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| SUPPLEMENTARY INFORMATION |
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1. Site details

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| Site Name | Dresden Close | Site Address | Dresden Close, West Hampstead, London, NW6 1XH |
| NGR | E 525780 N 184872 | | |
| Site Ref Number | 76924 | Site Type | Greenfield |

2. Pre-Application Check list

Site selection

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| Was the mast register of the authority responsible for planning used to check for suitable sites by the operator or the authority? | Yes | |
| Was the industry site database checked for suitable sites by the operator? | Yes | |

Annual roll out consultation with the authority² responsible for planning

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| Date of last annual rollout information/ submission | N/A | |
| Name of contact | N/A | |
| Summary of outcome/Main issues raised | N/A | |

Pre-application consultation with the authority² responsible for planning

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| Date of written offer of pre-application consultation | 19 th October 2018 |
| Was there pre-application contact | Yes |
| Date of pre-application contact | 22 nd October 2018 |
| Name of contact | Olu Ayinde |
| <p>Initial request for pre-application consultation was made on the 19th October 2018. A response was issued on the 22nd October 2018 stating the following:</p> <p><i>“Dear Niall,</i></p> <p><i>Thank you for your email seeking the Council’s advice on proposed works at Dresden Close.</i></p> <p><i>As identified, the outstanding pre-application fee is £989.02 This can be paid most expediently over the phone, by calling 0207 974 4444 and following the options through to speak to a Customer Support Officer.</i></p> <p><i>Meanwhile, a case file has been opened for your enquiry under reference 2018/5113/NEW, which it would be helpful for you to quote when making payment.</i></p> <p><i>Kind regards,”</i></p> <p>A response was issued back to Olu Ayinde on 22nd October 2018, stating the following:</p> <p><i>“Dear Olu,</i></p> <p><i>At this time, we are only looking for informal comments on the proposal and will not be pursuing paid consultation. Can you advise if there is scope for informal comments at this stage?</i></p> <p><i>Kind regards”</i></p> <p>A further response was received from Olu Ayinde on the 23rd October 2018:</p> <p><i>“Dear Niall,</i></p> <p><i>Thank you for your email.</i></p> <p><i>Do you want comments, or are you notifying us that this is what EE want to do under permitted development?</i></p> <p><i>Such works usually require planning permission in a conservation area. We often have reservation if it’s on roof tops or not in-keeping with the surroundings.</i></p> <p><i>Please note that the information contained in this letter represents an officer’s opinion and is without prejudice to further consideration of this matter by the Development Control section or to the Council’s formal decision.</i></p> <p><i>Regards”</i></p> <p>A response was issued to Olu Ayinde regarding the above, but no further response has been received as of submission.</p> | |

Ten Commitments Consultation

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| Rating of Site under Traffic Light Model | Red |
| <p>Outline Consultation carried out</p> <p>The proposed site has been rated Red, as such the following stakeholders were sent consultation with corresponding plans via email:</p> <ul style="list-style-type: none"> • Councillor Nazma Rahman – West Hampstead Ward • Councillor Peter Taheri – West Hampstead Ward • Councillor Shiva Tiwari – West Hampstead Ward • Tulip Siddiq MP • Network Rail Asset Protection | |

School/College

The proposed site is not located near any educational establishments, as such, no consultation was undertaken.

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

The proposed site is not located near an aerodrome, as such, no consultation was undertaken.

3.0 Proposed Development

The proposal is to provide increased mobile phone coverage to the individuals using this area of the railway line and will also enhance coverage to the immediate locale.

The proposed installation consists of 1No. 10m high "Alpha 8" pole with 3No. shrouded antennas situated within the pole, 2No. 0.3m dishes and 3No. ground-based equipment cabinets and ancillary development thereto.

In acknowledgement of the site location the physical structure has been amended to utilise the slimmest pole capable of housing the 4G antennas and has been kept to as minimal height as possible which mitigates any perceived negative visual impact on the area.

The proposed structure will blend with the backdrop of the Network Rail infrastructure, which is situated directly behind the proposal, when viewed from any residential properties; therefore, the proposal given its material structure, height and the utilitarian context provided by the Network Rail equipment is in keeping with the area.

The proposed site is required in order to address a gap in EE's network coverage that has been identified along the North London Overground Line and in particular a tunnel (and the areas immediately surrounding) to the west of Finchley Road & Frognal Station.

In acknowledgement of the site location the physical structure has been amended to utilise the slimmest pole capable of housing the 4G antennas and has been kept to as minimal height as possible which mitigates any perceived negative visual impact on the area. We believe that this location is far more sympathetic than the discounted options as it removes the installation from land designations and utilises a much lower height than any of the discounted options, as well as benefitting from the context of existing Network Rail equipment.

The proposed mast will be coloured Grey (RAL7035) to blend with the aforementioned Network Rail equipment and cabinets will be coloured Fir Green (RAL6009) as is standard for equipment cabinets. If, however a different colour is preferred then this can be changed.

A map extract is enclosed with this application showing the site location.

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

The proposed installation consists of 1No. 10m high "Alpha 8" Street pole, 3No. Shrouded Antennas, 2No. 0.3m dishes, 3No. equipment cabinets and ancillary development thereto.

Overall Height 10m

Materials (as applicable)

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| Type of material and external colour | Galvanised steel – Grey (RAL7035) |
| Equipment housing – type of material and external colour | Galvanised steel/ Metal Alloy – Fir Green (RAL6009) |

Reasons for choice of design

The design has been chosen as it meets both the technical requirement to provide the necessary service in terms of height and the slimline pole design blends in with the locality of the Network Rail equipment. Furthermore, the street pole will be coloured to blend with the backdrop of the existing aforementioned apparatus. It should be noted that by utilising a GRP shroud around the antennas, this negates the need for the structure to have large bracing components associated with other more prominent and conventional installations.

