ESB TELECOMS

PLANNING STATEMENT

In Support of a Planning Application to seek permission for to construct a 25 metre high free standing monopole type structure carrying antenna and communication dishes, within an existing 2.4m high palisade compound at ESB's Palmerstown 38kV Substation, Kennelsfort Road Upper, Palmerstown, Dublin 20.

February 2022

CONTENTS

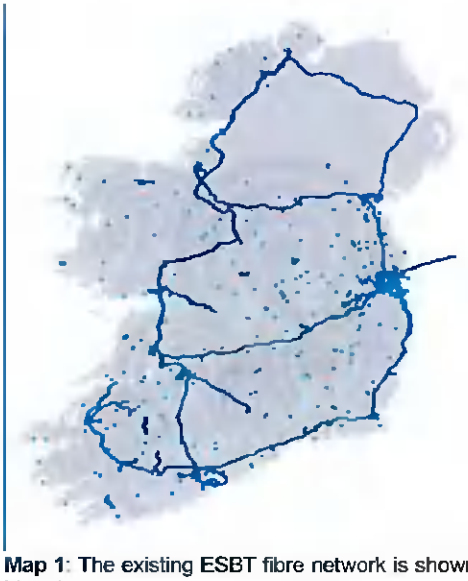
Appendix

1. BACKGROUND TO ESB TELECOMS LTD

1.1 CREATION OF ESB TELECOMS LTD

ESB Telecoms Ltd was established in early 2001 as a subsidiary company to ESB, Ireland's premier electricity supplier. Since that time ESB Telecoms has become Ireland's leading independent telecommunications infrastructure provider, delivering high quality, turnkey communication network solutions.

ESB Telecoms has grown from its original function of providing a communications system for our parent company, ESB. This communications system is called Supervisory Control and Data Acquisition (SCADA) and is still used today to monitor, control and remotely operate the ESB's complex electricity network infrastructure. The SCADA system continues to be upgraded as it is a vital part of radio and transmission communication for ESB's maintenance and repair crews.



Map 1: The existing ESBT fibre network is shown in blue lines with the tower infrastructure denoted with a blue dot.

1.2 FUNCTION OF ESB TELECOMS LTD

ESB Telecoms Ltd now provides network solutions for a wide variety of mobile network operators, wireless broadband providers, as well as transferring data for the SCADA network. Over the last 2 and a half decades of operating in the Irish market, we have grown a substantial external customer base, supporting a wide range of private telecoms providers. ESBT's portfolio of sites also support a broad range of public sector telecoms activities such as council run fire departments, Enet – the national operator of local urban fibre networks, as well as Tetra who are a major customer specialising in the delivery of nationwide coverage to blue light services (Garda, Fire and Ambulance services).

It is ESB Telecoms Ltd policy to design and construct our communication structures to the highest international standards. All sites developed by ESB

Telecoms are made available at market rates to our customer base, namely any registered telecommunications player in the Irish market, as points for co-location. Customers can rent space from ESBT allowing them to locate their base station equipment on ESBT sites, allowing them to provide mobile and broadband coverage from these ESBT sites, using mainly 3G and 4G networks. This policy aims to limit the number of such structures appearing in urban and rural landscapes.

ESB Telecoms built and owns a 1,600 kilometre national fibre optic network (NTFON). The NTFON is constructed in a 'Figure of Eight' around Ireland and also includes a spur from Carrick-on-Shannon to Buncrana, now connected back to Dublin via BT (NI). This network also incorporates extensive fibre ducting throughout the Dublin and Cork metropolitan areas. ESBT presently have approximately 150 tower sites connected directly to our NTFON network, allowing virtually limitless backhaul (data connectivity) to data centres and the wider internet.

The imminent roll-out of next generation mobile broadband services will offer more opportunities to ESB Telecoms to offer well-connected, well-maintained telecommunication infrastructure capable of delivering virtually limitless backhauling capacity to our customers, the network operators, via our own NTFON network.

2. SITE AND CONTEXT

2.1 NATURE OF THE SITE

The subject site is situated at ESB's Palmerstown 38kV Substation, located immediately south of the N4 and adjacent to Kennelsford Road Upper and Woodfarm Drive, Palmerstown. The proposed development is bounded by the existing ESB substation to the immediate north and east, with the dwellings of Kennelsworth Road Upper and The Coppice located beyond the substation. Public open space surrounds the site to the south and west. The existing telecoms site is in use by Eir (formerly Meteor) and Three Ireland and comprises an existing 18m high shrouded monopole along with a disused electricity pylon. The shrouded monopole is no longer suitable for the provision of modern services for both operators from this location. A technical justification from Eir accompanies this statement and is included in **Appendix 1** which sets out the need for a separate structure to accommodate modern services from this site.

2.2 NATURE OF THE DEVELOPMENT

It is proposed to construct a 25m high monopole type structure capable of co-locating up to three operators for the redeveloped site. In due course ESBT would envisage both operators relocating onto the newer structure. The site is zoned Objective RES, "to protect and improve residential amenity" in the current County Development Plan (CDP) for the area. The proposed development envisages the replacement of a disused pylon structure with a slimline monopole type structure, capable of servicing telecoms needs of the area into the future. The uptake in working from home in recent years has led to significant strain on suburban telecommunications networks and the proposed upgrade of this site should be considered with this in mind.

The breakdown of equipment co-located at this site is as follows:

- Three Ireland 3 Antennae 1 Dish (shared)
- Meteor 3 Antennae 1 Dish (shared)
- Existing 18m monopole
- Existing 13m disused pylon

The existing communication compound is enclosed within a 2.4 metre high palisade fence. The proposed site has a long-standing history as being in use as a mobile telecoms site with Three Ireland (formerly O2) locating at this location since been in use as a telecoms compound for

2.3 PLANNING HISTORY

In 1998 Esat Digifone applied to South Dublin Co. Co. (SDCC) the 21st April 1998 for an 18m high monopole type structure for the provision of GSM services. The application was granted permission by SDCC the 16th June 1998 for a period of 5 years, in line with Government policy at the time.

