SUPPLEMENTARY INFORMATION

1. Site Details

Site Name:	Horn Hill SW	Site Address:	Grass verge of Horn Hill (A5093), Horn Hill at Moor Road, Millom, Cumbria LA18 5DS
National Grid Reference:	E: 316886 N: 480268		
Site Ref Number:	CS_20786521	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?		No
If no explain why: No publicly accessible up to date mast register.		
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:	No
Date of pre-application contact:	N/A
Name of contact:	N/A
Summary of outcome/Main issues raised: A pre-application consultation letter, a consultation plan and a set of proposed plans were sent to the Chief Planning Officer of the Local Planning Authority via email, dated 11/07/2024. No comments were received.	

Annual area wide information to planning authority

[1] Macro or Micro

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

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

Has annual area wide information been provided?	No
If no explain why:	
Summary issues raised: Cornerstone commercial relationship with Vodafone UK Ltd, has changed, effectively increasing their independence to work with other companies in the deployment of mobile infrastructure. It means they no longer have visibility of Vodafone full update plan. However, Cornerstone is fully committed to working closely with Local Planning Authorities and following best practice guidance. Cornerstone aim to engage and work with the planning department at the earliest opportunity from when Cornerstone are instructed to deliver new infrastructure within your Local Authority area and often conduct strategic pre-rollout engagement meetings to discuss their 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 connectivity.	

Community Consultation

Rating of Site under Traffic Light Model:	~~Red~~	Amber	~~Green~~
Outline of consultation carried out: A pre-application consultation letter and a set of proposed plans were sent to the local ward councillor for Millom (Councillor Bob Kelly) via email, dated 11/07/2024. A pre-application consultation letter and a set of proposed plans were sent to the Clerk for Millom Town Council via email, dated 11/07/2024.			
Summary of outcome/main issues raised (include copies of relevant correspondence): No comments were received.			

School/College

Location of site in relation to school/college (include name of school/college): Millom Army Cadet Force, TA Centre, Moor Road, Millom LA18 5DR Black Combe Junior School, Moor Road, Millom, Cumbria LA18 5DT
Outline of consultation carried out with school/college (include evidence of consultation): A pre-consultation letter and a set of plans were sent to Millom Army Cadat Force via email, dated 11/07/2024. A pre-application consultation letter and a set of plans were sent to the Headteacher and Chair of Governors for Black Combe Junior School via email, dated 11/07/2024.
Summary of outcome/main issues raised (include copies of main correspondence):

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

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

No comments were received.

Civil Aviation Authority/Secretary of State for Defence or the operator of the civil safeguarding area or defence safeguarding area notification (only required for an application for prior approval)

Will the proposed development be on a civil safeguarding area or a defence safeguarding area?		No
Has the Civil Aviation Authority/Secretary of State for Defence/operator of the civil safeguarding area or defence safeguarding area been notified?		No
Details of response: N/A		

Developer's Notice

Copy of Developer's Notice enclosed?	Yes	
Date served:	A developer's notice and a set of plans were sent to the Cumberland Council Highways Department via email, dated 30/10/2024. Copies of the developer's notice and proof of delivery are attached as part of this application	

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 Cornerstone's network improvement programme, Vodafone is in the process of progressing a number of suitable sites for radio base stations, which will provide improved 2G and 4G coverage and new 5G service provision. This is fully in line with the Government's aim to ensure that everyone is connected to the superhighway. Cornerstone and Vodafone are in the process of progressing a new suitable site in this area for a radio base station to improve existing levels of service provision. The site needs to provide

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

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

new coverage and capacity to ensure that customers continue to experience access to the latest service provision of 4G coverage and capacity. The proposed new mast installation will also meet the extra demands on the network in this area as new technologies improve.

Capacity refers to the maximum amount of data a network can handle and the number of devices it can support simultaneously. When too many devices try to connect to the network, it can become overloaded, leading to issues like slow internet speeds and dropped calls. This is similar to a highway getting congested when there are too many cars. Even if there is coverage in the area, the network will not operate properly if there are issues with capacity. This means that while your device may show a strong signal, the network can still struggle to deliver fast and reliable service if it is unable to manage the high demand. A new installation in this location will allow to provide improved coverage to this area, as well as to improve capacity on the operator's network.

As part of Vodafone's continues network improvement program, there is a specific requirement for a new installation at this location to provide improved 2G and 4G coverage, and new 5G coverage ensuring that this area of Millom has access to the latest technologies.

Vodafone have switched off its 3G network as of the end of February 2023. This transition allows for the repurposing of related radio frequencies to bolster the faster 4G and 5G services.

Proposed Development

Image 1. The proposed site location.

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

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

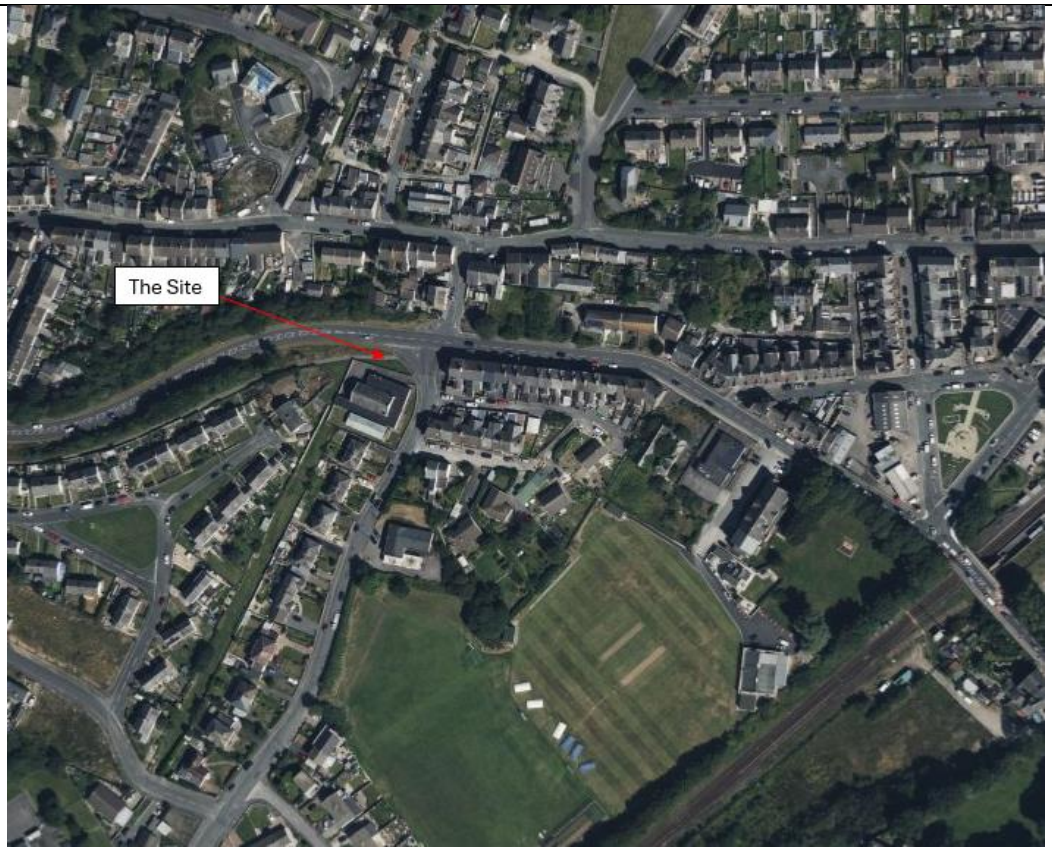
Image 2. View to of the site looking to the west.

The proposal comprises of the installation of 20m monopole supporting 6 no. antennas, 1 no. transmission dish, 2 no. equipment cabinets, 1 no. meter cabinet and ancillary development thereto including Remote Radio Units (RRUs).

The proposed site is located on a grass verge of Horn Hill (A5093) in a predominantly residential area, to the west of Millom town centre. The proposed site is located near the junction of Moor Road and Horn Hill.

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

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



Map 1. Site Location

The proposed radio base station is located on a Horn Hill (A5093) which runs southwest to the east of the proposed site and forms a major road in and out of the town. To the north of the proposed installation on the other side of the road, there are semi-mature and mature trees with residential properties beyond. To the west of the proposed site continues Horn Hill with semi-mature and mature trees along it. To south of the proposed site is located Millom Army Cadet Force building. To the east of the proposed installation is located 4-way junction of Horn Hill and Moor Road, with residential properties beyond. These properties are orientated 90 degrees from the proposed installation, which will minimise the visual impact on them.

There are a number of other linear street furniture items in the surrounding vicinity such as lighting columns, road signage, a bus stop shelter and telegraph poles, as well as semi-mature and mature trees in a wider area which will help to assimilate the proposed radio base station to the surrounding area.

The proposed site is not within any designation area or near to any listed buildings, therefore, it will not result in any unacceptable harm to heritage assets.

3G (and eventually 2G) is being switched off by the operators in order to repurpose these radio frequencies for faster more energy-efficient 4G and 5G services. 3G is primarily used for mobile data services. It is being switched off first because it has already largely been superseded by 4G. Hence the importance of providing the latest 4G and new 5G service

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

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

provision is areas where there is no such coverage. 3G has already been switched off by Vodafone and EE in early 2024, and VMO2 (known as O2) is planning to do the same. As a result, it is imperative that the operator builds resilience into the network.

The proposed site is located on a grass verge of Horn Hill (A5093), an important route in and out of the town. Due to the significant number of daily commuters, as well as the residents in the area, there is a high demand for high-quality 2G, 4G and 5G coverage and capacity. The proposed site will provide new 2G, 4G and 5G coverage and capacity, to meet this demand.

Without the new installation in the area, there will be a hap in the existing coverage due to which the operator's network will struggle to meet the customer's demand in this cell area, as a result the operator's customers will not be able to use their handheld devices as intended. Lack of improved capacity in the area will result in buffering and dropped calls, leaving customers with unreliable service in this area.

Enclose map showing the cell centre and adjoining cells if appropriate:
The installation of this ground-based installation will enable enhanced 2G, 4G and 5G coverage and capacity to the surrounding area for one of the Cornerstone operators to ensure high quality customer experience is obtained as demands on the network increase and technologies change. The proposed location and height will allow for the optimum level of coverage and capacity to be provided to the target coverage area. The levels of high-quality, reliable 4G and 5G coverage that will be provided to this area is significant. As more people require mobile access for phone calls and mobile internet at once. Increasing the capacity of the network will ensure more people are able to use their phones at the same time whilst reducing the risk of calls dropping, internet buffering etc. Capacity refers to the maximum amount of data a network can handle and the number of devices it can support simultaneously. When too many devices try to connect to the network, it can become overloaded, leading to issues like slow internet speeds and dropped calls. This is similar to a highway getting congested when there are too many cars.

Type of Structure *(e.g. tower, mast, etc):* Quad Stack	
Description: The proposal compromises of the installation of 20m monopole supporting 6 no. antennas, 1 no. transmission dish, 2 no. equipment cabinets, 1 no. meter cabinet and ancillary development thereto including Remote Radio Units (RRUs).	
Overall Height:	20m
Height of existing building *(where applicable):*	N/A

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

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

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

Equipment Housing: Cheshire Cabinet	
Length:	0.6 m
Width:	1.9 m
Height:	1.648 m
Equipment Housing: PSC Cabinet	
Length:	0.6 m
Width:	0.823 m
Height:	1.648 m
Equipment Housing: SFMC 160	
Length:	0.251 m
Width:	0.263 m
Height:	1 m
Materials *(as applicable)*:	
Tower/mast etc – type of material and external colour:	Steel - Grey
Equipment housing – type of material and external colour:	Steel – Green

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

In terms of setting, given that the subject site is located on the public highway, a street furniture style development has been deemed to be most suitable type of base station as this is the most accepted design for urban, suburban and rural roadside locations throughout the UK.

The operator has carefully considered the design of the new proposed column. The operator is proposing the most sensitive design currently available to provide the necessary coverage and capacity to the surrounding area. Due to all the technologies that will be available at this location, 2G, 4G and 5G, 6 antennas need to be installed at the top of the slim-line monopole. These are split into a dual stack formation where 3 antennas will be located at the top and the other 3 will be located underneath. Thus, if the column were to be any lower, the antennas would not be able to clear the buildings and urban clutter and as such would not be able to operate effectively.

