



Identity Interior Design Partnership
St James Place, 168 Yorkshire Street, Rochdale
Air Quality Assessment
DC5466-AR1



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1.0 INTRODUCTION

1.1 Appointment and Context

Dragonfly Consulting has been instructed by Identity Interior Design Partnership to undertake an Air Quality Assessment to inform the change of use planning application for the proposed residential development, located at St James Place, 168 Yorkshire Street, Rochdale, OL16 2DL (the 'Site'). The proposals comprise the conversion of the existing St James Place office building into 23 flats.

The Site is located in a mixed-use area within the administrative jurisdiction of Rochdale Metropolitan Borough Council, which forms part of the Greater Manchester Combined Authority (GMCA). The Site is located adjacent to the Rochdale Air Quality Management Area (AQMA), which is part of the wider GMCA AQMA declared in 2016 and covers a number of major and minor roads in the borough. The specific areas of the GMCA AQMA were declared based on modelled concentrations for nitrogen dioxide (NO₂) and were based on a precautionary level of 35µg/m³ rather than the legal air quality objective (AQO) limit of 40µg/m³. Therefore, additional consideration will need to be given to sensitive receptors within this area.

1.2 Scope of Assessment

This report assesses the potential air quality impacts associated with the proposed development, through considering existing baseline air quality conditions across, and in the vicinity of, the Site and determining its suitability for the proposed residential end-use. Potential sources of emissions are identified and assessed in the context of existing air quality and emission sources and the nature and location of existing sensitive receptors. The assessment has concentrated on NO₂ and particulate matter with an aerodynamic diameter of less than 10µm and 2.5µm (PM₁₀ and PM_{2.5}), the pollutants most associated with traffic emissions and which can affect local amenity.

The proposals comprise the change of use of the building, and therefore, minimal construction phase operations will be required, with any required building construction works likely to be internal refurbishment for the change of use. Reference will therefore be made to the Institute of Air Quality Management (IAQM) '*Guidance on the assessment of dust from demolition and construction*'¹ document, where relevant, to screen out the requirement for a full Construction Phase Risk Assessment.

Furthermore, the development has the potential to generate additional vehicle movements on the adjacent local road network. The trip generation of the scheme and associated distribution will therefore need to be reviewed to determine the potential impact at the closest sensitive receptors during the operational phase. The potential impacts of any operational phase traffic associated with the scheme have been considered with regard to the Environmental Protection UK (EPUK) and IAQM '*Land-Use Planning and Development Control: Planning for Air Quality*' guidance document², local air quality guidance, and the baseline air quality assessment undertaken, to provide an appraisal of Site suitability.

Based on the results, of the assessment, the most appropriate mitigation measures have been recommended. A glossary of key air quality terminology is provided in Appendix A and a map of the Site and surrounding area is presented in Appendix B.

¹ IAQM (2024) Guidance on the assessment of dust from demolition and construction, Version 2.2, January 2024.

² IAQM (2017) Land-use Planning and Development Control: Planning for Air Quality, January 2017.

2.0 SITE DESCRIPTION

2.1 Existing Site Use

The Site is the existing St James Place building, formerly used as offices, situated to the east of John Street. The Site is bound by the following:

- Yorkshire Street and a precinct immediately north of the building with the Ukrainian Catholic Church of St Mary and St James beyond;
- Offices to the east, with George Street and mixed use buildings beyond;
- Pagan Street directly to the south, with warehouse units beyond; and
- John Street to the west, with mixed-use buildings beyond, including residential apartments.

The main potential sources of air pollution in the vicinity of the Site were identified as emissions from road transport using the A671 John Street and the wider local road network. There are no commercial sources identified within the vicinity of the Site that would affect local air quality through associated point source emissions.

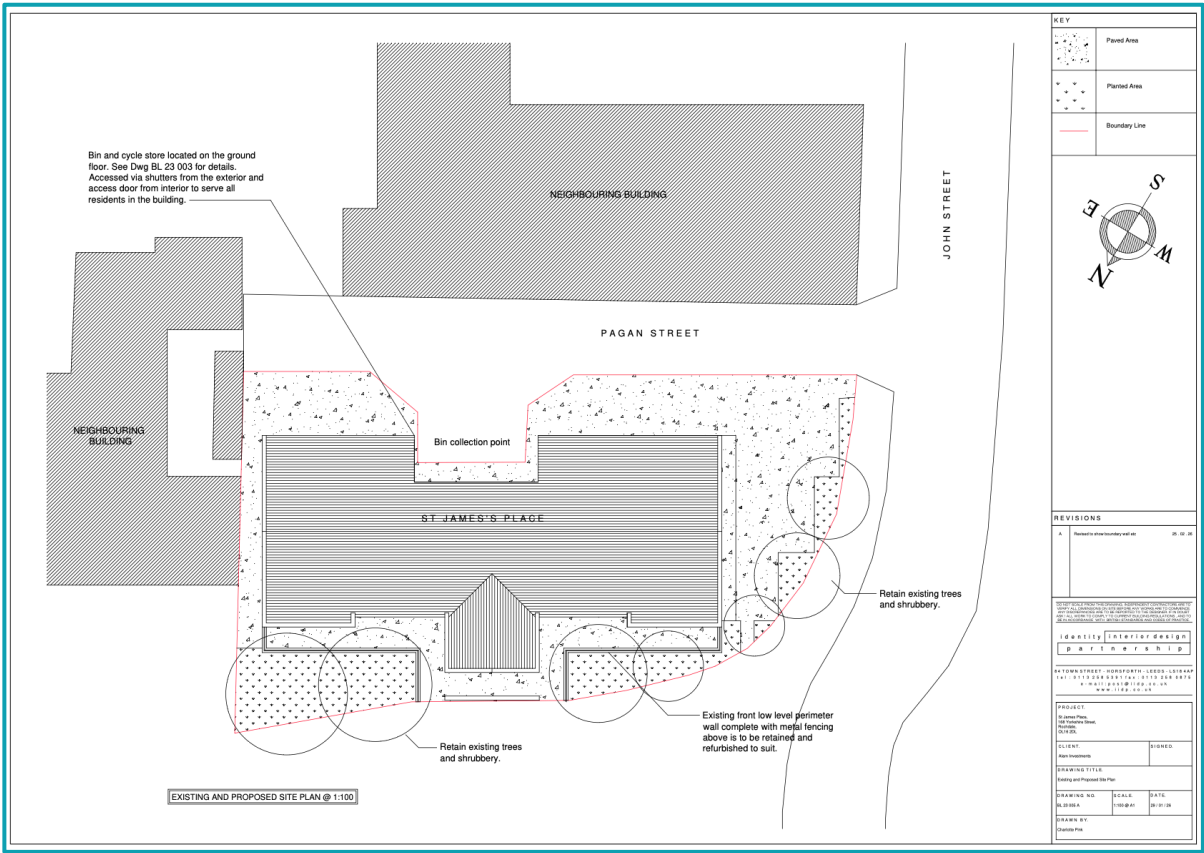
The Site is within a highly sustainable location, within walking distance to local bus stops on John Street and St Marys Gate, the tram line and Rochdale Train Station. The Site is also in close proximity to the National Cycle Route 92.

2.2 Proposed Site Use

The proposals comprise the change of use of St James Place former offices to 23 accommodation flats.

The 'Existing and Proposed Site Plan' is shown in Figure 2.1 overleaf. Site access and egress will be from Yorkshire Street, on the northern boundary of the building, utilising the existing building access. There is no car parking provided as part of the development proposal and therefore, an internal secure cycle store is provided as part of the development with 16 cycle parking spaces.

Figure 2.1
Existing and Proposed Site Plan



3.0 LEGISLATION, POLICY AND GUIDANCE

3.1 Legislation

3.1.1 *European Directive on Ambient Air Quality and Cleaner Air for Europe*

The EU Directive 2008/50/EC³ on ambient air quality and cleaner air for Europe (the CAFE directive) sets out the ambient air quality standards for a number of pollutants and the dates by which these objectives should be met. The Air Quality Standards (Amendment) Regulations 2016 amend the Air Quality Standards Regulations 2010⁴, which implements the requirements of the EU Directive 2008/50/EC into UK legislation. The Directive contains a series of limit values for the protection of human health and critical levels for the protection of vegetation. These limit values are legally binding, and the UK may incur infringement action if it does not meet the required objective limits within the agreed time limits. A recast EU Ambient Air Quality Directive 2024/2881⁵ was adopted by the European Union in October 2024, which supersedes the previous Directive 2008/50/EC and introduces more stringent limits for key pollutants, such as particulate matter (PM_{2.5} and PM₁₀) and nitrogen dioxide (NO₂), to reduce harmful effects on human health and the environment. These updated air quality standards are more closely aligned with the World Health Organisation's (WHO) recommendations, reflecting the latest scientific evidence on the health impacts of air pollution. Whilst the UK is not obligated to implement EU Directive 2024/2881, it may choose to adopt similar standards or draw from it as a benchmark in the future, especially as air quality is a shared concern and the EU's new limits are closely aligned with WHO recommendations, which the UK supports.

