

Barratt London

NIMR, Mill Hill

Air Quality Monitoring Report

Non-Technical Summary

February 2021 - April 2021

Tel: [REDACTED]

Email: [REDACTED]

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1.0 Non-Technical Summary

This non-technical summary report has been produced to supplement the dust monitoring reports produced by Tetra Tech between February 2021 and April 2021.

Tetra Tech have conducted real-time dust monitoring continuously between February 2021 and April 2021 at two locations on the former NIMR Site, Mill Hill, Barnet. Monitoring Location 1A and 2C. These locations are representative of worst-case dust emissions during February 2021 – April 2021 relative to the activities undertaken on site and the sensitive receptors around the site.

2.0 Monitoring Criteria

With reference to published guidance by the Institute of Air Quality Management (Guidance on Air Quality Monitoring in the Vicinity of Demolition and Construction Sites', 2018), the real-time monitoring results have been compared utilising a traffic light system. These are detailed in Table NT1 below, which also outlines the action to be taken if each alert level is breached.

Table 2.1 Traffic Light Criteria

Alert level	Time Period	PM ₁₀ Maximum Permissible 15-minute average (µg/m ³)	PM _{2.5} Maximum Permissible 15-minute average (µg/m ³)
Red (<i>at this level all works to cease immediately, investigate cause of exceedance and use alternative methods where appropriate</i>)	15-minute average	>190 µg/m ³	>48 µg/m ³
Amber (<i>continual monitoring and investigation of alternative methods where appropriate</i>)	Two consecutive 15-minute averages	>80 µg/m ³	>38 µg/m ³
Green (<i>early warning/no action required</i>)	15-minute average	>80 µg/m ³	>38 µg/m ³

The following Red alerts levels were reached during February 2021 and April 2021, the reason for the alert was identified and the action below was undertaken in response where appropriate.

3.0 Monthly Non-Technical Summary

3.1 February 2021

There were no 'red' limit exceedances observed during this monitoring period.

3.2 March 2021

Table 3.1 Date and Times of Red Level Exceedances Monitoring Location 1A, March 2021

Date and Time	PM ₁₀ /PM _{2.5}	In Working Hours?	Reason for Alert	Action Taken
03/03/2021 12:30	PM _{2.5}	Within Working Hours	Elevated Background Concentrations	No Action Required
10/03/2021 06:45	PM _{2.5}	Outside Working Hours	Elevated Background Concentrations	No Action Required

The 'red' exceedances in March 2021 at monitoring location 1A were attributed to elevated background concentrations. Therefore, no further action was required.

The 'red' exceedances in March 2021 at monitoring location 1A occurred within working hours, after a review of the on-site activities and storage was undertaken, it was determined that these were not attributable to on-site activities, and no further action was required.

There were no 'red' limit exceedances observed during this monitoring period for monitoring location 2C.

3.3 April 2021

Table 3.2 Date and Times of Red Level Exceedances Monitoring Location 1A, April 2021

Date and Time	PM ₁₀ /PM _{2.5}	In Working Hours?	Reason for Alert	Action Taken
20/04/2021 22:00 – 23:45	PM _{2.5}	Outside of Working Hours	Elevated Background Conditions	No Action Required
21/04/2021 00:00 – 06:15	PM _{2.5}	Outside of Working Hours	Elevated Background Conditions, Adverse Weather Conditions: Haze	No Action Required

The 'red' exceedances in April 2021 at monitoring location 1A were attributed to elevated background pollutant concentrations and poor weather conditions. Therefore, no further action was required.

There were no 'red' limit exceedances observed during this monitoring period for monitoring location 2C.

Table 3.3 displays a comparison between PM_{2.5} monitored on site with PM_{2.5} monitored at two urban background locations – Kensington & Chelsea – North Ken (FIDAS) AURN and City of London – Harrow Stanmore AURN as well as meteorological data. Both urban background locations monitored elevated PM_{2.5} concentrations during the periods where 'red' exceedances were recorded onsite, and it is therefore unlikely that the 'red' criteria exceedances in PM_{2.5} concentrations are associated with on-site activities or conditions.

