

**THEATRE SQUARE PROJECT ENVIRONMENTAL MONITORING REPORT**

REPORT PREPARED BY JOHN F HUNT LTD

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<b>Report Date:</b>	30.01.19	<b>Authorised by:</b>	Chris Riches
<b>Core Site Working Periods:</b>	Weekdays – 08:00 hrs to 18:00 hrs Saturdays – 08:00 hrs to 13:00 hrs	<b>Monitoring Period:</b>	17.01.19 – 23.01.19

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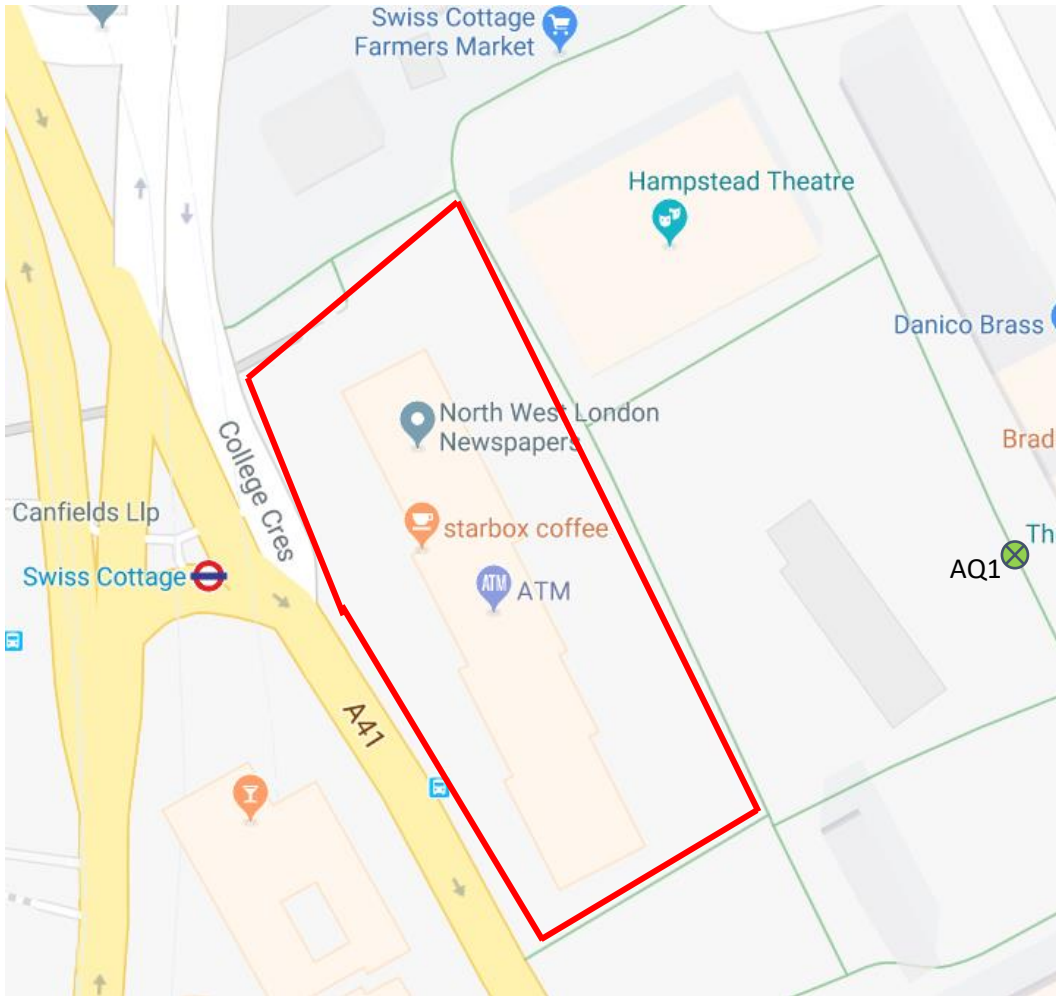
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## 1. Location



**Key:**  
 Boundary Line —  
 Air Quality Monitor ⊗

Figure 1.1: Map of Theatre Square highlighting boundary line and the location of air quality monitor.

