect of our lives in ways which were inconceivable a generation ago: how we work, travel, shop, access services, meet people, communicate and are entertained.

Greater Manchester has always been a pioneer city region, with an eye for opportunity and the drive and pragmatism to seek out new solutions to old problems with almost 80000 digital and digital-intense creative businesses in Greater Manchester employing more than 82300 people generating £4.1bn of economic growth annually.

In the Greater Manchester Strategy we set a clear ambition to be a world-leading digital city region, and committed to taking an open, innovative and connective approach to delivering that ambition.

...to be a digital City-Region with a Difference and drive real change together, from the bottom up. We can only be a world leading city-region if we bridge the digital divide. Progress must be universal; geographically, socially and economically...using digital to connect young people to opportunity or tackle homelessness...we will capitalise on Greater Manchester's unique ability to use digital to connect and enhance our other high value sectors such as creative industries, health innovation and advanced manufacturing and materials.

The GM Digital Strategy asks why it is vital for Greater Manchester to be a leading digital City-Region and quotes:

"The future vitality of cities is increasingly based on their ability to use digital networks in intelligent, strategic ways" (Aspen Institute, Washington).

The Strategy goes on to state that:

...'digital technology has catalysed the interconnection of the global economy, with the internet enabling the free exchange of goods and services, providing consumers with greater choice and businesses with access to skills, resources and customers. As a result, people are now accessing more digital content and services from outside their own country, cross-border payments increasing, and small companies are more easily becoming more "multi-national".

Digital technology is increasingly the backbone of all industries, regardless of the nature and type of business. Embracing digital technology throughout all sectors, geographies

and occupations is fundamental to Greater Manchester's current and future international competitiveness'.

"We want to be recognised as an international thought leader and do-er in digital innovation and adoption across our economy and communities"...

'This strategy is therefore founded on evidence that becoming a leading digital city-region is imperative to deliver our wider vision. We must do it to deliver the economic, social and inclusion improvements we need and want to see. We can do it because we have the vision, leadership and both the industrial and political will, coupled with strong academic, industrial and community foundations and an exciting and disruptive set of emerging activities and technology'.

The Digital Strategy sets out the Greater Manchester Vision: A city with a Difference:

"It would be fantastic if we led the country in encouraging digital innovation which supports businesses and investment, creating jobs and opportunity, but focusing on improving outcomes for people such as loneliness or homelessness in our society.

I don't want Manchester to be just a smart city – I want it to be the smartest city" (Andy Burnham Mayor of Greater Manchester).

The strategy goes on to state that the Vision for Greater Manchester is 'to be one of the best places in the world for developing and harnessing digital technology and to be recognised as being a top 5 European Digital City Region by 2020 which:

- Empowers and enables residents to have the highest quality of life; and
- Supports the creation of high quality jobs and achieves the maximum possible productivity levels'.

This strategy for Greater Manchester is an open, connected and innovative city region....

'Our Vision for Greater Manchester is holistic, with digital technology driving improvement across all areas of economy and society. A world-leading digital city is therefore, 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 the quality and value for money of public services'.

The Strategy sets out the Goals and Measures. Goal 6 relates to Digital Infrastructure and aims that by 2022-23 the average download speed across fibre, mobile and wireless will exceed 100Mbps.

The benefits for delivering this strategy are noted as:

- For young people, better connected insights on children's development from the very early years right through to leaving school, a transformative range of career opportunities and a means through which they can be accessed;
- For Working Age Population, the ability to access broader range of high quality job opportunities, and set up own business more easily;
- For business owners and investors, for greater range of opportunities to access the technology and support to digitise, opportunities to physically and digitally collaborate will be readily accessible and there will be more readily available flow of talent, capital and

support to new innovative ideas and a market place that defines and presents problems and commissions solutions rather than buying off the shelf products and services.

- For Older people, there will be more support and solutions to social isolation, more ease and control for you and your family in terms of managing your own health care; and
- For all residents, a city that works around you in terms of living your life, where you can move around the city more easily and safely, improvements in, for example treating illness, improving air quality due to insights from pooled data, greater control over how and when you access public services.

Greater Manchester is aiming to become a world leading digital city by 2020. Greater Manchester plays a fundamental role in driving economic growth.

The Strategy notes that in terms of mobile internet, despite good public Wi-Fi coverage in most public buildings across Greater Manchester, and on Metrolink and many buses, Wi-Fi provision is patchy in public places and there are still barriers to access (registration requirements and cost) in many parts of Greater Manchester.

The Strategy also acknowledges that digital exclusion is closely linked with social exclusion.

The Greater Manchester Action Plan for Infrastructure at 8.1 States that the connectivity which Greater Manchester requires is to increase average mobile and fixed broadband internet speeds and aims to improve call and mobile coverage including securing a national 5G test bed status thus positioning Greater Manchester at the forefront of next generation 5G mobile.

The strategy notes 5 digital enablers: Social Networks, Mobile internet/apps, digital health, infotainment and e-commerce.

Greater Manchester Local Industrial Strategy (June 2019)

This Local Industrial Strategy sets out how Greater Manchester (GM) will forge its future. It states that it will build on GM's position as a 'leading European digital city-region; enable the digitalisation of all sectors; and capitalise on the links between digital and creative industries that feed internationally significant clusters in broadcasting, content creation and media, and maximise growing assets in cyber security.

It aims to put in place the integrated 21st century infrastructure needed for digital driven, clean and inclusive growth.

A top 5 city-region for the digital economy in Europe, with full fibre broadband and 5G coverage.

The Strategy states that GM will take a 'Made Smarter' approach to all industries, supporting firms to adopt new digital and creative techniques and enabling the digitalisation of all sectors.

