ARUP

Lab Selkirk House Ltd and Sollidon Ltd

St Giles Quarter

Air Quality Monitoring Report

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Contents

Tables

Figures

Photographs

1. Introduction

1.1 Background

Ove Arup and Partners Ltd (Arup) has been commissioned by Lab Selkirk House Ltd and Sollidon Ltd to provide air quality monitoring in support of the discharge of a planning condition for the consented development at St Giles Quarter (the Site, formerly known as the Museum Street and West Central Street scheme, planning reference: 2023/2510/P) in the London Borough of Camden (the Council).

Following planning consent, the Council has requested planning condition 45 to be discharged prior to any works commencing, as specified below: *"Construction related impacts - monitoring*

Air quality monitoring should be implemented on site. No development shall take place until

> *1. prior to installing monitors, full details of the air quality monitors have been submitted to and approved by the local planning authority in writing. Such details shall include the location, number and specification of the monitors, including evidence of the fact that they will be installed in line with guidance outlined in the GLA's Control of Dust and Emissions during Construction and Demolition Supplementary Planning Guidance;*
>
> *2. a confirmation email should be sent to airquality@camden.gov.uk no later than one day after the monitors have been installed with photographic evidence in line with the approved details.*
>
> *3. prior to commencement, a baseline monitoring report including evidence that the monitors have been in place and recording valid air quality data for at least 3 months prior to the proposed implementation date shall be submitted to the Local Planning Authority and approved in writing. The monitors shall be retained and maintained on site in the locations agreed with the local planning authority for the duration of the development works, monthly summary reports and automatic notification of any exceedances provided in accordance with the details thus approved. Any changes to the monitoring arrangements must be submitted to the Local Planning Authority and approved in writing.*

Reason: To safeguard the amenity of adjoining premises and the area generally in accordance with the requirements of policies A1 and CC4 of the London Borough of Camden Local Plan 2017."

1.2 Report structure

To address planning condition 45, this report details the results for the monitoring period from 30 December 2024 to 31 January 2025 of particulate matter (PM_{10}) at the Site. This report details the third month of data, accompanying the two previous reports dated 14 January 2025 and 24 January 2025 with the first and second months of data. This report outlines the monitoring locations and the corresponding methodology, relevant air quality objectives, site action levels, result analysis and discussion of any breaches of the site action levels. The reports are prepared for submission to the Council every month.

2. Monitoring methodology

2.1 Consultation with the Council

Consultation was undertaken with the Environmental Health Officer at the Council on 11 September 2024, this was to agree the monitoring methodology. A response was received from the Council on 15 October 2024 with acceptance of the methodology.

2.2 Monitoring equipment

Automatic sensors are used to collect real-time data, and to facilitate the monitoring of PM_{10}. Air quality sensors are suitable for monitoring short-term or long-term pollution hotspots. The proposed automatic monitors being used are Zephyr manufactured by EarthSense Systems Ltd[1] (shown in Figure 1), which are certified against the Environment Agency's MCERTS Scheme for indicative ambient particulate monitoring.

The sensor performance has been tested and calibrated against reference standard analysers by Earthsense prior to dispatch.

Figure 1: Zephyr automatic sensor

2.3 Monitoring Locations

Four units of the Earthsense automatic sensors have been installed. The locations are selected to assess impacts upwind and downwind of the works based on the prevailing southwest wind direction. The monitoring locations have been chosen to consider nearby sensitive receptors and are place at the boundaries of the work areas closest to those receptors to identify any increases in dust. The monitoring locations are detailed in Table 1 and shown in Figure 2. The monitors installed at these locations are also presented in Photograph 1 to Photograph 4. The below locations have been selected based on security and accessibility reasons.

Table 1 Monitoring locations

Monitoring ID	Indicative location	Approximate height
A1	West Central Street (parallel to Grape Street)	1.5m
A2	High Holborn, intermediate roof level of the former Travelodge building	5m
A3	West Central Street, adjacent to Museum Street and at the facade of the existing APCOA carpark	1.5m
A4	New Oxford Street, roof level	3m

