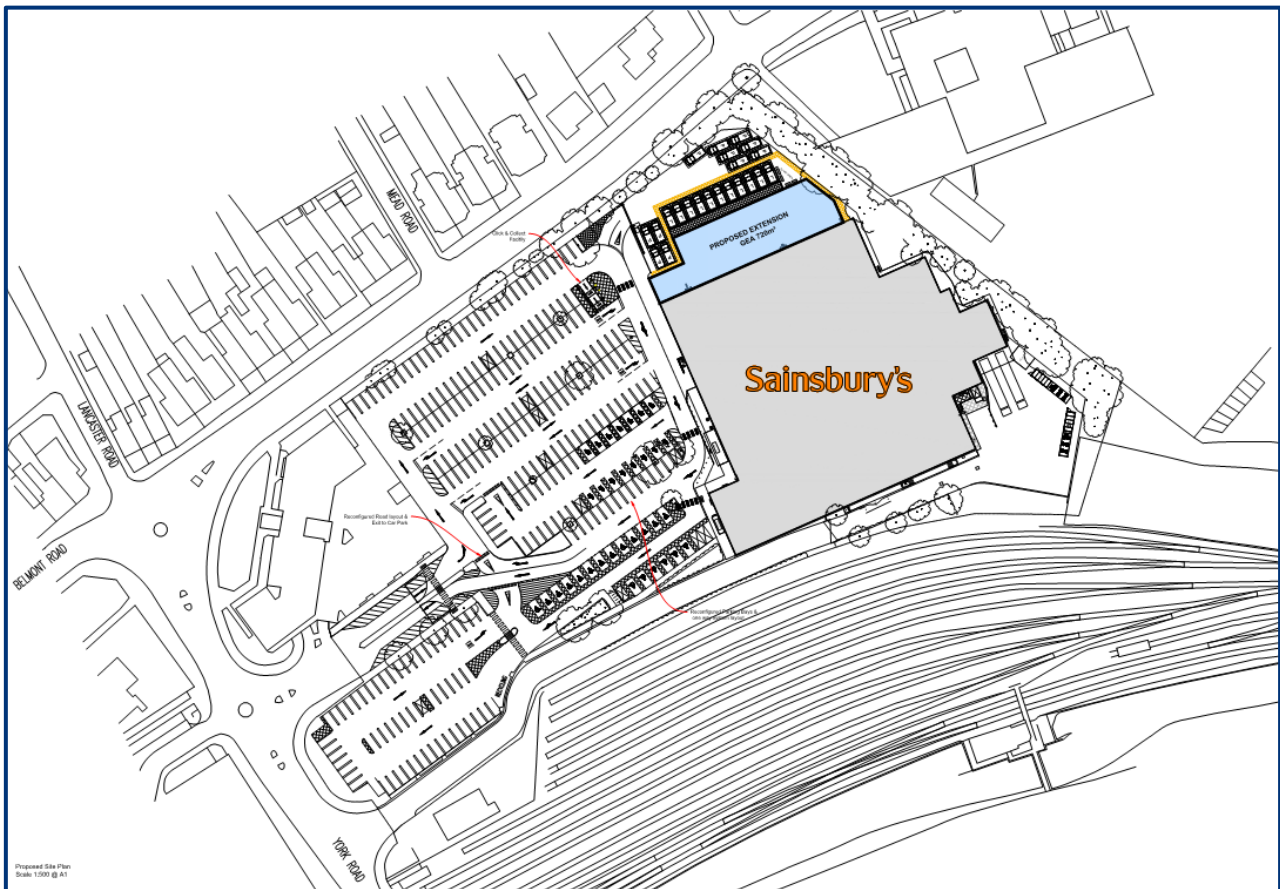


Sainsbury's Supermarkets Limited

Groceries Online (GOL) Facility - Uxbridge



Noise Assessment

August 2021

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Issue	Date	Status
1	12 th February 2021	First Issue
2	19 th May 2021	Second Issue – Updated Layout
3	18 th August 2021	Third Issue – Updated following comments from Hillingdon London Borough Council
4	24 th August 2021	Fourth Issue – Updated following further comments from Hillingdon London Borough Council and Anderson Acoustics
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Appendix B – Operational Noise Management Plan

Appendix C – Anderson Acoustics Comments and Response Document

Appendix D – Report Conditions

1.0 Introduction

1.1 Purpose of this Report

This report presents findings of a noise assessment undertaken to accompany a planning application for a proposed grocery online (GOL) facility located at the existing Sainsbury's store at York Road, Uxbridge. It is understood the operating hours of the GOL facility will be from 06:00 to 23:00. This version of the report includes additional assessment and discussion following further comments received by London Borough of Hillingdon and Anderson Acoustics (dated 17/08/2021). An initial response to the first round of comments (dated 01/07/2021) was provided and can be found in Appendix C of this document. This version of the report also includes updates to the National Planning Policy Framework.

A description of the existing noise environment in and around the site is provided. Noise surveys have been undertaken. The noise levels from the proposed development have been predicted at local representative receptors using CADNA noise modelling software which incorporates ISO 9613 methodologies and calculations. A list of acoustic terminology and abbreviations used in this report is provided in Appendix A and a set of location plans and noise contour plots relevant to the assessment are presented in Appendix B.

1.2 Legislative Context (England)

Current policy guidance with respect to noise is found in the National Planning Policy Framework (NPPF), published on 20th July 2021. Section 15, Conserving and enhancing the natural environment of the National Planning Policy Framework (NPPF 2021) provides the following guidance in relation to noise impacts.

“174 Planning policies and decisions should contribute to and enhance the natural and local environment by:

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans...”

“185. Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:

a) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;

b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason...

“187. Planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or ‘agent of change’) should be required to provide suitable mitigation before the development has been completed.

188. The focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively. Equally, where a planning decision has been made on a particular development, the planning issues should not be revisited through the permitting regimes operated by pollution control authorities.”

Planning Practice Guidance (PPG): Noise provides further guidance with regard to the assessment of noise within the context of Planning Policy. The overall aim of this guidance, tying in with the principles of the NPPF and the Explanatory Note of the Noise Policy Statement for England, is to ‘identify whether the overall effect of noise exposure is, or would be, above or below the significant observed adverse effect level and the lowest observed adverse effect level for the given situation.’

A summary of the effects of noise exposure associated with both noise generating developments and noise sensitive developments is presented within the PPG and repeated as follows:

Table 1.1 Noise Exposure Hierarchy

Perception	Examples of Outcomes	Increasing Effect Level	Action
Not present	No Effect	No Observed Effect	No Specific Measures Required
Present and not intrusive	Noise can be heard, but does not cause any change in behaviour, attitude or other physiological response. Can slightly affect the acoustic character of the area but not such that there is a change in the quality of life.	No Observed Adverse Effect	No Specific Measures Required
Lowest Observed Adverse Effect Level			
Present and intrusive	Noise can be heard and causes small changes in behaviour, attitude or other physiological response, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a small actual or perceived change in the quality of life.	Observed Adverse Effect	Mitigate and reduce to a minimum
Significant Observed Adverse Effect Level			

Perception	Examples of Outcomes	Increasing Effect Level	Action
Present and disruptive	The noise causes a material change in behaviour, attitude or other physiological response, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant Observed Adverse Effect	Avoid
Present and very disruptive	Extensive and regular changes in behaviour, attitude or other physiological response and/or an inability to mitigate effect of noise leading to psychological stress, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory.	Unacceptable Adverse Effect	Prevent

1.3 Local Planning Policy

The guidance within Hillingdon's Noise SPD April 2006 has been reviewed, with Key Point 6: Industrial Uses relevant to this assessment. Within this section, paragraph 4.24 states:

"British Standard 4142:1997 gives advice on measuring and assessing the noise from machinery or plant, and is relevant if surrounding residential areas might be affected. Developments with a BS4142 assessment of marginal significance or above would not ordinarily be permitted. Consequently, the development should be controlled such that the rating level of the noise from the proposed development determined according to BS4142 is at least 5 dB below the background noise level $L_{A90,T}$. Ideally, the assessment of noise should give a positive indication that complaints are unlikely."

Additionally, the joint council's Development Control for Noise Generating and Noise Sensitive Development SPD July 2014 has also been reviewed. Section 6.2 of this document sets out the methodology defined within BS4142:2014, with Table 2 within the document detailing the recommended noise levels to be met and is shown below.

Table 2: New Industrial and Commercial Development - External Noise Standards

Noise Impact From Relevant Proposed Industrial Or Commercial Premises Or Plant	Development Outcome
Rating Level ($L_{Ar,Tr}$) is at least 5 dB(A) below the Background Level L_{A90}	Normally acceptable
Rating level ($L_{Ar,Tr}$) is no more than 5 dB(A) above the Background Level L_{A90}	Acceptable only if there are overriding economic or social reasons for development to proceed
Rating level ($L_{Ar,Tr}$) is more than 5 dB(A) above the Background Level L_{A90}	Normally unacceptable

Note: All terms as defined in BS4142

The Boroughs will not impose unreasonable restrictions on businesses but applicants should be aware that it is usually simpler and less expensive to design in noise management and noise control measures at the planning stage rather than wait for complaints to arise.

It should be noted that although BS4142:2014 has been superseded by BS4142:2014+A1:2019, the methodology and assessment remain the consistent. With reference to the above BS 4142 assessments, a number of factors must be considered as part of the context-based assessment guidance presented within BS 4142. The guidance within BS 4142 does not provide any specific threshold and states that ‘the lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact.’ Additionally, the guidance states ‘where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.’

Therefore, the above local guidance has been used alongside the criteria outlined within BS4142:2014+A1:2019, which is detailed in Section 2.0.

2.0 Assessment Methodology

In order to enable the assessment of the proposed GOL hub in terms of LOAEL and SOAEL, Table 2.1 presents equivalent noise levels and associated actions with the target noise level criteria identified. The noise level criteria detailed below have been derived from the following standards and design guidance:

BS 4142:2014+A1:2019 'Methods for rating and assessing industrial and commercial sound'

IEMA Guidelines for Environmental Noise Impact Assessment (Oct 2014)

BS 8233 2014 'Guidance on Sound Insulation and Noise Reduction for Buildings'

Table 2.1 Noise Level Criteria and Actions

Effect Level	Assessment	Noise Level Criteria	Action / Justification
No Observed Effect Level	Background Comparison	BS4142 Score of zero or lower	No Action Required Score of zero or lower is an indication of the sound source having a low impact, depending on context
	Noise Intrusion Assessment	Noise levels are below: <i>Bedrooms: 45 dB L_{Amax}</i>	Action: No Action Required
Lowest Observed Adverse Effect Level (LOAEL)	Background Comparison	BS4142 Score of +5 or lower	No Action Required Difference of +5 dB likely to be an indication of an adverse effect, depending on context BS4142 Score of plus 5 or lower
	Noise Intrusion Assessment	Noise levels are at: <i>Bedrooms: 45 dB L_{Amax}</i>	Action: No Action Required
Significant Observed Adverse Effect Level (SOAEL)	Background Comparison	BS4142 Score greater than +5	Difference of up to +10 dB likely to be an indication of a significant adverse effect, depending on context Mitigate to achieve: BS4142 Score of + 5 or lower
	Noise Intrusion Assessment	Noise levels are at: <i>Bedrooms: 50 dB L_{Amax}</i>	Mitigate and reduce to achieve: Bedrooms: 45 dB L _{Amax}
Unacceptable Observed Adverse Effect Level (UOAEL)	Background Comparison	BS4142 Score of + 10 or higher	Avoid, depending on context Mitigate to achieve: BS4142 Score of 5 dB or lower
	Noise Intrusion Assessment	Noise levels exceed: <i>Bedrooms: 50 dB L_{Amax}</i>	Mitigate and reduce to achieve: Bedrooms: 45 dB L _{Amax}

3.0 Assessment Methodology

3.1 Noise Modelling Methodology

Three-dimensional noise modelling has been carried out based on monitoring data recorded at and surrounding the application site. CADNA noise modelling software has been used. This model is based on ISO 9613 noise propagation methodology and allows for detailed prediction of noise levels to be undertaken for large numbers of receptor points and different noise emission scenarios, both horizontally and vertically.

The modelling software calculates noise levels based on the emission parameters and spatial settings that are entered. Input data, assumptions and model settings as given in the table below have been used.

Table 3.1 Modelling Parameters Sources and Assumptions

Parameter	Source	Details
Horizontal distances – around site	Ordnance Survey	Ordnance Survey
Ground levels – around site	Ordnance Survey	Ordnance Survey
Ground levels – other areas	Site Observations and Ordnance Survey	OS 1:25,000 contours and OS 1:10,000 spot heights.
Building heights – around site	Tetra Tech Observations	8 m height for two storey residential properties, and 4 m for Bungalows
Barrier heights	Tetra Tech Observations	All existing barriers at observed height with the exception of hedges and trees which are assumed to offer no noise protection.
Receptor positions	Tetra Tech	1 m from façade, heights shown in Table 3.2
Plans	CHQ Architects	Drawing Title: Proposed Site Plan Rev: A Drawing Number: PL-A-2006

It is acknowledged that a number of these assumptions will affect the overall noise levels presented in this report. However, it should be noted that certain assumptions made, as identified above, are worst-case.

3.2 Model Input Data

3.2.1 GOL Loading Noise Data

Noise of a loading event has been known to vary from site to site by as much as 22 dB L_{Aeq} at 5 m distance even with the same vehicle type. Similarly, individual events using the same vehicle and at the same store have been recorded to vary by as much as 14 dB.

As such, the following worst-case calculations have been based on measurements of GOL delivery vans loading and delivering consumables. All measurements were undertaken in free-field conditions. In addition to noise from the unloading process, the levels used in the assessment include noise from the vehicle pulling up to the unloading bay, manoeuvring into position and then pulling away once unloading/loading is complete, together with other sources such as trolleys. The calculations are based on a maximum of one event per bay per hour and one GOL vehicle entering and leaving the external area per hour. For the purposes of this worst-case assessment, 40 vehicle movements per hour (to represent up to 20 vehicles leaving and 20 arriving per hour), and a representative 50% unloading capacity during any given 15-minute period during the night-time hours (06:00-07:00). Loading events are modelled as point sources and vehicle movements as line sources.