3.1.2 *Local Air Quality Management - The Environment Act 1995 and The Environment Act 2021*

Section 82 of the Environment Act 1995 originally required every local authority to conduct a regular review of air quality within the authority's area, determining whether standards are or will be met, identifying zones of non-compliance, designating Air Quality Management Areas (AQMAs), and pinpointing responsible emission sources. The Environment Act 1995 was amended by the Environment Act 2021, which significantly enhances this framework by introducing new obligations. Local authorities now face stricter deadlines, declaring an AQMA within one year of identifying exceedances and publishing a corresponding action plan within 18 months. The DEFRA technical guidance, LAQM.TG22⁶, continues with the streamlined approach, whereby every authority must undertake and submit a single Annual Status Report/Annual Progress Report within its area of jurisdiction, to identify whether the air quality objectives (AQOs) have been or will be achieved at relevant locations by the applicable date. If the AQOs are not being met, an AQMA must be declared and an action plan prepared which identifies appropriate mitigation measures.

3.1.3 *Environmental Targets (Fine Particulate Matter) (England) Regulations 2023*

The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023⁷ establish legally binding targets in England to reduce concentrations of fine particulate matter (PM_{2.5}), a key air pollutant harmful to human health and the environment.

³ Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe.

⁴ Air Quality Regulations 2010 - Statutory Instrument 2010 No. 1001.

⁵ Directive (EU) 2024/2881 of the European Parliament and of the Council of 23 October 2024 on ambient air quality and cleaner air for Europe (recast).

⁶ Department for Environment, Food & Rural Affairs (DEFRA) (2022) Local Air Quality Management. Technical Guidance (LAQM.TG22).

⁷ Environmental Targets (Fine Particulate Matter) (England) Regulations 2023, 2023 No. 96.

The regulations set two key objectives: achieving an annual mean PM_{2.5} concentration of 10 micrograms per cubic metre or lower by 2040 and reducing population exposure to PM_{2.5} by 35% compared to 2018 levels within the same timeframe, aiming to improve air quality, safeguard public health, and contribute to environmental sustainability. DEFRA are developing guidance for applicants and Planning Authorities in England to demonstrate that they have appropriately considered the PM_{2.5} targets when making planning applications and planning decisions. The new approach moves away from a requirement to assess solely whether a scheme is likely to lead to an exceedance of a legal limit and instead ensures that appropriate mitigation measures are implemented from the design stage, streamlining the process for planning and making sure that the minimum amount of pollution is emitted and that exposure is minimised.

Pending publication of the new guidance, applicants are advised to provide evidence in their planning applications that they have identified key sources of air pollution and taken appropriate action to minimise emissions of PM_{2.5} as far as is reasonably practicable. Key site considerations and mitigation measures and addressed within this report.

3.2 Policy

3.2.1 National Planning Policy

National Planning Policy Framework (2025)

The National Planning Policy Framework (NPPF)⁸ sets out the Government's planning policies for England and how these are expected to be applied. At the heart of the NPPF is a presumption in favour of sustainable development. It requires Local Plans to be consistent with the principles and policies set out in the NPPF with the objective of contributing to the achievement of sustainable development.

The NPPF states that the planning system has three overarching objectives in achieving sustainable development including a requirement to *'protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.'* Under Section 15: Conserving and Enhancing the Natural Environment, the NPPF (paragraph 187) requires that *'planning policies and decisions should contribute to and enhance the natural and local environment by ...preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible help to improve local environmental conditions such as air and water quality.'*

The NPPF (paragraph 110) states that *'Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health.'*

Furthermore, paragraph 198 states *'Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development.'*

⁸ Ministry of Housing, Communities and Local Government: National Planning Policy Framework, February 2025.

In dealing specifically with air quality (paragraph 199), the NPPF also states that '*planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan*'. Paragraph 201 states that '*the focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively*'.

National Planning Practice Guidance - Air Quality (2019)

The National Planning Practice Guidance (NPPG) document for Air Quality⁹ provides tailored guidance on how planning can take account of the potential impact of new development on air quality. The document provides useful sources of information relating to the assessment of air quality, outlines when an Air Quality Assessment is likely to be required for planning purposes and provides an example of how such reports should be structured. With regard to mitigation measures, these are development specific, however, the guidance does provide a useful suite of typical measures that can be incorporated into the scheme's design to have a beneficial impact on air quality.

The Air Quality Strategy for England (2023)

The Air Quality Strategy for England (2023)¹⁰, is a strategic framework for local authorities and other partners and supersedes the Air Quality Strategy: Volume 1 in England only. This document sets out the actions that DEFRA expects local authorities to take in support of the long-term air quality targets. The Air Quality Strategy (AQS) sets standards and objectives for ten main air pollutants to protect health, vegetation, and ecosystems. The air quality standards are long-term benchmarks for ambient pollutant concentrations which represent negligible or zero risk to health, based on medical and scientific evidence reviewed by the Expert Panel on Air Quality Standards (EPAQS) and the World Health Organisation (WHO). These are general concentration limits, above which sensitive members of the public (e.g. children, the elderly and the unwell) might experience adverse health effects.

The air quality objectives (AQOs) are medium-term policy-based targets set by the Government which consider economic efficiency, practicability, technical feasibility and timescale. For some pollutants there is both a long-term (annual mean) standard and a short-term standard. In the case of NO₂, the short-term standard is for a 1-hour averaging period, whereas for PM₁₀ it is for a 24-hour averaging period. These reflect the varying impacts on health of differing exposures to pollutants (e.g. temporary exposure on the pavement adjacent to a busy road, compared with the exposure of residential properties adjacent to a road). Concentrations of nitrogen dioxide (NO₂), oxides of nitrogen (NO_x) and particulate matter (PM₁₀, PM_{2.5}) are particularly relevant to this project as these are the primary pollutants associated with vehicle emissions, the main source of pollutants in the vicinity of the Site.

⁹ Ministry of Housing, Communities and Local Government (2019) National Planning Practice Guidance - Air Quality, November 2019.

¹⁰ The Air Quality Strategy for England, August 2023.

In relation to PM_{2.5} the 2019 Clean Air Strategy¹¹ includes a commitment to set '*new, ambitious, long-term targets to reduce people's exposure to PM_{2.5}*' which the Environment Act 2021¹² commits the Secretary of State to setting. The Clean Air Strategy sets out policies to lower national emissions of pollutants to reduce background pollution and human exposure. It aims to create a strong framework to tackle air pollution and to reduce the number of people living in locations with PM_{2.5} concentrations exceeding 10µg/m³ by 50% by 2025. As discussed in LAQM.TG22 issued by DEFRA, local authorities are expected to work towards reducing PM_{2.5} in their area, setting this out as the current objectives within England for PM_{2.5}. Historically, limit values were established via the EU Directive with both a Stage 1 and Stage 2 limit value identified. For the purposes of this assessment the Stage 2 limit value for PM_{2.5} (as provided in Table 3.1) is considered to be appropriate to use for assessing impacts of development proposals. The current statutory standards and objectives for NO₂ and PM₁₀ in relation to human health, including those set under The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023⁷, are set out in Table 3.1 below.

Table 3.1
Relevant Air Quality Objectives

Pollutant	Concentrations	Measured As	Date to be Achieved By (and maintained thereafter)
Nitrogen Dioxide (NO ₂).	200 µg/m ³ not to be exceeded more than 18 times per year. 40 µg/m ³ .	1 hour mean. Annual mean.	31 st December 2005.
Particulate Matter (PM ₁₀).	50 µg/m ³ not to be exceeded more than 35 times per year. 40 µg/m ³ .	24-hour mean. Annual mean.	31 st December 2004.
Particulate Matter (PM _{2.5}).	20 µg/m ³ .	Annual mean.	1 st January 2020.
Particulate Matter (PM _{2.5}) Exposure Reduction.	Target of 15% reduction in concentrations at urban background.	Annual mean.	Between 2010 and 2020.
Particles (PM _{2.5}) (Population Exposure Reduction Target) ⁷ .	Target of 35% reduction in population exposure compared with the average population exposure baseline period (2016 - 2018).	Population exposure reduction.	31 st December 2040.
Particles (PM _{2.5}) (Annual Mean Concentration Target) ⁷ .	10 µg/m ³ not to be exceeded at any relevant monitoring station.	Annual mean.	31 st December 2040.

The statutory standards and objectives apply to external air where there is relevant exposure to the public over the associated averaging periods within each objective. Guidance is provided within LAQM.TG22 issued by DEFRA for Local Authorities on where the objectives apply, as detailed in Table 3.2 overleaf. The objectives do not apply in workplace locations, to internal air or where people are unlikely to be regularly exposed (i.e. centre of roadways).

¹¹ Department for Environment, Food & Rural Affairs (DEFRA) (2019) Clean Air Strategy. London: HMSO.

¹² Secretary of State, The Environment Act 2021 HMSO.

Table 3.2
Locations Where Air Quality Objectives Apply

Averaging Period	Objectives should apply at:	Objectives should generally not apply at:
Annual Mean	All locations where members of the public might be regularly exposed. Building facades of residential properties, schools, hospitals, care home etc.	Building facades of offices or other places of work where members of the public do not have regular access. Hotels, unless people live there as their permanent residence. Gardens of residential properties. Kerbside sites (as opposed to locations at the building façade), or any other location where public exposure is expected to be short term.
24-Hour Mean	All locations where the annual mean objective would apply together with hotels. Gardens of residential properties.	Kerbside sites (as opposed to locations at the building façade), or any other location where public exposure is expected to be short term.
1-Hour Mean	All locations where the annual mean and 24-hour mean objectives apply. Kerbside Sites (e.g. pavements of busy shopping streets). Those parts of car parks, bus stations and railway stations etc. which are not fully enclosed, where the public might reasonably be expected to spend 1-hour or more. Any outdoor locations where the public might reasonably be expected to spend 1-hour or longer.	Kerbside sites where the public would not be expected to have regular access.