The strategy has a specific section relating to infrastructure and acknowledges its importance:

'...The city-region now aims to upgrade, integrate and future-proof its infrastructure, to create a 21st century city-region with extreme digital connectivity, clean and inclusive growth and – through work with others – improved access to national and global markets. Existing partnerships are working to improve digital infrastructure in the city-region to meet national targets of roll out of 5G technologies for most people by 2027'.

The Local Industrial Strategy sets out an objective to ensure the vision for infrastructure is met:

- World-class connectivity – digitally and through an integrated transport network within all parts of GM.

To achieve the ambitions of the GM Local Industrial Strategy it identifies actions around 5 foundations of productivity: Infrastructure, Ideas, People, Business Environment and Places. These are noted as being essential attributes of every successful economy. It also identifies opportunities grouped under 4 Grand Challenges – Artificial Intelligence and Data, the Ageing Society, Future Mobility and Clean Growth.

The Vision for the Digital, Creative and Media is set out in the Local Industrial Strategy and reproduced below:

'GM will be a leading European digital City-Region, with the infrastructure, skills and networks needed to digitise all sectors, and internationally significant clusters in broadcasting, content creation and media and cyber security'.

To help meet the vision the strategy states that GM will continue to transform the digital connectivity of the city-region to drive economic growth and innovation, working with Government to meet national targets of full roll-out of 5G technologies for most people by 2027.

The Local Industrial Strategy acknowledges that GM will aim to become one of the best digitally connected city-regions in the UK. It fully supports the development of 5G networks.

The Greater Manchester Digital Blueprint (April 2020)

The GM Digital Blueprint builds on the Greater Manchester Digital Strategy and states that this blueprint sets out the next chapter in Greater Manchester's ambition to be recognised as a world-leading digital city region, with an ongoing commitment to taking an open, innovative and connective approach to delivering that ambition.

It states that Greater Manchester remains committed to being a digital city-region. The ambition is still for Greater Manchester to be a top 5 European Digital City-Region and recognised globally for its digital innovation. Benefitting from top level physical infrastructure, and a highly skilled, ready-to-go digital workforce.

The Blueprint goes on to say that this is the place that does digital differently.

'We want our citizens' lives to be bettered, and for them to be empowered by the myriad of opportunities a digitally fuelled city-region provides'.

The Blueprint for Greater Manchester digital sets out a 3 year approach to meeting these ambitions:

... 'investing heavily in digital infrastructure, connectivity and transport offering breadth and depth of expertise across digital and creative services, e commerce, technology, hardware and software.

We're creating a digital place where innovators from across the globe want to tap into and a place where businesses already here can thrive'.

The 3 year aims include:

- By 2023, the average download speed across fibre, cable mobile and wireless will exceed 100Mps compared to a Q4 2017 baseline of 32Mps.
- Employment and skills in digital and creative industries 86000 people employed in 2019 growing to 96000 in 2023.
- Overall economic growth £5 billion in creative digital and technology economy growing to £5.5 billion by 2025 and £7 billion by 2029.

The digital priorities are set out as follows:

- Empowering people
- Enabling innovative public services
- Digitally enabling all businesses
- Creating and scaling digital businesses
- Being a global digital influencer

Enablers to these priorities are noted as including extending world-class digital infrastructure:

'We will ensure that Greater Manchester has the digital infrastructure it needs to be a world class digital city region'.

The aims are noted as:

- *Deliver ubiquitous high speed digital connectivity over full fibre and 4G and 5G mobile across the whole city region by 2025.*
- *Driving market investment in fibre and mobile by minimising roll out costs.*

Greater Manchester Infrastructure Framework 2040 (GMCA)

This is a pre-cursor to the GM Infrastructure Strategy. The aim is to focus on developing infrastructure which ultimately improves the lives of all those living and working within Greater Manchester.

The Infrastructure Framework acknowledges a number of key challenges, one of which is digital and the need to provide pervasive, affordable, resilient digital connectivity. The Framework notes that 'Digital technology is increasingly the backbone of the major industries and our daily lives'.

The Framework goes on to state that approaching 2040, GM will need to be a Smart and digitally ready City Region. To achieve this, and support on-going digitalisation, the region will require resilient fixed connectivity (through fixed fibre) supported by 5G (and subsequent technologies). It will also need to streamline the process for installation of new infrastructure within the street space.

The Framework notes the vision for the GM Infrastructure Strategy:

'Develop and maintain a holistic infrastructure system that is robust, accommodates sustainable growth and supports the ambitions of the Greater Manchester Strategy to make "Greater Manchester one of the best places in the world to grow up, get on and grow old".'

The Greater Manchester Infrastructure Strategy should seek to:

- *Support the lives and well-being of people, communities and the environment within Greater Manchester.*

- Be age-friendly and support the economic and social participation of both young and old.
- Support strategically identified growth for parts and communities within Greater Manchester.
- Be flexible, robust and meet the existing and future needs of the communities and technological change.
- Provide world-class connections and access to opportunity for all.
- Provide world-class digital infrastructure which provides a platform for GM to embrace emerging technological and societal changes.
- Support a carbon-neutral GM and be economically, environmentally and socially sustainable.

The Framework identifies a key infrastructure trend to 2040 as Digital (Telecommunications Operators) including mobile infrastructure:

- As the population and employment is due to rise:
 - more people will mean more homes and businesses, and more consumers of digital services.
 - There will be a growing demand for high-speed, resilient data connectivity to facilitate changing patterns such as shopping patterns moving online, whilst flexible working becomes more prevalent.
- Changing workforce:
 - More productive, higher skilled, higher paid jobs more specialised and skill activities needs digital infrastructure to support higher skilled industries – which may require increased digital infrastructure.
- Environmental Change:
 - Improving efficiencies of buildings and appliances. The use of smarter technologies within each infrastructure sector will look to improve efficiencies further.