GOL Delivery Vehicle Docking and Loading / Unloading

- *Daytime $L_{Aeq,60mins}$ Noise Level*

2 minutes at L_p 70.5 dB at 3 m distance	(vehicle arriving and manoeuvring)
36 minutes at L_p 61.9 dB at 3 m distance	(vehicle loading)
2 minutes at L_p 70.5 dB at 3 m distance	(vehicle leaving)

$$L_{Aeq(60 \text{ mins})} = 10\log(1/60)(2 \text{ mins} \times 1 \times 10^{0.1 \times 70.5 \text{ dB}} + 36 \text{ mins} \times 1 \times 10^{0.1 \times 61.9 \text{ dB}} + 2 \text{ mins} \times 1 \times 10^{0.1 \times 70.5 \text{ dB}})$$

$$= 62.2 \text{ dB at 3 m distance}$$

- *Night-time $L_{Aeq,15mins}$ Noise Level*

2 minutes at L_p 70.5 dB at 3 m distance	(vehicle arriving and manoeuvring)
36 minutes at L_p 61.9 dB at 3 m distance	(vehicle loading)
2 minutes at L_p 70.5 dB at 3 m distance	(vehicle leaving)

$$L_{Aeq(15 \text{ mins})} = 10\log(1/15)(2 \text{ mins} \times 1 \times 10^{0.1 \times 70.5 \text{ dB}} + 36 \text{ mins} \times 1 \times 10^{0.1 \times 61.9 \text{ dB}} + 2 \text{ mins} \times 1 \times 10^{0.1 \times 70.5 \text{ dB}})$$

$$= 68.3 \text{ dB at 3 m distance}$$

- *Night-time L_{Amax} Noise Level*

$$= 82.3 \text{ dB at 3 m distance}$$

Delivery Vehicle Parking

To represent noise from the proposed vehicle parking area, measurements of GOL vehicle were undertaken to represent noise from a GOL delivery vehicle manoeuvring and parking, switching off the engine and leaving the vehicle (including the closing of doors) followed by the reverse procedure (entering the vehicle, start-up and manoeuvring to the loading area); parking events are modelled as point sources.

- *Daytime $L_{Aeq,60mins}$ Noise Level*

200 seconds at L_p 66.3 dB at 3 m distance (vehicle arriving and manoeuvring, parking, starting up and departing)

$$L_{Aeq}(60 \text{ mins}) = 10\log(1/60)(200 \text{ sec} \times 10^{0.1 \times 66.3 \text{ dB}})$$

$$= 53.7 \text{ dB at 3 m distance}$$

GOL Delivery Vehicles arriving and leaving along access route

The following calculations have been used to represent this as a line source in the model.

- *Daytime $L_{Aeq,60mins}$ Noise Level*

40 movements x 10 seconds at L_p = 69.3 dB at 3 m distance (vehicle arriving/leaving)

$$L_{Aeq}(60 \text{ mins}) = 10\log(1/60)(40 \times 10 \text{ sec} \times 10^{0.1 \times 69.3 \text{ dB}})$$

$$= 59.8 \text{ dB at 3 m distance}$$

- *Night-time $L_{Aeq,15mins}$ Noise Level*

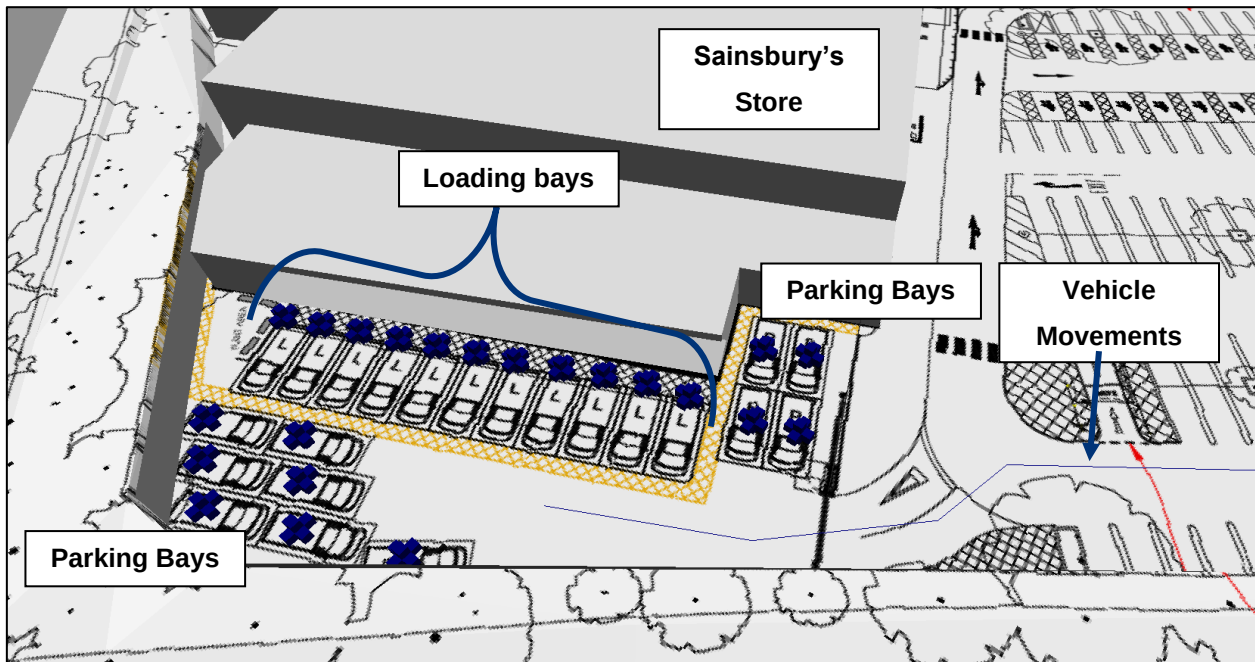
40 movements x 10 seconds at L_p = 69.3 dB at 3 m distance (vehicle arriving/leaving)

$$L_{Aeq}(15 \text{ mins}) = 10\log(1/15)(40 \times 10 \text{ sec} \times 10^{0.1 \times 69.3 \text{ dB}})$$

$$= 65.8 \text{ dB at 3 m distance}$$

The location and modelling of the above sources is shown on Figure 3.1.

Figure 3.1 3D image of CadnaA model showing noise source locations



3.3 Sensitive Receptors

The table below summarises receptor locations that have been selected to represent worst-case residential receptors with respect to direct noise from noise at the site. Façades of the nearest existing dwellings to the development site have been represented. The locations of the receptors are shown on Figure 3.2 below.

Table 3.2 Sensitive Receptor Locations

Ref.	Description	Height (m)
R01	1a Belmont Close	1.5 / 4.0
R02	Hampton Court, Fairfield Road	1.5 / 4.0
R03	111 Belmont Road	1.5 / 4.0
R04	109 Belmont Road	1.5 / 4.0
R05	107 Belmont Road	1.5 / 4.0
R06	97 Belmont Road	1.5 / 4.0
R07	95 Belmont Road	1.5 / 4.0
R08	85 Belmont Road	1.5 / 4.0
R09	71 Belmont Road	1.5 / 4.0
R10*	Hermitage Primary School	4.0
R11	20 Iffley Close	1.5 / 4.0

*School receptor assessed during daytime hours only

Figure 3.2 Proposed Sensitive Receptor Locations



4.0 Noise Survey

4.1 Noise Survey Methodology

A monitoring survey was undertaken to characterise baseline ambient noise levels currently experienced on the site and to establish the relative local background and traffic noise levels. Equipment used during the survey included:

Rion NL-52	Environmental Noise Analyser	s/n	843173
Rion NL-52	Environmental Noise Analyser	s/n	253702
Rion NL-52	Environmental Noise Analyser	s/n	732146
Rion NC-75	Sound Calibrator	s/n	35270131

The measurement equipment was checked against the appropriate calibrator at the beginning and end of the measurements, in accordance with recommended practice, a drift of +0.1 dB was observed. The accuracy of the calibrators can be traced to National Physical Laboratory Standards, calibration certificates for which are available on request.

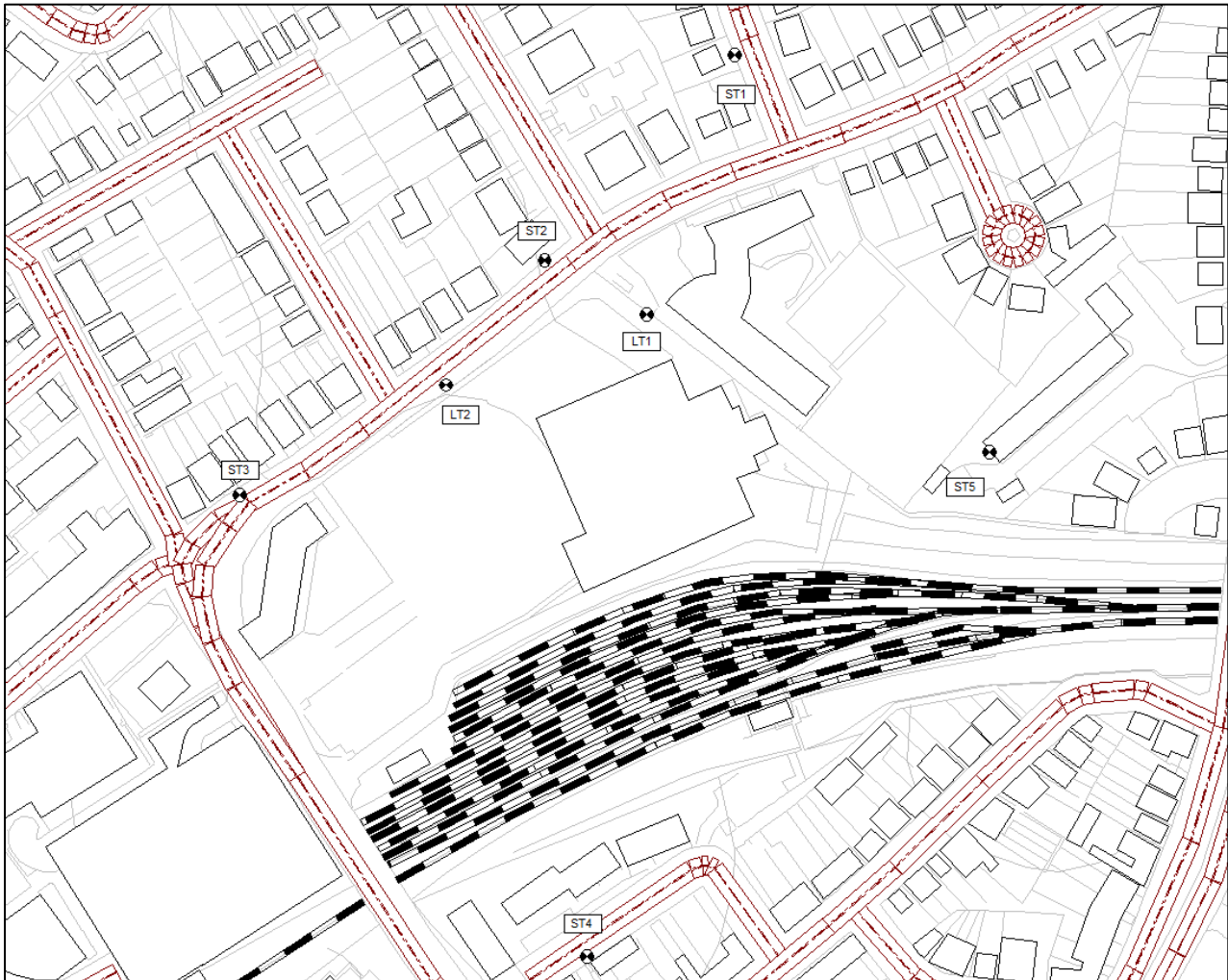
A baseline monitoring survey was undertaken at seven locations (as specified in the following table and shown in Figure 4.1) from Friday 8th January 2021 to Tuesday 12th January 2021. Attended short term measurements were undertaken at five locations during early morning, day, late evening and night periods with two additional locations being measured unattended over a 96-hour period. The raw data collected from the long-term monitoring is available upon request.

Measurements were taken in general accordance with BS 7445-1:2003 *The Description and Measurement of Environmental Noise: Guide to quantities and procedures*. Weather conditions during the survey period were observed as being dry. Anemometer readings confirmed that wind speeds were less than 5 ms⁻¹ at all times during the survey, with the wind varying between westerly and west-south westerly.

Table 4.1 Noise Monitoring Locations

Ref	Description
LT1	Eastern boundary of the site, adjacent to Hermitage Primary School
LT2	Northern boundary of the site, opposite 109 Belmont Road
ST1	North-east of the site, adjacent 1 Belmont Close
ST2	North of the site, adjacent 111 Belmont Road
ST3	North-west of the site, adjacent 75 Belmont Road
ST4	South of the site, adjacent 18 Iffley Close
ST5	South-east of the site, adjacent 22 Heath Court

Figure 4.1 Noise Monitoring Locations



4.2 Noise Survey Results

The ambient noise climate is characterised by road traffic noise from Belmont Road and York Road, with occasional aircraft and noise from the nearby London Underground line and sidings with additional contributions from the existing Sainsbury's store.

Ambient and background noise levels are usually described using the L_{Aeq} index (a form of energy average) and the L_{A90} index (i.e. the level exceeded for 90% of the measurement period) respectively. Road traffic noise is generally described using the L_{A10} index (i.e. the level exceeded for 10% of the measurement period). For the long-term (LT) locations, the presented $L_{Aeq,T}$ and $L_{A10,T}$ are average noise levels whilst the L_{A90} is the modal noise level of each 5 minute measurement over the stated survey period.

