

SINCL	D A I R
C H A R T E R E D	L
S U R V E Y O R S	B

SUPPLEMENTARY INFORMATION

1. Site Details

Site Name: National Grid Reference:	BARRY GYMNASIUM	Site	PAGET ROAD, BARRY, VALE OF Y
	311252E, 166539N	Address:	GLAMORGAN, CF62 5TQ
Site Ref Number:	Cornerstone 12625901	Site Type: ¹	Macro

2. The Proposal

Brief summary of the proposal:

Removal of existing 6No. antennas, 6No. RRU units, 2No. equipment cabinets and other ancillary equipment; Relocation of existing 3m sq. free standing support frame c/w yoke bracket; Installation of 6No. replacement Vodafone antennas, with the height to top of antennas at 16.90m AGL; 15No. ERS units; 2No. replacement equipment cabinets and ancillary equipment thereto.

3. Pre-Application Check List

Site selection:	
N/A – Existing Rooftop site	

Was the industry site database checked for suitable sites by the operator?	Yes	No
If no explain why: N/A – Existing Rooftop site		

Annual area wide information to planning authority

Can the annual area wide information be provided on request?	Yes	Ne
If no explain why:		

Pre-application consultation with planning authority

Was there pre-application contact:	No
Date of pre-application contact:	N/A
Name of contact:	N/A

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¹ Macro or Micro

Summary of outcome/Main issues raised: A description of the proposal, drawings and a consultation plan were sent to the LPA on 13th May 2021.

To date no response has been received.

Stakeholder Consultation

Outline consultation carried out: A description of the proposal and drawings were sent to the Ward Cllr's Nic P. Hodges & Steffan Wiliam of Baruc Ward on 13th May 2021.

Summary of outcome and main issues raised: To date no response has been received.

Schools/Colleges

Location of site in relation to school/college (include name of school/college): N/A - None in vicinity

Outline of consultation carried out with school/college (include evidence of consultation): N/A

Summary of outcome/main issues raised (include copies of main correspondence): N/A

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

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

Developer's Notice (only required for an application for prior approval)

Copy of Developer's Notice enclosed?	Yes	No
Date served:	4 th October 2021	

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4. Proposed Development

Type of Structure: Rooftop Installation

Description: Removal of existing 6No. antennas, 6No. RRU units, 2No. equipment cabinets and other ancillary equipment; Relocation of existing 3m sq. free standing support frame c/w yoke bracket; Installation of 6No. replacement Vodafone antennas, with the height to top of antennas at 16.90m AGL; 15No. ERS units; 2No. replacement equipment cabinets and ancillary equipment thereto.

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Overall Height:	verall Height: 16.90m (to top of antennas)	
Height of existing building (where applicable):		11.45 Metres
Equipment Housing: 1No. CSC Cabinet		
Length:		0.660 Metres
Width:		0.800 Metres
Height:		1.770 Metres
Materials (as applicable):		
Tower/mast etc – type of material and external	N/A	
colour:		
Equipment housing – type of material and external	Pressed steel - Grey	
colour:		

Application Background:	
N/A	

Design Statement

This is an upgrade of an existing rooftop installation. The upgrade design proposal is the minimum required design to allow Vodafone to enhance existing coverage and provide new 5G coverage to the area.

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

As part of Vodafone's continued network improvement program, there is a specific requirement to upgrade this existing radio base station at this location to maintain/enhance the coverage in the area and also provide new 5G capability to the surrounding area.

As such the proposed base station upgrade, shall integrate into the existing elements to continue to provide a contiguous integrated network service in the area.

The very high level of mobile phone use and ownership within the UK population is a very clear indication of the public's overwhelming acceptance of the benefits of mobile communications, which requires the installation and maintenance of base stations to provide the necessary connection between the mobile phones and the UK telecommunications network.

Base stations use radio signals to connect mobile devices and phones to the network, enabling people to send and receive calls, texts, emails, pictures, web, TV and downloads. Without base stations, mobiles will not work. They are made up of three main elements. The cabinets which contain the equipment used to generate the radio

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signal. The supporting structure such as a mast, which holds the antennas in the air and the antennas themselves. Only the antennas emit radio signals.

Many other everyday items also use radio signals to send and receive information, such as television and radio broadcasting equipment and two-way radio communications. 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. Each base station covers 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.

Further detail regarding the general operation of the network can be found in the accompanying document entitled 'General Background Information for Telecommunications Development. This information is provided to assist the local planning authority in understanding any technical constraints on the location of the proposed development.