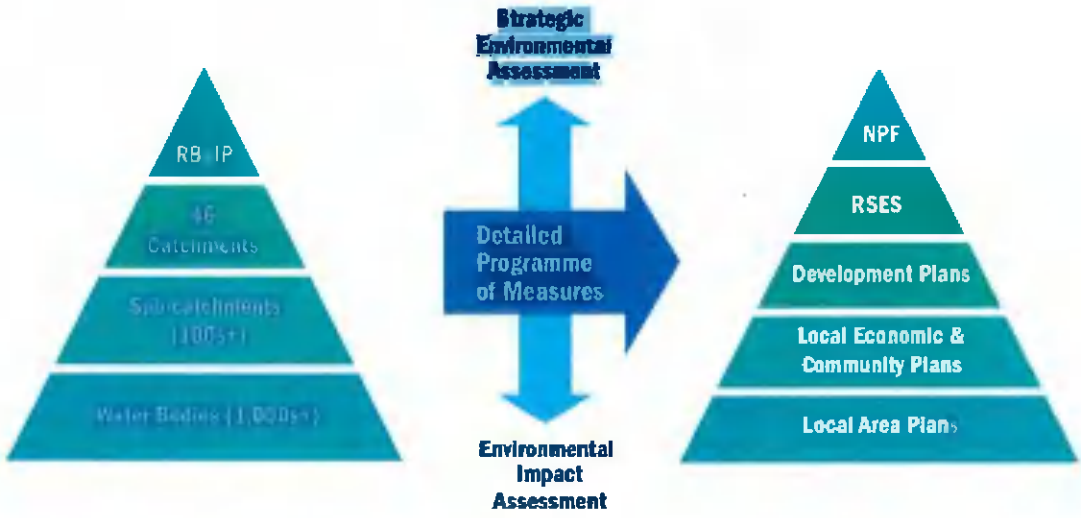
A planning application was submitted to South Dublin County Council by O2 Communications in 2004 (planning reference SD03A/0709) to retain the existing 18m monopole. This application was granted permission by SDCC for a period of 5 years.
A further application was made by O2 in 2008 (planning reference number SD08A/0058) to retain said structure, which was granted by SDCC for a period of 5 years.

A final retention application was made to retain the existing 18m shrouded monopole by Telefonica Communications the 9th December 2014 under planning reference number SD14A/0270. This application was granted a permanent permission by SDCC the 5th February 2015.

3. NATIONAL, REGIONAL & LOCAL PLANNING POLICY CONTEXT

The proposal is now set out in terms of its planning policy context from the national, regional and more local level.

Figure 9.1 | Hierarchical Structure of RBMP and Planning Policy



Picture 1: Taken from the NPF 2018-2040.

3.1 NATIONAL PLANNING FRAMEWORK (NPF) (PROJECT IRELAND 2040) & THE NATIONAL DEVELOPMENT PLAN (NDP) 2018-2027

The NPF was published in 2018. It is the Government's high-level strategic plan for shaping the future growth of Ireland to the year 2040. It sets out both the National Strategic Outcomes (NSOs) and National Policy Objectives (NPOs) for the future growth and sustainable development of the country to 2040.

The NSOs cover a wide range of themes such as enhanced regional accessibility, strengthened economies and communities. The proposed development would help support the likes of NSO5 that relates to a strong

economy supported by enterprise, innovation and skills, and whereby sustainable full employment will be achieved in part through digital and data innovation; for example, supporting the implementation of the National Broadband Plan and promoting our cities as demonstrators of the latest information and communications technology.

NPOs support the NSOs, The NDP sets out the investment priorities that will underpin the NPF, including the latest information and communications technology.

The current proposal is in accordance with the NPF and NDP and will contribute to the overall NSOs and NPOs contained therein.

3.2 National Broadband Plan 2012

The National Broadband Plan recognises 'the importance of digital engagement for Ireland, both economically and socially' and the Government commitment to the rollout of high-speed broadband.

In order to drive commercial rollout of high-speed broad band:

'The Government is committed to a range of actions that will facilitate the more efficient rollout of infrastructure including addressing planning and road opening challenges, assisting getting citizens and businesses online, measures relating to spectrum technology and maximising the use of State assets where possible.'

It is envisaged that 'once completed all parts of Ireland will have access to a modern and reliable broadband network, capable of supporting current and future generations.'

In the most recent update on the National Broadband Plan roll-out map Palmerstown is shown as a 'Blue area' where commercial operators are delivering or have indicated plans to deliver high speed broadband services. Operators are continuing to enhance their services in these areas to improve access to high-speed broadband.'

Eir and Three, currently operating from the site are two such operators delivering broadband into the Palmerstown area. The proposed development would contribute to the objectives of the National Broadband Plan.

3.3 Regional Spatial and Economic Strategy (RSES: Eastern & Midland Regional Assembly (EMRA) 2019-2031

The RSES is a strategic plan which identifies regional assets, opportunities and pressures and provides appropriate policy responses in the form of Regional Policy Objectives. At this strategic level it provides a framework for investment to better manage spatial planning and economic development to sustainably grow the Region to 2031 and beyond. The EMRA made the RSES on the 28th June 2019.

The principal statutory purpose of the RSES is to support the implementation of Project Ireland 2040 – National Planning Framework and National Development Plan 2019-2027 and the economic policies of the Government by providing a long-term planning and economic framework for the development of the Region.

The importance of connectivity is made throughout the RSES to realise the potential of Dublin and its wider metropolitan area, within which the application site is a part. For example, Chapter 8; Connectivity: 'Section 8.6 Communications Network and Digital Infrastructure' acknowledges that the increasing use of digital technologies is impacting on every aspect of our lives: from transport, to education, leisure and entertainment and health services. Infrastructure to deliver better connected services is vital to our continued growth, supporting businesses and enhancing our communities....'

While the RSES is a high-level strategic document, the importance of good communications of which the subject proposal is a part will contribute to the realisation of the RSES, its overall vision and objectives. ESBT consider that the proposed development will aid in the continued delivery and upgrading of vital telecommunications infrastructure and enable the site to continue to form an integral link in the mobile operators' wireless broadband network in the Palmerstown locality and the wider surrounding area.

3.3 SOUTH DUBLIN COUNTY DEVELOPMENT PLAN 2016 – 2022

The South Dublin County Development Plan (2016-2022) sets out policies and objectives to guide how and where development will take place in the county over the lifetime of the Plan. It provides an integrated, coherent spatial framework to ensure the county is developed in an inclusive way which improves the quality of life for its citizens, whilst also being a more attractive place to visit and work. The Plan was adopted by South Dublin County Council on 10th June 2016 and came into effect on 12th June 2016.