Table 4.2 Meteorological Conditions during the Survey

Survey Location	Date & Time	Temperature (°C)	Wind Speed (m/s)	Wind Direction	Cloud Cover (Oktas)	Dominant Noise Source
Early morning ST1	12/01/2021 06:17	8	0 - 1	W	8	Road traffic noise Belmont Road
Early morning ST2	12/01/2021 06:01	8	0 - 1	W	8	Road traffic noise Belmont Road
Early morning ST3	12/01/2021 06:56	9	0 - 1	W	8	Road traffic noise Belmont Road
Early morning ST4	12/01/2021 07:16	9	0 - 1	W	8	Road traffic noise York Road
Early morning ST5	12/01/2021 06:36	9	0 - 1	W	8	Distant traffic noise
Day ST1	11/01/2021 15:18	8	0 - 3	WSW	7	Road traffic noise Belmont Road
Day ST2	11/01/2021 14:59	8	0 - 3	WSW	7	Road traffic noise Belmont Road
Day ST3	11/01/2021 14:42	8	0 - 1	WSW	7	Road traffic noise Belmont Road
Day ST4	11/01/2021 14:24	8	0 - 1	WSW	7	Road traffic noise York Road
Day ST5	11/01/2021 15:41	8	0 - 3	WSW	7	Distant traffic noise
Late evening ST1	11/01/2021 22:51	8	0 - 1	WSW	8	Road traffic noise Belmont Road
Late evening ST2	11/01/2021 23:31	8	0 - 1	WSW	8	Road traffic noise Belmont Road
Late evening ST3	11/01/2021 22:34	8	0 - 1	WSW	8	Road traffic noise Belmont Road, occasional aircraft
Late evening ST4	11/01/2021 22:15	8	0 - 1	WSW	8	Road traffic noise York Road, occasional aircraft
Late evening ST5	11/01/2021 23:12	8	0 - 1	WSW	8	Road traffic noise B483, occasional trains

The results of the statistical measurements and frequency measurements conducted during the survey are summarised in the following table. All values are sound pressure levels in dB (re: 2×10^{-5} Pa).

Table 4.3 Results of Baseline Noise Monitoring Survey (Average Levels)

Period	Duration (T)	Monitoring Date and Times	Location	L _{Aeq,T} (dB)	L _{Amax,T} (dB)	L _{Amin,T} (dB)	L _{A10,T} (dB)	L _{A90,T} (dB)
Weekday Daytime 07:00 - 23:00	31 Hours	08/01/2021 – 12/01/2021 11:17 – 10:27	LT1	54.9	90.8	42.6	55.6	55.0
Weekday Night-time 23:00 – 07:00	16 Hours	08/01/2021 – 12/01/2021 23:00 – 07:00		52.5	68.3	42.0	52.7	49.0
Weekend Daytime 07:00 - 23:00	32 Hours	09/01/2021 – 10/01/2021 07:00 - 23:00		52.5	86.4	42.4	53.4	46.0
Weekend Night-time 23:00 – 07:00	16 hours	09/01/2021 – 10/01/2021 23:00 - 07:00		46.3	70.6	41.4	47.0	43.0

Period	Duration (T)	Monitoring Date and Times	Location	L _{Aeq,T} (dB)	L _{Amax,T} (dB)	L _{Amin,T} (dB)	L _{A10,T} (dB)	L _{A90,T} (dB)
Weekday Daytime 07:00 - 23:00	32 Hours	08/01/2021 – 12/01/2021 10:56 – 10:31	LT2	63.1	98.6	38.3	66.5	52.0
Weekday Night-time 23:00 – 07:00	16 hours	08/01/2021 – 12/01/2021 23:00 - 07:00		57.9	83.4	37.9	54.2	46.0
Weekend Daytime 07:00 - 23:00	32 Hours	09/01/2021 – 10/01/2021 07:00 - 23:00		62.2	105.8	38.8	63.6	50.0
Weekend Night-time 23:00 – 07:00	16 hours	09/01/2021 – 10/01/2021 23:00 - 07:00		53.9	81.5	36.1	48.8	39.0
Night-time and Early Morning 06:00 – 07:45	15 Mins	12/01/2021 06:17	ST1	54.1	67.6	49.9	57.0	51.4
	15 Mins	12/01/2021 06:01	ST2	64.6	83.4	47.6	66.5	49.4
	15 Mins	12/01/2021 06:56	ST3	65.4	83.8	48.7	69.0	51.9
	15 Mins	12/01/2021 07:16	ST4	52.7	63.1	48.6	54.6	50.5
	15 Mins	12/01/2021 06:36	ST5	52.8	62.1	50.0	53.9	51.5
Daytime 07:00 - 19:00	15 Mins	11/01/2021 15:18	ST1	55.7	76.7	48.9	56.8	51.1
	15 Mins	11/01/2021 14:59	ST2	63.0	78.9	50.0	67.0	52.4
	15 Mins	11/01/2021 14:42	ST3	64.0	79.2	52.4	68.0	55.4
	15 Mins	11/01/2021 14:24	ST4	53.8	68.2	48.6	55.7	50.5
	15 Mins	11/01/2021 15:41	ST5	54.5	74.4	50.5	56.0	52.5
Late Evening & Night-time 22:15 – 00:00	15 Mins	11/01/2021 22:51	ST1	48.8	66.7	44.1	48.6	45.7
	15 Mins	11/01/2021 23:31	ST2	59.8	82.7	41.8	57.4	44.3
	15 Mins	11/01/2021 22:34	ST3	61.5	80.1	45.2	61.7	47.5
	15 Mins	11/01/2021 22:15	ST4	49.3	62.7	43.5	52.3	45.5
	15 Mins	11/01/2021 23:12	ST5	49.3	65.2	44.3	51.5	46.1

All values are sound pressure levels in dB re: 2x 10⁻⁵ Pa

5.0 Assessment of Key Effects

5.1 BS 4142 Assessment

This assessment compares the predicted noise levels from the proposed GOL facility with the existing measured background noise levels (L_{A90}) at receptor locations representing nearby residential properties during the daytime period when GOL deliveries are proposed to be despatched from the new facility. The representative background noise level for each receptor has been established using measured noise level data from the nearest representative baseline survey locations. The monitoring locations were chosen as they were located a similar distance from the principal noise sources as the receptor locations; due to the longer exposure time of the unattended monitoring, the results of the long-term monitoring locations were given greater weight within the assessment. Further analysis of the background levels has been undertaken with Figures 5.1-5.8 graphically showing the distribution of measured weekday and weekend background daytime and night-time L_{A90} levels at LT1 (shown in blue) and LT2 (shown in red), which have been used for nearly all assessed receptor locations, with the exception of R11, where ST4 was chosen as no long-term unattended monitoring could be safely undertaken at that location. Due to the nationwide restrictions which were in place at the time of the baseline noise survey and the commensurate reductions in road traffic associated with the closure of nearby non-essential businesses and retail facilities, it is considered that the baseline noise levels recorded throughout the survey would typically be higher than the values used to inform the assessment. As such, the results of the assessment are considered to remain worst-case.

Figure 5.1 Weekday Daytime Background L_{A90} Levels for LT1 (used for R01 and R02)

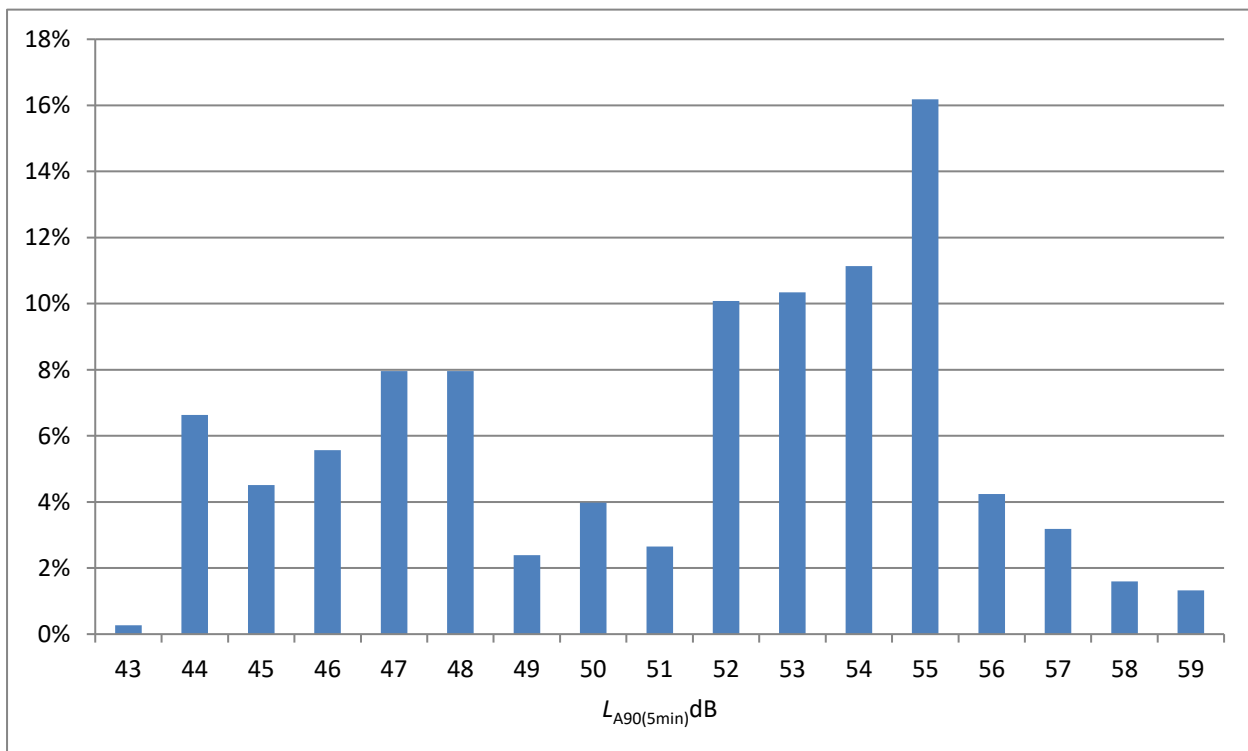


Figure 5.2 Weekend Daytime Background L_{A90} Levels for LT1 (used for R01 and R02)

