October 2019

HS2

Air Quality and Dust Monitoring Monthly Report – October 2019

London Borough of Camden



COSTAIN SKANSKA



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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 September 2019 and October 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;
 - o Thistle Hotel, Cardington Street, worksite ref. S003-WS04;
 - o A number of sites in Euston Street, worksite ref. S003-WS07;
 - Regents Park Estate worksite ref. S001-WS07;
 - o 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).

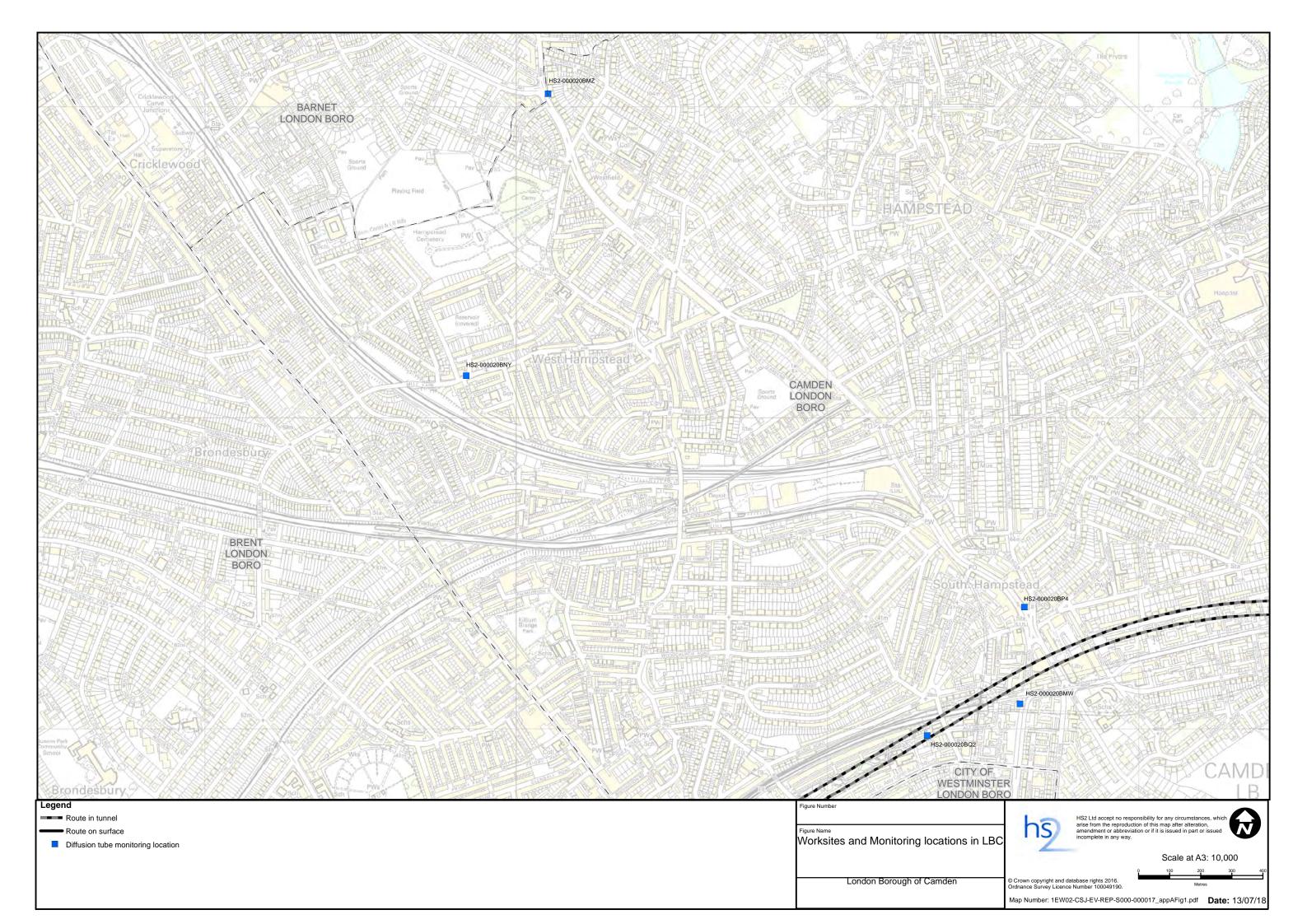
Complete -

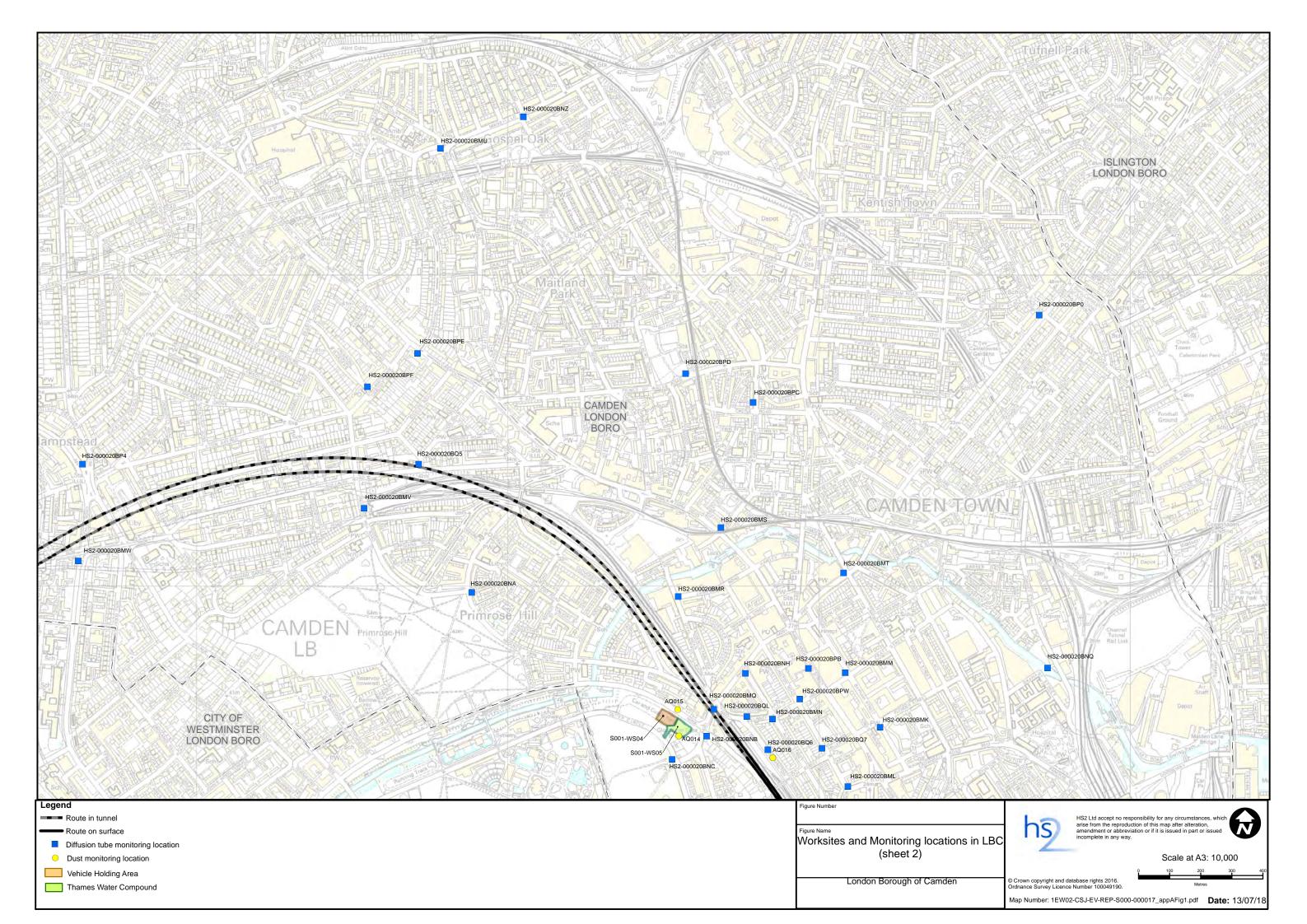
- Demolition of former accommodation block and train maintenance shed, at the DB Cargo shed, the site is currently being used for storage of spoil.
- Demolition at:

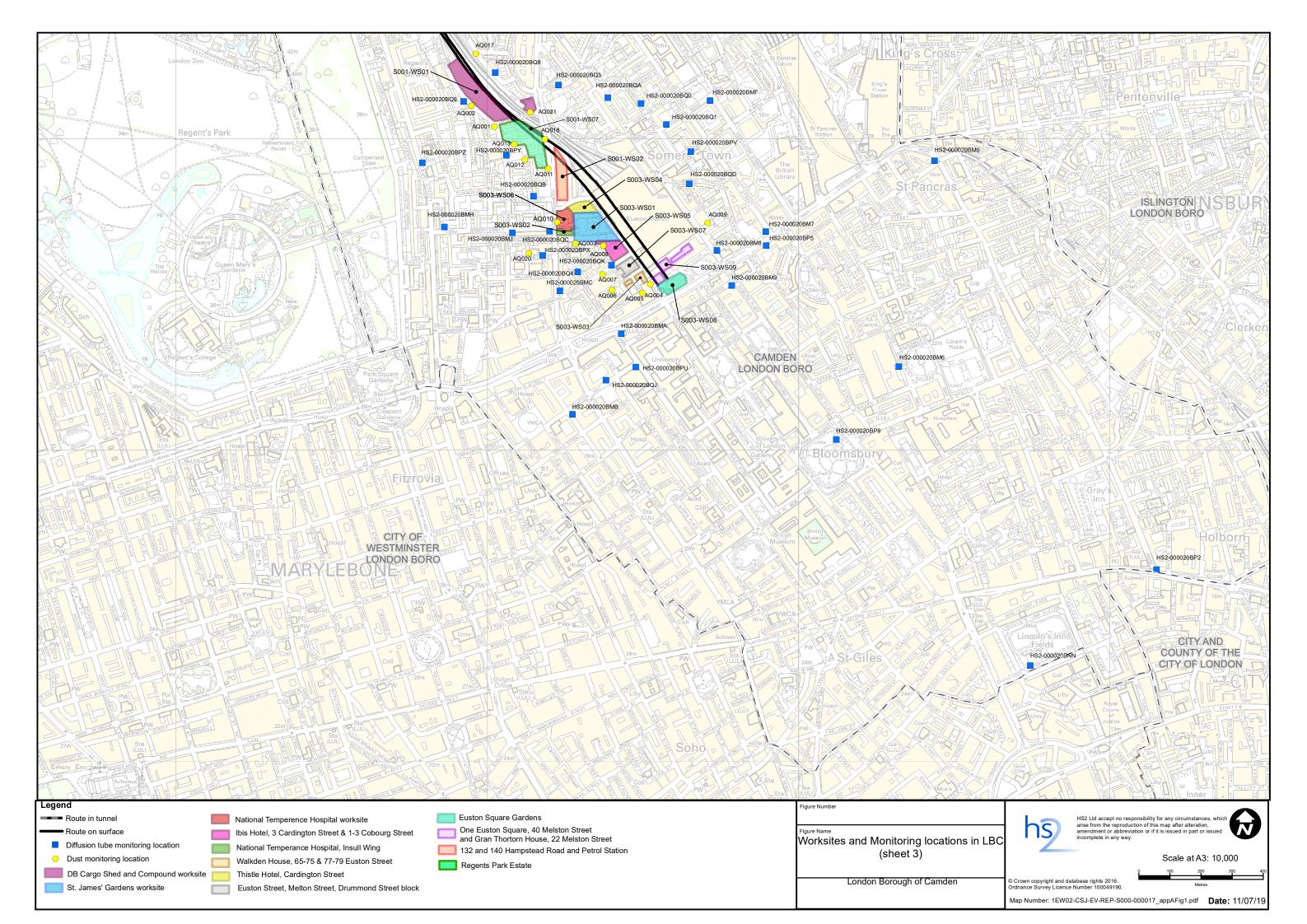
- National Temperance Hospital, Insull Wing, worksite ref. S003-WS02;
- o 1-3 Cobourg Street, worksite ref. S003-WS05; and
- o 132 140 Hampstead Road and Petrol Station, worksite ref. S001-WS02.
- Taxi rank in Euston Square Gardens, worksite ref. S003-WS08.
- 1.1.5 Twenty (20) dust monitors are installed around worksites, where demolition and predemolition 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 µg/m³, 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 nine (9) dust trigger alerts recorded during the monitoring period (October 2019). Exceedances are presented in Appendix B, Table 2. All other results were in line with expected ranges.
- 1.1.9 Data capture for AQ006 was below 90% for the month of October 2019. This was because of a fault with the instrument. Due to utility works in the area immediately around the monitoring location it was not possible to repair the monitor.
- 1.1.10 Diffusion tube monitoring of Nitrogen Dioxide (NO₂) was undertaken at sixty-five (65) locations in September 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.
- 1.1.11 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.
- 1.1.12 NO₂ monitoring locations and results are presented in Appendix C, Table 3, together with the 2019 running mean.
- 1.1.13 There were no (0) complaints received, relating to air quality or dust, during this monitoring period (October 2019).

Appendix A – Worksites and Monitoring Locations

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







Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and October 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/m³)	Minimum 1- hour PM ₁₀ concentration (μg/m³)	Maximum 1- hour PM ₁₀ concentration (μg/m³)	Number of 1- hour periods exceeding trigger level of 190 µg/m³	Data capture (%)
AQ001	529022, 183040	Junction of Park Village East, Stanhope Street and Granby Terrace	Н	Yes	N	12.5	0.7	317.9	2	100.0
AQ002	528947, 183107	Park Village East	н	Yes	N	9.8	0.8	35.4	0	100.0
AQ003	529282, 182663	St James Gardens	М	Yes	N	13.7	1.5	50.1	0	99.5
AQ004	529523, 182533	Melton Street	Н	Yes	N	14.3	0.9	277.5	1	99.9
AQ005	529496, 182505	Stephenson Way	Н	Yes	N	13.4	1.3	97.5	0	99.9
AQ006	529399, 182514	Euston Street	Н	Yes	N	11.6	1.3	29.7	0	20.6
AQ007	529369, 182564	Drummond Street	Н	Yes	N	12.6	0.9	1030.0	1	100.0
AQ008	529369, 182648	Cobourg Street	Н	Yes	N	15.2	1.1	63.9	0	100.0
AQ009	529707, 182730	Lancing Street	Н	Yes	N	13.3	1.1	38.0	0	100.0
AQ010	529223, 182732	Hampstead Road South	Н	Yes	N	11.4	1.0	46.8	0	99.9
AQ011	529195, 182904	Hampstead Road	Н	Yes	N	42.3	2.1	301.2	3	99.7
AQ012	529119, 182934	Mackworth Street	Н	Yes	N	10.8	1.1	41.4	0	100.0