As radio base stations must provide coverage on the operator's network, their siting options are limited by technical constraints. Therefore, even if there are sites within the search area that could potentially have a smaller visual impact on public amenity, they might not be suitable from an operational perspective. This was recognised by the Inspector in a recent appeal (Ref: APP/C5690/W/23/3334595). In paragraph 13, the Inspector stated: "…*Whilst there may be sites which are better sited in respect of character and appearance as well as amenity considerations, there is little point in assessing those sites if they do not meet operational requirements to support high quality communications*…".

The proposed height at 20m is essential in order to provide 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. However, they have been designed to be as tight as possible and virtually the same width as the main column, to minimise their visual appearance. The higher the radio frequency the more signal attenuation there is. The higher frequency 5G antennas are unable to operate effectively through the Glass Reinforced Plastic that the shroud is made up of and as such if these antennas were to be shielded then they would not be able to provide the necessary coverage to the target coverage area. An additional installation would be needed elsewhere within the cell area, leading to the proliferation of masts.

This is the slimmest design possible which will enable all the multi technologies to be supported from this site. If the column and antennas width were to be any slimmer than the technology would not fit in the one column 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 Practice. Similarly, if the column were to be a uniform width throughout then the overall width would have to increase which would appear more visually prominent in the street scene, than the proposed design.

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

The design of the column resembles as closely as possible the lighting columns, and road signage. These vertical structures will continue to help the proposed installation to assimilate with the surrounding area. It is accepted that the height of the proposed installation is taller than other pieces of surrounding street furniture, and some buildings, but this in itself is not a valid reason to conclude that it is not appropriate at a specific location. Telecommunications apparatus by its very nature must be taller than surrounding built and natural form to ensure its efficient operation. It was noted by the inspectorates in appeal decisions that "*…telecommunication structures are common features in built up areas, and the proposal, whilst being visible, would not necessarily be highly noticeable as it would blend in with similar structures such as street lighting and the existing monopole mast…*"

The design of the column maintains its simple, functional, vertical structure which will not appear incongruous within the street scene. The presence of other linear urban structures such as lighting columns, road signage, a bus stop shelter and telegraph poles will assist with assimilation in the street scene. The column is proposed to be coloured grey to match the

surrounding elements of street furniture, as well as to blend with the often-grey British sky. Although the column can be coloured any other colour the LPA consider appropriate.

The equipment cabinets designed to appear like the existing cabinets already in situ. They are small for telecommunications apparatus and proposed to be coloured green to match the other cabinets already in situ. The equipment cabinets can be installed under the operators permitted development rights once the monopole is built but have been included on the plans and in the description in order to remain fully transparent.

The RRUs are small each one about the size of a shoe box. They are designed to make the antennas more efficient and reduce the amount of ground-based equipment cabinets thus minimising the visual impact on the surrounding area. Given their height some 16m above ground level underneath the antennas they will not be overly prominent in the street scene.

The transmission dishes are essential to link the installation back to the MNO's wider network and relay the data. The dish antennas used by mobile phone networks are relatively small. They are used to link individual radio base stations to each other, through a series of links, into the wider mobile phone and fixed line networks. In order to communicate with each other, dish antennas must have a clear line of sight, sometimes known as point-to-point communications. They must be in clear view of each other without any physical obstructions such as trees or buildings which would reduce or disrupt the low-powered signal. For this reason, dish antennas are always mounted high on rooftops or tall structures. In this instance, in order to obtain a clear line of sight their centre line height needs to be 14.96 m above ground level.

It is therefore considered that the proposal before you strike a good balance between environmental impact and operational considerations. The proposed height and design represent 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 enhanced 2G, 4G and 5G service provision providing high quality dense coverage and capacity, would not appear out of place within the street scene.

Health and Safety - including ICNIRP compliance

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

International Commission on Non-Ionizing Radiation Protection public compliance is determined by mathematical calculation and implemented by careful location of antennas, access restrictions and/or barriers and signage as necessary. Members of the public cannot unknowingly enter areas close to the antennas where exposure may exceed the relevant guidelines.

When determining compliance, the emissions from all mobile phone network operators on or near to the site are taken into account.

In order to minimise interference within its own network and with other radio networks, Vodafone operates its network in such a way the radio frequency power outputs are kept to the lowest levels commensurate with effective service provision.

As part of Vodafone's network, the radio base station that is the subject of this application will be configured to operate in this way.

All operators of radio transmitters are under a legal obligation to operate those transmitters in accordance with the conditions of their licence. Operation of the transmitter in accordance with the conditions of the licence fulfils the legal obligations in respect of interference to other radio systems, other electrical equipment, instrumentation, or air traffic systems. The conditions of the licence are mandated by Ofcom, an agency of national government, who are responsible for the regulation of the civilian radio spectrum. The remit of Ofcom also includes investigation and remedy of any reported significant interference.

The telecommunication infrastructure the subject of this application accords with all relevant legislations and as such will not cause significant and irremediable interference with other electrical equipment, air traffic services or instrumentation operated in the national interest.

4. Technical Justification

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

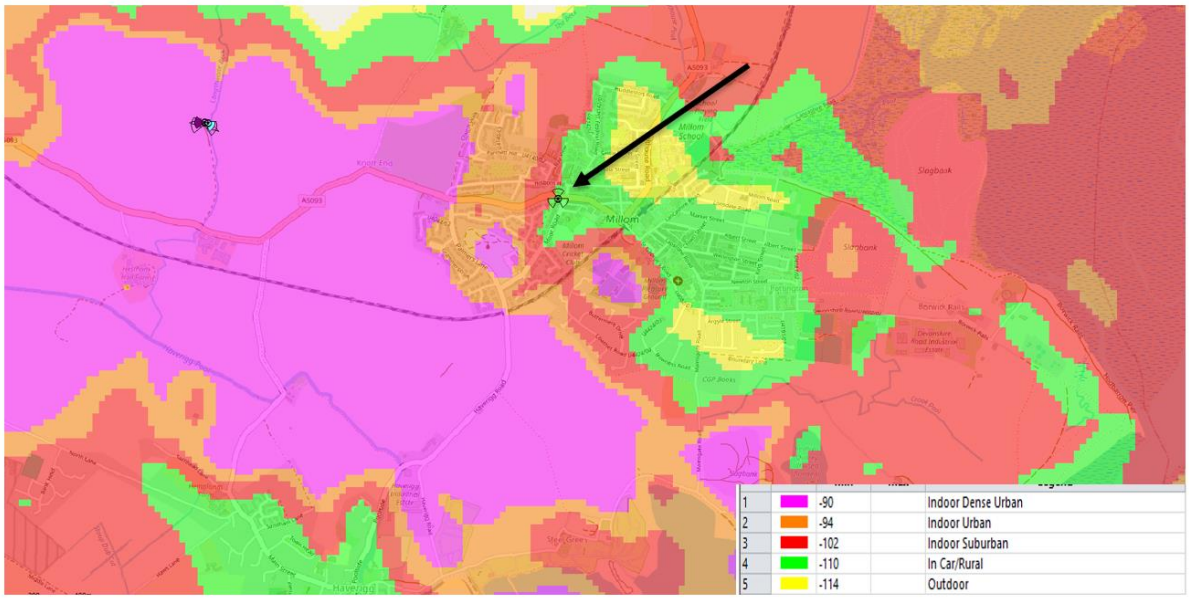
A mobile phone transmitter is designed to cover a specific area and links its coverage to the next site in the network, creating a patchwork of overlapping coverage 'cells' across the country. So, if a person is on the move, the network will transfer their calls from one site to the next. However, in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

There is a specific requirement to install a radio base station at this location to enable and enhance 2G and 4G coverage and capacity to this area of Millom and to provide new 5G service provision.

Currently, there is a large 'hole' in service provision, which means that the majority of the operator's customers cannot use their handheld devices for the purposes in which they were purchased. This installation will fill this partial gap for Vodafone. The below coverage plots show a significant improvement in 4G that the proposed installation will provide in this area of Millom, 5G coverage is not shown on the coverage plots, however it will follow 4G footprint.

Existing 4G Coverage:

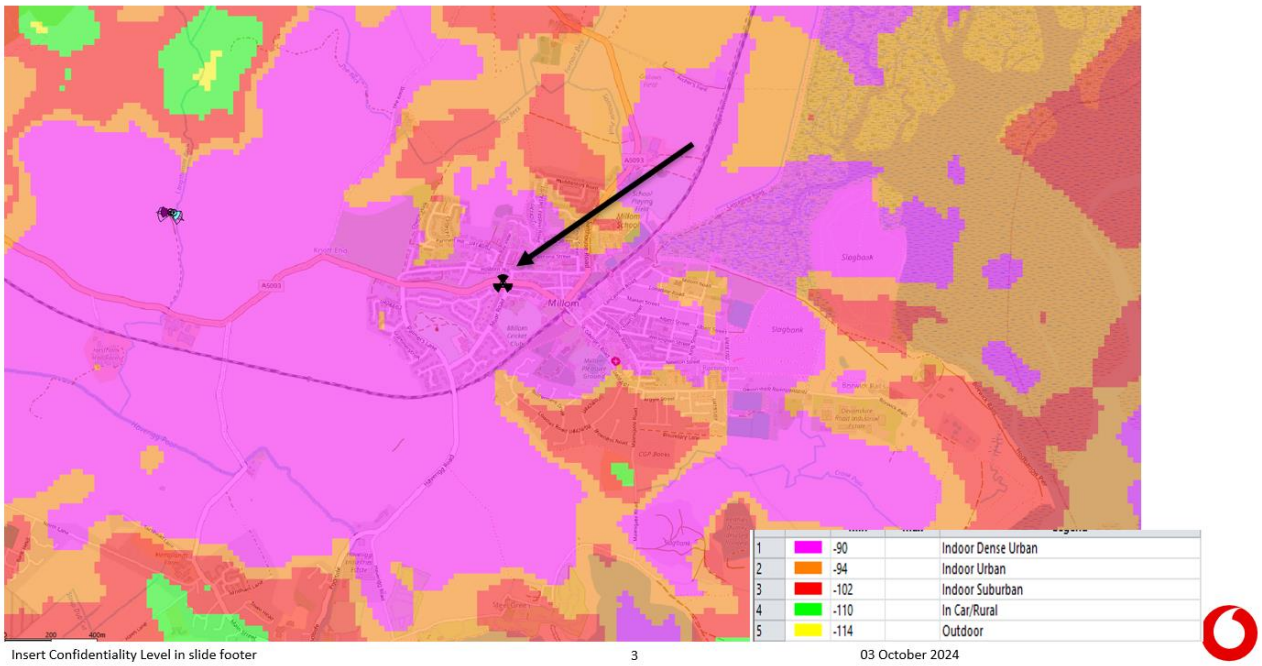
Existing Live 4G Coverage



Insert Confidentiality Level in slide footer 2 03 October 2024

Proposed 4G Coverage:

Existing Live 4G Coverage + Planned site 95335vf



Insert Confidentiality Level in slide footer 3 03 October 2024

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

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

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

Base stations use radio signals to connect mobile devices and phones to the network, enabling people to send and receive calls, texts, emails, pictures and downloads. Without base stations, mobiles and devices will not work. Base stations are made up of three main elements. The cabin which contains the equipment used to generate the radio signal. A supporting structure such as a mast which holds the antennas in the air and the antennas themselves.

Base stations are connected to each other and telephone exchanges by cables or wireless technology, such as microwave dishes, to create a network. The area each base station covers is called a cell. Each cell overlaps with its neighbouring cells to create a continuous network. The size and shape of each cell is determined by the features of the surrounding area, such as buildings, trees and hills, which can block signals. When people travel between cells, the signal is transferred between base stations without a break in service. However, each base station can cover a certain area only and can only handle a limited number of calls at once. As mobile phones and devices become more popular more base stations are needed to ensure continuous coverage.

Individual base stations can only handle a certain number of calls or data downloads. If the number of calls or data requests exceeds the base stations capability, then local network users will experience a reduction in data download speeds and reduced call quality. We call areas without good coverage 'blackspots' and all mobile phone networks suffer from them. You can experience them wherever you are, even in cities with lots of base stations.

To keep up with growing demand the operators need to upgrade existing base stations or build new base stations to improve the capacity. Capacity is the maximum data or calls that can be processed by a base station.

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 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.

