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Residential Mobile Signal Solution

Case Study

Denham Film Studios was recently re-develop into a luxury Denham Film Studios consists of a new £120 million 11.94 acre (4.83 hectare) residential development designed around the original Grade II listed Art Deco film studio headquarters building.

Due to the building materials residents were experiencing signal problems within their homes.

The Problem

Phone calls had to be made outside (or by hanging out of a top-floor window) and SMS messages weren't being delivered. This was causing no end of difficulties for the customer, which were only made worse when COVID-19 came knocking and forced everyone into lockdown.

Customer Needs

Having recently moved in to their brand new 3 storey town house on the Denham Film Studios development, Mr & Mrs Cahill were shocked to discover that they had no mobile signal throughout their new home. This is a fairly common problem with new build properties, primarily caused by the use of modern building materials designed to keep heat in your home (with the added side effect of keeping mobile signal out!)

Building Material

The building material was blocking the cellular signal within the building

Full Coverage

Poor signal before installation

EE Network

The mobile coverage needed to provide EE coverage

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"Having recently moved into a new build property, we were surprised (and horrified!) to discover that the mobile signal was pretty much non-existent throughout the building. To make phone calls or receive text messages, we had to hang out of a window or go outside. Not ideal when working from home! This became an even bigger problem as COVID-19 hit and the country went into lock down - mobile phone signal became a top priority, so we engaged with Signal Solutions to provide a professional mobile signal booster solution to fix the problem. The installation was fairly quick, and the team were excellent."

"We're extremely happy with the end result, and the process itself was very straightforward. I've already recommended Signal Solutions to my neighbours, who are all facing the same problem that we initially had."

The Solution

Having initially provided the customer with a desktop survey and an initial cost estimate, the next stage was for our engineering team to survey the property and run signal tests throughout the building. This confirms how poor the mobile signal is and gives us readings to compare against once the installation has been completed.

After surveying the property and liaising with the customer, our Amplifi-Qx 1000 solution was selected. This included a single Cel-Fi GO X unit to be provisioned to the EE mobile network and 3 internal omni directional antennas to distribute the signal to each floor of the property.

The customer was very keen to hide away as much of the equipment as possible. The solution design took this into consideration and the booster and all 3 internal antennas were cleverly hidden away using some existing boxing-in that ran from the roof down to the ground floor.

The Results

The EE signal for 3G & 4G was significantly improved throughout the property. The customer was immediately able to see the results of our work. They were able to make and receive calls, SMS messages started coming through, they could browse web pages and make video calls on their mobile devices. The installation was completed in one working day, with very little disruption to the client and their property.

A really good dBm reading will be somewhere between -70dBm and -90dBm … the closer to zero the better!

Signal Before & After	
3G Results -119 dBm **4G Results** -122 dBm	**3G Results** -81 dBm **4G Results** -85 dBm

The Products

CEL-FI GO X

Customer's Benefits

- Improved Signal
- Multiple Network Coverage
- 3G 4G 5G — Full Mobile Coverage
- OFCOM licence exempt signal booster

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