

PLANNING, DESIGN AND ACCESS STATEMENT

Site Ref:	S5-13a	Applicant:	Cellnex Connectivity Solutions Limited (CCSL)
NGRs:	532106/120277	Date:	26 February 2025
Site Name:	Land to the north of Leyland Road	Type:	Prior Approval
Site Address:	LAND TO THE NORTH OF LEYLAND GRANGE CLOSE, BURGESS HILL, WEST SUSSEX RH15 0RZ		
Proposal:	Proposal: <i>The installation of 1 No. 30 metre high lattice tower mounted with 9 No. antennas, 12 No. cabinets, within a compound comprised of 2.4 metre high palisade fencing painted green, 1 No. electrical metre cabinet and associated development thereto.</i>		
Planning Agent:	Avison Young (UK) Limited		
LPA:	Mid Sussex District Council		

Contents

1. Introduction
2. Design
3. Planning Policy Considerations
4. Technical Justification
5. Conclusion

Overview

Avison Young are planning consultants acting on behalf of Cellnex Connectivity Solutions Limited (CCSL), to submit the application contained herein for proposed telecommunications development.

Enclosed you will find an application for Prior Approval prepared on behalf of Cellnex Connectivity Solutions Limited (CCSL) who is a licensed operator that provide Cellular Network based upon the Global System for Mobile (GSM) standard and Universal Mobile Telecommunications System (UMTS) within the United Kingdom.

The supporting documents submitted with this application are as follows:

- Application Form (as generated through Planning Portal)
- Application Fee
- Drawings S5 -13A -00-000-MD001, S5 -13A -00-002-MD00, S5 -13A -00-003-MD001, S5 -13A -00-004-ML001 rev 3.
- Planning, Design and Access Statement
- ICNIRP Certificate
- Site Specific Supplementary Information Document (SSSI)
- Copy of Developer's Notice
- Copy of Civil Aviation Authority Letter and responses
- Technical Supporting Statement.

We trust you will find the enclosed information sufficient to register and validate the application. Should you require any further information please direct your queries to the below contact.

Contact Details:

Rebecca Skerrett MRTPI

Director, Technology

rebecca.skerrett@avisonyoung.com | telecoms.planning.uk@avisonyoung.com

6th Floor, 11 York Street, Manchester M2 2AW

1. Introduction

1.1. Project Overview

This application is submitted on behalf of Cellnex Connectivity Solutions Limited (CCSL), in conjunction with Network Rail, for the development of an electronic communications base station to improve railway connectivity along the length of the Brighton Main Line. The development proposed is one of a number of projects being progressed by Cellnex UK within urban and rural areas of the UK to provide coverage, improved mobile data and other connectivity services, underpinning the UK digital communications ecosystem.

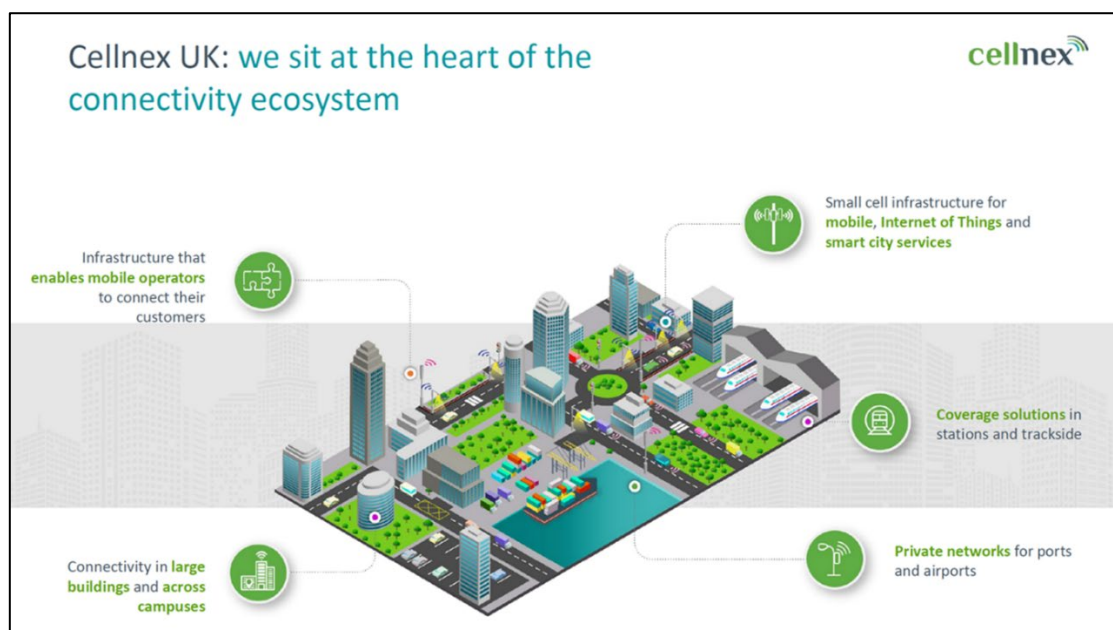


Figure 1 Cellnex UK and the Connectivity Ecosystem

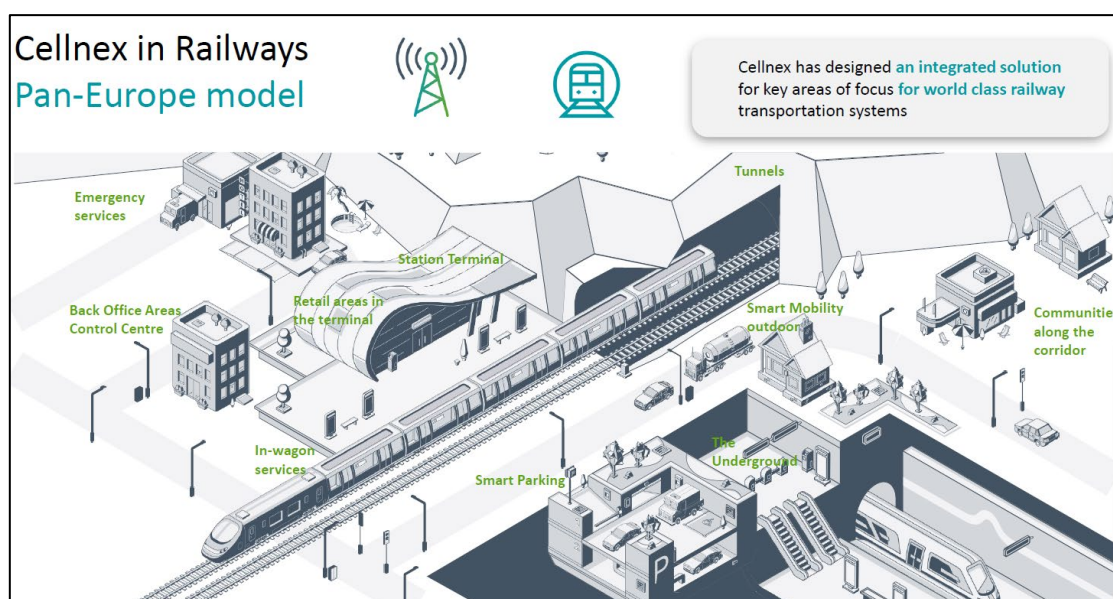


Figure 2 Cellnex and Railways Connectivity

1.2. Objectives

Cellnex Connectivity Solutions Limited has been awarded the 25-year concessionary contract by Network Rail to provide seamless cellular internet, mobile phone reception, and fibre services along the entire length of the Brighton Main Line route. This forms part of package of improvement measures being progressed by Network Rail, in conjunction with the UK Government, the Mayor of London, and Local Authorities for a range of improvements to the Brighton Main Line, including improved rail capacity.