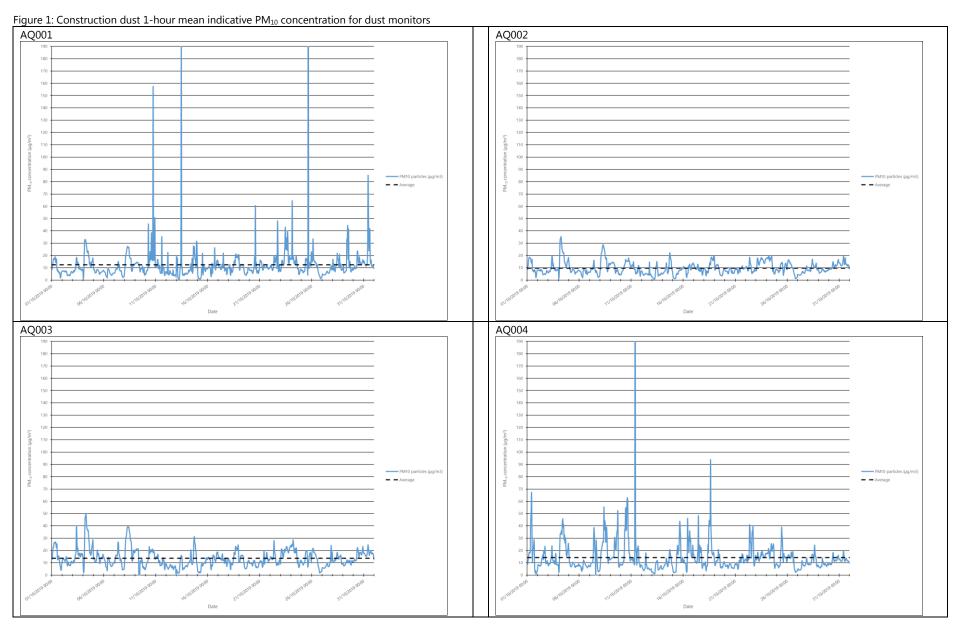
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM ₁₀ concentration (μg/m³)	Minimum 1- hour PM ₁₀ concentration (μg/m³)	Maximum 1- hour PM ₁₀ concentration (μg/m³)	Number of 1- hour periods exceeding trigger level of 190 µg/m³	Data capture (%)
AQ013	529066, 182990	Regents Park Estate	Н	Yes	N	12.4	0.9	74.8	0	98.3
AQ014	528550, 183518	Thames Water Compound	L	Yes	N	9.2	0.8	42.8	0	99.5
AQ015	528546, 183604	Prince Albert Road	L	Yes	N	9.6	0.8	37.4	0	100.0
AQ016	528851, 183448	Mornington Terrace North	Н	Yes	N	8.7	0.6	32.5	0	99.9
AQ017	528963, 183274	Mornington Terrace South	Н	Yes	N	9.7	0.7	36.6	0	100.0
AQ018	529184, 182999	Hampstead Road North	Н	Yes	N	17.7	1.2	684.2	2	100.0
AQ020	529132, 182633	Netley School	n/a	Yes	N	11.9	1.2	43.4	0	99.9
AQ021	529127, 183116	Site compound at the Junction of Hampstead Road & Granby Terrace Bridge.	Н	Yes	N	13.4	1.5	53.9	0	100.0

