

**LAND AT
BROMLEY STREET,
MANCHESTER
QUALITATIVE ODOUR
RISK ASSESSMENT**

Prepared for: Meanwhile Creative Ltd

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Contents

1	Introduction	3
2	Legislation and Policy	4
	2.1 National Legislation	4
	2.1.1 Environmental Protection Act	4
	2.1.2 Odour Benchmark Levels	5
	2.2 National Planning Policy	6
	2.2.1 National Planning Policy Framework and Planning Practice Guidance	6
	2.3 Local Planning Policy	6
	2.3.1 Manchester Local Development Framework	6
	2.4 Technical Standards and Guidance	7
	2.4.1 Guidance on the Assessment of Odour for Planning	7
	2.4.2 Guidance on the Control of Odour and Noise from Commercial Kitchen Exhaust Systems (the 'Defra Kitchen Guidance')	8
3	Odour Risk Assessment Method	9
	3.1 Scope	9
	3.2 Methodology	9
	3.2.1 Qualitative Odour Risk Assessment	11
4	Odour Risk Assessment	15
	4.1 Overview	15
	4.2 Prevailing Meteorological Conditions	15
	4.3 Risk Assessment	16
	4.3.1 Source Odour Potential	16
	4.3.2 Odour Assessment	17
	4.4 Discussion and Conclusions	17
5	Conclusions	19
	Appendix A Odour Study Area	20
	Appendix B Glossary of Terms	22
	Appendix C Wind Rose for Manchester Airport	23

1 Introduction

Temple Group Limited (Temple) has undertaken a qualitative odour risk assessment for a proposed commercial/retail development (the 'Proposed Development') at land of Bromley Street in Manchester (the 'Site'). The Site location is shown in **Figure A.1** in **Appendix A**.

It is understood that the Proposed Development involves an application for 4326sqm. gross of co-working space (sui generis) in recycled shipping containers with central yard area, car parking and associated works. As the application comprises the renting out of dark kitchen units, Manchester City Council (MCC) have asked for an odour assessment. The Site is located in an area characterised by unused land, car parks and industrial buildings, with the nearest existing sensitive receptors located over 100m from the Site. The cooking / food preparation processes taking place at the Site nonetheless have the potential to impact the amenity of nearby sensitive receptors cohabiting the Site and also nearby existing sensitive receptors due to the release of odour emissions associated with the operation of cooking facilities and the associated odour extraction. As such, a qualitative odour risk assessment has been undertaken.

This report includes relevant legislation and policy relating to odour and the scope and methodology used to undertake a qualitative odour risk assessment. Mitigation measures and/or further work have been recommended where appropriate. A glossary of terms is included in **Appendix B**.

2 Legislation and Policy

2.1 National Legislation

2.1.1 Environmental Protection Act

Odorous emissions and associated impacts are not covered by statutory standards in the UK. This is due to the subjective nature of odours and the issues surrounding measurement and assessment.

There are many activities which result in odour release and many of these odours have the potential to result in a loss of amenity for affected receptors (e.g. nearby residents, schools or places of work) or in some cases a statutory nuisance. It is up to the local authority or the Environment Agency to decide whether odorous emissions constitute a statutory nuisance. As defined in Part III statutory nuisances and clean air, statutory nuisances England and Wales section 79 of the Environmental Protection Act 1990¹, statutory nuisance is considered as:

“(c) fumes or gases emitted from premises so as to be prejudicial to health or a nuisance;

“(d) any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance;”.

Enforcement of the Act, in regard to nuisance, is currently under the jurisdiction of the local Environmental Health Department, whose officers are deemed to provide an independent evaluation of nuisance. If the Local Authority is satisfied that a statutory nuisance exists, or is likely to occur or happen again, it must serve an Abatement Notice under Part III of the Environmental Protection Act (1990)¹. Enforcement can insist that there be no odour beyond the boundary of the works. The only defence is to show that the process to which the nuisance has been attributed and its operation is being controlled according to best practicable means (BPM). The term BPM is defined as:

- 'Practicable' means reasonably practicable having regard among other things to local conditions and circumstances, to the current state of technical knowledge and to the financial implications;
- The 'means' to be employed include the design, installation, maintenance and manner and periods of operation of plant and machinery, and the design, construction and maintenance of buildings and structures;
- The test is to apply only so far as compatible with any duty imposed by law; and

¹ Environment Protection Act 1990.

- The test is to apply only so far as compatible with safety and safe working conditions, and with the exigencies of any emergency or unforeseeable circumstances.

It should be noted that where an operator can demonstrate that BPM is being applied, or where an agreed degree of abatement deemed to be BPM is added, this will not necessarily result in the total elimination of odours.

