

South Dublin County Council
Planning Department
County Hall
Tallaght
Dublin 24
D24 A3XC

14th November 2022

RE: PLANNING APPLICATION FOR PERMISSION AT EIR, MAIN STREET, RATHCOOLE, CO. DUBLIN. THE DEVELOPMENT WILL CONSIST OF THE REPLACEMENT OF AN EXISTING 15M TELECOMMUNICATIONS MONOPOLE SUPPORT STRUCTURE (OVERALL HEIGHT OF 17.8 METRES), PREVIOUSLY GRANTED BY SOUTH DUBLIN COUNTY COUNCIL (PLANNING REFERENCE NO: SD13A/0104), WITH A PROPOSED NEW 15M TELECOMMUNICATIONS LATTICE TOWER (OVERALL HEIGHT OF 17.8 METRES) CARRYING THE TELECOMMUNICATIONS EQUIPMENT TRANSFERRED FROM THE EXISTING STRUCTURE AND THE ADDITION OF NEW TELECOMMUNICATIONS ANTENNAS, DISHES AND ASSOCIATED EQUIPMENT, TOGETHER WITH NEW GROUND LEVEL EQUIPMENT CABINETS AND FENCING. THE SITE IS WITHIN THE CURTILAGE OF A PROTECTED STRUCTURE (RPS: 311 – RATHCOOLE GARDA STATION).

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1.0 INTRODUCTION

Towercom Limited, as the agent, are lodging the above planning application on behalf of Eir (Eircom Limited) for the proposed construction of a new telecommunications support structure, at the subject site at Eir, Main Street, Rathcoole, Co. Dublin. The proposed development is the replacement of an existing 15 metre monopole (overall height of 17.8m) with a proposed new 15 metre lattice tower (overall height of 17.8m) carrying antennas, dishes, associated equipment, and ground level equipment cabinets and fencing. The proposed support structure would make this site available to additional telecommunications and broadband operators in line with local and national policy.

In addition to acting as the agent for planning applications, Towercom manage an existing mast network in Ireland and facilitate the co-location of multi-operator infrastructure to a wide range of clients including national mobile operators, national and local broadband providers, national broadcasters and national and local emergency services for both the public and private sector. With this service, Towercom reduce the demand and proliferation of telecommunications structures throughout the country. The proposed development at the Eir property will ensure continued network coverage for Tetra and Three Ireland (existing installations on the 15m monopole) with potential for enhancement and improvement of telecommunications and broadband services in the region into the future, in accordance with South Dublin Development Policy, the national telecommunications guidelines and Circular PL07/12.

Directors

Tony Killarney (CEO), Philip Doyle,
Jonathan Florsheim (UK), Bahzad Ahmed Memon
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2.0 SITE LOCATION, NATURE & PURPOSE OF THE APPLICATION

The subject site is located within the Eir property, which is located to the rear of Rathcoole Garda Station, off Main Street in Rathcoole. The property contains an exchange building to the rear of the property, a smaller cabin-type building near the entrance gates, some car parking spaces, existing 15m monopole support structure with omni and panel antennas attached and fencing, with mature trees along the eastern and southern boundaries of the property. The Garda Station car park adjoins the subject site immediately to the west, Rathcoole Shopping Centre further west, Rathcoole Health Centre to the east and residential properties are located to the south. The subject site is within the curtilage of Rathcoole Garda Station, located to the north of the Eir property.

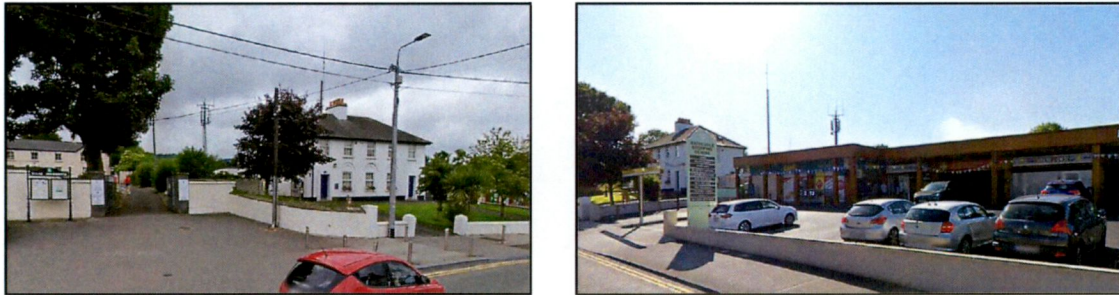


Figure 1 & 2: View towards Eir Exchange from nearby Main Street

With the proposed replacement structure at the Eir property there is an opportunity for additional operators to co-locate as the proposed 15m high lattice support structure will have capacity to cater for additional equipment as required.