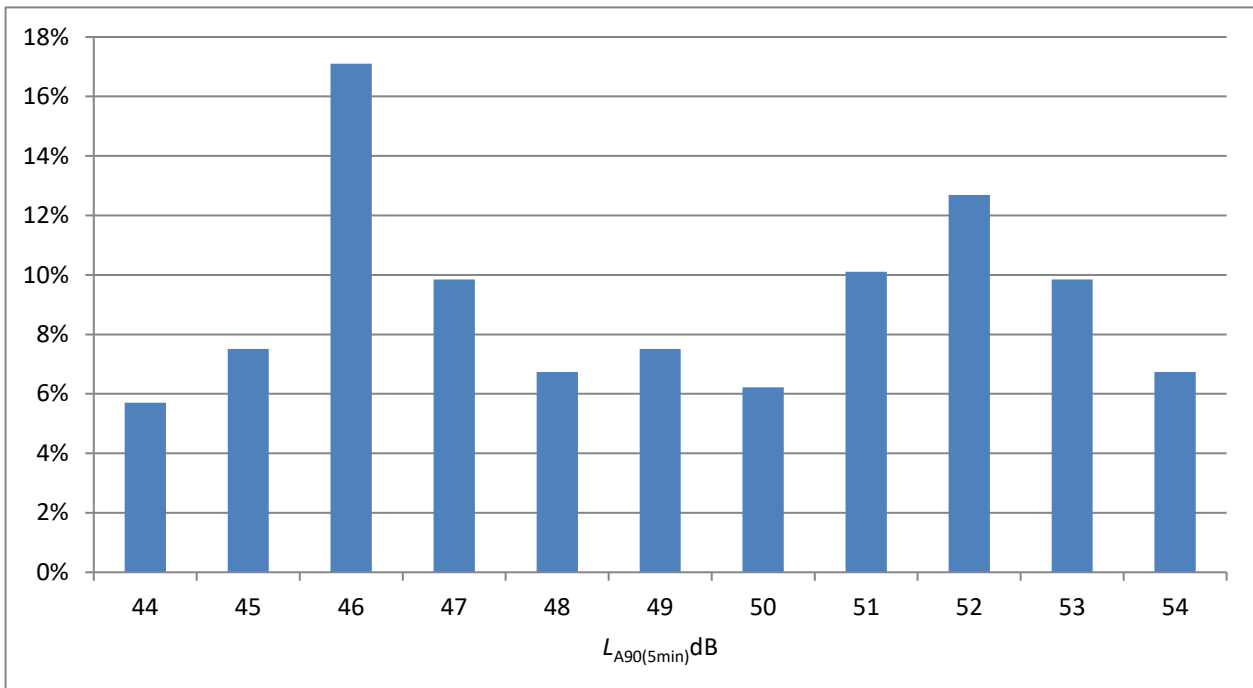


Figure 5.3 Weekday Night-time Background L_{A90} Levels for LT1

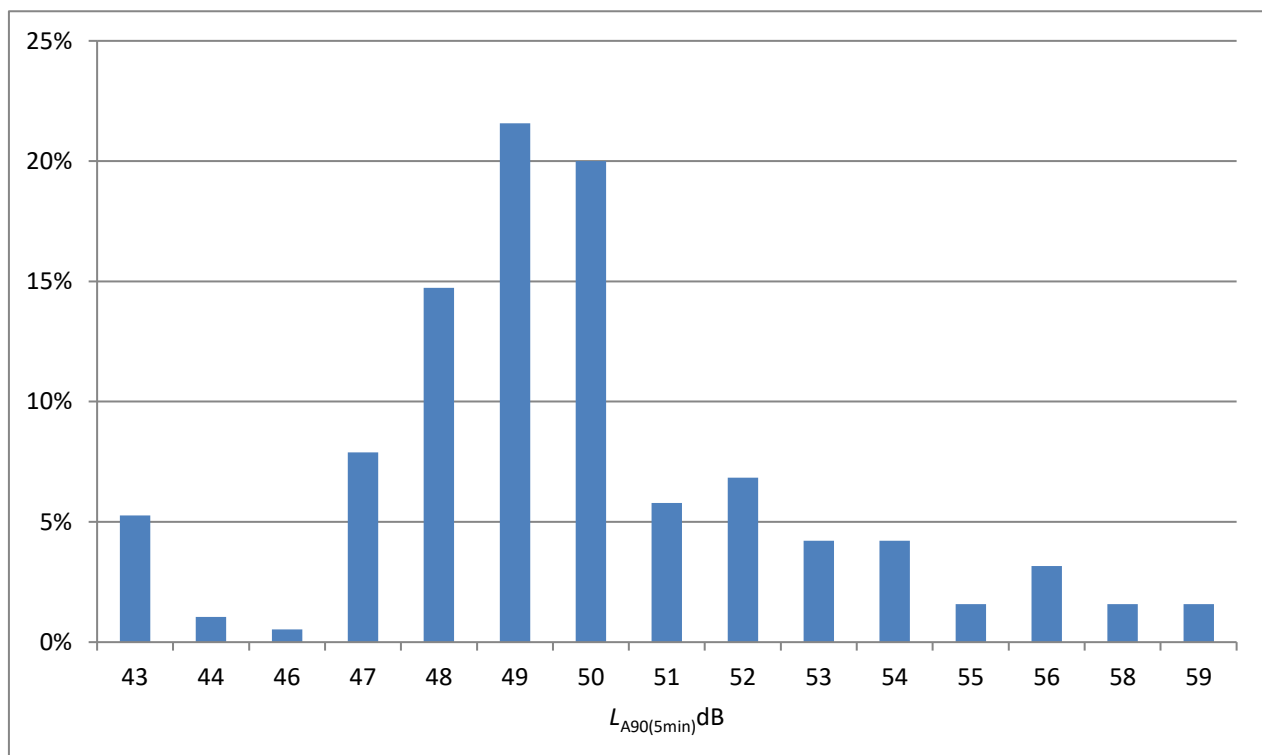


Figure 5.4 Weekend Night-time Background L_{A90} Levels for LT1

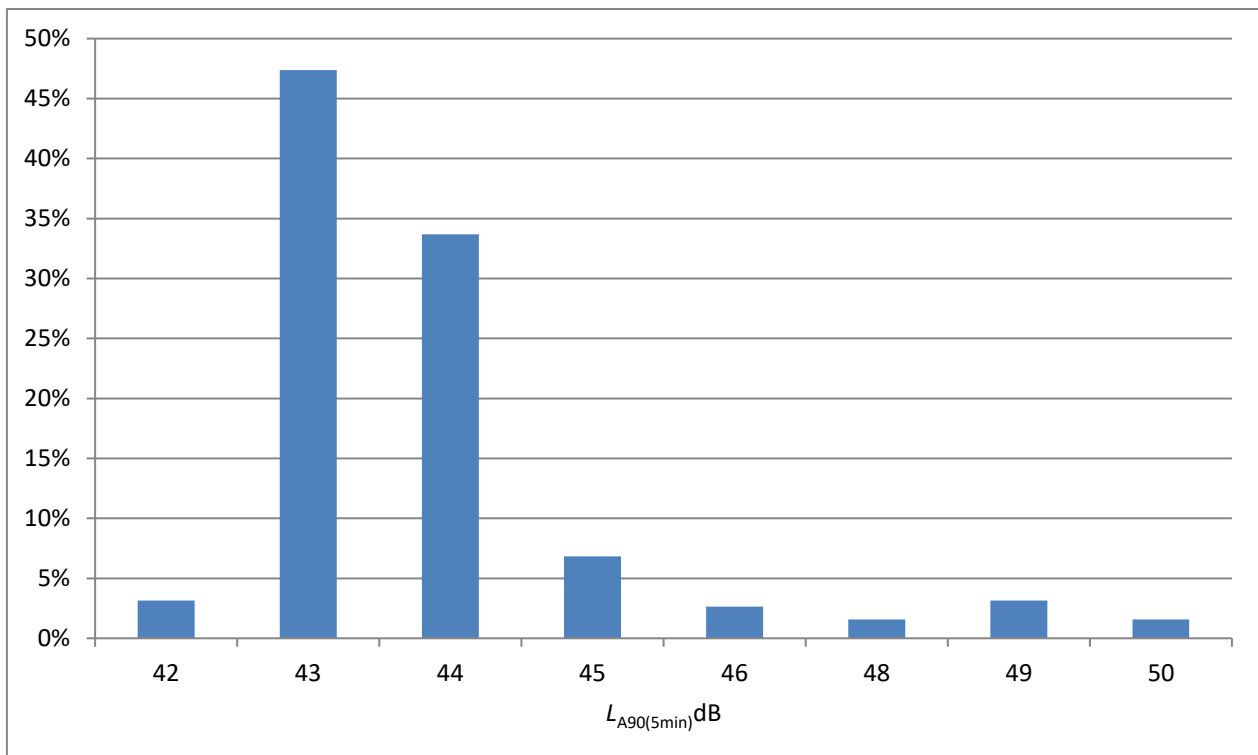


Figure 5.5 Weekday Daytime Background L_{A90} Levels for LT2 (used for R03, R04, R05, R06, R07, R08 and R09)

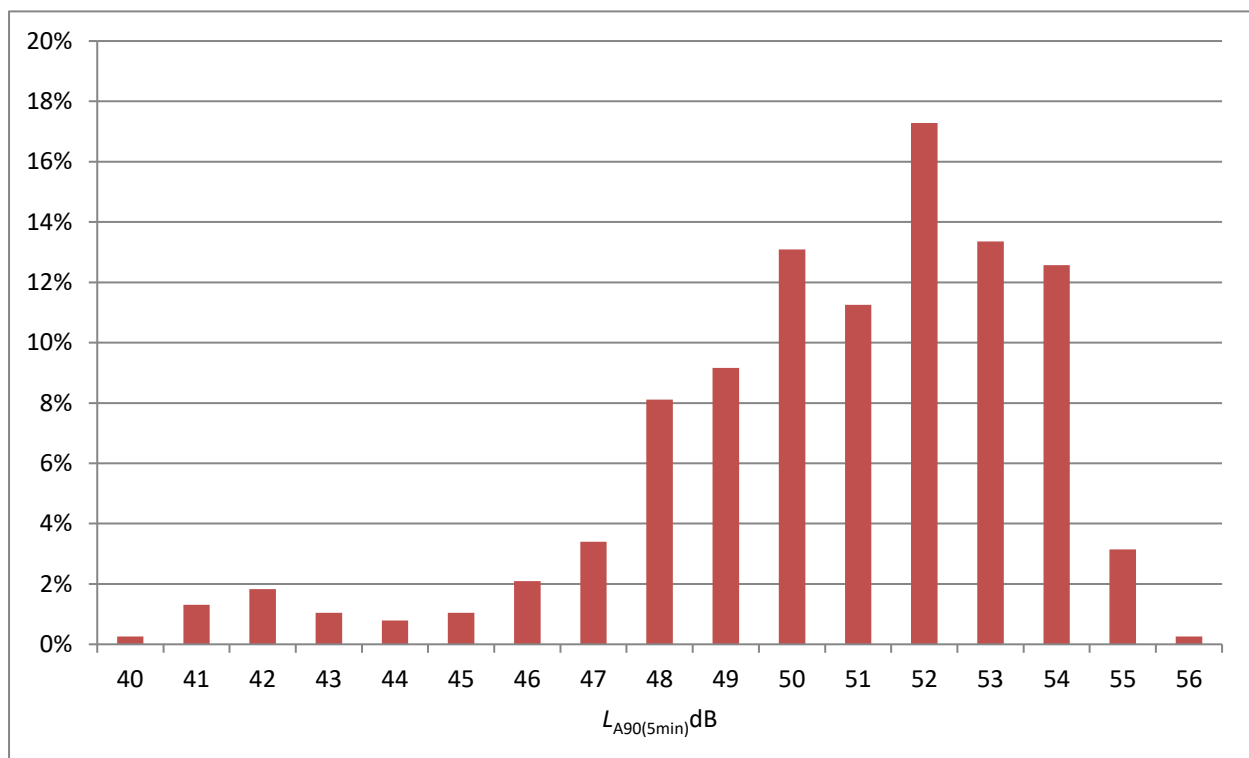


Figure 5.6 Weekend Daytime Background L_{A90} Levels for LT2 (used for R03, R04, R05, R06, R07, R08 and R09)

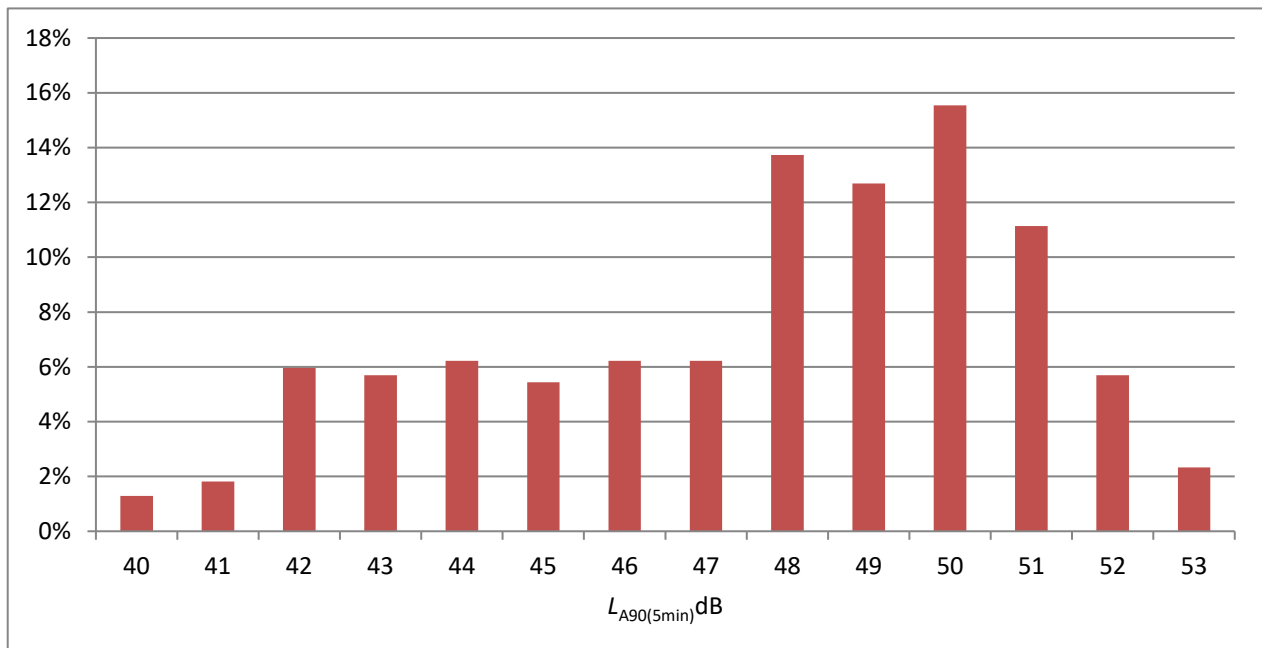


Figure 5.7 Weekday Night-time Background L_{A90} Levels for LT2 (used for R03, R04, R05, R06, R07, R08 and R09)