The Framework comments on digitalisation noting the importance of it and how it has transformed the way in which we go about our everyday lives:

'We live in an increasingly digital world. Technologies that are visionary today rapidly become part of everyday life tomorrow. In turn, people's expectations are rising constantly. "Digital" now encompasses an increasing array of technologies, from sensors, smartphones and robots, to augmented reality, cloud computing and data analytics. These technologies are changing the way in which we live and places we live in. Digital technologies are being used to make cities more smooth running, more productive, and more democratic. The pervasiveness of digital technology in our lives represents a major change. For these technologies to function effectively, it is fundamental that a robust and diverse underpinning infrastructure is installed that ensures a future-proofed platform for the development of these and many new technologies for years to come.'

As our homes, businesses and cities become more reliant on digital technology to function the robustness of these systems becomes even more critical'.

The Framework states that 'anyone in GM should be able to access resilient, seamless connectivity at a speed they need anywhere and anytime'.

- New technologies, artificial intelligence and atomisation:
 - Improvements in artificial intelligence and atomisation technologies will transform infrastructure sectors and business markets.
 - Digital infrastructure will be crucial to supporting future technology and a Smart City Region.

- Embracing digital technology throughout all sectors, geographies and occupations is fundamental to GM's current and future international competitiveness.

The Framework acknowledges that the vision of moving to a smart and digitally-ready city-region requires future digital infrastructure to be strong fixed resilient connectivity, supported by 5G (and beyond), big data systems and other nascent technologies such as Artificial Intelligence and machine learning. Without connectivity it is acknowledged that processing the sheer volumes of data necessary to create a network of communicating devices will be impossible. As such, the Framework states that big improvements are required to increase the provision of wired and wireless (through 5G or subsequent technologies and Wi-Fi provision) across GM. Without the more basic technology solutions (such as passive fibre connectivity and 5G) the smart-region solutions and value-added outcomes will struggle to be brought to fruition.

The Framework notes that 5G roll out is expected from 2020. However, the timing and costs of roll out is uncertain and international standards have yet to be agreed. It is possible that there will only be one network upon which providers deliver their services or that each provider might need to invest.

With regards to the Regional Centre if Challenge 8 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 such as the Regional Centre.

The Framework also states that GMCA and the Districts together with digital and telecommunication providers need to drive forward opportunities to promote connectivity and uptake in the Regional Centre.

Manchester Digital Strategy 2021-2026 (March 2022)

This digital strategy for Manchester is the vision for Manchester's digital future. It sets the priorities that our whole city – our public, private, voluntary and community organisations and residents – will be able to work on together to make Manchester one of the world's leading smart cities and digital economies in the next five years.

The priorities of the Manchester Digital Strategy will contribute directly to the delivery of five of the ten Our Manchester Strategy priorities:

- We will become a digitally inclusive city, with better digital infrastructure, access to digital technology and strong and lifelong digital skills.

We have used these to create four overarching themes for the Digital Strategy:

1. Smart people:

We will ensure that everyone can gain and sustain the skills, aspirations, and confidence to fully participate in the digital world; providing the basis for Manchester to become an inclusive, diverse, successful and ethical smart city.

2. Digital places:

We will create digital neighbourhoods providing access, connectivity and support for all residents and businesses and digitally enabling enhanced health and wellbeing.

3. Future prosperity:

We will enable the digital economy and ecosystem to grow, continue to attract new digital businesses & sectors and support a resilient and inclusive economy.

4. Sustainable resilience:

We will use digital imaginatively for innovation to meet zero carbon and climate resilience goals and to create open inclusive connectivity with enhanced digital infrastructure as a utility not just a commodity.

Digital Places is about making sure the city itself, alongside its people, drives us towards a more digitally enabled future.

In a digital place, high quality and open digital infrastructure is ubiquitous at every level. Its leaders think towards the future and make sure that the changes we make to our physical environment today support the technological demands of tomorrow, and therefore much of Digital Places is about how we plan for and consider these future requirements in everything that we do to create a built environment that is fully digitally enabled.

Smart places are places where connectivity is ubiquitous and universal, where people, organisations and smart devices are all connected. They are places where information is collected and shared in a way that allows anyone to understand and interrogate it, coming up with their own solutions to our greatest challenges. Smart places are also climate-resilient and adaptive, supporting our transition to a zero carbon economy as well as being sustainable, adaptable and future-proofed.

Connectivity is also of critical importance to Manchester 's creative and cultural industries, which overlap with the digital and tech sectors. Our cultural sector has been reliant on digital to keep operating throughout the COVID-19 pandemic, and there is a role for Digital Places in supporting the city 's Cultural Recovery Plan. The digital transformation of the sector is likely to continue, and we must support it by making it easier for creators to digitising, distributing and monetising artistic products online.

Secondly, we know that improved access and technology can enhance access to existing public services. Using the example of health services, digital delivery means that services become more accessible and have wider benefits, for example enabling older people to continue to live in their own homes. Digitisation of health and care records also provides the opportunity to better integrate services as well as offering an opportunity for innovation providing new approaches to tackling embedded health challenges in the City including Health Ageing.

Online Nation 2021 Report (June 2021)

The importance of the internet and access to smartphones is acknowledged within the latest Online Nation 2021 Report (June 2021). The report notes that the pandemic has highlighted the importance of being online and driven changes in the take-up and use of internet services, as many people have had a critical reliance on the internet for communications, information, entertainment and commerce. Increases in internet use in 2020 were most pronounced in spring and November 2020 lockdowns, as people turned to the internet and were more dependent than ever on online services for video calling for socialising or home-based working, home schooling, keeping in touch, films and gaming, shopping and information about the pandemic.