2.1.2 Odour Benchmark Levels

There is no statutory limit in the UK for ambient odour concentrations, whether set for individual chemical species or for mixtures. However, a number of indicative criteria have been utilised for the assessment of potential impacts, as discussed in the following sections.

Environment Agency Criteria

The Environment Agency (EA) has issued guidance² on odour which contains indicative benchmark levels for use in the assessment of potential impacts from facilities regulated under the Environmental Permitting (England and Wales) Regulations (2010)³ and subsequent amendments (2016)⁴.

Benchmark levels are stated as the 98th percentile (%ile) of hourly mean concentrations in European odour units (ou_E) over a year for odours of different offensiveness. In practice, this is the 175th highest hourly average recorded in the year. EA odour benchmark levels are summarised in **Table 1.1** below.

Table 1.1 Odour Benchmark Levels

Relative Offensiveness of Odour	Benchmark Level as 98 th %ile of 1-hour Means (ou _E /m ³)
Most offensive odours: • Processes involving decaying animal or fish - Processes involving septic effluent or sludge biological landfill odours	1.5
Moderately offensive odours: • Intensive livestock rearing • Fat frying (food processing) • Sugar beet processing • Well aerated green waste composting	3.0
Less offensive odours: • Brewery • Confectionery • Coffee roasting • Bakery	6.0

² Additional Guidance for H4 Odour Management, 2011. Environment Agency.

³ The Environmental Permitting (England and Wales) Regulations 2010.

⁴ The Environmental Permitting (England and Wales) Regulations 2016.

The guidance also describes the ‘hedonic tone’ of an odour, i.e. the generally accepted degree of pleasantness or unpleasantness (offensiveness) for a particular odour. Hedonic tones typically range from +4 for very pleasant odours (e.g. bakeries) to -4 for foul odours (e.g. rotting flesh). Neutral odours score 0. The hedonic tone score refers to the type of smell, irrespective of its intensity. This helps to decide how offensive an odour may be.

2.2 National Planning Policy

2.2.1 National Planning Policy Framework and Planning Practice Guidance

The revised National Planning Policy Framework (NPPF) was published in December 2023⁵ and sets out the Government's planning policies for England and how these are expected to be applied. Paragraph 180 of the NPPF states:

“The planning system should contribute to and enhance the natural and local environment by: [...]

e) preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability. Developments should, where possible, help to improve local environmental conditions such as air and water quality [...].”

With regard to assessing cumulative effects, paragraph 191 of the NPPF 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.”

The implications of the NPPF have been considered throughout this assessment.

2.3 Local Planning Policy

Whilst Local Planning Policy has been considered within this section of the report, the soundness or robustness of the policy stated, has not been assessed in this instance.

2.3.1 Manchester Local Development Framework

The Core Strategy was adopted by Manchester City Council (MCC) on the 11th July 2012⁶. It is the key document in Manchester’s Local Development Framework and covers a period of

⁵ Department for Levelling Up, Housing & Communities, 2023, National Planning Policy Framework, December 2023.

⁶ Manchester City Council Core Strategy 2012-2027. Available at: [Core Strategy 2012-2027](#)

15 years from 2012 to 2027. There are various policies for air pollution and odour which are outlined below.

“Policy EN16: Air Quality

The Council will seek to improve the air quality within Manchester, and particularly within Air Quality Management Areas, located along Manchester’s principal traffic routes and at Manchester Airport. Developers will be expected to take measures to minimise and mitigate the local impact of emissions from traffic generated by the development, as well as emissions created by the use of the development land itself, including from Combined Heat and Power and biomass plant.

When assessing the appropriateness of locations for new development the Council will consider the impacts on air quality, alongside other plan objectives. This includes cumulative impacts, particularly in Air Quality Management Areas.”

“Policy DM1: Development Management

All development should have regard to the following specific issues for which more detailed guidance may be given within a supplementary planning document:

- *Appropriate siting, layout, scale, form, massing, materials and detail.*
- *Impact on the surrounding areas in terms of the design, scale and appearance of the proposed development. Development should have regard to the character of the surrounding area.*
- *Effects on amenity, including privacy, light, noise, vibration, air quality, odours, litter, vermin, birds, road safety and traffic generation. This could also include proposals which would be sensitive to existing environmental conditions, such as noise. [...]”*

2.4 Technical Standards and Guidance

2.4.1 Guidance on the Assessment of Odour for Planning

The Institute of Air Quality Management (IAQM) has produced guidance on the assessment of odour for planning⁷. This guidance provides a framework for assessing the risk of odour effects that may arise and for the development of odour management plans as control measures.

⁷ Institute of Air Quality Management (IAQM) Guidance on the Assessment of Odour for Planning – Version 1.1, July 2018. IAQM.