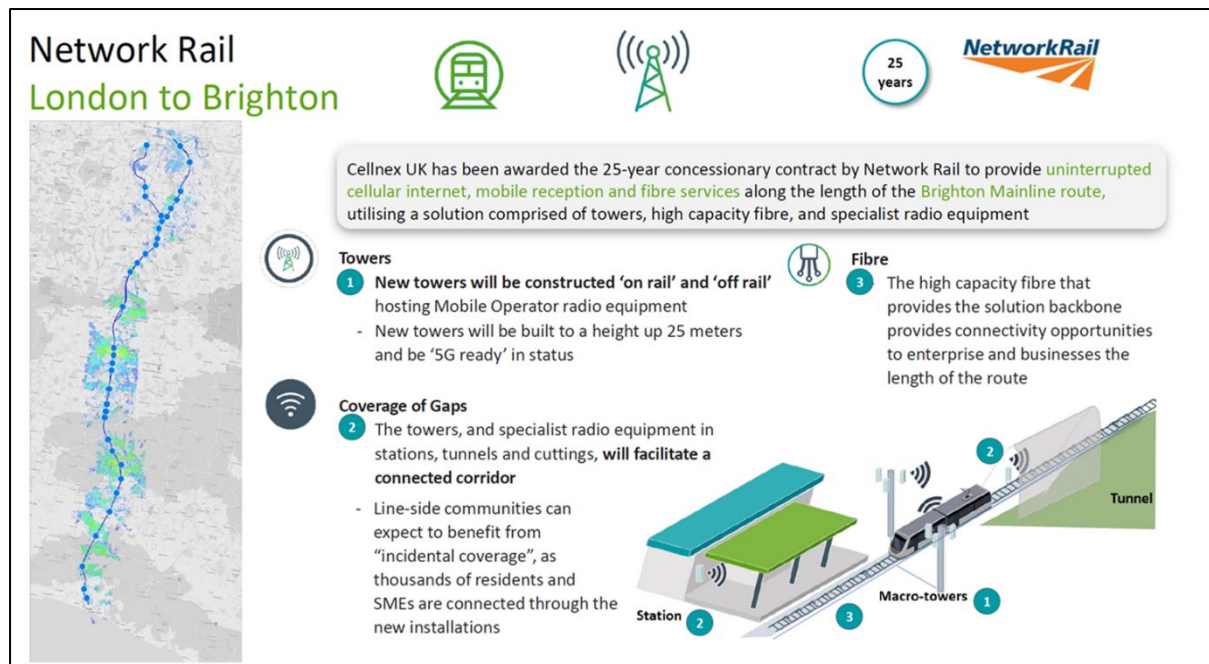


Figure 3 The Brighton Main Line Connectivity Project

To achieve the objectives for improved connectivity, Cellnex will need to deploy the following communications infrastructure:

- New electronic communications base stations providing macro-level mobile media connectivity to fill the gaps where existing Mobile Network Operators' (MNO) sites do not currently provide coverage along stretches of the railway line, or where existing coverage is insufficient to provide connectivity to passengers using rail services. The emphasis of the programme is to deliver 'seamless connectivity' along the length of the Brighton Main Line and for this to be achieved each site identified has to be successful. This will involve either base stations installed on buildings, if available, or ground based installations with new towers where it is not possible to use buildings and other structures. Our current radio plan identifies that 54 macro base stations will need to be developed along the route from Brighton to London to complement existing MNO coverage and provide seamless connectivity. Where new towers are required, then these will need to be located on either Network Rail land or on land owned by others nearby.
- Distributed Antenna Systems (DAS) to provide very localised coverage to stretches of the railway that will not be reached by radio signals from the macro-base stations. DAS solutions will typically involve coverage to railway cuttings, in and around tunnels, and to some

stretches of the railway elsewhere. We expect that 19 DAS systems will be required based upon the current radio plan, along with the installation of antennas and other apparatus providing improved indoor coverage at London Victoria, London Bridge, and Clapham Junction Railway Stations.

- High capacity fibre along the railway line from London Victoria and London Bridge Railway Stations to Brighton. This will provide the backhaul connectivity for the new base stations, as well as providing further capacity for Network Rail's Digital Railway programme involving modern signalling and train control technology to increase capacity, reduce delays, enhance safety, and drive down costs. Some of this fibre capacity could also be used for non-rail purposes in the future. Some of this fibre has already been installed.

Our agreement with Network Rail requires specified connectivity rates of 100Mb/second per train. To achieve, this we plan to install base stations that will provide fourth-generation (4G) services for all MNOs with sufficient structural and other capacity to host 5G equipment to ensure that they are future-proofed. This will require the installation of the following electronic communications apparatus and related works:

- The Macro base stations will provide coverage from panel antennas along with multiple equipment cabinets. In some cases, these base stations will also require the creation of access routes for construction and maintenance purposes. Given the technical and operational constraints explained earlier, we expect that the majority of these base stations will be located 'off-rail' through agreements with private landowners, although some may still need to be installed on Network Rail land.
- The DAS systems providing coverage to railway stations and railway cuttings will be installed on Network Rail land where possible using existing access routes.
- DAS solutions for tunnels that will require small scale antennas and other apparatus to be set approximately five metres into the recess of tunnels and, depending on their length, towards the mid-section of tunnels.

1.3. Technical, Operational, and Town Planning Considerations

To assist with the delivery of this project, the railway line has been divided into sections where the base stations and other infrastructure will need to be built and made operational in the following phases:

- Sections 1 and 3, sites involved in this phase are mainly within London Boroughs.
- Sections 2, 4, and 5. The sites within this phase are mainly located between London and Brighton, including stretches of the railway line running through the High Weald Area of Outstanding Beauty and the South Downs National Park.

As you will probably appreciate, the deployment of new connectivity infrastructure along a relatively high speed railway line is subject to many constraints, including technical, operational, and health and safety considerations. These include the limited amount of land available alongside the railway line to deploy the required base station infrastructure due to the nature of the built and rural environment, especially the topography where significant stretches of the railway run in

cuttings or tunnels, and the health and safety considerations applicable to constructing and maintaining equipment on Network Rail land.

To assist with your understanding of these constraints, figure 4 (below) is an annotated extract from the National Infrastructure Commission's 'Connected Future Report: Figure 6 'The challenges of providing train connectivity', to which we have added some further constraints. It is for these reasons that the overwhelming majority of the base stations will need to be constructed 'off rail' on land and property alongside the railway line.



Figure 4 Railway Coverage Constraints

This position presents the following technical and operational constraints:

- It should be self-evident, but the base stations need to be located close enough to the railway line to remedy the gaps in the MNOs coverage. They also need to be located so that a safe means of access can be provided to construct and maintain them, taken either from existing routes or by constructing new ones, and with the means of providing the required power supply at an economic cost.
- The area of search for new macro base station sites is, therefore, very restricted and often extends no more than 30-150m or so either side of the railway line. Furthermore, the presence of tall buildings and mature tree corridors along the railway can significantly impact radio signals from base stations and these are key factors in site identification and design. Overcoming these constraints will mean that new ground based towers are likely to be 20-25m high, and occasionally higher, to elevate the antennas above tree canopies and buildings that would otherwise block signals and prevent coverage to the railway line.
- By contrast, the DAS masts required to provide radio signals where macro-base stations cannot are likely to be sited on Network Rail land alongside the railway line and will require shorter structures to provide localised coverage. We anticipate that these will use existing

access routes and will typically require 8-10m high masts with attached antennas, and without the need for equipment cabinets. We reiterate, however, that these are not an alternative solution to the macro-sites, as they provide very localised coverage to the hardest to reach sections of the railway line.

The MNOs may have developed their own base station infrastructure near the Brighton Main Line but, in most cases, their primary aim is to provide coverage to the residential and business communities nearby rather than to the railway line itself. Any coverage to the rail line is often incidental and, even where a base station has been specifically located to provide coverage to the Brighton Main Line, there are still significant stretches of the railway line that do not receive the required level coverage. Consequently, the shared use or redevelopment of existing MNO base station infrastructure is not a viable technical alternative to the development proposed. Put simply, a new base station is required to remedy the gaps in coverage left by the existing MNO base station infrastructure that is already in place.

Similarly, Network Rail has installed its own masts along the railway line to provide coverage for its Global System for Mobile Communications-Railway (GSM-R) system. This provides a dedicated digital, secure, and dependable communications service between train drivers and signallers. This helps to increase safety, reduce delays, and improve performance of the operation of the Brighton Main Line. Network Rail will not permit the shared use of these masts by the MNOs or other organisations and, in any event, the masts do not have the structural capacity to accommodate the required MNO apparatus even if this were not the case. Consequently, the shared use or redevelopment Network Rail's GSM-R masts is not an available alternative to the application proposal.

1.4. Public Benefits

This proposed new site, the subject to this application is part of the operators' continuous efforts to improve existing mobile network infrastructure across the country and along the trainline, as a by product of this the site will also provide improved coverage to the local area. This aligns with the applicant's license obligation to ensure high quality mobile coverage is accessible to the general public, which benefits local residents, businesses and visitors in a variety of social and economic aspects. In today's society the utility provisions for digital communications are an integral part of everyday life as it facilitates a variety of tasks such as phone calls, access to the internet, map navigation, video/music streaming, gaming, online banking and ecommerce. Virtual meetings can also be held with doctors, banking advisors, colleagues and other entities, which have proved necessary as a result of the global pandemic. Consequently, the proposal for telecommunications development submitted herein will contribute to the development and growth of the local area as part of the national strategy. In order to achieve these aims it is necessary for existing infrastructure to be upgraded with the latest equipment and technologies to ensure the robustness of each base station. In some instances where there is a significant shortfall in the network the applicant will also explore opportunities for new sites to fulfil network requirements. This overall strategy allows for greater improvements to the service provided as it can:

1. Improve the size of coverage area targeted;
2. Increase signal strength which results in faster speeds; and
3. Maximises capacity to handle ever-increasing volumes of data traffic throughout the day.

