

SUPPLEMENTARY INFORMATION

1. Site Details

Site Name:	Wreigh Street	Site Address:	Existing telecommunications site Wreigh Street Hebburn South Tyneside NE31 1BJ
National Grid Reference:	430804, 564780		
Site Ref Number:	VF037995	Site Type: ¹	Macro Upgrade

2. Pre Application Check List

ST1082/18TPN

Site Selection (for New Sites only)

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

Site Specific Pre-application consultation with local planning authority

Was there pre-application contact:	Yes
Date of pre-application contact:	06/11/18
Name of contact:	N/A
Summary of outcome/Main issues raised: A pre-application email was submitted on the above date. The LPA has not commented. Due to the simplistic upgrade nature of this proposal it has been deemed appropriate to proceed and to discuss any aspect of the proposal during the processing of the application.	

Community Consultation

Rating of Site under Traffic Light Model:	Red	Amber	Green
Outline of consultation carried out: Hebburn North Ward Councillors			
Summary of outcome/main issues raised (include copies of relevant correspondence): N/A			

¹ Macro or Micro



School/College

Location of site in relation to school/college (include name of school/college): N/A
Outline of consultation carried out with school/college (include evidence of consultation): N/A
Summary of outcome/main issues raised (include copies of main correspondence): N/A

Civil Aviation Authority/Secretary of State for Defence/Aerodrome Operator consultation

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

Developer's Notice / Owner Notice

Copy of Developer's Notice enclosed?	Yes	No
Date served:	29/11/18	

3. Proposed Development

The proposed site: The subject site is located in an established industrial estate located to the north of Hebburn New Town and bound on its eastern side by metro/railways line. The landuse in the immediate vicinity is predominantly industrial, occupied by a variety of large industrial / commercial units and service yards. However, there are a variety of other uses beyond the estate. The host property accommodates and established telecommunications site that forms the subject of this upgrade proposal. There is also other telecommunications infrastructure present in the locale.
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Enclose map showing the cell centre and adjoining cells if appropriate: As this proposal relates to the upgrade of an established telecommunications site, this information has not been included. However, it can be supplied upon request. The intention is for the proposed upgrade of this established base station site to provide improved 2G, 3G and 4G network services to the local area. The operational context of the development has been explained in further detail below. The dynamic nature of technological advances in the telecommunications industry coupled with ever increasing demand from subscribers dictates a continual reinvestment programme on the part of the operators and as a result, and in line with their licence requirements, mobile operators are constantly developing their networks as well as refining and modernising their infrastructure. In this instance, the developer is an Electronic Communications Code Systems Operator licensed under the terms of the 2003 Communications Act to provide mobile personal communications networks in the UK. The subject proposal seeks to provide the latest mobile telecommunication network services to those living, working and travelling in the local area. Each of these generations of mobile communications provide the following services:
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- 2G used digital technology to improve call quality and helped reduce handset and battery size
- 3G provided fast broadband speeds to support a wide array of media services, such as internet connections and real time streaming of visual media and applications
- 4G operates at superfast broadband speeds granting a far greater range of data hungry applications, such as streaming High Definition visual media

Cellular networks are made up of several individual cell areas, each of which has a base station within it. A good analogy is that of a patchwork quilt with each cell area being one of the many patches making up the network. The base stations themselves will require a supporting structure, like a mast or high building, to support antennas whilst elevating them above clutter, such as tall trees, buildings, or topography that could otherwise impede signal. Associated cabinets for housing radio equipment and power connections are also deployed to service the antennas.

In the early days of mobile communications, peripheral locations, high-level topographies and large-scale masts were often identified in order that transmission from a new base station could cover an expansive geographical area. However, whilst this approach was viable for 1G and then 2G network coverage, the number of mobile handset users has dramatically increased with time, as have the advancements in mobile technology itself. As a result, the cellular network construction and operational criteria have changed too.

Because (3G and) 4G networks use higher frequencies with faster data rates whilst serving significantly increased numbers of mobile device users, typical network cell areas (i.e. the geographical area targeted for coverage for which a base station development provides a solution), are now smaller in their geographical expanse and tend to be directly proportionate to the number of users within it. They are also therefore greater in their number with base stations operating at a lower power output than their predecessors.

It is imperative that 3G and 4G base station development be located within the area it is to serve with transmission being limited to the target coverage area to prevent each base station, which has a limited connection capacity, from being oversubscribed and to also reduce interference within and between cell solutions. However, the increased number of base stations that networks now require often mean that it is impossible to avoid development within a context of sensitive properties and restrictive planning policy areas.