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

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

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

Site Type	Site name and address	National Grid Reference	Reason for not choosing site
D1 – Streetworks	Footway of Lancashire Road, Rottington, Millom, Cumberland, England LA18 4AW	E: 317275 N: 480156	An installation at this location would be located close to the cell area, however it would be located within conservation area, and it was considered that it would have greater visual impact than the current proposal. Additionally, the footway at this location is too narrow to accommodate the operator's equipment. As such, it would lead to highway safety issues. A site in this location has therefore been discounted for this reason.
D2 – Rooftop	Rooftop of Tesco, Lancashire Road, Rottington, Millom, Cumberland, England LA18 4BX	E: 317243 N: 480185	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. Additionally, the rooftop is too low in order to deliver the required level of coverage to the target coverage area. This site has therefore been discounted for this reason.
D3 – Rooftop	Rooftop of St. George's Church, St George's Road, Rottington, Haverigg, Millom, Cumberland, England LA18 4JA	E: 317154 N: 479983	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. Additionally, the rooftop is too low in order to deliver the required level of coverage to the target coverage area. This site has therefore been discounted for this reason.
D4 – Rooftop	Rooftop of St. George's Rest Home, Church	E: 317110 N: 480015	Due to the construction of the building, there is no design available

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

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

	Walk, Rottington, Haverigg, Millom, Cumberland, England LA18 4JE		to support the operator's apparatus and provide the necessary coverage to the target coverage area. Additionally, the rooftop is too low in order to deliver the required level of coverage to the target coverage area. This site has therefore been discounted for this reason.
D5 – Greenfield	Land at Millom Cricket Club, Church Walk, Knott End, Haverigg, Millom, Cumberland, England LA18 4QX	E: 316989 N: 480058	An installation at this location would be on low ground and would not deliver the required level of coverage to the target area. This site has therefore been discounted for this reason.
D6 – Rooftop	Rooftop of Black Combe Junior School, Moor Road, Knott End, Haverigg, Millom, Cumberland, England LA18 5DT	E: 316723 N: 480017	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. Additionally, the rooftop is too low in order to deliver the required level of coverage to the target coverage area. This site has therefore been discounted for this reason.
D7 – Rooftop	Rooftop of Millom Army Cadet Force,Moor Road, Knott End, Haverigg, Millom, Cumberland, England LA18 5DS,	E: 316879 N: 480248	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. Additionally, the rooftop is too low in order to deliver the required level of coverage to the target coverage area. This site has therefore been discounted for this reason.
D8 – Rooftop	Rooftop of Telephone Exchange, Moor Road, Knott End, Haverigg, Millom, Cumberland, England LA18 5DS	E: 316892 N: 480183	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. Additionally, the rooftop is too low in order to deliver the required level of coverage to the target coverage area. This site has therefore been discounted for this reason.
D9 – Rooftop	Rooftop of Fell House, Station Road,	E: 317192 N: 480265	Due to the construction of the building, there is no design available

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

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

	Rottington, Millom, Cumberland, England LA18 5BE		to support the operator's apparatus and provide the necessary coverage to the target coverage area. Additionally, the rooftop is too low in order to deliver the required level of coverage to the target coverage area. This site has therefore been discounted for this reason.
D10 – Rooftop	Rooftop of Whartons Garage, 1, Duke Street, Rottington, Millom, Cumberland, England LA18 5BB	E: 317127 N: 480240	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. Additionally, the rooftop is too low in order to deliver the required level of coverage to the target coverage area. This site has therefore been discounted for this reason.
D11 – Rooftop	Rooftop of Millom Palladium, St George's Road, Rottington, Millom, Cumberland, England LA18 5BA	E: 317062 N: 480186	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. Additionally, the rooftop is too low in order to deliver the required level of coverage to the target coverage area. This site has therefore been discounted for this reason.
D12 – Streetworks	Footway along Moor Road, Knott End, Haverigg, Millom, Cumberland, England LA18 5DS	Various	An installation at this location would be located directly in front of residential frontages, which would have grater visual impact on the local amenity than the proposed site. Additionally, the footway at this location is too narrow to accommodate the operator's equipment. As such, it would lead to highway safety issues. A site in this location has therefore been discounted for this reason.
D13 – Streetworks	Footway alonf Queens Park, Knott End, Millom, Cumberland, England LA18 5DZ	Various	An installation at this location would be located directly in front of residential frontages, which would have grater visual impact on the local amenity than the proposed site. A site

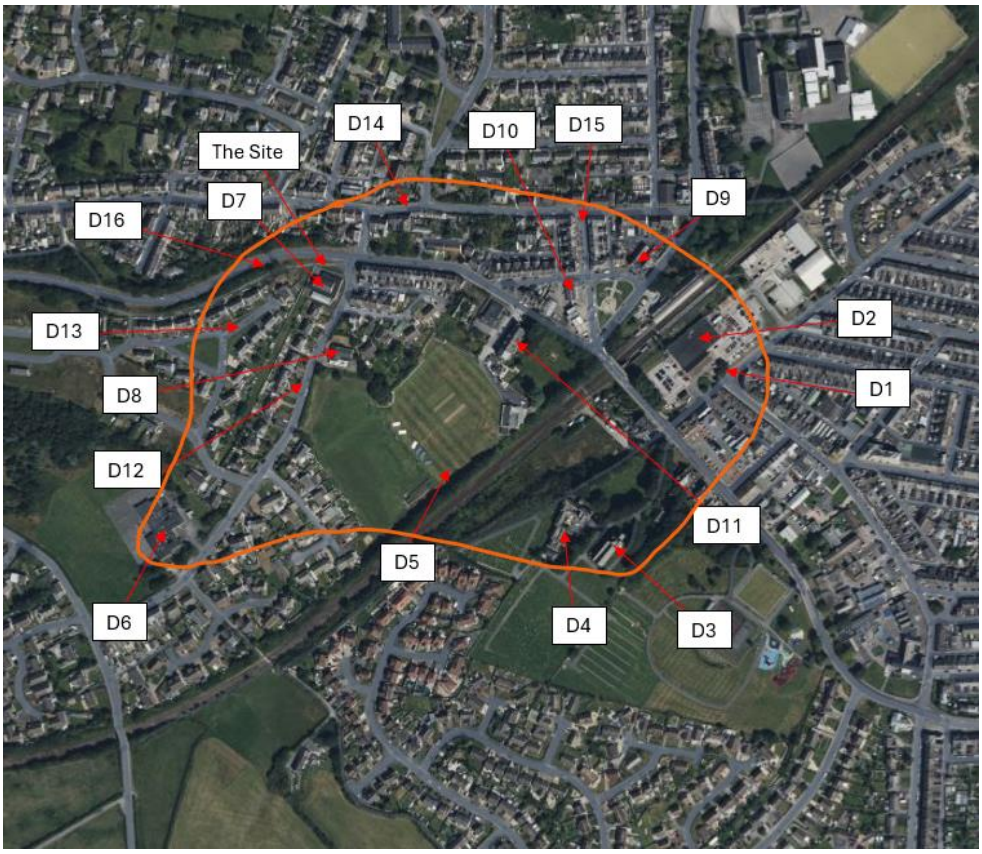
Registered Address:
Cornerstone Telecommunications, Infrastructure Limited,
Hive 2, 1530 Arlington Business Park, Theale, Berkshire, RG7 4SA.
Registered in England & Wales No. 08087551.
VAT No. GB142 8555 06

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

			in this location has therefore been discounted for this reason.
D14 – Streetworks	Footway along Holborn Hill, Knott End, Millom, Cumberland, England LA18 5BJ	Various	An installation at this location would be located directly in front of residential frontages, which would have grater visual impact on the local amenity than the proposed site. Additionally, the footway at this location is too narrow to accommodate the operator's equipment. As such, it would lead to highway safety issues. A site in this location has therefore been discounted for this reason.
D15 – Streetworks	Footway along Cambridge Street, Rottington, Millom, Cumberland, England LA18 5BD	Various	An installation at this location would be located directly in front of residential frontages, which would have grater visual impact on the local amenity than the proposed site. Additionally, the footway at this location is too narrow to accommodate the operator's equipment. As such, it would lead to highway safety issues. A site in this location has therefore been discounted for this reason.
D16 – Streetworks	Grass verge of A5093, Knott End, Millom, Cumberland, England LA18 5DR	E: 316817 N: 480270	An installation at this location would be positioned on a narrow grass verge along the road, with no pavement, making site access challenging. Additionally, during maintenance, the cabinet doors would open towards the road, potentially posing a highway safety risk. For this reason, a site at this location has been discounted.

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

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



Map 1. Search area and discounted alternative options.

If no alternative site options have been investigated, please explain why: N/A
Land use planning designations: Millom Conservation Area approx. 85m away.
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 (December 2023)** 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

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

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

telecommunications. The NPPF was updated in July 2021, in order to strengthen sections including requirements on improved design quality, a new requirement for Councils to produce local design codes or guides, an emphasis on using trees in new developments, revised policies on plan-making, removing statues and opting out of PD rights relating to residential conversions. The NPPF has been recently revised again in September 2023 with an update on policy on planning for onshore wind development in England and does not affect any parts relating to telecommunications. The NPPF has been revised again in December 2023, however, it did not affect any parts relating to telecommunications.

The Government's latest thinking continues to strongly support communications infrastructure. The NPPF remains very supportive of high-quality communications. Indeed, a whole chapter is dedicated to high quality communications, emphasising the importance that the Government attaches to digital connectivity. Paragraph 118 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 118. 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 119 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 122 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.

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

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

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 85 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[44]'…*

Footnote 44 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 Practice for Mobile Network Development in England

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 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 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 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).

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

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

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 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

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

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

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

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

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

the planning Acts the determination must be made in accordance with the plan unless material considerations indicate otherwise".

Cumberland Council inherited the local development plan documents (local plans) of each of the former councils. These documents will continue to be used, in the relevant former council areas, to decide planning applications until they are replaced by new Cumberland Local Plan documents.

Copeland Local Plan 2013 – 2028

The Local Plan (also known as the Local Development Framework) covers the parts of Copeland Borough which are not within the Lake District National Park. Copeland is on the west coast of Cumbria and is a predominantly rural Borough, much of its area falling within the separate planning jurisdiction of the Lake District National Park.

The Vision developed within the Plan for the Borough to 2028 clearly defines and reflects the priorities and key 'drivers for change' likely to shape the future of Copeland.

"By 2028, Copeland will be an economically and socially sustainable, well-connected and environmentally responsible place of choice.

Economically sustainable: a place that boasts prosperous towns and vibrant villages, a highly-skilled workforce and a varied and sustainable economic base that builds on opportunities, including those presented by the low-carbon and renewable energy sectors, knowledge-based industries and tourist attractions;

Socially sustainable: a place that meets the needs of the whole community, where geography is not a barrier to achievement, and where housing quality and availability, social infrastructure, health and well-being, equality and social mobility are improved;

Well-connected: a place that has enhanced transport networks providing improved access to sustainable modes of transport, both within and between its key settlements and out towards neighbouring areas;

Environmentally responsible: a place that adapts to climate change and minimises its carbon footprint, makes the most of its unique coastal location and abundant natural resources whilst protecting and enhancing its green infrastructure, landscapes, heritage and biodiversity."

In addition to the Vision, Local Plan includes 20 Strategic Objectives, which aim to help to achieve the Plan's vision. The most relevant are listed below:

Strategic Objective 2:

Promote the diversification of the Borough's rural and urban economic base to enable a prosperous mixed economy, including creative and knowledge based industries, specialist

engineering and the energy sector building on Copeland's nuclear skills base, and tourism exploiting heritage, the potential of the unspoiled coast and the quiet of the western lakes.

Strategic Objective 11:

Reduce the need to travel by supporting improved telephone and rural broadband access.

Policy T2 – Information and Communications Technology

Developments which seek to extend or improve connectivity through existing and emerging telecommunications in all parts of the Borough will be supported subject to appropriate safeguarding.

Paragraph 6.3.2 states: *"The Council will support the development of new technologies and where possible assist with extensions or upgrading of telecommunications, high speed broadband etc. However, the number of mast and sites for such installations should be kept to a minimum and appropriate safeguarding are necessary to protect sensitive sites."*

Cumbria County Council Digital Infrastructure Strategy 2020 – 2025

The Cumbria County Council Digital Infrastructure Strategy sets out a Vision and aims for the Cumbria region in relation to digital connectivity and growth. The Vision states:

"Our vision is to maximise deployment of full fibre and mobile infrastructure, in order to support:

- *Economic growth of our businesses.*
- *Digital inclusion so that no resident or business is left behind.*
- *Delivery of more effective and efficient provision of local public services.*

Digital infrastructure is a key enabler which supports the delivery of our Council Plan and contributes to our priority outcomes for the people of Cumbria."

