

Air Quality and Dust Monitoring Monthly Report – September 2019

London Borough of Camden



SKANSKA



Department for Transport

High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

High Speed Two (HS2) Limited,
Two Snowhill
Snow Hill Queensway
Birmingham B4 6GA

Telephone: 08081 434 434

General email enquiries: HS2enquiries@hs2.org.uk

Website: www.gov.uk/hs2

A report prepared by Costain Skanska on behalf of HS2 Ltd.

High Speed Two (HS2) Limited has actively considered the needs of blind and partially sighted people in accessing this document. The text will be made available in full on the HS2 website. The text may be freely downloaded and translated by individuals or organisations for conversion into other accessible formats. If you have other needs in this regard please contact High Speed Two (HS2) Limited.

© High Speed Two (HS2) Limited, 2019, except where otherwise stated.

Copyright in the typographical arrangement rests with High Speed Two (HS2) Limited.

This information is licensed under the Open Government Licence v2.0. To view this licence, visit www.nationalarchives.gov.uk/doc/open-government-licence/version/2 **OGI** or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or e-mail: psi@nationalarchives.gsi.gov.uk. Where we have identified any third-party copyright information you will need to obtain permission from the copyright holders concerned.



Printed in Great Britain on paper containing at least 75% recycled fibre.

Monthly Summary

- 1.1.1 This Summary Report is published in fulfilment of commitments detailed in the High Speed Rail (London-West Midlands) Environmental Minimum Requirements, Annex 1: Code of Construction Practice, for the nominated undertaker to present the results of air quality and dust monitoring undertaken in the London Borough of Camden (LBC) during August 2019 and September 2019 respectively.
- 1.1.2 Figure 1 to Figure 3 in Appendix A indicate the current worksites together with air quality and dust monitoring locations.
- 1.1.3 This summary should be read in conjunction with the overview monitoring report available from www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2, which highlights: the applicable standards and guidance, as well as the air quality and dust monitoring methodologies to be implemented by nominated undertakers throughout construction.
- 1.1.4 The current phase of works commenced within the LBC during December 2017 and are expected to be completed by December 2019. The current, completed and planned worksites, include:

Current & Planned -

- Site office and welfare on the adjacent former Addison Lee compound on Granby Terrace, worksite ref. S001-WS01.
- Archaeological dig at St James' Gardens and deconstruction of an enclosure over the entire works site; worksite ref. S003-WS01.
- Demolition at:
 - The IBIS Hotel, 3 Cardington Street, worksite ref. S003-WS05;
 - Thistle Hotel, Cardington Street, worksite ref. S003-WS04;
 - A number of sites in Euston Street, worksite ref. S003-WS07;
 - Regents Park Estate worksite ref. S001-WS07;
 - Walkden House, 67-75 & 77-79 Euston Street, worksite ref. S003-WS03; and
 - One Euston Square, 40 Melton Street and Grant Thornton House, 22 Melton Street, worksite ref. S003-WS09.
- National Temperance Hospital, Site Office and Welfare 110-122 Hampstead Road and community garden, worksite ref. S003-WS06.
- Thames Water Compound, worksite ref. S001-WS05.
- Vehicle Holding Area, worksite ref. S001-WS04 (yet to be established).

Complete -

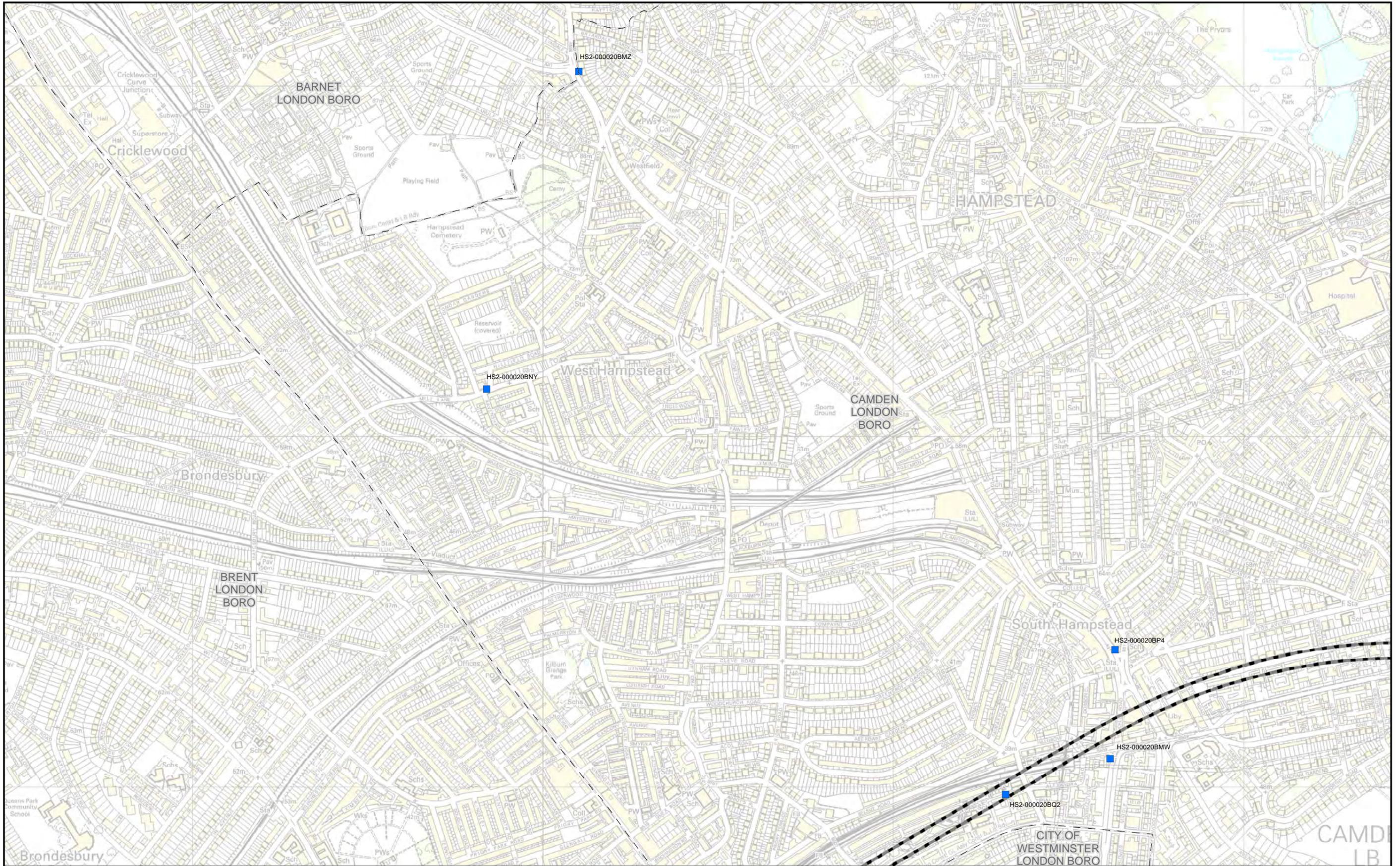
- Demolition of former accommodation block and train maintenance shed, at the DB Cargo shed, the site is currently being used for storage of spoil.

- Demolition at:
 - National Temperance Hospital, Insull Wing, worksite ref. S003-WS02;
 - 1-3 Cobourg Street, worksite ref. S003-WS05; and
 - 132 – 140 Hampstead Road and Petrol Station, worksite ref. S001-WS02.
- Taxi rank in Euston Square Gardens, worksite ref. S003-WS08.