The development plan is generally positive towards the telecommunications infrastructure in appropriate locations. Chapter 7.4.0 relates specifically to Information and Communications Technology (ICT), in which the Council recognises that "the widespread availability of a high-quality Information and Communications Technology (ICT) network within the county will be critical to the development of the county's economy and will also support the social development of the county". The Development Plan lists as a stated action that South Dublin County Council will co-operate with service providers in securing a greater range and coverage of telecommunications services in order to ensure that people and businesses have equitable access to a wide range of services and the latest technologies as they become available.

Accordingly, it is the policy of the Council to promote and facilitate the sustainable development of a high-quality ICT network throughout the county in order to achieve balanced social and economic development, whilst protecting the amenities of urban and rural areas. The proposed development would facilitate the provision of state-of-the-art services for multiple operators from this long-standing telecommunications compound ensuring adequate broadband and mobile services are delivered into the area for the foreseeable future.

The proposed development would be in accordance with and aid in the delivery of several key objectives, notably **IE4 Objective 1** which seeks to "promote and facilitate the provision of appropriate telecommunications infrastructure, including broadband connectivity and other innovative and advancing technologies within the County." Furthermore, **IE4 Objective 3** aims to "permit telecommunications antennae and support infrastructure throughout the County, subject to high quality design, the protection of

sensitive landscapes and visual amenity." ESBT contend that the proposed slender monopole type structure proposed for this existing telecoms compound would constitute an appropriate design solution for this site while allowing for the provision of viable telecommunications services from this site into the future.

ESB Telecoms offer all our infrastructure to all telecoms providers at market rates, ensuring the proposed development would be in alignment with **IE4 Objective 4**, the aim of which is to "discourage a proliferation of telecommunication masts in the County and promote and facilitate the sharing of facilities. "The location of the proposed development, within an existing live substation, ensures there would not be any impingement on walking routes, as specified in **IE4 Objective 6**.

It is the policy of the Council to promote and facilitate the sustainable development of a high-quality ICT network throughout the County in order to achieve balanced social and economic development, whilst protecting the amenities of urban and rural areas. The following Objectives are pertinent to this application:

IE4 Objective 1:
To promote and facilitate the provision of appropriate telecommunications infrastructure, including broadband connectivity and other innovative and advancing technologies within the County.

IE4 Objective 2:
To co-operate with the relevant agencies to facilitate the undergrounding of all electricity, telephone and television cables in urban areas wherever possible, in the interests of visual amenity and public health.

IE4 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.

IE4 Objective 4:
To discourage a proliferation of telecommunication masts in the County and promote and facilitate the sharing of facilities.

The CDP Lists the following ICT actions:

- South Dublin County Council will co-operate with service providers in securing a greater range and coverage of telecommunications services in order to ensure that people and businesses have equitable access to a wide range of services and the latest technologies as they become available.

- The Planning Authority will create and maintain a register of app telecommunications structures supported by relevant databases in coope with operators.

In the consideration of proposals for telecommunications antennae and support structures, applicants will be required to demonstrate:

1. Compliance with the Planning Guidelines for Telecommunications Antennae and Support Structures (1996) and Circular Letter PL 07/12

issued by the DECLG (as may be amended), and to other publications and material as may be relevant in the circumstances,

2. On a map, the location of all existing telecommunications structures within a 2km radius of the proposed site, stating reasons why (if not proposed) it is not feasible to share existing facilities having regard to the Code of Practice on Sharing of Radio Sites issued by the Commission for Communications Regulation (2003),

The sharing of existing communication structures is promoted by the Council. Having regard to the site's history and use as a telecommunications base station since 1996, ESBT maintain that the continued use of this site would not impact unduly negatively on the surrounding properties. IE4 Objective 4 identifies the preference of co-location. The existing site is in line with this objective as the site is shared by a number of mobile network operators.

The Development Plan in Chapter 6: Economic Development, Section 6.5: Infrastructure & Communications Technology is also supportive to ICT in general, ensuring for example communications infrastructure is widely available. While the proposed development is in a residential area there are residential uses nearby and likely to be more residential uses in future therefore it is also worth noting that Objective ED108 seeks to 'Support the provision of home based economic activity that is subordinate to the main residential use of a dwelling and that does not cause injury to the amenities of the area.' This is particularly relevant in recent times where home working, along with normal usage has placed increased demands and reliance on a robust communications network.

3.4 DRAFT SOUTH DUBLIN COUNTY DEVELOPMENT PLAN 2022-2028

In July 2020 SDDC announced its intention to prepare the new Development Plan. Preparation of the Plan is well underway and following publication of the Draft Plan the period for public consultation ended on 15th September 2021. On 7th December 2021 Councillors began to consider Submissions received on the Draft Plan. The new Plan is due to come into effect in June 2022.

While it is acknowledged that the current proposal will be assessed against the current 2016-2022 Development Plan, due to the relatively advanced stage of the new Plan the subject application has also been prepared with regard to the provisions of the new Plan in mind.

With specific regard to Telecommunications Section 11.4 Information and Communications Technology states that 'The continued widespread availability of high-quality Information and Communications technology (ICT) networks within the County is critical to the development of the County's economy and to social progress. It will ensure that the County remains attractive to hi-tech knowledge-based industries providing for high value employment. It is also a huge asset to the residents of the County encouraging home working and individual entrepreneurial activity. The following Policy and Objectives are considered to be particularly relevant in this regard:

Policy IE5: Information and Telecommunications Technology (ICT)
Promote and facilitate the sustainable development of a high-quality ICT network 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.

Under proposed land-use Zoning Objective 'RES – "To protect and/or improve residential amenity', within which zoning 'Public Services' is a Use Class that is 'Permitted in Principle' and is to given due consideration when set against the policies set out in the CDP. The definition of Public Services includes Telecommunications as detailed in Appendix 6: Definitions of Use-Classes.

3.5 South Dublin County Local Economic and Community Plan (LECP) 2016-2021

The LECP sets out, for the period 2016-2021, the objectives and actions need to promote and support the economic development and the local and community development of the local authority area, both by itself directly and in partnership with other economic and community development stakeholders.

The continuation of service and coverage from existing mobile operators at this site, as well as the potential for enhanced coverage the apparatus on the new structure will facilitate will in the opinion of ESBT assist in the delivery of the overall vision and objectives of the LECP by ensuring residents, businesses and visitors to the area have the opportunity to avail of a high quality mobile and broadband network.