Given the current demand for co-location at this site, Eir (Eircom Limited) seek planning permission for the proposed replacement support structure (a 15m lattice tower). The proposed structure would be capable of accommodating the necessary additional equipment and antennas to facilitate multiple operators. The proposed development also includes provision of additional equipment cabinets at ground level within a fenced compound area. As demonstrated in the enclosed Vodafone Site Justification (see Appendix A), the proposed development will provide increased structural capacity to install radio link dishes to allow backhaul transmission capacity from surrounding sites to be aggregated back to this high-capacity fibre Point of Collection within the Eir exchange. The proposed replacement also provides Vodafone the ability to install directional sector antenna which allow more advanced 4G and new 5G technologies to be deployed. The proposed upgrade will enhance the service to Rathcoole by providing increased deep in-building 2G and 3G coverage levels and allowing Vodafone to deploy the latest 4G and 5G enhanced technologies which will result in significantly improved voice and mobile broadband data services to Vodafone customers in the area.

The rationale for the proposed development is to improve the coverage and capacity of mobile telecommunications and broadband services in this area of Rathcoole, consistent with the South Dublin County Development Plan 2022-2028 policies and the recommendations under national policy as set out under the Telecommunications Antennae and Support Structures Guidelines for Planning Authorities (1996) and Circular Letter PL07/12 which updated certain sections of the Guidelines.

3.0 TECHNICAL JUSTIFICATION

This Technical Justification will demonstrate that a replacement telecommunications site will provide and improve the coverage and capacity of mobile telecommunications services in this area of Rathcoole. The proposed new support structure would increase equipment load capacity and provide additional space to allow for co-location and future demands of operators. The below image from ComReg Siteviewer (Figure 3) identifies the existing telecommunications site in the surrounding area, including the existing installations on the monopole (to be replaced) at the Eir property, which currently accommodates Three Ireland and Tetra Ireland.

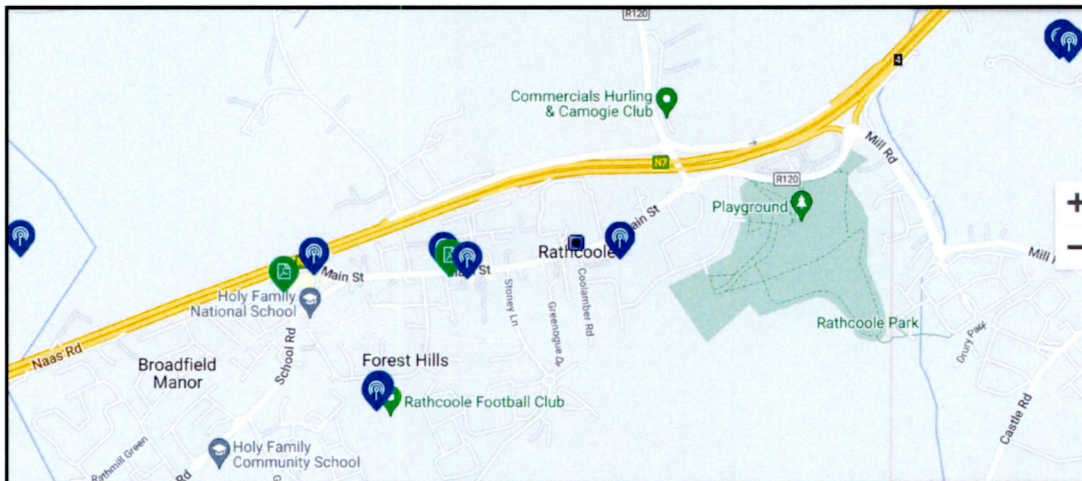


Figure 3: Comreg siteviewer showing nearest existing telecommunications sites in the surrounding area

The nearest existing sites include;

- Three Ireland and Tetra Ireland on 15m monopole at subject property
- Vodafone and Eir Mobile are located at the Rathcoole Inn approximately 400m to the west of the subject site
- Eir Mobile and Three Ireland are located at Rathcoole Football Club approximately 750m southwest of the subject site
- Three Ireland are located on the rooftop of a commercial premises approximately 800m west of the subject site
- Vodafone, Three Ireland and Eir Mobile are located at the Citywest Hotel approximately 1.2km northeast of the subject site.

As this demonstrates, the various operators are already utilizing the existing suitable telecommunications structures by co-locating with other operators in the surrounding area where possible. As such, we have identified the subject site, an existing telecommunications location at the Eir property, with significant potential for upgrading to a multi-user telecommunications site. In order to fully demonstrate the need for a multi-user telecommunications site at this location, we have provided the existing coverage plots for Eir Mobile, Three Ireland and Vodafone which shows the existing quality of 4G coverage in the area. Figures 4, 5 and 6 below show the existing 4G coverage that these operators provide in the area.

