SUPPLEMENTARY INFORMATION

1. Site Details

Site Name:	Network Rail Rondin Road	Site Address:	Network Rail Rondin Road, Rondin Road, Ardwick, Manchester, M12 6BF
National Grid Reference:	E: 386140 N: 397495		
Site Ref Number:	CTIL_305481	Site Type:[1]	Macro

2. Pre Application Check List

Site Selection (for New Sites only)

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

Was a local planning authority mast register available to check for suitable sites by the operator or the local planning authority?	Yes	
If no explain why:		
Were industry site databases checked for suitable sites by the operator:	Yes	
If no explain why:		

Site Specific Pre-application consultation with local planning authority

Was there pre-application contact:	Yes
Date of pre-application contact:	N/A
Name of contact:	N/A
Summary of outcome/Main issues raised: A pre-consultation letter and plans were sent to the Local Planning Authority on 20/05/21 with a response received on 28/09/21 stating the land was within HS2.	

[1] Macro or Micro

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Annual area wide information to planning authority

Has annual area wide information been provided?	No
If no explain why:	

Summary issues raised:

"Cornerstones commercial relationship with Telefonica has changed, effectively increasing our independence to work with other companies in the deployment of mobile infrastructure. It means we no longer have visibility of Telefonica full update plan. However, Cornerstone is fully committed to working closely with Local Planning Authorities and following best practice guidance.

We aim to engage and work with the planning department at the earliest opportunity from when we are instructed to deliver new infrastructure within your Local Authority area and often conduct strategic pre-rollout engagement meetings to discuss our wider rollout. If your Local Authority would like a meeting to discuss wider Cornerstone rollout plans then please advise. We recognise the importance of developing long term partnerships and will always work with you to deliver improved mobile connectivity.

Community Consultation

Rating of Site under Traffic Light Model:	~~Red~~	Amber	~~Green~~

Outline of consultation carried out:

Consultation with local Ward Councillor's for Ardwick Ward (Cllrs B Priest, T Hewitson, A Abdullatif) and the local MP Lucy Powell. Pre-application consultation letters and drawings of the proposals were sent to these parties on the 20.09.2021.

Summary of outcome/main issues raised:

No comments to date.

School/College

Location of site in relation to school/college (include name of school/college): No schools nearby.
Outline of consultation carried out with school/college (include evidence of consultation): N/A
Summary of outcome/main issues raised (include copies of main correspondence): N/A

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

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

Developer's Notice

Copy of Developer's Notice enclosed?	Yes	
Date served:	Developers notice was sent to the site provider via email on 17/08/22	

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3. Proposed Development

The proposed site:

Background

Cornerstone is the UK's leading mobile infrastructure services company. They acquire, manage and own over 20,000 sites and are committed to enabling best in class mobile connectivity for over half of all the country's mobile customers. They oversee works on behalf of telecommunications providers and wherever possible aim to:

- promote shared infrastructure
- maximise opportunities to consolidate the number of base stations
- significantly reduce the environmental impact of network development

As part of Cornerstones continued network improvement program, there is a specific requirement for a new installation at this location to provide 2G, 3G, 4G and new 5G coverage and capacity, ensuring that this area of Ardwick and Greater Manchester has access to the latest technologies. This follows the inability of the operator to upgrade the existing site.

Telefonica requires new 5G to be installed on their network in this cell area due to the existing Vodafone Site Former Beswick Co-Op 217-223 Ashton Old Road Manchester, M11 3WU which cannot be upgraded due the existing rooftop not being able to support additional equipment for both operators. Therefore, a new site for Telefonica is therefore needed to provide this operator with the latest 2G, 3G 4G and 5G technologies. Whilst the existing is retained for Vodafone.

The Proposed Site

The proposed site is to be located on private land the immediate area is of an industrial nature. To the east is more land and factories. The north comprises of more industrial properties. to the west are more storage yards. The immediate area also accommodates lighting columns, telegraph poles and semi-mature trees.

There are no townscape or cultural designations that affect the application site itself.

Enclose map showing the cell centre and adjoining cells if appropriate:
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 provide 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. New 5G service provision will bring faster, more responsive and reliable connections than ever before.