## 2. Monitoring Locations and Compliance

Air Quality		Number of days' $\mu\text{g}/\text{m}^3$ Site Action Level Exceeded	
		Amber $200\mu\text{g}/\text{m}^3$	Red $250\mu\text{g}/\text{m}^3$
AQ1	Winchester Road s/n 807	0	0

Table 2.1: Summary figures for the number of days an exceedance has occurred at the identified monitoring location.

## 3. Air Quality Criteria

Authority	Pollutant	Objective	Measured as	Relevance
EC/UK Air Quality Standard	PM10	<b><math>250\mu\text{g}/\text{m}^3</math></b> . Exceeded < 35 times/annum	15-minute intervals	Air quality in relation to public health

Table 3.3.1: Environmental Air Quality Standards.

Measured levels exceeding 250µg/m<sup>3</sup> are considered to represent a significant impact to the surrounding environment over a 15-minute mean. Therefore, it is important to assess any methods of work that represent a risk and implement dust suppression techniques accordingly.

For the purposes of monitoring and managing dust levels from the site, Amber and Red site action levels have been adopted. An Amber site action level of 200µg/m<sup>3</sup> will be used to provide early warning of dust levels which may result in complaints occupants from neighbouring buildings, while a Red site action level of 250µg/m<sup>3</sup> has been adopted.

Receptor	Receptor Type	S/N Monitoring Location	Site Action Level	
			15-minute Intervals Air Quality (µg/m <sup>3</sup> )	
			Amber	Red
Residential Properties	Residential	807 – Winchester Rd	200	250
Market	Commercial	/	200	250
Theatre	Commercial	/	200	250

Table 3.3.2: Construction Air Quality assessment criteria.

**4. Actions to be taken following site action level exceedance:**

**4.1. Amber Exceedance**

Where an Amber exceedance occurs due to site activity, the site manager will monitor site emissions relevant to the alert and where necessary review methods of working. The site manager will also assess whether remaining work could continue to exceed the Amber threshold and if so, modify working methods, where practicable.

**4.2. Red Exceedance**

Where a Red exceedance occurs due to site activity, the site manager will stop the relevant activity whilst alternative construction methodology options are investigated, and where practicable adopted. If effective remedial action is not obvious, the site will consider an alternative technique or additional mitigation measures.

**5. Complaints**

Where a complaint is received, an investigation will be undertaken to establish whether the vibration is due to site activity. Where this is established, the site manager will adopt the process set out above for the receipt of an Amber exceedance. Where a complaint is received, details of the complaint, measured PPV mms-1 levels, the source and remedial action taken will be logged

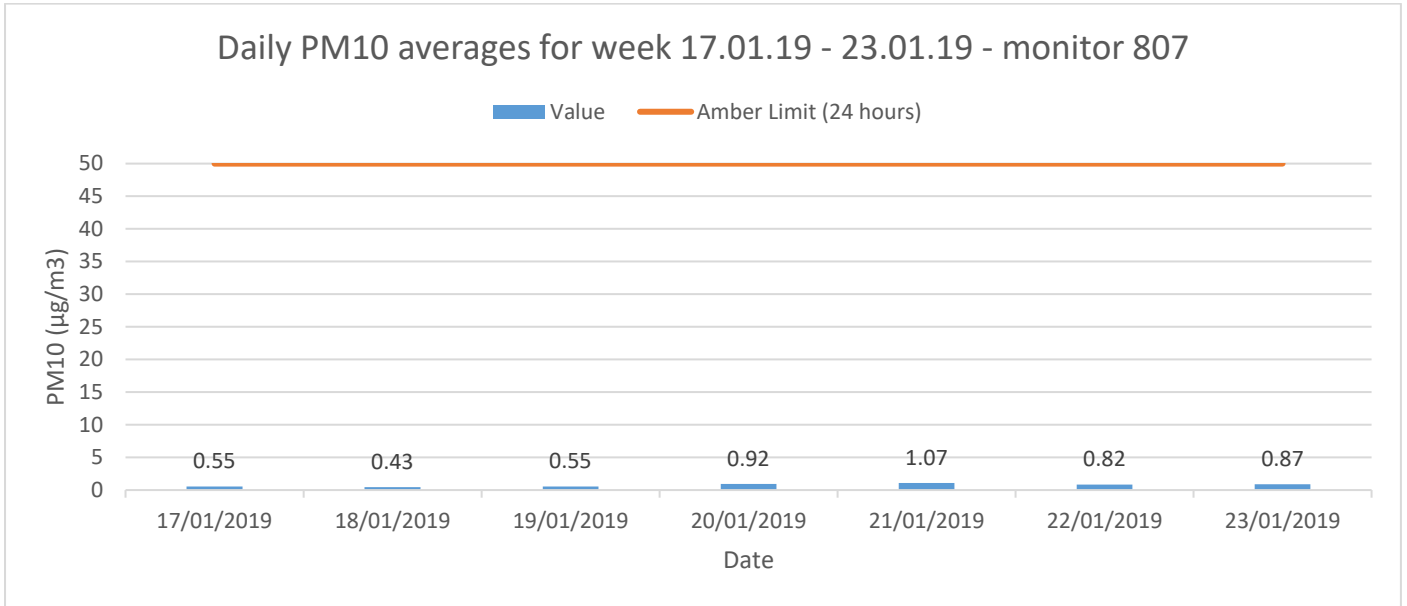
Date	Complaint Details	Site Activity and Action Taken