In September 2020, UK Internet users spent nearly 4 times as much time on smartphones than they did on computers. 68% of the time spent online was via smartphones up 4% from September 2019, this was compared to 18% of time spent online via computers and 13% via tablets.

By the end of 2020 approximately 94% of UK homes had internet access, up from 89% in 2019. Video calling became an important way for people to keep in touch during the pandemic. Zoom went from a few hundred thousand users in the first few months of 2020 to more than 13 million in April and May 2020. This has dropped to 10.4 million users in March 2021, while platforms used mainly for work and education, notably Microsoft Teams have shown a sustained increase in use (13.7 million users in March 2021, up by 5.3 million year on year).

The report found that most of the time people spend on the internet is via apps on mobile devices. Online services were a crucial way for people to find out information about the pandemic, and for governments to try and track and control the spread of the virus.

The report acknowledged that the internet helped most children continue their education throughout lockdown. Virtually all households with school-aged children had access to the internet at home. 7% did not have fixed broadband and 4% had access only to a mobile phone. 1 in 5 did not have access to an appropriate device for their schoolwork all the time. The Report found that 2020 saw the rapid adoption of digital remote education by teachers, parents and children such as video conferencing, and platforms for setting and collecting work. In the first few weeks of lockdown in spring 2020, two thirds of children in England were not receiving any live or recorded lessons. By January 2021, this was down to just one in ten. The Report suggests that the use of these platforms may continue such as for those who can't attend school due to illness, or to provide additional revision materials.

Nine in ten 8 – 15 year olds who use social-media said it helped them to feel closer to their friends in 2020. The report stated that social video services offer huge benefits for users and the economy. They provide a platform for self-expression through enabling user-generated content (31% of adults and 40% of 13-17 year olds post video content).

Lockdown influenced the types of social video that were most popular such as the first episode of Joe Wickes' PE which was the most viewed YouTube video of 2020, and videos relating to home baking such as sourdough bread increased by 458%.

Social media serves as a means of entertainment and education for many (used by 97% of adult internet users), and as an important method of marketing for businesses (online video advertising grew by 23% in the UK in 2020).

Online retail spend in the UK increased by 48% in 2020 (compared to an average annual increase of 13% in the previous 4 years). Online's share of retail spend increased from approximately 20% in 2019 to 35% in the spring lockdown and 30% in December 2020. By December 2020 11% of the UK grocery market sales were online, up from 5% at the beginning of the year. Online food delivery services also increased in demand - Just Eat being the most popular with its UK orders up 58% higher in the last quarter of 2020 compared to the same period in 2019.

People have relied on the internet for news and information throughout the pandemic. During the spring 2020 lockdown 52% of people said that news and current affairs was one of their main reasons to go online.

Adults are as likely to use social media to find information about the COVID-19 pandemic as they are to use news sites and apps (approximately 1 in 3), whilst one in eight 16 – 24 year olds

considered social media to be their most important source of information about the coronavirus pandemic, compared to 5% of all UK online adults.

The report found that 91% of households used smartphones to access the internet in 2021, compared to 65% who used tablets and 47% who accessed the internet using computers. The report also noted that 61% of UK adults who access the internet did so using both computers and smart devices.

The Report notes that the smartphone is the most-used device for accessing the internet for all age groups apart from those aged 65 +. It found that in 2020, 85% of internet users aged 16 + used a smartphone to go online, compared to nearly 75% accessing the internet via a computer and just over 50% using a tablet to access the internet. One in ten adults also stated that they only use a smartphone to go online and three in ten used their phone to complete an online form or app on a weekly basis.

In addition, in February 2021, the Government said that more than 1.7 million app users across England and Wales had been advised to isolate by the NHS COVID-19 app, following close contact with someone who had tested positive.

Levelling Up the United Kingdom (February 2022)

Digital Connectivity is a focus area and the mission is 'By 2030, the UK will have nationwide gigabit-capable broadband and 4G coverage, with 5G coverage for the majority of the population'.

Chapter 3 - The Policy Programme:

Para 3.2.4 - By 2030, the UK will have nationwide gigabit-capable broadband and 4G coverage, with 5G coverage for the majority of the population

This mission is focused on improving digital connectivity.