Type of Structure: Lattice Tower	
Description: The installation of a 20-metre-high Lattice Tower supporting 6no Antennas; 1no GPS Module; 2no 300mm Transmission Dishes; 18no. Remote Radio Units RRUs; together with 2no. equipment cabinets, 1no meter cabinet and ancillary development thereto including a 3m high post and wire fence and 1m wide access gate. Details of the proposed equipment are detailed below.	
Overall Height: 20m including antennas	
Height of existing building *(where applicable)*	N/A
Equipment Housing: SFMC Meter Cabinet (x1)	
Length:	0.264 Metres
Width:	0.655 Metres
Height:	1.015 Metres
Equipment Housing: Percy PSU (x1)	
Length:	0.700 Metres
Width:	0.730 Metres
Height:	1.800 Metres
Equipment Housing: ERS Rack (x4)	
Length:	0.600 Metres
Width:	0.750 Metres
Height:	1.980 Metres
Materials *(as applicable)*:	
Tower/mast etc – type of material and external colour:	Lattice Tower - Galvanised
Equipment housing – type of material and external colour:	Equipment Cabinets – Green

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Reasons for choice of design, making reference to pre-application responses:
The operator has carefully considered the design of the proposed lattice tower. Due to all the technologies that will be available at this location, 2G, 3G, 4G and 5G, 6no. antennas need to be installed on brackets at the top of the lattice tower which is required to support the antennas for both operators. In order to fit in to the operator's network, a new radio base station is required for Telefónica service. The site is needed to provide 2G, 3G, 4G coverage and capacity for Telefónica to ensure that its customers can experience access to the latest service provision currently available and have access to a new 5G network. This is because the existing site cannot be upgraded for Telefonicas and Vodafones technology requirements for technical reasons more fully explained in the technical justification and discount sections below. The proposed new installation will also meet the extra demands on the network in this area as new technologies improve increasing the demand for 4G and new 5G technologies. The existing site will be retained for Vodafone. The proposed height at 20m is the minimum required in order to provide equivalent coverage to the target coverage area. 5G new radio technologies operate in higher frequency bands than older technologies. Since it operates at higher frequencies where attenuation of the radio signal is naturally higher and the effects of clutter are greater it will normally require a higher structure to achieve the same coverage footprint. To increase capacity and data speeds to the user, the antenna will normally need to be mounted higher than conventional antennae. These factors drive a requirement for an increase in antenna height in 5G. The new antennas are all unshrouded for technical reasons. The higher the radio frequency the more signal attenuation there is. The higher frequency 5G antennas are unable to operate effectively through the Glass Reinforced Plastic that a typical telecommunications shroud is made up of and as such if these antennas were to be shielded then they would not be able to provide the necessary coverage to the target coverage area. Since each GRP antenna is capable of serving a smaller area than an unshrouded antenna, an additional installation would be needed elsewhere within the cell area, leading to the proliferation of masts. The proposed structure will enable all technologies to be supported from this site. If the lattice tower were to be any slimmer then the technology would not fit in the one installation and another radio base station would be required, which would lead to the proliferation of masts contrary to national Government guidance set out in the NPPF and The Code of Best Practice.

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The design of the lattice tower with its see through nature allows light will to be able to pass between the supporting arms and tower legs of the lattice tower further reducing visual impact.

The proposed equipment cabinets and meter cabinet are small for telecommunications apparatus and proposed to be coloured grey that will blend in with the existing surrounding built form in the immediate area.

The 2no. transmission dishes are required in order for the new site link into the operators network they support the base stations functionality and without them the base station would not be able to operate effectively. Therefore, the dishes require a centre line height of 15.4m.

The RRUs are small each one about the size of a shoe box, whilst the GPS module are each the size of a tennis ball. They are designed to make the antennas more efficient. Given the RRU's height above ground level underneath the antennas, at approximately 16.5m for the RRU's and the GPS being located within the fenced compound, they will not be overly prominent in the area.

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 operator's 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 new 5G ready coverage providing high quality dense coverage and capacity, would not appear out of place within the area.

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Technical Information

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, Telefonica 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 Telefonica UK's network, the radio base station that is the subject of this application will be configured to operate in this way. All operators of radio transmitters are under a legal obligation to operate those transmitters in accordance with the conditions of their licence. Operation of the transmitter in accordance with the conditions of the licence fulfils the legal obligations in	Yes	

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respect of interference to other radio systems, other electrical equipment, instrumentation, or air traffic systems. The conditions of the licence are mandated by Ofcom, an agency of national government, who are responsible for the regulation of the civilian radio spectrum. The remit of Ofcom also includes investigation and remedy of any reported significant interference. The telecommunications infrastructure the subject of this application accords with all relevant legislation and as such will not cause significant and irremediable interference with other electrical equipment, air traffic services or instrumentation operated in the national interest.		

4. Technical Justification

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

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

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

There is a specific requirement for a new radio base station at this location to allow Telefónica to provide 2G, 3G and 4G coverage and capacity in and around Ardwick whilst also providing the latest 4G technology and new 5G service provision to the local area. This ensures high quality indoor service provision is maintained.