[1] Zephyr specification, available at https://www.earthsense.co.uk/

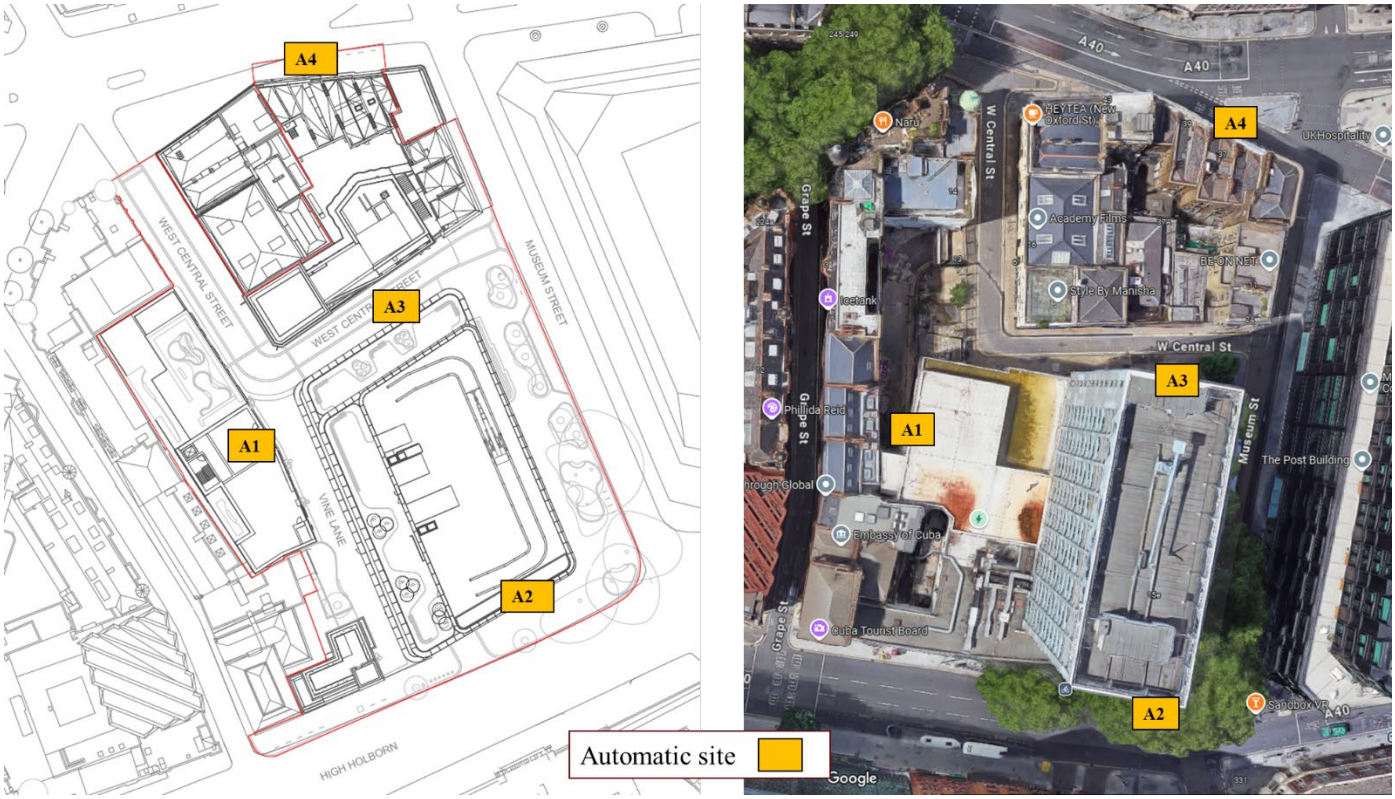
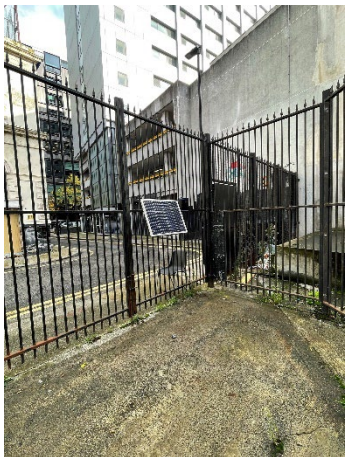


Figure 2: Monitoring locations



Photograph 1 Monitoring location A1

Photograph 2 Monitoring location A2

Photograph 3 Monitoring location A3

Photograph 4 Monitoring location A4

2.4 Site Activities

There were no onsite construction activities being undertaken during this monitoring period (30 December 2024 to 31 January 2025). The monitoring data collected during this period represents the baseline air quality conditions of the Site, which is heavily influenced by vehicle emissions, most notably from New Oxford Street to the north of the Site and High Holborn to the south of the Site.