The objectives set in Cumbria County Digital Infrastructure Strategy are aligned with the UK Government's ambition as set out in the Future Telecoms Infrastructure Review (July 2018) for delivery of improved full fibre and mobile networks. The aim is to see 30 million premises connected to gigabit-capable services by 2025, with coverage across all parts of the country by 2033 and the majority of the population to have 5G coverage by 2027.

The Council will support 'outside in' deployment of gigabit capable infrastructure to prioritise the remaining superfast not-spots, encourage commercial deployment to rapidly expand gigabit capable services in urban areas, seek to contribute to the UK Government commitments to complete 4G rollout to 95% of the UK landmass from at least one mobile network operator, expand gigabit capable full fibre broadband and encourage the development of 5G.

The introduction to the Strategy clearly outlines the importance that Cumbria County Council place upon digital infrastructure and connectivity. It states:

"Digital infrastructure is now recognised as the fourth utility given its importance to modern life and the connectivity it provides to services and markets. Providing futureproof digital infrastructure to all residents and businesses in Cumbria… is a key enabler for economic growth, education and social inclusion.

The Coronavirus pandemic has only served to reinforce the importance of digital connectivity. From getting the latest information and health guidance, home working, education and learning, online access to food and supplies, staying connected to family and others and to maintain supply chains – we all now depend on the ability to connect remotely across distance. It is expected that work patterns post Covid-19 will feature more home working and flexible working. Students and children will have an even greater need to study online. Business models will have a bigger online presence and the Council must be able to deliver as many of its services digitally to as many citizens as possible.

4G coverage has also improved significantly since 2017 through the work of the commercial programmes and in preparing to support the new 4G based Emergency Services Network. However, 4G coverage remains 'patchy' with significant large areas of countryside being unconnected particularly affecting our agricultural and tourism sectors."

One of the priorities in relation to provision of 4G & 5G mobile infrastructure is:

- Encourage further commercial infrastructure development through offering opportunities to use public assets, research projects and encouraging property developers to engage with mobile network operators.

The Digital Infrastructure Strategy acknowledges that there are barriers to the roll out of telecommunications infrastructure due to several factors, including geographical challenges, general rurality and perceived planning barriers. It states that the Council will work with service providers to overcome these barriers where possible in order to *"support the convergence of technology for seamless connectivity to services".*

The Council recognise that *"providing digital infrastructure to all residents and businesses in Cumbria… is a key enabler to facilitate delivery of the Council Plan."* They state that one of their priorities for invested is to *"maximise delivery in Cumbria through the Government's Shared Rural Network programme…"*

Cumbria Local Enterprise Partnership Local Industrial Strategy (Adopted March 2019)

This LIS sets out the vision for Cumbria, five strategic objectives for the county with associated targets, and a number of supporting priorities. It is not however an action plan or business plan for specific activity by the LEP and its partners.

The vision of Cumbria Local Enterprise Partnership (CLEP) Local Industrial Strategy is about

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

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

creating "The place to live, work, visit and invest sustainably - where exceptional industry and innovation meets a breathtakingly beautiful and productive landscape."

The work in developing the LIS has identified many real strengths to build upon in Cumbria, but also key factors that are holding or could hold back our future economic performance. However, these factors also present opportunities to do better and to unlock our potential. There have therefore been developed five strategic objectives to fully unlock our sustainable growth potential and ensure all parts of our community benefit from economic success:

Strategic Objective 3:

"Exploiting underdeveloped economic opportunities to help get a better balanced economy. One of the themes of the LIS is to get a better balance across our different geographies and sectors, whilst holding onto our key specialisations. Rather than see the current relatively low numbers of firms engaged in the digital sector as a challenge, we see this as a fantastic opportunity to spin out of key sectors such as nuclear and build on the technology meets natural capital concept."

Strategic Objective 5:

"Improving connectivity across the county. Cumbria's overall location is a key strength, however our geography also presents challenges… Cumbria sees physical and digital connectivity as a case of 'both/and'. Digital connectivity helps link our businesses and people into the global digital economy and increasing key services."

Chapter 9 of the LIS discusses infrastructure, including digital connectivity.

Paragraph 9.2 states "Given the remote and often isolated location of many businesses and people in Cumbria, access to digital connectivity is absolutely critical for accessing service and for business."

Paragraph 9.3. states "Increasingly important for businesses, visitors and local residents of Cumbria is access to both a good quality mobile signal and to mobile data services. Currently, mobile signal and 3G and 4G mobile data connectivity is relatively poor in many parts of Cumbria and is very dependent on different mobile providers."

Paragraph 9.4 states "The recent Borderlands Growth Inclusive Deal proposal seeks to complete the roll-out of superfast broadband to properties that do not yet have access in Cumbria and also radically enhance access to 4G and 5G services."

Infrastructure priority 1 states that "The importance of improving digital connectivity in Cumbria cannot be overstated. The requirements and expectations in terms of speed and bandwidth of connectivity are ever increasing. We need to build on and extend the really excellent past and on-going work of Connecting Cumbria:

- Improve mobile connectivity work on development of 5G provision (and full 4G provision)

with mobile operators (and BDUK), supporting the digital investment proposed as part of the Borderlands Inclusive Growth Deal."

CLEP Digital Cumbria – Connected, Capable and Creative: 2021 – 2026

It is important that the digital gains secured during adversity are maximised and moved further forward so that Cumbria is genuinely digital transformed. The vision is for Cumbria to be **"The place to live, work, visit and invest sustainably – where exceptional industry and innovation meets a breathtakingly beautiful and productive landscape".** Digital transformation will enable this vision, people, businesses and investors will come if they have confidence that Cumbria is digitally connected, capable, and creative.

Cumbria is famed for its natural capital and beautiful landscapes, with the digital realm now bringing the world to Cumbria and Cumbria to the world. Importantly, it provides the opportunity to help deliver our ambition for inclusive growth, as those in more remote locations have the opportunity to fully engage in all aspects of life – business, employment, public services and social activities. In line with Cumbria's commitment to inclusive growth we have placed digital inclusivity at the heart of our strategy.

Cumbria has already made significant strides forward in moving forward the digital transformation, agenda, yet significantly more needs to be done if our ambition for Cumbria to be "**digitally connected, capable and creative**" is to be realised. There are five key themes that are fundamental to the achievement of this ambition:

- **Digitally connected:** having the necessary infrastructure to ensure sufficient bandwidth and latency to provide reliable digital connectivity.
- **Digitally enabled businesses:** making sure that all businesses have the opportunity to maximise the benefits of digitalisation for their business and Cumbria's creative industries are encouraged to flourish.
- **Digitally capable people**: making sure that all of Cumbria's population have the necessary skills to allow them to actively engage with the digital agenda be that at foundation or highly specialised levels.
- **Digitally accessible services:** public services that are efficient, effective and meet the needs of service users.
- **Digitally Inclusive Communities**: making sure that all communities have digital access and that nobody is left behind by the 'digital divide'.

There has been good progress in the roll out of superfast broadband helped by the Connecting Cumbria project. However, this does not deliver the faster speeds increasing needed by businesses. In part because of Cumbria's rurality and its topography many business, workers and residents face a serious lack of high quality digital connectivity whether fixed (broadband) or mobile (4G). As of June 2020 59% of premises in the UK had access to ultrafast broadband, but only 14% in Cumbria, whilst as of September 2020 only 63% of premisses had access to good 4G coverage from all four operators compared to 80% of the UK and the coverage of geographical terms was even poorer.

Digitally Inclusive Communities

Digital inclusion is defined by central government as "having the right access, skills, motivation and trust to confidently go online". It is a fundamental aspect of the UK's Digital Strategy. One in 10 adults have never used the internet, with the position in Cumbria reflecting this, as 10% of people had not been online in the first quarter of 2019, according to ONS. This means that basic digital skills, connectivity and access to digital devices are all important cornerstones in improving digital inclusiveness. It is predicted that 90% of all jobs will require digital skill by 2040. Worklessness can be perpetuated by a lack of digital skills, with unemployment being a further contributor to economic and social exclusion. Across Cumbria there are 25,000 workless households, which equates to just over 15% of all households.

It is fundamental for basic service provision to ensure that all people are not excluded by a lack of access to digital skills or technology. This can manifest itself in the most basic of economic activities such as making a cheaper advanced booking for travel. The digitally excluded are more often financially penalised through higher prices, less flexibility, lack of access to real-time information, digital interaction and customer reward programmes.

CLEP Cumbria Strategic Economic Plan 2014-2024 – The Four Pronged Attack (Adopted March 2014)

Cumbria is a big county with big plans. Working in the north west corner of England, adjacent to the Scottish border, Cumbria Local Enterprise Partnership (CLEP) is focused on unleashing the economic potential of Cumbria by building upon the county's unique combination of assets.

The vision of Cumbria is to have one of the fastest growing economies in the UK, in an energised and healthy environment. Our economy is complex and diverse, encompassing world-class engineering, manufacturing and energy companies, alongside high-quality food and drink companies and a unique and unparalleled visitor offer.

The resilience of Cumbria's rural economy requires a broad base, accommodating businesses from a range of sectors. Agri-related businesses, the environment and tourism are interlinked and interdependent; they need to complement each other to enjoy mutual growth. To further business startups and expansions, we want to build upon pioneering new approaches to business support already tested in Cumbria, and ensure digital connectivity is no longer a barrier to growth.

Digital connectivity is a key issue for rural communities. The Connecting Cumbria programme is already making good progress with the roll-out of superfast broadband to ensure 93%of the county will have speeds of at least 24 Mbps. Additional funding will be required for the remaining 7% supported by contributions committed by BDUK.

There is the opportunity to build on the pilot Rural Growth Network to broaden its reach and impact, working with the Cumbria Business Growth Hub to deliver support to SMEs and ensure that our rural communities are able to access the necessary business and community support.

One of the key activities that will help with that is:

- Comprehensive superfast broadband, 4G mobile network coverage, and open public WiFi networks to bring businesses and communities together.

Online Nation 2022 Report (June 2022)

Online Nation is an annual research report, published for the first time in 2019. Using research produced by Ofcom and others, it looks at what people in the UK are doing online, how they are served by online content providers and platforms, and their attitudes to and experiences of using the internet.

The latest Online Nation 2022 report (published June 2022) found that for most people in the UK, being online is a major part of daily life. Being online allows people to connect with others, sometimes in ways they may not be able to do offline. Data shows how we benefit from a range of online services, from messaging and calling platforms to gaming platforms, online news outlets and online shopping.

The Meta-Owned social media apps (Facebook, Instagram, Whatsapp and Facebook Messenger) made up the top four smartphone apps most visited daily by UK adults in September 2021. The top-reaching smartphone app was Whatsapp (88% of UK online smartphone using adults) closely followed by the Facebook app (87%).

94% of UK adult internet users aged 16+ said they used an online communications service for making voice/video calls or sending messages in 2021, and 80% of children aged 3-15 did the same.

The 2022 report found that the UK adult internet users spent almost 4 hours online a day in September 2021, with 3 of those hours being spent on smartphones. One in five people only use a smartphone to go online compared to one in ten last year. News and government public services are among the most-visited websites and apps in the UK.

The majority (67%) of UK internet users aged 13+ feel that the benefits of being online outweigh the risks. 43% agree that being online has an overall positive impact on their mental health.

The report found that 60% of children aged 8-15 say that using social media and messaging platforms makes them feel closer to their friends. More than three-quarters of children aged 12-15 said that being online can help with their school/homework, whilst half said it can be used to learn a new skill.

The Online Nation 2022 report acknowledged that the global pandemic since March 2020 has resulted in significant changes in online behaviour. Online shopping habits developed during the lockdown periods have remained. The largest online platforms' revenues and profits increased significantly during the lockdown periods and this growth continued in 2021. The growth is being driven by UK consumers' increased spend on e-commerce and

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

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

entertainment subscription services, while advertising revenues are also increasing with the continuing brand migration to online.

Figure 1.2 of the Online Nation 2022 report indicates that the percentage of UK online adults accessing the internet, by device, in 2021 was the highest by smartphone at 88%. In September 2021 73% of the time spent online by UK adults per day was on a smartphone.

