

Television and Radio Written Scheme

No.3 Circle Square

Bruntwood SciTech

June 2022

PLANNING SOLUTIONS FOR:

- Solar
- Telecoms
- Railways
- Defence
- Buildings
- Wind
- Airports
- Radar
- Mitigation

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ADMINISTRATION PAGE

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1	May 2022	Initial issue
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INTRODUCTION

Purpose of this Document

This document sets out the approach for investigation and alleviation of potential disruption to television and radio services as a result of the No.3 Circle Square building development. It should be read with reference to the full technical report that accompanies this Written Scheme¹.

Technical Context

Building developments can cause disruption to television and radio signals and in cases where significant interference is attributed to a building development, the developer has the responsibility to mitigate the impact. This document sets out the approach for investigation and alleviation of potential disruption to television and radio services as a result of the proposed No.3 Circle Square building development.

Included within this written scheme is the procedure for:

1. Quantifying the interference effect.
2. Determining whether the interference is due to the building development.
3. Provision of mitigation.

A schedule of mitigation options, which could be employed in the event of television or radio interference being experienced, is provided also within this document.

¹ Pager Power, 2022, 11266B - *Television and Radio Baseline Survey and Report*.

MODELLING METHODOLOGY AND OVERVIEW OF FINDINGS

Terrestrial Television Signals

The modelling approach for quantifying interference zones is in accordance with guidance from Ofcom (see technical report and Reference 10). This details the method for constructing a 'shadow zone' and a 'reflection zone'. These have been evaluated further based on the surrounding environment and industry experience (see technical report).

It is possible that no noticeable effects will materialise in practice, due to the current reception quality in the surrounding area and the scarcity of residential receptors at a low height in the immediate shadow zone. If effects were to occur these would likely be restricted to a sector to the southeast of the proposed development within approximately 330m (see technical report).

Radio Signals

Impacts on radio signals due to building developments are rare. This conclusion is based on Pager Power's industry experience and Ofcom guidance (see technical report and Reference 10).

It is likely that no noticeable effects on radio coverage will occur. This is predominantly due to radio service being designed to work in a dynamic environment and the small incremental increase in shadowing effects in the context of the surrounding area. If effects were to occur these would typically be restricted to within a few hundred metres of the development (see technical report).

SCHEDULE OF MITIGATION OPTIONS

Terrestrial Television Mitigation Options

Common options for mitigating effects on terrestrial television are:

- Replacement of receiving aerial with a more directional or higher gain aerial.
- Repositioning the receiving aerial so that the received signal is stronger.
- Directing the receiving aerial to an alternative transmitter that covers the area and retuning the television accordingly.
- Upgrading antenna cabling and connections.
- Installation of signal amplifiers.
- Development of a bespoke local solution using a receiving aerial some distance from the dwelling.
- A combination of the above.
- Replacing terrestrial reception equipment with satellite reception equipment, cable, or internet television.

Radio Mitigation Options

Common options for mitigating effects on radio are:

- Re-tuning the radio.
- Relocation of the radio.
- Upgrading the aerial or the radio itself.
- Provision of an external aerial for receiving radio services.

PROTOCOL FOR DEALING WITH ANY REPORTED INTERFERENCE ARISING FROM THE BUILDING DEVELOPMENT

Overview

A typical process for addressing reported interference is as follows:

Notification for reported television or radio interference should be limited to a fixed period of 12 months² of completion of the building development. Reported interference will be sent to the Local Planning Authority or to the building development owner/manager. If it is found that the interference is significant and attributable to the building development, mitigation will be implemented. The initial investigation of any reported issues will be undertaken within one month of the building development owner/manager receiving details of the reported interference in writing. Any required mitigation will be installed within two months of completion of the investigation.

Protocol

The recommended process can be summarised in the following five steps.

- Step 1** Consider the location of the reported interference with reference to the analysis of the interference zones presented within the technical report.
- Step 2** Carry out on-site reception measurements at relevant locations (where effects have been reported). This step can be skipped if Step 1 determines that provision of mitigation is appropriate without the need for an on-site measurement. Step 1 and Step 2 will be undertaken within one month of receipt in writing of the reported effects by the building development owner/manager.
- Step 3** Characterise interference to determine the cause. If the interference is attributable to the development, Step 4 will apply. If it is not, the reporter of the interference should be notified of this finding and that no action will be taken.
- Step 4** Implement mitigation if required based on Step 3. The optimal solution will be determined on a case-by-case basis by a local aerial installer who will be commissioned by the building development owner/manager to visit the property where effects have been reported. The resulting mitigation will be installed within two months of completion of Step 3.

² When external construction works have been completed.

References

The following published works have been considered in the process of devising Pager Power's modelling approach:

1. International Telecommunications Union, Assessment of impairment caused to television reception by a wind turbine, Recommendation ITU-R BT805*, 1992.
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10. Ofcom (2009): Tall Structures and their impact on broadcast and other wireless services.



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