- 1.1.5 Twenty (20) dust monitors are installed around worksites, where demolition and pre-demolition works are underway. These sites returned a medium or high dust risk rating.
- 1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 1, together with line charts of monthly data from each dust monitor in Figure 4. All continuous dust monitoring is undertaken using indicative monitors. Despite being Environment Agency (MCERTS) certified, indicative monitors carry a higher level of uncertainty than reference monitors, and therefore cannot be strictly compared with Air Quality Standards for human health and the environment. The purpose of the monitoring undertaken is to ensure the effectiveness of the on-site mitigation.
- 1.1.7 The trigger level of $190 \mu\text{g}/\text{m}^3$, over a 1-hour period, in accordance with the updated guidance document '*Guidance on Monitoring in the Vicinity of Demolition and Construction Sites – October 2018*' has been applied.
- 1.1.8 There were no (0) dust trigger alerts recorded during the monitoring period (September 2019). All results were in line with expected ranges.
- 1.1.9 Diffusion tube monitoring of Nitrogen Dioxide (NO_2) was undertaken at sixty-five (65) locations in August 2019, around highways within the LBC as part of the management of air quality where significant effects may occur as a result of the scheme.
- 1.1.10 Diffusion tube monitoring results are provided from the laboratory analysis, and therefore still require various analysis and adjustments to be undertaken. Final corrected results will be presented and described in the annual report. However, based on the results to date, no unexpected values were recorded during the monitoring period.
- 1.1.11 NO_2 monitoring locations and results are presented in Appendix C, Table 2, together with the 2019 running mean.
- 1.1.12 There were no complaints received, relating to air quality, during this monitoring period.

Appendix A – Worksites and Monitoring Locations

Figure 1 to Figure 3: Worksites and monitoring locations within the LBC



Legend

- Route in tunnel
- Route on surface
- Diffusion tube monitoring location

Figure Number

Figure Name
Worksites and Monitoring locations in LBC

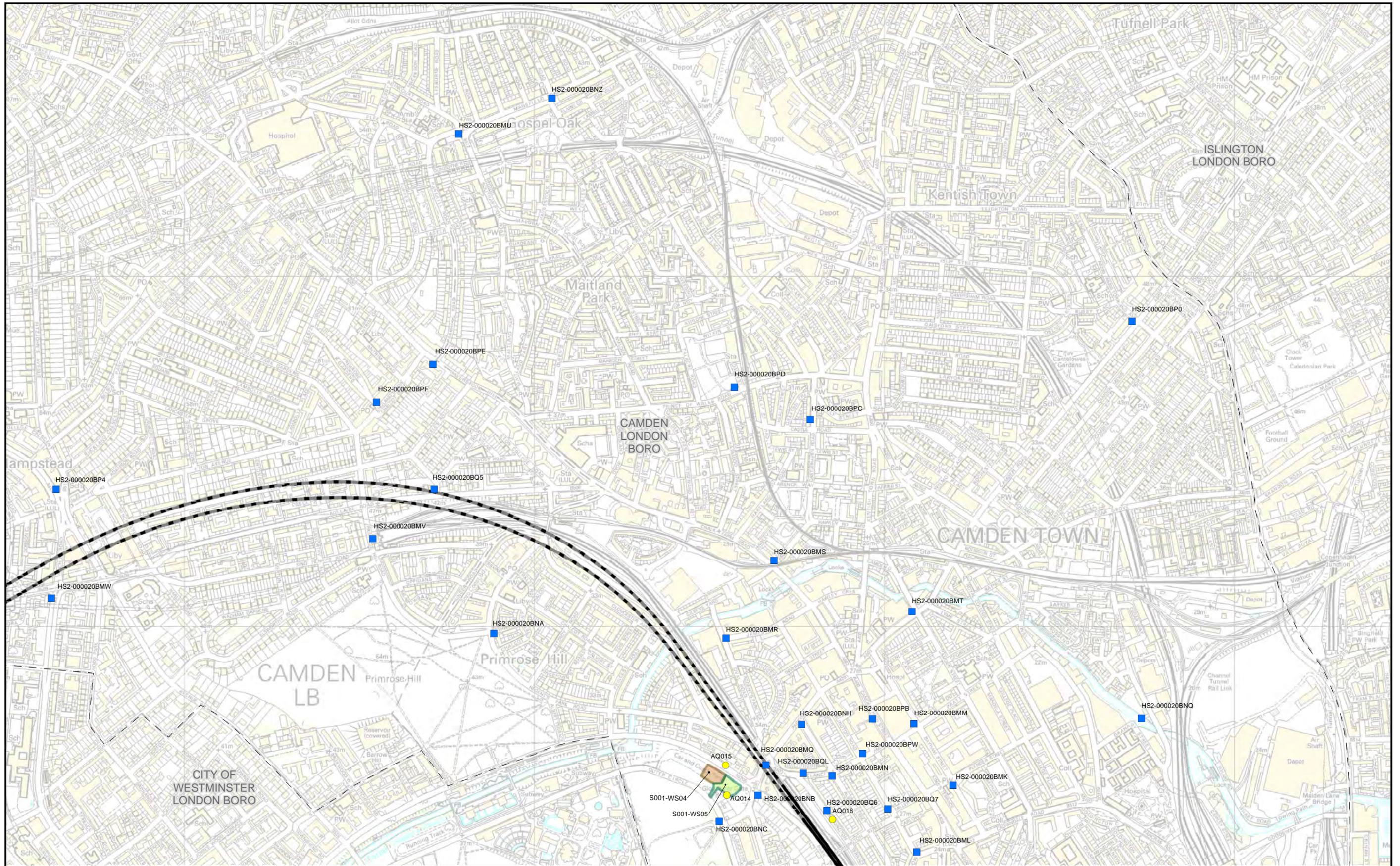
London Borough of Camden

HS2 Ltd accept no responsibility for any circumstances, which arise from the reproduction of this map after alteration, amendment or abbreviation or if it is issued in part or issued incomplete in any way.

Scale at A3: 10,000

© Crown copyright and database rights 2016.
Ordnance Survey Licence Number 100049190.

Map Number: 1EW02-CSJ-EV-REP-S000-000017_appAFig1.pdf **Date: 13/07/18**



- Legend**
- Route in tunnel
 - Route on surface
 - Diffusion tube monitoring location
 - Dust monitoring location
 - Vehicle Holding Area
 - Thames Water Compound