The enclosed 5G coverage plots demonstrate there is no existing 5G coverage in this area of Ardwick. This proposed base station will provide 5G coverage and capacity.

5. Site Selection Process

Alternative sites considered and not chosen (not generally required for **upgrades/alterations to existing sites** including redevelopment of an existing site to facilitate an upgrade or sharing with another operator)

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

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

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Site Type	Address	NGR	Reason for discounting
ETS – Existing Telecoms Site	Former Beswick Co-Op 217-223 Ashton Old Road Manchester, M11 3WU		Existing site which cannot support any additional equipment due to the rooftop design for the required technology and coverage needs required by the operator therefore this option cannot be upgraded and therefore discounted.
GF – Greenfield	Network Rail Land, Ashton Old Road, Manchester, M12 2DY	E: 386232 N: 397581	The triangle of land next to the overhead railway line and there is access issues. As there is no access it has been discounted
GF – Greenfield	McGuinness Demolition, Rondin Road, Manchester, M12 6BF	E: 386428 N: 397552	The site is part of the McGuinness demolition yard and access would be through the active demolition site which involves recycling, crushing aggregates and disposal of asbestos using 65 ton tracked excavators and other large plant. As telecoms sites require ongoing 24-hour maintenance access as well as construction access it is considered the site would be too dangerous to cross.
RT – Rooftop	Piccadilly Apartments, 401 Ashton Old Road, Manchester, M11 2DJ	E: 386463 N: 397621	Due to the construction of the building there is no design available to support the operator's apparatus and provide the necessary coverage to the target coverage area.
GF – Greenfield	Land behind hoarding Midland Street, Ashton Old Road, Manchester, M12 6BL	E: 385885 N: 397619	It is not possible to install a mast installation at this location due to unresolvable underground services - that appear to be old railway workings - in order to deliver the

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			required level of coverage to the target area. This site has therefore been discounted for this reason.
GF – Greenfield	Old Mercedes Benz dealership, 83 Ashton Old Road, Manchester, M12 6BL	E: 385928 N: 397692	An installation at this location is considered to be too prominent in the streetscene than the application site which is more appropriate in order to deliver the required coverage to the target area. This site has therefore been discounted for this reason.
GF – Greenfield	Ashton Old Road yard, 217-223 Ashton Old Road, Manchester, M11 3WU,	E: 386276 N: 397656	An installation at this location is considered to be more prominent to the residential amenity than the application site which is more appropriate in order to deliver the required coverage to the target area. This site has therefore been discounted for this reason.

If no alternative site options have been investigated, please explain why: N/A
Environmental Information: No specific environmental considerations identified to date.
Land use planning designations: No specific land designations.
Additional relevant information (include planning policy and material considerations): **National Planning Guidance** Planning policy is provided at the national level by the National Planning Policy Framework (NPPF). It is a material consideration in planning decisions.

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. In July 2021 the NPPF was revised again. Overall, it's been revised to strengthen other 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 innovation[42]'…*

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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'.

Code of Best Practice on Mobile Network Development in England (March 2022)

Now, more than ever, reliable digital connectivity is essential for people and businesses. Government have committed to extending mobile geographical coverage across the UK. In order to realise these ambitions, it is essential that the planning system can effectively support the deployment of new mobile infrastructure, as well as network upgrades.

The Department for Digital, Culture, Media and Sport, and the Department for Levelling Up, Housing and Communities have issued an updated Code of Best Practice which includes changes to further support the deployment of 5G coverage nationally. This Code provides guidance to mobile network operators, their agents and contractors and equally to all local planning authorities in England. It supersedes the Code of Best Practice on Mobile Phone Network Development (2016).

In line with the previous revision of the Code, digital connectivity is identified as being vital to enable people to stay connected and for businesses to grow. The principal aim of this Code is to continue to ensure Government's objective of supporting high quality communications infrastructure, which is key to continued economic prosperity and social inclusion for all.

Principles and Commitment

Paragraph 8 of the revised Code reiterates that fast, reliable digital connectivity can deliver economic, social and well-being benefits for the whole of the UK. The Code continues to acknowledge that as the demand for mobile data in the United Kingdom is increasing rapidly, it is important that everyone can have access to dependable and consistent mobile coverage where they live, work and travel.

The Government recognises the role of Planning 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. Paragraph 13 of the Code continues to echo the NPPF guidance in strongly supporting high quality

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communications infrastructure, which is seen as essential for sustainable economic growth. More specifically that planning policies and decisions should support the expansion of electronic communications networks, including next generation mobile technologies (such as 5G) in order to support economic growth across the country.