The sites have been designed to ensure that they can be upgraded in the future without massive redevelopment.

It is evident that mobile phone usage has grown exponentially over recent years as more than 90% of the population now own a mobile phone. Customers expect to be able to use their mobile phones and tablets in all locations as these devices have become intrinsic to our personal and professional lives. UK operators are continuously trying to improve their network infrastructure in order to adapt to the changing environment and keep up with customer demands. The consequences of the global pandemic also led to an increase in home-based working which highlighted the inadequacies of coverage provisions in non-urbanised areas where improvements are much needed. As part of the applicant's ongoing network programme, there is a requirement for infrastructure improvements in this area, which experiences a large volume of data traffic. The proposed works will also help towards futureproofing the network to reduce the frequency of works required at the site. Further technical justification can be found later in this statement.

The Brighton Main Line is one of the busiest passenger routes in the UK. It carries a mix of long distance commuters travelling between Brighton and London Victoria and London Bridge Stations, as well as people making local journeys to other railway stations in London, Sussex, and Surrey. It also carries the Gatwick Express service between London and Gatwick Airport.

Prior to the outbreak of the Covid-19 Pandemic, it was estimated that the Brighton Main Line carried over 300,000 passengers per day. In addition to long-distance commuters, the Brighton Main Line also benefits people who live, work, or just visit the areas near each railway station along the line. To illustrate this, we have provided below data from the Office for Road and Rail (ORR) records that show the entry and exits numbers for stations along the Brighton Main Line within the authority's administrative area:

Station Name	2021-22 Entries and Exits	2022 -2023 Entries and Exits
Balcombe	123,504	163,380
Haywards Heath	2,575,100	3,394,840
Burgess Hill	1,196,942	1467,092
Hassocks	821,386	1,019776

Improving mobile connectivity for rail passengers will therefore deliver several benefits. These include improved productivity for people who wish to work while travelling and expect a fully 'connected' experience, to others who may just wish to stay in touch with friends and relatives during their journeys, or people who value that seamless mobile connectivity will provide safety and confidence in case of an emergency or incident, e.g. by enabling them to communicate with someone or the emergency services.

1.5. Sustainability

Following COP26 there is a greater emphasis on considering the effects of future developments on sustainability and climate change. This is a material consideration for local planning authorities, and it is therefore essential to highlight the positive effects of telecommunications development on such environmental matters. Although at this stage the sites are not required for 5G

technology it is important to emphasise the benefits of 5G and these sites could be utilised for 5G in the future. In relation to this, Mobile UK published a report entitled *Connectivity and Climate Change: How 5G will help lay the path to net zero*¹ released in October 2021. The report details a number of areas in which 5G technology will help to mitigate climate change as it supports key industries such as healthcare, manufacturing, agriculture, transport and energy to reduce their environmental footprints. 5G technology will allow energy production and energy use to be better monitored and planned; transport infrastructure will be smarter, meaning cleaner, shorter journeys; manufacturing production processes will be less wasteful; agricultural practices will minimise their negative environmental consequences; and healthcare services will be improved through the use of remote consultancy and other telemedicine innovations.

In a general sense, 5G will allow a greater efficiency in its own right when considering the consumption of energy and other resources. For example, one kilowatt-hour (kWh) of electricity is required to download 300 high-definition movies in 4G, but one kWh in 5G can download 5,000 ultra-high definition movies. The monitoring capabilities that digital communications can offer allow usage rates to be closely monitored, which in turn leads to more efficient planning to save energy and lower carbon emissions. A fast and strong digital connection is required to facilitate these means meaning the rollout of upgraded technology is necessary to continue the growth and development of areas locally and nationally.

Mobile operators are also making efforts to use renewable energy in their operations with a global ambition of reaching net zero emissions by 2050. Each individual code operator has set their own goals and business models for low carbon emissions to target innovative ways to reduce the dependency on fossil fuels. Such initiatives include adoption of zero carbon vehicles, increase the use of renewable energy, reduction of single-use plastic and other active engagement with suppliers and customers to reduce their overall footprint.

¹ <https://www.mobileuk.org/news/cop26-landmark-report-highlights-how-5g-will-help-lay-the-path-to-net-zero>

2. Proposed Site

2.1. Site and Surrounding Area

The site is located within the settlement boundary of Burgess Hill, the site is located to the north of Leylands Road. More specifically, the application site is located within an area of open grassland to the west of the trainline and is identified as informal open space reference PR/00161/INFOS) and within a local wildlife site (reference M07 Burgess Hill Railway Lands). A blanket Tree preservation Order (ref BH/04/TPO/74) covers the established trees which runs to the west of the footpath. A public footpath (route no. 1BH) runs east west to the north of the site. The site will be located close to the existing dead tree and distanced from the living trees to ensure that no trees need to be removed as part of the application. Wivelsfield Railway Station is around 250 metres to the south of the proposal.

The proposal would be located within a strip of open land on either side of the railway lane with trees lining the majority of the railway line which runs north south the proposed mast is located to the west of the railway line.

The topography of the land is relatively flat in this location and access would be off Leylands Road. Whilst the site is predominately to provide coverage to the railway line the immediate residential and business properties will benefit from improved coverage.

The nearest residential properties to the west are located on the Blackthorns and Maple Close and would be approximately 60 metres from the site. Residential properties are also located to the east of the railway line on Valebridge Road and Grange Close and are approximately 85 metres distant. Only the upper sections of the tower would be visible from some of the properties due to the intervening trees.

The development proposed is shown in detail in the drawings submitted and involves the installation of a shared electronic communications base station providing macro-level coverage along a section of railway line between the stations of Wivelsfield (to the south) and Burgess Hill (to the north). The urban nature of the wider surrounds means that coverage will additionally be provided to significant residential and urban areas.

The site is not located within a flood zone.

2.2. Proposed Development

The principal elements of the proposed development at the application site reflect the various technical, siting, and design constraints referred to previously, and consists of the following electronic communications apparatus and related works:

- Erection of a 30m steel lattice telecommunications mast to sit on a concrete pad foundation. The mast itself would be comprised of galvanized steel and would be finished in a galvanized steel colour (light grey).
- 9 no antennas fixed to the mast to a maximum height marginally above 30m to provide the requisite coverage. The antennas will be fixed to the mast in a single headframe. The

antennas themselves will be orientated to provide maximum coverage along the route of the BML.

- New compound area measuring approximately 15m x 10m which will be demarcated by 2.4 m tall palisade fence finished in RAL6009 fir green.
- Radio equipment cabinets within the proposed compound for all mobile network operators proposed to number 12no in total. Each cabinet will be of steel construction, be finished in Fir Green (RAL6009).
- 1no. shared meter cabinet within fence line on new pad foundation; and
- Other ancillary development thereto.

Access during the construction and operational phase will be provided from Leyland Road to the south of the site. No improvement works are required in this respect. Furthermore, the existing dead tree will be removed but no further trees will be removed or pruned to accommodate the proposals. As necessary, any uncontaminated earth and materials excavated to create the compound and other aspects of the development will be reused for fill and levelling.

The radio equipment housing will need to be mechanically ventilated to avoid overheating of equipment. The ventilation equipment is only likely to operate during the day during hot weather. If it is considered specific noise attenuation measures to be necessary, we would be pleased to discuss practicable solutions in the early stages of the determination of this application, however given the location of the equipment and surrounding trees which will dampen any noise, it is not considered that there will be any noise issues as a result of the works.

The scheme falls within the parameters of Schedule 2, Part 16 of The Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended) and therefore an application to determine whether Prior Approval is required is submitted herein.