3. Dust and Air Quality

3.1 Air Quality Objectives and Limit Values

Air quality limit values and objectives are quality standards for the protection of human health and vegetation. The Air Quality Standards Regulations 2010 (amended in 2016) defines the policy framework for 12 air pollutants known to have harmful effects on human health or the natural environment. The Secretary of State for the Environment has the duty of ensuring compliance with the air quality limit values (pollutant concentrations not to be exceeded by a certain date).

Some pollutants have standards expressed as annual average concentrations due to the chronic way in which they affect health or the natural environment, i.e., effects occur after a prolonged period of exposure to elevated concentrations. Other pollutants have standards expressed as 24-hour, 1-hour or 15-minute average concentrations due to the acute way in which they affect health or the natural environment, i.e., after a relatively short period of exposure. Some pollutants have standards expressed in terms of both long and short-term concentrations.

Table 2 sets out the national air quality objectives for PM_{10}.

Table 2: Air quality objectives

Pollutant	Averaging period	Limit value/objective
PM_{10}	Daily mean	50µg/m^3, not to be exceeded more than 35 times a year (90.41st percentile)
	Annual mean	40µg/m^3

3.2 Site Action Levels

Following consultation with the Council, it was agreed that the onsite monitoring should use the following Site Action Levels (SAL):

- SAL: 190µg/m^3 averaged over a 1-hour period; and
- Interim SAL: 250µg/m^3 averaged over 15-minute

In line with IAQM monitoring guidance[2], the interim SAL is to provide an early reminder to alert the site staff to action on reducing dust emission should PM_{10} concentrations be increasing towards the SAL of 190µg/m^3.

The alert system will notify the onsite manager or responsible personnel, should exceedances be detected. The site and construction activities would then require to be inspected, as soon as practicable, and appropriate mitigation measures should be reviewed or reinforced. Mitigation for dust generating activities will be managed by contractors in line with the Construction Management Plan secured by Section 106 and Mayor of London's dust guidance[3].

3.3 Results

The results for the monitoring period covered by this report (30 December 2025 to 31 January 2025 inclusive) are presented in Table 3 and shown in Figure 3.

[2] Institute of Air Quality Management (IAQM)'s Guidance on Monitoring in the Vicinity of Demolition and Construction Sites (2018). Available at: https://iaqm.co.uk/text/guidance/guidance_monitoring_dust_2018.pdf

[3] The Control of Dust and Emissions during Construction and Demolition SPG July (2014) Available at: https://www.london.gov.uk/media/37786/download?attachment

Table 3: PM_{10} Monitoring data results

Measure	West Central Street (A1)	High Holborn (A2)	West Central Street (Car Park) (A3)	New Oxford Street (A4)
Data capture (%)*	88%	56%	99%	78%
Period mean (µg/m$^{3)}$	18.6	15.1	20.4	20.5
Number of daily mean periods greater than 50 µg/m^3	0	0	0	0
Number of 15-minute periods greater than the interim SAL (250 µg/m^3)	0	0	0	0
Number of 1-hour periods greater than the SAL (190µg/m^3)	0	0	0	0
Notes: * Data capture is calculated using the number of 15-minute periods with valid data divided by the total number of 15-minute periods in the monitoring period, expressed as a percentage				