3.2.2 Local Planning Policy

Places for Everyone - Joint Development Plan Document (2024)

The Places for Everyone Joint Development Plan¹³, for Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan Councils, was adopted in March 2024. This document sets out how the nine boroughs should sustainably develop for the years 2022 to 2039 and outlines the policies which should inform the preparation and determination of planning applications. A review of the document has identified the following policy relevant to air quality:

'Policy JP-S5 Clean Air

A comprehensive range of measures will be taken to support improvements in air quality, focusing particularly on locations where people live, where children learn and play, where there are impacts on the green infrastructure network and where air quality targets are not being met, including:

- 1. Locating and designing development, and focusing transport investment, so as to reduce reliance on forms of transport that generate air pollution;*

¹³ Greater Manchester Councils (2024) Places for Everyone Joint Development Plan Document, March 2024.

2. *Determining planning applications having regard to the most recent development and planning control guidance published jointly by the Institute of Air Quality Management (IAQM) and Environmental Protection UK (EPUK), and the most recent IAQM Guidance on the Assessment of Dust from Demolition and Construction, or relevant successor guidance, including the requirement for developers to submit construction management plans as appropriate;*
3. *Requiring applications for developments that could have an adverse impact on air quality to submit relevant air pollution data so that adverse impacts on air quality can be fully assessed and development only permitted where they are acceptable and/or suitable mitigation can be provided;*
4. *Restricting developments that would generate significant point source pollution such as some types of industrial activity and energy generation;*
5. *Significantly expanding the existing commercial network of electric vehicle charging points, both for public and private use, including as part of new developments;*
6. *Implementing the Clean Air Zone and associated measures;*
7. *Facilitating the more sustainable distribution of goods within the urban area, including through accommodating urban consolidation centres and urban distribution centres that use ultra-low-emission vehicles, and local delivery facilities to reduce repeat delivery attempts;*
8. *Designing streets to avoid trapping air pollution at ground level, including through the appropriate location and scale of buildings and trees;*
9. *Controlling traffic and parking within and around schools, early years sites and other locations that are particularly sensitive to air quality;*
10. *Promoting actions that help remove pollutants from the air, such as enhancing the green infrastructure network and using innovative building materials that capture air pollutants; and*
11. *Development should be located in areas that maximise the use of sustainable travel modes and be designed to minimise exposure to high levels of air pollution, particularly for vulnerable users.'*

Rochdale Adopted Core Strategy (2016)

The Rochdale Adopted Core Strategy¹⁴, adopted in October 2016, is the lead document in the Rochdale Local Plan which outlines the vision, strategies and policies to help deliver new homes, employment land and in some cases, protection from development of land up until the year 2028. A review of the document has identified the following policies which are relevant to the assessment:

'G9 - Reducing the impact of pollution, contamination and land instability

We will reduce all forms of pollution, contamination and land instability in the borough, by: [...]

- a. *Focusing on measures that reduce air pollution in Air Quality Management Areas, and other areas where pollution levels are unacceptable, particularly around motorways and main roads;*
- b. *Requiring that development does not have impacts that lead to an unacceptable increase in air, water, noise, light or other pollution;*
- c. *Ensuring sensitive new developments such as housing, schools and hospitals are not adversely affected by existing sources of pollution such as roads and certain types of industry;*
- d. *Requiring a Low Emissions Strategy (LES) where development requires a Transport Assessment, and in other circumstances as appropriate; [...]* and

¹⁴ Rochdale Borough Council (2016) Rochdale Adopted Core Strategy, October 2016.

- g. Using planning conditions or obligations to control pollution from new development, or the impact of pollution on new development.'*

'DM1 - General development requirements

All development proposals, including changes of use of land and buildings, extensions and alterations, will be expected to demonstrate that they: [...]

- b. Are compatible with surrounding land uses, both in terms of its impact upon those uses and the impact of the surrounding land uses upon the amenities of future residents / users; [...]*
- d. Mitigate against any impacts due to noise, air, dust, light and odour pollution, traffic generation or inadequate access, where such mitigation is identified as being necessary; [...]*
- f. Do not have an adverse impact on health, through its impact or the effect of existing problems e.g. land contamination, or poor air quality; [...]*

Rochdale Borough Unitary Development Plan (2006)

The Unitary Development Plan¹⁵ from the 1996-2016 Local Plan is still in place until the Allocations Development Plan is adopted, which will propose areas and sites around the borough to build or develop up to 2028. A review of this document has identified the following policies relevant to air quality:

'G/EM/1 (Part One Policy) Environmental Protection and Pollution Control

The council will seek to ensure that the location and impact of new development is regulated in the interests of good environmental management. Development that helps to make Rochdale a cleaner and safer place will be encouraged and permitted. The council will seek the minimum practicable levels of ground, air, water and noise pollution from all developments and will ensure that existing levels of pollution in the borough are progressively reduced as resources or opportunities permit. [...]

'EM/2 Pollution

If the emission of pollutants from a proposed development cannot readily be controlled by other environmental legislation, such development will not be permitted where it would be likely to result in an increase in air, water, noise, light or other pollution, which would be harmful to the environment, and to land uses and land users in the area.

Where permission is granted, it will be subject to appropriate conditions or obligations to ensure that air, water and noise pollution is kept to acceptable levels.

New housing or other environmentally sensitive development will not be permitted where existing pollution levels are unacceptable and cannot satisfactorily be reduced.'

The above policies related to air quality and amenity have been considered within this assessment.

3.3 Air Quality Guidance Documents

3.3.1 DEFRA Technical Guidance, LAQM.TG22

LAQM.TG22⁶, sets out detailed guidance on how air quality should be assessed and monitored by local authorities. The document provides useful guidance on how air quality from specific sources should be screened and the approaches that should be used to undertake detailed assessment where potentially significant emissions are identified, including details on model verification and consideration of monitoring data for use in assessments, where relevant.

¹⁵ Rochdale Borough Council (2006) Rochdale Unitary Development Plan, June 2006.

3.3.2 IAQM Guidance on the Assessment of Dust from Demolition and Construction (2024)

Guidance¹ produced by the IAQM on assessing impacts from construction and demolition activities includes a methodology for identifying the risk magnitude of potential dust sources associated with demolition, construction, earthworks and trackout. This is then used to identify the level of mitigation necessary in order for the impacts to be not significant.

3.3.3 IAQM Land-Use Planning and Development Control: Planning for Air Quality (2017)

The IAQM and EPUK published joint guidance² on the assessment of air quality impacts for planning purposes. This includes information on when an air quality assessment is required, what should be included in an assessment and criteria for assessing the significance of any impacts. Of relevance to this assessment, the criteria for determining whether an Air Quality Assessment is required relates to the scale of the development and the associated number of new trips generated by the scheme, that then has the potential to cause additional road traffic emissions on the local road network.

3.3.4 Greater Manchester Combined Authority 2024 Annual Status Report (2025)

Local Air Quality Management involves an annual assessment of local air quality in which an Annual Status Report is required to be submitted to DEFRA. Rochdale Borough Council handles air quality reporting as part of the Greater Manchester Air Quality Working Group. The GMCA document¹⁶ provides an overview of air quality in 2025 and provides further information on the progress and impact of measures implemented to address air quality. The data within this report have been used to inform this assessment.

3.3.5 Greater Manchester Air Quality Action Plan 2016-2021

A joint Greater Manchester Air Quality Action Plan¹⁷ (AQAP) has been prepared, which identifies the sources of air pollution within the area and sets out the actions to be introduced in order to improve air quality. The measures fall into a number of categories, specifically: reducing emissions from road traffic, protection of air quality through enforcement of air pollution legislation, awareness raising, action through building design and land use planning and increased energy efficiency.

¹⁶ Greater Manchester Combined Authority (2025) 2024 Annual Status Report, June 2025.

¹⁷ Greater Manchester Combined Authority (2016) Air Quality Action Plan 2016-2021.

4.0 METHODOLOGY

4.1 Baseline Assessment

To provide a suitable baseline assessment of air quality across, and in the vicinity of, the Site the following factors were considered:

- Proximity of the Site to any Air Quality Management Areas (AQMAs);
- Review of local emission sources, including nearby road traffic emissions;
- Review of local air quality monitoring data contained within the latest available Air Quality Annual Status Report (ASR) prepared by GMCA¹⁶; and
- Review of the predicted background pollutant concentrations, obtained from DEFRA's UK Air Information Resource (UK-AIR) website¹⁸, using the 2021 based Background Mapping Data for the Local Authority in which the Site is located.

4.2 Construction Phase Assessment

4.2.1 Construction Phase Vehicle Emissions

During the construction phase of the proposed development, heavy goods vehicles (HGVs) will require access to the Site to deliver and remove materials, where applicable; there is the potential that other non-road mobile machinery (NRMM), such as earthmoving plant, may also work on-site including generators and cranes. These machines produce exhaust emissions; of particular concern are emissions of NO₂ and PM₁₀. The IAQM air quality planning guidance sets out criteria to determine when significant effects are likely to occur, and a more detailed assessment of traffic emissions is required. The criteria indicates that significant impacts on air quality are unlikely to occur where a development results in less than 25 HDV movements per day in locations within or adjacent to an AQMA and less than 100 HDV outside of an AQMA. The anticipated HGV movements associated with the proposed development were therefore reviewed against the IAQM criteria to inform the assessment approach.