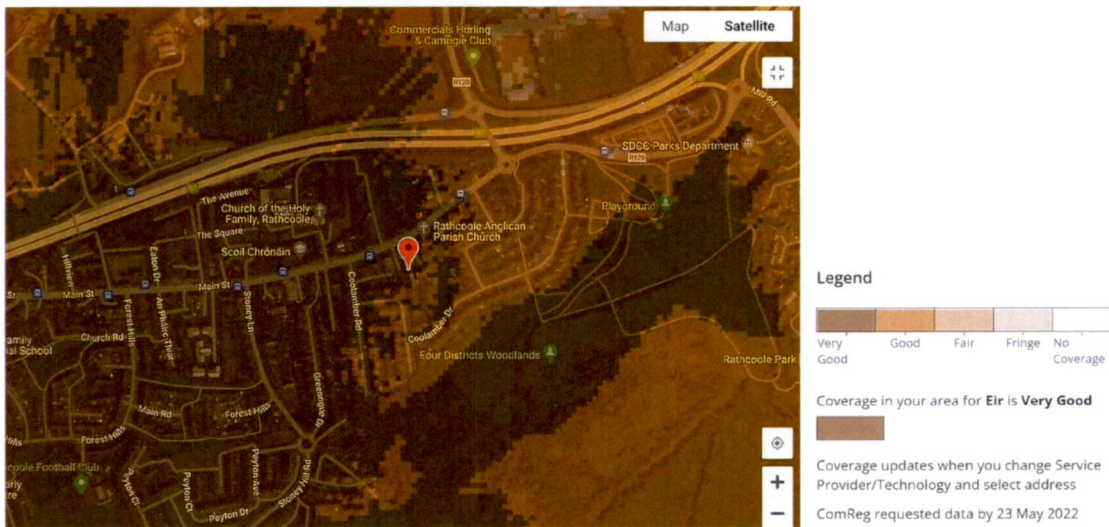


Figure 4: Eir Mobile 4G coverage footprint in the area **without** proposed site at Eir property

Reference: ComReg’s website <https://coveragemap.comreg.ie>

As noted in the coverage map and corresponding legend, the coverage at the subject site is stated as “Very Good” however the proposed infrastructure will have potential to provide capacity for Eir Mobile to install equipment and improve coverage, where surrounding areas are “Good”.

Similarly, using the ComReg map service to show Three Ireland’s coverage, the ComReg plot demonstrates the current level of Three Ireland 4G coverage in the area (Figure 5 below). The coverage map and corresponding legend demonstrates that the existing 4G coverage at the subject site is stated as “Very Good”. However, the proposed infrastructure will have potential to provide capacity for Three Ireland to install equipment and improve coverage, where nearby areas to north and east are “Good”.

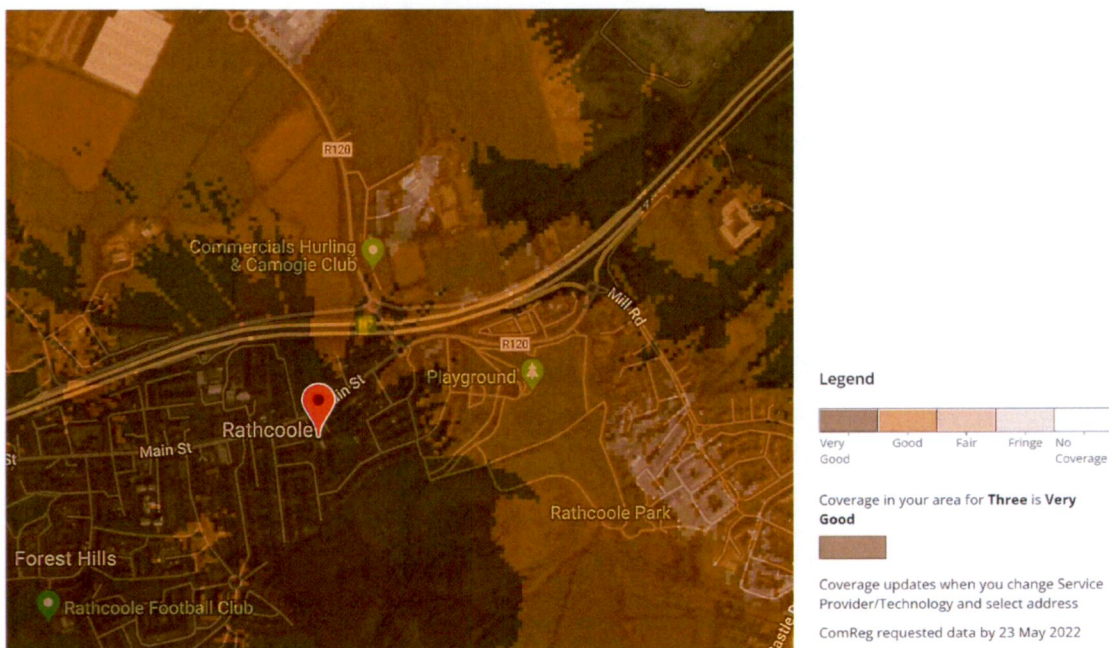


Figure 5: Three Ireland 4G coverage footprint in the area **without** proposed site at Eir property

Reference: ComReg’s website <https://coveragemap.comreg.ie>

Finally, we have provided similar coverage plots (see Figure 6) for Vodafone. The level of 4G coverage for Vodafone in this area is identified as “Very Good”, however the proposed infrastructure will provide capacity for Vodafone Ireland to install equipment and improve coverage, where surrounding areas are “Good”.