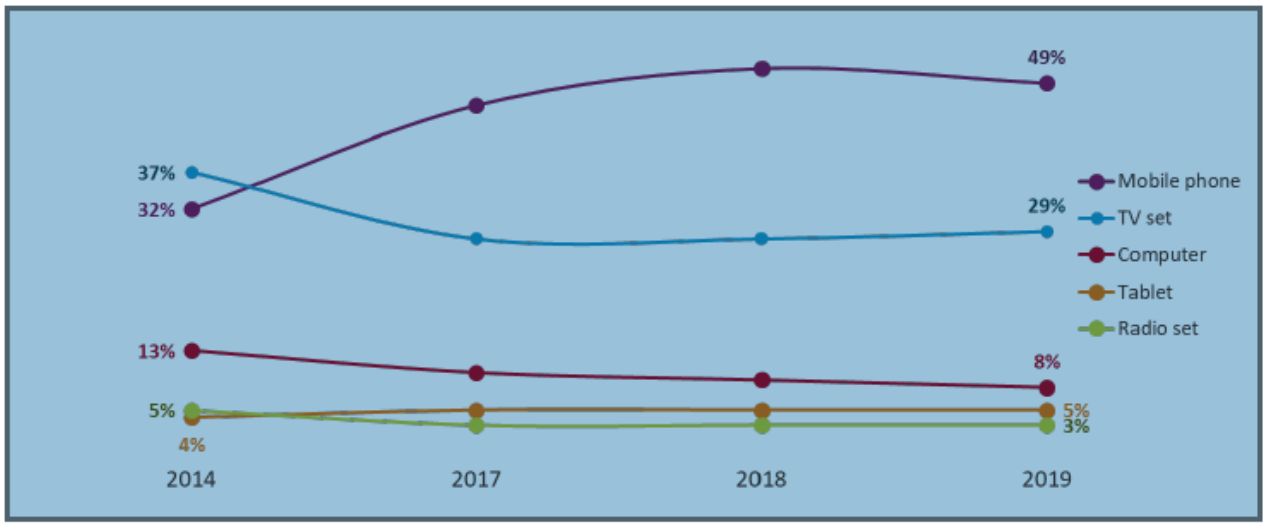
Figure 1.2: Percentage of UK online adults accessing the internet, by device: 2021

Percentage of adult internet users	Smartphone	Tablet	Laptop	Smartphone only
2021	88%	43%	53%	21%

Source: Ofcom Adults' Media Literacy Tracker 2021: Core survey and CATI omnibus survey. IN1. Which of these devices do you use to go online? (MULTI CODE) Base: All adults 16+ that go online (at home or elsewhere) (excluding those who did not give a response at the postal survey) (3577)

Reproduced from Online Nation 2022 Report

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



Source: Ofcom Adults' Media Literacy Tracker 2014-2019

Connected Nations 2023 Report (December 2023)

Connected Nations is an annual report on progress in the availability of broadband and mobile services in the UK, including the roll out of mobile 5G networks. The 2023 report was published in December 2023. These reports support Ofcom's objective of making communications work for everyone, including to promote reliable, widely available, and high-quality networks. The latest report found that the availability of 5G services is growing rapidly. The level of 5G coverage provided outside of premises by at least one mobile network

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

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

operator (MNO) rose from 67-78% in 2022 to 85-93% in 2023. As of September 2023, there were more than 18,500 5G deployments in place across sites in the UK up from around 12,000 5G deployments reported in 2022.

The 2023 Connection Nations Report also found there has been fast paced growth in 5G capable devices and traffic with 5G traffic showing a growth of around 140% from 2022 to 2023. This data traffic was generated from devices, of which at least 43% are 5G capable handsets (up from around 20% in 2022). Traffic on 5G capable handsets represents around 17% of total mobile traffic, up from around 9% in 2022.

The Report notes that the MNOs have started to switch off their 3G networks. The number of customers using devices reliant on 2G and 3G connectivity has fallen sharply, from approximately 5.5 million reported last year to 2.4 million this year, of which just over half a million are residential customers with a 3G device. Less than 3% of all data traffic is now carried on 3G networks, with 3G data traffic having decreased by an average of 44% year on year.

The latest Online Nation 2023 report (published December 2023) found that for most people in the UK, being online is a major part of daily life. Being online allows people to connect with others, sometimes in ways they may not be able to do offline. Data shows how we benefit from a range of online services, from messaging and calling platforms to gaming platforms, online news outlets and online shopping.

In total, 47.9 million UK adults accessed the internet on smartphones, tablets and computers in May 2023, spending an average of 3 hours 41 minutes a day online, eight minutes more than in May 2022. Young adults continue to spend the most time online, with 18-24-year-olds spending a daily average of 4 hours 36 minutes, and the 65+ group spending the least time (2 hours 46 minutes).

YouTube is the highest-reaching social media service among UK online adults using smartphones, tablets or computers, taking the top spot in May 2023 from Facebook (including Messenger), with more than nine in ten (91.0%) visiting it that month. In May 2022, Facebook was the highest reaching social media service, reaching 93.8% of UK online adults but in May 2023 it had 1.4 million fewer adult visitors, maintaining a high overall UK online adult reach (90.7%) but now on par with YouTube. TikTok, in fifth place, overtook LinkedIn, now ranked sixth, reaching 44.3% of UK online adults in May 2023, up by 9 percentage points since May 2022 (34.7%). UK online 18-24-year-olds are avid users of social media, and over half of them are visiting six social media platforms: 96% visited YouTube in May 2023, 87% visited either Facebook or Facebook Messenger, 86% visited Instagram, 72% visited TikTok, 71% visited Snapchat and 61% visited X (formerly Twitter).

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.

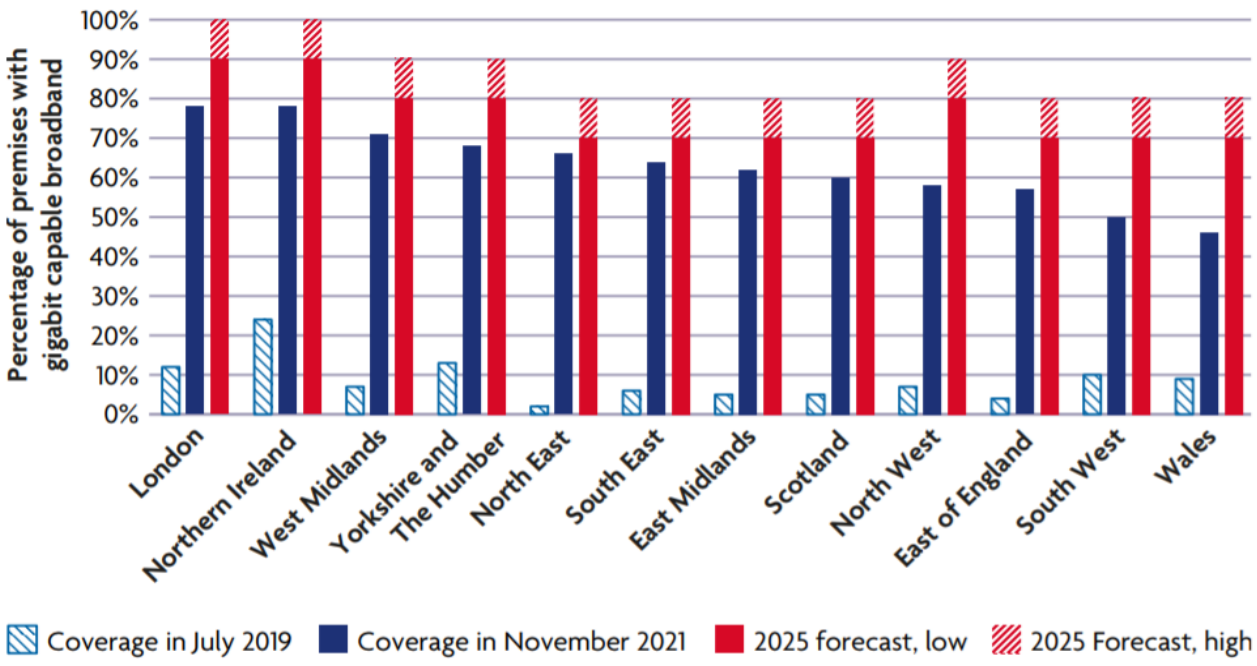
In 2020, the UK Government published the National Infrastructure Strategy, committing to providing £5bn in public funding to roll out gigabit broadband to at least 85% of the country by 2025, and subsequently to as close to 100% as possible, working with the private sector.

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.

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

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

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.

UK Wireless Infrastructure Strategy (April 2023)

The UK Wireless Infrastructure Strategy, published in April 2023 aims to achieve the objectives that have been set out by the UK Government. The next decade will see seismic changes both in terms of what wireless connectivity can deliver and how we can use it. The economic and social benefits from these changes promise to be vast, from supercharging growth to accelerating our transition to net zero. But these benefits can only be achieved with

concerted action from government, industry, and others. This strategy sets out the Government plan to do that.

In the last 5 years, UK government policies have driven impressive progress in the deployment of world class fixed and wireless networks across the whole of the UK, removing regulatory and practical barriers to deliver stronger growth, more jobs, and better public services in every corner of the country.

- through our £1 billion deal with the mobile network operators, we are supporting rural communities by ensuring that 95% of the UK landmass have 4G coverage by 2025. This currently stands at 92%
- we have made substantial progress with 5G, too. Last year, we met our ambition for the majority of the population to have access to a 5G signal by 2027 5 years early through the deployment of basic, non-standalone 5G using existing 4G networks to deliver increased network capacity.

By building world-class, secure digital infrastructure networks, the Government can meet its vision they set out in their Digital Strategy for a competitive and innovative digital economy. This will play an important role in:

- **underpinning other new technologies** - the next decade will see the development and maturation of transformative technologies from AI and self-driving vehicles to digital twins, which will drive demand for advanced wireless connectivity.
- **transforming public services** - there are also significant benefits for improving our public services, supporting smart cities which are cleaner and less congested and delivering connectivity to our schools and hospitals that will provide better, more interactive lessons and personalised healthcare.

By transforming our economy, widespread adoption of 5G can bring a cumulative productivity benefit of £159 billion by 2035, driving growth and inward investment, and improving lives for communities in every corner of the country.

However, there are challenges we need to address to ensure the UK can realise these benefits, as the economics of investing in wireless networks are changing:

- There is still need to overcome uncertain demand for 5G-enabled services and continuing practical barriers to network deployment need to be overcome.
- Many of the economic benefits we have identified require significantly higher quality connectivity than is likely to be deployed in national public networks.
- 5G roll-out in the near term is likely to focus on urban areas, where the commercial returns are more certain.
- Research we commissioned shows significant variation in the quality of mobile coverage in different parts of the country over the next decade - economically important areas like Freeports and industrial parks could be underserved.

Market dynamics are also changing:

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

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

- **Demand is uncertain** as connectivity moves beyond smartphones to enable an array of new, innovative use cases, businesses and the public sector will need to navigate an increasingly complex ecosystem to get the connectivity they require. As many businesses and local authorities do not yet clearly understand the benefits 5G offers or how they can effectively deploy 5G-enabled services to realise these benefits, there is no clear articulation of the demand for higher quality services. In turn, this makes it more challenging for providers to make the business case for investment.

Through this strategy, the UK government set out a new policy framework with 6 key steps to do just that and ensuring that the UK maximises the potential of advanced wireless networks over the next decade, securing our international competitiveness for the future and driving economic growth across the UK.

1. Ensuring good connectivity for all

As networks are upgraded with 5G technologies over the next decade, 4G will continue to play an important, albeit diminishing, role in providing mobile connectivity across the UK.

Coverage reporting also needs to improve so that it more accurately reflects consumers' actual experience, equipping them with the information they need to choose the right contract. In turn, we expect this to drive further commercial investment to address previously unidentified gaps - ensuring that people and businesses get the connectivity they need, whether to start and grow a business or to have a remote healthcare appointment.

2. Setting a bold 2030 ambition

Given the substantial potential that 5G offers for businesses and public service delivery, we are setting out a bold vision for the next generation of our national networks to galvanise investment across our economy. We want to move beyond the basic 5G that is being deployed now over 4G networks to build higher quality, standalone 5G networks that do not rely on older infrastructure. We also want to extend 5G coverage well beyond cities and towns to all populated areas of the UK, including rural villages and communities.

We are therefore setting a new headline ambition for the UK to have nationwide coverage of standalone 5G to all populated areas by 2030 *(emphasis added)*.

3. Strengthening the investment climate

While the government already has a range of policies in place to drive forward the deployment of digital infrastructure, our 2030 ambition requires significant commercial investment.