4.2.2 Construction Phase Fugitive Dust Emissions

Construction phase activities associated with the proposed development may result in the generation of fugitive dust emissions (i.e. dust emissions generated by site-specific activities that disperse beyond the construction site boundaries), which if transported beyond the site boundary, can have an adverse impact on local air quality. The IAQM has published a guidance document for the assessment of demolition and construction phase impacts¹. The guidance considers the potential for dust nuisance and impacts to human health and ecosystems to occur due to activities carried out during the following stages of construction:

- Demolition (removal of existing structures);
- Earthworks (soil-stripping, ground-levelling, excavation and landscaping);
- Construction (activities involved in the provision of a new structure); and
- Trackout (the transport of dust and dirt from the construction site onto the public road network where it may be deposited and then re-suspended by vehicles using the network).

¹⁸ DEFRA (undated) UK Air Information Resource - Background Mapping Data for Local Authorities - 2021 [Online] Available at: <https://uk-air.defra.gov.uk/data/iaqm-background-maps?year=2021> [Accessed on 22/06/2026].

The assessment considers the nature and scale of the activities undertaken for each source and the sensitivity of the area to an increase in dust and PM₁₀ levels, thus enabling a level of risk to be assigned. Risks are described in terms of there being a low, medium, or high risk of dust impacts. Once the level of risk has been ascertained, then site specific mitigation proportionate to the level of risk is identified, and the significance of residual effects determined. A summary of the IAQM Construction Phase Risk Assessment methodology is provided in Appendix C.

4.2.3 Screening Criteria

The IAQM assessment is typically undertaken where there are:

- Human receptors within 250m of the site boundary or within 50m of the route(s) used by construction vehicles on the public highway, up to 250m from the site entrance(s); and
- Ecological receptors within 50m of the site boundary, or within 50m of the route(s) used by construction vehicles on the public highway, up to 250m from the site entrance(s).

It is within these distances that the impacts of dust soiling and increased particulate matter in the ambient air will have the greatest impact on local air quality at sensitive receptors.

4.2.4 Sensitivity of Receptors

Receptor sensitivity is defined the IAQM guidance as 'Low', 'Medium' and 'High', with further detail on the descriptors for each category provided in Appendix C. For residential dwellings, these would be categorised as 'high sensitivity' and for commercial units, 'medium sensitivity'. The sensitivity of the area is then defined for dust soiling, human health (PM₁₀) and ecological receptors as 'Low', 'Medium' or 'High'. The sensitivity of the area considers the following factors:

- The specific sensitivities of receptors in the area;
- The proximity and number of receptors;
- In the case of PM₁₀, the local background concentration; and
- Site specific factors, such as whether there are natural shelters, such as trees, to reduce the risk of wind-blown dust.

Where there are 'high', 'medium' and 'low' sensitivity receptors located within the relevant screening distance from the site, then the highest level of area sensitivity, determined from the matrices in Appendix C, is used to inform the assessment, as this provides the most robust approach.

4.2.5 Significance Criteria

The IAQM assessment methodology recommends that significance criteria are only assigned to the identified risk of dust impacts occurring from a construction activity following the application of appropriate mitigation measures. For almost all construction activities, the application of effective mitigation should prevent any significant effects occurring to sensitive receptors and therefore the residual effects will normally be **negligible**.

4.2.6 Applicability of the IAQM Guidance

Following a review of the proposed construction phase activities for the proposed development, due to the development being an internal re-development of an existing building only, the IAQM guidance is not considered relevant to this scheme.

With no external demolition, earthworks, construction or trackout associated with the scheme, the potential dust emission magnitude for dust and PM₁₀ sources is considered to be **negligible**, with an effect that is **not significant**, in accordance with the IAQM guidance. As such, a Construction Phase Assessment is not required to be undertaken.

4.3 Operational Phase Assessment

4.3.1 EPUK/IAQM Screening Criteria

The air quality planning guidance published by EPUK and IAQM² sets out the criteria to be used in identifying whether a Simple or Detailed Air Quality Assessment is required.

Stage 1 Criteria

An Air Quality Assessment is required if any of the Stage 1 criteria apply:

- 10 or more residential units or a site area of more than 0.5ha; or
- more than 1,000m² of floor space for all other uses or a site area greater than 1ha.

Coupled with any of the following:

- the development has more than 10 parking spaces; or
- the development will have a centralised energy facility or centralised combustion process.

This stage is intended to screen out smaller developments, where impacts can be considered to have insignificant effects. However, it should be noted that consideration should still be given to the potential impacts of neighbouring sources on the site, through an exposure assessment, even if an assessment of impacts of the development on the surrounding area is screened out.

Stage 2 Criteria

The Stage 2 criteria provide more specific guidance as to when a Detailed Air Quality Assessment is likely to be required to assess the impacts of the proposed development on the local area. Of relevance to this assessment, where the following criteria are exceeded, along road links where sensitive human receptors are located, a more detailed assessment may be required:

- An increase in light goods vehicles (LGV) of more than 100 vehicles per day within or adjacent to an AQMA, or an increase of more than 500 annual average daily traffic (AADT) flows per day elsewhere; and
- An increase in HGV of more than 25 vehicles per day within or adjacent to an AQMA, or an increase of more than 100AADT per day elsewhere.

With regard to ecological receptors, the screening criteria for a quantitative assessment is if the development has a daily trip generation exceeding 1,000 vehicles or 200 heavy duty vehicles (HDVs) and is within 200m of the road source¹⁹. There are no ecological designations within the relevant screening distances and therefore, ecological receptors are not applicable to this development.

¹⁹ IAQM (2020) A guide to the assessment of air quality impacts on designated nature conservation sites, Version 1.1, May 2020.

Furthermore, should any point source emissions be associated with the development, then these sources should be reviewed to determine whether there is a risk of impacts at relevant receptor locations. A review of the proposals indicates that there will be no point source emissions associated with the development and therefore, this is not applicable to this development.

It should be noted that exceeding a screening criterion would not automatically lead to the requirement for a Detailed Assessment. The guidance states:

'The principle underlying this guidance is that any assessment should provide enough evidence that will lead to a sound conclusion on the presence, or otherwise, of a significant effect on local air quality. A Simple Assessment will be appropriate, if it can provide this evidence.'

4.3.2 Review of Traffic Data

For the purposes of the Air Quality Assessment, the distribution of new trips on the local road network is of importance. The number of new trips generated by the scheme is therefore required to be assessed against the EPUK/IAQM Stage 2 criteria and considered against the location of sensitive human receptors once distributed.

A Transport Statement was prepared by TPS Transport Consultants Ltd for the purposes of the planning application (ref: P3136; dated: December 2025). This document states that as there is no parking provided as part of the development proposals, any trips associated with the Site would be undertaken by sustainable modes of transport and therefore, would not increase the number of vehicles on the local road network. Therefore, a detailed Operational Phase Assessment is not required to be undertaken.

5.0 BASELINE ASSESSMENT

5.1 Introduction

To provide a suitable baseline review of the area in which the Site is located, existing air quality conditions were reviewed, with the findings presented in the sections below.

5.2 Greater Manchester Combined Authority LAQM Review

In accordance with GMCA's latest available Air Quality Annual Status Report¹⁶ and DEFRA's UK Air Information Resource (AIR) website¹⁸, there is currently one (1no.) AQMA declared within GMCA that covers the trunk road network across Greater Manchester and Manchester City Centre, with this extending to Rochdale. The AQMA was declared in 2016, with the specific areas identified based on modelled concentrations of NO₂ and were based on a precautionary level of 35µg/m³ rather than the legal AQO limit of 40µg/m³. The AQMA is adjacent to the Site, covering the western Site boundary along John Street, with this area of the designation covering the St Mary's Gate junction. The AQMA does not extend to the building at the Site, and therefore, the development will not introduce new residential receptors to the AQMA.

5.3 Local Emission Sources

The main potential sources of air pollution in the vicinity of the Site were identified as emissions from road transport using the A671 John Street and the wider local road network. With regard to the local road network, the A671 John Street is adjacent to the Site, to the west, with an AADT flow of 20,470 (1.08% HDV) in 2025, based on the most recently available and representative count point presented on the Department for Transport website²⁰ (ref: 38048). This is considered a suitable representation of traffic flow conditions in the vicinity of the Site, which is not considered to be highly trafficked. Therefore, traffic emissions are unlikely to contribute significantly to elevated pollutant concentrations away from the roadside within the Site boundary.

There are no commercial sources identified within the vicinity of the Site that would affect local air quality through associated point source emissions.

5.4 Air Quality Monitoring

5.4.1 Automatic Monitoring

GMCA undertook automatic (continuous) monitoring of pollutant concentrations at 24 sites during 2024. As none of these locations are in the vicinity of the Site, their recorded pollutant concentrations are not required to be considered within this assessment.