Reason site chosen:
Upgrade of existing rooftop base station site.
Planning Policy Framework/Development Plan Policy
Upgrade of existing rooftop base station site.

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).

Site Type ²	Site Name and Address	National Grid Reference	Reason for not choosing
N/A			

If no alternative site options have been investigated, please explain why:
N/A – Existing Rooftop Base Station

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² Site Type: Mast and Site Sharing, Installation on Existing Buildings and Structures, Camouflaging and disguising equipment, using small scale equipment, and Erecting a new Ground Based Mast.

Public Access Statement

As this is an existing rooftop installation on a privately owned property, access to the general public is not allowed.

Construction and Maintenance Access

As this is an existing rooftop installation on a privately owned property, access to the site for construction and maintenance remains as existing and shown on the supplied proposal drawings.

Health and Safety – including ICNIRP compliance		
International Commission on Non-Ionizing Radiation Protection Declaration attached (see below).	Yes	No
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 Ltd operates its network in such a way the radio frequency power outputs are kept to the lowest levels commensurate with effective service provision.		
As part of Vodafone Ltd'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 telecommunications infrastructure the subject of this application accords with all relevant legislation and as such will not cause significant and irremediable interference with other electrical equipment, air traffic services or instrumentation operated in the national interest.		
A copy of the ICNIRP Certificate has been supplied as part of the planning application.		

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Additional relevant information

Background

As part of this continued network improvement program, there is a specific requirement to provide new 5G coverage in this area of Barry. An existing base station has been identified in the area and is being re-developed to meet both operators' latest requirements.

Visual Impact and Appearance

Visual impact has been minimised as far as practicable, with additional Vodafone antennas in similar positions and heights of existing Telefónica antennas. However, in order to provide coverage for new technologies and taking ICNIRP guidelines into consideration, the new proposed Vodafone antenna locations and heights are required in order that Vodafone are able to provide their own coverage requirements for existing and new technologies and ensuring that ICNIRP guidelines are adhered to.

National planning policy is to facilitate the growth of new and existing telecommunications systems, and operators have obligations to meet customer demands for improved quality of service. This development proposes enhanced coverage and the capability of new technologies to the surrounding area for both Telefónica and Vodafone.

PLANNING POLICY

National Planning Policy Guidance

The relevant national planning guidance is contained within Future Wales – the National Plan 2040 (February 2021), Planning Policy Wales 11 (February 2021) (PPW), Code of Best Practice on Mobile Phone Network Development for Wales (2021) and Technical Advice note 19: Telecommunications (2002). The first three of these are new documents which provide support for improved connectivity.

Future Wales - the National Plan 2040

The Overview section of the document set out the increasing importance of connectivity, stating "We are an increasingly connected nation. In September 2019, 93% of homes and businesses had access to superfast broadband speed and 31% to ultrafast" (page 40).

This section also reflects on the Covid-19 pandemic noting "...There was a collective appreciation of the value of parks and green spaces, walking and cycling routes, local shops and amenities, and the cleaner air that emerged during the lockdown. The essential nature of good broadband and telecommunications connections to enable people to work from home, access services, and to stay in touch with one another has also been highlighted during this period. Good digital communications can have a positive effect on well-being" (page 48).

Policy 13 is the most relevant specific policy to the proposed development:

'The Welsh Government supports the provision of digital communications infrastructure and services across Wales. Planning authorities must engage with digital infrastructure providers to identify the future needs of their area and set out policies in Strategic and Local Development Plans to help deliver this. New developments should include the provision of Gigabit capable broadband infrastructure from the outset.'

The supporting text from the policy notes: "The Welsh Government supports the roll-out of digital communications infrastructure across Wales. Modern, reliable mobile telecommunications and fast broadband services are essential to our everyday lives, as highlighted by the number of people working and learning from home during the COVID-19 pandemic. Digital communications infrastructure is crucial to the future success and economic

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competitiveness of Wales' businesses and supports community and individual needs, including access to key services and facilities."

Planning Policy Wales 11 (February 2021)

Section 5.2 of the guidance deals specifically with Electronic Communications. The proposed development is supported by the guidance at paragraph 5.2.1 which states:

"Affordable, secure electronic communications infrastructure is essential to people and businesses. The availability and exchange of information afforded by telecommunications ensures people are connected to important services, their communities and the wider world and essential for long term prosperity. Fast reliable connections are essential to meet the needs of businesses and other organisations, and to those at home whether accessing new digital services or working. Greater numbers of individuals working from home are a growing trend and planning authorities should take this into account when preparing their development plans".