Figure Number

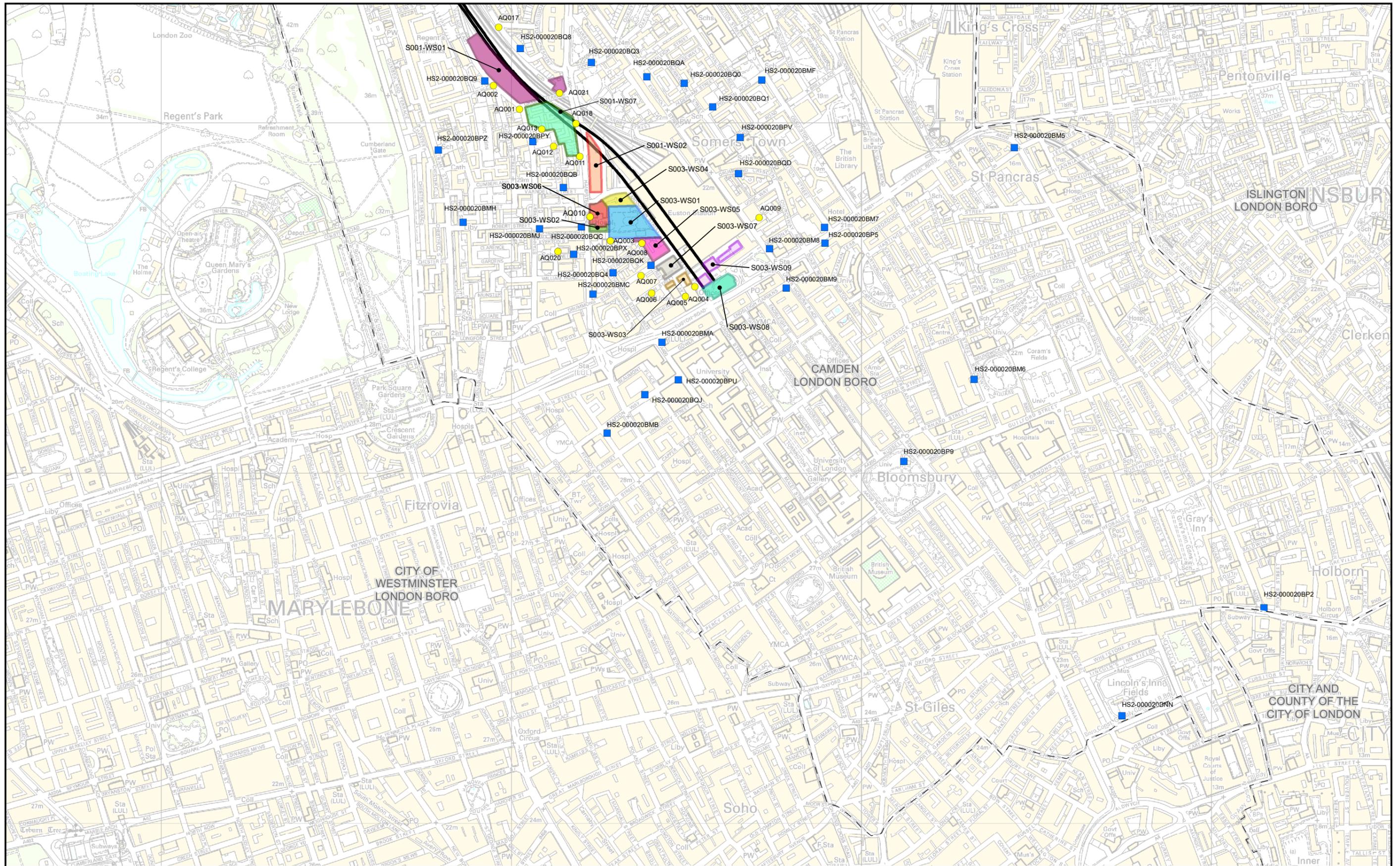
Figure Name
Worksites and Monitoring locations in LBC
 (sheet 2)

London Borough of Camden

HS2 Ltd accept no responsibility for any circumstances, which arise from the reproduction of this map after alteration, amendment or abbreviation or if it is issued in part or issued incomplete in any way.

Scale at A3: 10,000

© Crown copyright and database rights 2016.
 Ordnance Survey Licence Number 100049190.
 Map Number: 1EW02-CSJ-EV-REP-S000-000017_appAFig1.pdf Date: 13/07/18



Legend

- Route in tunnel
- Route on surface
- Diffusion tube monitoring location
- Dust monitoring location
- DB Cargo Shed and Compound worksite
- St. James' Gardens worksite
- National Temperance Hospital worksite
- Ibis Hotel, 3 Cardington Street & 1-3 Cobourg Street
- National Temperance Hospital, Insull Wing
- Walkden House, 65-75 & 77-79 Euston Street
- Thistle Hotel, Cardington Street
- Euston Street, Melton Street, Drummond Street block
- Euston Square Gardens
- One Euston Square, 40 Melston Street and Gran Thorton House, 22 Melston Street
- 132 and 140 Hampstead Road and Petrol Station
- Regents Park Estate

Figure Number

Figure Name

Worksites and Monitoring locations in LBC
(sheet 3)

London Borough of Camden

Scale at A3: 10,000

0 100 200 300 400 Metres

Map Number: 1EW02-CSJ-EV-REP-S000-000017_appAFig1.pdf Date: 11/07/19

h2

HS2 Ltd accept no responsibility for any circumstances, which arise from the reproduction of this map after alteration, amendment or abbreviation or if it is issued in part or issued incomplete in any way.

© Crown copyright and database rights 2016. Ordnance Survey Licence Number 100049190.