4 MINISTERIAL GUIDANCE

4.1 Telecommunications Antennae and Support Structures, 1996

4.1.1 Siting

It is stated in the guidelines that the design and siting of antennae support structures will, to a large extent, be dictated by radio and engineering parameters (**Section 4.2**). The proposed new tower would be located in an

area zoned for residential uses in the current development plan for the area, which zoning considers "public services" to be a permitted use. In terms of siting, the guidelines specifically state that "*substations operated by the ESB may be suitable for the location of antennae and support structures*" (**Section 4.3**).

4.1.2 Design and Visual Impact

The slender monopole design had been selected from ESB Telecoms' portfolio of structures as it is capable of carrying a sufficient quantum of equipment while being less impactful on the amenity of the area. The wider substation are contains several pylons carrying overhead lines and ESBT would contend that the introduction of a monopole into the area to cater for existing customers serviced from this site would not constitute an unduly negative development at this vital telecoms installation. Within the overall site context, ESB Telecoms Ltd do not consider that they are introducing a new feature to the landscape, and suggest that, when taken in conjunction with the removal of the existing disused pylon, the proposed structure will not be harmful to the character of the area. It was correctly chosen for its slender design married to its structural robustness, a significant engineering parameter, given the quantum of co-located equipment proposed to be facilitated on the tower in due course.

The 1996 Guidelines asserts that support structures should be kept to the minimum height consistent with effective operation. In order for a communication structure to operate effectively, unobstructed "point to point" contact needs to be achieved with other dishes and antennae in the area. As a consequence of this requirement, all modern communication structures need to be higher than the surrounding features. The site is well situated on a flat plain in proximity to the N4 view over the wider Palmerstown and Liffey Valley areas.

4.1.3 Co-Location

It is a primary aim of these guidelines to encourage local authorities to promote clustering and shared services at telecommunication masts, especially in suburban areas, with the aim of reducing visual intrusion across the landscape (**Section 4.5**). This site is an excellent example of co-location and shared services as all ESB Telecom sites are available to all operators to co-locate. The are currently 2 operators serving the Pamlerstown area from this site. Due to the need to upgrade to more modern equipment which cannot be serviced from the existing shrouded monopole located at the site currently, ESBT are proposing a new 25m monopole which will serve the needs of all operators going forward. In this instance ESB Telecoms Ltd continues to operate a policy of co-location, in line with current Ministerial Guidelines, and has substantially expanded its base of co-location partners since 2001. The proposed structure would to be made available to all existing and potential customers as a network solution for the imminent rollout of next generation broadband, thus reducing the proliferation of structures in the area.

4.2 CIRCULAR LETTER PL 07/12

4.2.1 Time-Limited Permission

Against a background of the rollout of next generation broadband (4G), the Department of the Environment, Community and Local Government issued updated guidance for local authorities in relation to telecommunications infrastructure.

We draw your attention to **Section 2.2** which advises planning authorities to cease attaching time-limited conditions to telecommunication masts as such structures will continue to play a vital role in delivering economic growth to the areas they service into the future.

4.2.2 Health Effects

With many developments of this nature, there may be public concerns about the perceived implications of telecommunications development, primarily in relation to the adverse health effects of the installation. ESB Telecoms Ltd regards the protection of the health, safety and welfare of its staff and the general public as a core company value in all its activities. Accordingly, it is ESB Telecoms policy to continually review and update standards in light of new developments and research findings.

Planning authorities are urged to concern themselves with design and siting issues only and should defer any health and safety issues and their monitoring to the relevant authorities, in this instance The Commission for Communications Regulation (ComReg).

ComReg is the licensing authority for the use of radio frequency in Ireland. As the licensing authority for radio communications in Ireland, ComReg is responsible for ensuring that communication operators comply with their license conditions relating to non-ionising radiation. In 2001 ComReg began the process of randomly testing communication sites to ensure compliance with the adopted ICNIRP and ComReg Standards. Since then, 109 ESB Telecoms sites have been tested, all of which have passed the standards.

Health and safety issues are referred to further in **Appendix 2,** along with ESB Telecoms' annual emissions test results for similar sites. A copy of the latest ComReg report on the Measurement of Non-Ionising Radiation Emissions is available on the Comreg website.

5.0 THE DEVELOPMENT IN CONTEXT

5.1 NEED FOR THE PROPOSAL

The need for the proposal is apparent when considering the coverage that currently exists in the area for both mobile phone coverage and in particular the delivery of broadband. The existing lack of coverage can be clearly seen by assessing site location and coverage map provided by ComReg https://coveragemap.comreg.ie/map. The mapping provided shows the coverage for operators on the nearest telecommunication sites in the wider

area. The Map below shows the location of the subject application, with the nearest telecommunication sites shown with blue pins (Map 2). Note, the green pins (Map 2) simply relate to sites where ComReg have published reports.

Map 1: Comreg Siteviewer showing sites within 1km radius of proposed development, as of 6th January 2022. Each circle denotes a telecoms compound, with the number representing the number of operator base stations in a given compound.

Map 2: Comreg Siteviewer ie showing base stations (blue markers) in the immediate vicinity of Palmerstown 38kV substation site.

As can be seen from the above map, typical modern base stations cells (mobile tower catchment areas) are significantly smaller than 2km in diameter. The reason for this is the exponential increse in data transfer rates now expected from end users. Each base station has a finite capacity for transfering data in a given area (known as a cell) so, as the level of activity in

a given cell increases, the cell size shrinks correspondingly. As can be seen from the above map 2, modern cells have radii of approximately 500m which overlap to ensure continued signal coverage while end users move through the city. As can be seen from the Technical Justification from Eir included with this application, this site affords essential coverage to the N4, M50, Woodfarm Court and Woodfarm Acres areas as well as covering the housing running east towards Glenaulin Park.

All three national mobile operators, Eir, Three Ireland and Vodafone, currently operate from the existing site. All operators have indicated the need to operate from this site in order to provide mobile and broadband coverage for this part of Palmerstown with Eir's technical justification included in Appendix 1.

With regard to Eir, they have indicated that as part of the licensing requirements and the continuing rollout of their 3G and 4G networks, they require a site in Palmerstown and without this site, parts of this area will suffer a severe degradation in mobile voice and data services which leads to poor mobile coverage and, as a result, there would be a large number of dropped/ blocked calls and poor data sessions which will possibly limit people's ability to work from home on the Eir network in this area. The email is accompanied with signal coverage maps that demonstrate that the areas which will be degraded by the loss of this site will include but not limited to a large stretch of Woodfarm Acres, Palmerstown Park and Palmerstown Avenue.

