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Our ref: CTIL_30292501_TEF_88921

Councillor Azra Ali
Members' Services Office
Manchester City Council PO Box 532
Town Hall Extension
Manchester
M60 2LA

Email: cllr.azra.ali@manchester.gov.uk **VIA EMAIL**

28th February 2020

Dear Councillor Ali

PROPOSED RADIO BASE STATION INSTALLATION AT CTIL_30292501_TEF_88921 SW OPPOSITE FAIR OAK ROAD, BURNAGE LANE, BURNAGE, GREATER MANCHESTER, M19 1FG. NGRS E:386615 N:392309

Cornerstone Telecommunications Infrastructure Ltd (Cornerstone) is a joint venture company owned by Vodafone Limited and Telefónica UK Limited, commonly known as O2, who manage a single grid network across the UK for these companies. This agreement allows both organisations to pool their basic network infrastructure, while running two, independent, nationwide networks. It maximises opportunities to consolidate the number of base stations and where possible can significantly reduce the environmental impact of network development.

5G rollout has begun and both Vodafone and Telefónica are in the process of upgrading their existing radio base stations in their single grid network wherever possible. As part of this continued network improvement program, there is a specific technical requirement to provide new 5G coverage in this area of Burnage. An existing streetworks style base station has been identified in the area, however it can not accommodate for both operators latest requirements. In order to fit in to the operator's single grid network, an additional new streetworks style base station is required for Telefónica service in close proximity of the existing streetworks style base station that will be retained and in due course upgraded with improved Vodafone service.

Mobiles can only work with a network of base stations in place where people want to use their mobile phones or other wireless devices. Without base stations, the mobile phones and other devices we rely on simply won't work.

This proposed new site will enable 5G coverage to be provided to this area of Burnage. The Government recognises that widespread coverage of mobile connectivity is essential for people and businesses. That is why the Government is committed to extending mobile geographical coverage further across the UK, with continuous mobile connectivity provided to all major roads and to being a world leader in 5G. This will allow everyone in the country to benefit from the economic advantages of widespread mobile coverage.

As well as improved mobile signal, 5G networks are also crucial to drive productivity and growth across the sectors that local areas are focusing on through their emerging Local Industrial

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Strategies. Enabling and planning for 5G implementation is central to achieving the Government's objective to deliver prosperity at the local level and enable all places to share in the proceeds of growth.

5G service provision will bring faster, more responsive and reliable connections than ever before. More than any previous generation of mobile networks, it has the potential to improve the way people live, work and travel, and to deliver significant benefits to the economy and industry through the ability to connect more devices to the Internet at the same time, the 'Internet of Things'. This will enable communities to manage traffic flow and control energy usage, monitor patient health remotely, and increase productivity for business and farmers, all through the real-time management of data.

The demand for mobile data in the UK is increasing rapidly, and as households and businesses become increasingly reliant on mobile connectivity, the infrastructure must be in place to ensure supply does not become a constraint on future demand.

Please find below the details of the proposed site.

Our technical network requirement is as follows:

CTIL_30292501_TEF_88921 SW OPPOSITE FAIR OAK ROAD

The site is needed to maintain and improve 2G, 3G, 4G coverage and capacity for Telefónica to ensure that its customers continue to experience access to the latest service provision currently available and have access to a new 5G network. This is because the operator needs to find a replacement for the site it is currently providing 2G, 3G and 4G services from air Oak Road, which cannot be upgraded for Telefonica's technology requirements for technical reasons highlighted above and more fully explained in the discount section below. The new proposed installation will also meet the extra demands on the network in this area as new technologies improve increasing the demand for 4G and new 5G technologies.

A number of options have been assessed in respect of the site search process and we consider the best solution is as follows:

BURNAGE LANE, BURNAGE, GREATER MANCHESTER, M19 1FG. NGRS E:386615 N:392309

The proposed works comprise installation of a 20m slim-line column supporting 6 no. antennas, 2 no. transmission dishes, 2 no. equipment cabinets and ancillary development thereto including a GPS module, and 3 no. Remote Radio Units (RRUs).

The operator is limited in siting options as there is a requirement to provide equivalent replacement coverage and capacity for this area of Burnage. The replacement of an existing site means that the operator has to be located as close as possible to the existing installation in order to maintain the provision of equivalent coverage and capacity to the surrounding local area. This is the nearest suitable location that the operator is able to position their replacement apparatus.

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The proposed height at 20m is essential in order to provide equivalent replacement coverage to the target coverage area. 5G new radio technologies operate in higher frequency bands than older technologies. Since it operates at higher frequencies where attenuation of the radio signal is naturally higher and the effects of clutter are greater it will normally require a higher structure to achieve the same coverage footprint.

In order to minimise the width of the proposed column, the antennas are split in to a dual stack formation where 3 antennas will be located at the top of the column and the other 3 antennas will be located underneath. Thus, if the column were to be any lower, the antennas would not be able to operate effectively nor reach the target coverage area.

The column is a simple, functional, vertical structure necessary to provide replacement and new service provision to Burnage and the surrounding area. There are other vertical structures in the streetscene which will help it assimilate in to the local environ. The column is proposed to be finished in a grey colour but can be coloured any other colour that the LPA consider appropriate.