Site Photo



Type of Structure (e.g. tower, mast, etc)	30 metre lattice tower.																																																							
Overall Height	31.3 metres to top of antennas																																																							
Height of Existing Building (if applicable)	n/a																																																							
Equipment Housing	<table><tr><th colspan="7">EQUIPMENT CABINET SCHEDULE</th></tr><tr><th>ID No</th><th>EQUIPMENT</th><th>MANUFACTURER</th><th>DIMENSIONS (WxDxH) mm</th><th>COLOUR</th><th>LOCATION</th><th>STATUS</th></tr><tr><td>CAB 1</td><td>PSU CABINET (x2)</td><td>TBC</td><td>770x770x2100</td><td>RAL 6009</td><td>PAD FOUNDATION</td><td>PROPOSED</td></tr><tr><td>CAB 2</td><td>TX CABINET (x2)</td><td>TBC</td><td>1500x600x1200</td><td>RAL 6009</td><td>PAD FOUNDATION</td><td>PROPOSED</td></tr><tr><td>CAB 3</td><td>RADIO CABINET (x7)</td><td>TBC</td><td>770x770x2100</td><td>RAL 6009</td><td>PAD FOUNDATION</td><td>PROPOSED</td></tr><tr><td>CAB 4</td><td>POWER & TX CAB (x1)</td><td>TBC</td><td>770x770x2100</td><td>RAL 6009</td><td>PAD FOUNDATION</td><td>PROPOSED</td></tr><tr><td>CAB 5</td><td>SMC (x1)</td><td>TBC</td><td>1873x560x588</td><td>RAL 6009</td><td>PAD FOUNDATION</td><td>PROPOSED</td></tr></table>							EQUIPMENT CABINET SCHEDULE							ID No	EQUIPMENT	MANUFACTURER	DIMENSIONS (WxDxH) mm	COLOUR	LOCATION	STATUS	CAB 1	PSU CABINET (x2)	TBC	770x770x2100	RAL 6009	PAD FOUNDATION	PROPOSED	CAB 2	TX CABINET (x2)	TBC	1500x600x1200	RAL 6009	PAD FOUNDATION	PROPOSED	CAB 3	RADIO CABINET (x7)	TBC	770x770x2100	RAL 6009	PAD FOUNDATION	PROPOSED	CAB 4	POWER & TX CAB (x1)	TBC	770x770x2100	RAL 6009	PAD FOUNDATION	PROPOSED	CAB 5	SMC (x1)	TBC	1873x560x588	RAL 6009	PAD FOUNDATION	PROPOSED
EQUIPMENT CABINET SCHEDULE																																																								
ID No	EQUIPMENT	MANUFACTURER	DIMENSIONS (WxDxH) mm	COLOUR	LOCATION	STATUS																																																		
CAB 1	PSU CABINET (x2)	TBC	770x770x2100	RAL 6009	PAD FOUNDATION	PROPOSED																																																		
CAB 2	TX CABINET (x2)	TBC	1500x600x1200	RAL 6009	PAD FOUNDATION	PROPOSED																																																		
CAB 3	RADIO CABINET (x7)	TBC	770x770x2100	RAL 6009	PAD FOUNDATION	PROPOSED																																																		
CAB 4	POWER & TX CAB (x1)	TBC	770x770x2100	RAL 6009	PAD FOUNDATION	PROPOSED																																																		
CAB 5	SMC (x1)	TBC	1873x560x588	RAL 6009	PAD FOUNDATION	PROPOSED																																																		
Materials (as applicable)																																																								
Tower/mast etc – type of material and external colour	Galvanised Steel – manufactured grey RAL 7035																																																							
Equipment housing – type of material and external colour	Galvanised Steel – green RAL 6009																																																							
Frequency	GSM 1865.5-1846.5 MHz																																																							
Modulation Characteristics ²	GMSK & UMTS																																																							
Power Output (expressed in EIRP in dBW per carrier)	56 dBm																																																							
Height of Antenna (m above ground level)	28 metres to underside of antennas																																																							

2.3. Site Selection Process

² The modulation method employed in GSM is GMSK (Gaussian Minimum Shift Keying) which is a form of Phase Modulation.
The modulation method employed in UMTS is QPSK (Quad Phase Shift Keying) which is another form of Phase Modulation.

The applicant has adopted a sequential approach to site selection which is encouraged in the Code of Best Practice (2022) for mobile operators and National Planning Policy. Efforts have been made to utilise existing telecommunications sites wherever possible to prevent the unnecessary proliferation of base stations. In this instance a new base station is required and the following alternative sites have been explored and discounted:

Due to the specific requirement of this project and ensuring that there is coverage to the railway line, sites have to fit very particular criteria and the number of alternative locations are minimal due to the topography of the area and the location of the railway line which is often within a cutting.

**Key: RT = Rooftop / GF = Greenfield / SW = Streetworks*

No.	Site Type & Name	NGRs	Reason for Discount
1	Greenfield tower - Land at Bedelands Farm, off Valebridge Road, Burgess Hill, West Sussex RH15 8AN.	532111/120365	Close to railway, housing and overhead power lines which could be problematic and impede build. The application site is better screened and will have less of a visual impact on the surrounding area.
2	Greenfield tower - Bedelands Park, off Valebridge Road, Burgess Hill, Mid Sussex District Council RH15 8AU.	532052/ 20567	The site is a nature reserve and a site in this location would be very visible. Two street works poles located on Valebridge Road, one 10 metres in height and one 15 metres in height which is in proximity to this site was refused. It was therefore considered not to progress with this site.

The application site was therefore considered to be the best option as it provides the best coverage and has the least visual impact on the surrounding area.

3. Planning Context

3.1. Planning Constraints

The site is identified as a local wildlife site, a blanket TPO covers the established trees to the west of the footpath.

3.2. Relevant Planning History

There are no applications relevant to this proposal.

3.3. Pre-Application Engagement

The National Planning Policy Framework (NPPF) and the Code of Practice on Wireless Network Development in England require a consultative approach to network development with the planning authority and local community, reflecting the particular sensitivities of any given site. In accordance with this guidance, the following pre-application engagement has been undertaken with your authority resulting in the response dated 6th December 2022:

- A presentation on to explain the aims and objectives of the Brighton Main Line Connectivity Project and to explain the site options for the development of macro base stations and DAS solutions being considered at that time.
- Site-specific engagement for the development at the application site with Debbie Lynn (Planning Officer) was conducted on 20th September 2024 and a response was received on 7th November 2024.

The pre-application engagement advice received has been considered very carefully and the siting and design of the development remains as that submitted in the pre-application correspondence. The main planning issue raised in the pre-application response dated 7th November 2024 was with regards to providing additional planting around the compound to soften its appearance. This has been added to scheme and the planting will be comprised of a mixture of Hawthorn Hazel, Blackthorn, Field Maple and Holly whips with a height of 60 -80 centimetres and these will be maintained to a height of 3 metres.

It was also recommended that a Preliminary Ecology Appraisal was undertaken and this forms part of the application. The report highlights that the works are classed as Green, the proposals are expected to have no or only minor adverse impacts on ecology & biodiversity, and some net gains. In terms of ecology, the project can proceed providing all the recommendations are met, enforced and monitored.

A tree survey was also requested to supplement the application and it was concluded that all trees and landscape features that are to remain as part of the development should suffer no structural damage provided that the findings within this report are complied with in full.

Photomontages accompany the application and illustrate how the site will be viewed within the area.

As requested by the planning officer the mast will be galvanised steel which blends with the skyline.

The proposal received an amber rating when assessed against the Traffic Light Rating Model referred to in the Code of Practice. In accordance with this rating, and the guidance in the NPPF, our engagement with the local community entailed direct communication with Burgess Hill St Andrews District Councillors and Burgess Hill County Councillor on 16th September 2024 no representations were received as part of this consultation.

As part of the preapplication response the LPA asked for us to consult with the Town Council, West Sussex Public Right of Way office and Friends of Burgess Hill Green Circle Network. To date no responses have been received but if any responses are received these will be forwarded onto the LPA.

No adverse responses have been received and we have undertaken the additional reports requested by the LPA, there is no adverse impact on surrounding trees or ecology therefore the scheme remains the same as the original scheme that was submitted for comment.

4. Design

4.1. Design Considerations

The applicant has sought to cause as little impact on the visual amenity of the area as possible whilst also ensuring that sufficient coverage requirements are achieved. A further explanation of the application's technical justification is explained in a later section of this statement however, it should be acknowledged from the offset that the least amount of equipment and the smallest scale possible has been proposed to achieve the optimum coverage objectives. A lattice mast has been selected as it has the structural capacity to accommodate multiple operators and futureproofs the site, and helps to prevent the need for additional sites in close proximity to futureproof the network for customer demands. Moreover, the proposed height of the antennas is the lowest possible height to ensure correct signal conveyance whereby a reduction in height may impact on the site's functionality as well as health and safety in relation to ICNIRP compliance. It should be emphasised that intervening elements such as buildings and trees can weaken signal strength meaning that a height increase is often necessary to counter these limitations. The operator's general practice will always endeavour to propose the least impactful design possible to sufficiently achieve the desired coverage levels and it should be recognised that any reduction in height or equipment would significantly compromise the site's effectiveness within the network. There are no alternative design solutions available with the required technologies meaning the proposed scheme is the least visually intrusive design for the site's upgrade.

Though it is recognised that a telecommunications site will to a degree be recognisable in any given environment, the visibility of equipment does not automatically lead to detrimental harm as each site must be assessed on its own merits and balanced against the public benefits to be provided in accordance with national planning policy. In this respect significant weight should be given to improving connectivity and to provide a seamless cellular, internet mobile phone reception and fibre services along the length of the London to Brighton Main line route which is also backed by the UK Government and The Mayor of London.