Three have also indicated support for the proposed development and may relocate to a modern structure capable of catering for more recent technological advances which require larger antennae than previous technologies.

5.2 Siting and Design

The monopole type structure has been chosen for its robust capacity to cater for several operators, allowing for future co-location thereon, while the slender design will mitigate against any significant adverse impact of residential amenity. Within the overall site context, ESB Telecoms Ltd do not consider that the telecoms structure would constitute a new feature to the landscape, and suggest that the continued use of this compound by multiple operators would not be harmful to the character of the area. The monopole type structure is correctly chosen for its structural robustness, a significant engineering parameter, given the need to facilitate several operators.

5.3 Visual Impact & Landscaping

In compiling the planning application ESBT gave consideration to all structures in its portfolio and considered that a monopole tower is the most appropriate structure due to its structural capacity and ability to reduce the need for additional structures in the area.

Given the nature of the existing telecommunications facility and the 38kV Substation, the proposed development is considered to be a modest alteration to the overall utility site. It will visually complement the existing telecommunication pylons and substation infrastructure, reducing the visual impact from further afield, including approaches to the site from along Kennelsfort Road Upper and local road network generally. Most importantly, the site would not be visible from either the N4 or Palmerstown Village. Due to the topography and road layout in the area, the proposed development will only be visible from locations in the immediate vicinity of the substation site which already have visibility of the 18m shrouded monopole.

Furthermore, having regard to the nature of the site and relative distances to neighbouring residential properties in particular, ESBT are firmly of the opinion that visually the structure will not be overly dominant in the receiving streetscape where the existing tower has become an established feature locally. It is therefore concluded that the proposed development will not cause undue harm to the visual amenities of the immediate area and wider locality and will allow for the provision of more up to date broadband services to customers in the area.

5.4 Co-Location

In line with Guidelines, ESBT makes available wherever possible all its existing structures with other licensed operators for co-location. This policy has been in place since 2001 and continues to be the case, reducing the unnecessary proliferation of such essential structures throughout the country.

The subject site at Palmerstown 38kV substation site is a good example of co-location, where all two operators currently share the site. However, due to technological advances the existing 18m shrouded monopole cannot support the newer antennae required for the provision of 4G and later technologies.

5.5 Realising the Potential of ESB Telecom Fibre

The site is currently served by ESBT's fibre network. The site is connected to ESBT's fibre network allowing virtually limitless bandwidths (data rates) when compared to other forms of communication. Faster data transmission results in a better service delivery for the end user. The evolution of the telecommunications industry over the last number of years means that the presence of fibre at communication base stations is a key criterion for the provision of mobile technologies such as mobile broadband and internet services to mobile phones and home-based broadband customers alike.

5.6 ENVIRONMENTAL CONSIDERATIONS

Flooding

The OPW website, National Flood Hazard Mapping, launched in May 2018, shows that the site has not been subject to flooding. There is no record of recent of flooding within the site or the immediate locality.

Natural Heritage Designations

In terms of natural heritage designations and specific regard to the requirement of EU Habitats Directive the following sites are noted:

- Glenasmole Valley SAC (Site Code 001209) c. 8.5km south of the site.
- South Dublin Bay SAC (Site Code 00210) c. 12km to the east of the site.
- South Dublin Bay and River Tolka SPA (Site Code 004024) c. 12km to the east of the site.
- Rye Water Valley/Carton SAC (Site Code 001398) c. 8km to the north-west of the site.

Having regard to the nature of the proposed development and location of the site and/or proximity to the nearest European sites, forming part of the Natura 2000 network (Article 6 of the EU Habitats Directive refers) and their qualifying features, no appropriate assessment issues arise. It is not considered that the proposed development would likely have a significant effect on the integrity individually or in combination with other plans or projects on a European site.

6. CONCLUSIONS

Having regard to the zoning for the area, ESBT note the acceptability of public services in such zoned areas. The site has been used as a multi-operator telecoms compound delivering vital services into the area since 1998 and is well established in the area. The exponential growth in mobile data usage over the last decade requires the upgrade of the physical base station infrastructure to ensure services can continue to be provided into this area into the future. This upgrade in services necessitates a new structure capable of accommodated newer equipment and involves a modest increase in height which ESBT contend does not impact unduly negatively on the amenity of the area.

National, regional and local policy and strategy documents are consistent in acknowledging the necessity for continued investment in telecommunications infrastructure. An efficient and cost-effective broadband network is understood to be essential if the country as a whole is to prosper and thrive in the era of the knowledge based and value-added economy. Moreover, the new Development Contribution Guidelines for Planning Authorities explicitly

mention telecommunication infrastructure as essential to the Government's efforts to support job creation.

With mobile penetration rates nearing 100% there are increasing social benefits to be derived locally from a robust telecommunications infrastructure. Such benefits include universal access to many public services, social networking and interaction, media and broadcasting ('on-demand') and e-learning among others. A grant of permission for this application would play an active role in supporting the policies and aims of the NDP and RSES for the area generally. Additionally, the continuance of use of this telecommunication compound, albeit on a slightly taller structure, would not be contrary to the policies set out in the South Dublin County Development Plan in terms of undue impacts on residential amenity and landscape.

Good telecommunications are a cost-effective means of delivering support services to vulnerable groups and is increasingly popular as a means of delivering educational services and products such as distance learning along with being essential for the creation of new employment opportunities and diversifying the economic base of the county. In terms of the existing telecommunications network in the area, this site forms an important link for our customers, the network operators, and it is ESB Telecoms' contention that this strategic site will increase in importance with the rollout of next generation mobile broadband.

According to the Ministerial Guidelines of 1996, necessary telecommunication infrastructure ought to be encouraged in "*substations*". The Guidelines also support the sharing and clustering of services via co-location, a practice promoted at all ESB Telecoms Ltd sites. In this instance the existing telecoms site forms an essential node in the respective networks for 2 commercial operators, and a grant of permission for the proposed development would avoid the need for alternative structures in the area, thus reducing the proliferation of similar type structures in the immediate vicinity.

Having regard to the national, regional and local plans and strategy documents, the Ministerial Guidelines for the sector, the nature of the site and of the scale of the existing development, it is the view of the ESB Telecoms Ltd that the application is in agreement with all the relevant planning policy and guidance. The continued use of this site for telecoms purposes would not be unduly visually obtrusive at this location and would be in accordance with the proper planning and sustainable development of the area. ESB Telecoms Ltd respectfully request that the proposed slender, monopole type structure is granted planning permission.

