



**Essential Living (Swiss Cottage) Limited**

# **100 Avenue Road, London**

Air Quality Monitoring Quarterly Report – 23<sup>rd</sup> October to 3<sup>rd</sup> December 2017

Project No. 442346-07

**DECEMBER 2017**





## RSK GENERAL NOTES

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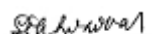

**Title:** 100 Avenue Road, London Air Quality Monitoring Quarterly Report – 23<sup>rd</sup> October to 3<sup>rd</sup> December 2017

**Client:** Essential Living (Swiss Cottage) Limited

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<b>Author</b>	<u>Dr. Nikolaos Kastelis</u> Air Quality Consultant	<b>Technical reviewer</b>	<u>Dr. Srinivas Srimath</u> Director (Air Quality)
			
<b>Date:</b>	<u>4<sup>th</sup> December 2017</u>	<b>Date:</b>	<u>4<sup>th</sup> December 2017</u>
<b>Author</b>	Daniel Mullick Senior Air Quality Consultant		
			
<b>Date:</b>	4 <sup>th</sup> December 2017		

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Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

This work has been undertaken in accordance with the quality management system of RSK Group plc.

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# 1 INTRODUCTION

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RSK Environment Ltd (RSK) was commissioned by Essential Living (Swiss Cottage) Limited to undertake air quality monitoring during the demolition and construction works at 100 Avenue Road, London. The monitoring is being undertaken with reference to existing air quality in the area and relevant air quality legislation, policy and guidance, and is intended to enable the client discharge the following planning condition (application number 2014/1617/P, Condition 24):

*“Before any works or construction commences details of at least two real time particulate air quality monitors shall be submitted to and agreed in writing by the Local Planning Authority. Such details shall include the location, number and specification of the monitors, including evidence of the fact that they have been installed in line with guidance outlined in the GLA’s Control of Dust and Emissions during Construction and Demolition Supplementary Planning Guidance. The monitors shall be installed 1 month prior to the development taking place and must be retained and maintained on site for the duration of the development in accordance with the details thus approved. Real time data from the monitors should be available online, and council officers provided access to this data. In addition, quarterly reports should be sent to the Air Quality officer for the duration of the works. These should detail any exceedances of the trigger action level (which is 250 ug/m<sup>3</sup>), and the action that was taken to remedy this.”*

RSK Environment Ltd installed two ‘Osiris’ particle monitors at the 100 Avenue Road development site in March 2016 as per the Greater London Authority’s ‘The Control of Dust and Emissions during Construction and Demolition - Supplementary Planning Guidance’ published in April 2014. Due to ongoing delays to the proposed demolition and construction programme, RSK decommissioned the two Orisis particle monitors during October 2017 at the request of the client.

It is understood that some minor demolition works, initially comprising the removal of the staircase at the front of the building, is planned for commencement during December 2017 and as such RSK were instructed to reinstall particle monitors during late October 2017. At this time, 2no. TSI Environmental Dust Trak were installed at the site. These monitors are considered to record PM<sub>10</sub> and PM<sub>2.5</sub> concentrations (µg/m<sup>3</sup>) more reliably than other monitors, and therefore these were considered a suitable alternative to the Osiris units. The monitors were installed at the same monitoring locations.

