

23 APR 2019

SUPPLEMENTARY INFORMATION

1. Site details

Site Name	Knock Hill	Site Address	Land at Knock Hill, North of
NGR	E: 400901, N: 616501		Car Park, Near Brandon, NE66 4LT.
Site Ref Number	KXR793_NHU033- HOP	Site Type ¹	Macro

2. Pre Application Check List

Site selection (for New Sites)

(would not generally apply to upgrades/alterations to existing sites)

Was an LPA mast register used to check for suitable sites by the operator or the LPA?	Yes	No
if no explain why The proposed mast is to be located between two existing sites to create a line-of-sight.		
Was the industry site database checked for suitable sites by the operator?	Yes	No
if no explain why This is an upgrade of the existing equipment.		

Pre-application consultation with LPA

Date of written offer of pre-application consultation	N/A	
Was there pre-application contact	Yes	No
Date of pre-application contact	N/A	
Name of contact	N/A	
Summary of outcome/Main issues raised Not Applicable due to the minor nature of the proposed mast for the emergency services network.		

Northumberland County Council
Received
15 APR 2019
Central Development
Management Team

¹ Macro or micro

Ten Commitments Consultation

Rating of Site under Traffic Light Model	Green	Amber	Red
Outline Consultation carried out In accordance with the Code of Best Practice the site has been given a rating of Amber as the proposal is 4m high and is outside of sensitive areas (excluding National Park).			
Summary of outcome/Main issues raised N/A			

School/College

Location of site in relation to school/college (include name of school/college) It was considered that there were no schools or colleges with a direct functional or visual relationship with the proposal.	
Outline of consultation carried out with school/college (include evidence of consultation) N/A	
Summary of outcome/Main issues raised 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?		No
Has the Civil Aviation Authority/Secretary of State for the Defence/Aerodrome Operator been notified		No
Details of response N/A		

Developer's Notice or Article 12 Notice

Copy of Developer's Notice enclosed/ Article 12 Notice enclosed	Yes	No
Date served	08/04/2019	

3. Proposed Development

The proposed site	
<p>Description of the Site</p> <p>The site is located within a grassed agricultural field on the side of Ewe Hill which appears to be used for grazing. There are a few semi-mature trees to the south west of the proposed site which constitute vertical features within the landscape. The site is located on the boundary of Open Access Land but has been intentionally sited away from trails such as the Hilltop Trail. The site has been selected to avoid historic settlements and forts in the area.</p> <p>Planning History</p> <p>Prior approval was previously secured under LPA Ref: 18NP0088.</p> <p>Proposed Development</p> <p>The proposed development comprises the installation of:</p> <ul style="list-style-type: none"> • 1no. 4m timber clad monopole mast, • 1no. 300mm diameter transmission link dish & 1no. 200mm diameter transmission link dish. • Ancillary development thereto including all necessary cabling and fixings. • 1no meter cabinet, 1 no equipment cabinet accommodating equipment and 1 no LPG generator and 1 no LPG store. <p>The proposed installation is required to provide replacement/improved transmission links to safeguard the operational integrity of the Airwave emergency services network. The height (4m) for the new transmission link dishes is required in order for them to 'see' the receiving transmission links on another network site in the emergency services network, in order to carry traffic for the emergency services network back to the main telecommunications switch. It is the lowest height possible for the transmission links to work within the network and not be obstructed by vegetation or built form which would block the signal.</p>	

Enclose map showing the cell centre and adjoining cells	
N/A - the proposed development is not providing radio coverage to a specified area, but is simply connecting existing base station sites via a transmission link.	

Type of Structure (e.g. tower, mast, etc):	
Monopole	
Overall Height	4m
Height of existing building	N/A
Equipment Housing (New)	
Length	See Plans
Width	See Plans
Height	See Plans
Materials (as applicable)	
Tower/mast etc – type of material and external colour	Timber Clad Monopole

Equipment housing – type of material and external colour (W X D X H)	Steel RAL6009 fir green (applicant is open to alternative colour suggestions from LPA).
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<p>Reasons for choice of design</p> <p>The number, size and height AGL of the radio link dishes for this site are due to technical requirements, to maintain the integrity of the Airwave network for use by the Emergency Services.</p> <p>Radio link transmission dishes are “line of sight” dependent. Each link has an “A” end and a “B” end and the dishes at either end must have an unobstructed view of each other. Links will range in end to end distance, but are generally several kilometres end to end.</p> <p>There is little choice in the design aesthetics of radio link dish equipment, which are generally manufactured in standard diameter sizes (eg. 300mm, 600mm, 1200mm etc) and all of which have a similar appearance and light grey finish.</p> <p>The design of the dishes has been kept simple and they are intended to form an unobtrusive feature within the wider landscape.</p>
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4. Technical information

<p>ICNIRP Declaration attached</p> <p>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.</p> <p>When determining compliance, the emissions from all mobile phone network operators on the site are taken into account.</p>	<p>Yes, however the proposed transmission link has no impact on the ICNIRP compliance of this site</p>
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Frequency	N/A
Modulation characteristics ²	N/A
<p>Power output (Expressed in EIRP in dBw per carrier)</p> <p>In order to minimise interference within its own network and with other radio networks Airwave Ltd operates its network in such a way that radio frequency power outputs are kept to the lowest levels commensurate with effective service provision.</p> <p>As part of Airwave Solutions Ltd's network, the radio base station that is the subject of this application will be configured to operate in this way.</p>	N/A
Height of antenna (m above ground level)	4m

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.

5. Technical Justification

Enclose predictive coverage plots

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

The Airwave network is a dedicated communications network for the exclusive use of the UK's emergency and public safety organisations including the Police, Fire and Rescue and Ambulance Service.

Although the Airwave network already meets stringent reliability criteria, the Government requires further enhancement, known as Airwave Kilostream Replacement Project (AKRP), to a large percentage of the Airwave base station network sites. This involves providing a network of 'line of sight' radio links between existing base stations using radio link dishes to replace the existing ground based copper cable network links.

6. Site selection process – alternative sites considered and not chosen

Due to the nature of line-of-sight dishes and the topography in the area, there are no discounted sites identified by the radio engineer.

Additional relevant information

Siting and Visual Appearance

The 1no. 300mm dish, 1no. 200mm dish and 1no. 4m mast have been designed to sympathetically fit into the wider environment. The proposed hop mast allows the existing site which has the benefit of planning permission to continue to be used without the need for large height extensions, therefore minimising the visual impact upon the natural environment and will therefore comply with national and local policy. Further information is available in the accompanying Design and Access Statement.

It is concluded that no significant landscape and visual impacts will occur as a result of the proposed development. It should be noted that the benefits associated with such development for the upgraded Emergency Services digital network are significant and are expected to far outweigh the limited dis-benefits in this location, which has existing vegetation, helping to screen the proposal as much as possible without compromising the required transmission links for the integrity of the Emergency Services network.

Contact Details

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Signed:	<i>Dianne Perry</i>	Date:	12 April 2019
Position:	Consultant Planner	Company:	Clarke Telecom Ltd (on behalf of CTIL and above operator)