2.4.2 Guidance on the Control of Odour and Noise from Commercial Kitchen Exhaust Systems (the 'Defra Kitchen Guidance')

This guidance document was prepared by Netcen, an operating division of AEA Technology, on behalf Defra⁸ and was intended to provide clear guidance on the regulation processes associated with problems caused by nuisance odour and noise emissions as a result of the operational of commercial kitchens and exhausts. Although this guidance is not statutory, and has since been withdrawn, it provides information on best practice techniques for the minimisation of odour and noise nuisance from kitchen exhaust systems and therefore has been utilised as part of this assessment.

⁸ Guidance on the Control of Odour and Noise from Commercial Kitchen Exhaust Systems, 2011. Defra.

3 Odour Risk Assessment Method

3.1 Scope

The operation of the kitchen facilities and extraction units at the Site may result in odour emissions impacting the amenity of nearby sensitive receptors during normal operation.

It is understood that the Site will be open 24/7, so operating hours for the kitchen units may be frequent and varied. The kitchen units will be rented out as shells and it will therefore be the responsibility of the tenants to ensure any extraction installed meets requirements. Those tenants are currently unknown.

In the absence of a detailed design specification, this assessment has been produced to demonstrate that odour from the Site would not be expected to have a significant impact, regardless of the specific tenants which will move onto the Site.

The scope of the assessment has been determined in the following way:

- A desk-top study to identify any applicable planning policies for the Proposed Development and to define baseline odour conditions at the Site;
- A review of the masterplan for the Proposed Development to establish the location of nearby sensitive receptors in relation to the Site; and
- Review of recent nearby planning applications on MCC's Public Access website⁹.

The scope of the assessment includes the following assessment stages:

- Review of Wind Data:
 - Wind data were obtained from Manchester Airport meteorological station. This was reviewed in the context of the relative positioning of nearby sensitive receptors and the identified potential sources of odour at the Site.
- Qualitative Odour Risk Assessment:
 - A Qualitative Odour Risk Assessment was completed based on the IAQM guidance.

3.2 Methodology

The method adopted for this odour assessment is in line with the IAQM guidance on the assessment of odour for planning⁷. The general method outlined in this guidance is as follows:

⁹ Manchester City Council Planning. Available at: <https://www.manchester.gov.uk/planning>

"1. A description of existing baseline odour conditions (including complaints history) where relevant.

"2. A description of the location of receptors and their relative sensitivities to odour effects.

"3. Details of potential odour sources (whether existing or proposed), including the activities and materials involved (including a brief outline of quantities, durations, methods of handling and storage, etc) and the resulting potential for generating odours, covering fugitive sources, diffuse sources and point sources as applicable.

"4. A description of control/mitigation measures incorporated into the scheme (including management controls and, where appropriate, engineering controls).

"5. A prediction or observation (or combination of both), using appropriate assessment tools, of the likely odour impact and resulting effects at relevant sensitive receptors, and taking into account:

"a. the likely magnitude of odour emissions (after control by measures incorporated into the scheme, if applicable);

"b. the likely meteorological characteristics at the site;

"c. the dispersion and dilution afforded by the pathway to the receptors and the resulting magnitude of odour that could result;

"d. the sensitivity of the receptors [...]; and

"e. the potential cumulative odour effects with any odours of a similar character, (e.g. if odours from kitchen waste are in addition to an existing municipal solid waste throughput.)

"6. Where odour modelling has been used the reports should contain full details of the input data and modelling options used to allow a third party to reproduce the results.

"7. Where odour effects are assessed as significant, details of appropriate further mitigation and control measures that could allow the proposal to proceed without causing significant loss of amenity.

"8. The residual odour impacts and their effects [...].

"9. A conclusion on the significance of the residual effect, i.e. whether "significant" or "not significant"."

In order to predict or observe and assess likely odour impact, as per point 5, at least one odour assessment tool needs to be utilised. The assessment tool(s) must take the FIDOL factors⁷, described in **Table 3.1**, into account.

Table 3.1 Description of the FIDOL factors

Frequency	How often an individual is exposed to odour.
Intensity	The individual's perception of the strength of the odour.
Duration	The overall duration that individuals are exposed to an odour over time.
Odour unpleasantness	Odour unpleasantness describes the character of an odour as it relates to the 'hedonic tone' (which may be pleasant, neutral or unpleasant) at a given odour concentration/intensity. This can be measured in the laboratory as the hedonic tone, and when measured by the standard method and expressed on a standard nine-point scale it is termed the hedonic score.
Location	The type of land use and nature of human activities in the vicinity of an odour source. Tolerance and expectation of the receptor. The 'Location' factor can be considered to encompass the receptor characteristics, receptor sensitivity, and socio-economic factors.