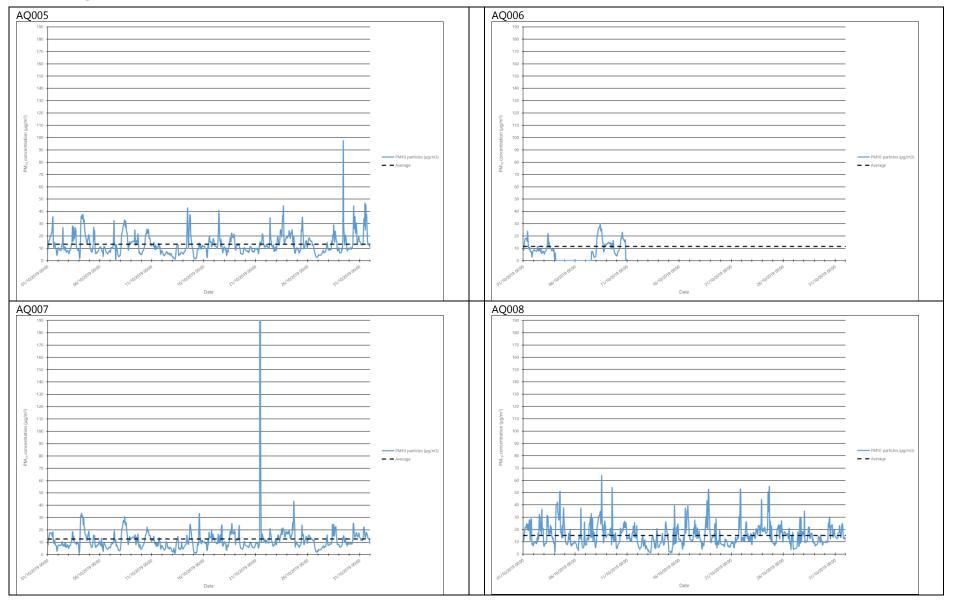
Table 2: Summary of exceedances of trigger level in October 2019

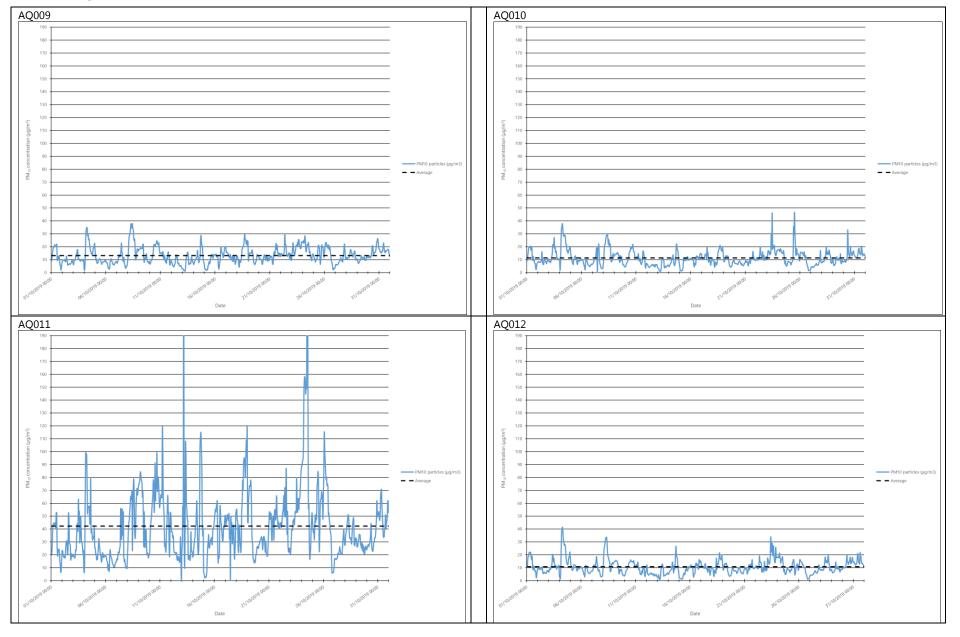
Period exceeding trigger level	Worksite reference	Monitoring site	Complaint reference number (if applicable)	Reason	Resolution
13/10/2019 10:01 – 11:00	S001-WS01	AQ001	n/a	The alert was triggered whilst the site was closed and inactive. The CSJV site team were confident the trigger was not associated with HS2 works. The persistent inclement weather over the previous few weeks had more than supplemented all dust suppression measures whilst the site was active so windblown dust during inactive periods was ruled out.	The trigger was potentially indicative of a fault on the monitor and the monitoring readings affected by the wet weather. The monitor was subsequently serviced on the 17 th October.
25/10/2019 15:01 – 16:00	S001-WS01	AQ001	n/a	Demolition of Eskdale had been underway all day (and previous day) without incident. The demolition curtain had been employed along with the dust canon and motofogs. Observations of the work throughout the day and monitored readings had been very positive indicating the dust suppression was effective. Work on the western façade of Eskdale was ceased and the demolition curtain lowered around two o'clock and work was moved to the eastern façade. Again, all the dust suppression was employed, the works were even further away from Cubitt Court and Park Village East and shielded by the Eskdale building itself. The trigger was received. Works were stopped accordingly.	The wind had steadily increased over the previous couple of hours and became more unpredictable prior to stopping the works. It was considered these gusts of wind had contributed to the dust levels causing the trigger off site. The team were briefed again, as they are each day, regarding vigilance especially when the wind becomes unpredictable in the locality.
11/10/2019 08:01 – 09:00	S003-WS09	AQ004	n/a	The alert was immediately investigated by the site team and the CSJV site team were confident the trigger was not associated with HS2 works as they were employing all necessary dust suppression measures as they had throughout the works and the inclement wet weather was providing further damping down.	The trigger was potentially indicative of a faulty on the monitor and the monitoring readings affected by the wet weather.