This includes:

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

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

- Continuing to remove practical barriers to the deployment of 5G infrastructure.

4. Realising the full benefits of 5G

We want people, business and public services across the UK to realise the full benefits of 5G and advanced wireless connectivity. However, without concerted action, this will be slow to materialise and limited to larger businesses, in fewer sectors, and in certain geographies.

Supporting places to attract investment: we set out how we will drive greater opportunities for industry and public service providers to be empowered customers for future connectivity solutions – supporting places to attract investment and encouraging adoption of 5G services.

We will do this by:

- Driving local leadership and coordination, and encouraging local authorities across the UK to employ digital champions to provide strategic leadership for local authorities' own digital infrastructure strategies.

There are 5 chapters which outline the aims and ambitions, along with the steps the government are going to take in order to achieve their set targets and provide improved 5G connectivity for all.

Chapter 1 - Approach and scope

This strategy sets out a policy framework to help deliver the government's priority of growing the economy and to ensure the UK benefits from advances in wireless connectivity for the next decade.

Chapter 2 – Ensuring good connectivity across rural and urban areas.

The government's priority to build a better, more secure, more prosperous future for the UK includes a clear commitment to grow the economy and create better-paid jobs and opportunity right across the country. To do this, it is vital that people who live and work in all parts of the UK, including in rural areas, have access to good quality mobile and broadband coverage.

Chapter 3: Our 2030 ambition

World-class digital infrastructure underpins the digital economy – it was worth £143 billion in 2021, accounting for 5% of the national workforce. This infrastructure provides the backbone of the UK economy and society with ever more jobs, public services and societal interactions built upon its foundations. As growth in the digital sector is nearly six times faster than across the economy as a whole, its importance will only continue to increase as we deliver the Prime Minister's priority of growing the economy.

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

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

4G technology revolutionised the way people use their mobile phones. What today is considered normal, a decade ago was ground-breaking. We have seen the growth of streaming services, like Netflix and Spotify, and gained constant access to high quality, user-produced content for free on platforms like YouTube, transformed the way we shop online, travel around cities through access to apps like Uber and Bolt and use public services, such as booking NHS appointments through apps.

The evolution of 5G

While 4G will continue to play an important role in providing widespread geographic connectivity to consumers through public cellular networks across the UK's landmass, 5G can offer significantly better performance and support a far greater range of use cases. 5G enables data transfer speeds of more than 10 times faster than 4G, has the potential to offer lower latency and greater reliability and the ability to connect more devices. The implications of these improvements reach far beyond the potential to develop the capabilities of smartphones, enabling an array of innovative use cases and providing for transformative economic, and social benefits that were perhaps unimaginable a decade ago.

The government's ambition for the majority of the population to have access to a 5G signal by 2027 has been met early through the deployment of basic, or non-stand alone, 5G which is built on a 4G core network. While this has helped MNOs increase the capacity of their networks in more densely populated areas, it does not reflect the full functionality 5G can deliver.

Without clear action, the market for advanced 5G services will remain nascent as many business and public services do not yet fully understand the benefits or how to navigate the supplier ecosystem for 5G enabled digital products, applications and services.

We want high quality coverage to extend well beyond cities and larger towns to all populated areas of the UK, including villages and rural communities. ***We are therefore setting a stretching new ambition of nationwide coverage of standalone 5G to all populated areas of the UK by 2030*** *(emphasis added)*.

Chapter 4: Strengthening the investment environment.

Our 2030 ambition requires commercial investment, and this chapter focuses on creating the environment to support it.

The deployment of standalone 5G and ultimately advanced will require operators to deploy additional infrastructure, including:

- 5G core networks in addition to the 5G equipment in the radio access network
- upgrades to the existing grid of approximately 18,000 macro cell sites per MNO
- additional cell sites to provide 'infill' to cover gaps in coverage

Addressing barriers to deployment

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

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

Since the publication of the Future Telecoms Infrastructure Review, the government have taken significant strides to make it quicker and easier for operators to roll out new digital infrastructure including making reforms to the planning system to support the deployment of 5G and extend mobile coverage in England.

Chapter 5 – Realising the full benefits of 5G and advanced wireless connectivity.

5G and other forms of advanced wireless connectivity pave the way for new services and applications that can have a transformative effect on our public services, businesses and our local economies, delivering this government's priority of growing the economy and creating better paid jobs. Wireless connectivity can support mobile healthcare workers and connected vehicles, improve traffic flow through our cities and enable our factories to be more productive, supporting the fourth industrial revolution. Our evidence is clear that the most significant economic benefits from 5G will come from widespread adoption of advanced 5G by industrial sectors, including manufacturing and logistics, and by public services.

The government is determined that the UK should take full advantage of these opportunities, but this will only be possible if places across the country can attract commercial investment in 5G and other forms of advanced wireless connectivity and for that to be adopted at scale by businesses and public services.

Connected places.

Improving digital connectivity is one of the government's Levelling Up Missions. We want places and communities across the UK to share in the benefits of good connectivity, enriching lives and driving local growth.

We want to support connected places with their digital connectivity ambitions. **We will do this by helping regions and local authorities to build the case for adopting new technology, attracting investment and removing practical barriers to the deployment of advanced wireless networks** (*emphasis added*). Local and regional authorities play a pivotal role in facilitating the rollout of wireless connectivity and their role will become more critical than ever as investment in 5G continues, due to its technological complexity and the vast number of new applications and services it can support.

Local leadership and coordination

Local leadership can help to identify and break down barriers to deployment at a local level by bringing together stakeholders across the public sector and building strong relationships with industry. The installation of telecoms infrastructure involves a number of different local government departments (such as ***planning***, estates, ***highways***) and their activities can be siloed and uncoordinated.

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

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

It is essential that, at a leadership level, local and regional authorities recognise the importance of wireless connectivity and identify decision-makers within the organisation who are empowered to facilitate private sector investment.

Chapter 6: Driving adoption in key economic sectors.

Adoption of 5G-enabled use cases in sectors such as healthcare, transport & logistics, manufacturing and agriculture will drive economic growth and productivity across the UK, delivering our priority of economic growth.

Key features of 5G for industry Dedicated 5G networks can enable:

- data analytics: Utilising operational and environmental sensor data to make real time decisions about equipment and operational performance.
- video surveillance and geolocation: Providing the location of workers and assets for security and safety purposes.
- tracking moving assets: Working with self-driving vehicle technology and software guidance systems to provide situational awareness of mobile assets.
- automation: Enabling independently operating robots to perform operational tasks.

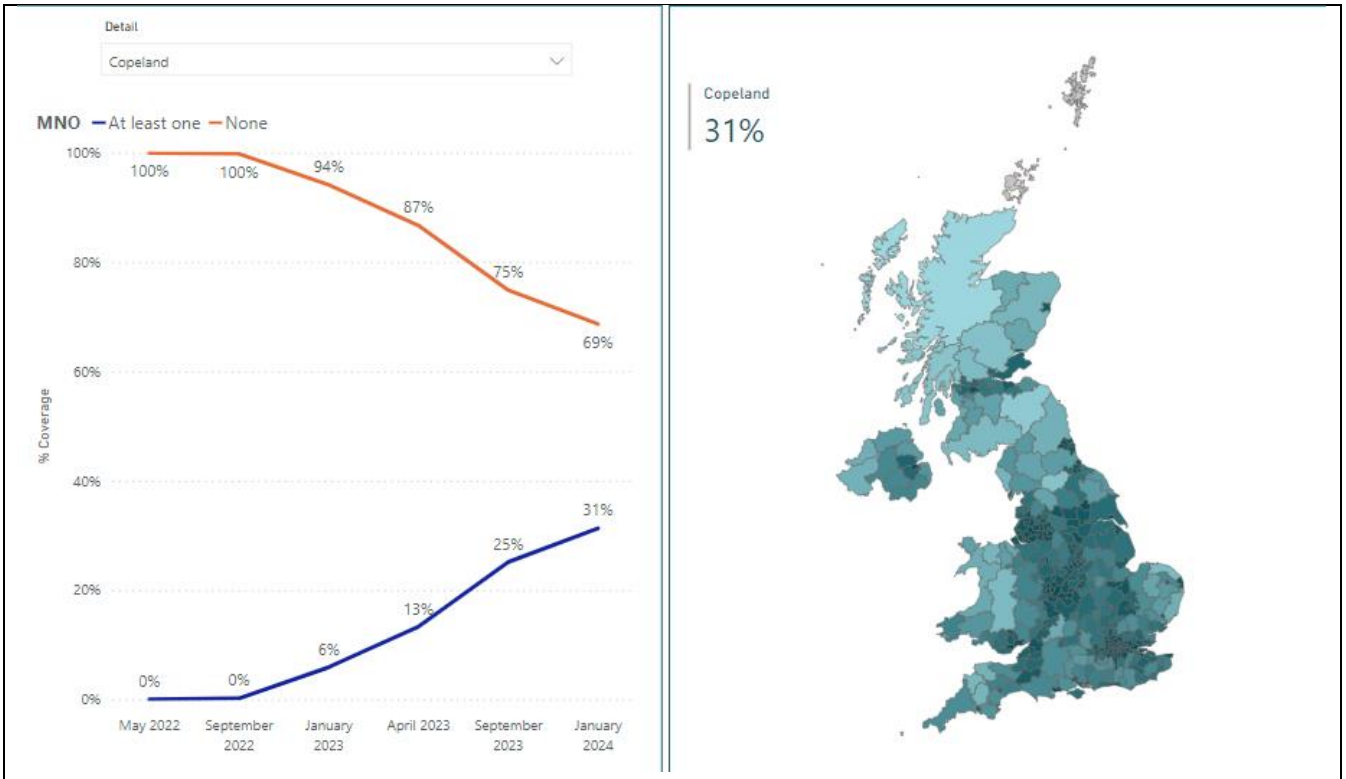
Connected Nations 2024

The Connected Nations 2024 was published in April 2024. This is an interim update to the last annual Connected Nations report, which was based on data collected in September 2023. This Connected Nations 2024 is based on fixed broadband availability and mobile coverage in the UK as of January 2024. Ofcom is a measure mobile coverage in a way that reflects the likely experience of people using their mobile phones. The report acknowledges that there has not been a significant increase in coverage since the September 2023, but the industry continues to develop its coverage footprint.

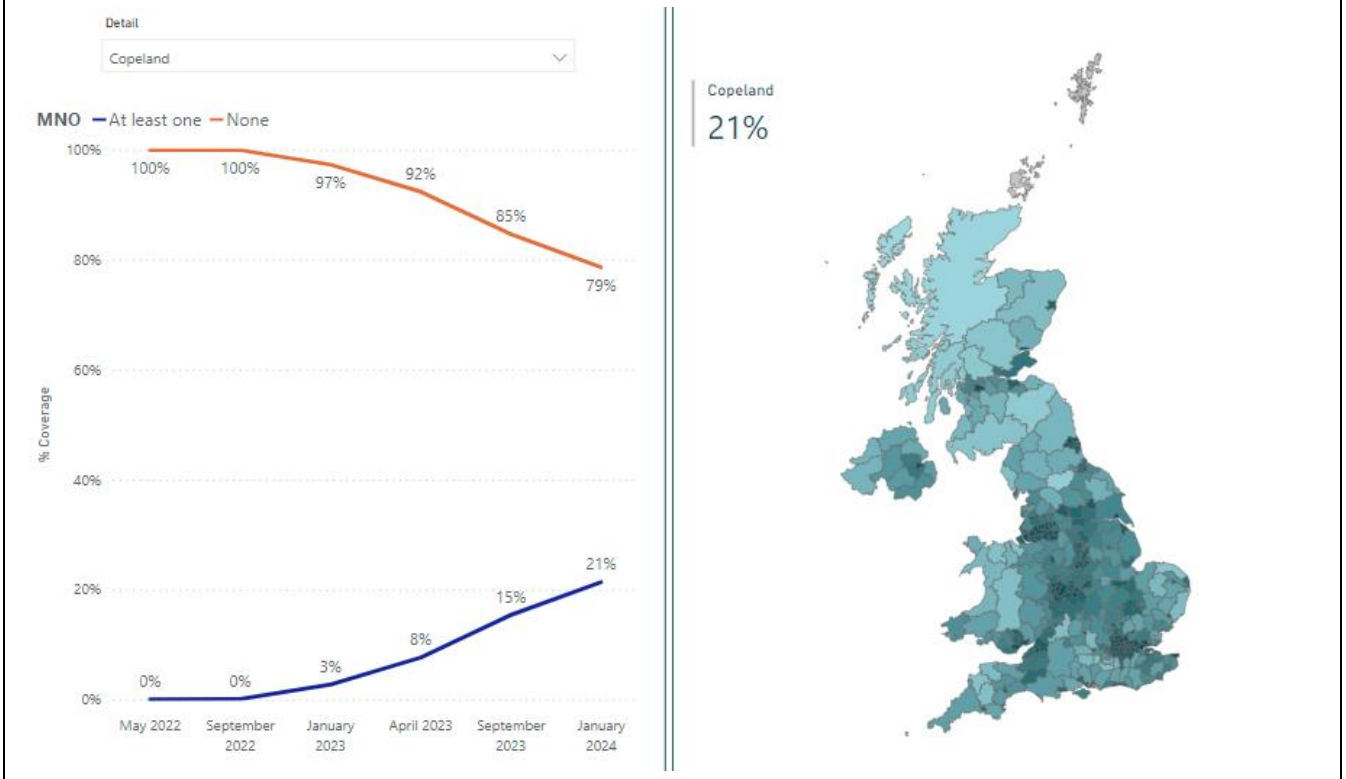
"Mobile coverage remains stable for 4G, with around 93% of the UK landmass predicted to have good outdoor 4G coverage from at least one operator. This area includes nearly all the premises in the UK."