5.4.2 Non-Automatic Monitoring

GMCA monitored NO₂ concentrations at 383 non-automatic (passive) diffusion tube sites during 2024. Diffusion tubes, due to their relative in-expense, allow for a much greater spatial coverage than automatic monitoring sites. To allow the results to be reliably compared against the AQO, the data should be bias corrected using data collected from diffusion tubes co-located with continuous monitoring sites. Details of the closest monitoring sites and data recorded since 2020 are set out in Table 5.1, which have been adjusted by GMCA using the national bias adjustment factor obtained from the DEFRA LAQM website²¹.

²⁰ <https://roadtraffic.dft.gov.uk/count-points/38048>

²¹ <https://laqm.defra.gov.uk/air-quality/air-quality-assessment/national-bias/>

Table 5.1
Diffusion Tube Annual Mean NO₂ Concentrations (µg/m³)

Site ID	Description	Site Type	Monitoring Year				
			2020	2021	2022	2023	2024
RO18ANO	Penn Street	Urban Background	12.9	13.9	16.0	15.0	12.8
RO19ANO	John Street	Roadside	19.2	21.2	24.6	22.8	20.1
RO26ANO	Whitworth Road	Roadside	12.4	13.9	15.6	15.0	11.9

As presented in Table 5.1, there were no exceedances of the annual mean AQO for NO₂ at the closest diffusion tube monitoring locations to the Site, during the most recent monitoring years, with concentrations consistently below the AQO limit of 40µg/m³.

The closest diffusion tube to the Site is 'RO19ANO', located on 'John Street' approximately 65m to the south of the Site. This location is therefore considered a suitable representation of air quality conditions at the Site, being located in close proximity to the Site along the same road network.

With no exceedances recorded at the closest monitoring locations, it is considered that pollutant concentrations within the Site boundary would be similar, if not less, than those presented in Table 5.1, being set back further from the main road network than diffusion tubes themselves.

Furthermore, in accordance with the LAQM.TG22 guidance, with pollutant concentrations below 60µg/m³, it may be assumed that exceedances of the 1-hour mean objective are therefore unlikely. It is therefore considered that there is no predicted risk of the proposed development exposing sensitive receptors to elevated air pollutant concentrations when considering any additional trips on the local road network.

5.5 Background Concentrations

In addition to the review of monitored pollutant data in the vicinity of the Site, additional information on estimated background pollutant concentrations at the Site has been obtained from the DEFRA background maps provided on the UK-AIR website¹⁸.

Estimated air pollutant concentrations for oxides of nitrogen (NO_x), NO₂, PM₁₀ and PM_{2.5} have been sourced from the 2021 based background maps for the UK for the current assessment year of 2026 and for a predicted opening year of the development of 2028, to consider future air quality conditions in the vicinity of the Site. These maps are available in 1km x 1km grid squares. The Site is located within grid square NGR: 389500, 413500. Predicted pollutant concentrations for this location are provided in Table 5.2 below.

Table 5.2
Background Air Pollutant Concentrations

OS Grid Reference (X, Y; m)	Pollutant Concentrations for 2026				Pollutant Concentrations for 2028			
	NO ₂ (µg/m ³)	NO _x (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	NO ₂ (µg/m ³)	NO _x (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)
389500, 413500	12.1	16.0	11.5	6.8	11.1	14.6	11.4	6.7

As shown in Table 5.2, there were no exceedances of the annual mean AQOs for NO₂, PM₁₀ or PM_{2.5} in 2026 at the Site location, with background concentrations predicted to decrease by 2028.

For PM_{2.5}, the predicted background concentration was also below the annual mean PM_{2.5} concentration target of 10µg/m³, implemented at the end of January 2023 under the Environment Act 2021 and in accordance with the Environmental Targets (Fine Particulate Matter) (England) Regulations 2023⁷. It is worth noting that the second target within the Environmental Targets (Fine Particulate Matter) (England) Regulations 2023⁷ is to reduce population exposure to PM_{2.5} by 35% compared to 2018 concentrations, which should be achieved by 2040. To consider this for the Site location, estimated PM_{2.5} pollutant concentrations have been obtained for 2018 and 2040, utilising the 2018 and 2021 based DEFRA background maps for the UK respectively. The data are presented in Table 5.3 below.

Table 5.3
Background PM_{2.5} Concentrations at the Site (µg/m³)

Grid Square NGR: 389500, 413500		
	PM _{2.5} Concentration for 2018	PM _{2.5} Concentration for 2040
PM _{2.5} background concentration	8.2	6.1
35% of 2018 PM _{2.5} concentration		2.9
Target PM _{2.5} concentration for 2040		5.3

As shown in Table 5.3, the target background PM_{2.5} concentration for 2040 at the Site location, based on there being a 35% reduction from the 2018 concentration, is 5.3µg/m³. The PM_{2.5} concentration is predicted to slightly exceed the 35% reduction target, with a concentration of 6.1µg/m³ predicted in 2040. The concentrations do meet the Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 of 10µg/m³ and pollutant concentrations are predicted to continue to decrease over time. It should be noted, however, that this target relates to population exposure and being a national target, is not of itself directly related to individual developments. The purpose of this regulation is to drive broader national air quality improvements rather than constrain development which does not contribute to a significant increase in emissions.

Therefore, this review of pollutant concentrations has been presented for completeness and information only. It should be noted that DEFRA state on the UK AIR website¹⁸ that only the most recent mapped data should be used for new air quality assessments whilst older data can continue to be used for research.

There is no predicted risk of future Site occupants being exposed to elevated air pollutant concentrations.

5.6 Site Suitability

The proposed development comprises the introduction of new sensitive receptors. As presented in Table 5.1, representative monitored annual mean NO₂ concentrations in the vicinity of the Site are below 40µg/m³ and it can be concluded that concentrations at the Site are likely to be similar, based on the monitoring locations being considered representative of the Site location. Annual mean NO₂ concentrations at the Site are therefore expected to meet the AQO for this pollutant, resulting in no predicted risk of the proposed development exposing future occupants to elevated pollutant concentrations.

As presented in Table 5.1 and Table 5.2, the monitored and background NO₂, PM₁₀ and PM_{2.5} concentrations predicted at the Site are below the relevant annual mean AQOs. For PM_{2.5}, the monitored and predicted background concentration are also below the target exposure level of 10µg/m³, implemented at the end of January 2023 under the Environment Act 2021.

Given the low concentrations of these pollutants, it can be concluded that pollutant concentrations at the Site will be below the relevant AQOs. Therefore, there is no predicted risk of the proposed development exposing future occupants to elevated pollutant concentrations, with annual mean NO₂, PM₁₀ and PM_{2.5} concentrations expected to meet the AQO for these pollutants.

The short-term objective limits such as the 1-hour NO₂ objective are also considered relevant to the Site. As presented in Table 5.1, the annual mean NO₂ concentrations at representative locations in the vicinity of the Site are well below 60µg/m³. It can therefore be concluded that concentrations at the Site will be below 60µg/m³. Short-term NO₂ concentrations at the Site are therefore expected to be meeting the 1-hour objective limit for this pollutant. For PM₁₀, the short-term objective of 50µg/m³ should not be exceeded more than 35 times per year. As presented in Table 5.1 and Table 5.2, monitored and predicted background concentrations of PM₁₀ were significantly below 50µg/m³ and therefore, even when considering the road traffic emission contribution, short-term concentrations are expected to meet the short-term AQO at the Site. There is no short-term AQO for PM_{2.5}, and therefore, these concentrations are compared against the AQO for PM₁₀. Based on this, there is no predicted risk of exceedance for PM_{2.5} at the Site.

It is therefore concluded that the proposed development will not introduce future occupants into a location of poor air quality, and as such, the impact of the proposals in terms of new exposure is therefore considered to be **negligible**.

6.0 ASSESSMENT OF IMPACTS

6.1 Construction Phase Assessment

6.1.1 Construction Phase Vehicle Emissions

During the construction phase of the proposed development, HGVs will require access to the Site to deliver and remove materials; there is the potential that other mobile machinery, such as earthmoving plant, may also work on-site including generators and cranes. These machines produce exhaust emissions; of particular concern are emissions of NO₂ and PM₁₀.

Based on the development proposals, it is anticipated that there would be no more than 25 HGVs generated on any one road link on any given day during the construction phase, based on the Site being located adjacent to an AQMA. It is therefore anticipated that construction traffic generated by the proposed development would result in a **negligible** impact on local NO₂ and PM₁₀ concentrations and therefore, has not been considered any further in this assessment.

6.1.2 Construction Phase Fugitive Dust Emissions

Site and Surroundings

Step 1 - Screen the Need for a Detailed Assessment

A review of the Site location has identified the closest sensitive receptors being commercial premises located to the east and south, within 20m of the Site boundary and of medium sensitivity. Therefore, construction related impacts in relation to human receptors have had to be considered within this assessment.

A review of the DEFRA MAGIC website²² has identified no ecological designations within the relevant screening distances. This element of the assessment is therefore not considered further in this report.