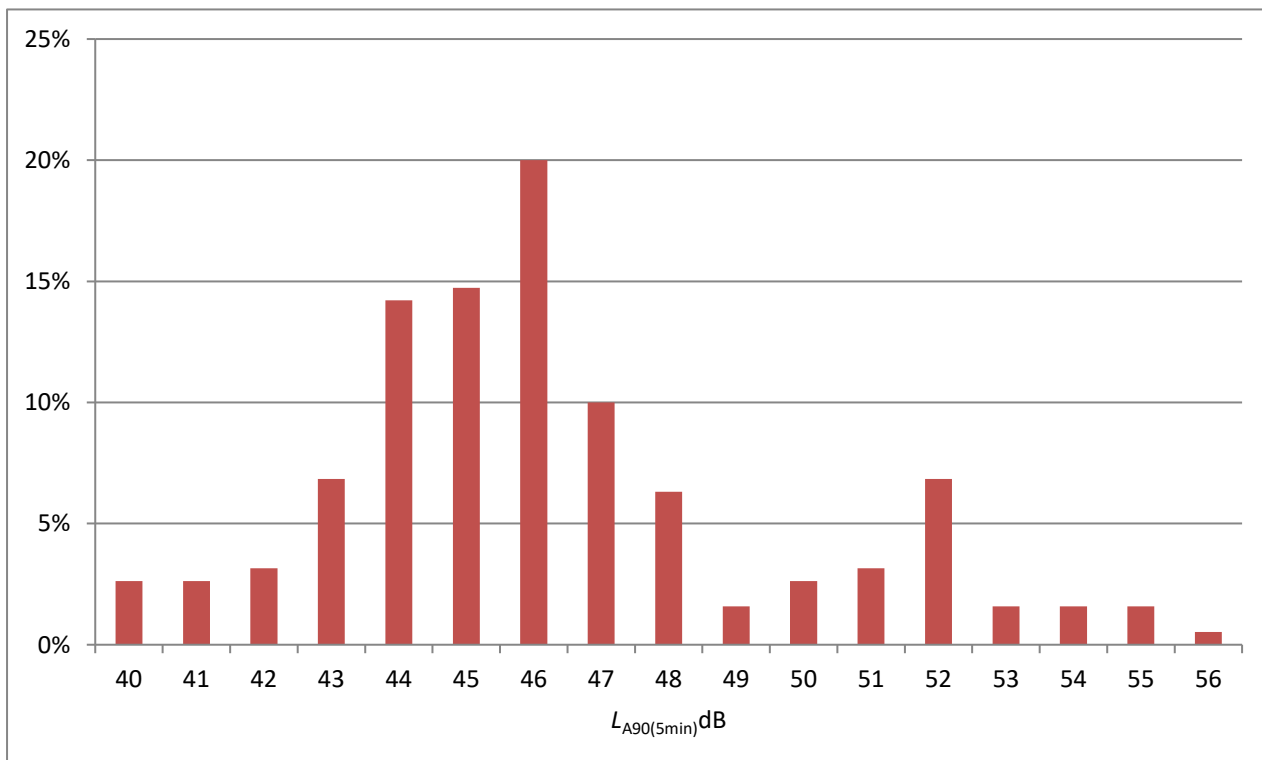
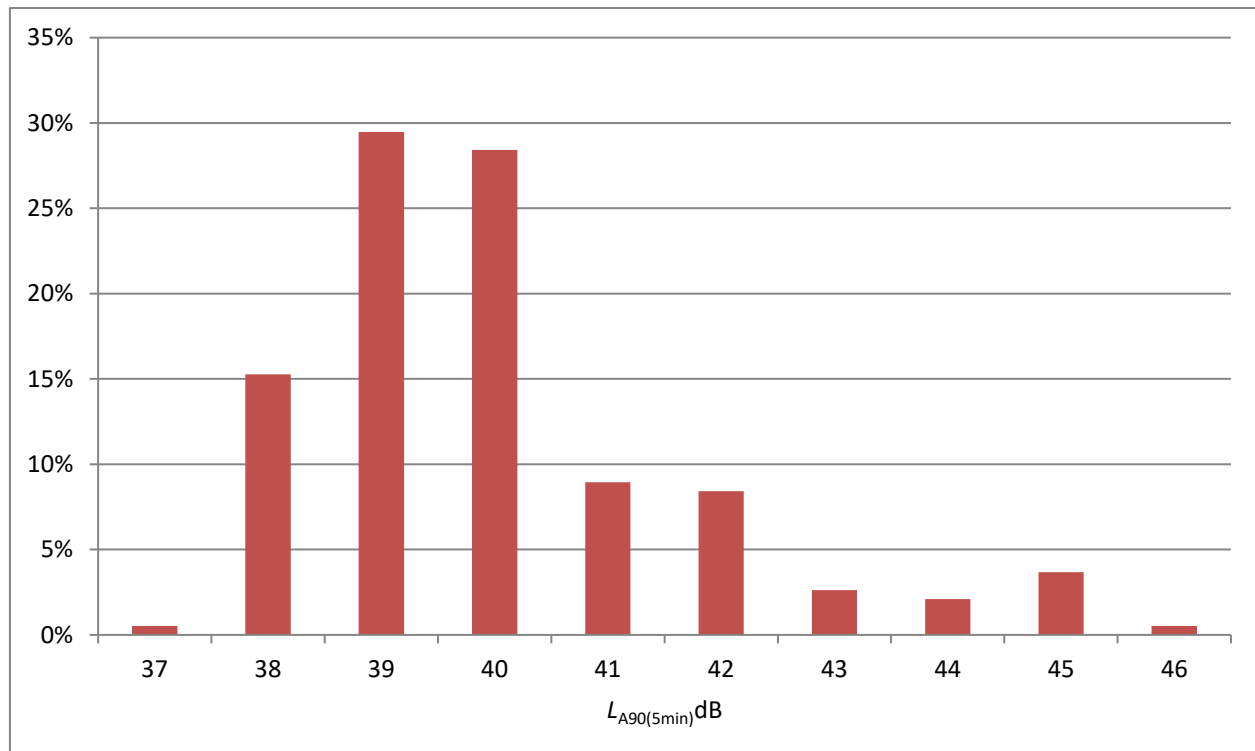


Figure 5.8 Weekday Night-time Background L_{A90} Levels for LT2 (used for R03, R04, R05, R06, R07, R08 and R09)



From the graphs above, statistical analysis of weekday daytime background levels shows that a noise level of 55 dB for LT1 and 51 dB for LT2 is representative of background noise levels during this period, in-line with the guidance presented in BS 4142. Statistical analysis of weekend daytime background levels shows that a noise level of 46 dB for LT1 and 50 dB for LT2 are representative of background noise levels during this period, in-line with the guidance presented in BS 4142.

From the graphs above, statistical analysis of weekday night-time background levels shows that noise levels of 49 dB for LT1 and 46 dB for LT2 are representative of background L_{A90} noise levels during this period, in-line with the guidance presented in BS 4142. Statistical analysis of weekend night-time background levels shows that a noise level of 43 dB for LT1 and 39 dB for LT2 are representative of background noise levels during this period, in-line with the guidance presented in BS 4142.

Given that the evening (19:00-23:00) and early morning (06:00-07:00) periods represent a 4-hour time period during the daytime period (07:00-23:00) and a 1-hour time period during the night-time period (23:00-07:00), an hourly breakdown of L_{A90} levels was undertaken for LT1 and LT2 and the averages for these time periods were taken to determine the background L_{A90} . For the purposes of the BS 4142 assessment below, two assessments have been undertaken, one which is representative of a the weekday period and one which is representative of the weekend period.

Table 5.1 and Table 5.2 present the difference between the background noise level and noise rating level associated with activities in GOL service yard, including parking and loading and unloading of vehicles for

the weekday and weekend period respectively. A subjective assessment of the characteristics of proposed noise sources has been undertaken in accordance with section 9.2 of BS4142. To account for potential impulsive characteristics of noise from the deliveries which may be perceptible at certain receptor locations, a + 3 dB correction has been added to noise associated with GOL operations. For illustrative purposes, a daytime noise contour plot is presented in Figure 5.9.

Table 5.1 BS4142 Assessment – GOL Operations (Weekday Period)

Ref	Typical Measured Background L_{A90} Noise Level (dB)			Predicted Noise Level $L_{Aeq, 15 \text{ min}}$	Predicted Noise Level $L_{Aeq, 1 \text{ hour}}$	Noise Rating Level		BS 4142 Score		
	Early Morning 06:00 – 07:00	Daytime 07:00 – 19:00	Evening 19:00 – 23:00	Early Morning	Daytime/ Evening	Early Morning	Daytime/ Evening	Early Morning 06:00 – 07:00	Daytime 07:00 – 19:00	Evening 19:00 – 23:00
R01	53	55	46	34	33	37	36	-16	-19	-10
R02	53	55	46	39	36	42	39	-11	-16	-7
R03	51	51	46	45	41	48	44	-3	-7	-2
R04	51	51	46	45	42	48	45	-3	-6	-1
R05	51	51	46	43	42	46	45	-5	-7	-2
R06	51	51	46	40	41	43	44	-8	-7	-2
R07	51	51	46	37	41	40	44	-11	-8	-3
R08	51	51	46	34	40	37	43	-14	-8	-3
R09	51	51	46	32	35	35	38	-16	-13	-8
R10*	n/a									
R11	51	51	46	21	39	24	42	-27	-9	-4

All values are sound pressure levels in dB re: 2×10^{-5} Pa.

*School receptor, therefore outside the scope of BS 4142

Table 5.2 BS4142 Assessment – GOL Operations (Weekend Period)

Ref	Typical Measured Background L_{A90} Noise Level (dB)			Predicted Noise Level $L_{Aeq, 15 \text{ min}}$	Predicted Noise Level $L_{Aeq, 1 \text{ hour}}$	Noise Rating Level		BS 4142 Score		
	Early Morning 06:00 – 07:00	Daytime 07:00 – 19:00	Evening 19:00 – 23:00	Early Morning	Daytime/ Evening	Early Morning	Daytime/ Evening	Early Morning 06:00 – 07:00	Daytime 07:00 – 19:00	Evening 19:00 – 23:00
R01	41	46	45	34	33	37	36	-4	-10	-9
R02	41	46	45	39	36	42	39	1	-7	-6
R03	39	50	42	45	41	48	44	9	-6	2
R04	39	50	42	45	42	48	45	9	-5	3
R05	39	50	42	43	42	46	45	7	-6	3
R06	39	50	42	40	41	43	44	4	-6	2
R07	39	50	42	37	41	40	44	1	-7	2
R08	39	50	42	34	40	37	43	-2	-7	1
R09	39	50	42	32	35	35	38	-4	-12	-4
R10*	n/a									
R11	51	51	46	21	39	24	42	-27	-9	-4

All values are sound pressure levels in dB re: 2×10^{-5} Pa.

*School receptor, therefore outside the scope of BS 4142

Figure 5.9 Noise Contour Plot (Daytime) $L_{Aeq,1hour}$ – Grid Height: 1.5m



The results presented in Table 5.1 show that noise rating levels from the proposed GOL facility during weekday periods are predicted to be below background noise levels at the closest sensitive receptor locations during the proposed hours of operation. With reference to Table 2.1 and the guidance within BS 4142 this is within the No Observed Adverse Effect Level. However, with reference to Hillingdon's Noise SPD, noise levels are above the nominal threshold of 5 dB below background.

The results presented in Table 5.2 show that noise rating levels from the proposed GOL facility during weekend periods are predicted to be below background noise levels at the closest sensitive receptor locations during the proposed daytime hours of operation. With reference to Table 2.1 and the guidance within BS 4142 this is within the No Observed Adverse Effect Level. During the evening period (19:00-23:00), noise levels are predicted to be up to 3 dB above background levels. With reference to Table 2.1 and the guidance within BS 4142 this is within the Lowest Observed Adverse Effect Level, however, is above the nominal threshold of 5 dB below background within Hillingdon's Noise SPD.

During the night-time period (06:00-07:00), noise levels are predicted to be up to 9 dB above background levels during the weekend period. With reference to Table 2.1 and the guidance within BS 4142, this may be within the Significant Observed Adverse Effect Level, depending on context. As such, additional noise control measures are discussed in Section 6.0

With reference to the above BS 4142 assessments, a number of factors must be considered as part of the context-based assessment guidance presented within BS 4142. With reference to the weekday scenario and noise levels falling below background levels, despite predicted operational noise levels that above the 5 dB below background threshold detailed within Hillingdon's Noise SPD, the guidance within BS 4142 does not provide any specific threshold and states that 'the lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact.' Additionally, the guidance states 'where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.'

Furthermore, the baseline noise monitoring survey was undertaken between Friday 8th January 2021 to Tuesday 12th January 2021, when a full national lockdown was in place. As such, it is considered that the background levels measured and presented above are very likely to be lower than during 'normal' conditions. The assessment presented above is considered to represent a worst-case scenario because of this; 'stay at home' restrictions would have affected the level of road traffic and as such subsequent background noise levels, particularly during the weekend period. As such, although noise levels are predicted to be up to 9 dB above background levels during the weekend night-time period, there is a 12 dB difference between the same hourly period during the weekday.

With reference to the night-time period and the potential for sleep disturbance, although background noise levels have the potential to be exceeded during the weekend period, the guidance within BS 4142 is related to the listener position and therefore absolute levels should be taken into account. Given that the frontages of these properties are predominantly driveway spaces, the use of external amenity spaces during the daytime period is unlikely to be affected by the proposed development. However, in order to determine internal noise levels within bedroom spaces and the likelihood of sleep disturbance associated with potential impulsive noise sources such as the closing of vehicle doors, a night-time L_{Amax} assessment has been undertaken and is presented in Section 5.2.

5.2 Noise Intrusion Assessment (Night-time L_{Amax} Noise Levels)

Table 5.3 below presents the external noise levels at nearby sensitive receptors from noise associated with GOL operations. Internal L_{Amax} noise levels (to represent noise from bangs and clatters from 100% unloading capacity) have been assessed both with windows open, where a reduction from a partially open window of 10 dB has been used, and with windows closed where an assumption of sound reductions of 30 dB have been used.

Table 5.3 Night-time Noise Intrusion Levels L_{Amax}

Location	External L_{Amax} at 1m from facade	Internal L_{Amax} with windows open	Internal L_{Amax} with windows closed	Criteria Internal L_{Amax}
R01	41.7	31.7	11.7	45
R02	46.6	36.6	16.6	45
R03	52.5	42.5	22.5	45
R04	52.8	42.8	22.8	45
R05	51.5	41.5	21.5	45
R06	48.3	38.3	18.3	45
R07	45.3	35.3	15.3	45
R08	42.6	32.6	12.6	45
R09	39.6	29.6	9.6	45
R10	n/a			
R11	31.8	21.8	1.8	45

The assessment presented in the tables above demonstrate that internal L_{Amax} noise levels (which relate to the potential for sleep disturbance) within nearby dwellings from the proposed unloading/loading activities are predicted to be within the WHO noise intrusion criterion at all existing receptors with windows open and closed. As such, despite nominal exceedances of background L_{A90} noise levels, operational noise from GOL activity is not expected to result in adverse impacts relating to noise and would be within the No Observed Adverse Effect Level.

6.0 Mitigation and Noise Control Measures

As operational noise levels have the potential to exceed background noise levels and that the local SPD thresholds at the closest sensitive receptors (on the basis of worst-case assumptions), further noise control measures are discussed below.

The development already benefits from a 4m high retaining wall around the northern margin of the proposed development, noise control measures can be implemented through the use of a suitably worded Operational Noise Management Plan (ONMP). The ONMP provides a series of controls to be implemented at the site to ensure that external activities operate efficiently and effectively, thereby minimising any incidence of potential disruption and noise disturbance at existing receptors. The ONMP would include a range of best practice management strategies; an example of which is presented within Appendix B of this document.

It is considered that the ONMP set out will help improve the overall operation at the site, removing issues relating to vehicles causing noise disturbance to local residents, allowing a framework for regular review of control measures. Studies at other sites have shown that noise levels can be typically reduced by 5 – 7 dB which would reduce the potential exceedances of background noise levels during the early morning period to no greater than 2-4 dB which would be within the Lowest Observed Adverse Effect Level.

7.0 Conclusions

A noise assessment has been undertaken in support of a planning application for a proposed Grocery Online (GOL) area located at the existing Sainsbury's store at York Road, Uxbridge.