Table 5.1: Complaints received during monitoring period.

**6. Air Quality**

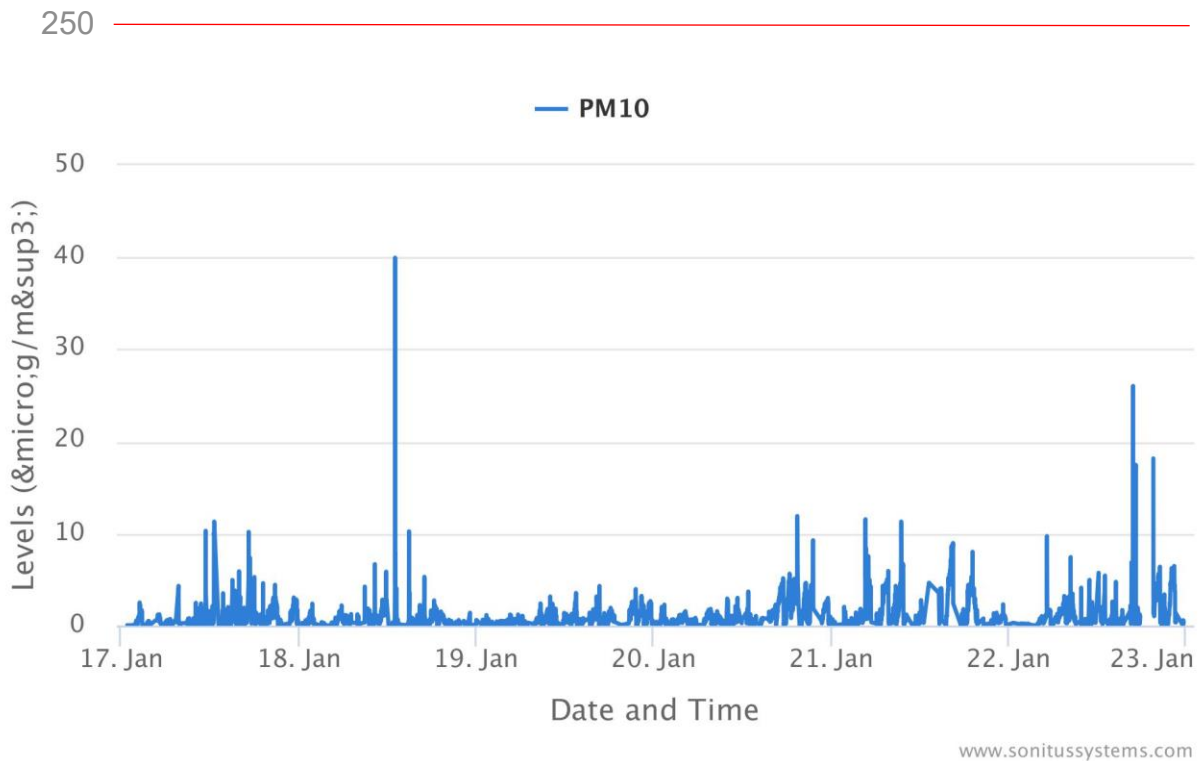
**Air Quality Monitoring Equipment:** Dust Sentry