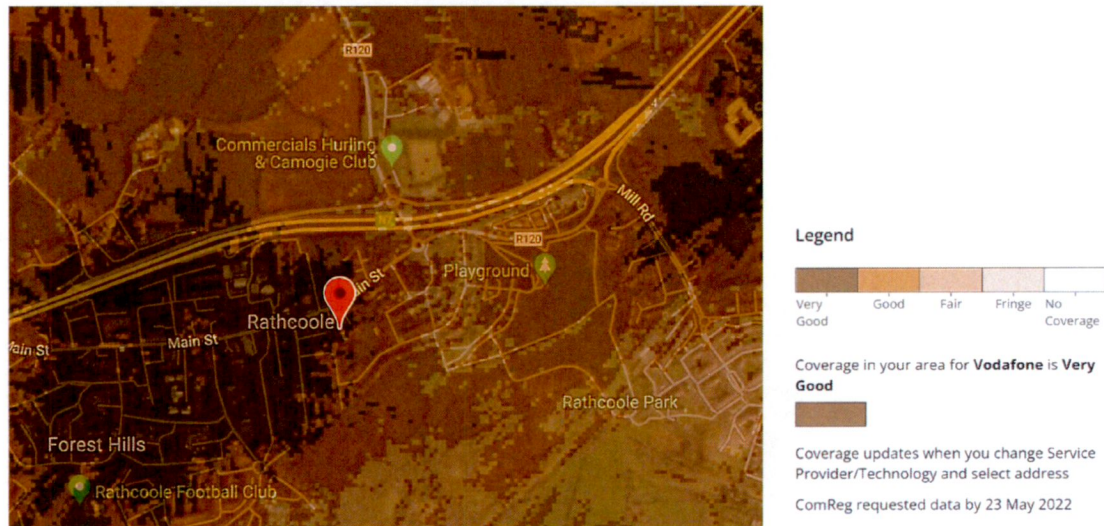


Figure 6: Vodafone 4G coverage footprint currently in the area without the proposed site at Eir property

Reference: ComReg’s website <https://coveragemap.comreg.ie>

Furthermore, Vodafone have provided more details and coverage plots of the potential benefits of the proposed development to their network in the enclosed Site Justification Report (Appendix A), which would allow Vodafone to install point to point radio link dishes to connect surrounding sites and to also install panel antenna to facilitate the deployment of 2G, 3G and 4G services.

It is important to note that both Eir and Towercom, as multi-operator infrastructure providers wish to develop and facilitate the subject site for the benefits of all stakeholders, operators and consumers alike encouraging the co-location of equipment on their structures. As such we have identified this existing telecommunications site with significant potential to allow for the co-location of additional operator’s equipment. In this regard, the proposed site will be made available to all interested operators for co-location purposes including with national mobile operators, national and local broadband providers. With this proposal, there will be a reduction in the demand and proliferation of telecommunications structures throughout the country.

4.0 NATIONAL AND COUNTY POLICY AND GUIDELINES

4.1 Department of Environment Heritage and Local Government, Telecommunications, Antenna and Support Structures (Guidelines for Planning Authorities – 1996) and Circular PL07/12

Government policy for the development of telecommunications infrastructure is set out in the Department of Environment, Heritage and Local Government Telecommunications Antennae and Support Structures (1996) and Circular Letter PL07/12 which updated certain sections of the Guidelines. Both policy documents place significant emphasis on the importance of co-location and new telecommunications structures being used by more than one operator. The current proposal at the Eir property would facilitate co-location of operators, in accordance with the telecommunications guidelines. Circular PL07/12 acknowledges that 'mobile telephony, with associated ground-based antennae and support structures, will remain a key feature of telecommunications infrastructure for the foreseeable future'.

The proposed lattice support structure and foundation will ensure the site is suitable for both proposed and future loading for additional telecommunications operators to co-locate on the tower. The proposed 15m lattice is the preferred method of support at this location, structurally capable of supporting the loads of both equipment and environmental loads without movement. As such it is considered the most suitable of multi-user telecommunications support structures. The proposed replacement structure will provide increased structural capacity for other operators to co-locate upon. In this regard, the proposed site will be made available to all interested operators for co-location purposes including with national mobile operators, national and local broadband providers.