4.2. Siting and Appearance

In this instance a lattice mast has been selected as this structure has the structural capability to support the technology of multiple operators whilst not presenting as a bulky structure. The lattice mast will maintain views through the site and will assimilate with the back drop of trees. The council also requested that the lattice be galvanised to further assimilate with the skyline.

The mast has been installed at the lowest height to provide the required coverage to the railway line and surrounds. The lowest array of antennas has to be above the surrounding trees to work effectively.

The exact location has been selected as it does not remove any living trees although a dead tree is proposed to be removed. The compound has been carefully positioned to ensure that it does not impact on the public rights of way.

Below is the site with the dead tree shown in the centre of the screen shot.



Following on from this, the proposal is not considered to adversely impact residential amenity despite the proximity of dwellings in the local area. The equipment is distanced from residential properties and will be screened by intervening trees and vegetation and only the very top of the mast would be visible from certain view points.

Furthermore, in relation to sensitive heritage assets there are no statutory listed buildings or conservation areas within direct proximity of the application site. Given that the nearest assets are some distance away from the site the applicant does not consider the proposal to have a detrimental impact on these designations as the proposed development would not be seen within the same context as these areas of historical importance. Subsequently there is little demonstrable evidence of potential adverse harm in this regard.

In summary the proposed design is considered to be respectful of the surrounding elements and does not cause detrimental harm to the visual amenity of the immediate environment. The siting and appearance of this proposal is therefore within the boundaries of acceptability as it will cause minimal interruption to the current landscape.

The public benefits of the installation should be a material consideration. This proposal is part of the project in conjunction with Network rail to improve connectivity along the Brighton Main line. The Brighton mainline runs from London to the South Coast, it is 51 miles in length and travels through some of the country's most populated areas. The busy route can carry as many as 50,000 passengers each day and its current mobile internet connectivity offers a mix of strong signal to no connectivity at all which is due to the landscape and a number of tunnels and cuttings. This site will help towards providing seamless coverage on the railway line.

This is one of a number of improvement measures being progressed by network rail in conjunction with the Government and the mayor of London. This project is to improve connectivity along the rail line, which will provide a good alternative to car travel and commuters will be able to work seamlessly on the trains which will ultimately reduce reliance on the car and improve CO2 emissions and improve the overall quality of the area for local businesses and residents.

Although the proposal is to ultimately provide coverage to the rail line there will also be improved mobile coverage to the local residential area.

The mast has been kept to the minimum height to provide the required coverage to the railway line, if the height was reduced it would not provide the coverage, the siting of each individual site is very specific to ensure that there is seamless coverage along the rail line and any changes in the location could affect coverage.

Overall, it is considered that the scheme does not demonstrate substantial harm to the local area, and in any event, it is argued that the public benefits of the proposal would outweigh any perceived harm. As the scheme seeks to introduce 5G technologies during a climate where economic recovery is paramount, the public benefits associated with this upgrade cannot be undervalued.

5. Planning Policy Considerations

Development Plan Policy Section 70 of the Town and Country Planning Act 1990 as amended requires planning applications and appeals to be determined having regard to the provisions of the Development Plan and other material considerations, and section 38 of the Planning and Compulsory Purchase Act 2004 requires applications and appeals to be determined in accordance with the Development Plan unless material considerations indicate otherwise.

5.1. Local Planning Policy

The following local planning policies are relative and have been considered in the submission of this application. It is argued that the proposal is in accordance with the below policies which promote high-quality connectivity and supports new telecommunications infrastructure when it can be demonstrated that the design and siting of the base station is respectful to its surroundings.

Mid Sussex District Plan 2014-2031 (Adopted March 2018)

Policy DP23: Communication Infrastructure

In accordance with this policy, the continued advancement of mobile technology necessitates constant improvements to the existing network in which the public benefits to be provided will have positive effects on connectivity for local residents, businesses and visitors. The growth of local economy and accessibility within the district is widely supported by many principles set out in the Local Plan including this policy.

As evidenced in the previous section, steps have been taken to exhaust upgrade opportunities of existing base stations before identifying new site locations. In the design process of this proposal the existing visual amenity of the area is taken into consideration to ensure the siting and appearance of the apparatus respect the immediate locality. To reiterate, the equipment proposed is the least amount possible to achieve the operator's technical objectives.

Policy DP23 is crossed reference with Strategic Objective 6 of the Plan which is to ensure that development is accompanied by the necessary infrastructure in the right place at the right time that supports the development of sustainable communities. This includes the provision of efficient and sustainable transport networks. Strategic Objectives 7 (to promote a place which is attractive to a full range of businesses) and 8 (To provide opportunities for people to live and work within their communities) are also supported.

Policy DP22 Rights of Way and other recreational routes.

The mast and compound will not impinge on the public rights of way which traverse through this area. The proposal will therefore not have a negative impact on the existing use of the site.

Policy DP26: Character and Design

With reference to the principles of this policy, the application is of a high-quality design and layout which contributes positively to the public realm. In terms of its scale and appearance the application has demonstrated that there is little harm caused to the setting and character of the local environment in which the visual and neighbourhood amenity is thus protected.

Policy DP37 trees woodland and hedgerows.

The proposal does not remove any living trees only a dead tree and we are proposing additional planting around the compound. A tree report accompanies the application and does not highlight any concerns with regard to trees in the area being affected by the proposal.

Policy DP38 Biodiversity

It is acknowledged that this is a wildlife corridor and in light of this a Preliminary Environmental Assessment accompanies the application. This rates the proposal as green and does not identify any concerns with regard to the proposal.

With reference to the Burgess Hill Neighbourhood Plan 2015 -2031 policies G1 (areas of open space) ,G3 (nature conservation and biodiversity) G4 (local green space) and G6 (footpath and cycle links) should be considered.

In relation to these policies the same comments as listed above should be taken into consideration and there has to be a balance between operational and environmental considerations, the special operational and technical factors that require specific siting of an electronic communications base station should be balanced by the need to minimise environmental and visual impact. In relation to this balancing exercise, paragraph 64 of the Code of Practice on Wireless Network Development in England explains that electronic communications base stations are principally guided by the technical need for the site and the technical constraints placed upon transmitting a signal to the required coverage area, in this case to remedy gaps in MNO coverage along the Brighton Main Line.

The siting and design of such installations is therefore always underpinned by the need to strike an acceptable balance between visual impact and these needs and technical constraints. As explained previously, the search for a suitable site for the base station, and the radio planning work undertaken, has been carried out with the unique challenge of dovetailing coverage to remedy gaps in the coverage provided by the UK's MNOs. In the context of the technical and operational constraints that apply, we consider that the development proposed should be acceptable in the planning balance having regard to the following factors.

Technical requirements have dictated the siting of the proposed equipment. The operator has spent a considerable amount of time identifying a potential site and the proposed location is considered to present the best balance between operational/technical requirements and environmental impact. As explained throughout this document, the search area is small due to the nature of the site to improve coverage and capacity issues currently being experienced along the BML. In line with the requirements there are no existing suitable telecommunications installations for the operator to share, that would provide the necessary

coverage to the target coverage area without a high level of redevelopment. Therefore, a new ground-based installation is required.

3G and 4G signals by their very nature (as they carry high data rates) do not penetrate over long distances, (5G even less so), just a few hundred metres, depending on the topography of the land, building clutter and vegetation including trees in the area which can reduce their effectiveness. Accordingly, 3G and 4G radio base stations need to be close to their customer demand. Therefore, a new site is required to provide 4G coverage to this cell area. The operator's search area is naturally smaller due to the specific coverage requirements.

Given the specific technical requirements associated with developing a mast that is capable to accommodate 9no. antennas for multiple operators, a mast with a relatively high degree of strength is required. In this instance a steel lattice has been proposed since this is a design capable of supporting the proposed equipment. As such, the design of the lattice mast has been carefully considered to accommodate the required equipment in the lowest possible profile. The mast will be galvanised steel which will hue and blend with the sky, whilst the lower level of the mast will be screened by the surrounding trees. And the compound will be screened by additional planting.

To reduce the visual impact further we have designed the antennas to be positioned on one headframe which ensures the height of the mast can be minimised and enables all the operators to be at the same height and provide the same levels of coverage.

A slimmer mast design is not capable of supporting all 4 UK MNOs, this mast will ensure that it can accommodate multiple operators in order to limit the number of masts in an area whilst futureproofing the site to provide 5G coverage in the future. NPPF states at paragraph 120 that the number of radio and electronic communications masts, and the sites for such installations, should be kept to a minimum consistent with the needs of consumers, the efficient operation of the network and providing reasonable capacity for future expansion. As such, this option strikes an acceptable balance between technical, operational, and town planning factors.

The proposed height of 30m is the lowest height required in order to provide the needed coverage along the BML due to the challenging natural barriers and topographical challenges at the application site. This was established by panoramic surveys. If the mast height were to be reduced in this location, this would result in a degraded service due to the blocking effect from the surrounding landscape features and would not provide the required uplift in coverage along the BML. This would especially be the case for the higher frequency technologies including any potential future technology service provision.