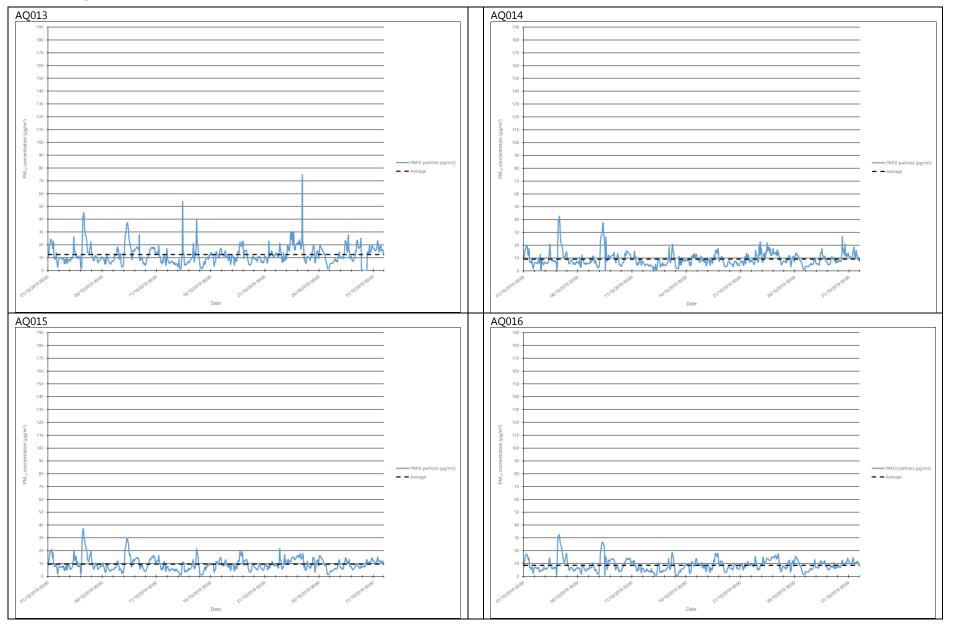
		Monitoring site	Complaint reference		- 1.0
Period exceeding trigger level	Worksite reference	ID	number (if applicable)	Reason	Resolution
					The monitor was subsequently serviced on the 17 th October.
21/10/2019 09:01 – 10:00	S003-WS07	AQ007	n/a	This trigger was found to be associated with the road paint removal works on Drummond Street directly adjacent to the monitor. This work was not associated with HS2 works.	n/a
13/10/2019 03:01 – 04:00	S001-WS02	AQ011	n/a	The alert was triggered whilst the site was closed and inactive. The CSJV site team were confident the trigger was not associated with HS2 works. The persistent inclement weather over the	The trigger was potentially indicative of a faulty on the monitor and the monitoring readings affected by the wet
				previous few weeks had more than supplemented all dust suppression measures whilst the site was active so windblown dust during inactive periods was ruled out.	weather. The monitor was subsequently serviced on the 17 th October.
24/10/2019 11:01 – 13:00 (x2 alerts)	S001-WS02	AQ011	n/a	Monitor AQ011 was found to have a faulty heater follow a further service on the 17 th October but it was not possible to fix it at the time. Both the triggers were received when there was no dusty demolition works ongoing at the time at the north end of Silverdale. Only scaffolding works were being undertaken at the south end of Silverdale, near where the monitor is located, and it was persistently raining at the time as it had for most of the day.	The monitor was subsequently replaced in November 2019.
22/10/2019 10:01 – 11:00	S001-WS02	AQ018	n/a	Upon investigation it was considered the trigger was associated with the G/F /1 st / 2 nd Floor demolition works on Silverdale. Dust suppression was being applied and had been considered to be effective. However, upon receipt of the trigger, works were stopped.	The localised dust suppression (motofogs) location was revaluated and redeployed on either side of the building. The area was damped down again and was considered to be sufficient for work to restart.

