

# Orchard Gate

Proposed Residential Development

## TELECOMMUNICATION SIGNAL INTERFERENCE REPORT

KENNELSFORT ROAD UPPER  
PALMERSTOWN  
CO DUBLIN

AAI Palmerstown Ltd

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## Document control

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Architects	Shipsey-Barry	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Planning consultants	HW Planning	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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### Document issue status ID

#	Sketch/draft
P	Planning
C	Concept
D	Design
G	General information
T	Tender
W	Works/construction
Z	As-build/constructed

Issue	Prepared	Checked	Approved
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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 to report

DKPartnership (DKP) have been commissioned by AAI Palmerstown Ltd to carry out the analysis and report for the proposed Orchard Gate residential development as described below.

## 1.3 Development detail

The development is located at the former warehouse facility at units 64 & 65, Cherry Orchard Industrial Estate. The site presents a gateway location at the Western junction of Kennelsfort Road Upper and the eastern industrial estate. This location represents the start of the lands zoned REGEN continuing to the east.

The proposal is for 127 build to sell apartments and associated facilities with a mix of 55 no. one bedroom apartments, 41 no. two bedroom apartments and 31 no. three bedroom apartments . the scheme incorporates incubator employment use with block A.

The development is set out in 3 no. five storey buildings and 1 no. 4 storey building enclosing a raised podium courtyard with the eastern junction building having an 8 storey gateway feature element. On site parking of 62 spaces is contained within a landscaped podium element with 1 on street go-car space provided. Extensive public realm upgrades are incorporated with an upgraded cycle way provided on Kennelsfort road upper.

Site Area : 8,888m<sup>2</sup>






## 2 Findings and Summary

### 2.1 Finding existing tv/radio/telecommunication

It is a bit difficult 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 aeralis and identify an buildings occupied by blue light services.

### 2.2 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.

-  3 km search range (yellow circle)
-  Proposed development location
-  Existing telecoms mast location

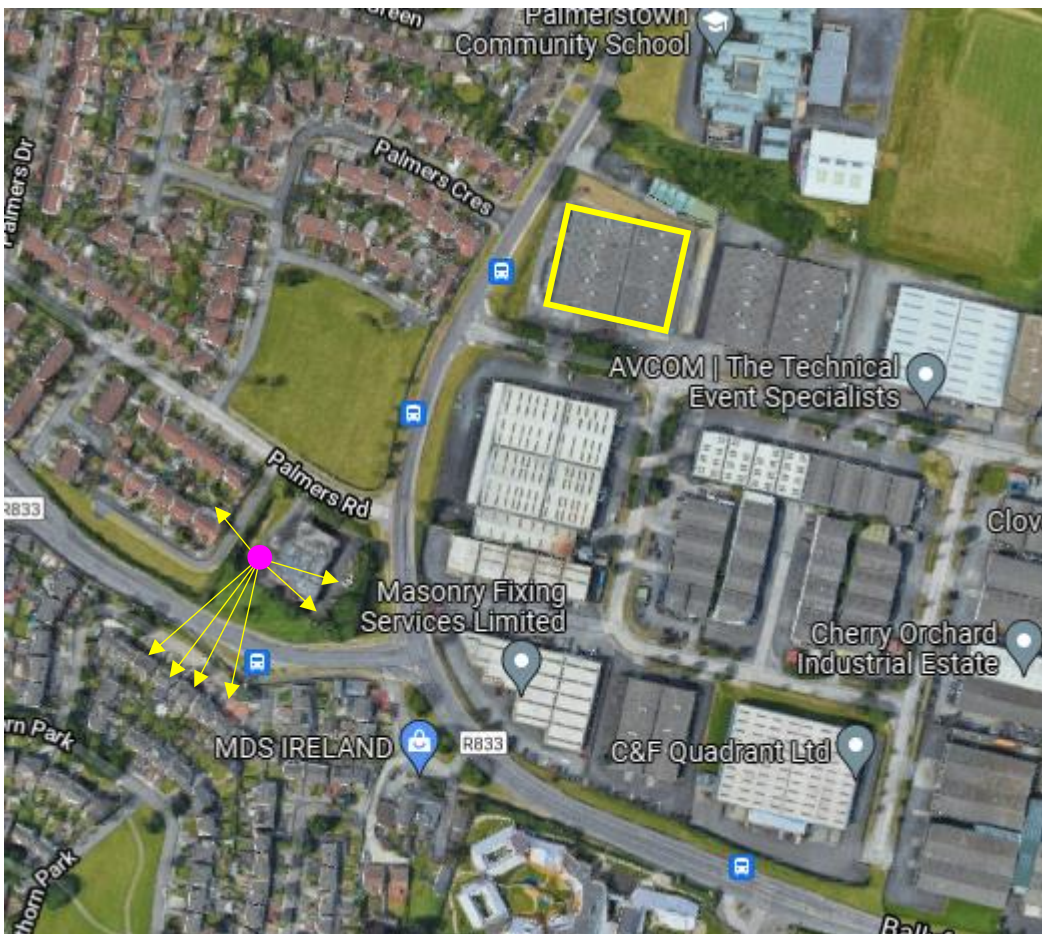


### 2.3 Typical frequency ranges

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 (Gardy, 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.

### 2.4 Findings

The search for roof / tall structures in the 3km zone around the new proposed development has not revealed any particular dish or aerial locations nor is there any gardai station or other blue light services in this area except for an existing 15m high telecommunications mast approximately 250m from the proposed development.



### 2.5 Assessment and conclusion

Having assessed the existing telecommunications mast and in particular the directional aerials on the mast we conclude that there appears to be no telecommunication signals crossing the new development site and that it is very unlikely that the new development can 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 be outside the first Fresnel zones.



## 2.6 New development advantage

The fact that the proposed development is taller than any other structure in the near vicinity it may give telecommunication companies an opportunity for a more elevated location to provide a better telecommunication service for the greater area.