4.0 Technical information

ICNIRP Declaration attached – Yes
 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.

Frequency:
*All EE Ltd sites operate both the GSM1800 system (transmitting in the frequency range of **1846.5MHz** to **1876.5MHz**) and the UMTS system (transmitting in the frequency range of **1904.9MHz** to **1909.9MHz** and **2159.7MHz** to **2169.7MHz**).*

Modulation characteristics³
*The modulation method employed in GSM1800 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**.*

Power output (expressed in EIRP in dBW per carrier):
 In order to minimise interference within its own network and with other radio networks, EE Ltd operates its network in such a way that radio frequency power outputs are kept to the lowest levels commensurate with effective service provision.
 As part of the EE Ltd network, the radio base station that is the subject of this application will be configured to operate in this way.
 EE's licence limits the allowed radiated power to an effective isotropic radiating power (EiRP) of +32dBW per carrier for both GSM1800 and UMTS

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| Height of antenna (m above ground level) | 10m |
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³ The modulation method employed in GSM is GMSK (Gaussian Minimum Shift Keying) which is a form of Phase Modulation

5.0 Technical Justification

The proposed site is intended to provide 2G (GSM) voice and 4G (LTE) high speed data coverage to a section of the North London Overground Line situated to the west of Finchley Road & Frognal Station as well as the surrounding, predominately, residential areas. This area currently suffers from very poor EE network coverage and a new site is required in order to alleviate this and greater capacity for local residents, railway passengers, visitors and businesses alike. This development is highlighted as part of the solution for the National Infrastructure Commission in which Connectivity on main train routes are sub-par and a programme has been instructed to rectify this.

EE is also the operator of the new UK 4G Emergency Services Network ("ESN"). Once activated, this system will replace the existing Airwave TETRA (**T**errestrial **T**runked **R**adio) communications system currently used by the Police, Fire and Ambulance services. The proposed site will form part of this network.

Due to the need to provide coverage to the railway line, the required site needs to be situated in close proximity to the line and be of sufficient height to be able to 'look over' the surrounding clutter, in this case a large brick wall, in order to provide coverage down onto the line. As the proposed site also has to work in conjunction with EE existing network sites a number of potential locations were discounted due to their proximity to other EE sites.

Whilst a number of other locations were considered, all of these were ultimately discounted as they were in land designations, had little or no vegetation with which to mitigate the visual impact of the development, had no utilitarian context with surrounding area, or would be of an imposing height on the residential areas, and/or had insufficient space due to narrow footways or existing underground services.

The proposal site has therefore been chosen as it is the only viable location in which the apparatus can be placed in order to provide the EE's network coverage requirement.

The Alpha 8 has much smaller antennas than those in the Phase 5 and is therefore much slender and less bulky in appearance. In this instance EE has been unable to reduce the overall height of the proposal as the antennas have to, at minimum, be at the proposed height at in order to avoid interference from the surrounding clutter. This proposed design is the maximum that EE is able to compromise the projected coverage and capacity by reducing the type, size and height of the apparatus and still meet the minimum coverage requirement for the site.

Should the proposed site not proceed then EE will not be to improve coverage to this part of West Hampstead. This will leave substantial number of residences and businesses in the area with no coverage or low quality outdoor only coverage. This would also leave a significant section of the North London Overground Line coverage. Due to the ever-increasing demands being placed on EE's network this is likely to lead to increasing instances where EE's residential, business and railway commuting customers within the target area are unable to connect to EE's network or experience dropped calls and/or data connections due to poor coverage. In addition, emergency service users will experience difficulty in communicating using the ESN network in areas where there is poor or no EE 4G coverage.

GSM Coverage

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

The distances between transmitter sites will depend on many factors, including the geography of the area, the number of buildings, the number of people living in the area and the growing demand for mobile services. As a result, the distance between sites can range from less than 1 kilometre in large urban areas to 8 kilometres in rural areas.

There is currently very limited provision of EE Ltd service in this area; As such, in order to provide greater mobile coverage to customers, including the Emergency Services, this application is submitted in order to improve coverage in this location.

3G/4G Rollout

Data traffic is increasing and is forecast to continue to grow, as technology is developed to facilitate this. Services such as direct access to the Internet from a handset, downloading files from the office to a mobile laptop computer and videophones are now offered and expected by subscribers. These data services are commonly known as third generation or 3G services and fourth generation or 4G services. All mobile telecoms operators have agreed with the government to offer 90% geographic coverage by the end of 2017. This site forms part of that wider policy requirement.


These services are provided using a combination of UMTS and new generation GSM equipment. UMTS will provide very fast data rates, however for the network to work effectively we also need to provide an "umbrella" GSM network which is also capable of providing high speed data albeit at slower rates than UMTS. In addition, EE Ltd are soon to be responsible for the rollout of the new Emergency Services Network and the obligation is to provide the latest 4G services for data transfer, video footage and communications throughout the country. Such services can only be provided with an effective rollout of upgraded and new telecoms base stations and this site forms an integral aspect within the wider network provision.

This installation will provide essential services for users of the rail, residents and businesses within the immediate vicinity and the Emergency Services.

6.0 Site selection process – alternative sites considered and not chosen

Alternative sites were investigated when searching for a replacement location. Many of the options considered were discounted due to technical/operational requirements and/or for planning reasons. A full list and map of these sites can be found in the Design, Access and Supporting Statement that accompanies the application.

Contact Details

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| Signed |  | Date | 20 th February 2019 |