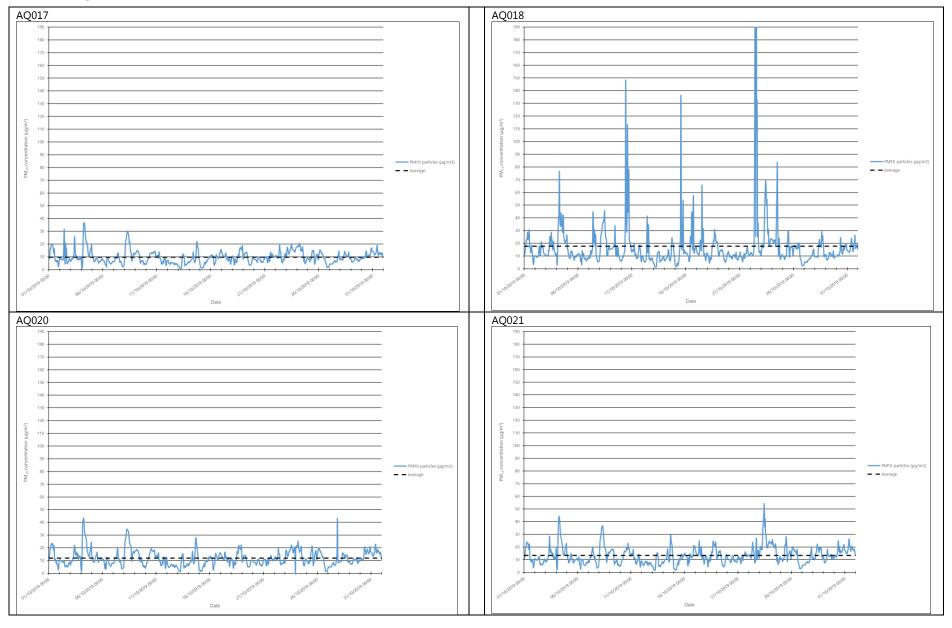
Period exceeding trigger level	Worksite reference	Monitoring site	Complaint reference number (if applicable)	Reason	Resolution
22/10/2019 12:01 – 13:00	S001-WS02	AQ018	n/a	A further trigger was received and demolition works were again stopped.	The motofogs were left running to ensure the area was completely damped down. The works were reviewed again the next day and an alternative demolition methodology was employed.











Appendix C – Air Quality Monitoring Results

Table 3: 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	46				50
HS2-000020BM6	Brunswick Square	530321, 182268	51	63	49	42	35	36	39	38	39				44
HS2-000020BM7	Chalton Street	529894, 182702	63	83	66	72	Tube mis	ssing			52				67
HS2-000020BM8	Junction of Euston Square and Grafton Place	529737, 182641	63	72	66	75	61	53	52	59	60				62
HS2-000020BM9	Junction of Endsleigh Gardens and Upper Woburn Place	529785, 182529	47	63	56	59	56	48	49	46	49				53
HS2-000020BMA	Junction of Euston Road and Gower Street	529429, 182375	51	76	63	56	46	52	50	Tube missing	54				56
HS2-000020BMB	Whitfield Street	529273, 182114	49	58	43	48	33	33	33	36	37				41
HS2-000020BMC	Hampstead Road	529232, 182511	53	84	71	74	62	61	61	70	65				67
HS2-000020BMF	Junction of Polygon Road and Ossulston Street	529715, 183123	39	47	Tube missing	40	27	29	26	27	32				33
HS2-000020BMH	Nash Street	528861, 182717	43	51	35	37	30	28	29	33	35				36
HS2-000020BMJ	Junction on Robert Street and Stanhope Street	529080, 182698	39	43	37	30	28	31	27	31	38				34