Given the economic importance of mobile connectivity, the revised Code further emphasises the need for Local Planning Authorities to support the deployment of digital infrastructure. Paragraph 18 states that Local Planning Authorities should demonstrate their support by:

- **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.
- **Information and communication**: ensure that members of the public can access information about any development proposals within their local area. Send communications promptly to an appropriate operator contact (or their representatives).

The added emphasis on support from Local Planning Authorities in the deployment in digital infrastructure is even more evident in the revised code. The Code 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

In line with this, is the recognition to continue to ensure that the impact of new network development is kept to a minimum. The Code states that good siting and design principles should continue to apply to all wireless network development and take into account any site-specific considerations and context, both of which 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

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including requirements to link the site to the network, landscape features and coverage and capacity requirements.

Paragraphs 25 - 27 sets out siting and site selection principles which Operators should consider including:

- 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).

Key Technical and Operational Considerations

Taking the above into consideration the Code acknowledges the need to balance technical needs and constraints of a proposed site and the potential developmental impacts (Paragraph 26). These constraints are set out in detail in the section 'Technical and Operational Considerations' of the Code. 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.

The Code emphasis the need for Local Planning Authorities to take account of these constraints, on network deployment and siting and design, when considering proposals. In relation to the introduction of 5G network deployment the Code acknowledges the requirement of additional equipment to provide necessary coverage and capacity.

Paragraph 66 states that 5G will require a denser network of base stations than previous generations, including more fixed line fibre optic cable for reliable and high capacity backhaul. The siting of 5G installations will be more constrained and guided by these special technical and operational considerations.

Paragraph 67 goes on to note that because of the scale and technological constraints of 5G equipment, previous camouflage design solutions, such as tree mast designs and concealing antennas in flagpoles, may not be practicable or suitable. In these cases, simple designs with particular attention to colouration and finishes may help reduce visual impacts on a site-specific basis.

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

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

The Code reiterates that the digital infrastructure must be achieved in a timely and efficient manner, and in a way which balances connectivity imperatives and the economic, community and social benefits that this brings with the environmental considerations that can be associated with such development. Great emphasis is placed on the need to work collaboratively between stakeholders to ensure key digital network deployment and therefore supporting economic growth

Local Policy

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

Manchester Unitary Development Plan (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 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 EM1 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.

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).

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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 forms 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.

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.

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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 states 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:

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

o Be age-friendly and support the economic and social participation of both young and old.

o Support strategically identified growth for parts and communities within Greater Manchester.

o Be flexible, robust and met the existing and future needs of the communities and technological change.

o Provide world-class connections and access to opportunity for all.

o Provide world-class digital infrastructure which provides a platform for GM to embrace emerging technological and societal changes.

o 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:

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o more people will mean more homes and businesses, and more consumers of digital services.

o 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:

o 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:

o 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:

o Improvements in artificial intelligence and atomisation technologies will transform infrastructure sectors and business markets.

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o Digital infrastructure will be crucial to supporting future technology and a Smart City Region.

o 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.

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 on line 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 2021m 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).

On line 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.

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 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'. 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 fntech 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.

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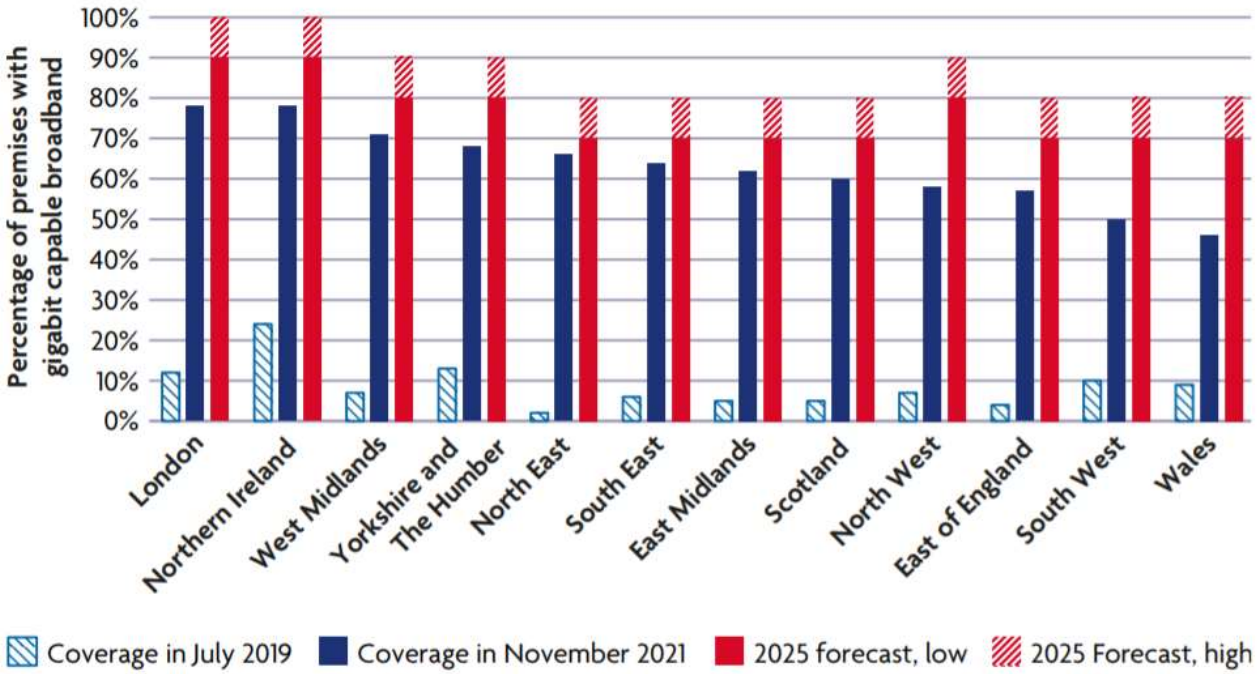
Figure 3.1 Gigabit coverage improvements, UK countries and regions, 2019, 2021 and 2025 (forecast)