The IAQM's odour guidance⁷ provides recommendations on how odour should be considered in the preparation and determination of planning applications and gives guidance on the application of various techniques for odour assessments. The IAQM method for qualitative assessment essentially comprises four stages. These are detailed in the following section.

3.2.1 Qualitative Odour Risk Assessment

Stage 1 – Characterisation of the Source Odour Potential

Source odour potential are identified by the IAQM guidance as: Large, Medium and Small. The judgement over the source odour potential is based on three key factors:

- The magnitude of the odour release (taking into account control measures);
- How inherently odorous the compounds or materials being assessed are; and
- The unpleasantness (or offensiveness) of the odour.

Definitions are provided for each category as detailed in **Table 3.2**.

Table 3.2 Source Odour Potential

Source Odour Potential	Suggested Definition
Large	Magnitude – larger permitted processes of odorous nature or large Sewage Treatment Works (STWs); materials usage hundreds of thousands of tonnes/m³ per year; area sources of thousands of m². The compounds involved are very odorous (e.g. mercaptans), having very low Odour Detection Thresholds (ODTs) where known. Unpleasantness – processes classed as 'Most offensive' in the EA H4 guidance; or (where known) compounds/odours having unpleasant (-2) to very unpleasant (-4) hedonic score. Mitigation/control – open air operation with no containment, reliance solely on good management techniques and best practice.
Medium	Magnitude – smaller permitted processes or small STWs; materials usage thousands of tonnes/m³ per year; area sources of hundreds of m². The compounds involved are moderately odorous. Unpleasantness – processes classed in H4 as 'Moderately offensive'; or (where known) odours having neutral (0) to unpleasant (-2) hedonic score. Mitigation/control – some mitigation measures in place, but significant residual odour remains.
Small	Magnitude – falls below Part B threshold; materials usage hundreds of tonnes/m³ per year; area sources of tens m². The compounds involved are only mildly odorous, having relatively high ODTs where known. Unpleasantness – processes classed as 'Less offensive' in H4; or (where known) compounds/odours having neutral (0) to very pleasant (+4) hedonic score. Mitigation/control – effective, tangible mitigation measures in place (e.g. BAT, BPM) leading to little or no residual odour.

Stage 2 – Assessment of Transport Mechanism Effectiveness

This stage aims to assess the means by which odours released from the source may affect sensitive receptors; in this case, nearby sensitive receptors. This effectiveness of transport of odours (or the pathway) takes into account five main factors:

- Distance from source to receptor;
- The frequency of winds blowing from the source towards the receptor;
- The effectiveness of any mitigation or controls;
- The effectiveness of dispersion and dilution (a tall stack for example); and
- Topography and terrain in the local areas.

Pathway effectiveness as defined by the guidance are summarised in **Table 3.3**.

Table 3.3 Pathway Effectiveness

Pathway Effectiveness	Suggested Definition
Highly Effective	Distance – receptor is adjacent to the source/site; distance well below any official set-back distances. Direction – high frequency (%) of winds from source to receptor (or, qualitatively, receptors downwind of source with respect to prevailing wind). Effectiveness of dispersion/dilution – open processes with low-level releases, e.g. lagoons, uncovered effluent treatment plant, landfilling of putrescible wastes.
Moderately Effective	Distance – receptor is local to the source. Where mitigation relies on dispersion/dilution – releases are elevated, but compromised by building effects.
Ineffective	Distance – receptor is remote from the source; distance exceeds any official set-back distances. Direction – low frequency (%) of winds from source to receptor (or, qualitatively, receptors upwind of source with respect to prevailing wind). Where mitigation relies on dispersion/ dilution – releases are from high level (e.g. stacks, or roof vents > 3m above ridge height) and are not compromised by surrounding buildings.

Stage 3 – Prediction of Risk of Odour Exposure

The source odour potential and pathway effectiveness are combined to predict the resulting risk of odour exposure at the receptor being considered. The guidance recommends that this is done based on a matrix approach, replicated in **Table 3.4**.

Table 3.4 Risk of Odour Exposure

Pathway Effectiveness	Source Odour Potential		
	High	Medium	Low
Highly Effective	High Risk	Medium Risk	Low Risk
Moderately Effective	Medium Risk	Low Risk	Negligible Risk
Ineffective	Low Risk	Negligible Risk	Negligible Risk

Stage 4 – Assessment of Odour Effect

The last stage assesses the likely impact on the receptor based on the level of risk. Differing levels of receptor sensitivity are defined by the guidance but this assessment is only concerned with receptors which corresponds to high sensitivity, such as residential dwellings, hospitals, schools/education and tourist/cultural facilities, full definitions are not repeated here. It is noted that there are places of work, commercial/retail premises and industrial facilities in the vicinity of the Site, but as these are of medium/low sensitivity, if the assessment determines that the impact on high sensitivity receptors is not significant, the same can be presumed for medium/low sensitivity receptors. The matrix utilised to predict the level of odour effect is summarised in **Table 3.5**.