Digital connectivity: The case for action

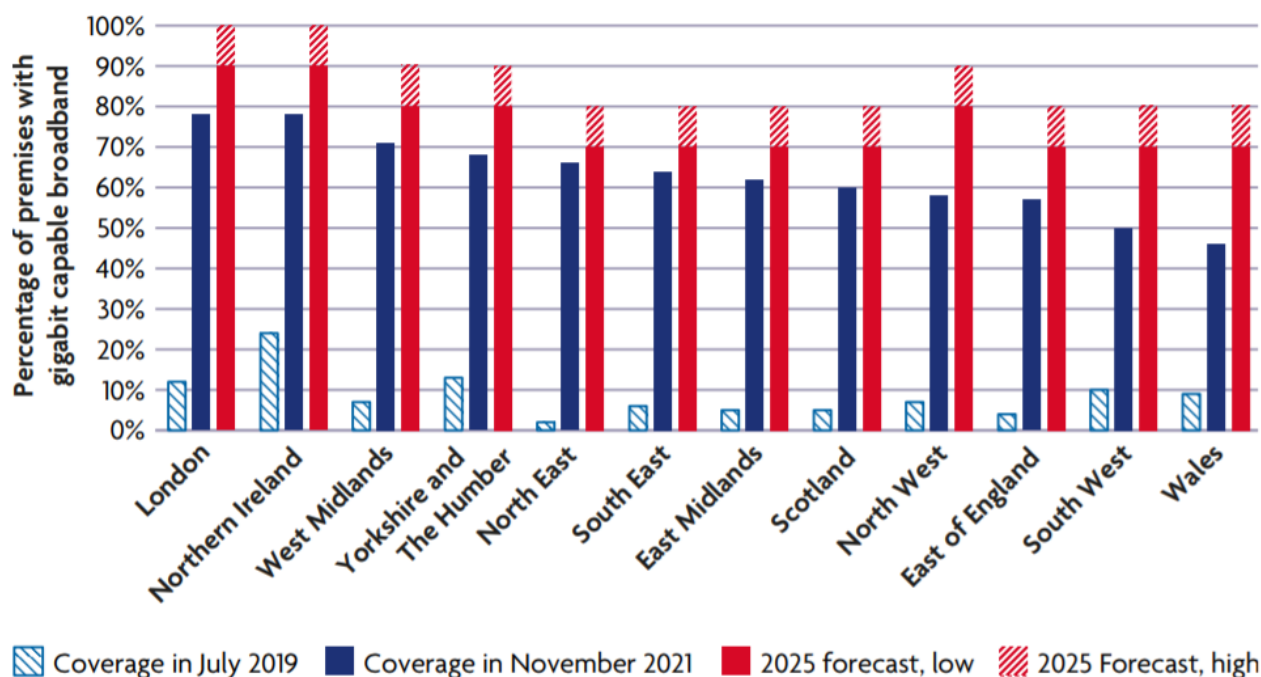
The COVID-19 pandemic demonstrated the importance of digital infrastructure right across society, from ensuring business continuity to reducing isolation. Improved digital connectivity has the potential to drive growth and productivity across the UK and widen job opportunities through remote working. However, there are significant spatial disparities in the quality of broadband and mobile networks, with rural areas likely to experience worse digital connectivity than urban areas. Infrastructure is only part of the picture: economic benefits will only materialise if businesses and workers have the skills to take advantage of improved infrastructure.

More broadly, high quality digital infrastructure can deepen local labour markets through remote working, making it more attractive for both workers and companies to locate regionally. It also allows for the development of high-value sectoral clusters, which can drive growth and jobs in new areas. Existing specialisms in the UK regions have the potential to generate strong tech clusters, such as fintech in Scotland and Wales, e-Commerce in the North West and Northern Ireland, and Agri-Tech in Yorkshire and the Humber. The sector also provides opportunities for raising living standards – median earnings for the sector are 50% higher than the UK average.

The policy programme In 2020, the UK Government published the National Infrastructure Strategy, committing to providing £5bn in public funding to roll out gigabit broadband to at least 85% of the country by 2025, and subsequently to as close to 100% as possible, working with the private sector.

Public investment will target premises that are hardest to reach and which would otherwise not be provided for by the private sector, ensuring no areas are left behind. Gigabit coverage has increased from 10% to over 60% in less than two years. Since 2019, coverage has improved across the UK, and the UK Government anticipates the following additional improvements to be delivered as a minimum by 2025, as set out below.

Figure 3.1 Gigabit coverage improvements, UK countries and regions, 2019, 2021 and 2025 (forecast)



Source: Levelling Up the United Kingdom.

We must ensure that people have sufficient digital skills to reap the benefits and prosperity arising from the digital economy. In 2020, the UK Government introduced a new digital skills entitlement, giving adults with low or no digital skills in England free access to new digital skills qualifications based on employer-supported national standards. The UK Government continues to work with local leaders to develop Local Digital Skills Partnerships. These collaborative partnerships are now operating in seven regions across England, with an eighth formally launching in Hull and East Yorkshire in early March. The UK Government will work with devolved administrations to consider how best to share the insights and evaluation of the programme to help build digital skills capability across the UK.

Planning Assessment

The main issues arising from this prior approval notification are whether the proposed mast and cabinets due to their scale and siting would be a visually obtrusive feature which would be detrimental to the character and appearance of the area, and 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, which fully supports the roll out of advanced mobile connectivity and the next generation connectivity to accelerate business opportunities and growth to ensure the economy is resilient and competitive, the relevant Manchester Unitary Development Plan and Core Strategy objectives and policies, the Greater Manchester Digital Strategy, Local Industrial Strategy, Digital Blueprint and Infrastructure Framework.

Siting

The siting of the proposed radio base station has been carefully considered. To this end, it is located on a wide section of the footway, screened by a large mature tree to the north, and viewed in the context of the nearby linear pieces of street furniture which are present in the immediate locality. The site has been carefully located and will be co-located as near as possible to the existing 2G/3G/4G pole. This will help the proposed installation assimilate into the streetscene and not appear unduly out of place. There are a number of existing vertical features in the immediate area including streetlighting columns, traffic lights and road signage, and street trees to the north-east and south-west. These structures will help the column and associated cabinets from appearing prominent in the streetscene. Consequently, the visual impact of the proposed radio base station will be minimised within the streetscene. This is in line with Strategic Objective SO1 and Policy DM1 of the Core Strategy and Policy DC 17.1 of the Unitary Development Plan. Furthermore, it is not considered that the proposal will have an unacceptable impact on the character of the Ballbrook conservation area or the setting of the nearby listed building on Palatine Road. On the opposite side of Palatine Road on the NE corner of Pipe Bridge there are existing installations. This includes one other operator's existing installation and an existing MBNL installation, which the proposal described is for the upgrade of the existing installation and will replace the existing site.

The radio base station will assimilate well with the existing vertical structures in the immediate area, as demonstrated in the street views shown below.