It is considered that the use of an existing utilities property and replacement of an existing telecommunications site to expand and enhance voice, data and mobile broadband service is in accordance with the Telecommunications Guidelines and Circular Letter PL07/12.

4.2 South Dublin County Development Plan 2022-2028

4.2.1 Development Plan Policies and Objectives

In their new Development Plan, South Dublin County Council recognise the importance of telecommunications services and seek to promote and facilitate the provision of telecommunication infrastructure throughout the County in order to achieve social and economic development, whilst protecting the amenities of urban and rural areas.

- IE5 Objective 1:

To promote and facilitate the provision of appropriate telecommunications infrastructure, including broadband connectivity and other innovative and advancing technologies within the County in a non-intrusive manner.

- IE5 Objective 3:

To permit telecommunications antennae and support infrastructure throughout the County, subject to high quality design, the protection of sensitive landscapes and visual amenity.

- IE5 Objective 4:

To discourage a proliferation of telecommunication masts in the County and promote and facilitate the sharing of facilities.

- IES Objective 5:

To ensure that above ground utility boxes are sensitively located and finished to reduce their visual impact, designing out anti-social behaviour and promoting soft planting around existing and new ones where feasible.

- IES Objective 6:

To require the identification of adjacent Public Rights of Way and established walking routes by applicants prior to any new telecommunication developments and to prohibit telecommunication developments that impinge thereon or on recreational amenities, public access to the countryside or the natural environment.

- IES Objective 7:

Ensure that applications made in relation to the provision of overground telecommunications infrastructure, including planning applications and Section 254 licence applications, take into consideration and demonstrate compliance with the 'Guidance on the Potential Location of Overground Telecommunications Infrastructure on Public Roads' (2015).

It is submitted that the current proposal meets the aims, objectives, policies and design and development standards of South County Council by;

- Locating at an established utilities property
- Replacing an existing telecommunications site (monopole to be removed)
- facilitating co-location with multiple users
- reducing the potential number of free-standing structures in the area.

The Guidelines for Telecommunications 1996 state that sites already developed for utilities should be considered and installations should be designed and adapted for the specific location. In this case, the existing infrastructure (15m monopole) is unsuitable to further accommodate multi-operator equipment and so it is proposed to replace it with a lattice support structure of increased structural capacity. The proposed installation would specifically facilitate co-location for the communications sector, with potential for additional operators to locate on the new structure, providing improved mobile and data services in the area. In this regard, the proposed site will be made available to all interested operators for co-location purposes including with national mobile operators, national and local broadband providers.

In accordance with South Dublin County Development Plan policies, it is considered that the current proposal to replace a long-established telecommunications site, providing a more substantial structure capable of co-location, at an established telecommunications site and Eir Exchange meets the balance between facilitating the delivery of improved telecommunications infrastructure and the protection of the built and natural environment. With this application for the proposed new lattice tower, it is considered that the suitability of the area for such development has been demonstrated through the established utilities buildings on the property and existing telecommunication use.

5.0 VISUAL IMPACT OF PROPOSED TELECOMMUNICATIONS INSTALLATION

5.1 Location at an Existing Telecommunications Site

This planning application is for the construction of multi-user infrastructure, comprising a replacement lattice support structure and the addition of new telecommunications antennas, dishes and associated equipment, together with new ground equipment cabinets. The proposal is to replace an existing telecommunications structure (15m monopole). The subject site, an Eir property, is an established utilities property with a history of telecommunications use. It is submitted that the current monopole installation is an accepted part of the telecommunications infrastructure in the area and a familiar part of the skyline without unduly affecting the visual impact.

5.2 Potential for Co-location

In line with national and local policy, it is Eir's policy to facilitate other operators in co-locating upon its structures. However, to allow co-location opportunities at this location and to meet the coverage requirements for potential operators, a replacement support structure is required.

Having regard to the guidelines relating to Telecommunications Antennae and Support Structures which were issued by the Department of the Environment and Local Government to planning authorities in July, 1996, the provisions of the South Dublin Development Plan 2022-2028 which encourages co-location of antennae on existing structures, and the provisions of the Planning and Development Regulations 2001-2015 in respect of exempted development for telecommunications, it is considered that there are no particular circumstances arising that would necessitate the limiting of future co-location of telecommunications equipment at this location. Furthermore, having regard to the subject utilities site already developed with telecommunications infrastructure, we consider the proposed co-location of equipment on a new lattice tower would not intrude on the setting or amenities of the area. As such, we submit that there is sufficient justification for the future co-location of antennas to be accommodated at this location. In this regard, we would respectfully request South Dublin County Council to grant permission for the proposed development without any conditions limiting additional future antennas, in the interest of avoidance of a multiplicity of telecommunications structures in the area. It is important to note that the Planning and Development Regulations set conditions and limitations for exempted development in regard to co-location of telecommunications equipment in the interest of visual impact.