Table 3.5 Odour Effect Levels

Risk of Odour Exposure	Receptor Sensitivity		
	High	Medium	Low
High	Substantially Adverse Effect	Moderate Adverse Effect	Slight Adverse Effect
Medium	Moderate Adverse Effect	Slight Adverse Effect	Negligible Effect
Low	Slight Adverse Effect	Negligible Effect	Negligible Effect
Negligible	Negligible Effect	Negligible Effect	Negligible Effect

4 Odour Risk Assessment

4.1 Overview

The Site may result in odour emissions, associated with the normal operation of the kitchen units, at nearby sensitive receptor locations. The units will be rented out and may operate continuously when occupied. As such, the odours associated with the kitchen operations may be frequent and varied in offensiveness, dependant on the type of food being prepared and the cooking methods/appliances utilised. The kitchen units will have extraction units installed, which will influence the dispersion of odour emissions upon release. At higher ventilation rates, more odorous air would be extracted.

Little information is currently available on the tenants expected to rent out the kitchen units and as such characteristics and magnitude of odour emission rates are not specified. Odour characteristics associated with cooking facilities are influenced by the size of the facilities, type of food being prepared, and type of cooking appliances/techniques being used, which will impact the odour concentrations, grease content, grease/smoke loading and moisture content at the Site. Examples of the odour and grease characteristics arising from a range of commercial kitchens and the moisture and grease/smoke characteristics of various cooking appliances can be found in **Tables 2.2** and **2.3** of the Defra Kitchen Guidance⁸. For robustness, this assessment assumes a worst-case scenario where odour concentrations and grease content are high, and the cooking appliances exhibit heavy grease/smoke loading and heavy moisture content.

At the time of writing, specific details regarding the type of tenant renting out the kitchen units are not available. This assessment has considered the source overall strength against the criteria in the IAQM guidance.

4.2 Prevailing Meteorological Conditions

The potential for odour to impact at sensitive locations depends significantly on prevailing meteorological conditions, particularly wind direction and wind speed, when odour is emitted.

In order to consider prevailing conditions at the Site, a review of historical weather data was undertaken. The closest observation station with a suitable dataset to the Site is Manchester Airport observation station, which is located approximately 15.4km to the south of the Site. It is anticipated that conditions would be reasonably similar over a distance of this magnitude. The data were therefore considered suitable for an assessment of this nature.

Meteorological data were obtained from Manchester Airport meteorological station over the period 1st January 2019 to 31st December 2023 (inclusive). The frequency of wind from the 12 sectors which best describe the directions which may cause impacts in the vicinity of Site is shown in **Table 4.1**. The directions which have the potential to impact the nearby

sensitive receptors, are shown in bold. Reference should be made to **Figure C.1** in **Appendix C** for a wind rose of the meteorological data.

Table 4.1 Wind Frequency Data

Wind Direction (Degrees)	Direction	Frequency of Wind (%)	Directional Wind Speed <3m/s (%)
345-15	N	1.55	0.62
15-45	NNE	3.63	1.26
45-75	ENE	6.82	3.41
75-105	E	5.99	3.97
105-135	ESE	3.58	3.04
135-165	SSE	6.22	4.75
165-195	S	15.94	10.39
195-225	SSW	14.19	5.80
225-255	WSW	8.94	3.06
255-285	W	10.31	3.19
285-315	WNW	8.32	2.70
315-345	NNW	2.74	1.39
Total	--	88.23	43.59
Missing/Incomplete	--	11.76	--
Calms	--	2.24	--

As shown in **Table 4.1**, the prevailing wind direction at the Site is from the south, with frequencies from the south-south-west also higher than other directions. Winds from other directions, particularly north-westerly through north-easterly winds, are relatively infrequent, which is indicative of conditions throughout much of the UK.

4.3 Risk Assessment

The Risk Assessment has been undertaken in accordance with the general principles of the IAQM guidance⁷, as detailed in Section 3.2.

4.3.1 Source Odour Potential

Assuming a worst-case scenario for a robust assessment, the operations at the Site are classed as 'Moderately offensive' in the IAQM guidance and have an 'unpleasant' hedonic score, associated fat frying (food processing). In the absence of more specific information regarding the nature of food being prepared, appliances being used and how often the units will be operating (assumed 24/7), the Source Odour Potential of the activities is therefore assessed as being medium with reference to the IAQM guidance. With

reference to the Defra kitchen guidance, it is anticipated that the dark kitchens could accommodate over 100 covers (acting as a large-sized takeaway).