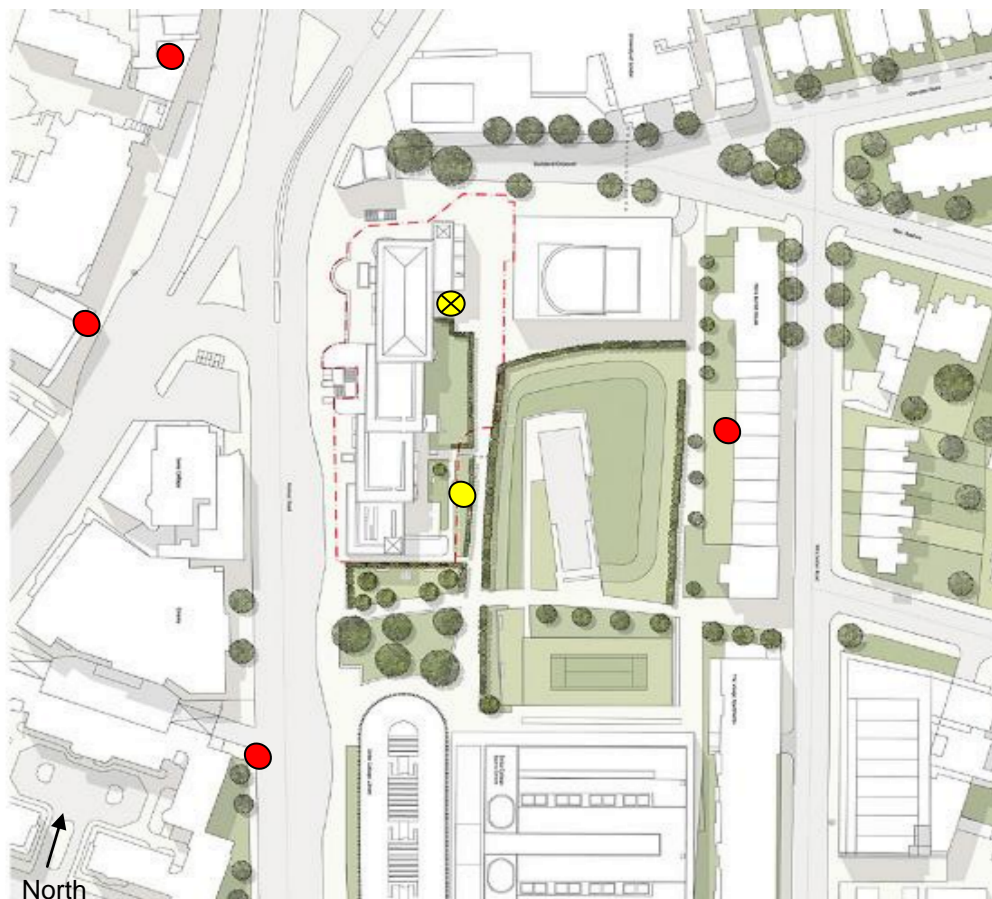


This is the seventh monitoring report following installation in March 2016 and covers data over the period from 23<sup>rd</sup> October to 3<sup>rd</sup> December 2017. The data presented in this report primarily refer to the baseline conditions at the site as the demolition and construction works have not yet commenced.

Figure 1.1 shows the location of the worksite (approximate grid reference for the centre of the site is 526709, 184310), and the approximate locations of the air quality monitoring equipment on site. Two nephelometers, with web-based data hosting, were installed at the site. TSI Location 1 was also fitted with wind direction and speed sensors, to enable source directionality analysis.

The site is within the jurisdiction of London Borough of Camden (LBC).

**Figure 1.1: Dust and PM<sub>10</sub> Monitoring Locations at 100 Avenue Road**



- TSI Nephelometer 2 – (previously Orisis monitor TNO3693)
- ⊗ TSI Nephelometer 1 (previously Orisis monitor TNO3694)
- Nearest Existing receptors/1<sup>st</sup> floor residential receptors
- Site boundary

## 2 AIR QUALITY MONITORING RESULTS

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### 2.1 PM<sub>10</sub> monitoring

Nephelometer instruments are not based on a reference equivalent method for the determination of airborne particulates; however, they do provide indicative continuous data in near real-time that may be related to the occurrence of site events, and are considered by many regulators as an appropriate and economical technique for this type of application.

These instruments measure continuous concentrations of the PM<sub>10</sub> fraction of suspended particle matter and these data are posted to a website, to allow 'on request' examination of unratified data.

Tables 2.1 shows the particulate results for monitoring locations 1 and 2 for the monitoring period presented in this report. There was one recorded exceedance of the 15-minute average 250µg/m<sup>3</sup> PM<sub>10</sub> recommended trigger level at monitoring location (16:45 on 11<sup>th</sup> November 2017). There were no exceedances at the monitoring location 2 during the period covered in this report.