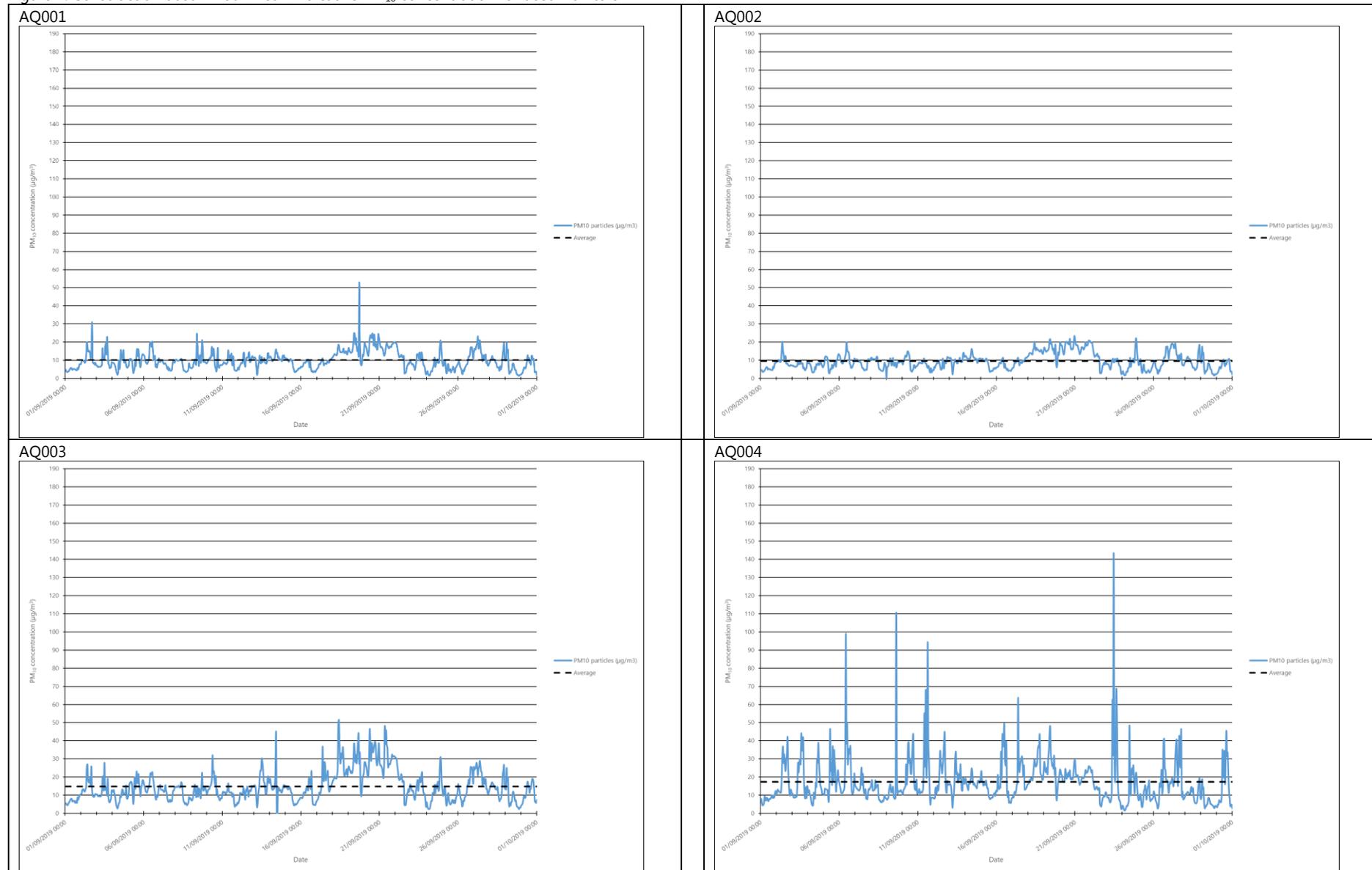
Appendix B – Dust Monitoring Results

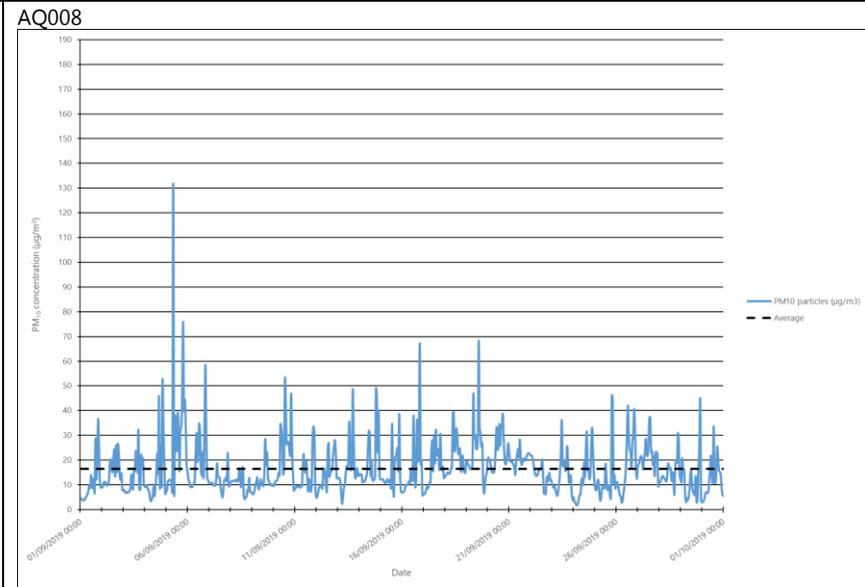
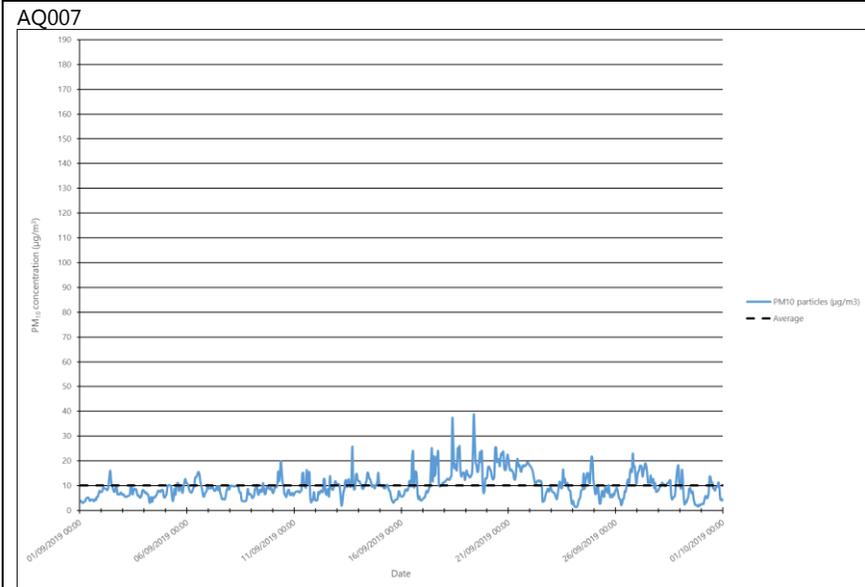
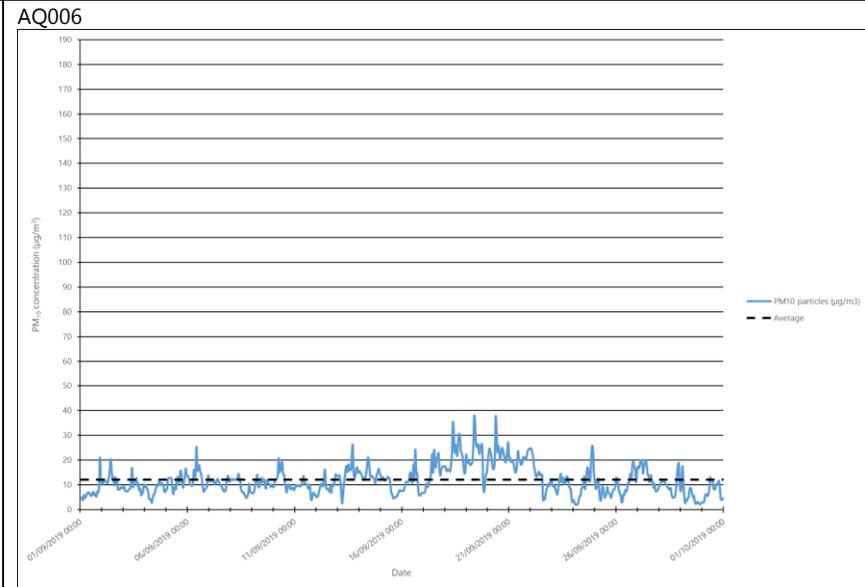
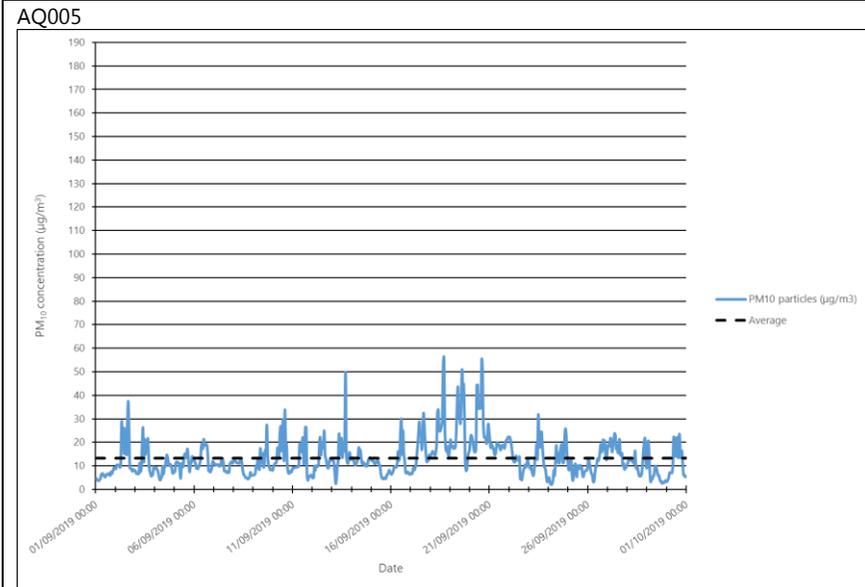
Table 1: Dust monitoring locations and September 2019 Results

Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM ₁₀ concentration (µg/m ³)	Minimum 1-hour PM ₁₀ concentration (µg/m ³)	Maximum 1-hour PM ₁₀ concentration (µg/m ³)	Number of 1-hour periods exceeding trigger level of 190 µg/m ³	Data capture (%)
AQ001	529022, 183040	Junction of Park Village East, Stanhope Street and Granby Terrace	H	Yes	N	10.1	1.5	52.9	0	100.0
AQ002	528947, 183107	Park Village East	H	Yes	N	9.5	1.6	23.5	0	99.9
AQ003	529282, 182663	St James Gardens	M	Yes	N	14.8	2.3	51.6	0	99.7
AQ004	529523, 182533	Melton Street	H	Yes	N	17.5	1.6	143.5	0	100.0
AQ005	529496, 182505	Stephenson Way	H	Yes	N	13.3	2.0	56.0	0	100.0
AQ006	529399, 182514	Euston Street	H	Yes	N	12.0	2.0	37.8	0	100.0
AQ007	529369, 182564	Drummond Street	H	Yes	N	10.0	1.5	38.8	0	100.0
AQ008	529369, 182648	Cobourg Street	H	Yes	N	16.5	1.8	131.8	0	100.0
AQ009	529707, 182730	Lancing Street	H	Yes	N	10.7	1.6	28.0	0	100.0
AQ010	529223, 182732	Hampstead Road South	H	Yes	N	11.5	1.8	41.2	0	100.0
AQ011	529195, 182904	Hampstead Road	H	Yes	Y	24.2	4.9	98.5	0	100.0
AQ012	529119, 182934	Mackworth Street	H	Yes	Y	11.6	1.8	39.2	0	100.0