4.3.2 Odour Assessment

Table 4.2 below summarises the odour impacts which may be expected by on-Site and off-Site receptors from the dark kitchens.

Table 4.2: Assessment of pathway effectiveness, receptor sensitivity, odour exposure and odour impact at various receptors within the vicinity of the Proposed Development

Receptor Location	Pathway Effectiveness	Odour Exposure	Receptor Sensitivity	Odour Impact
On-site commercial receptors within 20 metres of the Dark Kitchens	Highly effective: receptors start in vicinity of the exhausts to the south. There are further offices 5m to the north. Receptors are collectively downwind 93% of the time. Relatively low-level releases although anticipated to be above roof level and with filtration in place.	Medium risk	Medium (workplaces)	Slight adverse
On-site commercial receptors within 20-100m of the Dark Kitchens	Moderately effective: Whilst receptors are downwind in multiple directions, the separation distance is >20m. In the Defra kitchen guidance, receptors become within 'medium' proximity rather than 'close'. Relatively low-level releases although anticipated to be above roof level and with filtration in place.	Low risk	Medium (workplaces)	Negligible
Consented residential scheme located 100m metres north of Dark Kitchens	Moderately effective: Whilst future receptor locations are no known, the consented scheme will have receptors downwind from the Site.	Low Risk	High (residential)	Slight Adverse
Nearest existing residential receptors located 140m north of Dark Kitchens	Ineffective: The receptors are located downwind circa 18% of the time and circa 140m or away.	Negligible	High (residential)	Negligible
Nearby Abbott Community Primary School located 170m east of the Dark Kitchens.	Ineffective: The receptors are located downwind approximately 10% of the time and are 170m away, suggesting the receptor is local to the source.	Negligible	High (education facility)	Negligible

4.4 Discussion and Conclusions

Based on the assessment results, whilst odour impacts may have a slight adverse impact at medium-sensitivity commercial units proposed within circa 20 metres of the Dark Kitchens, impacts further from the Site will be a maximum of slight adverse. There is also a slight adverse risk of impacts at the nearby consented mixed-use residential development. On balance therefore, the Dark Kitchens are considered to have an insignificant impact on amenity regarding odour.

Furthermore, it is considered that should such odours are detected, they would be in keeping with the odour character of the area and it is noted that there are a number of pre-existing factors contributing to the odour profile of the area in which the Site will be situated.

Nonetheless, noting the proximity of some of the nearby commercial units and the uncertainty in dispersion conditions, food type to be prepared and level of dispersion, it is recommended that measures from the Defra Kitchen guidance⁸ are implemented. This specifies minimum requirements for canopies, duct work and the type of odour arrestment plant, which can be differentiated based on the ability for odours to disperse around Site; and the type of cooking which will be undertaken. These recommendations, as well as the following, should be considered:

- *Flue design:* The discharge of air should be 1m above the roof where possible. Where this is not possible, additional measures to reduce odour including increasing efflux velocity and additional filters should be considered. Final discharge should have a smooth surface;
- *Maintenance regime:* Tenants should produce maintenance regimes for the equipment which they fit out, which refers to cleaning them, inspecting them to determine their need for replacement, inspecting fans, and justifying any advice which is not based on manufacturers' recommendations. Space must be available for cleaning;
- Fly screens or similar should be considered to prevent pests entering the kitchen;
- Sufficient air should be available to replace air extracted. This should not be potentially contaminated air, such as that drawn from a toilet.

5 Conclusions

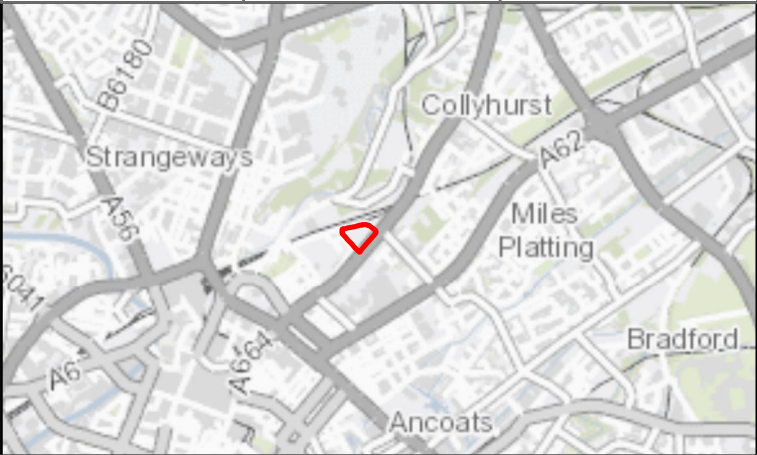
The qualitative odour risk assessment has determined the following:

- Applying the IAQM assessment method indicates that the dark kitchen units' activities are likely to have a negligible or slight adverse impact (an insignificant effect overall). An impact of this magnitude would be considered to have an effect that is not significant on local amenity;
- Should such odours be detected, they would be in keeping with the odour character of the area and it is noted that there are a number of pre-existing factors contributing to the odour profile of the area in which the Site will be situated;
- Mitigation measures for odour emissions released as a result of the operation of the Dark Kitchen units at the Site have been recommended.