5.3 Visual Impact

This planning application proposes to replace an existing monopole support structure with a new lattice tower of same height, thereby avoiding a proliferation of new freestanding structures in the area. This planning application includes photomontages from viewpoints of the proposed replacement structure at selected locations surrounding the subject site (see Appendix B). The selected viewpoints take into consideration the nearby Protected Structure (Rathcoole Garda Station), village location and nearby residential areas. The inclusion of the photomontages is useful to determine the significance of the visual impact on the surrounding area including within the village, nearby roads and populated areas. We consider the photomontages demonstrate that the proposal would not result in a significant visual impact in the surrounding environment (see photomontages in Appendix B).

Similar to all infrastructure such as streetlighting, floodlights and electricity pylons, there is a degree of visual impact. However, the location to the rear of the Garda Station, between exchange buildings, has the benefit of being set back from the main street and residential areas, as well as screening by nearby buildings and mature planting, which we consider greatly reduces the visual impact of the existing and proposed development. However, where the structure will be visible due to its increased size, it is submitted that views of the structure will be intermittent and fleeting and will blend with

other existing tall structures in the locality, such as nearby streetlights, electricity poles and road signage.

A combination of the adjoining buildings, including the Exchange buildings, mature trees and vegetation, would largely screen the proposed infrastructure, although the upper sections would be visible from some areas in the surrounding area. Along the nearby roads and walking routes, the upper section of the proposed structure may be visible but not as a terminating view. Although partially visible, the structure would not appear visually obtrusive considering the location to the rear of the site and within an established utilities property and level of natural screening in the area.

Taking into account the local factors, such as the adjoining Exchange buildings and trees, the multiplicity and range of roofscapes in the Main Street, existing vertical structures such as streetlights and existing telecommunications installations, the position of the lattice tower to the rear of the Eir property and set back from the main road, it is considered the proposed infrastructure would not be overly noticeable or intrusive in the surrounding area. Telecommunications installations are a familiar element of the modern landscape in Ireland, and the subject site has a history of telecommunications use. The position of the site, to the rear of the Eir property and adjoining mature planting along its boundary, are all considered further mitigation measures. As such, it is submitted that impact of the proposed telecommunications structure on the visual amenities of the area would be acceptable.

6.0 COMPLIANCE WITH ICNIRP (INTERNATIONAL COMMISSION FOR NON-IONISING RADIATION PROTECTION)

The Commission for Communications Regulation (ComReg) regulates the communications industry including the existing telecommunications installation at the Eir property in Rathcoole. It is the statutory body responsible for the regulation of the electronic communications sector (telecommunications, radio communications and broad casting transmission) and the postal sector. It is the national regulatory authority for these sectors in accordance with EU law which is subsequently transported into Irish legislation. Compliance with emission limits is regulated nationally by the commission for communications Regulation. A licence to provide a telecommunications network is subject to compliance with strict commission controls. The limits are specified by the international Commission for Non-ionising Radiation Protection, (ICNIRP). Regular measurements of emission levels are required to comply with the international Radiation Protection Associations guidelines. The role of the commission for communication regulations is to ensure that such guidelines and procedures are complied with. It is a requirement that all equipment located on such structures comply with ICNIRP standards and this is the also the case for the existing and proposed installations at the subject site.

7.0 CONCLUSION

It is widely accepted that telecommunications infrastructure, particularly wireless technology, is undergoing significant changes in the last number of years. Advances in wireless technology and communication devices has put significant pressure on the wireless telecoms network throughout the country, network operators are constantly upgrading and modifying their networks to keep pace with this demand. There has been significant investment made at this telecommunications site in Rathcoole and others in the South Dublin area to provide comprehensive service, and now potentially by other licence operators who wish to co-locate in order to provide coverage to the local community.

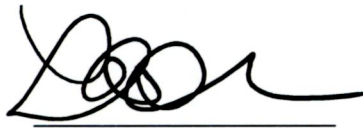
The subject proposal to replace an existing telecommunication site (15m monopole) at an established utilities site will ultimately avoid a proliferation of free-standing communications masts and antennae in this area and facilitate the potential for future mast sharing and co-location. The new lattice tower structure would be of use multiple operators in improving mobile and data services in

the area, as well as emergency services operators. The proposed development of this site would maximise the coverage of the immediate area and provide a comprehensive service by multi-users.

The South Dublin Development Plan, DoE Guidelines for Telecommunications Antennae and Support Structures (1996) and Circular Letter PL07/12 place significant emphasis on the importance of co-location and new telecommunications structures being used by more than one operator. High quality telecommunications services are vital for the attraction of industry and in the development of small businesses. As stated in the Government's taskforce report (2016:11) 'Delivering better mobile coverage to consumers means locating more masts in the most suitable locations from an engineering perspective'. It is therefore logical that the upgrading of infrastructure at this existing telecommunications site and its use for further colocation purposes, in a suitable location (as demonstrated by the site's history of telecommunications use) should be encouraged and facilitated.