Paragraph 5.2.2 confirms the importance of the provision of quick and reliable networks: "Modern society demands reliable fast and high-capacity communication networks to ensure large amounts of data can be easily accessed or exchanged." The development would enhance the Vodafone network in the area providing additional 4G and new 5G coverage to the localised area.

5G is specifically mentioned at paragraph 5.2.10 noting: "New technologies such as 5G will result in the densification of mobile infrastructure particularly in urban areas which could require more small cell sites in street settings. The planning system will need to respond positively to this evolution in technology whilst being mindful of the impacts on amenity and the historic environment." The appeal deals with such a site, with a smallscale site in a street setting proposed to provide infill coverage to the local area.

Code of Best Practice on Mobile Phone Network Development for Wales (2021)

This advice document provides up to date information on network rollout. Within the Siting and Design section the document confirms the need for additional equipment for 5G development: "The introduction of 5G will create a need for more apparatus. 5G will operate across multiple radio spectrums and the antenna systems will continue to provide 2G, 3G and 4G services that demand lower speeds. Consequently, there will be a requirement for greater numbers of antennas than before, as well as new radio equipment cabinets and taller structures. Furthermore, they will often be larger and so greater in appearance."

The Siting and Design section also confirms that there will be a requirement for additional installations in densely populated urban areas due to demand and because 5G signals do not travel as far as for other technologies: in densely populated and urban areas, where you have a high demand on the network, a greater number of base stations are required to meet the data traffic demand."

Technical constraints are noted resulting in a situation where: "the MNO may need to put a base station within a commercial or industrial area and directly within the surrounding residential areas." In the case of this proposal site the installation is required as an infill site to provide 5G coverage, the nature of the requirement and the surrounding area leading to the need to site the equipment within a dense urban area.

Technical Advice Note 19: Telecommunications (2002)

This guidance is now rather dated, however the document is still of relevance. Paragraph 46 deals with technical constraints and notes: "Each telecommunications system has different antennas, siting needs and other Planning authorities should have regard to any technical constraints on the location and proposed development. Each application should be determined in accordance with the development plan unless material considerations indicate otherwise. Material considerations include the significance of the proposed development as part of a national network."

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Paragraph 56, dealing with environmental considerations states: "Masts and antennas often require a particular operating height, which allows signals to clear trees and urban clutter. Telecommunications development may therefore need particular locations in order to work effectively. But those may be exactly the prominent locations that pose challenges to policies for the protection of high quality landscapes and quality in urban areas... and the developer must demonstrate that there are no suitable alternative locations." In this case, it is important for 5G coverage to clear surrounding clutter, in this case the trees adjacent to the site, hence its required height.

The proposal outlined within this document and the supporting enclosures, is in complete accordance with the guidance as set out in national guidance.

Development Plan Policy

The adopted Vale of Glamorgan Local Development Plan 2011- 2026 (adopted 28th June 2017) forms the Development Plan for the area. There are no specific policies relating to communications within the Plan.

Of relevance to the proposal include policy MD4 (Community Infrastructure and Planning Obligations) which encourages new and improved community facilities, providing they are accessible, and they don't harm amenity of residential occupiers, and they would not detract from the character and appearance of the area.

No conflict is identified with the policy noted above, nor with any other aspect of the plan. An important community facility would be provided with enhanced 4G and 5G coverage to the area. An upgrade on an existing rooftop installation is proposed, keeping the impact of the development to an acceptable level.

The proposal therefore complies with the above policies and no conflict with any other aspect of the plan has been identified.

Overall, it is considered the proposal complies with both national and local policy. With the increased importance of connectivity set out in national guidance, policy has an increased level of support for the development, compared to when the original submission was made in 2020.

Summary

National planning policy is to facilitate the growth of new and existing telecommunications systems, and operators have obligations to meet customer demands for improved quality of service. The need for improved connectivity has recently been emphasises with new national guidance. This development proposes improved coverage and capacity to the surrounding area for Vodafone.

A simple design solution is proposed to mitigate visual impact and prevent harm to the local environment. The minimal impact of the development would be outweighed by the significant public benefits of the provision of enhanced coverage to the area. The reduction in height from pre-application stage would make a significant difference to the appearance of the installation.

This proposal is compliant with the relevant policies from national guidance and the Development Plan, as outlined within this supporting statement.

The proposal is fully compliant with ICNIRP guidelines and declaration of compliance has been provided.

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Confirmation that submitted drawings have been checked for accuracy

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Signed:		Date:	28 th May 2021
Position:	Surveyor	Company:	Sinclair Dalby Limited
		(on behalf of	
		Cornerstone and	
		above operator)	

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