The NPPF provides test points against which the proposed development has been assessed. Considering these points, the following conclusions can be drawn:

NPPF paragraphs 170 (e) and 180 (a)

In considering paragraphs 170 and 180, an assessment has shown that predicted noise rating levels are predicted to be below existing background noise levels at all nearby sensitive receptor locations during the weekday period and therefore, the proposed GOL facility is not expected to have an adverse impact and falls at or below the Lowest Observed Adverse Effect Level in the context of BS 4142. However, Hillingdon's Noise SPD threshold criteria have the potential to be exceeded during certain periods.

Therefore, additional noise control measures have been discussed, with the implementation of an ONMP in order to control noise from the site.

Furthermore, an assessment of night-time L_{Amax} noise levels (from potential bangs and clatters) to determine the probability for sleep disturbance has shown that noise levels are predicted to be within the WHO criteria at all sensitive receptors.

Overall, and when assessed even on a worst-case basis, the GOL facility is not expected to have an 'adverse impact' on health or quality of life.

NPPF paragraphs 180 (b), 182 & 183

Considering the existing use of the site as a supermarket, the proposed GOL facility is not expected to affect the tranquillity of the local area or access to areas of greater tranquillity.

Appendices

Appendix A – Acoustic Terminology and Abbreviations

Acoustic Terminology

- dB** Sound levels from any source can be measured in frequency bands in order to provide detailed information about the spectral content of the noise, i.e. whether it is high-pitched, low-pitched, or with no distinct tonal character. These measurements are usually undertaken in octave or third octave frequency bands. If these values are summed logarithmically, a single dB figure is obtained. This is usually not very helpful as it simply describes the total amount of acoustic energy measured and does not take any account of the ear's ability to hear certain frequencies more readily than others.
- dB(A)** Instead, the dBA figure is used, as this is found to relate better to the loudness of the sound heard. The dBA figure is obtained by subtracting an appropriate correction, which represents the variation in the ear's ability to hear different frequencies, from the individual octave or third octave band values, before summing them logarithmically. As a result the single dBA value provides a good representation of how loud a sound is.
- L_{Aeq}** Since almost all sounds vary or fluctuate with time it is helpful, instead of having an instantaneous value to describe the noise event, to have an average of the total acoustic energy experienced over its duration. The L_{Aeq, 07:00 – 23:00} for example, describes the equivalent continuous noise level over the 12 hour period between 7 am and 11 pm. During this time period the L_{pA} at any particular time is likely to have been either greater or lower than the L_{Aeq, 07:00 – 23:00}.
- L_{Amin}** The L_{Amin} is the quietest instantaneous noise level. This is usually the quietest 125 milliseconds measured during any given period of time.
- L_{Amax}** The L_{Amax} is the loudest instantaneous noise level. This is usually the loudest 125 milliseconds measured during any given period of time.
- L_n** Another method of describing, with a single value, a noise level which varies over a given time period is, instead of considering the average amount of acoustic energy, to consider the length of time for which a particular noise level is exceeded. If a level of x dBA is exceeded for say 6 minutes within one hour, then that level can be described as being exceeded for 10% of the total measurement period. This is denoted as the L_{A10, 1 hr} = x dB.
- The L_{A10} index is often used in the description of road traffic noise, whilst the L_{A90}, the noise level exceeded for 90% of the measurement period, is the usual descriptor for underlying background noise. L_{A1} and L_{Amax} are common descriptors of construction noise.
- R_w** The *weighted sound reduction index* determined using the above *measurement* procedure, but weighted in accordance with the procedures set down in BS EN ISO 717-1. Partitioning and building board manufacturers commonly use this index to describe the inherent sound insulation performance of their products.

Abbreviations

CADNA – Computer Aided Noise Abatement

DMRB – Design Manual for Roads and Bridges

HGV – Heavy Goods Vehicle

UDP – Unitary Development Plan

UKAS – United Kingdom Accreditation Service

Appendix B – Operational Noise Management Plan

Sainsbury's Supermarkets Limited

Groceries Online (GOL) Facility - Uxbridge

Operational Noise Management Plan

August 2021

Executive Park, Avalon Way, Anstey, Leicester, LE7 7GR

Tel: +44 (0)116 234 8000

Email: NALO.UK@tetrattech.com

Operational Noise Management Plan

The objective will be to ensure that the Groceries On-Line (GOL) vehicles operate efficiently and effectively when serving the store; thereby minimising any incidence of potential disruption from potential noise disturbance to local residents. Operational noise management should also comply with the appropriate government guidance, including the Quiet Deliveries Good Practice Guidance – Key Principles and Processes for Community and Resident Groups – February 2015.

Relevant signage will be installed, reminding drivers and local staff of the SYMP principles and regular training will be provided by management to enforce the points. An activity log of ongoing checks and training will be kept and available to the LPA on request.

Vehicle Management Strategies

A combination of strategies will contribute to the operation of the GOL SYMP. These are:

- Delivery Vehicle Manoeuvres
- Loading Process

Delivery Process

There are also a number of management and operations measures to reduce noise levels which include: -

The Journey

- During the final approach to the store (through the store car park), drivers will be aware from training and signage that refrigeration units within vehicles will be switched off and remain switched off during loading; and
- Access to the delivery area must remain unrestricted. However, if entry is restricted, vehicles should stop, turn all engines and radios off, and contact local staff.

Loading/Unloading

- Ensure engines are switched off;
- Manoeuvring should be minimised;
- Goods will be loaded directly to the vehicles;
- There should be no radios left on;
- Doors should be closed without excessive force;

- There should be no shouting in the external area;
- There should be no use of vehicle horns in the area; and
- Drivers should seek to:
 - avoid making contact with walls, guardrails and other obstructions; and
 - maintain conversation to a minimum.

Vehicle Manoeuvres

- All vehicle doors must be closed with minimal noise; and
- Drivers should seek to:
 - engage gears with minimal noise;
 - keep engine revs to a minimum;
 - apply brakes gently; and
 - accelerate gently until the vehicle is a reasonable distance from the store.

Ongoing Management

Store management will undertake monthly checks, both within and surrounding the service area to ensure that all equipment, gates etc are operating efficiently and without excessive noise. Similarly store management will check that the GOL SYMP is being adhered to, and keep a log of this activity.

Signage will be provided at the entrance to the service area reminding drivers to be respectful of local residents and to keep noise to a minimum.

Training and Ongoing Management

Regular training will be undertaken by management to drivers and local staff to ensure that this Management Plan and the DfT Quiet Deliveries Good Practice Guidance will be adhered to. This training will be logged and made available to the LPA upon request.

- Local Management will undertake a minimum of monthly checks, to ensure that this Management Plan is being adhered to.
- Regional Management will undertake unannounced checks (in conjunction with their existing schedule of unannounced checks) to ensure that this Management Plan is being adhered to.

Complaints Procedure

Any complaints relating to noise will be communicated to store and head office management, with a record of any noise complaints maintained. Store management will seek to resolve the complaint, which may include monitoring and a noise assessment to investigate the source of noise and implement noise attenuation/control measures to ensure noise levels are not exceeding agreed levels. The results of such assessment would be reported within a suitable table, an example of which is shown within Appendix A of this document.

The results will then be assessed against any relevant noise limits and the report made available to the planning authority within 10 working days. A copy of the report will be kept by the Store Manager. No further action is required if noise monitoring demonstrates that the noise limits have been met.

If the assessment shows that the site noise limits have been exceeded, then the site's working procedures should be reviewed with regards to best practice. Appropriate remedial action will be undertaken to identify and address the cause or causes of the excessive noise levels. If such remedial action is required, an additional round of compliance monitoring will be carried out to demonstrate that the remedial action was effective.

End of Document

Appendix A – Example Noise Monitoring Logbook

Week Commencing; _____

Location	Date	Equipment details (Make, Model, Serial Number)	Calibration Details	Instrument Settings (e.g time weighting, frequency weighting)	Instrument Set-up (e.g Height / Free field?)	Weather Conditions	Time Start	Time End	Duration	Measured Noise Level L _{Aeq,T}	Description of Works	Comments	Supervisor Signature

Appendix C – Comments Response Document

TECHNICAL MEMO

Our Ref: 5371_002M_1-0_CW



To: Michael Briginshaw
Senior Planning Officer
London Borough of Hillingdon

From: Chris Wood
Associate Director
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Date: 1 July 2021

SUBJECT: SAINSBURY'S SUPERMARKET, YORK ROAD PROPOSED GROCERIES ONLINE (GOL) FACILITY 39439/APP/2021/2230 NOISE ASSESSMENT REPORT REVIEW

1 INTRODUCTION

1.1 Brief

Anderson Acoustics Ltd has undertaken a review of the Noise Assessment report produced by Tetra Tech and submitted as part of Application ref. 39439/APP/2021/2230, to assist London Borough of Hillingdon (LBH) in the determination of the Application, as described in **Section 1.2** below.

This document (ref. 5371_002M_1-0_CW) presents the findings of the review in relation to the potential noise effect(s) of the development on the environment, in the context of national and local policy, and good practice guidance. Recommendations are made for any further actions considered appropriate (see **Section 4**).

1.2 Application Proposal

The Noise Assessment report in question (see **2.1** below) has been submitted as part of the application for:

Extension to the store to provide a new groceries online (GOL) facility with new service yard and non-food retail floorspace with ancillary warehousing. External alterations, a new click and collect facility, alterations to the existing car park layout and the installation of new mechanical plant.

2 DOCUMENTS REVIEWED

2.1 Noise Assessment Report

- **Groceries Online (GOL) Facility Uxbridge Noise Assessment** (ref. 784-A117904, Issue 2, dated 19/05/2021), by Tetra Tech on behalf of Sainsbury's Supermarkets Ltd. Herein referred to as the NA report.

2.2 Other Documents

The other documents submitted have been considered – primarily drawings – but none of which being considered material to this review.

3 NOISE ASSESSMENT (NA) REPORT REVIEW

Each section of the NA report is considered in turn below. In many respects, the survey and assessment would appear robust; however, we do not agree with the adopted criteria – with no recognition of Hillingdon’s standard requirement for noise of the proposed nature – whilst the relationships between the measured baseline levels and those adopted for the assessment are unclear. Which, together with a number of other question marks, means that we feel it is difficult to rely on the calculated levels or assessment of their potential significance. See **Section 4** for our recommendations.

3.1 Introduction (Section 1.0)

This section includes the two subsections: **Purpose of this Report**; and **Legislative Context (England)**. The purpose is as expected: “This report presents findings of a noise assessment undertaken to accompany a planning application for a proposed grocery online (GOL) facility located at the existing Sainsbury’s store at York Road, Uxbridge.” It is further stated at this point that “...the operating hours of the GOL facility will be from 06:00 to 23:00.”

It is also indicated that the “short-term and long-term effects of noise” have been considered. This is not the case, however, with no further reference to these terms; although, this is not considered to be significant.

In terms of the **Legislative Context (England)**, since no actual legislation is referenced, this would be better entitled Policy Context. As it is, and whilst relevant in terms of national policy, only the **NPPF** and **planning practice guidance** are referenced, with no reference to regional or local policy. This is a shame, but not actually significant in practice.

3.2 Assessment Methodology (Section 2.0)

The same heading is used for the subsequent section (see below), but where, perhaps, Assessment Criteria was the intended heading for this section given the content. The most relevant British Standards (**BS 4142** and **BS 8233**) are referenced, together with good practice guidance in the form of the **IEMA Guidelines for Environmental Noise Impact Assessment**, but where no details of the relevant guidance and criteria are given.

Instead, with little explanation, thresholds have been determined in relation to the “Effect Level” terms from the **planning practice guidance** on **Noise**. The idea is considered to be a good one – covering comparison with both background and ambient conditions and considering maximum sound levels at night – but we do not tend to agree with the selected thresholds. For example, rating level equal to background level – described as a “low impact” subject to context in **BS 4142** – is considered as one of the “No Observed Effect Level” thresholds, as if there would be **No Effect**/no noise present whatsoever. Likewise, a change in sound level of up 3 dB is also considered to result in **No Effect**/no noise present, when such a change is likely to be perceivable, and thus of potential impact. Furthermore, the adopted change thresholds are considered better suited to changes in noise of the same or similar nature. Where noise of a different nature is added, it would typically be more noticeable at a lower level, indeed, potentially without any change at all, hence the use of **BS 4142** in such instances.

It is also noted that the maximum (L_{Amax}) level thresholds are not related to a number of occurrences. This is contrary to related guidance on such criteria, where levels of up to 45 dB, for example, are typically to be limited to no more than 10 to 15 times per night.

A further questionable position taken in **Table 2.1** of the NA report is that despite a description of “Difference of +5 dB likely to be an indication of an adverse effect, depending on context”, no action (i.e. mitigation) would be required. Indeed, there is no acknowledgment of Hillingdon’s standard requirement for commercial/industrial noise that rating levels should be at least 5 dB below the relevant background level. Accordingly, despite levels (in theory) being up to 10 dB above Hillingdon’s standard requirement, and potentially resulting an adverse impact, no mitigation would be proposed.

This is considered further in **3.5** below.

3.3 Assessment Methodology (Section 3.0)

The method would generally seem robust, with a noise model having been used and a reasonable degree of information provided, but where there are considered to be the following oddities:

- There's no mention of how acoustic reflections have been accounted for in the model.
- It is stated that, "Noise of a loading event has been known to vary from site to site by as much as 22 dB L_{Aeq} at 5 m distance even with the same vehicle type. Similarly, individual events using the same vehicle and at the same store have been recorded to vary by as much as 14 dB." It is then stated that, "As such, the following worst-case calculations have been based on measurements of GOL delivery vans loading and delivering consumables." It is not clear, however, how the calculations are worst case in light of levels varying by as much as 22 dB? The levels are also stated for a distance of 3 m, rather than 5 m mentioned above, and generally appear on the low side.
- It is stated that "Loading events are modelled as point sources and vehicle movements as line sources." And yet the "arriving" and "leaving" event levels are combined with the "loading" level to give a single figure.
- For the night-time period (i.e. the first hour of operation before 7 am), the same duration of arriving, manoeuvring, loading and leaving events are assumed as for the day (one hour) period, but condensed into a 15 minute period, which somehow is based on the assumption of "100% unloading capacity". The result, however, is of a higher sound level than might otherwise be the case, and so the assessment is more conservative for it.
- Arguably the selected receptors provide reasonable coverage, but where it's odd that one of the dwelling's directly opposite the site, 109 Belmont Road, hasn't been directly considered. The plan used for the model, and the dwellings opposite modelled as a result, don't actually reflect the actual buildings, but where this isn't material.
- It perhaps misleading that the roads and railway lines are presented as if they've been included in the model/assessment, and where the sources associated with the scheme are not shown.
- The best plan of the site, scheme and neighbouring dwellings is actually the image on the cover of the report, but which is not used in the main body.