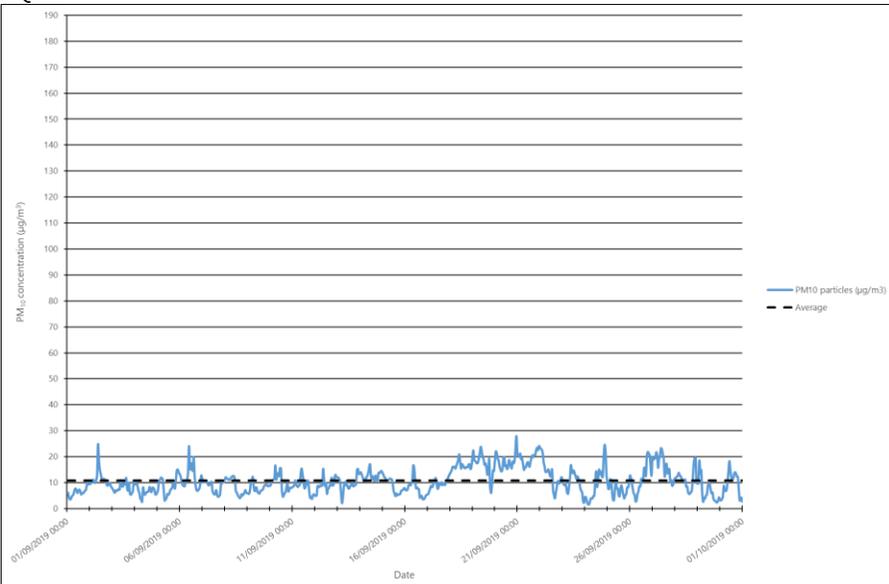
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM ₁₀ concentration (µg/m ³)	Minimum 1-hour PM ₁₀ concentration (µg/m ³)	Maximum 1-hour PM ₁₀ concentration (µg/m ³)	Number of 1- hour periods exceeding trigger level of 190 µg/m ³	Data capture (%)
AQ013	529066, 182990	Regents Park Estate	H	Yes	Y	12.5	1.8	67.8	0	100.0
AQ014	528550, 183518	Thames Water Compound	L	Yes	N	9.0	1.5	26.9	0	100.0
AQ015	528546, 183604	Prince Albert Road	L	Yes	N	9.2	1.5	27.0	0	100.0
AQ016	528851, 183448	Mornington Terrace North	H	Yes	N	7.8	1.3	21.0	0	99.9
AQ017	528963, 183274	Mornington Terrace South	H	Yes	N	8.8	1.7	22.2	0	100.0
AQ018	529184, 182999	Hampstead Road North	H	Yes	Y	15.1	2.4	119.8	0	100.0
AQ020	529132, 182633	Netley School	n/a	Yes	N	11.9	1.8	34.3	0	100.0
AQ021	529127, 183116	Site compound at the Junction of Hampstead Road & Granby Terrace Bridge.	H	Yes	N	12.2	2.2	47.1	0	100.0

Figure 1: Construction dust 1-hour mean indicative PM₁₀ concentration for dust monitors