Looking at the site from the west, on Lapwing Lane, towards the north-east on Palatine Road. The image shows an existing, other operators monopole on the far left of the image, with the existing MBNL pole, to be removed, to the right of the other operators pole. (Source: Google)



Looking at the site from Palatine Road on the north-east of the site towards the west and Pipe Bridge. (Source: Google)

The linear structures in the area will help the column and associated cabinets from appearing prominent in the streetscene and assimilate with their surroundings. The linear items of street furniture are similarly designed to the proposed column i.e. to be simple, functional vertical structures. Consequently, the visual impact of the proposed radio base station will be minimised within the streetscene. This is in full accordance with the policies and objectives of the Manchester Core Strategy 2012.

The proposed equipment cabinets do not require planning permission, as they can be installed under the operators permitted development rights. In order to remain fully transparent, they have been included on the plans and in the description. The operator's equipment cabinets are similar to those of other statutory undertakers which are common place in urban areas including BT Openreach. Their limited height and scale will ensure that these cabinets will not be detrimental to the visual amenity of the area and will be finished in a green colour; however they can be coloured any colour the Local Planning Authority find appropriate.

In line with the requirements of NPPF, the proposal is for the upgrade of an existing site. Therefore, no alternative sites were explored. The existing column cannot be upgraded to host all of the necessary antennas which would allow Three UK Ltd to provide enhanced 3G/4G and will have the capability for future technology. Similarly it would not be able to be upgraded to allow EE to host future technology from it either. As such, a new column is required.

3G and 4G signals by their very nature (as they carry high data rates) do not penetrate over long distances, (5G even less so), just a few hundred metres, depending on the topography of the land, building clutter and vegetation including trees in the area which can reduce their effectiveness. Therefore 3G and 4G radio base stations need to be close to their customer demand which is

normally in residential areas. As this is a column for H3G, whose network configuration is well established in the area, the operator's search area is naturally smaller, than would otherwise be the case if the operator wasn't already providing service provision from this location. This severely limits the options for siting a new installation in the area.

Mobile phone base stations operate on a low power and accordingly base stations therefore need to be located in the areas they are required to serve. Increasingly, people are also using their mobiles in their homes and this means we need to position base stations in, or close to, residential areas.

The proposed new mast has been sited and designed in order to support the existing mobile network and has the capability for future technology. As the new pole will eventually replace the existing 2G/3G/4G mast it must be immediately adjacent to the existing pole in order to replicate the coverage.

Appearance

The design of the monopole has been carefully considered. To this end, it is a simple, functional slim-line monopole, with the main column being split in to two sections. The lower section is wider than the upper section in order to safely support the antennas at the top of the column. The mast will be coloured Grey which has been well established as the best colour for minimising impact upon urban streetscapes and the predominantly grey British skyline, although it can be painted any other colour the LPA consider appropriate. The cabinetry will also be coloured Grey, although again, they can be coloured any other colour the LPA consider appropriate. This is in line with the policies and spatial objectives of the Manchester Core Strategy 2012.

The proposed radio base fully complies with the relevant policies contained within the Manchester Core Strategy 2012. In order to reduce the visual impact on the surrounding area the antennas have been positioned in a dual stack formation, with 3 antennas at the top of the mast and the other 3 antennas are proposed to be located underneath. The antennas are positioned as tight as possible and will only be marginally wider than the main column width, rather than being a bulky headframe, as such will not appear dissimilar to a shrouded design.

If the column and shroud were to be any slimmer, then the MORAN technologies would not be able to fit in the same installation and an additional radio base station would be required which would be contrary to national planning guidance. It would also not be structurally capable of supporting all the technologies including the latest 4G coverage as well as having the capability for future technology. If the column were to be the same width throughout then it would have to be as wide as the antennas at the top of the column. This would appear more visually prominent in the streetscene than the current proposals.

The presence of the linear structures including the road signage and lighting columns in the immediate area will ensure that the proposed column will not appear incongruous within the streetscene. Thus, there will be no detrimental loss of visual amenity to the area or environmental intrusion in line with Policy DC 17.1 of the Manchester Unitary Development Plan and the spatial objectives and policies of the Manchester Core Strategy 2012.

The telecommunications mast is proposed to be a slim-line simple, vertical, functional structure. The column is relatively slender and similar in design to the existing vertical structures in the immediate area along Lapwing Lane and Palatine Road, albeit taller in height. As a result this installation would not appear incongruous within the streetscene in line with the requirements of the Manchester Core Strategy 2012.

The installation of an 18m slim-line column designed to be as similar as possible to the other linear structures found in the immediate area will be no more at odds with the streetscene and character of the area than the other vertical structures within the immediate locale.

It is accepted that the height of the proposed installation is taller than other pieces of surrounding linear structures but this in itself is not a valid reason to conclude that it is not appropriate at a specific location. Indeed, Inspectors at appeal have noted that by their very nature to be effective masts are required to be taller than surrounding structures.

Telecommunications apparatus by their very nature must be taller than surrounding built and natural form to ensure its efficient operation. To suggest that it is inappropriate development because it is taller than adjacent lighting columns or road signage is no more relevant than suggesting that street lighting columns are inappropriate because they are taller than road signage or traffic lights. They are all essential pieces of infrastructure within a streetscene that carry out differing functions and therefore cannot be considered on the same merits. Should a street lighting column be capable of the provision of high quality 2G/3G/4G telecommunication services for two separate operators then this would be a reasonable consideration, but this is clearly not the case. As such, the proposal should not be considered negatively due to it being taller per se than other vertical structures. Reasonable consideration of the proposal in the context of nearby street furniture can only conclude that the presence of other vertical structures in the immediate area only seeks to provide a setting wherein a base station may appear more congruous from which to provide an important service to a wider area.