It is difficult, therefore, to have complete confidence in the assessment.

3.4 Noise Survey (Section 4.0)

A seemingly robust/extensive set of measurements have been undertaken; however, the presentation of the results (solely in [Table 4.3](#)) is considered unhelpful. We have no clue how the long term (LT1 and LT2) levels have been derived/what they represent. For example, a single $L_{A90,T}$ level is presented for the "Weekday Daytime" out of the entire survey period. We do not know, therefore, how the levels might have varied from day to day or, indeed, hour to hour, with no discussion on methodology in keeping with the guidance in [BS 4142](#) (or Hillingdon's [Noise SPD](#)). It is appreciated the raw data is available upon request, but it is considered more details should have been provided as a matter of course.

There is no mention of the pandemic, with the survey occurring early in the New Year (2021). The chances are, however, this would make the survey data lower than might otherwise have been the case, which would make for a more robust/worst case assessment.

It is interesting at LT1, which was near the site of the proposed GOL facility, that the weekday $L_{A90,T}$ levels are significant higher than the weekend equivalent levels. No discussion is provided on this or indeed the data generally.

The data is considered further in the following section.

3.5 Assessment of Key Effects (Section 5.0)

It is stated that, “The representative background noise level for each receptor has been established using measured noise level data from the nearest representative baseline survey locations.” No details are provided, however, with it being difficult to tie-up the levels presented in [Table 5.1](#) with those in [Table 4.3](#). For example, the “Typical Measured Background” early morning, daytime and evening levels for R03 (111 Belmont Road) are 51 dB, 50 dB and 46 dB, respectively, when the levels measured at ST2 (“adjacent 111 Belmont Road”) were 49 dB (at 06:01), 52 dB (at 14:59) and 44 dB (at 23:31). Arguably, the last level is beyond the period of operation (up to 23:00), but only just, whilst the levels are snapshots for single 15-minute periods, but they do have the benefit of being in proximity to the receptor. There would seem a good argument, therefore, for lower values to be used for the first and last hour periods in this instance at least.

In terms of a character correction, it is stated that, “To account for potential impulsive characteristics of noise from the deliveries which may be perceptible at certain receptor locations, a + 3 dB correction has been added to noise associated with GOL operations.” This seems on the low side, when intermittency might also be a notable characteristic, with event levels potentially varying by up to 22 dB as mentioned earlier; however, in the context of the existing and wider site use for car parking (though not discussed in the report), the correction is considered acceptable.

The results of the [BS 4142](#)-based comparison of the rating and background levels are presented in [Table 5.1](#). As it is, the difference levels for the nearest dwellings (R03 and R04) range from zero to -6 dB, accounting for the early morning, daytime and evening periods. Since, therefore, the rating levels are no higher than the background levels, the conditions are considered (in the NA report) to be “at or below the adopted Lowest Observed Adverse Effect Level.” Indeed, according to the adopted scales ([Table 2.1](#)), the levels are at or below the “No Observed Effect Level”, but where we do not agree with the adopted thresholds in this regard.

If the background and rating levels are to be believed, and bearing in mind some differences between these are above Hillingdon’s standard requirement, then we would say they are around the [Lowest Observed Adverse Effect Level](#), whereby, according to the [Example of Outcomes](#) given in the [planning practice guidance](#), conditions, subject to further consideration of context, could be described as either:

Noise can be heard, but does not cause any change in behaviour, attitude or other physiological response.
Can slightly affect the acoustic character of the area but not such that there is a change in the quality of life.

or

Noise can be heard and causes small changes in behaviour, attitude or other physiological response, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance.
Affects the acoustic character of the area such that there is a small actual or perceived change in the quality of life.

Next, the change in ambient ($L_{Aeq,T}$) levels are considered, which is a useful means of helping to establish/consider context. As before, no justification is given for the adopted levels, with those for the night-time scenario seemingly being on the low side for the early morning (first hour) period in question. In the event, no change in $L_{Aeq,T}$ levels is predicted for the daytime at the nearest dwellings, but where changes of up to 1.8 dB are shown for the night-time (i.e. early morning) scenario. This is suggestive of the noise in question being audible, if not clearly audible, amongst the other ambient noise sources, especially given the potential different character of the GOL facility noise. And yet, on account of the adopted threshold, the noise effect is said to “fall within the No Observed Adverse Effect Level”, when, strictly, the threshold is described in [Table 2.1](#) as “No Observed Effect Level” (i.e. without “Adverse”), and where we do not, in any case, agree with the thresholds.

Lastly, consideration is given to the maximum sound levels. This, again, should be useful in terms of considering context; although, in this regard, arguably details of existing maximum levels would be of more interest than the adopted thresholds. As it is, even with windows open, based on the reasonable assumption of 10 dB attenuation, the lowest adopted threshold of 45 dB is shown not to be exceeded. Arguably, the use of 30 dB for a closed window, with no mention of ventilation, is unrealistic; however, this is not material to the outcome of the assessment.

It is interesting at this point that the NA report refers (for the first time) to the “WHO” in relation to the maximum level criterion. And, indeed, the WHO’s Guidelines (2000) does indicate a level of 45 dB, but which is also one source of guidance whereby the number of occurrences should be considered, whilst the WHO’s Night Noise Guidelines (2009) indicates lower maximum levels might be appropriate.

Based on the maximum sound level assessment, it is concluded, in keeping with the previous scenarios, that, “noise from GOL activity is not expected to result in adverse impacts relating to noise and would be within the No Observed Adverse Effect Level.”

3.6 Conclusions (Section 6.0)

The conclusions are in keeping with the assessment outcomes.

4 RECOMMENDATIONS

If it was just a case that we didn’t agree with the adopted criteria, then we could see beyond this and form our own view of the results, which would broadly indicate a low impact. There are considered, however, a number of reasons why the adopted background levels and calculated activity levels could be unreliable, such that it is considered difficult to draw firm conclusions from the assessments without further clarification provided.

Prior to Hillingdon making a decision, therefore, it is recommended that the report is updated in the following ways (in the context of the review presented above):

- Reference is removed to “short-term” and “long-term” effects, or otherwise addressed as appropriate.
- The Assessment Methodology/Criteria is updated to consider Hillingdon’s **Noise SPD**¹. There is also the joint Councils’ **Development Control for Noise Generating and Noise Sensitive Development SPD**². In the main, we would look to see full consideration of the guidance in the current version of **BS 4142**, with both the Council’s standard requirements and context, as guided within **BS 4142**, taken into account.
- If L_{Amax} levels are to be considered, then it would be appropriate to consider both the number of occurrences and the existing levels and occurrences of relevant noise events.
- The Assessment Methodology is updated to clarify the provenance and selection of source values and how they have been used in the model. It is considered that further thought is given to the approach to the early morning scenario: how “100% unloading capacity” has been interpreted and modelled.
- 109 Belmont Road is added as a receptor.
- Use of the figure presented on the front cover within the main body of the report to show more clearly the scheme in relation to the receptors.
- The Noise Survey section is updated to provide further details of the survey (including photographs) and the data, with discussion provided to show full understanding of the results and justification for the selection of the adopted background and ambient levels. Reference should be made to the advice in **BS 4142** as to the selection of representative background levels.

DOCUMENT END

¹[https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010019/TR010019-001898-Appendix%201-%20noisespdffinal2_1%20\(1\).pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010019/TR010019-001898-Appendix%201-%20noisespdffinal2_1%20(1).pdf)

²<https://democraticservices.hounslow.gov.uk/documents/s127525/SPD%20Noise%20Generating%20and%20Noise%20Sensitive%20Development%202016%20Finalv1.pdf>

784-A117904 (014)

23rd July 2021

Response to comments received from Anderson Acoustics (AA) received on 8th July 2021 regarding the submitted Noise Assessment by Tetra Tech [ref 784-A117904 (014) dated 19th May 2021] for planning application reference 39439/APP/2021/2230.

For the purposes of this response, the recommendations presented section 4 within the Anderson Acoustics review have been addressed.

Tetra Tech Responses in Blue

AA Comment 1

Reference is removed to “short-term” and “long-term” effects, or otherwise addressed as appropriate.

Tetra Tech Response 1

Within section 3.1 of the AA summary, it is agreed that this reference is not considered to be significant.

AA Comment 2

The Assessment Methodology/Criteria is updated to consider Hillingdon’s Noise SPD. There is also the joint Councils’ Development Control for Noise Generating and Noise Sensitive Development SPD. In the main, we would look to see full consideration of the guidance in the current version of BS 4142, with both the Council’s standard requirements and context, as guided within BS 4142, taken into account.

Tetra Tech Response 2

Both Hillingdon’s Noise SPD April 2006 and the joint Councils’ Development Control for Noise Generating and Noise Sensitive Development SPD July 2014 have been reviewed. With reference to BS 4142, both documents state that the Borough’s preference is that the predicted rating level from commercial development is at least 5 dB below the background level L_{A90} and that a rating level of ‘no more than 5 dB above the background level L_{A90} is acceptable only if there are overriding economic or social reasons for the development to proceed.’

The BS 4142 assessment presented in Section 5.0 of the submitted noise assessment shows that the predicted rating levels, inclusive of a 3 dB correction, do not exceed the measured background L_{A90} at all assessed receptor locations during the proposed hours of operation. Furthermore, the guidance within BS 4142 states that ‘the lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact.’ Additionally, the guidance states ‘where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.’

AA Comment 3

If L_{Amax} levels are to be considered, then it would be appropriate to consider both the number of occurrences and the existing levels and occurrences of relevant noise events.

Tetra Tech Response 3

Following the above request, the long-term noise monitoring data has been reviewed to identify existing L_{Amax} levels and the existing number of occurrences. This has been established for the night-time hour between 06:00-07:00 for monitoring locations LT1 and LT2. At location LT1, L_{Amax} noise levels range between 53-71dB, whilst for LT2, L_{Amax} noise levels range between 70-80dB. Following a review of the sound files recorded at these locations, the peak L_{Amax} levels are associated with road traffic noise along Belmont Road.

Within the noise report, L_{Amax} levels from operational sources are predicted to be up to 52.5dB at the closest sensitive receptors, which fall below the existing measured L_{Amax} levels within the area during the proposed hours of operation from regular vehicles passing between the development site and nearby properties. Therefore it is considered that baseline noise levels at nearby receptor locations that are located at a similar distance to the long-term monitoring locations are characterised by regular short-term events from vehicles passing.

Indeed, the observations during attended measurements (summaries in Table 4.2 of the submitted assessment) identified that road traffic noise was considered to be the dominant source at all short-term monitoring locations; the results of short-term monitoring also identified that baseline L_{Amax} noise levels were in excess of 62 dB.

AA Comment 4

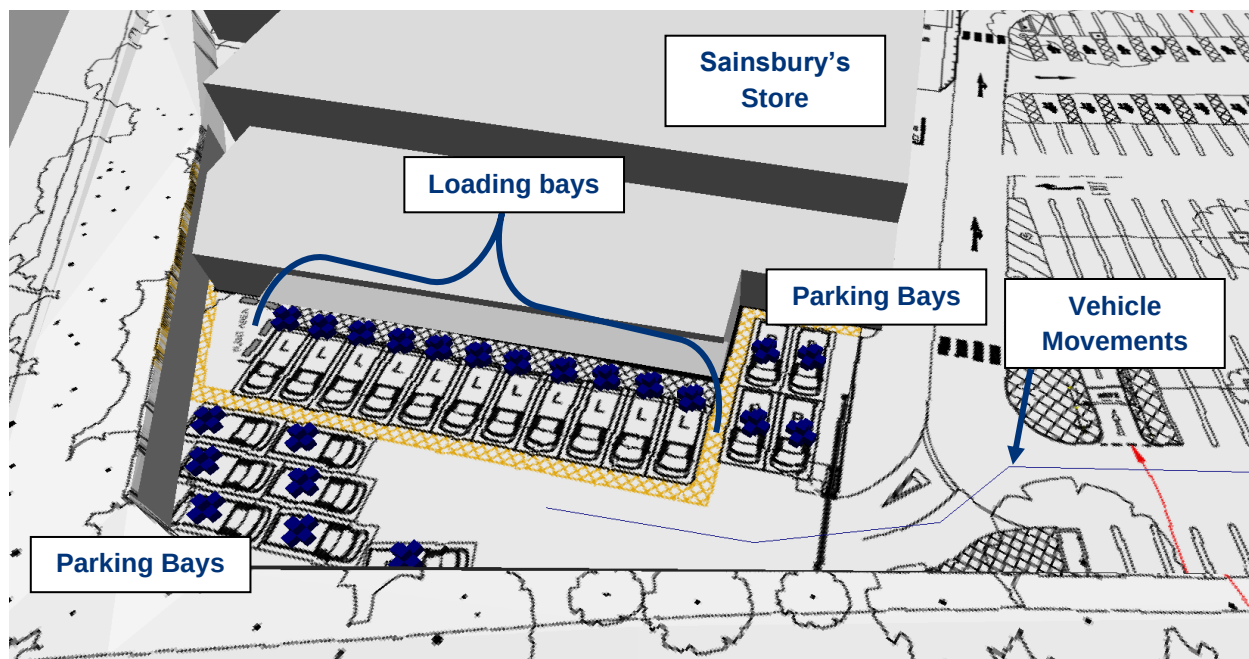
The Assessment Methodology is updated to clarify the provenance and selection of source values and how they have been used in the model. It is considered that further thought is given to the approach to the early morning scenario: how “100% unloading capacity” has been interpreted and modelled.