Having regard to the demonstrated need for improved and additional telecommunications services in the area, the proposed replacement of an existing telecommunications infrastructure in an established utilities site, we consider that the construction of a new lattice support structure is justified and acceptable under the South Dublin County Development Plan, the Guidelines for Telecommunications Antennae and Support Structures 1996, as updated by Circular Letter PL/07/12 and the report of the Mobile and Broadband Taskforce. We trust South Dublin County Council considers this application favourably and grants permission for the proposed telecommunications installation at this site.

Yours faithfully,



Towercom Limited

APPENDIX A:

VODAFONE SITE JUSTIFICATION



Vodafone ID:	TDU6016
Site Name:	Rathcoole Exchange
Date:	13/10/2022

Radio Engineering Site Justification:

Rathcoole exchange is on Vodafone National fibre ring and the new structure provides increased structural capacity for the Vodafone to install radio link dishes to allow backhaul transmission capacity from surrounding sites to be aggregated back to this high-capacity fibre Point of Collection (PoC) within the Exchange. The height of 15m provides Vodafone with line-of-sight range to surrounding sites to enable them to be connected via point-to-point radio link dishes to this high-capacity network.

The proposed upgrade by Towercom to a 15m lattice support structure at the exchange also provides Vodafone the ability to install directional sector antenna which allow more advanced 4G and new 5G technologies to be deployed.

The upgrade will enhance the service to Rathcoole by providing increased deep in-building 2G and 3G coverage levels and allowing us to deploy the latest 4G and 5G enhanced technologies which will result in significantly improved voice and mobile broadband data services to Vodafone customers in the area.

The following show the benefits of proposed Upgrade.

Figure 1: Existing Monopole Structure.

Figure 2: Rathcoole Exchange is a proposed Point of Collection (PoC) on Vodafone's national Fibre network. The PoC allows aggregation of surrounding sites via radio link dishes to a high-capacity fibre access point in the exchange. This fibre connectivity allows Vodafone to provide enhanced 4G and new 5G service on Vodafone sites connected to this network. The proposed sites to be connected are shown.

Figure 3: 2G and 3G coverage levels from proposed upgrade by Towercom. There is an increase in 'Very Good' coverage to the area. The increase in 'Good' coverage extends to the surrounding area and overlaps with coverage from nearby sites allowing a greater continuity of service for customers in the area.

Figure 4: 4G coverage levels from proposed upgrade. The proposed upgrade will significantly improve 4G and future 5G coverage giving good and very good coverage levels to the Village.



	Fair	Variable signal and data speeds may be harder to be attained, marginal data with dropouts is possible at weaker signal levels	Variable data speeds may be harder to be attained, but marginal data with dropouts is possible at weaker signal levels
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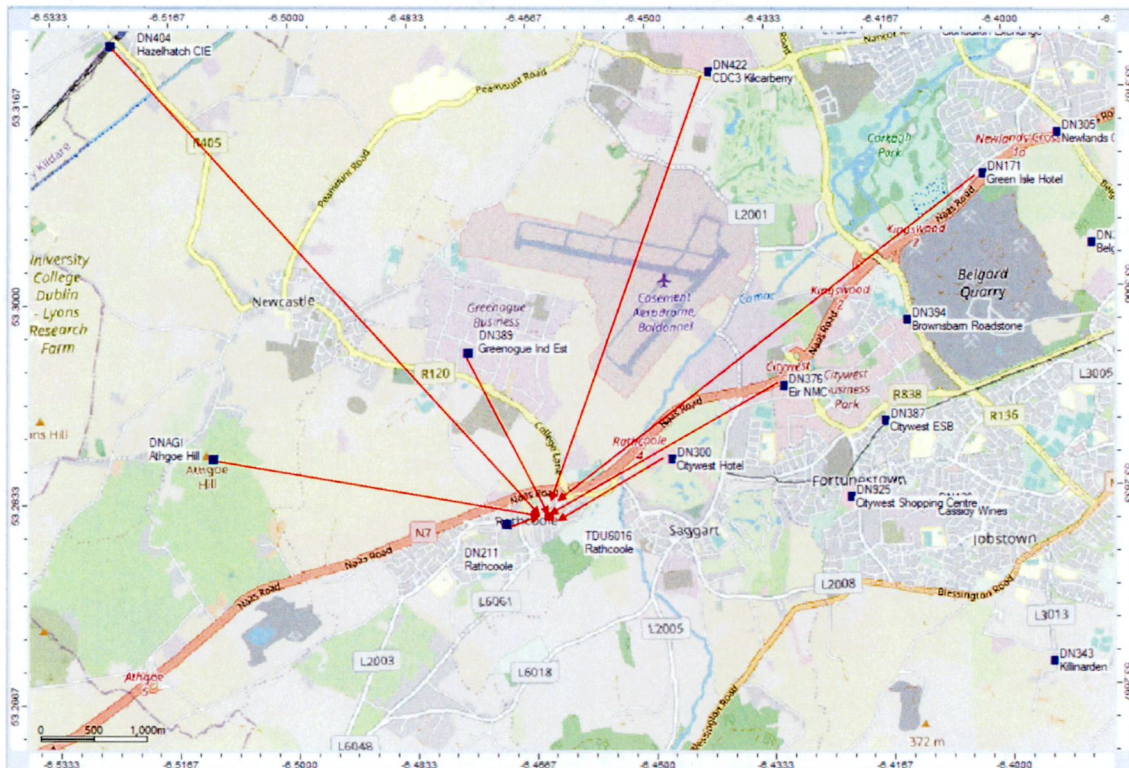
Figure1. Existing Structure in Rathcoole