The lower data coverage (64.3%) recorded at both monitors during this monitoring period is primarily attributable to difficulty in accessing the instruments electronically to enable data download. Data were generally available from 7<sup>th</sup> November 2017.

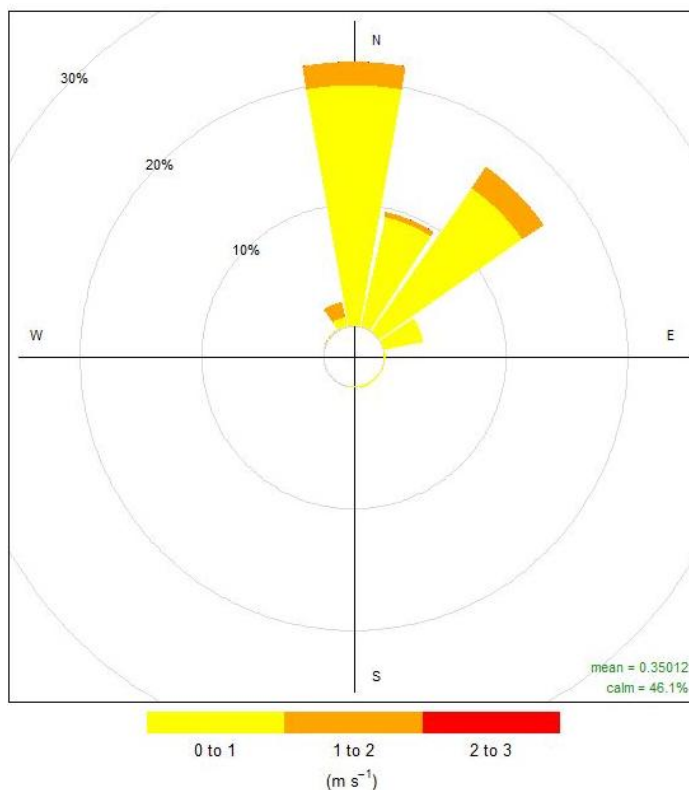
**Table 2.1: Measured Particulate Concentrations at 100 Avenue Road – Nephelometer monitoring location 1 for monitoring period 7**

Parameter considered	PM <sub>10</sub> monitoring location 1 (µg/m <sup>3</sup> )	PM <sub>10</sub> monitoring location 2 (µg/m <sup>3</sup> )
Period Mean	29.2	22.2
Maximum Daily Average	<b>50.8</b>	<b>41.1</b>
Data Capture Rate (%)	64.3	64.3
Number of 15 min periods above 250 µg/m <sup>3</sup> limit	1	0
Number of days above the 50 µg/m <sup>3</sup> objective limit	1	0
Exceedance of the 40 µg/m <sup>3</sup> annual average objective in monitoring period? (Y/N)	No	No

## 2.2 Meteorological Monitoring

During the monitoring period presented in this report, the meteorological monitoring station recorded that the winds were predominantly north to north-easterly. See the data graphically presented in the windrose in Figure 2.1.

**Figure 2.1: Windrose for monitoring period (Location 1)**



### 3 CONCLUSIONS

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Two nephelometers measuring particulate matter fractions have been installed at 100 Avenue Road, London as stipulated in Condition 24 of the planning permission issued to the proposed development.

This is the seventh of the reports which will be prepared throughout the proposed site works. The reports will be sent to LBC to discharge the abovementioned Condition 24. This report looks at the particulate and meteorological results for the period from 23<sup>rd</sup> October 2017 to 3<sup>rd</sup> December 2017.

There was one recorded exceedance of the 15-minute average  $250\mu\text{g}/\text{m}^3$   $\text{PM}_{10}$  recommended trigger level at monitoring location (16:45 on 11<sup>th</sup> November 2017). There were no exceedances at the monitoring location 2 during the period covered in this report.

Any exceedance of the trigger level as mentioned above will be informed to the site manager so that immediate action to enhance mitigation can be taken. RSK will provide access to the real-time monitoring data posted on the website to the designated personnel at LBC.