Appendix A Odour Study Area

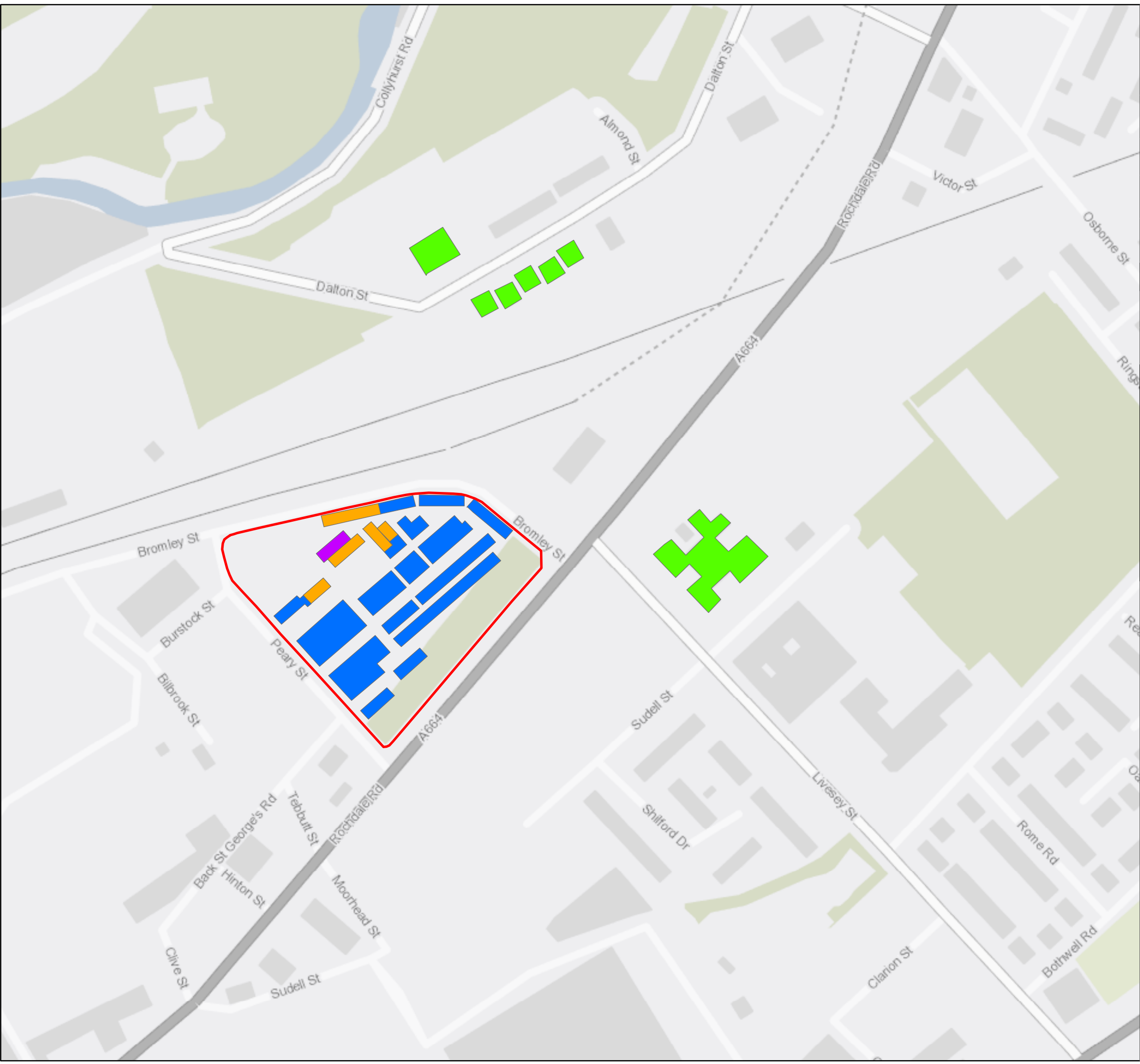
Job Title	Bromley Street, Manchester	
	Temple Job No. T10493	
Client	Meanwhile Creative Ltd	
Map Title	Odour Assessment Study Area	
Figure Title	Figure A.1	