The proposal along with the supporting reports therefore conclude that the proposal is in compliance with local plan policy.

5.2. National Planning Policy

The National Planning Policy Framework was revised in December 2023. In relation to this policy the following sections are relevant in determining this application:

Section 2 – Achieving Sustainable Development

Paragraph 7 – *“The purpose of the planning system is to contribute to the achievement of sustainable development, including the provision of homes, commercial development, and supporting infrastructure in a sustainable manner. At a very high level, the objective of sustainable development can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs. At a similarly high level, members of the United Nations – including the United Kingdom – have agreed to pursue the 17 Global Goals for Sustainable Development in the period to 2030. These address social progress, economic well-being and environmental protection.”*

The NPPF also encourages the achievement of sustainable development which can provide public benefits to building stronger and more competitive economic areas, as well as enhancing social communities through increased communication and connectivity. These benefits feed into the overarching economic and social objectives of the NPPF.

Section 4 – Decision-Making

Paragraph 39 – *“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 brownfield registers and 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.”*

Section 6 – Building a strong, competitive economy

Paragraph 85 – *“Significant weight should be placed on the need to support economic growth and productivity... This is particularly important where Britain can be a global leader in driving innovation, and in areas with high levels of productivity, which should be able to capitalise on their performance and potential.”*

Section 10 – Supporting high quality communications

Paragraph 119 – *“Advanced, high quality and reliable communications infrastructure is essential for economic growth and social well-being. Planning policies and decisions should support the expansion of electronic communications networks, including next generation mobile technology (such as 5G) and full fibre broadband connections.”*

In relation to these paragraphs, the Government’s Industrial Strategy sets out a vision to drive productivity improvements across the UK, and sets out a delivery programme to make the UK a leader in *“artificial intelligence and big data”*. The improvement of telecommunications capacity and provision of 5G is imperative to allow for areas to be connected, and is essential for economic growth which is expected to be delivered and upgraded over time.

Paragraph 120 – *“The number of radio and electronic communications masts, and the sites for such installation, should be kept to a minimum consistent with the needs of consumers, the efficient operation of the network and providing reasonable capacity for future expansion. Use of existing masts, buildings and other structures for new electronic communications capability (including wireless) should be encouraged. Where new sites are required (such as for new 5G networks, or for connected transport and smart city applications), equipment should be sympathetically designed and camouflaged where appropriate.”*

In relation to this paragraph, it is demonstrated that a sequential approach to site selection has been adopted to ensure that existing telecommunications installations have been explored in the first instance to prevent unnecessary proliferation of masts. In this instance due to the specific requirement of the coverage to the railway line a new site was required. The new site can accommodate multiple operators and will ensure that there is not a proliferation of masts.

Paragraph 121 – *“Local planning authorities should not impose a ban on new electronic communications development in certain areas, impose blanket Article 4 directions over a wide area or a wide range of electronic communications development, or insist on minimum distances between new electronic communications development and existing development. They should ensure that:*

- a) They have evidence to demonstrate that electronic communications infrastructure is not expected to cause significant and irremediable interference with other electrical equipment, air traffic services or instrumentation operated in the national interest; and*
- b) They have considered the possibility of the construction of new buildings or other structure interfering with broadcast and electronic communications services.”*

Paragraph 122 – *“Applications for electronic communications development (including applications for prior approval under the General Permitted Development Order) should be supported by the necessary evidence to justify the proposed development. This should include:*

- a) The outcome of consultations with organisations with an interest in the proposed development, in particular with the relevant body where a mast is to be installed near a school or college, or within a statutory safeguarding zone surrounding an aerodrome, technical site or military explosives storage area; and*
- b) For an addition to an existing mast or base station, a statement that self-certifies that the cumulative exposure, when operational, will not exceed International Commission guidelines on non-ionising radiation protection; or*
- c) For a new mast or base station, evidence that the applicant has explored the possibility of erecting antennas on an existing building, mast or other structure and a statement that self-certifies that, when operational, International Commission guidelines will be met.”*

In relation to this paragraph, the site is located within a safeguarding area and in light of this we have consulted with Gatwick Airport, CAA, NATS and MOD. An ICNIRP certificate is provided with this application to confirm that the proposal will not exceed International Commission guidelines.

Paragraph 122 - *“Local planning authorities must determine applications on planning grounds only. They should not seek to prevent competition between different operators, question the need for an electronic communications system, or set health safeguards different from the International Commission guidelines for public exposure.”*

Section 12 – Achieving well-designed places

Paragraph 131 – *“The creation of high quality, beautiful and sustainable buildings and places is fundamental to what the planning and development process should achieve. Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities.”*

In relation to this paragraph, the application site is adjacent to the railway line and within an area of trees. The lattice mast has been selected as it maintains views through the site and does not present itself as a bulky structure. The proposed equipment is the least amount possible to allow the site to transmit sufficiently and will enable a number of operators to share the site, we therefore consider this design to be respectful to the character of the area. Although the site's change in appearance will to an extent be recognisable in any given context, efforts have been made to limit the visual impact on the surrounding amenity as far as practicable.

5.3. Code of Best Practice for Wireless Network Development in England 2022

The Code of Best Practice is a guidance document created by the Department for Digital, Culture, Media and Sport, which aims to support the government's objective of delivering high quality wireless infrastructure whilst balancing the needs of environmental considerations. This document has been developed in collaboration with mobile network representatives, other government departments, public bodies, local planning authorities and protected landscapes. It is also a useful tool for other interested stakeholders such as community groups, amenity bodies and individuals with an interest in mobile connectivity.

The guidance aligns the agreed principles between operators and local planning authorities in respect to the siting and design of network infrastructure to outline the roles and responsibilities of both parties throughout the application process. Within this document it is recognised that digital connectivity is vital to enable people to stay connected and businesses to grow, and there is particular emphasis on the 5G rollout and future mobile generations, which will be vital for a range of uses and future smart city applications. Much of the principles in this guidance reflect those already highlighted in the NPPF however, there are notable excerpts to highlight for the council's considerations in the determination of this application.

With reference to Paragraph 19, the local planning authority is *"encouraged to support the deployment of digital infrastructure 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)."*

When considering the siting and design of any given proposal, Paragraph 22 states, *"The choice over the site selection and design of equipment is primarily dependent upon the coverage and capacity requirements and technical constraints of a specific location, although operators should make efforts to reduce visual impacts where possible."*

Moreover, Paragraph 29 states, *“There are factors that can affect the type of infrastructure that will be deployed... including location and the coverage and capacity requirements. Planning authorities should be aware of these constraints when considering proposals. In particular:*

- *In urban areas, where there is a high level of demand for mobile data, mobile base stations are likely to need to be deployed more densely. In these settings you can expect to see more use of streetwork monopoles and rooftop installations and, in future, we are likely to see a larger number of smaller units (so-called “small cells”) deployed on buildings and on street furniture.*
- *In rural areas, base stations often need to cover wider geographic areas. Operators may need to use tall masts or lattice towers to provide the required coverage. The location of masts can sometimes be dictated by access to transmission links back to the operator’s main network and proximity to a power supply. Coverage in some areas can be limited because of the geography, topography and terrain.”*

The guidance also provides further explanations for technical and operational considerations as below:

Paragraph 64 – *“All wireless network installations are principally guided by the technical need for the site and the technical constraints placed upon transmitting a signal. The siting and design of such installations must therefore be balanced between visual impact and these needs and constraints. As set out in the siting and design section above, the three primary technical and operational considerations for installation sites are: ensuring that wireless infrastructure provides an appropriate level of coverage over the intended geographical area; ensuring that sites have sufficient capacity to meet user demand; and, requiring a connection to the wider network ‘backhaul’.”*

Paragraph 65 – *“Planning authorities should take account of these constraints, and those set out below, on network deployment and siting and design, when considering proposals.”*

5.4. Transportation Policy

The improved connectivity provided by the development to this stretch of the Brighton Main Lane will therefore support the delivery of the following national, regional, and local transportation and town planning objectives:

- Recommendation 3 of *“The National Infrastructure Commission – Connected Future”* (2016) report, which stated that *“Rail passengers should have high capacity wireless connectivity. This should be achieved through a delivery model that utilises trackside infrastructure to provide an open and accessible mobile telecommunication and backhaul network that is fit for the future.”*
- The Government’s ‘Connected Future: Getting back on track’ report, published in February 2020, which expressed concern that *“Progress in improving mobile connectivity on the rail network has been limited, and work appears to have stalled since government endorsed the Connected Future recommendation. The current rate of progress will not be enough to ensure that basic mobile services are available on the UK’s main line rail routes by 2025.”*
- Section 9 Promoting sustainable transport of the National Planning Policy Framework (NPPF) that, amongst other things, aims to ensure that opportunities and benefits deriving

from existing or proposed transport infrastructure, and changing transport technology and usage, are realised (paragraph 104(b)).

