



Belcamp SHD

FCC Lands / Conroy Crowe Kelly Architects

5800

TELECOMMUNICATION SIGNAL INTERFERENCE REPORT

Residential Development

**Belcamp,
Malahide Road,
Dublin 17**

Gerard Gannon Properties

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5800

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ING Gerard (Craig) van Deventer CEng., BE(mech)., HDip CIOB, MCIBSE 201

M : [00] 353 (0)87 260 8080
 E : gerard@dkpartnership.com

DKPartnership (DKP_{BS} (Building Services) and DKP_{EV} (Environmental))
 70 Main Street, Applewood , Swords, Co.Dublin, Ireland
 CBG House, Reen Kenmare Co. Kerry

post@dkpartnership.com
 www.dkpartnership.com

T : [00] 353 (0) 1813 1930
 T : [00] 353 (0)64664 1686

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1 Introduction

1.1 Document purpose

This report gives information on the assessment of interference to existing telecommunications signals as a result of the new proposed development. High rise buildings or tall structures could potentially interfere, disturb or block an existing telecommunication signal. Officially licenced telecommunications signals operating in the correct designated area or path should not be adversely affected by the new development or if assessed to be effecting an existing signal should try to accommodate the signal provider to allow redirection or similar process.

1.2 Instruction

DKPartnership (DKP) have been commissioned by Gerard Gannon Properties, to carry out the analysis and report for the proposed development at Belcamp, Malahide Road, Dublin 17.

1.3 Development description

The following is a brief summary of the proposed development; *“A 10-year planning permission is sought by Gerard Gannon Properties for a proposed Strategic Housing Development on lands at Belcamp Hall (protected structure), Malahide Road, the R139 road and Carr’s Lane, Belcamp, Dublin 17. The proposed development will consist of the construction of 2,527 no. residential units comprising houses, apartments and duplex units, 2 no. childcare facilities; 1 no. sports changing facilities building; 3 no. cafés/restaurants; 18 no. retail/commercial units; and all associated engineering and site works necessary to facilitate the development.”*

2 Findings and Summary

2.1 Finding existing tv/radio/telecommunication

It is not easy to establish if there are existing licenced television/radio/telecommunication signals present in the area as the Department of Environment, Climate and Communications and/or ComReg do not provide such information in the interest of home security as it is quoted to us. The only reasonable method currently available is scanning the tallest adjoining buildings for existing aerials and identify an buildings occupied by blue light services.

2.2 Typical frequency ranges

TV signal providers use radio wave (30MHz-3000MHz) signals which are generally transmitted using multi directional aerials and by nature are typically long range (100km-200km) with multiple Fresnel zones and as a result are unlikely to be effected. Blue light services (Garda, Ambulance, Fire Services and Coast Guard) use micro wave (30MHz-300MHz) signals which are generally transmitted using multi directional aerials and by nature are typically shorter range (10km-20km) with multiple Fresnel zones and also less likely to be effected. Telecommunication providers micro wave links, radar systems, satellite telemetry (300MHz-30GHz) signals generally require line of sight are could therefore be affected by taller structures. These signals also have multiple Fresnel zones but rely of the first Fresnel zone to be at least 60% clear. Long range signals have a very large first Fresnel zone and are unlikely to be affected, short range (1km-2km) point-to-point signals have a small (50m-100m) first Fresnel zone and could be more then 60% effected by a structure resulting in interference, disturbing or loss of signal.

2.3 Our search range

To identify possible interference to point-to-point signals we use a 1.5km diameter or a 3km search range from the location of the proposed development in all directions identifying exiting taller buildings / structures which are most likely used for transmitting/receiving telecommunication signals. See page 6 for search range area.

2.4 Findings

The search for roof / tall structures in the 3km zone around the new proposed development has not revealed any particular telecommunication company mast location with any dish or aerials nor is there any gardai station or other blue light services in this area.