Section	N/A	Scale	1:2,000
Drawn	HP	Approved	DM
		Date	18/01/2024



Legend

- Site Boundary
- Dark Kitchen Units
- Nearby Existing High Sensitivity Receptors
- Proposed Commercial Receptors within 20-100m of Dark Kitchen Units
- Proposed Commercial Receptors within 20m of Dark Kitchen Units



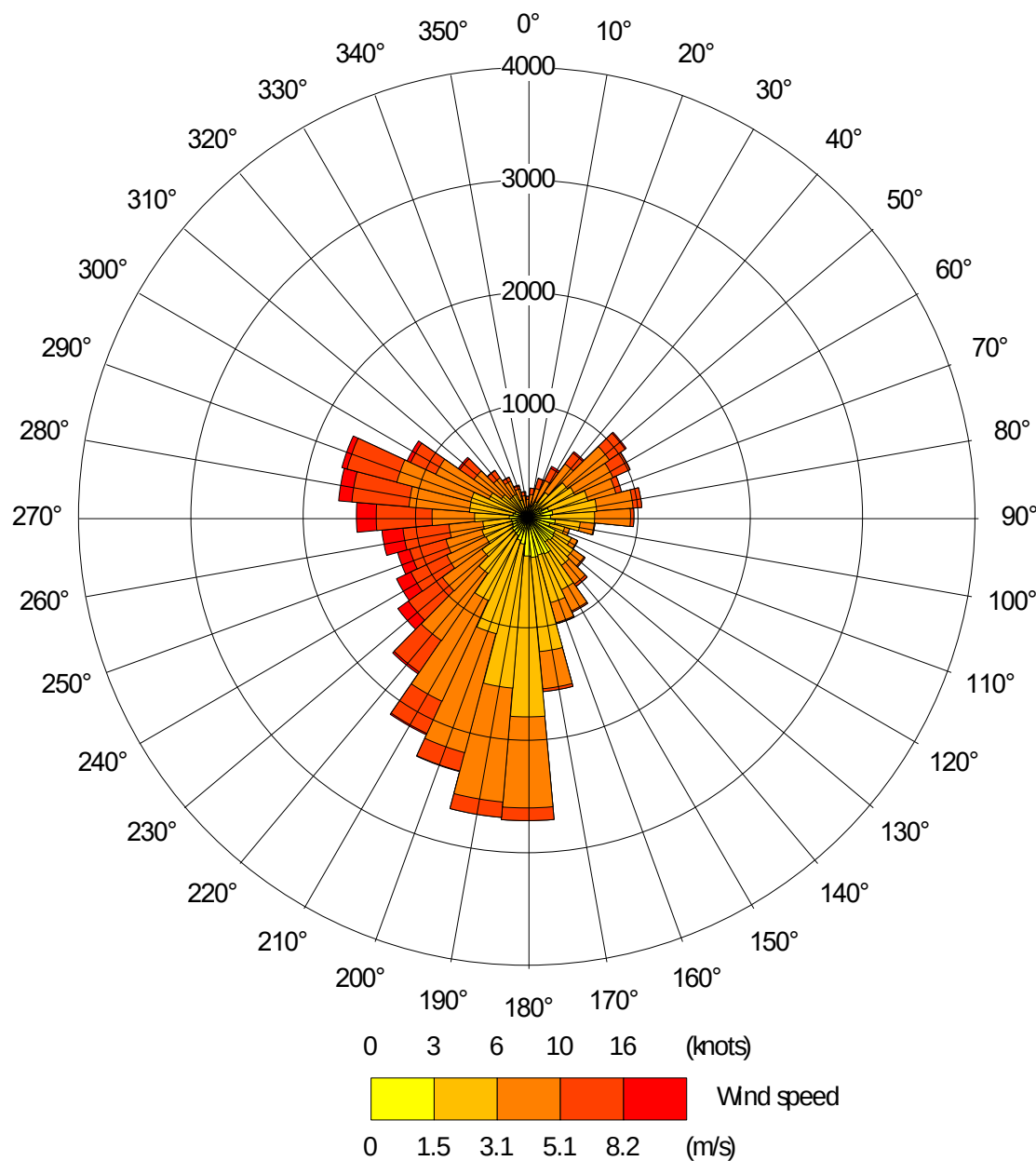
Appendix B Glossary of Terms

Table A1

Pathway Effectiveness	Suggested Definition
BPM	Best Practicable Means
Defra	Department for Environment, Food and Rural Affairs
EA	Environment Agency
IAQM	Institute of Air Quality Management
MCC	Manchester City Council
NPPF	National Planning Policy Framework
Ou _E	European Odour Unit

Appendix C Wind Rose for Manchester Airport

Figure C1 – Wind Rose for Manchester Airport (2019 – 2023)



temple

CREATING SUSTAINABLE FUTURES

Manchester

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