Appendix 1

Technical Justification

2022 Bianconi Avenue

Citywest Business
Campus
Dublin 24 D24 HX03
T +353 1 671 4444
eir.ie

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

10th January 2022

Our Ref: DN_1964

Re: Proposed Meteor installation @ESB Palmerstown, Dublin 20

Dear Mr Keogh,

As part of Eir Ltd licensing requirements and the continuing rollout of their 3G and 4G networks, Eir is required to upgrade their existing site in Palmerstown, Dublin 20,
Due to physical restrictions at the existing site Eir currently can't upgrade in our existing location so a new site is required.

Without a site in this part of Palmerstown, parts of this area will suffer a severe degradation in mobile voice and data services which leads to poor mobile
coverage and as a result there would be a large number of dropped / blocked calls and poor data sessions
which will also possibly limit people's ability to work and study from home on the Eir network in this area if we are unable to maintain coverage and upgrade Eir's coverage in the area.

Areas which will be improved by this site upgrade will include but not limited to The Glade ,Woodfarm Acres, Palmerstown Height , Kennelsfort Green , Palmerstown Avenue and Palmerstown S.C.

Yours sincerely,

Paul Phibbs

RF Design

By email

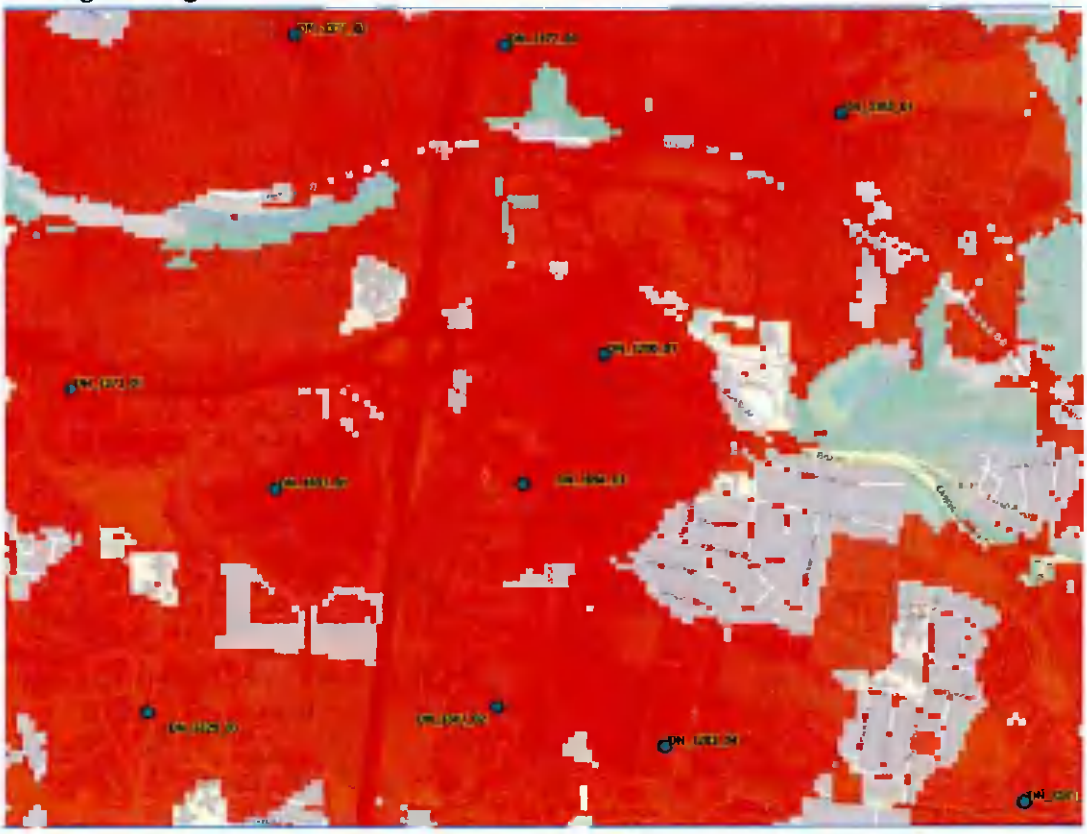
Coverage Plots:

The coverage plots in this document show the level of indoor coverage in the vicinity of the Palmerstown substation site.

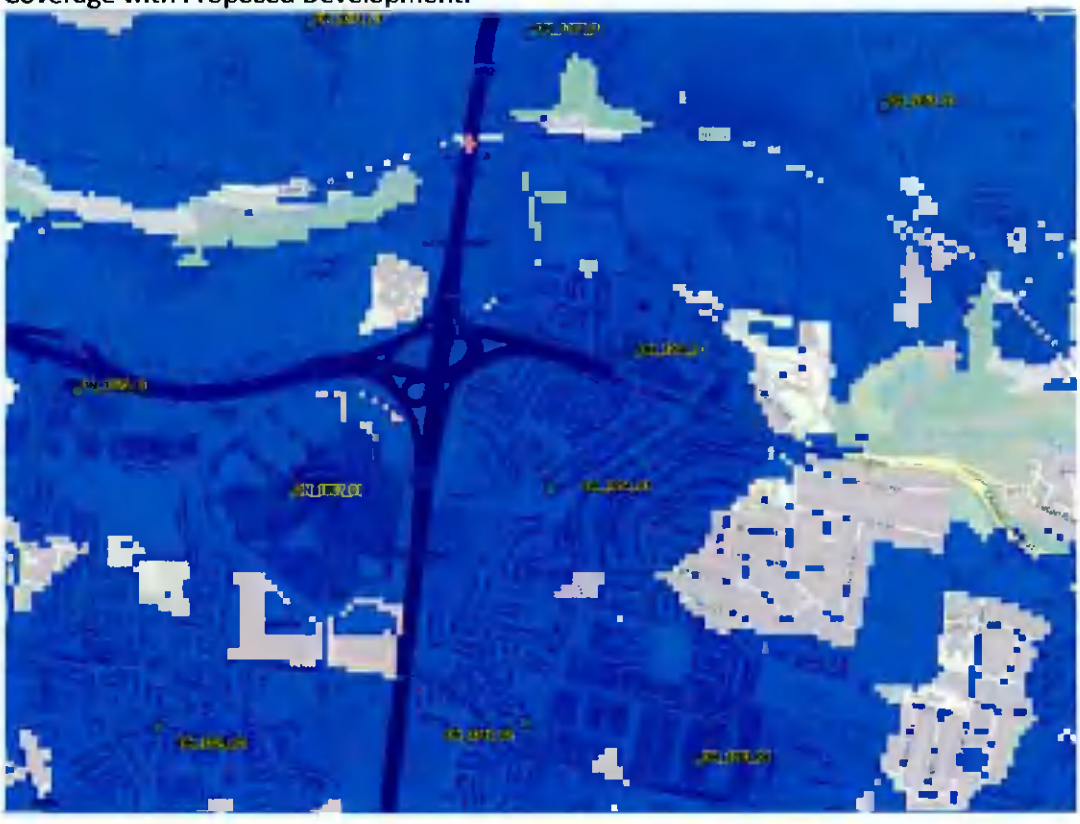
- The first coverage plot shows the high-quality indoor coverage for users from the existing site, denoted in red.
- The second map shows the same coverage level, this time denoted in blue, for the area in the event of a grant of permission and a new 24m monopole is constructed to cater for Eir's continued presence on the site.
- The third map shows the coverage, denoted by the colour red, with Eir removed from the site and the proposed development is not given permission.
- The final map shows the area which will suffer a loss in the coverage for Eir customers, denoted in blue, in the event of refusal of permission.