Source: Levelling Up the United Kingdom.

In 2022, the UK Government will publish the Wireless Infrastructure Strategy. This will review how far the private sector will go to deliver wireless infrastructure across the country and determine whether there are any market failures in places that need to be addressed, and how the UK Government could tackle these.

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 Issues

The main issues arising from this prior approval notification are whether the proposed lattice tower 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.

Whether any perceived harm would outweigh the significant social and economic benefits associated with the increased service provision attributed to the proposal and other valid material considerations as outlined within NPPF, the extant Manchester UDP policies including Policy DC17.1, the Manchester Core Strategy, its vision, the relevant spatial objectives, policies SP1, EC1 and DM1 as well as the Greater Manchester Digital Strategy, the Greater Manchester Infrastructure Framework, and the Greater Manchester Local Industrial Strategy which fully supports Greater Manchester's position as a leading European digital city-region and the development of 5G networks.

The principle of development has been established by the Government when the new permitted development rights came in to force in 2022, which enabled sites such as this one to be built under the operators permitted development rights, (as the lattice height does not exceed 30m), 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'.*

Siting

The siting of the proposed radio base station has been carefully considered. To this end, it is located, on private land in an industrial area, where demand for service provision is high from a range of types of users including business premises. The site set

within the context of an industrial area with buildings shielding part of the installation from certain vantage points. This sites location will ensure that this installation will not appear prominent nor out of place in the area. This is in accordance with the Manchester UDP policies including Policy DC17.1, the Manchester Core Strategy, its vision, the relevant spatial objectives, policies SP1, EC1 and DM1.

The operator's lattice tower and equipment cabinets will be positioned within the fenced compound thus will reduce their prominence. Consequently, the context of the site is consistent with its location on private land by which a lattice towers would not appear to be uncommon. This is in full accordance with the Manchester UDP policies including Policy DC17.1, the Manchester Core Strategy, its vision, the relevant spatial objectives, policies SP1, EC1 and DM1.

The operator's equipment cabinets given 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 that will aide in the equipment assimilating with the existing area. However, the cabinets can be coloured any other colour that the LPA considers appropriate. Accordingly, the application is acceptable in visual amenity terms and will not have an unacceptable impact on residential amenity.

In line with the requirements of NPPF, there are no existing suitable telecommunications installations for the operator to share, that would provide the necessary coverage to the target coverage area. Similarly there are no buildings which are suitable and available that the operator could utilise to operate their equipment. The discounted options are set out in Section 5 above and their reasons for being discounted are fully explained.

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, 4G and 5G radio base stations need to be close to their customer demand which is normally in residential areas. In addition to this, this is a new site for Telefonica who is unable to provide the latest 4G and new 5G technology from the existing site, as it is not designed to be able to support the 5G technologies for both Vodafone and Telefonica. Therefore both operators require a new site to provide new 5G service provision as well as 2G, 3G and 4G coverage to this cell area. As previously stated the existing site will be retained by Vodafone.

In line with paragraph 115 of the NPPF, the operator has demonstrated that there is a need for the proposed development. A rational for site selection has been set out as well as detailed information on the operators approach to potential site sharing

opportunities. The application package is accompanied by evidence of the operators pre-application consultation exercise and pre-application communication with the Local Planning Authority. The application package is accompanied by an ICNIRP certificate that demonstrates compliance with all relevant ICNIRP standards.