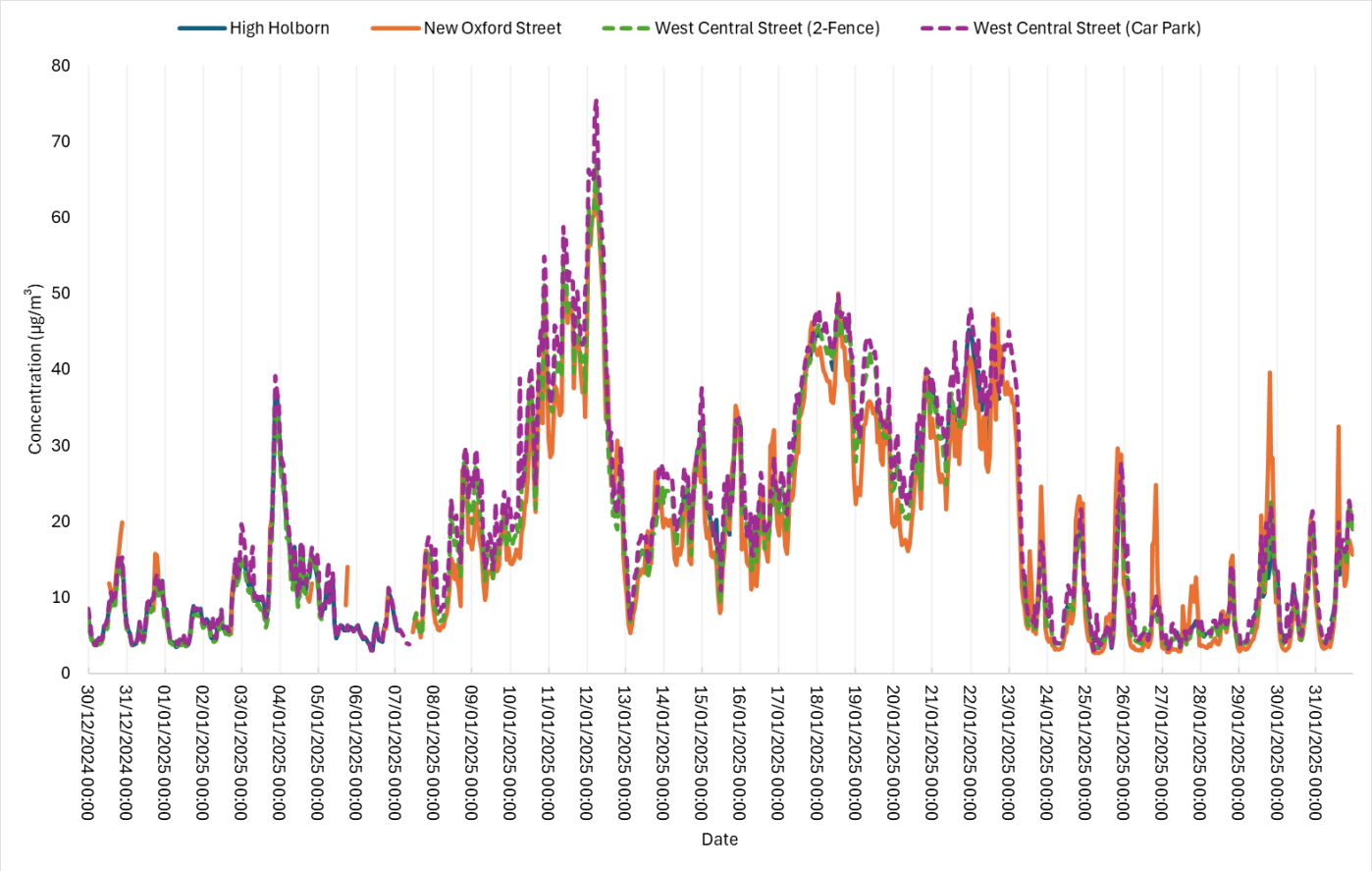
The results show that the period mean results for all monitoring locations were well below the annual mean PM_{10} air quality objective of 40µg/m^3 during the monitoring period presented in this report. This objective strictly applies to a full year of monitoring.

In relation to the daily mean PM_{10} objective (50µg/m^3, not to be exceeded more than 35 times in a calendar year), there were no occasions where the recorded concentrations exceeded 50µg/m^3 at all monitoring sites.

Figure 3 shows the 1-hour mean PM_{10} monitoring results for all monitoring locations for the period presented in this report. It shows concentrations observed at all monitors. Elevated concentrations were monitored from 10 to 13 January, likely associated with the period of cold still weather, which would have reduced dispersion at ground level. The variation in concentrations are considered to be part of normal fluctuations of the air quality levels in the vicinity of the Site.

There were no breaches of the interim SAL (190µg/m^3 averaged over a 1-hour period) or the SAL (250µg/m^3 averaged over a 15-minute period) during the monitoring period.

Figure 3: Hourly mean PM_{10} monitoring results (µg/m^3)



3.4 Summary

This report details the PM_{10} results for the monitoring period from 30 December 2024 to 31 January 2025 of at the Site. All monitoring results were below the annual mean PM_{10} air quality objective of 40µg/m^3 and daily mean PM_{10} objective (50µg/m^3, not to be exceeded more than 35 times in a calendar year). There were also no breaches of the interim SAL (190µg/m^3 averaged over a 1-hour period) or the SAL (250µg/m^3 averaged over a 15-minute period) during the monitoring period.