- Transport for the South East's 'A Bold Vision for a Brighter Future' strategy that sets out the 30-year transport strategy for the authority's area and the rest of the South East of England. Page 4 of the strategy sets out a mission to grow the South East's economy by delivering a safe, sustainable, and integrated transport system. The statement further explains that the *"...approach is not only designed to make the South East more productive and competitive, but also to improve people's quality of life, and access to opportunity."* The development proposed will help to deliver these objectives and the related aim, expressed elsewhere on page 4 *"...to develop fully integrated transport, digital and energy networks..."* (our emphasis).

5.5. Future Telecoms Infrastructure Review

There is significant UK Government support for improved electronic communication connectivity of all types in view of its increasingly central and transformative socio-economic role. Digital connectivity is vital to enable people to stay connected and for businesses to grow. As the demand for mobile data and other digital connectivity services in the United Kingdom is increasing rapidly, it is important that everyone has access to dependable and consistent wireless coverage where they live, work, and travel.

This reflected in the Future Telecoms Infrastructure Review (FTIR), which was published in 2018 and sets out a package of measures that the UK Government intends to adopt to deliver its aspiration for world-class connectivity across the UK. The development proposed will help to deliver those aspirations. The National Infrastructure Strategy published in November 2020 provides further guidance the Government's long-term strategy for meeting its digital connectivity targets and delivering high quality, reliable digital infrastructure that works across the UK. Of relevance to the determination of this application is the following statement on page 31 of the strategy:

"...The government wants to deliver high quality, reliable digital infrastructure that works across the UK, so that mobile calls do not drop, video calls don't freeze, and people working from home can do their jobs and run their businesses with ease. Fast, reliable digital connectivity can deliver economic, social and well-being benefits for the whole of the UK..."

5.6. Other Notable Reports and Reviews

The following reports highlight the importance of 5G technology. The recent pandemic has also shown an increased reliance on connected services due to the need for home-working and home-schooling, which is likely to continue in the post-pandemic era to an extent. It is therefore essential for mobile network operators to provide a reliable and resilient service to facilitate these needs, as evidenced in their significant contributions in the global response to the pandemic. Staying connected has become a defining feature of the modern economy and a significant trend of the 21st Century. Therefore, 5G will prove fundamental to fulfilling the potential of digital connectivity and will help drive the economy after the COVID-19 outbreak. For example, within the healthcare sector, hospitals and medical experts will have the ability to connect in real-time with their patients to diagnose and treat disease at the first point of contact to improve patient care. In terms of

commercial benefits, manufacturers will look to leverage robotics, artificial intelligence (AI) and superfast connectivity to enable the remote management of production lines and to support the faster reconfiguration of factories.

Online Nations 2021 Report

This report has found that people have become more dependent on online services due to the effects of the pandemic. By the end of 2020, 94% of homes had internet access, which is up from 89% in 2019. The report also found that more time was spent online with an average of 3 hours 37 minutes per day on smartphones, tablets, and computers (nine minutes more than in 2019) as well as an average of 1 hour 21 minutes per day watching online services such as Netflix and BBC iPlayer on television sets (24 minutes more than in 2019). In September 2020, UK internet users spent nearly four times as much time on smartphones (an average of 2 hours 19 minutes a day) than they did on computers (37 minutes). This clearly shows the reliance on good connectivity and the proposed upgrade submitted herein helps to provide improved 4G coverage and to provide 5G coverage, which will allow much faster and stronger downloads.

Connected Nations 5G Performance 2021

5G rollout has continued at pace with the number of mobile base stations providing 5G services more than doubling over 2020 to over 6,500 sites across the UK. 87% of these are in England, 8% in Scotland, 3% in Wales and 2% Northern Ireland. It is estimated that 5G is available from at least one mobile network operator (MNO) outside 42-57% of premises. The four Mobile Network Operators (MNOs) – EE, O2, Three and Vodafone – each estimate they provide 4G outdoor coverage to circa 99% of premises. Networks' coverage of the UK landmass ranges from around 79% to around 86%. There has been some incremental progress in increasing coverage across each of the UK Nations by the MNOs, including 46 fresh deployments towards their Shared Rural Network commitments. Networks have continued to perform well despite significant demands as people and businesses relied on their phone and broadband connections during national lockdowns because of the pandemic. Average monthly data usage on fixed networks has increased to 453GB, from 429GB in 2020 and from 315GB in 2019. Whilst peak usage remains in the evening, networks continued to see high demand during the day due to increased home-working circumstances.

This application site is located within a vital area where network provisions must be enhanced to allow people to work at home, to allow schools to teach online and to enable better accessibility in all parts of the country, which will in turn relieve pressures for home-working and e-learning.

Government Joint Statements from DCMS and MHCLG

The Government is highly aware that 5G is vitally important for the United Kingdom. To enable this to happen the permitted development rights [in England] were reviewed to enable faster 5G rollout (NB: a legislation amendment came into force on 4th April 2022). Permitted development rights for electronic communications infrastructure are a critical element in the planning regime for streamlined and cost-effective deployment of telecommunications infrastructure. They benefit both mobile network operators and local planning authorities in the effective management of limited time and resources. Permitted development rights also facilitate investment in network infrastructure resulting in improved service to customers and help in delivering significant socioeconomic benefits to society both nationally and locally. Reforms to planning laws will mean fewer phone masts will be needed overall to level up the country with improved 4G and 5G mobile

coverage as telecoms firms will be able to upgrade existing infrastructure in the first instance before needing to build new masts.

Digital Infrastructure Minister Julia Lopez said, *"We've all felt the frustration of having the 'no bar blues' when struggling to get a phone signal, so we're changing the law to wipe out mobile 'not spots' and dial up the roll out of next-generation 5G."*

Queen's Speech May 2021

The Queen's Speech announced that the Government will strengthen national infrastructure proposals to extend 5G mobile coverage and high-speed broadband in the Product Security and Telecommunications Infrastructure Bill, which includes new legal duties on telecoms firms to increase security across the UK networks. The Speech went on to say, *"My Government's priority is to deliver a national recovery from the pandemic that makes the United Kingdom healthier and more prosperous than before."*

This proposal therefore will help the country's economy.

Digital Nations Ministers

This department has been tasked with meeting the Government's target for the whole of the UK to have access to gigabit-speed broadband connectivity by 2025 and majority 5G coverage by 2027. This proposal will aid in securing this target.

The Digital Nations Ministers met virtually on 18th November 2021 to discuss the digital government agenda. It stated, *"The global pandemic has proven beyond doubt that digital technologies play a crucial role in allowing our governments to meet the needs of our citizens whether in relation to delivering healthcare, social support, information, or education. We affirm our shared commitment to using digital technology to build back better. Acknowledging the continued impact of the COVID-19 pandemic on our societies, we discussed the opportunities digital innovation offers in tackling these, and other emerging challenges, including climate change, and exclusion and inequalities. As digital governments in open societies, we share a commitment to promoting inclusion, sustainability, and our shared values. We reaffirm our shared aim to work together to accelerate our digital transformation and become more proactive, responsive, and resilient digital governments. Working together, our governments will continue to use technology to break down barriers between government and people, and to embrace innovative digital solutions that deliver real-world impact."*

The statement looked at 3 key themes:

1. Sustainable Innovation – Technological advances, such as in the use of big data and artificial intelligence, offer ground-breaking opportunities for governments and the international community to tackle our most pressing challenges, including climate change. As sustainable digital governments, we affirm a shared commitment to making better use of data, digital tools, and technologies to reduce the environmental impacts of our government's own operations, and to strive to address the sustainability considerations of digital activities.
2. Inclusive Innovation – We remain committed to putting people at the centre of digital transformation. We will continue to deliver inclusive policies that narrow the digital divides: this includes widening access to the Internet and to digital tools and technologies, enhancing our digital infrastructure to reach underserved communities, building digital

skills and digital confidence, and designing for accessibility. We recognise our responsibility to ensure no individual is left behind as we accelerate the digital transformation of our governments.

3. Values-Driven Innovation – We believe that public trust in the digital services and tools we develop and deploy are paramount to their successful adoption. As leading digital governments in open societies, we recognise that accelerating digital transformation must therefore be guided by our shared values. We affirm our shared commitment to putting in place the right safeguards, including for human rights, data protection, data ethics, and to promoting transparency and public confidence in public sector use of data and digital technologies.

This clearly shows that digital connectivity is high on the Government agenda and this proposal aids in providing the UK with high-quality connectivity.