Type of Structure (e.g. tower, mast, etc):

Description:

- Removal of:
 - 17.5m high monopole mast
 - 6No. antennas
 - 2No. dish (1No. 300mm; 1No. 600mm)
 - 3No. cabinet (1300x110x1926mm; 1350x700x1300mm; 600x600x1450mm)
 - All ancillary apparatus including 2.5m headframe
- Installation of:
 - 20m high monopole mast
 - 6No. antennas
 - 2No. dish (1No. 300mm; 1No. 600mm)
 - 2No. cabinets (1300x700x1450mm; 700x840x1800mm)
 - All ancillary apparatus including headframe, GPS module, combiners, remote radio units, fencing, etc.

Please refer to the attached planning drawings to assist you in identifying the site and the proposed works.

Overall Height:

Height of existing building:	As per plans
Equipment Housing:	
Length:	As per plans
Width:	As per plans
Height:	As per plans

Materials:	
Tower/mast etc – type of material and external colour:	As per plans
Equipment housing – type of material and external colour:	As per plans

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

Recognising the established nature of this site and the landuse in the locale, great care and consideration has been given to the design of this upgrade solution. It is considered that the established design principles offer an appropriate solution for meeting the operators' telecommunication coverage requirements for the area and so these have been replicated as far as operationally possible. However, a new mast is required due to the structural capacity of the established mast being limited.

The proposed development has been limited to a minimum operation specification to effectively address the current coverage requirement. Although the dimensions of the replacement mast, antennas and headframe will be slightly different to those they replace but the overall visual impact arising from this alteration is considered minor. The overall mast height will not change.

Due to the demographics of the wider locale and the range of businesses present, the demand for telecommunications service is extremely high. The proposed upgrade would ensure mobile telecommunications service within this area of will meet the expectation of residents and businesses, while minimising the visual impact of the infrastructure on the surrounding environment.

Should the proposed upgrade not be completed, a new site would be required within the immediate area.

4. Technical Information

ICNIRP Declaration attached	Yes	No
ICNIRP 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 the site are taken into account.		

Frequency:	800-2600MHz
Modulation characteristics ²	2G (900 or 1800) – GMSK 3G (900 or 2100) – QPSK 4G (800 or 2600) – 64 QAM
Power output (expressed in EIRP in dBW per carrier)	Maximum 35 dBW
In order to minimise interference within its own network and with other radio networks, Vodafone Limited and Telefonica UK Limited operate its network in such a way the radio	

² The modulation method employed in 2G (GSM) is GMSK (Gaussian Minimum Shift Keying) which is a form of Phase modulation
The modulation method employed in 3G (UMTS) is QPSK (Quad Phase Shift Keying) which is another form of Phase Modulation
The modulation method employed in 4G (LTE) is 64 QAM (Quadrature Amplitude Modulation) which is another form of Phase Modulation

<p>frequency power outputs are kept to the lowest levels commensurate with effective service provision</p> <p>As part of Vodafone Limited and Telefonica UK Limited's network, the radio base station that is the subject of this application will be configured to operate in this way.</p> <p>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.</p> <p>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.</p>	
Height of antenna (m above ground level)	As per plans

5. Technical Justification

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

<p>Coverage plots have not been included as this is an upgrade proposal improving 2G, 3G and 4G services and capacity in the area. However, these can be supplied upon request.</p> <p>Having evolved from being merely a convenience, mobile communication is now a key part of sustainable development and a vital tool in peoples' personal lives and business operations. Modern society now expects to be able to make use mobile devices where people live, work and travel and there is currently a drive by the Government to ensure that all communities, both urban and rural, have access to the most up to date mobile technology as there are clear social and economic benefits for doing so.</p> <p>Good connectivity allows people to access a wide range of essential services including emailing; downloading apps; social media; helping with homework; researching local events, businesses or transport timetables; managing personal finances; shopping; contacting emergency services; contacting local authorities; arranging medical appointments; general business functions; and much, much more.</p> <p>As part of a continued network improvement program, there is a specific requirement to provide improved network services and connectivity for those living, working and travelling in the North Hebburn area.</p>

6. Site Selection Process

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

Site Type	Site name and address	National Grid Reference	Reason for not choosing site

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

This is an upgrade proposal and therefore no alternative sites have been considered

Environmental Information:

N/A

Land use planning designations:

N/A

Additional relevant information (include planning policy and material considerations):

The development would be required to comply with both National and local plan policies.