"5G coverage has also remained steady over the previous 4 months with around 92% of premises being able to get a 5G signal outdoors, from at least one mobile network operator (figures reported with a high degree of confidence)"

The below maps present the existing 5G geographical coverage at high confidence and very high confidence in the Copeland area.



Map 1. 5G high confidence geographical coverage within Copeland area.



Map 1. 5G very high confidence geographical coverage within Copeland area.

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

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

Planning Assessment

The main issues arising from this prior approval notification are whether the proposed mast and antennas 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 NPPF, which fully supports the roll out of 5G and the next generation connectivity to accelerate business opportunities and growth to ensure the economy is resilient and competitive, the relevant policies from the Copeland Local Plan, the Cumbria County Council Digital Infrastructure Strategy, the Cumbria Local Enterprise Partnership (CLEP) Local Industrial Strategy, the CLEP Digital Cumbria, and the CLEP Strategic Economic Plan.

The monopole and associated antennas fully comply with the Policy T2 of the Copeland Local Plan, the Cumbria County Council Digital Infrastructure Strategy, the Cumbria Local Enterprise Partnership (CLEP) Local Industrial Strategy, the CLEP Digital Cumbria, and the CLEP Strategic Economic Planas it will increase overall connectivity for the area of Millom. Access to a high quality, reliable superfast mobile network is not just 'a nice to have' but an essential part of everyday life. Indeed many, including the former Minister for Digital Infrastructure Matt Warman, consider it to be the fourth utility service as important as gas, water and electricity, a lifeline for many especially during the COVID-19 pandemic where people were able to see their loved ones, speak to friends and family and arrange virtual meetings allowing some form of normality in a very abnormal situation.

The principle of development has been established by the Government when the new permitted development rights came into force in November 2016, which enabled sites such as this one to be built under the operators permitted development rights, with prior approval for siting and appearance being the only matters that the local planning authority can take into 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*

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

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

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. Furthermore, there are a plethora of existing vertical elements of street furniture in the immediate vicinity, including lighting columns, road signage, a bus stop shelter and telegraph poles. Consequently, the visual impact of the proposed radio base station will be minimised within the street scene as the proposed monopole will assimilate well with the existing vertical structures already in situ in the immediate locale. The site will be located on the grass verge of Horn Hill (A5093) a major road in Millom, leading in and out of the town. The area is predominantly residential, with. The proposed mast has been positioned to ensure it will not be directly in front of any frontages, and any residential properties nearby will see it from an acute angle, minimising its visual impact on the area. Additionally, there is plethora of other vertical elements of street furniture which will help the proposed radio base station to assimilate in the surrounding area. This is in full accordance with the aspirations of the Copeland Local Plan, the NPPF, and the Code of Practice.

The NPPF was updated in December 2023, in order to strengthen sections including requirements on improved design quality, a new requirement for Councils to produce local design codes or guides, an emphasis on using trees in new developments, revised policies on plan-making, removing statues and opting out of PD rights relating to residential conversions. Furthermore, the revised Code of Practice (March 2022) at Para 29 states that placing a mast within or adjacent to an existing group of trees, vegetation and other natural features can reduce visual impact. Care should be taken to minimise the unnecessary loss of existing trees, though antennas will need to be sufficiently elevated to clear the treeline and the trees may need to be maintained to prevent growth above a certain level. Both the NPPF and Code of Practice recognise the importance of improved connectivity whilst utilising existing trees to provide a screen and backdrop for the proposed monopole. Therefore, this proposal is in accordance with the updated NPPF and revised Code of Practice.

If the monopole were to be reduced in height, then the antennas would not be able to clear the surrounding buildings and urban clutter 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 have to be found leading to the proliferation of masts contrary to national planning guidance contained in the NPPF.

The proposed equipment cabinets do not require planning permission, as they can be installed under the operators permitted development rights once the radio base station is built. In order to remain fully transparent, they have been included on the plans and in the description. The operator's equipment cabinets are similar to those of other statutory undertakers which are commonplace in urban areas. Their limited height and scale will ensure that these cabinets will not be detrimental to the visual amenity of the area.

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

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

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. Thus, an additional installation is required in order to provide improved coverage and capacity to this area of Millom. Therefore, a new ground-based installation is required.

Capacity refers to the maximum amount of data a network can handle and the number of devices it can support simultaneously. When too many devices try to connect to the network, it can become overloaded, leading to issues like slow internet speeds and dropped calls. This is similar to a highway getting congested when there are too many cars. Even if there is coverage in the area, the network will not operate properly if there are issues with capacity. This means that while your device may show a strong signal, the network can still struggle to deliver fast and reliable service if it is unable to manage the high demand.

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, 4G and 5G radio base stations need to be close to their customer demand. Therefore, they require a new site to provide improved 2G, 4G and 5G coverage and capacity service provision to this cell area. As this site needs to fill a gap in the operator's network, whose network configuration is well established in the area, the operator's search area is naturally smaller, than would otherwise be the case if the operator wasn't already providing service provision from this location. This severely limits the options for siting a new installation in the area.

As Section 5 above demonstrates there are no more suitable sites that are located within less sensitive locations than the current proposed site, and, as this is a site to fill a gap in the operator's network, therefore, the operator is even more restricted in locating a more suitable site in which to provide new coverage to the target coverage area in this part of Millom. A streetworks installation is the most viable option in this area due to the low-lying rooftops, varying topography and residential nature which would not suit either a rooftop or greenfield installation.

As radio base stations must provide coverage on the operator's network, their siting options are limited by technical constraints. Therefore, even if there are sites within the search area that could potentially have a smaller visual impact on public amenity, they might not be suitable from an operational perspective. This was recognised by the Inspector in a recent appeal (Ref: APP/C5690/W/23/3334595). In paragraph 13, the Inspector stated: "…*Whilst there may be sites which are better sited in respect of character and appearance as well as amenity considerations, there is little point in assessing those sites if they do not meet operational requirements to support high quality communications…*".

Without this site, customers would experience buffering and dropped calls, and they would not be able to utilise their handheld devices in the way for which they were purchased.

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

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

In line with NPPF, the proposed installation is an item of essential infrastructure and therefore will not cause any loss of privacy nor will any occupants of nearby properties be overlooked. The column 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, particularly when taking into account the ambient noise levels of the area which include passing traffic. 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 handheld tools.

Appearance

The design of the monopole has been carefully considered. To this end, it is a simple, functional slim-line monopole, with the main column being split in to two sections. This column width is essential in order to safely support the antennas at the top of the column and the feeders for all technologies which are hidden within the main column. The column is proposed to be painted grey, in order to match other elements of street furniture, as well as to blend with the often-grey British sky. However, the monopole can be painted any colour should the Local Planning Authority consider that an alternative colour would be more appropriate.

In order to reduce the visual impact on the surrounding area the antennas have been positioned at the top of the monopole. The antennas are positioned as tight as possible and will only be marginally wider than the main column width, rather than being a bulky headframe, as such will not appear dissimilar to a shrouded design. This is in full accordance with NPPF, and the Copeland Local Plan.

Government guidance states that in order to limit visual intrusion, the number of radio and telecommunication masts and the sites should be kept to a minimum consistent with the needs of consumers, the efficient operation of the network and providing reasonable capacity for future expansion. Use of existing masts, buildings and other structures for new electronic communications capability should be encouraged. Where new sites are required, equipment should be sympathetically designed and camouflaged where appropriate. The proposed installation complies with this policy requirement.

As Section 5 above demonstrates there are no more suitable sites that are located within less sensitive locations than the current proposed site, and, as this site need to fill a gap in the operator's network, the operator is even more restricted in locating a more suitable site in which to provide coverage and improved capacity to the target area in this part of Millom.

It is essential that the 5G antennas are unshrouded. As the radio frequencies get higher, required for data carrying, the antennas are less able to propagate through immediate blockages including Glass Reinforced Plastic, which is what the shroud is made from. This affects the 5G antennas more so than any other technology. The result being they cannot operate effectively close to Glass Reinforced Plastic or any other blocking material. Therefore, there is a technical reason why the 5G antennas need to be unshrouded. The latest

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

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

4G technology are also affected more so than older technologies by propagation and are therefore less efficient if they are shrouded. As such, the antennas also are proposed to be unshrouded to ensure that the latest technologies are provided to the surrounding area, helping Millom, and Cumbria to become the smart region.

The presence of the linear structures including lighting columns, road signage, a bus stop shelter and telegraph poles will ensure that the proposed column will not appear incongruous within the street scene. Thus, there will be no detrimental loss of visual amenity to the area or environmental intrusion in line with the Copeland Local Plan.

The installation of this 20m slim-line column is designed to be as similar as possible to the other linear structures found in the immediate area will be no more at odds with the street scene and character of the area than the other vertical structures within the immediate locale.

It is accepted that the height of the proposed installation is taller than other pieces of surrounding linear items of street furniture. Being taller than more traditional urban items of street furniture in itself is not a valid reason to conclude that it is not appropriate at a specific location. Indeed, Inspectors at appeal have noted that by their very nature to be effective masts are required to be taller than surrounding structures and that telecommunications masts are now common urban items of street furniture.

Telecommunications apparatus by their very nature must be taller than surrounding built and natural form to ensure its efficient operation. To suggest that it is inappropriate development because it is taller than adjacent lighting columns or road signage is no more relevant than suggesting that street lighting columns are inappropriate because they are taller than road signage or traffic lights. They are all essential pieces of infrastructure within a street scene that carry out differing functions and therefore cannot be considered on the same merits. Should a street lighting column be capable of the provision of high quality 2G, 4G and 5G telecommunication services for the operator then this would be a reasonable consideration, but this is clearly not the case. As such, the proposal should not be considered negatively due to it being taller per se than other vertical structures. Reasonable consideration of the proposal in the context of nearby street furniture can only conclude that the presence of other vertical structures in the immediate area only seeks to provide a setting wherein a base station may appear more congruous from which to provide an important service to a wider area.

This is a prior approval application where the principle of this type of development is already established by the Government under the Town and Country Planning (GPD) Order 2015 (as amended) which states that this type of development is permitted subject to the prior approval of the siting and appearance of the installation. This is therefore akin to an outline planning permission. There is nothing in the legislation which limits the number of installations that can be erected in a certain locality, nor that they cannot be located on transport corridors. Given the nature of the area which contains numerous vertical structures and semi-mature and mature trees in a wider area, the proposed radio base station would not appear prominent nor out of place.

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

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

It is also noted that under the operators permitted development rights existing columns can be replaced with new structures up to 20m in height with the submission of a license notification to the Council. This demonstrates that the Government considers that 20m streetworks columns are acceptable without the need to obtain further permission from the Council for their installation. Furthermore, on non-designated sites not on the highway, but which could be located next to the highway, existing sites can be replaced with installations up to 25m in height without the need for further planning permission from the Council, under the operators permitted development rights. Further emphasising the point that the Government is not concerned with column heights up to 25m on highway locations per se.