The lattice tower and antennas do not emit any noise, odour, vibration, artificial light or disturbance from air. The only noise emitted is from a cooling fan within the equipment cabinets, which only operate during hot weather conditions. However, within a few metres the noise is inaudible. Given the sites location on private land and distance from residential properties this will prevent any noise emissions from being heard by occupants of nearby properties. The proposed installation will not cause any traffic generation as it is not a visitor destination. Maintenance of the equipment cabinets is usually once a year, where the engineer can walk to site with hand held tools.

The RRUs are small for telecommunications apparatus. They are designed to make the antennas more efficient. In order to maximise signal efficiency the RRUs need to be as close as possible to the antennas, hence they need to be located near the antennas towards on the lattice tower. Given their height above ground level and their small size approximately that of a shoe box for the RRU's they will not appear prominent in the area as they will be out of the general eye line of casual passers-by.

Appearance

In line with the guidance set out in Policy DC 17.1 of the Manchester UDP and Policy DM1 of the Core Strategy the visual impact on the area has been minimised. The radio base station is proposed to be a lattice tower which is required to provide the latest technologies. Given the makeup of the area that includes lighting columns near the proposals and thus will not appear out of place within the area which will be well shielded from certain vantage points on this industrial location.

The top of the lattice tower requires 6 no. antennas on a lattice tower to support the number of antennas. This ensures that both operators can provide 2G coverage, 3G and 4G services and provide new 5G coverage and capacity to this area of Ardwick. The installation of this lattice tower in this location on private land will not appear prominent.

The lattice tower design is a technical requirement for the operators without which they would not be able to fit all their technology within the structure and therefore an additional structure would be required within the cell area which would lead to the proliferation of masts contrary to national guidance.

This is a key site for the operator and is considered necessary in order to meet their 4G and 5G license obligations. Therefore, the proposed scheme is very significant in order to ensure that the national network is seamlessly linked from cell area to cell area, and that key settlements such as Ardwick get the connectivity they require in order for the customer to be able to continue to utilise their handsets for the purposes in which they were designed for.

Light will still be able to pass between the supporting arms and tower legs of the lattice tower. The lattice tower is proposed to be galvanised to blend in with and assimilate with an often grey sky.

In order to provide all multi technologies 2G, 3G, 4G and 5G on the same installation there is a requirement for 6 antennas and a proposed height of 20m. The technical reasons for the antennas being unshrouded and the proposed height have been fully explained in the reasons for design choice earlier in this supporting statement. currently being utilised by the operators at the existing radio base station.

The 2no. Transmission dishes are required to provide link into the operators network and required a clear line of sight at a centre line height of 15.4m. without these transmission dishes the radio base station would not be able to function.

The poorer propagation of the latest 4G and new 5G antennas means that if the lattice tower were to be any lower, the antennas would not be able the urban clutter and as such would not be able to operate effectively. A lower height would lead to a poor user experience for a large part of the target coverage area. As such, this would fail the operators design brief and an additional installation would be required leading to the proliferation of masts contrary to national planning guidance contained in the NPPF.

The equipment cabinets 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 order to help blend in with their surroundings they are proposed to be coloured grey to match the lattice tower, although they can be coloured any other colour that the council considers to be appropriate.

Lack of Coverage – Material Consideration

In accordance with the NPPF, the proposed installation is significant to enable continuous coverage of the telecommunication network, ensuring that the area in and around this part of Ardwick continues to get the mobile coverage it needs for Telefonica customers as well as new 5G coverage. It will also maintain and improve

coverage for the Mobile Virtual Network Operator's (MVNOs) which use the Telefonica network which includes GiffGaff, Tesco Mobile, Sky Mobile, Talk Talk Mobile, and Lyca Mobile. So the proposal will not only provide a service for one operator but those who buy network space off them, which is at least 5 with Telefonica. This will provide a choice for those customers who consider the level of coverage in their area when selecting which operator they agree future contracts with.

The current proposals will facilitate the development of an advanced broadband telecommunications infrastructure in line with National Government guidance contained within the NPPF which supports infrastructure especially where growth takes place. It will also fully comply with the NPPF which supports development which improves digital infrastructure delivery to businesses and residents. By providing the latest 4G technology and new 5G service provision the proposals will also help meet the aspiration of the Greater Manchester Digital Strategy to be a world-leading digital city region. Embracing digital technology throughout all sectors, geographies and occupations is fundamental to Greater Manchester's current and future international competitiveness according to the Digital Strategy. Becoming a leading digital city-region is imperative to delivering the Greater Manchester Digital Strategy Vision of delivering the economic, social and inclusion improvements it needs and wants. It will help Manchester become the smartest city, an aspiration of the Greater Manchester Mayor. Digital growth plays a fundamental role in driving economic growth.