**Serial Number:** 807



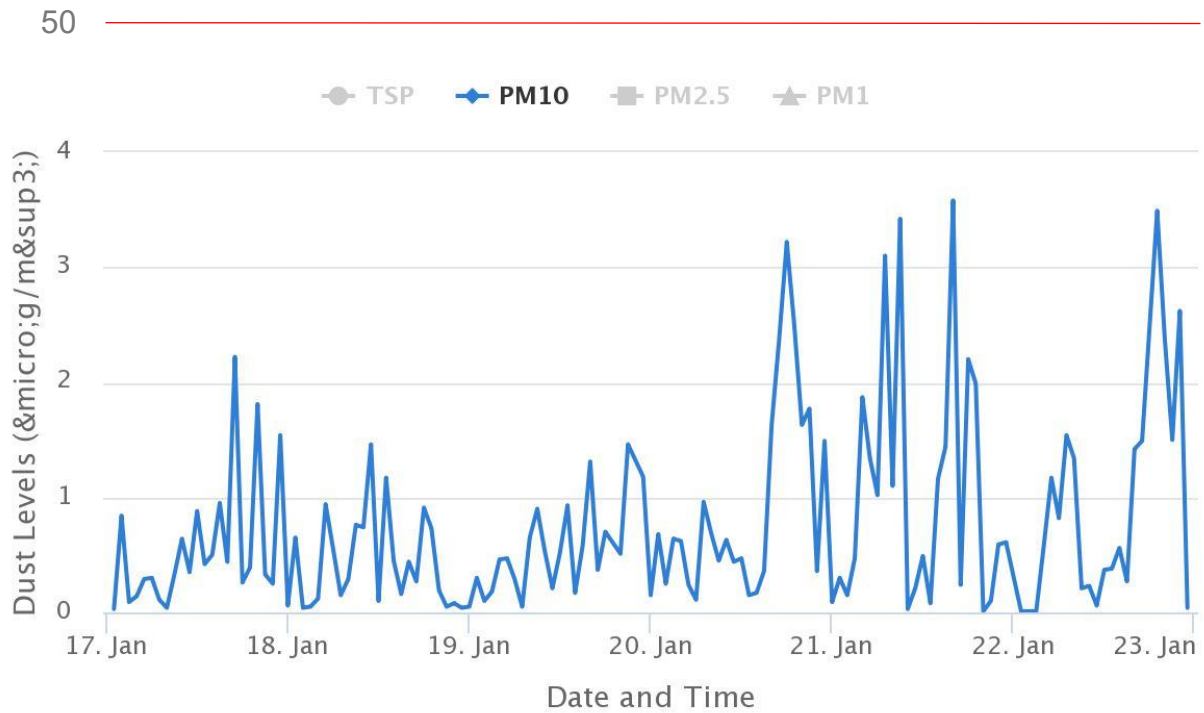
Graph 6.3.1: Summary graph displaying daily average PM10 results and the 24-hour amber limit (50µg/m³) for monitor 807.

**Air Quality Levels at Dust Monitor s/n 807: Office Testing**



Graph 6.3.2: Summary graph displaying real time PM10 results for monitor 807.

**Air Quality Averages at Dust Monitor s/n 807: Office Testing**



Highcharts.com

Graph 6.3.3: Summary graph displaying hourly averages PM10 results for monitor 807.

**Notes:**

There have been no exceedances to either the 24-hour limit of  $50\mu\text{g}/\text{m}^3$ , or the amber 15-minute interval amber limit of  $200\mu\text{g}/\text{m}^3$  for monitor 807 located on Winchester Road. Also, there has not been an exceedance in the real time data. The highest PM10 level recorded in the real time data was  $39.95\mu\text{g}/\text{m}^3$ , whilst the highest in daily averages, and hour averages was  $1.07\mu\text{g}/\text{m}^3$  and  $3.58\mu\text{g}/\text{m}^3$  respectively. There has been no impact to the environment or human health in terms of air quality.