Councils and Connectivity 2 – A report by Building Mobile Britain and Mobile UK, May 2019

“Mobile operators have ambitious plans to further enhance their networks and will soon be starting initial commercial rollout of 5G, the next generation in mobile technology. This ambition matches the Government’s objective for the UK being a world leading digitally connected economy. However, mobile operators cannot achieve this objective alone – action is needed by all stakeholders, including national and local government. It is vitally important that residents and businesses can access 5G in the future. It promises to radically transform our economy and society for the better...it is vital that councils attempt to understand why good quality mobile connectivity will become more important, and what they need to do to ensure that local residents and businesses have access to the best possible mobile connectivity in the future.”

A Councillor’s Guide to Digital Connectivity – published by the Local Government Association, September 2019

“With better access to high speed and reliable broadband and mobile connections, local communities can access public services more conveniently and purchase goods online at a lower cost. People can work from home, cutting out their commute and improving their quality of life. Businesses can grow, become more productive, sell their products in a global market and access a raft of services not available to those offline. Tourists can find out more information about local attractions and share photographs of their experiences with friends and on social media. In contrast, areas stuck in the digital slow lane are less attractive places to live, work and visit, and risk being left behind as other areas reap the benefits of our digital revolution.

5G will enable exciting new services and applications including:

- *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 councils 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."*

Future Telecoms Infrastructure Review – Published by DCMS, July 2018

"When looking at the speed, resilience and reliability that consumers want and businesses need in order to grow, it is clear that full fibre and 5G are the long-term answer. These technologies have the potential to transform productivity, and to open up new business models. Full fibre networks are faster, more reliable, and more affordable to operate than their copper predecessors. 5G will deliver faster and better mobile broadband, and enable revolutionary uses in industry sectors like manufacturing, health and transport alongside finishing the roll out of 4G networks to meet existing mobile demand, we want the UK to be a world leader in 5G to take early advantage of this new technology. We have set a target that the majority of the population will have 5G coverage by 2027 the technical capabilities and performance characteristics of 5G are clear. 5G is expected to deliver faster and better mobile broadband services to consumers and businesses, and to enable innovative new services for industry sectors, including manufacturing, transport, immersive technologies and healthcare."

Statement of Strategic Priorities for Telecommunications, The Management of Radio Spectrum, and Postal Services – updated version published by DCMS October 2019

"The Government is committed to providing the UK with world-class digital connectivity that is gigabit-capable, reliable, secure and widely available across the UK. We want the nationwide deployment of gigabit-capable broadband networks at pace. Alongside improving 4G coverage to meet existing mobile demand, the Government wants the UK to be a world leader in 5G, and for the majority of the population to have 5G coverage by 2027. 5G is expected to deliver faster and better mobile broadband services to customers and businesses, and to enable new services for industry sectors, including manufacturing, logistics and immersive technologies. 5G creates an opportunity for market expansion - in the type of wireless services available and in the number of providers of networks and services. The Government's view is that there would be strategic advantages in a model that maintains the benefits of network competition between multiple mobile network operators, while enabling new solutions to connectivity challenges, including in-building coverage, rural coverage and industrial applications."

The above statement highlights the importance of connectivity and this application will futureproof the site for the foreseeable future and ensure that the local community has access to high-quality connectivity. In a broader perspective this will help to eliminate areas of no, or poor, coverage. High-quality connectivity is seen by the Government as the way to economic recovery and the public benefit of such infrastructure outweighs any minimal harm to the area.

In summary, it is our opinion that the proposal meets all local and national policy requirements.

6. Technical Justification

Whilst the primary focus of the project is to deliver seamless 4G connectivity to passengers using the Brighton Main Line, the nature of radio signal propagation means that there will also be an important secondary benefit of providing improved coverage to homes and businesses near the railway line. In urban areas, this may result in improvements where coverage is poor or there are capacity problems with the MNOs networks. In more rural areas, the base stations may provide improved coverage to hamlets, individual homes, and people who routinely work away from the office or home, such as farmers, carers, and first responders.

The macro-level base stations will therefore provide the important secondary benefit of delivering improved connectivity to people living, working, or visiting those locations where existing MNO services may be poor.

To demonstrate this further, the submitted Technical Support statement includes a radio simulation plot showing the likely extent of coverage along the railway line and to the land either side it. As can be seen, the coverage benefits will extend throughout the residential areas of Burgess Hill.

Every installation on a site owned or managed by Cellnex will be compliant with international standards adopted by the UK Government. A certificate confirming compliance with the relevant ICNIRP guidelines on public exposure has been supplied with this application.

The ICNIRP guidelines seek to protect against the well-known thermal effects of radio emissions and include a significant precautionary factor. These guidelines apply to all forms of electronic communications and mobile technology is one of the lowest powered of these.

National planning policy remains clear, provided an application is certified as ICNIRP compliant, local planning authorities should not seek to effectively set different guidelines through the refusal of planning permission

6.1. Coverage

Cellnex Connectivity Services Limited has been awarded the 25-year concessionary contract by Network Rail to provide seamless cellular internet, mobile phone reception, and fibre services along the entire length of the Brighton Main Line route

6.2. Quality

In order to ensure there is sufficient coverage within buildings such as homes, shops, offices etc. the radio signal has to be of adequate strength to penetrate walls. In urban and suburban areas a dense network of base stations is therefore required, which are sometimes less than 1 km apart. The improvement of existing signal and introduction of 5G in this area will encourage economic advancement in accordance with national policy which seeks to develop and grow connected environments.

6.3. Capacity

The upgrade of telecommunications masts across the country is an inevitable consequence of the continued growth of mobile phone usage. More sites are required to address the increasing traffic demands of each mobile user for tasks such as video/music streaming. For instance, each cell or base station is limited to handling a finite number of calls meaning that areas of high usage will require additional cells to meet network demands and avoid congestion. This particular project has very specific requirements to ensure that the coverage is provided along the train line and to ensure that there is complete coverage along the length of the line in particular in areas where the railway is in a cutting.

6.4. The Radio Implication of the Site

Radio signals are transmitted through the network by using fixed links at such frequencies that necessitate an uninterrupted line of sight. To achieve this, the antennas must reach a sufficient height above surrounding buildings and trees. In more rural locations the undulating topographies will also have detrimental implications on signal propagation which require mitigation. The proposed development must also be in a position to provide strong radio coverage to the target area. As a result, it is integral that antennas have an unobstructed view towards the wider target area as it optimises the quality of signal.

The radio planning tool identifies deficiencies in the network and predicts the location from which the optimum coverage will be provided. Within these areas existing base stations are selected for an upgrade. The proposed installation subject to this application stems from this process where it is imperative for mobile operators to provide high quality coverage to its customers. This is achieved through the improvement of existing network infrastructure and introduction of new base stations to fill in blank spots.

6.5. Health and Safety

The proposal for this site has been designed within International Commission on Non-Ionising Radiation Protection (ICNIRP) public exposure guidelines and therefore Health and Safety concerns should not be a planning consideration. An ICNIRP certificate is submitted with this application.

Every installation on a site owned or managed by Cellnex will be compliant with international standards adopted by the UK Government. A certificate confirming compliance with the relevant ICNIRP guidelines on public exposure has been supplied with this application.

The ICNIRP guidelines seek to protect against the well-known thermal effects of radio emissions and include a significant precautionary factor. These guidelines apply to all forms of electronic communications and mobile technology is one of the lowest powered of these.

National planning policy remains clear, provided an application is certified as ICNIRP compliant, local planning authorities should not seek to effectively set different guidelines through the refusal of planning permission.

7. Conclusion

In summary, the application is in respect of electronic communications base station necessary to improve connectivity along the Brighton Main Line. The services provided by the MNOs are in the public interest, as recognised by their Ofcom licence obligations, and are in very high demand. In the UK there are now more than 92.5 million subscriptions to mobile networks and mobile services now exceed fixed landlines in terms of customer numbers and usage.

The public benefits of providing improved connectivity along the railway line, as well as the secondary benefit to areas alongside it, are clear from the information provided. The development will therefore make a significant and major contribution towards sustainable objectives.

As is demonstrated in this statement, all reasonable steps have been taken to minimise the visual and other impacts of the development, having regard to the technical, operational, and town and country planning constraints that apply.

The proposed antennas will comply with all relevant health and safety requirements and will be compliant with the ICNIRP guidelines. There are no exceptional circumstances in this case and therefore no need to consider health effects and related concerns such as the perception of risk further.

This statement and the other accompanying material has demonstrated that the proposal is in accordance with local Development Plan policy and national policy set out within the NPPF and the Government's Digital Strategy. In particular, it is a form of development that is specifically encouraged as a matter of principle and in its detail complies with the policy objective of minimising potential environmental impact.

In conclusion, the application is for sustainable development, acceptable as a matter of principle and appropriate in its detail, and so one which the presumption in favour of granting approval applies.