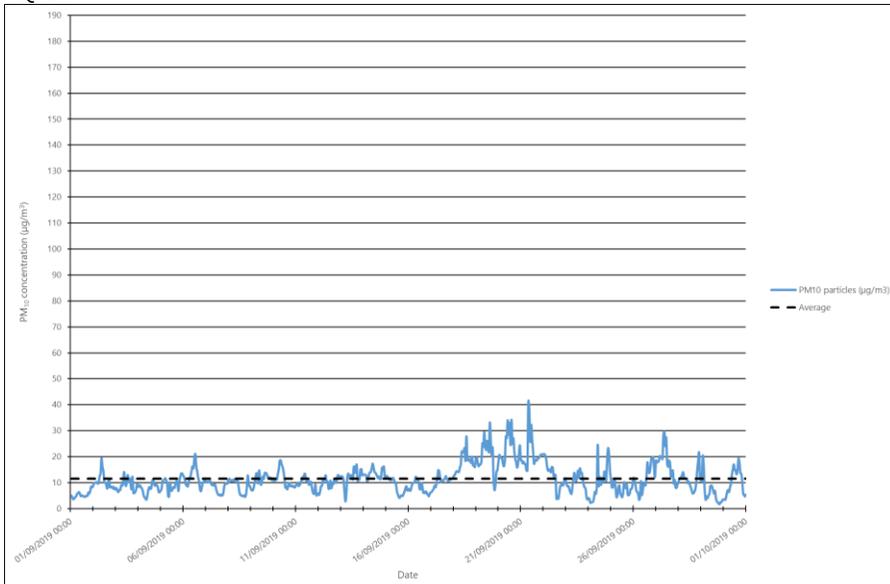




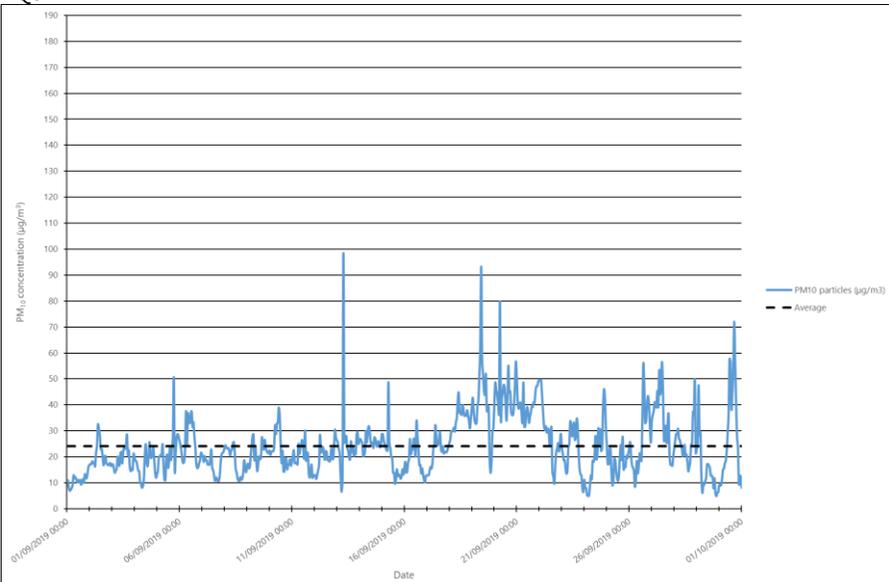
AQ009



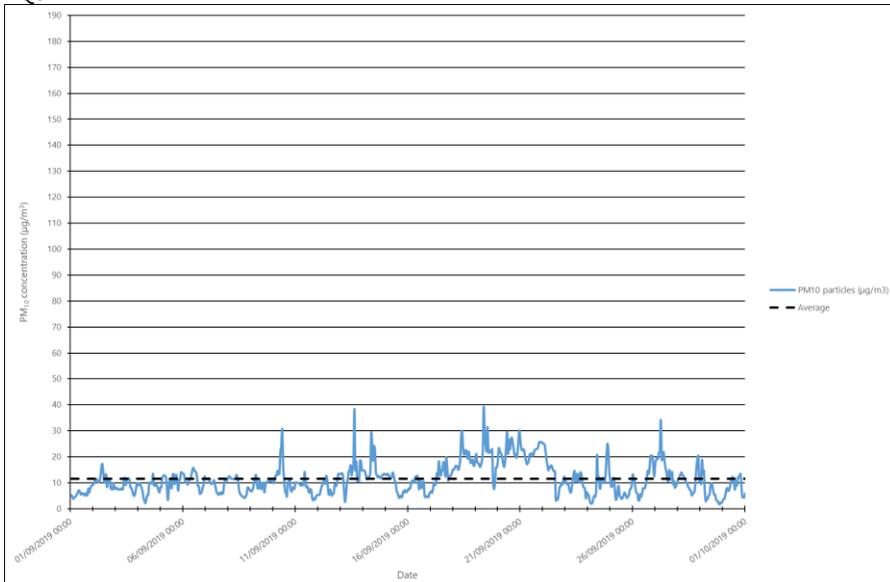
AQ010

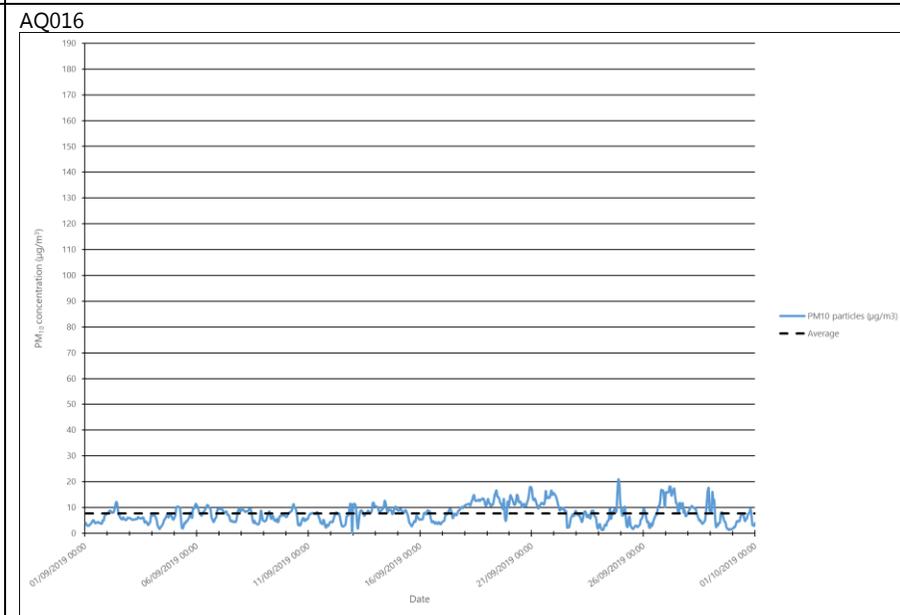
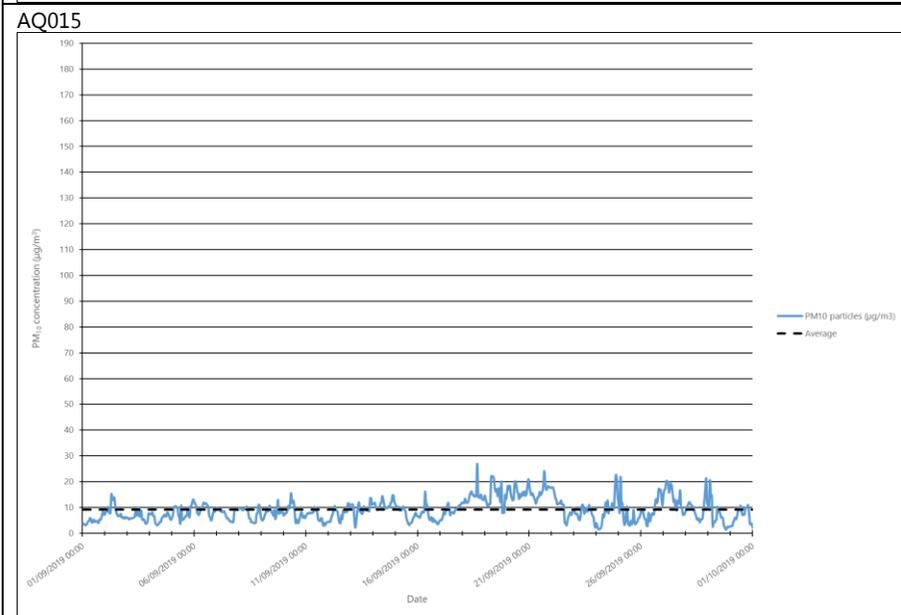
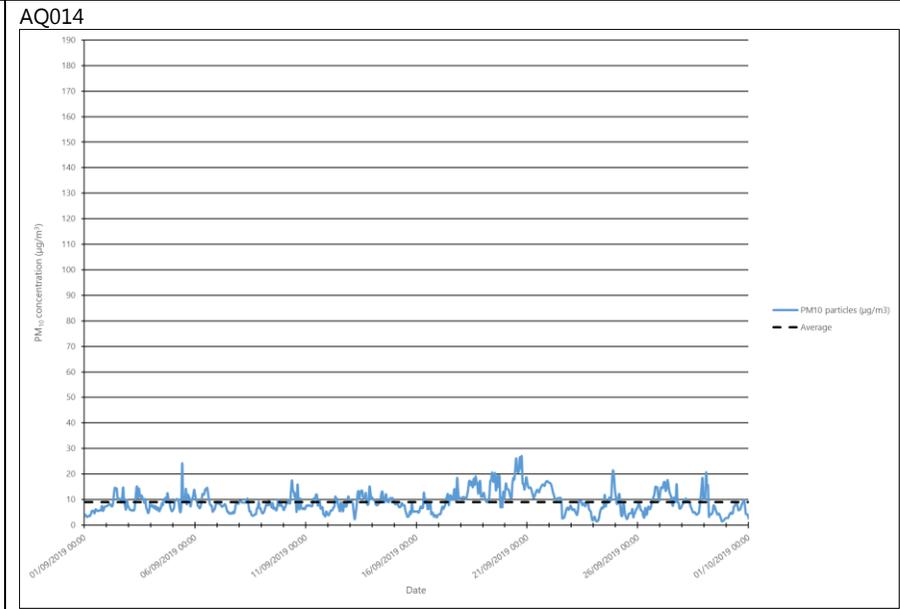
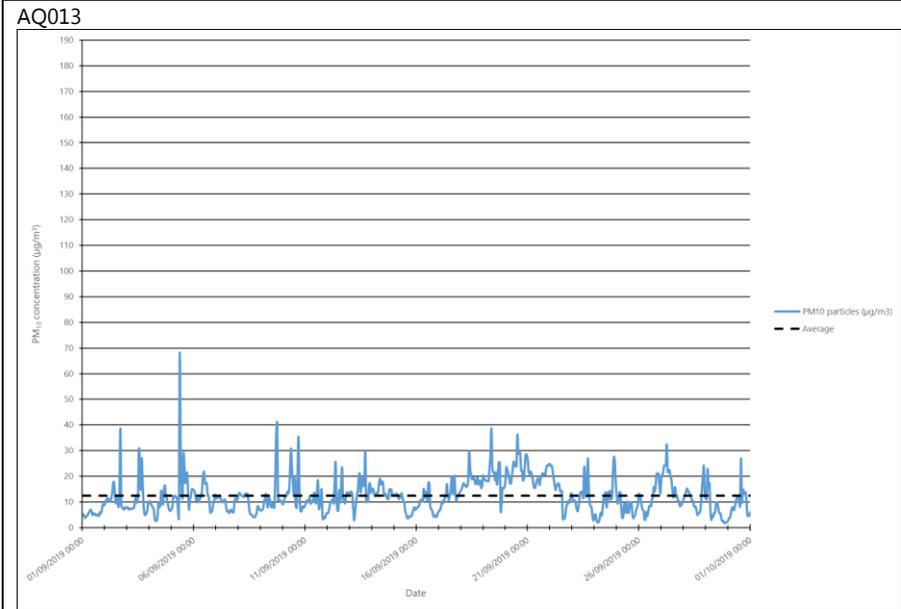