NPPF states at paragraph 119 the number of radio and electronic communications masts, and the sites for such installations, should be kept to a minimum consistent with the needs of consumers, the efficient operation of the network and providing reasonable capacity for future expansion. In order to provide improved latest 4G technology and 5G service in this locality, a new site is required in order to provide improved latest technologies to the surrounding area. The operator has already explained above, it is unable to shroud the antennas, but the design is as slim as possible and will represent a simple, functional, vertical structure in the street scene similar to the existing lighting columns and other elements of the street furniture.

If the column were to be any slimmer, then the multi technologies would not be able to fit in the same installation and an additional radio base station would be required which would be contrary to national planning guidance. It would also not be structurally capable of supporting all the technologies including the latest 4G coverage as well as 5G service provision for Vodafone. If the column were to be the same width throughout, then it would have to be as wide as the antennas at the top of the column. This would appear more visually prominent in the street scene than the current proposals.

The design of the radio base station is one of the most sensitive designs available to the operators, designed to resemble typical existing urban linear street furniture. This is in line with the requirements of NPPF which supports equipment which is sympathetically designed and camouflaged where appropriate [paragraph 119], and the Code of Practice.

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

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 this area of Millom continues to get the mobile coverage it needs for Vodafone customers as well as new 5G coverage. It will

also maintain and improve coverage for the Mobile Virtual Network Operator's (MVNOs) which use the Vodafone network which includes Voxi, Asda Mobile, Lebara and Talkmobile. So, the proposal will not only provide a service for one operator but those who buy network space off them, which is at least 4 with Vodafone. This will provide a choice for those customers who consider the level of coverage in their area when selecting which operator, they agree future contracts with.

The current proposals will facilitate the development of an advanced broadband telecommunications infrastructure in line with National Government guidance contained within the NPPF which supports infrastructure especially where growth takes place. By providing the latest 4G technology and new 5G service provision the proposals will also help meet the aspiration of the Copeland Local Plan, the Cumbria County Council Digital Infrastructure Strategy, the CLEP Local Industrial Strategy, the CLEP Digital Cumbria, and the CLEP Strategic Economic Plan. The Cumbria Local Enterprise Partnership recognises the importance of the digital infrastructure, and the benefits and positive impact it can have on the local economy and residents, especially as stated at paragraph 9.2 of the CLEP Local Industrial Strategy: "*Given the remote and often isolated location of many businesses and people in Cumbria, access to digital connectivity is absolutely critical for accessing service and for business.*".

Trials have already begun across the UK to demonstrate the potential of 5G and how it can improve and drive productivity and efficiency. In June 2019, West Midlands 5G partnered with BT and University Hospitals Birmingham to trial the UK's first 5G Connected Ambulance. Real-Time communications between the paramedics and the hospital doctors enabled the effective diagnosis of the patient at an early stage of care. The trial showed how a paramedic performed a remote-controlled ultra-sound scan on a patient in an ambulance over a public 5G network. These trials show how digital connectivity and technology can reduce patient waiting times and save lives (Source: WM5G).

In line with the Copeland Local Plan, the Cumbria County Council Digital Infrastructure Strategy, the CLEP Local Industrial Strategy, the CLEP Digital Cumbria, and the CLEP Strategic Economic Plan, 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 Millom to embrace emerging technologies and societal changes. 5G infrastructure is fundamental to enable digital technologies to function. The proposals will ensure that any Vodafone 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, 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

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

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

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 improved 5G network is not available, then the customers' would not be able to utilise these handheld devices for the purposes in which they were purchased. This would be contrary to the aspirations of Central Government which aspires to everyone having access to the superfast highway network wherever they are.

In accordance with the Copeland Local Plan, the Cumbria County Council Digital Infrastructure Strategy, the CLEP Local Industrial Strategy, the CLEP Digital Cumbria, and the CLEP Strategic Economic Plan, the proposed installation will help improve the area's economic prosperity, strengthen the urban economy's by supporting local businesses to start, grow, adapt and diversify. It will support a better environment for today and tomorrow by reducing the need to travel and in turn minimise carbon emissions. The radio base station will support the delivery of healthcare provision and accessibility by enabling people greater access to online services, NHS appointment reminders, reminders to take medicines, make appointments etc. As well as assisting hospital outpatient appointments and emergency consultations carried out remotely via video link, connected ambulances, live streaming of CCTV footage etc.

By enhancing the 2G, 4G and 5G service provision to the surrounding area, this would fully support the Cumbria County Council Digital Infrastructure Strategy, the CLEP Local Industrial Strategy, the CLEP Digital Cumbria, and the CLEP Strategic Economic Plan.

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 streetlights, water meters and bus stops. As such it needs the 21st century infrastructure to enable this objective to become a reality. A new installation in this location enabling enhanced 4G and 5G service provision to the Millom 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 118 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 help to fix current issues with capacity in the area and enable Vodafone and MVNOs who buy network space off Vodafone to maintain access to their handheld devices wherever they are for the purposes in which they were purchased. This is fully in line with the Government's aspirations that everyone has access to the superfast communications network, the NPPF.

Access to the internet in whatever medium now impacts every facet of our lives but only benefits those who can access and use it. The benefits of internet connectivity are key for both residents and businesses alike and a new radio base station in this location providing the enhanced 2G, 4G and 5G technologies will support the Cumbria County Council Digital Infrastructure Strategy, the CLEP Local Industrial Strategy, the CLEP Digital Cumbria, and the CLEP Strategic Economic Plan's aspirations to provide improved digital connectivity across the LEP's region helping the local economy to grow.

In line with guidance contained within the NPPF, a new radio base station in this location will enable fast, reliable, secure internet accessibility wherever the user is located. An installation in this location would fully meet the latest operators' coverage and capacity requirements for 4G and 5G. 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 improved capacity and therefore would not adequately maintain and provide coverage and capacity.

As part of the operators 5G licence obligations, many customers will benefit significantly from a vastly improved service provision in this locality. They will be able to gain access to the very latest technologies and connectivity, including 5G, to high-speed data services, the importance of which is highlighted in the Cumbria County Council Digital Infrastructure Strategy, the CLEP Local Industrial Strategy, the CLEP Digital Cumbria, and the CLEP Strategic Economic Plan. An installation in this location will help Millom and Cumbria to meet its ambition of being digitally inclusive.

The Code of 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 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 provide new and improved 4G and 5G provision within the area.

In the Code of 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.

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 Copeland Local Plan, the Cumbria County Council Digital Infrastructure Strategy, the CLEP Local Industrial Strategy, the CLEP Digital Cumbria, and the CLEP Strategic Economic Plan. 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.

In such instances, as described above, the NPPF supports development that improves the economic, social and environmental conditions in the area. Enhancing the 2G, 4G and 5G coverage and capacity in this area will fully meet this national policy objective. Continuing to transform the digital connectivity of the region to drive economic growth and innovation, working to meet national targets of full roll-out of 5G technology for all populated areas are connected to the 5G network by 2030 will comply with the ambitions of the Copeland Local Plan, the Cumbria County Council Digital Infrastructure Strategy, the CLEP Local Industrial Strategy, the CLEP Digital Cumbria, and the CLEP Strategic Economic Plan.

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

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

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

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.

Providing the latest digital infrastructure to enable improvements in digital technology empowers and enables residents to have the highest quality of life, supports the creation of high-quality jobs and achieves the maximum productivity levels.

The enclosed Cornerstone Local Authority Engagement Brochure September 2020, emphasises further the benefits of high quality mobile connectivity including: promoting economic growth by attracting investment from business, which creates jobs and regional prosperity in line with national and local economic strategies; helps local businesses to offer a broader range of services, boosting the local economy; helps local Councils to offer online services such as school admissions and local information for residents supports local companies by facilitating working from home, offers social benefits such as being able to connect with vulnerable family and friends (a life line during COVID 19 lockdown) or contact the emergency services 24/7, and helps local councils to offer online services such as paying council tax bills which provides a more efficient service to name but a few benefits.

Practical Applications of 5G Connectivity as Example of Material Socio-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.

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'*.

Providing improved 4G and 5G coverage and capacity in this area will fully meet paragraph 38 of the NPPF, as well as the Copeland Local Plan, the Cumbria County Council Digital Infrastructure Strategy, the CLEP Local Industrial Strategy, the CLEP Digital Cumbria, and the CLEP Strategic Economic Plan.

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 Copeland Local Plan, the Cumbria County Council Digital Infrastructure Strategy, the CLEP Local Industrial Strategy, the CLEP Digital Cumbria, and the CLEP Strategic Economic Plan. 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 Cumbria County Council Digital Infrastructure Strategy, the CLEP Local Industrial Strategy, the CLEP Digital Cumbria, and the CLEP Strategic Economic Plan 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.

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

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

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, 4G and 5G coverage and capacity in Millom, 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 Millom to provide improved 2G, 4G and 5G capacity is significant.

The proposed installation in this location will allow the operator to provide improved high quality 2G, 4G and 5G coverage and capacity 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 Copeland Local Plan, the Cumbria County Council Digital Infrastructure Strategy, the CLEP Local Industrial Strategy, the CLEP Digital Cumbria, and the CLEP Strategic Economic Plan.

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 5G license obligations and the Council's aims and aspirations to be a smart city-region and have high quality 5G infrastructure, promoting and growing the digital sector and increasing digital inclusion.

Summary

The proposed site has been carefully sited on the grass verge of Horn Hill (A5093), an important route in and out of the town. The area is predominantly residential; however, the proposal was sited in such a way to be as far away as possible from the residential frontages. Additionally, it will benefit from partial screening from semi-mature and mature trees along Horn Hill, especially in medium and long views. Only, a limited number of residential properties will see the proposed installation, however, they will it from an acute angle, minimising its visual impact on them. Additionally, there are numerous other vertical structures in the vicinity of the proposed installation including lighting columns, road signage, a bus stop shelter and telegraph poles, as well as semi-mature and mature trees. As this is a prior approval application, the Government confirms that this is permitted development, akin to outline planning permission, with just the finer details of siting and appearance to be considered by the local planning authority. The vertical structures help the proposed installation assimilate with the street scene and not appear alien in the immediate area.

The proposed height at 20m is essential in order for the antennas to clear the surrounding urban clutter, trees and ensure the antennas are able to reach the target coverage area, to maintain and provide improved capacity for 2G, 4G and 5G service provision to Millom. 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.

The new installation is required to improve capacity of the operator's network in this area. Capacity refers to the maximum amount of data a network can handle and the number of devices it can support simultaneously. When too many devices try to connect to the network, it can become overloaded, leading to issues like slow internet speeds and dropped calls. This is similar to a highway getting congested when there are too many cars. Even if there is coverage in the area, the network will not operate properly if there are issues with capacity. This means that while your device may show a strong signal, the network can still struggle to deliver fast and reliable service if it is unable to manage the high demand.

3G (and eventually 2G) is being switched off by the operators in order to repurpose these radio frequencies for faster more energy-efficient 4G and 5G services. 3G is primarily used for mobile data services. It is being switched off first because it has already largely been superseded by 4G. Hence the importance of providing the latest 4G and new 5G service provision is areas where there is no such coverage. 3G has already been switched off by

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

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

Vodafone and EE in early 2024, and VMO2 (known as O2) is planning to do the same. As a result, it is imperative that the operator builds resilience into the network.

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

As radio base stations must provide coverage on the operator's network, their siting options are limited by technical constraints. Therefore, even if there are sites within the search area that could potentially have a smaller visual impact on public amenity, they might not be suitable from an operational perspective. This was recognised by the Inspector in a recent appeal (Ref: APP/C5690/W/23/3334595). In paragraph 13, the Inspector stated: "…*Whilst there may be sites which are better sited in respect of character and appearance as well as amenity considerations, there is little point in assessing those sites if they do not meet operational requirements to support high quality communications*…".

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, the Copeland Local Plan, the Cumbria County Council Digital Infrastructure Strategy, the Cumbria Local Enterprise Partnership (CLEP) Local Industrial Strategy, the CLEP Digital Cumbria, and the CLEP Strategic Economic Plan. These benefits are strong material considerations which outweigh any perceived loss of visual amenity to the surrounding area.

Confirmation that submitted drawings have been checked for accuracy

Name: (Agent)	Michal Laskowski	Telephone:	
Company:	Clarke Telecom Limited		
Company Address:	Clarke Telecom Limited, Unit E, Madison Place, Northampton Road, Manchester, M40 5AG	Email Address:	
Signed:		Date:	31/10/2024
Position:	Town Planner	(on behalf of Cornerstone)	

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

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