National Planning Policy Framework (NPPF) 2018

The NPPF outlines the Government's strategies for economic, environmental and social planning policy in England providing a set of objectives that have been designed to foster the delivery of sustainable development, not to hinder or prevent development. Local planning authorities are directed to approach planning decisions positively and to attach significant weight to the benefits of economic growth. The NPPF also states that where a development plan is absent, silent or out of date then permission should be granted unless the adverse impact of doing so would significantly outweigh the benefits when assessed against the NPPF.

The NPPF has superseded all Planning Policy Statements and Planning Policy Guidance Notes, including the telecoms specific PPG 8.

Section 10 of the NPPF is entitled "Supporting High Quality Communications" and continues the vein of the preceding NPPF's Section 5, reiterating in paragraph 112 that:

- 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
- upgrades will be necessary in time

Paragraph 113 advocates that:

- site/mast sharing potential should be investigated
- sites should be carefully designed using a minimum size and scale of apparatus and disguises where necessary

Paragraphs 114 and 115 go on to confirm that developers must provide evidence in relation to their site selection process that confirms that every effort has been made to identify the best available site option.

Paragraph 116 also places an emphasis on the fact that LPAs must determine applications for communications infrastructure on planning grounds alone.

Other relevant points from the NPPF

- Section 2, Paragraph 8 continues to promote sustainable development via the support for economic, social and environmental objectives

- Section 6, Paragraph 80 outlines the need to support economic growth
- Section 6, Paragraph 82 highlights the need to appreciate specific locational requirements which is very relevant to communications development which is based upon very specific geographical necessities. With modern technologies, coverage requirements must be addressed from within or extremely close to the target area.

Code of Best Practice on Mobile Network Development in England

The key principles of the Code of Best Practice 2016 are based upon the preceding NPPF with the primary aim of the Code itself stated as being:

"...to ensure that the Government's objective of supporting high quality communications infrastructure, which is vital to continued economic prosperity and social inclusion for all, is met."

Paragraph 1.3

This document also makes it very clear that mobile communications are key to social and economic wellbeing in today's society, stating that:

"...digital communications are now a crucial component of everyday life, with improvements in connectivity being key to a vibrant economy."

Paragraph 2.1

And continuing that:

"Consumers, businesses and public bodies increasingly rely on mobile communications and expect to receive a signal wherever they are. Coverage in rural areas is recognised as a vital component for maintaining economic activity and social inclusion."

Paragraph 2.2

Local Plan

The South Tyneside Council's existing Local Development Framework is the current Local Plan, guiding development and the use of land within the Council area via a portfolio of Development Plan Documents. The most relevant of these documents is the Core Strategy 2007 which includes "Policy ST2 Sustainable Urban Living" proposing that:

*"E. priority is given to alternative modes of transport to the private car, and access by:
ii) enhancing electronic communication infrastructure;"*

Policy Summary

A summary as to why the subject proposal adheres to all relevant policy criteria is outlined below:

- The subject proposal will result in improved 2G/3G/4G network services
- The proposal will offer a mast sharing to Vodafone Limited and Telefonica UK Limited
- The site is not located in any sensitive planning policy designation
- The site is well-established and a minimal amount of apparatus is proposed to be installed and replicating the existing design principles as far as is operationally possible. Each newly proposed element incorporates a simplistic, functional and generally accepted aesthetical form.
- Little to no additional impact upon amenity will occur as a result of this proposal
- It is a prerequisite of any communications site that the design is functional and that transmission equipment protrudes above surrounding clutter to ensure clear signal transmission. A lesser mast and antenna scheme than that being proposed is simply not operationally feasible if the coverage requirement is to be effectively addressed.

- Details of the siting and design of the proposed apparatus are provided in the attached drawings clarifying the positioning of the new apparatus within a context of the streetscape.
- The operator would be happy to commission photomontages from viewpoints agreed with the LPA to assist in considering the planning merit of this application. However, it is not envisaged that this will be required.
- No additional cumulative impact is expected.
- The operator would be happy to remove any redundant apparatus and reinstate the land.
- No additional landscaping is proposed nor considered necessary due to the roadside location.
- An ICNIRP Certificate has been supplied.

We trust that the above and enclosed information is to your satisfaction and would be happy to expand upon any aspect of this proposal if required.

Confirmation that submitted drawings have been checked for accuracy

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Signed:  Date: 29 November 2018

Position: Consultant Planner Company: Galliford Try
(on behalf of CTIL and above operator)