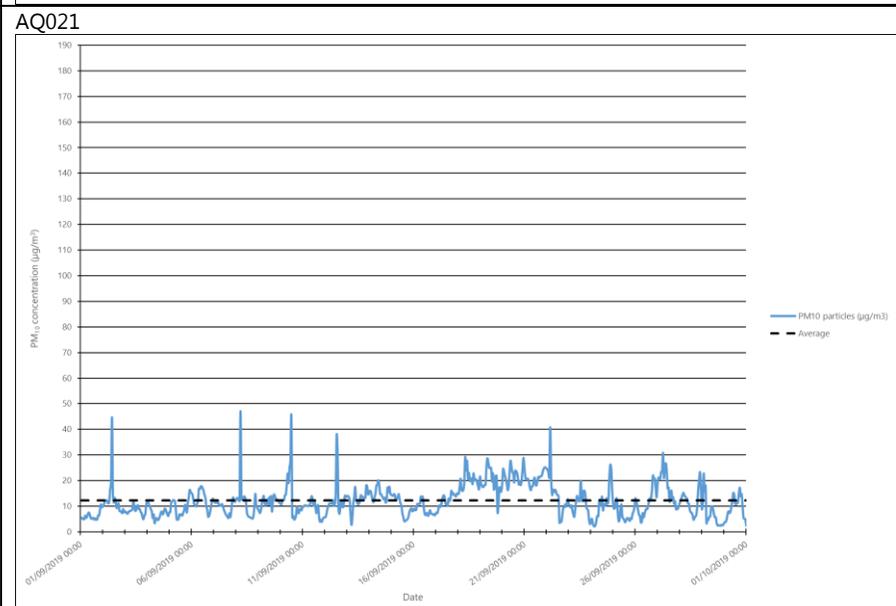
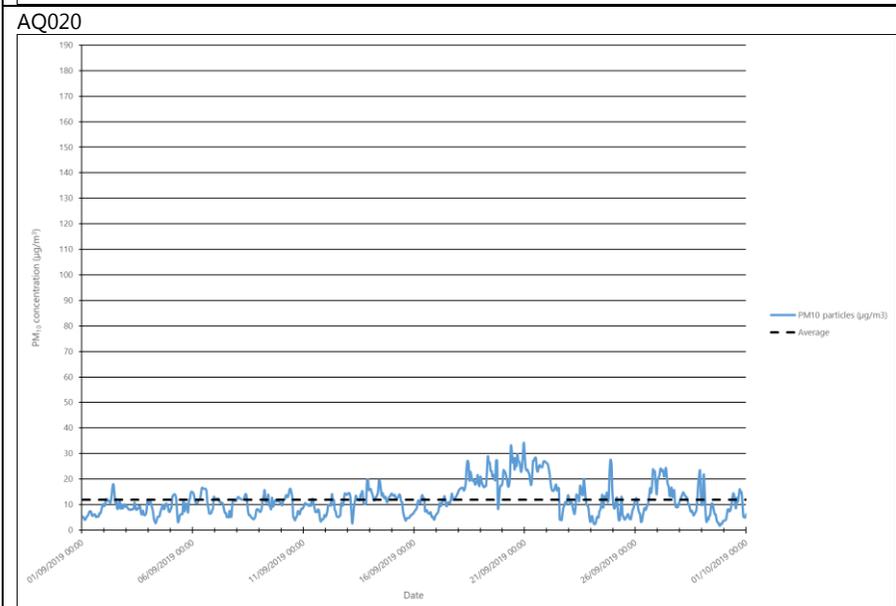
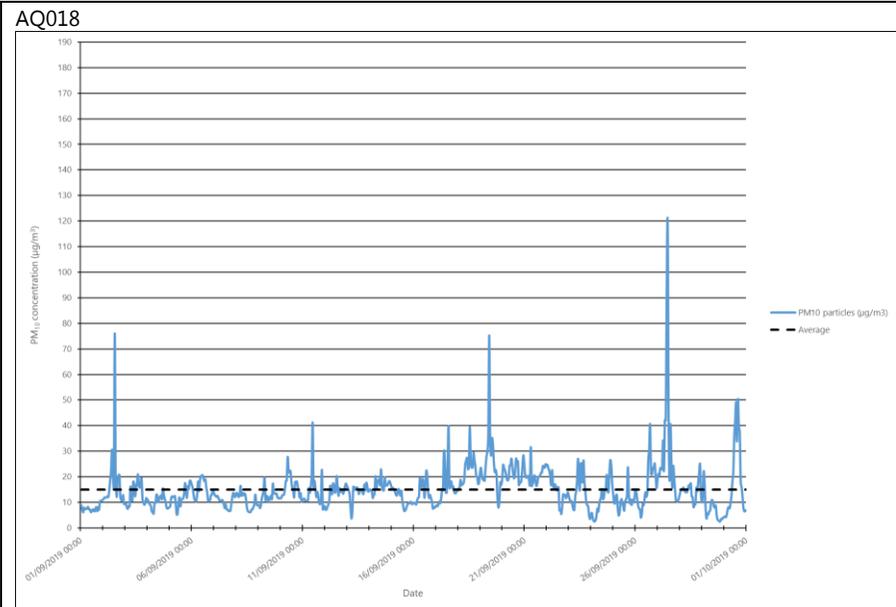
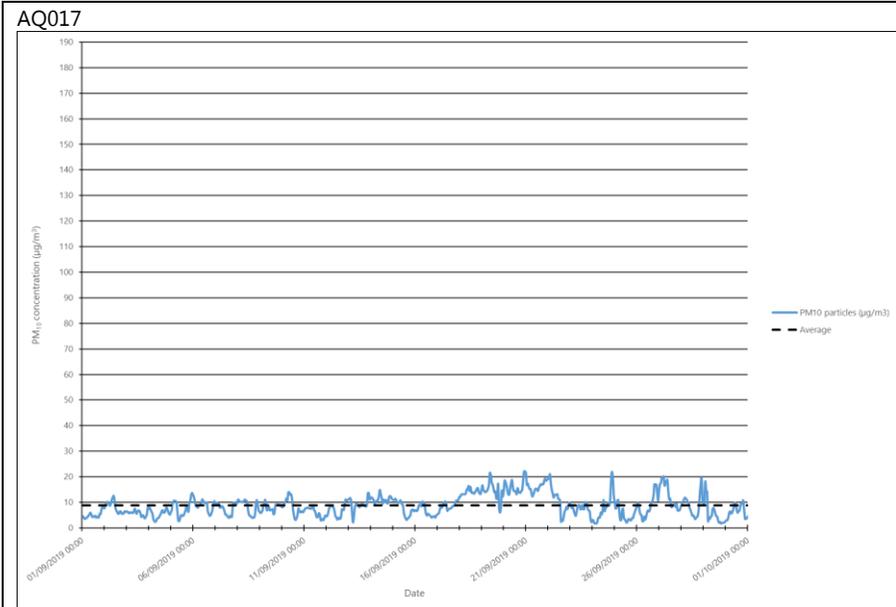
AQ011



AQ012







Appendix C – Air Quality Monitoring Results

Table 2: NO₂ monitoring locations around highways, NO₂ concentrations and monthly monitoring results with running mean for 2019 (µg/m³)

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BM5	Junction of St Chad's Street and Grays Inn Road	530436, 182929	58	64	46	53	49	43	46	39					50
HS2-000020BM6	Brunswick Square	530321, 182268	51	63	49	42	35	36	39	38					44
HS2-000020BM7	Chalton Street	529894, 182702	63	83	66	72	Tube missing							71	
HS2-000020BM8	Junction of Euston Square and Grafton Place	529737, 182641	63	72	66	75	61	53	52	59					63
HS2-000020BM9	Junction of Endsleigh Gardens and Upper Woburn Place	529785, 182529	47	63	56	59	56	48	49	46					53
HS2-000020BMA	Junction of Euston Road and Gower Street	529429, 182375	51	76	63	56	46	52	50	Tube missing					56
HS2-000020BMB	Whitfield Street	529273, 182114	49	58	43	48	33	33	33	36					42
HS2-000020BMC	Hampstead Road	529232, 182511	53	84	71	74	62	61	61	70					67
HS2-000020BMF	Junction of Polygon Road and Ossulston Street	529715, 183123	39	47	Tube missing	40	27	29	26	27					34
HS2-000020BMH	Nash Street	528861, 182717	43	51	35	37	30	28	29	33					36
HS2-000020BMJ	Junction on Robert Street and Stanhope Street	529080, 182698	39	43	37	30	28	31	27	31					33

¹ Note: to aid interpretation and conform with best practice, the monthly measurements in this table are reported rounded to the nearest whole number. The annual mean presented here is calculated based on laboratory data to 4 significant figures, rounded to a whole number, and therefore may differ slightly to a mean derived from averaging the rounded monthly measurements in the table.