The existing structure currently has Eir and Tetra networks co-located on it and has limited available free loading capacity . The swap to a lattice tower increases loading capacity and allows Vodafone install point to point radio link dishes to connect surrounding sites and to also install panel antenna to allow us deploy 2G, 3G and 4G services.



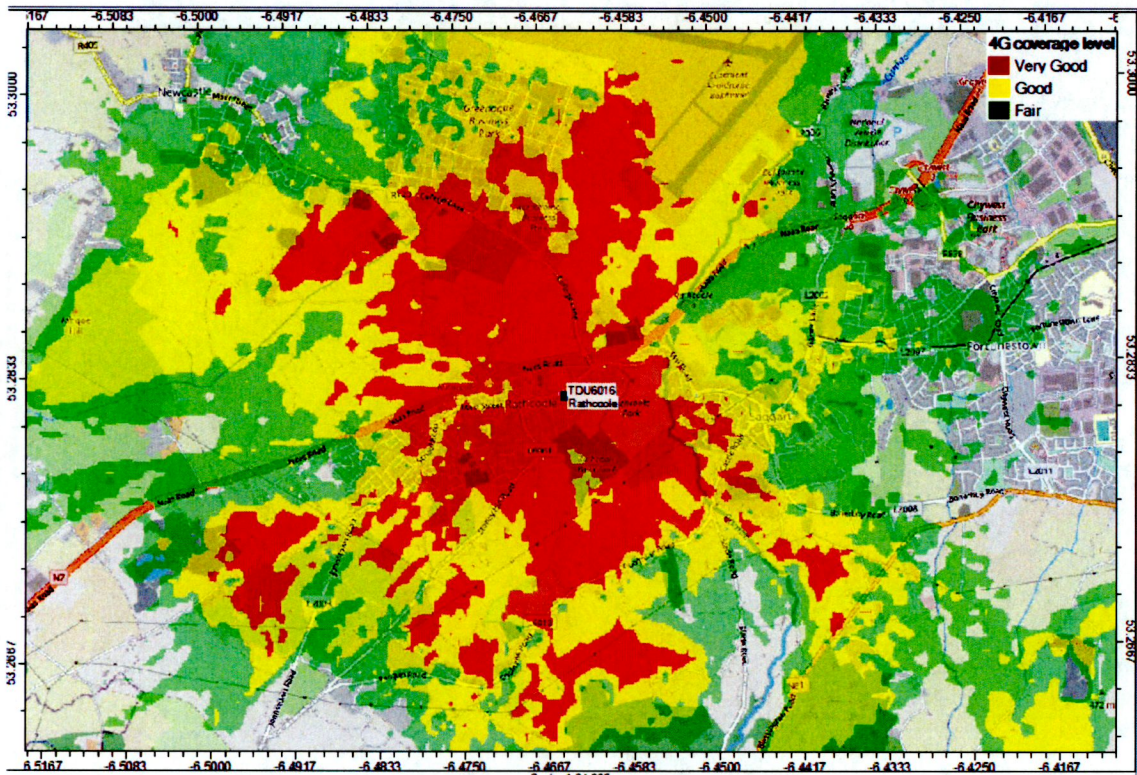
Figure 2: Aggregation of surrounding Vodafone sites via radio link dishes to Fibre PoC in Rathcoole Exchange



Towercom proposed support structure of 15m gives increased structural capacity for Vodafone to install Site to Site radio link dishes. This allows these sites to be connected into Vodafone's high capacity fibre transmission network located in the exchange. These connected sites will experience increased capacity uplift for 4G and future 5G services.

8 sites connected directly to TDU6016 Rathcoole Exchange:

1. DN211 Rathcoole
2. DNAGI Athgoe Hill
3. DN404 Hazelhatch CIE
4. DN389 Greenogue Ind Estate
5. DN422 Kilcarberry
6. DN171 Green Isle Hotel
7. DN376 Eir NMC
8. DN300 Citywest Hotel



APPENDIX B:

PHOTOMONTAGES OF PROPOSED TELECOMMUNICATIONS INSTALLATION