Meteorological Data

The precise behaviour of the dust, its residence time in the atmosphere, and the distance it may travel before being deposited would depend upon a number of factors. These include wind direction and strength, local topography, and the presence of intervening structures (buildings, etc.) that may intercept dust before it reaches sensitive locations. Furthermore, dust would be naturally suppressed by rainfall. To consider the prevailing conditions at the Site, a review of historical weather data has been undertaken. The closest and most representative observation station with a suitable dataset is at Manchester Airport, located approximately 30.7km to the south of the Site. It is anticipated that meteorological conditions would be reasonably similar over a distance of this magnitude. Meteorological data were obtained for the period 1st January 2016 to 31st December 2025 (inclusive), and reference should be made to Appendix D for a wind rose of these data. A review of the wind rose has shown that any receptors located to the north through to the east of the Site have the greatest potential to be affected by dust and particulate matter emitted and re-suspended during the construction phase, as a result of the prevailing wind direction. However, under low wind speed conditions, it is likely that the majority of dust would be deposited in the area immediately surrounding the source.

²² DEFRA (2025) MAGIC [Online] Available at: <https://magic.defra.gov.uk/MagicMap.html> [Accessed on 22/06/2026].

Risk Assessment of Dust Impacts

Step 2A - Defining the Potential Dust Emission Magnitude

With reference to the criteria detailed in Appendix C, the dust emission magnitude has been determined for each of the following categories: demolition, earthworks, construction and trackout. However, due to the scale and nature of the proposed development, being an internal re-development of an existing building, the IAQM guidance is not considered relevant to this scheme. With no external demolition, earthworks, construction or trackout associated with the scheme, the potential dust emission magnitude for these dust and PM₁₀ sources is considered to be **negligible**, with an effect that is **not significant**, in accordance with the IAQM guidance. As such, no further assessment is required.

Step 3 - Site Specific Mitigation

Based on the IAQM guidance, where the risk is assigned as negligible, no mitigation measures beyond those required by legislation are required.

Step 4 - Determine Significant Effects

Due to the scale and nature of the proposed development, the residual effect is considered to be **not significant** in accordance with the IAQM guidance.

6.2 Operational Phase Assessment

6.2.1 Review of Traffic Data

Following a review of the Transport Statement prepared by TPS Transport Consultants Ltd (ref: P3136; dated: December 2025), the development is anticipated to generate 13 two-way person trips in the AM peak hour and 14 two-way person trips in the PM peak hour. However, given that there is no parking provision, these trips would be undertaken by sustainable modes of transport and therefore, would not increase the number of vehicles on the local road network.

The trip generation of the scheme is therefore below the EPUK/IAQM screening criteria of 500 AADT for outside of an AQMA, and 100AADT for within an AQMA, as set out in Section 4.3. As such, impacts on local air quality across the local road network are concluded as being **negligible**.

Detailed dispersion modelling has therefore been scoped out of the assessment.

6.2.2 Baseline Assessment and Local Air Quality Context

As detailed within Section 5.0, the nearest diffusion tube monitoring location is situated along the same road as the Site, and is therefore considered representative of roadside conditions in the vicinity of the Site. The monitoring results provide an appropriate indication of baseline air quality in the surrounding area. Monitoring data for the latest available year of 2024 indicates that the maximum recorded bias-adjusted annual mean NO₂ concentration at this location was 20.1µg/m³, which is well below the relevant AQO of 40µg/m³. It is noted that this maximum concentration was recorded at a roadside monitoring location, positioned in close proximity to the carriageway. Such locations are intentionally conservative and are likely to overestimate concentrations experienced at sensitive receptors, which are typically set back from the road and would therefore be expected to experience lower pollutant concentrations.

In accordance with IAQM/EPUK guidance², the magnitude of change required to give rise to a 'moderate' or 'significant' air quality effect increases where baseline concentrations are well below the AQO. In this case, baseline concentrations are less than 75% of the AQO, meaning that a change greater than 10% of the Air Quality Assessment Level (i.e. $>4\mu\text{g}/\text{m}^3$ for NO_2) would typically be required to result in a material impact. Given the relatively low baseline concentrations and the fact that there will be no additional development-generated trips on road links in proximity to sensitive receptors, the proposed development would not give rise to changes in pollutant concentrations of this magnitude.

On this basis, and applying professional judgement, the operational air quality impacts of the development are considered to be **negligible**.

7.0 MITIGATION

7.1 Construction Phase

The control of dust emissions from construction phase site activities relies upon management provisions and mitigation techniques to reduce emissions of dust and limit dispersion. Where dust emission controls have been used effectively, large-scale operations have been successfully undertaken without impacts to nearby properties.

In accordance with the IAQM guidance, where the risk is assigned as **negligible**, no mitigation measures beyond those required by legislation are required.

With the proposed development being internal renovations only, it is worth noting that there are no plans to sandblast the exterior of the building. Should this change, appropriate control measures including sheeting and water suppression should be implemented to minimise dust impacts. With regard to waste management procedures, all waste materials from upper floors should be removed internally or via fully sheeted chutes. No waste should be dropped into skips from height. Dusty materials should be removed promptly, skips to be sheeted where necessary, and no waste should be burned on-site. With regard to minimising vehicle emissions during the construction phase, appropriate control measures should be implemented, including discouraging vehicle idling and encouraging car sharing among site workers where feasible.

Following the application of the mitigation measures as required by legislation, and good site practice, the residual effects of dust and PM₁₀ generated by construction activities are considered to be **not significant**.

7.2 Operational Phase

The assessment has shown that the operational phase of the development would have a **negligible** impact on local air quality, and the proposed development will not introduce future occupants into a location of poor air quality. As such, the impact of the proposals in terms of new exposure is therefore considered to be **negligible**.

With regard to mitigation measures, these are required to satisfy national and local planning policy, and to adhere to the relevant Building Regulations (Approved Document S). For example, a key theme of the NPPF is that developments should enable future Site users to make '*green vehicle choices*' and '*ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles*'. Therefore, as a minimum requirement, a new development scheme should typically include the provision of electric vehicle charging infrastructure. However, as the development is car-free, all trips associated with the scheme will inherently be made using sustainable modes of transport.

7.3 The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023

The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023⁷ require applicants to provide evidence in their planning applications that they have considered potential exposure to PM_{2.5} when selecting their Site location and detail the actions and/or mitigations that have been considered to reduce PM_{2.5} exposure for development users and nearby receptors, as far as is reasonably practicable. A review of the Site location and planning application documents has therefore been undertaken, with the required evidence detailed in the sections below to address the requirements of the Environmental Targets (Fine Particulate Matter) (England) Regulations 2023.

7.3.1 Site Location, Layout and Proximity to Pollution Sources

The Site is within a mixed-use area, with existing residential apartment blocks located approximately 80m southwest of the Site, at a similar distance from the A671 John Street. Therefore, the development does not represent a change in the area's character or sensitivity.

The main potential sources of air pollution were identified as emissions from road transport using the A671 John Street and the wider local road network. With regard to the local road network, the A671 John Street is adjacent to the Site, to the west, with an AADT flow of 20,470 (1.08% HDV) in 2025, based on the most recently available and representative count point presented on the Department for Transport website²⁰ (ref: 38048). This is considered a suitable representation of traffic flow conditions in the vicinity of the Site, which is not considered to be highly trafficked. Therefore, traffic emissions are unlikely to contribute significantly to elevated pollutant concentrations away from the roadside within the Site boundary.

With regard to nearby high sensitivity receptors, the closest residential dwellings are located to the southwest of the Site, at a distance less than 100m from the Site boundary. The proposed dwellings will not be located any closer to the A671 John Street than these existing residential properties.

There are no commercial sources identified at, or within the vicinity of, the Site that would affect local air quality through associated point source emissions.

The proposals retain the current layout of the Site, allowing for the existing trees and shrubbery to be retained along the Site boundary, providing a suitable natural screening barrier and acting as a natural air filter with potential to reduce emissions within the Site itself.

This Air Quality Assessment has therefore considered potential transport emissions, commercial or industrial activity, and other PM_{2.5} sources that may impact future Site users, with no significant impacts resulting from the scheme.

7.3.2 Background Air Quality

When considering the potential impact of the development on nearby and proposed residential properties, the monitored pollutant and background concentrations presented in Section 5.0 indicate that the Site is not in an area where pollutant concentrations are likely to exceed the relevant AQOs. Background air quality data from DEFRA indicate that existing PM_{2.5} concentration for the Site is 6.8µg/m³, which is below the 10µg/m³ target set by the Environmental Targets (Fine Particulate Matter) (England) Regulations 2023. This is predicted to decrease further in future years. There is, therefore, no risk of the proposed development exposing occupants of the Site to elevated levels of PM_{2.5} pollution. The Site is in a good location, with regard to there being minimal exposure to pollutant concentrations.

7.3.3 Exposure and Emissions During Both Construction and In-Use

With no external demolition, earthworks, construction or trackout associated with the scheme, the potential dust emission magnitude for these dust and PM₁₀ sources is considered to be **negligible**, with an effect that **is not significant**, in accordance with the IAQM guidance. Following the application of the mitigation measures as required by legislation, and good site practice, the residual effects of dust and PM₁₀ generated by construction activities are considered to be **not significant**.

7.3.4 Sustainable Transport Initiatives

Sustainable travel methods are being promoted through the scheme design, which will be car-free. Therefore, all trips associated with the development would utilise sustainable transport methods, including cycling, with 16 cycle parking spaces to be provided on the ground floor of the building. Being a car-free scheme, there is no requirement for electric vehicle charging infrastructure.

The Site is within a highly sustainable location, within walking distance to local bus and tram stops and Rochdale Train Station.