2.5 Assessment conclusion

Based on the search findings we conclude that there appears to be no telecommunication signals directly crossing the new development site and that it is very unlikely that the new development will interfere, disturb or block any existing licenced telecommunication signal. Any telecommunication signals crossing the site from greater distances beyond the 3km range will not be adversely affected as the signals would outside the first Fresnel zones.

2.6 Possible site benefit

Telecommunication companies often look to improve their networks by applying distribution aerials on taller structures to get a wider / further range. The fact that the apartment blocks rise up to 6 storeys may indeed benefit a telecommunications company in so far it may provide them with a possible aerial location and thus provide a better service for the entire area.

3 Geographical Location

Image 3.1 the (google arial) site map below indicates the location of the site location (yellow centre) and 3 km search range (yellow circle)

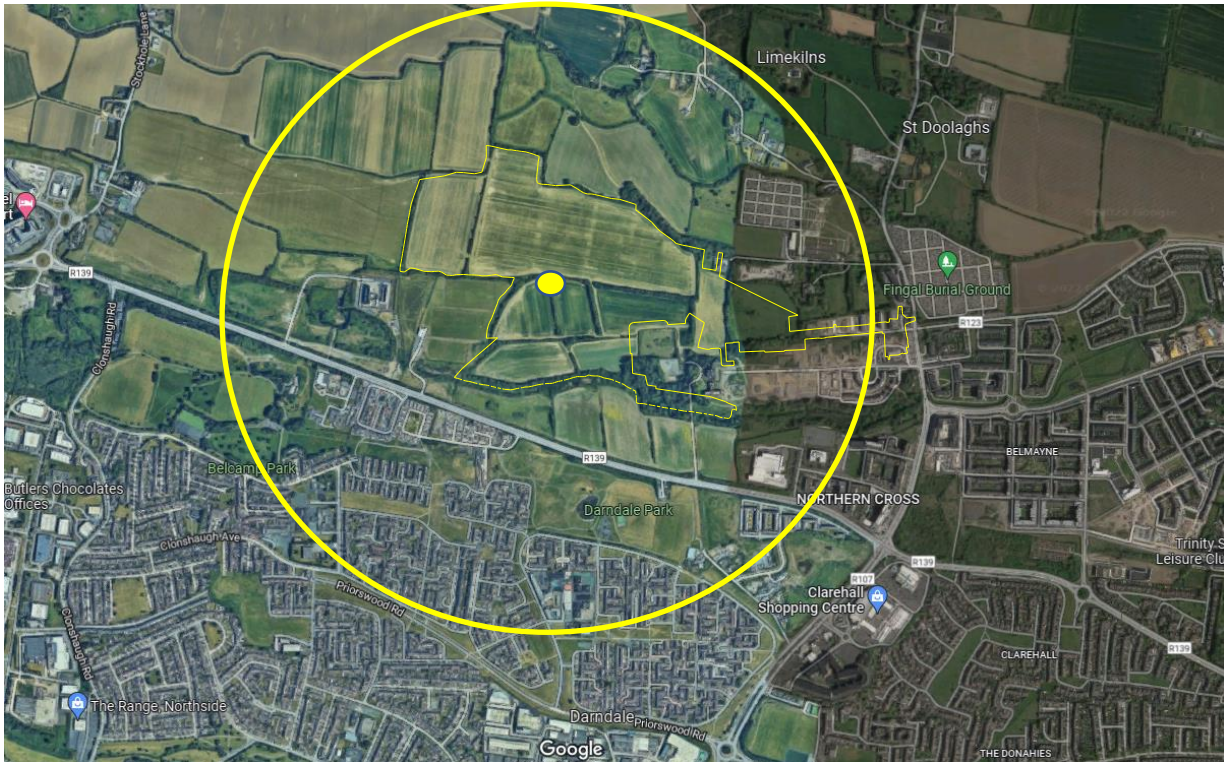


Image 3.1: Approximate site location outline and 3km search range (circle)