The proposed height at 18m is essential in order to clear the urban clutter and nearby trees in the area and provide equivalent replacement coverage as well having the capability to provide new services to this part of Didsbury. If the column height were to be reduced in this location, this would result in a degraded service due to the blocking effect from the surrounding urban clutter and nearby trees. This would especially be the case for the higher frequency technologies including any potential future technology service provision. Thus if the column were to be any lower, the antennas would not be able to clear the nearby trees/urban clutter and as such would not be able to operate effectively. As such, an additional installation would be required which would lead to the proliferation of masts contrary to the NPPF, Policy DC 17.1 of the Unitary Development Plan and the spatial objectives and policies of the Manchester Core Strategy.

This is a prior approval application where the principle of this type of development is already established by the Government under the Town and Country Planning (GPD) Order 2015 (as amended) which states that this type of development is permitted subject to the prior approval of the siting and appearance of the installation. This is therefore akin to an outline planning permission. Given the nature of the area which contains a number of vertical structures of various heights the proposed radio base station would not appear prominent nor out of place.

NPPF states at paragraph 115 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. In order to provide an upgraded 4G service in this locality, the operator is unable to utilise the existing structure, as it is not designed to be able to support all the latest technologies, and must therefore erect a new column and cabinets in order to maintain, upgrade and provide the latest and new technologies to the surrounding area. The proposed monopole also has the potential to allow for future technologies to be provided from the site. The operator, as already explained above, is unable to shroud the antennas, but the design is as slim as possible and will remain a simple, functional, vertical structure in the streetscene similar to the linear forms of essential infrastructure along Lapwing Lane and Palatine Road.

The equipment cabinets are designed to appear like other statutory undertakers' equipment cabinets often found in urban areas. They are small for telecommunications equipment. The proposed equipment cabinets are the least amount of cabinets that can be installed in this location and enable the radio base station to operate. If the number of cabinets were to be reduced then there would not be sufficient room to house all the operators' equipment. In any event, these cabinets are permitted development under the operators permitted development rights. They have only been included in the description and on the plans in order to remain fully transparent. In order to help blend in with their surroundings they are proposed to be coloured grey, although they can be coloured any other colour that the council considers to be appropriate.

The design of the radio base station is one of the most sensitive designs available to the operators, designed to resemble typical existing urban linear street furniture, and that will allow two telecommunications operators to operate from a single site. This is in line with the requirements of NPPF which supports equipment which is sympathetically designed and camouflaged where appropriate [paragraph 115], The Code of Practice as well as the aspirations of Policy DC 17.1 of the Unitary Development Plan and the spatial objectives and policies DM1 and CC9 of the Core Strategy.

The proposed new site accords with NPPF because the equipment will resemble other linear structures within the area, will expand the network, and ensure high quality communications infrastructure is maintained. Placing masts near similar structures such as lighting columns, utilising simple and unfussy designs is acknowledged in the Code of Practice to be less likely to dominate and be in discord with the streetscene and as a result less likely to have a detrimental impact on the visual amenity of the surrounding area.

Economic and Social Benefits

The NPPF strongly supports sustainable development as does the Council's Core Strategy Spatial Objective SO1. 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, 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. This reduces travel time, carbon emissions and increases the speed in which information is processed/shared. The proposals therefore fully comply with the NPPF, the Core Strategy and the Greater Manchester Infrastructure Framework 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 3G and 4G coverage and capacity in this area will fully meet this national policy objective.

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.

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 also helps the economy to be resilient and competitive. This is in full accordance with the ambitions of the Manchester Core Strategy, the Greater Manchester Digital Strategy and the Local Industrial Strategy. It will help Didsbury become an area where 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, and pollution; to improve living standards and well-being, helping people to lead prosperous and rewarding lives; and to improve the quality and value for money of public services.

Providing improved 3G and 4G coverage and capacity in this area, and future proofing the site to allow it to provide future technologies if necessary, fully meets this part of the NPPF. 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 UK's 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.

The Local Government Association (LGA) has produced a Councillor's Guide to Digital Connectivity and sets out some of the benefits of modern digital 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 4th April 2022 the new permitted development rights for telecommunication operators came in to force, designed to lift the restrictions on mobile operators such as the significance and weight the Government place upon the benefits attached to modern connectivity.

In October 2016, there was also the BIG Infrastructure Group (as Chaired by MP Grant Shapps) Report release calling on operators to improve their network. This is signed and has comments from numerous MPs nationally.

A National Needs Assessment – A Vision for UK Infrastructure was also published in October 2016 ([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](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)). 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:

'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 Didsbury as well as having the capability to provide new services to 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 upgrade the existing radio base station in this area of Didsbury to provide enhanced 2G, 3G and 4G coverage for H3G, and allowing the site to be capable of providing future technologies when required, by installing a new monopole and equipment cabinets, is significant.

Ministers from the DCMS and MHCLG wrote to all CEOs of Council's in England (March 2019) setting out its position in respect of supporting investment in high-quality, reliable digital connectivity '**Collaborating for digital connectivity**'. The Government acknowledges that such infrastructure is essential for communities to benefit from faster economic growth and greater social inclusion. Ministers state:

'It is essential to keep pace with growing demand for internet bandwidth and mobile data from local businesses, residents and those who visit our communities. As outlined in the Future Telecoms Infrastructure Review, the Government would like to see nationwide full fibre coverage by 2033. We would also like the UK to be a world leader in 5G, with the majority of the population covered by a 5G signal by 2027. We are writing to ask for your help in supporting the investment necessary to achieve these objectives'.

'Recent years have seen substantial investment in mobile and fixed digital infrastructure across the UK.

While mobile coverage across the UK has been significantly improving, there are still too many areas where coverage is poor. The UK has now achieved 95% superfast broadband coverage but still only 6% full fibre coverage.