The cabinets are designed to appear like other statutory undertakers equipment cabinets. They are small for telecommunications apparatus and are proposed to be coloured green to assimilate with other equipment cabinets commonly found in urban environments. The cabinets can be installed under the operators permitted development rights, but have been included on the plans and in the description in order to remain fully transparent.

The RRUs are designed to make the antennas more efficient and reduce the need for equipment cabinets at ground level, therefore minimising ground level clutter in this area. They are located underneath the lowest set of antennas, out of the natural eye line of the casual passer-by and therefore will not appear prominent in the streetscene.

We have considered alternative site options and discounted as follows:

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Site[3]	Site Name and address		NGR	Reason for not choosing[4]
ETS - existing Telecom site	Name	Existing VF SW Site		SP - Site Provider
	Line 1	Burnage Lane (outside Shops)	Eastings	The operator has fully investigated upgrading this site to provide the latest technologies for 4G services as well as new 5G coverage/capacity in to the Telefonica network. However, the design of the existing pole is not able to support the new 5G antennas for both Vodafone and Telefonica without being significantly redesigned and replaced with a much bigger and bulkier structure. This would have a greater detrimental impact on the visual amenity of the streetscene than installing another radio base station for Telefonica nearby. This existing telecommunications site has been discounted for Telefonica's new technology requirements for this reason. A new replacement site for Telefonica is therefore needed to provide this operator with the latest 2G, 3G 4G and 5G technologies'.
	Line 2	Burnage	386586	
	Town	Manchester	Northings	
	County	Greater Manchester	392075	
	Postcode	M19 1LH		
ETS - existing Telecom site	Name	Existing EE SW Site		RD - Redevelopment not possible
	Line 1	Burnage Lane (outside Shops)	Eastings	t is not possible for Telefonica to share a Streetworks structure with EE and include all the required technologies/antennas for bother operators and maintain the required distances to stop any radio interference. This option was therefore discounted as unfeasible due to potential interference.
	Line 2	Burnage	386587	
	Town	Manchester	Northings	
	County	Greater Manchester	392045	
	Postcode	M19 1LH		
GF - Greenfield	Name	SW on Footway/Verge		P - Planning
	Line 1	Outside 293 Mauldeth Road	Eastings	This location is situated directly outside a number of residential properties. It was the Operator's opinion that this location would have a more significant impact on the residential amenity of the surrounding area than the propsoed site would have. It was therefore discounted on this basis.
	Line 2	Burnage	386668	
	Town	Manchester	Northings	
	County	Greater Manchester	392033	
	Postcode	M19 1DZ		
GF - Greenfield	Name	Heaton Moor Golf Course		P - Planning
	Line 1	Mauldeth Road	Eastings	The Golf Course falls within the corner of the search area, however this location is surrounded by mature trees with heights in excess of 20-25 metres, a Mast in excess of 25 metres is likely to be required and this was deemed to be an unsuitable height for a new ground based mast in such an urban location and it would have a greater visual impact on the surrounding area than the subject site would
	Line 2	Heaton Moor	386744	
	Town	Stockport	Northings	
	County	Greater Manchester	391995	
	Postcode	M19 1DZ		
GF - Greenfield	Name	Playing Field - Burnage School for Boys		SP - Site Provider
	Line 1	Burnage Lane	Eastings	This location is within the School Playing Fields. The Fields are in an open location with no screening, therefore this was deemed to be a highly visible location and would have a greater visual impact on the surrounding area than the proposed site would have.
	Line 2	Burnage	386632	
	Town	Manchester	Northings	
	County	Greater Manchester	392263	
	Postcode	M19 1EA		
GF - Greenfield	Name	SW on Grassed Area		P - Planning
	Line 1	Moorcroft Drive	Eastings	This location is situated directly outside a ring of residential properties. It was the Operator's opinion that this location would have a more significant impact on the residential amenity of the surrounding area than the propsoed site would have. It was therefore discounted on this basis.
	Line 2	Burnage	386592	
	Town	Manchester	Northings	
	County	Greater Manchester	391925	
	Postcode	M19 1NL		
GF - Greenfield	Name	SW adj. to VF SW		T - Technical Difficulties
	Line 1	Burnage Lane	Eastings	There is insufficient space on the footway at this location to install a further SW installation.
	Line 2	Burnage	386583	
	Town	Manchester	Northings	
	County	Greater Manchester	392081	
	Postcode	M19 1LH		

The Local Planning Authority mast register and our records of other potential sites have already been reviewed, the policies in the Development Plan have been taken into account and the planning history of the site has been examined.

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All Telefónica installations are designed to be fully compliant with the public exposure guidelines established by the International Commission on Non-Ionizing Radiation Protection (ICNIRP). These guidelines have the support of UK Government, the European Union and they also have the formal backing of the World Health Organisation. A certificate of ICNIRP compliance will be included within the planning submission.

In order to give you time to send your comments or request further information, we commit to allow at least 14 days before an application is submitted to the Local Planning Authority. This 14 day period starts from the date at the top of this letter.

We would also be grateful if you could please advise of any local stakeholders or groups that might like to make comments. For your information pre-consultation letters and a set of plans have been sent to the other local ward councillors for Burnage Ward and the local MP Jeff Smith.

We look forward to receiving any comments you may have on the proposal.

Yours sincerely

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(For and on behalf of Cornerstone and Telefónica UK Limited)