7.3.5 Green Infrastructure

The Site benefits from established trees and shrubbery along the boundary, which will be retained as part of the development proposals. This landscaping has the potential to reduce potential exposure to PM_{2.5} from nearby road traffic emissions for proposed receptors, through natural air infiltration. The existing vegetation around the Site boundary will also act as a suitable screening barrier. This is considered a beneficial mitigation measure and is referenced as a good example in the NPPG.

7.3.6 Summary

The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 require there to be a 35% reduction in population exposure to PM_{2.5} by 2040, compared to 2018 concentrations. Whilst Table 5.3 indicates that this target is likely to be slightly exceeded, the concentrations do meet the Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 of 10µg/m³. Pollutant concentrations are also predicted to continue to decrease over time. The proposed development is considered to contribute to this target through incorporation of the above measures, which have been included in the intrinsic design of the scheme.

Therefore, when considering the evidence detailed in the sections above, the Site is considered to be in a good location and of a good design with regard to air quality impacts, making it suitable for the development proposals, and will minimise the impact of air quality on nearby receptor locations.

8.0 CONCLUSION

Dragonfly Consulting has been instructed by Identity Interior Design Partnership to undertake an Air Quality Assessment to inform the change of use planning application for the proposed residential development, located at St James Place, 168 Yorkshire Street, Rochdale, OL16 2DL. The proposals comprise to conversion of the existing St James Place office building into 23 flats.

The IAQM assessment methodology has been reviewed to determine the potential dust emission magnitude for the following four dust and PM₁₀ sources: demolition, earthworks, construction and trackout. Due to the scale and nature of the proposed development, being an internal re-development of an existing building, the IAQM guidance is not considered relevant to this scheme.

With no external demolition, earthworks, construction or trackout associated with the scheme, the potential dust emission magnitude for these dust and PM₁₀ sources is considered to be **negligible**, with an effect that **is not significant**, in accordance with the IAQM guidance. Following the application of the mitigation measures as required by legislation, and good site practice, the residual effects of dust and PM₁₀ generated by construction activities are considered to be **not significant**.

The baseline air quality assessment has predicted a **negligible** impact in terms of exposure to NO₂, PM₁₀ and PM_{2.5} concentrations. Furthermore, the proposed development would not generate new operational trips in excess of the EPUK/IAQM criteria, being a car-free scheme, and therefore, the impact of the development on local air quality is considered to be **negligible**.

The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 require applicants to provide evidence in their planning applications that they have identified key sources of air pollution within their schemes and taken appropriate action to minimise emissions of PM_{2.5} and its precursors as far as is reasonably practicable. Details have therefore been provided of the beneficial mitigation measures which have been included in the intrinsic design of the scheme and will be in operation during use of the development.

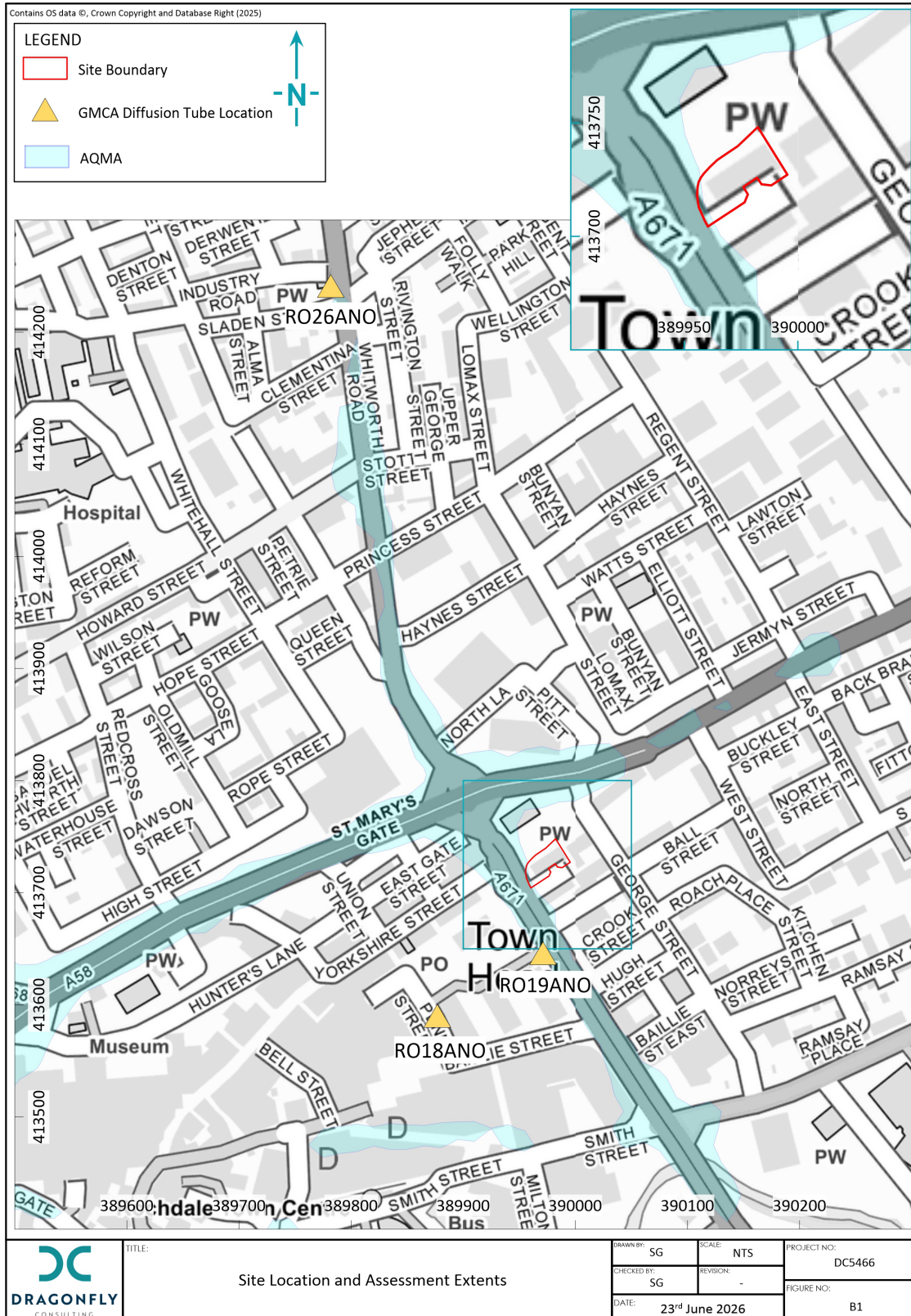
Based on the above, air quality does not pose a constraint to the development of the Site for the proposed end-use and the proposals meet the requirements of both national and local air quality planning policy. The Site is considered to be in a good location and of a good basic design with regard to air quality impacts, making the Site suitable for the development proposals.

Appendix A - Glossary of Terminology

Term	Definition
Air quality objective (AQO)	Policy target generally expressed as a maximum ambient concentration to be achieved, either without exception or with a permitted number of exceedances within a specific timescale (see also air quality standard).
Air quality standard	The concentrations of pollutants in the atmosphere which can broadly be taken to achieve a certain level of environmental quality. The standards are based on the assessment of the effects of each pollutant on human health including the effects on sensitive sub groups (see also air quality objective).
Ambient air	Outdoor air in the troposphere, excluding workplace air.
Annual mean	The average (mean) of the concentrations measured for each pollutant for one year. Usually this is for a calendar year, but some species are reported for the period April to March, known as a pollution year. This period avoids splitting winter season between 2 years, which is useful for pollutants that have higher concentrations during the winter months.
AQMA	Air Quality Management Area.
DEFRA	Department for Environment, Food and Rural Affairs.
EPUK	Environmental Protection UK.
Exceedance	A period of time where the concentration of a pollutant is greater than, or equal to, the appropriate air quality standard.
Fugitive emissions	Emissions arising from the passage of vehicles that do not arise from the exhaust system.
GMCA	Greater Manchester Combined Authority.
HDV	Heavy Duty Vehicle.
HGV	Heavy Goods Vehicle.
IAQM	Institute of Air Quality Management.
LAQM	Local Air Quality Management.
LGV	Light Goods Vehicle.
NO	Nitrogen monoxide, a.k.a. nitric oxide.
NO ₂	Nitrogen dioxide.
NO _x	Nitrogen oxides.
NRMM	Non-Road Mobile Machinery.
PM ₁₀	Particulate matter with an aerodynamic diameter of less than 10 micrometres.
PM _{2.5}	Particulate matter with an aerodynamic diameter of less than 2.5 micrometres.
µgm ⁻³ micrograms per cubic metre	A measure of concentration in terms of mass per unit volume. A concentration of 1ug/m ³ means that one cubic metre of air contains one microgram (millionth of a gram) of pollutant.

Appendix B - Site Location and Assessment Extents

Figure B1
Site Location and Assessment Extents



Appendix C - IAQM Construction Phase Dust Risk Assessment Methodology

In order to assess the potential impacts, the activities on construction sites are divided into four categories. These are:

- demolition (removal of existing structures);
- earthworks (soil-stripping, ground-levelling, excavation and landscaping);
- construction (activities involved in the provision of a new structure); and
- trackout (the transport of dust and dirt from the construction site onto the public road network where it may be deposited and then re-suspended by vehicles using the network).

For each activity, the risk of dust annoyance, health and ecological impact is determined using three risk categories: low, medium and high risk. The risk category may be different for each of the four activities. The risk magnitude identified for each of the construction activities is then compared to the number of sensitive receptors in the near vicinity of the site to determine the risks posed by the construction activities to these receptors.