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BMK	Junction of Plender Street and Bayham Street	529196, 183546	66	68	55	50	39	40	44	47					51
HS2-000020BML	Junction of Arlington Road and Mornington Crescent	529093, 183356	47	44	38	41	26	27	29	30					35
HS2-000020BMM	Junction of Bayham Street and Pratt Street	529084, 183722	52	75	62	47	49	47	52	57					55
HS2-000020BMN	Junction of Delancey Street and Albert Street	528850, 183573	43	53	43	40	36	33	34	37					40
HS2-000020BMQ	Junction of Parkway and Delancey Street	528662, 183604	50	57	43	58	45	46	44	41					48
HS2-000020BMR	Junction of Oval Road and Jamestown Road	528548, 183967	44	49	41	41	30	Tube missing	28	30					38
HS2-000020BMS	Junction of Chalk Farm Road and Castlehaven Road	528685, 184188	59	52	50	52	47	45	50	45					50
HS2-000020BMT	Junction of Camden Road and Camden Street	529079, 184043	57	57	55	55	46	43	45	42					50
HS2-000020BMU	Junction of Southampton Road and Fleet Road	527783, 185407	47	51	39	43	28	Tube missing	34	36					40
HS2-000020BMV	Primrose Hill Road	527538, 184250	46	45	38	No data	29	22	30	32					35
HS2-000020BMW	Junction of Finchley Road and Hilgrove Road	526619, 184081	61	59	55	60	47	50	Tube missing						55
HS2-000020BMZ	Junction of Finchley Road and Hendon Way	525102, 186042	87	92	87	90	73	74	75	74					81
HS2-000020BNA	Junction of Regent's Park Road and Rothwell Street	527884, 183980	45	48	30	27	25	28	27	30					33

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BNB	Junction of Gloucester Gate Bridge and Park Village East	528639, 183518	53	45	41	37	Tube missing								44
HS2-000020BNC	Junction of Outer Circle and Gloucester Gate	528528, 183443	35	36	24	33	21	25	Tube missing	Tube missing					29
HS2-000020BNH	Junction of Parkway and Albert Street	528763, 183720	43	53	37	41	30	34	33	34					38
HS2-000020BNN	Lincoln's Inn Fields	530744, 181308	50	Tube missing		35	29	Tube missing	27	34					35
HS2-000020BNQ	Camley Street	529735, 183737	50	49	Tube missing		19	29	27	Tube missing					35
HS2-000020BNI	Junction of Mill Lane and Hillfield Road	524839, 185136	53	50	44	38	34	36	33	37					41
HS2-000020BNZ	Mansfield Road	528050, 185508	24	44	34	30	Tube missing	29	27	32					32
HS2-000020BP0	Junction of Camden Road and Torriano Avenue	529708, 184871	52	70	56	54	46	54	45	47					53
HS2-000020BP2	Junction of Grays Inn Road and Holborn	531149, 181616	65	52	49	48	43	43	41	38					47
HS2-000020BPB	Camden High Street	528966, 183735	65	81	75	58	63	61	57	60					65
HS2-000020BPC	Castlehaven Road	528788, 184591	45	47	40	33	31	32	28	30					36
HS2-000020BPD	Prince of Wales Road	528571, 184683	35	43	37	28	28	25	23	24					30
HS2-000020BPE	Haverstock Hill	527710, 184749	54	62	53	37	Tube missing	37	36	38					45
HS2-000020BPF	Junction of Primrose Gardens and England's Lane	527549, 184640	44	52	41	35	32	31	29	31					37
HS2-000020BPU	Junction of Gower Street and Grafton Way	529476, 182267	54	60	56	50	Tube missing	42	51	43					51

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BPW	Junction of Delancey Street and Arlington Road	528939, 183637	48	51	44	44	40	39	38	36					42
HS2-000020BPX	Netley Street	529177, 182625	43	50	40	48	32	36	29	29					38
HS2-000020BPY	Stanhope Street	529060, 182947	34	46	32	36	24	24	Tube missing	24					31
HS2-000020BPZ	Albany Street	528790, 182923	44	57	42	43	34	34	32	31					40
HS2-000020BQ0	Werrington Street	529493, 183113	43	Tube missing	39	39	26	28	25	27					33
HS2-000020BQ1	Polygon Road	529574, 183045	41	46	37	34	Tube missing	28	Tube missing	28					35
HS2-000020BQ2	Alexandra Place	526320, 183980	42	Tube missing	30	39	25	Tube missing	24	26					31
HS2-000020BQ3	Harrington Square	529228, 183172	46	60	45	48	40	42	40	38					45
HS2-000020BQ4	Junction of North Gower Street and Starcross Street	529290, 182572	51	54	41	44	23	33	30	30					38
HS2-000020BQ5	Adelaide Road	527713, 184392	50	54	43	41	32	30	35	34					40
HS2-000020BQ6	Mornington Terrace	528836, 183474	45	46	35	34	28	27	25	27					33
HS2-000020BQ7	Arlington Road	529009, 183479	43	40	37	33	28	24	26	28					33
HS2-000020BQ8	Clarkson Row	529024, 183213	42	45	34	36	26	27	24	27					33
HS2-000020BQ9	Park Village East	528923, 183121	40	44	Tube missing		24	24	22	26					30
HS2-000020BQA	Eversholt Street	529386, 183132	57	67	56	49	46	Tube missing	44	42					52
HS2-000020BQB	Junction of Harrington Street and Vardell Street	529147, 182816	42	43	32	40	26	26	24	25					32

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BQC	Junction of Robert Street and Hampstead Road	529199, 182704	49	48	42	56	33	37	34	30					41
HS2-000020BQD	Drummond Crescent	529648, 182856	50	51	45	44	33	34	33	38					41
HS2-000020BQJ	Grafton Way	529380, 182225	64	70	59	56	51	62	57	53					59
HS2-000020BQL	Delancey Street	528768, 183581	58	57	47	51	45	39	43	35					47
HS2-000020BQR	Lamp post on Park Village East	528682, 183505	46	42	36	34	26	Tube missing	25	24					33
HS2-000020BQS	Opposite Maria fidelis school on Pheonix Road	529670, 182982	43	43	37	41	Tube missing	34	26	27					36
HS2-000020BQT	Drummond Street	529385, 182581	52	51	43	47	31	37	31	31					41
HS2-000020BP4	Triplicate site on Finchley Road next to Swiss Cottage kerbside automatic monitoring station	526633, 184392	64	Tubes missing			46	53	45	Tubes missing					52
HS2-000020BP5	Triplicate site next to the Euston Road roadside automatic monitoring stations	529895, 182657	Tubes missing	81	69	78	63	77	61	66					71
HS2-000020BP9	Triplicate site in Russell Square next to Bloomsbury urban background automatic monitoring station	530120, 182034	55	47	38	38	36	32	30	26					38