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				51
HS2-000020BML	Junction of Arlington Road and Mornington Crescent	529093, 183356	47	44	38	41	26	27	29	30	36				35
HS2-000020BMM	Junction of Bayham Street and Pratt Street	529084, 183722	52	75	62	47	49	47	52	57	56				55
HS2-000020BMN	Junction of Delancey Street and Albert Street	528850, 183573	43	53	43	40	36	33	34	37	37				40
HS2-000020BMQ	Junction of Parkway and Delancey Street	528662, 183604	50	57	43	58	45	46	44	41	47				48
HS2-000020BMR	Junction of Oval Road and Jamestown Road	528548, 183967	44	49	41	41	30	Tube missing	28	30	35				37
HS2-000020BMS	Junction of Chalk Farm Road and Castlehaven Road	528685, 184188	59	52	50	52	47	45	50	45	47				50
HS2-000020BMT	Junction of Camden Road and Camden Street	529079, 184043	57	57	55	55	46	43	45	42	50				50
HS2-000020BMU	Junction of Southampton Road and Fleet Road	527783, 185407	47	51	39	43	28	Tube missing	34	36	41				40
HS2-000020BMV	Primrose Hill Road	527538, 184250	46	45	38	No data	29	22	30	32	34				35
HS2-000020BMW	Junction of Finchley Road and Hilgrove Road	526619, 184081	61	59	55	60	47	50	Tube i	missing	47				54
HS2-000020BMZ	Junction of Finchley Road and Hendon Way	525102, 186042	87	92	87	90	73	74	75	74	74				81
HS2-000020BNA	Junction of Regent's Park Road and Rothwell Street	527884, 183980	45	48	30	27	25	28	27	30	33				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		ד	Tube missir	ng					44
HS2-000020BNC	Junction of Outer Circle and Gloucester Gate	528528, 183443	35	36	24	33	21	25	Tube	missing	31				29
HS2-000020BNH	Junction of Parkway and Albert Street	528763, 183720	43	53	37	41	30	34	33	34	39				38
HS2-000020BNN	Lincoln's Inn Fields	530744, 181308	50	Tube	missing	35	29	Tube missing	27	34	37				36
HS2-000020BNQ	Camley Street	529735, 183737	50	49	Tube	missing	19	29	27	Tube missing	35				35
HS2-000020BNY	Junction of Mill Lane and Hillfield Road	524839, 185136	53	50	44	38	34	36	33	37	42				41
HS2-000020BNZ	Mansfield Road	528050, 185508	24	44	34	30	Tube missing	29	27	32	34				32
HS2-000020BP0	Junction of Camden Road and Torriano Avenue	529708, 184871	52	70	56	54	46	54	45	47	63				54
HS2-000020BP2	Junction of Grays Inn Road and Holborn	531149, 181616	65	52	49	48	43	43	41	38	51				48
HS2-000020BPB	Camden High Street	528966, 183735	65	81	75	58	63	61	57	60	58				64
HS2-000020BPC	Castlehaven Road	528788, 184591	45	47	40	33	31	32	28	30	37				36
HS2-000020BPD	Prince of Wales Road	528571, 184683	35	43	37	28	28	25	23	24	30				30
HS2-000020BPE	Haverstock Hill	527710, 184749	54	62	53	37	Tube missing	37	36	38	38				44
HS2-000020BPF	Junction of Primrose Gardens and England's Lane	527549, 184640	44	52	41	35	32	31	29	31	35				37
HS2-000020BPU	Junction of Gower Street and Grafton Way	529476, 182267	54	60	56	50	Tube missing	42	51	43	48				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				42
HS2-000020BPX	Netley Street	529177, 182625	43	50	40	48	32	36	29	29	38				38
HS2-000020BPY	Stanhope Street	529060, 182947	34	46	32	36	24	24	Tube missing	24	32				32
HS2-000020BPZ	Albany Street	528790, 182923	44	57	42	43	34	34	32	31	43				40
HS2-000020BQ0	Werrington Street	529493, 183113	43	Tube missing	39	39	26	28	25	27	35				33
HS2-000020BQ1	Polygon Road	529574, 183045	41	46	37	34	Tube missing	28	Tube missing	28	33				35
HS2-000020BQ2	Alexandra Place	526320, 183980	42	Tube missing	30	39	25	Tube missing	24	26	31				31
HS2-000020BQ3	Harrington Square	529228, 183172	46	60	45	48	40	42	40	38	45				45
HS2-000020BQ4	Junction of North Gower Street and Starcross Street	529290, 182572	51	54	41	44	23	33	30	30	37				38
HS2-000020BQ5	Adelaide Road	527713, 184392	50	54	43	41	32	30	35	34	33				39
HS2-000020BQ6	Mornington Terrace	528836, 183474	45	46	35	34	28	27	25	27	31				33
HS2-000020BQ7	Arlington Road	529009, 183479	43	40	37	33	28	24	26	28	Tube missing				33
HS2-000020BQ8	Clarkson Row	529024, 183213	42	45	34	36	26	27	24	27	32				33
HS2-000020BQ9	Park Village East	528923, 183121	40	44	Tube	missing	24	24	22	26	33				30
HS2-000020BQA	Eversholt Street	529386, 183132	57	67	56	49	46	Tube missing	44	42	50				51
HS2-000020BQB	Junction of Harrington Street and Varndell Street	529147, 182816	42	43	32	40	26	26	24	25	33				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	37				41
HS2-000020BQD	Drummond Crescent	529648, 182856	50	51	45	44	33	34	33	38	41				41
HS2-000020BQJ	Grafton Way	529380, 182225	64	70	59	56	51	62	57	53	64				60
HS2-000020BQL	Delancey Street	528768, 183581	58	57	47	51	45	39	43	35	50				47
HS2-000020BQR	Lamp post on Park Village East	528682, 183505	46	42	36	34	26	Tube missing	25	24	33				33
HS2-000020BQS	Opposite Maria fidelis school on Pheonix Road	529670, 182982	43	43	37	41	Tube missing	34	26	27	Tube missing				36
HS2-000020BQT	Drummond Street	529385, 182581	52	51	43	47	31	37	31	31	39				40
HS2-000020BP4	Triplicate site on Finchley Road next to Swiss Cottage kerbside automatic monitoring station	526633, 184392	64	Т	ubes missii	ng	46	53	45	Tubes missing	56				53
HS2-000020BP5	Triplicate site next to the Euston Road roadside automatic monitoring stations	529895, 182657	Tubes missing	81	69	78	63	77	61	66	78				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	36				38