Step 1 - Screen the Need for a Detailed Assessment

The first step is to screen the requirement for a more detailed assessment. An assessment is required where there is:

- a 'human receptor' within 250m of the boundary of the site or 50m of the route(s) used by construction vehicles on the public highway, up to 250m from the site entrance(s); and/or
- an 'ecological receptor' within 50m of the boundary of the site; or 50m of the route(s) used by the construction vehicles on the public highway, up to 250m from the site entrance(s).

Step 2A - Define the Potential Dust Emission Magnitude

This is based on the scale of the anticipated works and the proximity of nearby receptors. The risk is classified as small, medium or large for each of the four categories.

Demolition: The potential dust emission classes for demolition are:

- Large: Total building volume $>75,000\text{m}^3$, potentially dusty construction material (e.g. Concrete), on site crushing and screening, demolition activities $>12\text{m}$ above ground level;
- Medium: total building volume $12,000\text{m}^3$ - $75,000\text{m}^3$, potentially dusty construction material, demolition activities 6-12m above ground level; and
- Small: total building volume $<12,000\text{m}^3$, construction material with low potential for dust release (e.g. metal cladding or timber), demolition activities $<6\text{m}$ above ground, demolition during wetter months.

Earthworks: This involves excavating material, haulage, tipping and stockpiling. The potential dust emission classes for earthworks are:

- Large: Total site area $>110,000\text{m}^2$, potentially dusty soil type (e.g. clay, which will be prone to suspension when dry due to small particle size), >10 heavy earth moving vehicles active at any one time, formation of bunds $>6\text{m}$ in height;

- Medium: Total site area 18,000m² - 110,000m², moderately dusty soil (e.g. silt), 5 - 10 heavy earth moving vehicles active at any one time, formation of bunds 3m - 6m in height; and
- Small: Total site area <18,000m², soil type with large grain size (e.g. sand), <5 heavy earth moving vehicles active at any one time, formation of bunds <3m in height.

Construction: The important issues here when determining the potential dust emission magnitude include the size of the building(s)/infrastructure, method of construction, construction materials, and duration of build. The categories are:

- Large: Total building volume >75,000m³, on site concrete batching, sandblasting;
- Medium: Total building volume 12,000m³ - 75,000m³, potentially dusty construction material (e.g. concrete), on site concrete batching; and
- Small: Total building volume <12,000m³, construction material with low potential for dust release (e.g. metal cladding or timber).

Trackout: The risk of impacts occurring during trackout is predominantly dependent on the number of vehicles accessing the Site on a daily basis. However, vehicle size and speed, the duration of activities and local geology are also factors which are used to determine the emission class of the Site as a result of trackout. The categories are:

- Large: >50 HDV (>3.5t) outward movements in any one day, potentially dusty surface material (e.g. high clay content), unpaved road length >100m;
- Medium: 20-50 HDV (>3.5t) outward movements in any one day, moderately dusty surface material (e.g. high clay content, unpaved road length 50-100m; and
- Small: <20 HDV (>3.5t) outward movements in any one day, surface material with low potential for dust release, unpaved road length <50m.

Step 2B - Define the Sensitivity of the Area

The sensitivity of the area is defined for dust soiling, human health (PM₁₀) and ecological receptors. The sensitivity of the area takes into account the following factors:

- the specific sensitivities of receptors in the area;
- the proximity and number of receptors;
- in the case of PM₁₀, the local background concentration; and
- site specific factors, such as whether there are natural shelters, such as trees, to reduce the risk of wind-blown dust.

Table C1 is used to define the sensitivity of different types of receptors to dust soiling, health effects and ecological effects.

Based on the sensitivities assigned to the different receptors surrounding the site and numbers of receptors within certain distances of the site, a sensitivity classification can be defined for each. Tables C2 to C4 indicate the criteria used to determine the sensitivity of the area to dust soiling, human health and ecological impacts.

Table C1
Examples of Factors Defining Sensitivity of an Area

Sensitivity of Area	Dust Soiling	Human Receptors	Ecological Receptors
High	Users can reasonably expect enjoyment of a high level of amenity. The appearance, aesthetics or value of their property would be diminished by soiling. The people or property would reasonably be expected to be present continuously, or at least regularly for extended periods, as part of the normal pattern of use of the land. E.g. dwellings, museums and other important collections, medium and long term car parks and car showrooms.	10 - 100 dwellings within 20 m of site. Local PM₁₀ concentrations close to the objective (e.g. annual mean 36-40 µg/m³). E.g. residential properties, hospitals, schools and residential care homes.	Locations with an international or national designation and the designated features may be affected by dust soiling. Locations where there is a community of a particularly dust sensitive species such as vascular species included in the Red List for Great Britain. E.g. A Special Area of Conservation (SAC).
Medium	Users would expect to enjoy a reasonable level of amenity but would not reasonably expect to enjoy the same level of amenity as in their home. The appearance, aesthetics or value of their property could be diminished by soiling. The people or property wouldn't reasonably be expected to be present here continuously or regularly for extended periods as part of the normal pattern of use of the land. E.g. parks and places of work.	Less than 10 receptors within 20m. Local PM₁₀ concentrations below the objective (e.g. annual mean 30-36 µg/m³). E.g. office and shop workers but will generally not include workers occupationally exposed to PM₁₀ as protection is covered by the Health and Safety at Work legislation.	Locations where there is a particularly important plant species, where its dust sensitivity is uncertain or unknown. Locations with a national designation where the features may be affected by dust deposition E.g. A Site of Special Scientific Interest (SSSI) with dust sensitive features.
Low	The enjoyment of amenity would not reasonably be expected. Property would not reasonably be expected to be diminished in appearance, aesthetics or value by soiling. There is transient exposure, where the people or property would reasonably be expected to be present only for limited periods of time as part of the normal pattern of use of the land. E.g. playing fields, farmland unless commercially sensitive horticultural, footpaths, short lived car parks and roads.	Locations where human exposure is transient. No receptors within 20m. Local PM₁₀ concentrations well below the objectives (less than 75%). E.g. public footpaths, playing fields, parks and shopping streets.	Locations with a local designation where the features may be affected by dust deposition. E.g. Local Nature Reserve with dust sensitive features.

Table C2
Sensitivity of the Area to Dust Soiling on People and Property

Receptor Sensitivity	Number of Receptors	Distance from the Source (m)			
		<20	<50	<100	<250
High	>100	High	High	Medium	Low
	10-100	High	Medium	Low	Low
	1-10	Medium	Low	Low	Low
Medium	>1	Medium	Low	Low	Low
Low	>1	Low	Low	Low	Low

Table C3
Sensitivity of the Area to Human Health

Receptor Sensitivity	Annual Mean PM ₁₀ Concentration	Number of Receptors	Distance from the Source (m)			
			<20	<50	<100	<250
High	>32µg/m ³	>100	High	High	High	Medium
		10-100	High	High	Medium	Low
		1-10	High	Medium	Low	Low
	28-32µg/m ³	>100	High	High	Medium	Low
		10-100	High	Medium	Low	Low
		1-10	High	Medium	Low	Low
	24-28µg/m ³	>100	High	Medium	Low	Low
		10-100	High	Medium	Low	Low
		1-10	Medium	Low	Low	Low
	<24µg/m ³	>100	Medium	Low	Low	Low
		10-100	Low	Low	Low	Low
		1-10	Low	Low	Low	Low
Medium	>32µg/m ³	>10	High	Medium	Low	Low
		1-10	Medium	Low	Low	Low
	28-32µg/m ³	>10	Medium	Low	Low	Low
		1-10	Low	Low	Low	Low
	24-28µg/m ³	>10	Low	Low	Low	Low
		1-10	Low	Low	Low	Low
	<24µg/m ³	>10	Low	Low	Low	Low
		1-10	Low	Low	Low	Low
Low	-	>1	Low	Low	Low	Low

Table C4
Sensitivity of the Area to Ecological Impacts

Receptor Sensitivity	Distance from the Source (m)	
	<20	<50
High	High	Medium
Medium	Medium	Low
Low	Low	Low

Step 2C - Define the Risk of Impacts

The final step is to combine the dust emission magnitude determined in step 2A with the sensitivity of the area determined in step 2B to determine the risk of impacts with no mitigation applied. Tables C5 to C8 indicate the method used to assign the level of risk for each construction activity. The identified level of risk is then used to determine measures for inclusion within a site-specific Construction Environmental Management Plan (CEMP) aimed at reducing dust emissions and hence reducing the impact of the construction phase on nearby receptors. The mitigation measures are drawn from detailed mitigation set out within the IAQM guidance document.

Table C5
Risk of Dust Impacts from Demolition

Sensitivity of Area	Large	Medium	Small
High	High Risk	Medium Risk	Medium Risk
Medium	High Risk	Medium Risk	Low Risk
Low	Medium Risk	Low Risk	Negligible

Table C6
Risk of Dust Impacts from Earthworks

Sensitivity of Area	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible

Table C7
Risk of Dust Impacts from Construction

Sensitivity of Area	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible

Table C8
Risk of Dust Impacts from Trackout

Sensitivity of Area	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible

Appendix D - Wind Rose for Manchester Airport (2016-2025)

Figure D1
Wind Rose for Manchester Airport (2016-2025)