Table 3.3 PM_{2.5} Results 24-hour monitoring results compared with background levels and meteorological data

Date	Time	Average 24 hr Period PM _{2.5} Monitored (µg/m³) on site	Average 24 hr Period PM _{2.5} Monitored at Urban Background AURN (Kensington & Chelsea – North Ken)	Average 24 hr Period PM _{2.5} Monitored at Urban Background AURN (Harrow - Stanmore)	Recorded Weather Conditions	Wind Direction	Wind Speeds (km/h)
20/04/2021	22:00	48.42	58.00	53.90	Fair	SE	9
20/04/2021	22:15	51.41	58.70	57.70	Fair	SE	9
20/04/2021	22:30	52.98	64.20	56.80	Fair	SE	9
20/04/2021	22:45	52.43	64.60	55.00	Fair	SE	9
20/04/2021	23:00	56.69	67.00	63.90	Fair	ESE	9
20/04/2021	23:15	57.8	70.30	61.30	Fair	ESE	9
20/04/2021	23:30	57.56	71.00	60.00	Fair	E	7
20/04/2021	23:45	58.19	72.60	62.20	Fair	E	7
21/04/2021	00:00	58.46	72.50	59.50	Fair	E	6
21/04/2021	00:15	59.63	74.40	65.30	Fair	E	6
21/04/2021	00:30	61.98	77.70	62.40	Fair	NE	6
21/04/2021	00:45	64.96	79.20	57.20	Fair	NE	6
21/04/2021	01:00	64.88	80.60	64.30	Fair	NE	4
21/04/2021	01:15	63.9	82.50	61.00	Fair	NE	4
21/04/2021	01:30	63.27	83.40	57.80	Fair	NE	4
21/04/2021	01:45	63.04	82.90	66.00	Fair	NE	4
21/04/2021	02:00	64.03	80.60	62.30	Fair	ENE	6
21/04/2021	02:15	65.29	84.80	55.60	Fair	ENE	6
21/04/2021	02:30	68.66	87.80	62.50	Fair	ENE	6
21/04/2021	02:45	68.98	86.80	62.10	Fair	ENE	6
21/04/2021	03:00	69.25	85.10	59.60	Fair	NNE	6
21/04/2021	03:15	70.78	82.40	58.20	Fair	NNE	4
21/04/2021	03:30	71.28	80.90	63.30	Fair	NNE	4

21/04/2021 03:45	03:45	71.09	81.70	58.50	Fair	NNE	4
21/04/2021 04:00	04:00	70.05	79.80	56.90	Fair	NNE	4
21/04/2021 04:15	04:15	68.63	79.30	59.40	Fair	NNE	4
21/04/2021 04:30	04:30	67.65	75.30	57.20	Fair	NNE	4
21/04/2021 04:45	04:45	67.3	75.20	64.80	Fair	NNE	6
21/04/2021 05:00	05:00	67.16	74.90	59.70	Fair	NNE	6
21/04/2021 05:15	05:15	65.50	72.20	58.00	Haze	NNE	7
21/04/2021 05:30	05:30	65.72	73.30	65.40	Haze	NNE	6
21/04/2021 05:45	05:45	65.01	73.70	58.60	Haze	VAR	6
21/04/2021 06:00	06:00	62.01	73.40	56.00	Haze	VAR	4
21/04/2021 06:15	06:15	57.42	73.00	50.20	Haze	VAR	4

4.0 Conclusions

It should be noted that this non-technical summary reviews only red level exceedances between February 2021 – April 2021. All red level exceedances have been observed during periods of elevated background concentrations or poor weather conditions.