As can be seen from the above coverage plots, the area which will be most affected by a removal of Eir equipment from the Palmerstown 38kV substation site will be the area immediately around the site itself, notable Woodfarm Acres, Palmerstown Park, The Coppice as well as Palmerstown Avenue and Wheatfield Road.

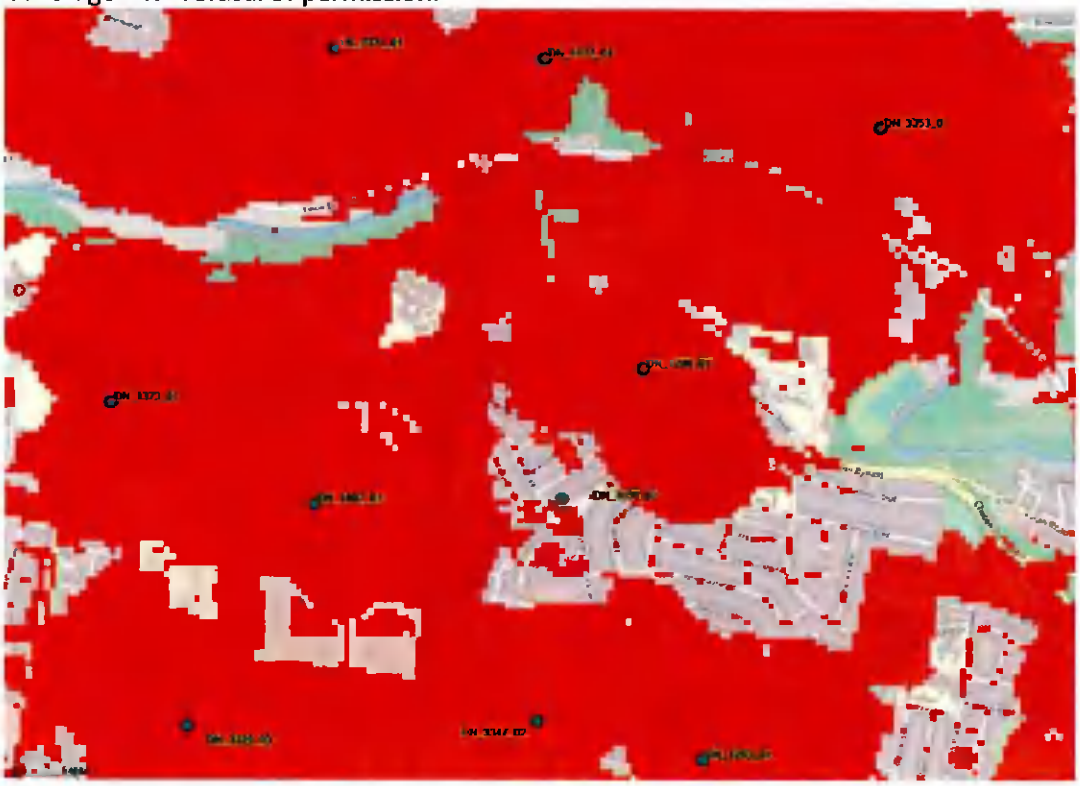
Existing Coverage:



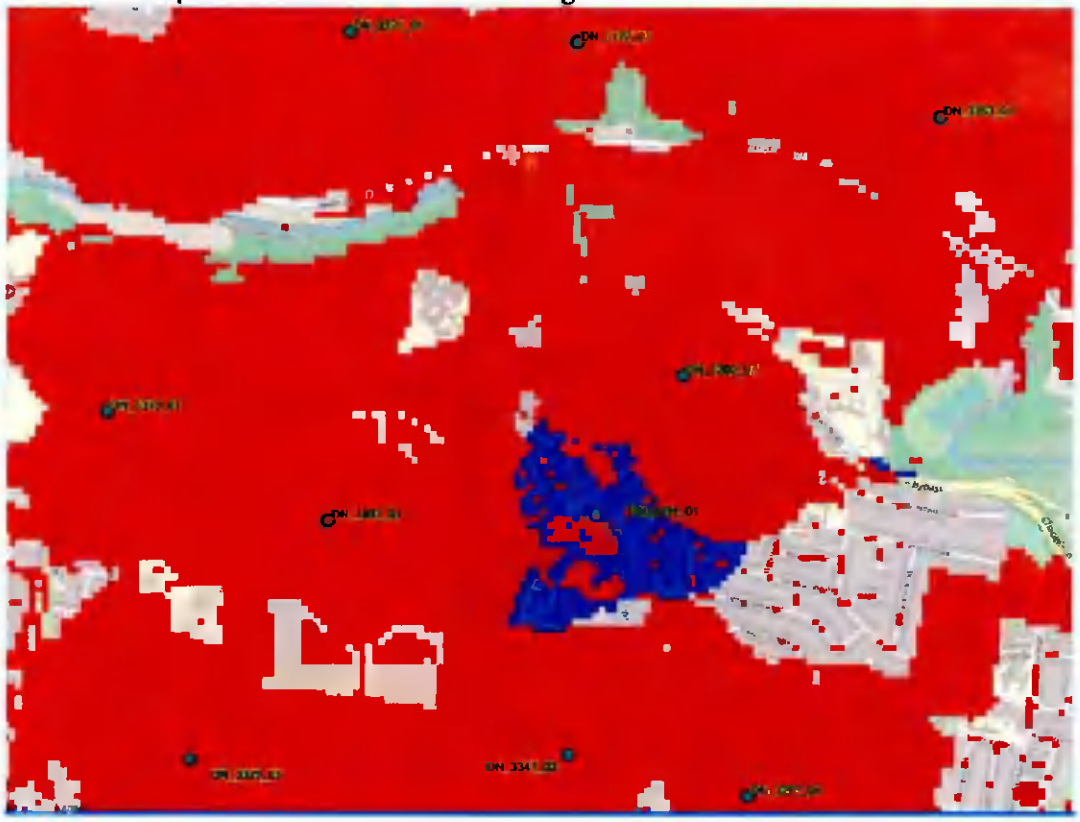
Coverage with Proposed Development:



Coverage with refusal of permission:



Area of "Not Spot" – Insufficient indoor coverage:



Appendix 2

Health & Safety

3. HEALTH AND SAFETY

With many developments of this nature, there may be public concerns related to the maintenance of telecommunications infrastructure, primarily in relation to potential perceived adverse health effects of the installation. ESB Telecoms Ltd regards the protection of the health, safety and welfare of its staff and the general public as a core company value in all its activities. It is ESB Telecoms Ltd policy to continually review and update standards in light of new developments and research findings.

3.1 INTERNATIONAL GUIDELINES

The International Commission for Non-Ionising Radiation Protection (ICNIRP) is an independent, scientific organisation, established in 1992. Its purpose is to advance Non-Ionising Radiation Protection for the benefit of both people and the environment, in particular, providing guidance and recommendations on protection from Non-Ionising Radiation exposure.

ICNIRP is formally recognised as a non-governmental organisation and operates in co-operation with the Environmental Health Division of the World Health Organisation and the United Nations Environment Programme. In 1998 ICNIRP published "Guidelines for Limiting Exposure to Time-Varying Electric, Magnetic and Electromagnetic Fields", the main purpose of these guidelines is to limit electromagnetic field exposure in order to protect against unknown adverse health effects.

The ICNIRP guidelines limits have been adopted by many countries across the world. In Ireland the Communication Regulator adopted the 1998 guidelines outlined by the ICNIRP.

3.2 COMMUNICATIONS REGULATOR, IRELAND

The Commission for Communications Regulation (ComReg) is the licensing authority for the use of the radio frequency in Ireland. As the licensing authority for radio communications in Ireland, ComReg is responsible for ensuring that communication operators comply with their licence condition relating to non-ionising radiation. In 2001 ComReg began the process of randomly testing communications site to ensure compliance with the adopted ICNIRP and ComReg Standards.

ComReg continue its programme of surveying sites to establish the highest emission levels associated with each site. The emission levels from all ESB Telecoms Ltd. sites fell significantly below the ICNIRP general exposure levels. ComReg continues to survey sites and is increasing the intensity of testing to include 80 sites per year throughout the country. Please find attached the latest site RF Emission Test carried out by independent group Obelisk for ESB Telecoms Ltd on 30th July 2015. The test identifies that the subject structure falls far below the ICNIRP limits. ESB Telecoms Ltd carries out annual independent emission tests to monitor all sites. The 2014 survey carried out by KTL dated 24th June 2014, is also enclosed.

3.3 Independent Research

The Department of Communications Marine and Natural Resources established a group of experts to examine the issue of the Health Effects of Electromagnetic Fields. The results of this research were published in March 2007.

The report draws together existing scientific research in the field of Non-Ionising Radiation and compiles an informed report of the most up to date information available. The evidence contained within the report finds that

> "no adverse short or long term health effects have been shown to occur from exposure to the signals produced by mobile phones and base station transmitters." (Chapter 3, Question 1)

In terms of exposure to radiofrequencies from base stations, it is explained that the strength of the frequency is greatest at the source and demises quickly with distance. At or near ground level, in the vicinity of an average 25 metre high base station the level of radiofrequency exposure is much lower than that emitted from a mobile phone (Chapter 4).

With respect to the general location of mobile base stations and in particular their location near places where children gather, the findings of the Steward Report and the precautionary principle are examined. In responding to this, the report finds that there is no data available to suggest that the use of mobile phones or exposure to mobile base stations has adverse health effects for children or adults, irrespective of the location of the phone mast. The report makes it clear that at the current time there is no evidence of adverse health effects, and states that "the exposure (levels) are so low as to make it immaterial where masts are located with respect to schools, playgrounds, health centres or other places where children gather" (Chapter 3, Question 4).

3.4 The Monitoring of ESB Ltd Sites

The latest ComReg report entitled *2013 Programme of Measurement of Non-Ionising Radiation Emissions – Second Interim Report 31st July 2013* can be found at the following link:

https://www.comreg.ie/_fileupload/publications/ComReg1374.pdf

In conclusion, the report finds that the emission levels from surveys undertaken at all sites

> 'fall significantly below the international ICNIRP general exposure levels. In some cases the levels are in fact less than one thousandth of the ICNIRP limits.'

9. RF Emissions Test

- Photographs
- Test Certificate c/w ESBT as-built mark up of test location

RF Emissions Cert & Site Layout Mark Up

RF Emissions Reading No.1 Photograph

RF Emissions Reading No.2 Photograph

ESB Telecoms

Obelisk

RF Emission Test

Site Name: ESB-356 ~ Palmerstown 38kV Palmerstown 38kV

Test Date and Time: 10/03/2021, 21:48:39

Tested By: Austin Smith

Test No. 1		**Location**	**Main Site Entrance**
Average Levels	**0.2**	**µW/cm2**	
Test No. 2		**Location**	**Compound**
Average Levels	**1.9**	**µW/cm2**	

Sketch:

13. RF Emissions Test

- Test Certificate c/w ESBT as-built mark up of test location
- Photographs

RF Emissions Cert

GRA Networks

RF Emission Test

Site: Palmerstown 38Kv Radio Site

Structure Type: O2/Three Ireland owned structure 20m Monopole

Date of inspection: 17/01/20

Engineer: Gary Monaghan

Test No.1

Average Levels: 0.753 V/M

Location: Main Site Entrance

Test No. 2:

Average Levels: 11.41 V/M

Location: Compound

Signed on behalf of GRA Networks

Signature: Gary Monaghan **Position:** PICW Rigger

Print Name: Gary Monaghan

Site Layout Mark Up