Providing 5G coverage in this area of the regional city will also be in line with the aspiration of the Greater Manchester Local Industrial Strategy to be one of the top 5 city-regions for the digital economy in Europe, with full fibre broadband and 5G coverage. It will also support the Greater Manchester Local Industrial Strategy aim to upgrade, integrate and future-proof its infrastructure to create a 21st century city-region with extreme digital connectivity, clean and inclusive growth and improved access to national and global markets. The proposals will also support the Greater Manchester Local Industrial Strategy of having world-class connectivity digitally with the infrastructure to digitalise all sectors. As a result the Local Industrial Strategy fully supports the development of 5G networks.

New 5G coverage in this part of the city will also fully comply with the Greater Manchester Infrastructure Framework by helping to provide pervasive, affordable, resilient digital connectivity. The proposals will also help Greater Manchester to be a smart and digitally ready city-region, where resilient fixed connectivity supported by 5G service provision is required.

In line with the Greater Manchester Infrastructure Framework which fully supports the development of 5G, the proposals will provide world-class connections and access to opportunity for all in this cell area, as well as providing world-class digital infrastructure which provides the platform for Greater Manchester to embrace emerging technologies and societal changes. As noted in the Infrastructure Framework 5G infrastructure is fundamental to enable digital technologies to function. The proposals will ensure that any Telefonica customer in this cell area will be able to access resilient, seamless connectivity at a speed they need anywhere at any time. Without the more basic technology solutions such as 5G, the Framework acknowledges that smart-region solutions and value-added outcomes will struggle to be brought to fruition.

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

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

The proposed new radio base station is in full conformity with the Greater Manchester Infrastructure Framework, the Greater Manchester Local Industrial Strategy and the Greater Manchester Digital Strategy whose ambitions for the city-region are to be a world-leading digital city-region to help capitalise on economic, social and inclusion improvements that the Greater Manchester region wants and needs, which aims to upgrade, integrate and future-proof its infrastructure, to create a 21st century city-region with extreme digital connectivity. It will help meet their aim of Greater Manchester becoming one of the best digitally connected city-regions in the UK, where development of the 5G network is fully supported.

The way 5G works, it is closely connected with the Smart City agenda and will enable centralized control of lots of different street infrastructure owned or managed by councils, such as street lights, water meters and bus stops. Greater Manchester is fully committed to being a smart city and being a world-leading digital city region, as highlighted in the Greater Manchester Digital Strategy, Infrastructure Framework and

Local Industrial Strategy. As such it needs the 21st century infrastructure to enable this objective to become a reality. A new installation in this location enabling 5G service provision to the Prestwich area will ensure that this aspiration is fully met.

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

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

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

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

Access to the internet in whatever medium now impacts every facet of our lives but only benefits those who can access and use it. The benefits of internet connectivity are key for both residents and businesses alike and a new radio base station in this location providing the latest 2G, 3G, 4G and 5G technologies will support Greater Manchester's aspirations to be a world-leading digital city-region and one which promotes the growth of the digital sector, increasing digital inclusion, so all people can access services, education and training.

An installation in this location would fully meet the latest operators' coverage and capacity requirements for 3G, 4G and new 5G provision. This would be wholly in line with the Government's latest aspirations to strongly support advanced, high quality and reliable communications infrastructure, essential for economic growth and social well-being. Where the NPPF notes that decisions should support the expansion of

electronic communications networks. An installation outside this search area, regardless of whether there are existing sites, would not allow the operator to provide their desired level of coverage and therefore would not adequately maintain and provide new coverage and capacity.

The Code of Best Practice acknowledges that upgrading and improving mobile networks will not be possible without the necessary infrastructure on which we rely. With increasing consumer demand and the Government's aspirations for high quality communications infrastructure it is ever more important to improve connectivity and capacity. The Code of Best Practice acknowledges that there will be times when there is a need for a new radio base station, where sites have been lost, where areas have limited or no coverage and where coverage and capacity need to be enhanced. This application is one such example where there is a need to enhance 3G and 4G provision and provide new 5G services within this area.

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

The Online Nation 2021 Report highlights the importance of continued access to the latest technology on mobile devices, with 35% of the internet users only accessing the internet on mobile devices (Smartphone or tablet).