We need to create the market and policy conditions necessary to support the large- scale commercial investment required to extend and future-proof digital connectivity. A key part of this is making it easier for operators to deploy infrastructure.

Local authorities have an essential role to play as site providers. As Chief Executives, you can support investment in digital communications infrastructure by ensuring your organisations have policies and procedures in place that promote effective engagement with the digital communications industry and minimise barriers to deployment'.

On the 23 September 2020, the former 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 2020³:

...'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 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.

...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...

³ https://www.gov.uk/government/speeches/matt-warman-keynote-speech-at-connected-britain-2020?utm_source=01ad07cc-6884-4d9b-a0ca-8c212f0a4289&utm_medium=email&utm_campaign=govuk-notifications&utm_content=immediate

...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 by Matt Warman MP (former Digital Minister) highlights the importance that Government places on advanced, reliable, high quality advanced mobile connectivity. To prevent this technology from being brought into the area would be contrary to the Government's key aims.

In a more recent letter published by the former Digital Infrastructure Minister Matt Warman MP on the 24 May 2021 he spoke further about the Government's Commitment to extending mobile coverage:

'Digital connectivity is – now, more than ever – vital to enable people to stay connected and businesses to grow. The demand for mobile data 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...

...The Government is committed to extending mobile network coverage across the UK and providing uninterrupted mobile signal on all major roads...

...The National Planning Policy Framework ("the Framework") for England states that planning policies and decisions should support the expansion of electronic communications networks...

...In relation to electronic communications development, it also states that local planning authorities must determine applications on planning grounds only and they should not seek to prevent competition between different operators or question the need for an electronic communications system. As set out in planning practice guidance, it is in the public interest for local planning authorities to have effective delegation arrangements in place to ensure that decisions on planning applications that raise no significant planning issues are made quickly and that resources are appropriately concentrated on the applications of greatest significance to the local area'.

In the recent Levelling Up and Regeneration Bill, which set out "12 bold, national missions" which will be given legal status, Mission 4 is:

"By 2030, the UK will have nationwide gigabit-capable broadband and 4G coverage, with 5G coverage for most of the population".

This provides further evidence that Government places a high level of importance on the roll out new technologies in order to provide the latest connectivity to the majority of the population.

The proposed upgrade in this location, comprising of the installation of a new column and equipment cabinets, will allow the operator to provide new and improved high quality 3G and 4G coverage and capacity and capability for new future technology 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 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 expand and improve telecommunications mobile coverage as required and to have the latest high quality 4G infrastructure, promoting and growing the digital sector and increasing digital inclusion.

Health and Safety

The proposed installation conforms to current government planning guidelines regarding potential health effects arising from telecommunications development. The operator has attached a declaration that the site conforms to ICNIRP guidance. This is in full accordance with NPPF.

The publication of the National Planning Policy Framework continues to highlight the Governments view that the planning system is not the appropriate mechanism for determining health safeguards. It sends a clear message to local planning authorities stating that they must *'determine applications on planning grounds. They should not seek to prevent competition between different operators, question the need for the telecommunications system, or determine health safeguards if the proposal meets International Commission guidelines for public exposure'*. This is reiterated in the Code of Best Practice.

In this instance, it is not necessary to consider health effects further, as recommended by NPPF. The operator is committed to ensuring that all new and existing installations are ICNIRP compliant, and consequently it is considered that there is no basis for this application to be refused on health and safety grounds or for reasons relating to public concerns about health and safety. An ICNIRP compliance certificate is enclosed with this application.

Summary

MBNL on behalf of Three UK Ltd is in the process of upgrading their existing radio base stations. As part of this continued network improvement program, there is a specific technical requirement to provide upgraded coverage as well as the capability of new services in this area of Didsbury.

The proposed site has been carefully sited on a wide section of the footway at the corner of Lapwing Lane on Pipe Bridge, screened by a large mature tree from residential properties and viewed in the context of the existing linear items of street furniture and the lighting columns, road signage and traffic lights in the close vicinity of the site. As this is a prior approval application, the Government confirms that this is permitted development, akin to outline planning permission, with just the finer details of siting and appearance to be considered by the local planning authority. The existing vertical structures help the proposed installation assimilate with the streetscene and not appear alien in the immediate area.

The proposed height at 18 metres is essential in order for the antennas to reach the target coverage area and clear the surrounding urban clutter and overcome topographical constraints, because at higher frequencies attenuation of the radio signal is naturally higher and the effects of clutter are greater. This ensures that the antennas are able to maintain and provide high quality 3G and 4G service provision to Didsbury as well as having the capability for future technology. This will fully meet the national Governments aim of *'ensuring that everyone is connected to the information superhighway'* and the national policies set out in the NPPF. If the height of the column were to be reduced then the antennas would not be able to operate effectively, leading to a significantly degraded service for the operator's customers especially for the higher frequency technologies including the latest 4G technology.

Site selection was progressed in accordance with the applicant's licence obligations, advice in the NPPF and the Code of Practice and represents the least environmentally intrusive, technically suitable, available option.

The operator is limited in siting options as there is a requirement to provide equivalent 2G/3G/4G coverage and capacity for this area of Didsbury whilst also having the capability for future technology. The requirement to replicate the coverage provided by the existing pole means that the operator has to be located as close as possible to the existing installation in order to maintain the provision of equivalent coverage and capacity to the surrounding local area.

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. These benefits are strong material considerations which any perceived loss of visual amenity to the surrounding area.

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 and the relevant identified local planning policies. These benefits are strong material considerations which outweigh any perceived loss of visual amenity to the surrounding area.

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Position:	Town Planner		For MBNL, for and on behalf of Three UK Ltd