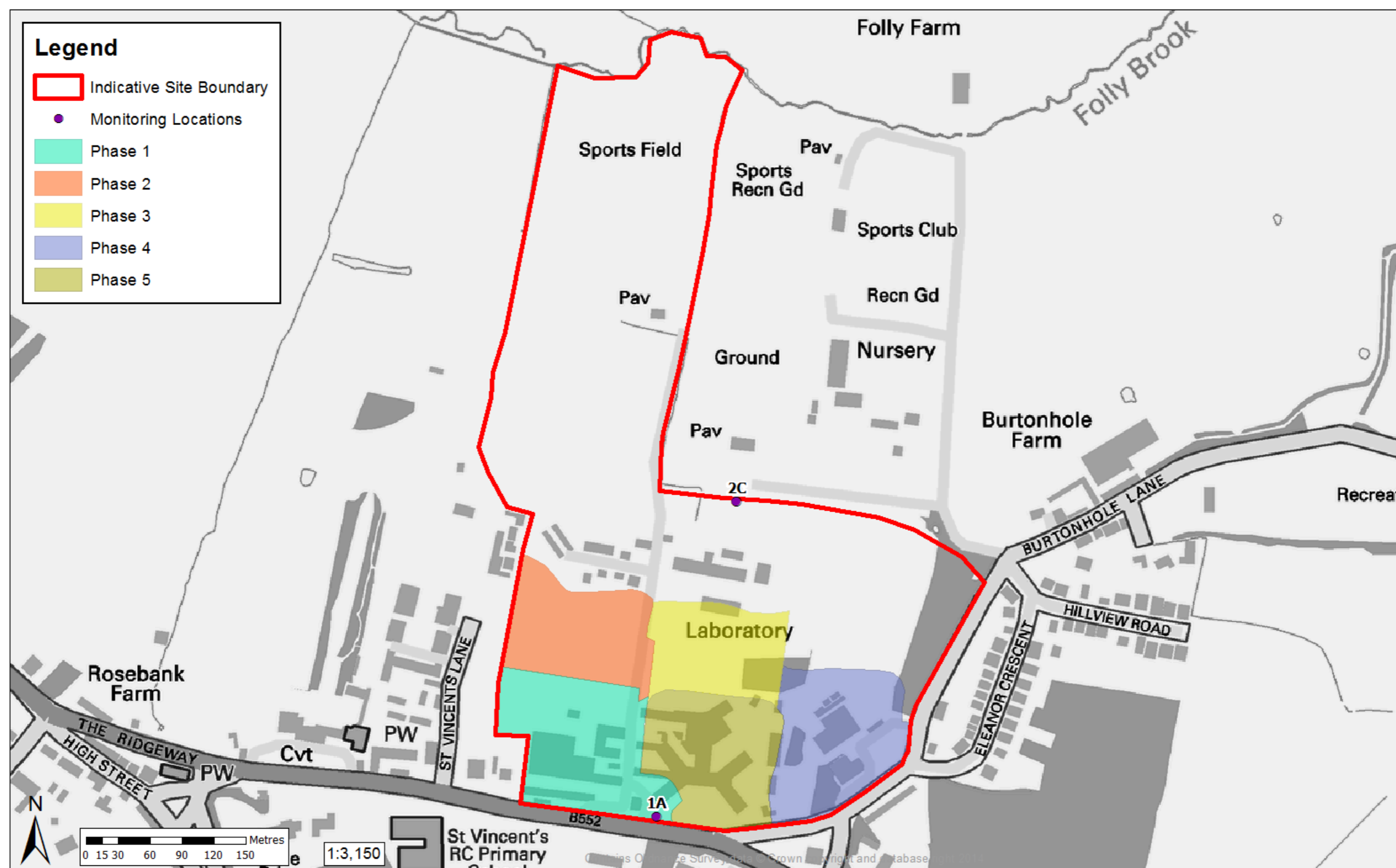
Between 20th and 21st April, red level exceedances can be attributed to elevated background pollutant concentrations and poor weather conditions

Appropriate actions have been undertaken in accordance with the site Dust Management Plan. The Dust Management Plan will be continued to be reviewed in the event of any future red level exceedance to ensure exceedances are not as a result of windblown dust from the site activities.

In conclusion, between February 2021 - April 2021, appropriate measures were implemented to mitigate dust emissions from the development site as outlined per month in Section 3.

Tetra Tech will continue to monitor the concentrations of PM₁₀ and PM_{2.5} on site. These will continue to be cross-checked with the construction schedule to identify appropriate locations for the air quality monitoring and to inform any required future mitigation measures.

Figure 1 Monitoring Locations



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