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

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

Economic and Social Benefits

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

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

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

Paragraph 38 of the revised NPPF states that:

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

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

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

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

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

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

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

acknowledged in the published Greater Manchester Local Industrial Strategy. Enabling and planning for 5G implementation is central to achieving the Government's objective to deliver property at the local level and enable all places to share in the proceeds of growth.

The Government is determined to ensure the UK receives the coverage and connectivity it needs. To this end, the Government wants to be a world leader in 5G, the next generation of wireless connectivity, and for communities to benefit from the investments in the new technology. The GM aspirations align with the Government objectives of being a world leader in 5G. The proposed installation will fully support these national and local aspirations.

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

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

- Faster mobile broadband and a more consistent experience in congested areas with a very high number of devices.
- Industrial applications, enabling businesses to improve their productivity, for example through predictive maintenance and real-time analytics.
- Internet of Things (IoT) services, many of which will help council's and businesses deliver services more efficiently including:
  - Transport and logistics: connected parcels and fleet tracking.
  - Health and social care.
  - Environmental monitoring: sensors monitoring air quality and water pollution in real-time.
  - Smart agriculture and smart animal farming, smart retailing.
  - Connected and autonomous cars: allowing cars to communicate with each other, other road users and even the road infrastructure.

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

A National Needs Assessment – A Vision for UK Infrastructure was also published in October 2016 (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 the Ardwick area of Manchester as well as providing new 5G in this area, where the social and economic benefits will outweigh the environmental considerations.

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

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

…'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.

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

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

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

….since the start of the 5G Testbeds and trials programme, we've now funded 24 5G testbeds across the UK. Between them, those testbeds have trialled almost 70 different 5G technologies, products and applications. And more importantly than

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

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ever, we are investing in a range of sectors to foster, build and grow 5G cross wider industry...

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

This Keynote Speech my Mat Warman MP highlights the importance that Government places on 5G and advanced, reliable, high quality 5G technology. To prevent this technology from being brought into the area would be contrary to the Government's key aims.

In a more recent letter published by the Digital Infrastructure Minister Matt Warman MP on the 24 May 2021 (a copy is enclosed with the application docs) addressed to the local authority chief executives 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, and our ambition is for the majority of the population to have access to a 5G signal by 2027…
…The National Planning Policy Framework ("the Framework") for England states that planning policies and decisions should support the expansion of electronic communications networks, including next generation mobile technology, such as 5G…
…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'.

On the 1 October 2020, as part of the Speed up Britain Campaign, The Centre of Policy Studies Report published '*Upwardly Mobile: How the UK can gain the full*

benefits of the 5G revolution'[3]. The report identifies what the 5G opportunities are and what the Government needs to do so we can all benefit from this vital new technology. It states that delays to the rollout of 5G could cost the country tens of billions of pounds in lost economic output. The former Government advisers Alex Jackman and Nick King argue that Government's 'levelling up' agenda and the UK's recovery from the COVID-19 pandemic is at risk without a faster 5G rollout – to the tune of £41 billion.

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

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

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

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

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

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

[3] https://www.cps.org.uk/research/upwardly-mobile

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

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

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

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

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 be a smart city and have high quality 5G infrastructure, promoting and growing the digital sector and increasing digital inclusion.

Practical Applications of 5G Connectivity as Example of Material Soci-Economic Benefit:-

Education:

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

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

Health:

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

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

Summary

It is not possible to upgrade the existing radio base station situated at existing Vodafone site Former Beswick Co-Op 217-223 Ashton Old Road Manchester, M11 3WU with the latest communication technologies as the building is not being able to accommodate a second operators equipment due to the current design. Therefore, a new installation for Telefonica is needed to provide this operator with the latest 2G, 3G 4G and 5G technologies.

The proposed site has been carefully sited which is capable of providing coverage to the target area.

The proposed height at 20m is essential in order for the antennas to clear the surrounding urban clutter and ensure the antennas are able to reach the target

coverage area to provide new high quality 2G, 3G, 4G and 5G service provision to this part of Ardwick. 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 degraded service for the operator's customers especially for the higher frequency technologies including the latest 4G technology and new 5G service provision.

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

The social and economic benefits of providing reliable and high quality mobile broadband connections including 5G support growth in productivity, efficiency and labour force participation across the whole economy. This is fully supported by the NPPF, as well as the Manchester UDP policy DC17.1 and Policy DM1 of the Manchester Core Strategy, Greater Manchester Digital Strategy, Infrastructure Framework and Local Industrial Strategy. These benefits are strong material considerations which outweigh any perceived loss of visual amenity to the surrounding area.

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Confirmation that submitted drawings have been checked for accuracy

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In the first instance, all correspondence should be directed to the agent.

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