Tetra Tech Response 4

The source input data used for the assessment is taken from measured levels of an operational GOL facility the Sainsbury's store at Pontypridd. The assessment undertaken for this store was actually for a jet wash facility (planning application 12/0207/10) where the WYG-branded report is available online. However, whilst undertaking the baseline noise survey, source measurements of the operating GOL facility were undertaken to inform future modelling of proposed Sainsbury's GOL facilities and are considered to represent robust source noise levels associated with activities within GOL service yards, with the assessment assuming all parking bays and unloading bays are operating simultaneously.

With regards to the morning scenario, the assessment assumes that all 11 unloading bays would be in use at the same time during this early morning period. This has been modelled using point sources, with Figure 1 below detailing the location of these as well (as the parking bays and vehicle movements); for completeness, the overlain architect's plans are also shown.

Figure 1 3D image of CadnaA model showing noise source locations

**AA Comment 5**

109 Belmont Road is added as a receptor.

Tetra Tech Response 5

For completeness, 109 Belmont Road has been assessed with the results presented in the tables below.

Table 1 – BS4142 assessment – GOL Operations

Ref	Typical Measured Background L_{A90} Noise Level (dB)			Predicted Noise Level L_{Aeq} , 15 min	Predicted Noise Level L_{Aeq} , 1hour	Noise Rating Level		BS 4142 Score		
	Early Morning 06:00 – 07:00	Daytime 07:00 – 19:00	Evening 19:00 – 23:00	Early Morning	Daytime/ Evening	Early Morning	Daytime/ Evening	Early Morning 06:00 – 07:00	Daytime 07:00 – 19:00	Evening 19:00 – 23:00
109 Belmont Road	51	50	46	48	42	51	45	0	-5	-1

Table 2 – Difference between ‘Existing Noise Levels’ and Proposed Scenarios Daytime L_{Aeq}

Ref.	Existing L_{Aeq} (monitored)	Combined L_{Aeq}	Contribution from Proposed Scheme
109 Belmont Road	62.2	62.2	0.0

Table 3 – Difference between ‘Existing Noise Levels’ and Proposed Scenarios Night-time L_{Aeq}

Ref.	Existing L_{Aeq} (monitored)	Combined L_{Aeq}	Contribution from Proposed Scheme
109 Belmont Road	53.9	55.0	1.1

Table 4 – Night-time Noise Intrusion Levels L_{Amax}

Location	External L_{Amax} at 1m from facade	Internal L_{Amax} With windows open	Internal L_{Amax} With windows closed	Criteria Internal L_{Amax}
109 Belmont Road	52.8	42.8	22.8	45

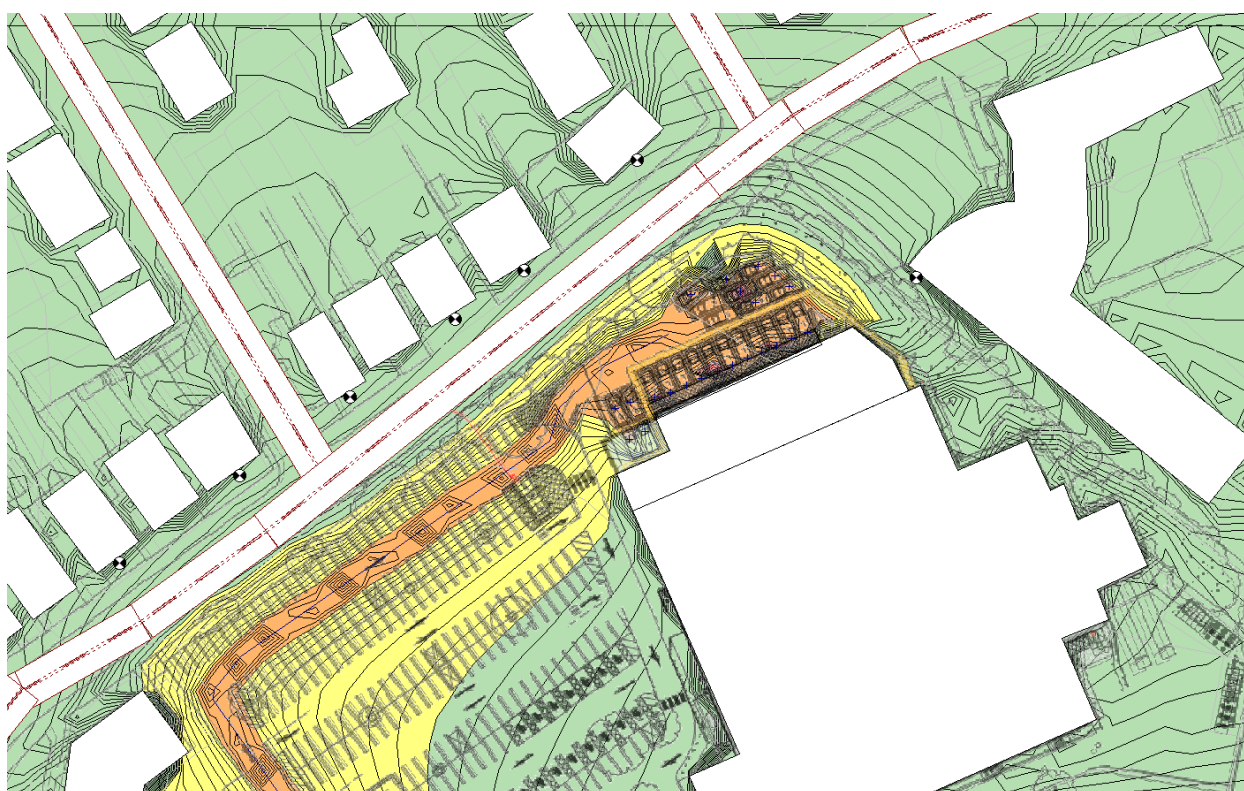
As shown in the tables above, the conclusions from the noise assessment remain the same as the criteria are met for all the assessments with the inclusion of 109 Belmont Road.

AA Comment 6

Use of the figure presented on the front cover within the main body of the report to show more clearly the scheme in relation to the receptors.

Tetra Tech Response 6

Although Figure 3.1 within the submitted noise assessment illustratively shows the proposed GOL area with respect to the assessed sensitive receptor locations, Figure 3 below presents the operational noise contour plot with the proposed site plans overlain, showing the locations of the respective sources.

Figure 2 Noise Contour Plot (Daytime) $L_{Aeq,1hour}$ – Grid Height 1.5m**AA Comment 7**

The Noise Survey section is updated to provide further details of the survey (including photographs) and the data, with discussion provided to show full understanding of the results and justification for the selection of the adopted background and ambient levels. Reference should be made to the advice in BS 4142 as to the selection of representative background levels.

Tetra Tech Response 7

Figures 3-4 show photographs of monitoring locations LT1 and LT2 which lie closest to existing sensitive receptors.

Figure 3 Noise Meter at Location LT1 (facing south)



Figure 4 Noise Meter at Location LT2 (facing west)

To determine the background levels, the monitoring locations were chosen as they were located a similar distance from the principal noise sources as the receptor locations; due to the longer exposure time of the unattended monitoring, the results of the long-term monitoring locations was given greater weight within the assessment. Figures 5-6 graphically show the distribution of measured background daytime L_{A90} levels at LT1 and LT2, which have been used for nearly all assessed receptor locations, with the exception of R10, where ST4 was chosen as no long-term unattended monitoring could be safely undertaken at that location.

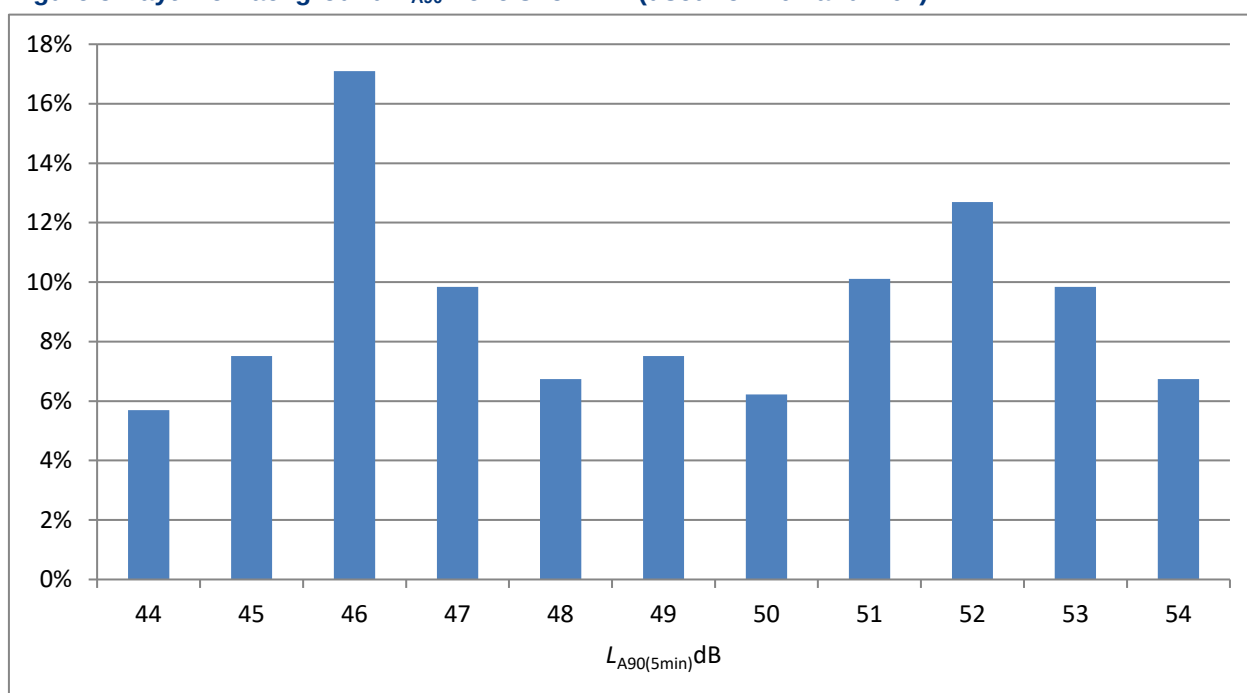
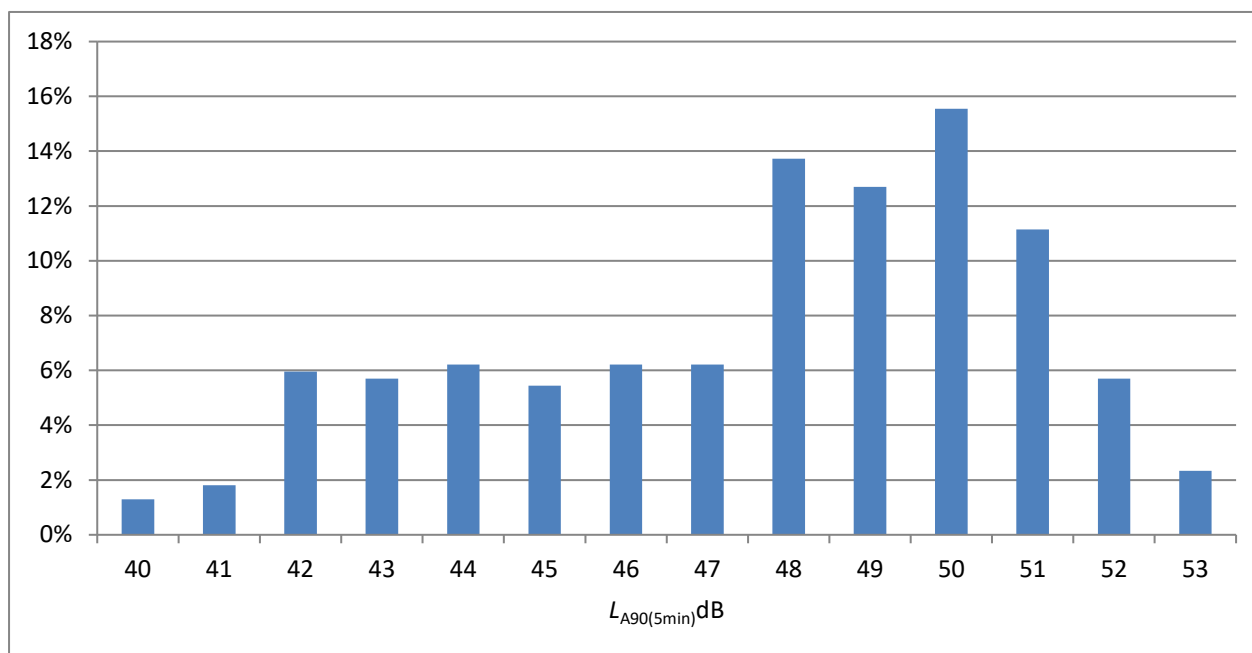
Figure 5 Daytime Background L_{A90} Levels for LT1 (used for R01 and R02)

Figure 5 Daytime Background L_{A90} Levels for LT2 (used for R03, R04, R05, R06, R07 and R08)


As shown above, statistical analysis of daytime background levels shows that a noise level of 46 dB for LT1 and 50 dB for LT2 are representative of background noise levels during the daytime period, in-line with the guidance presented in BS 4142. To determine the evening (19:00-23:00) and early morning (06:00-07:00) periods, an hourly breakdown of L_{A90} levels was undertaken for LT1 and LT2 and the average for these time periods were taken to determine the background L_{A90} for these periods.

Figures 6 and 7 below present the time histories of measured noise levels (5 minute logging intervals) at the long-term monitoring locations; the full monitoring data set is for each location is appended to this document.

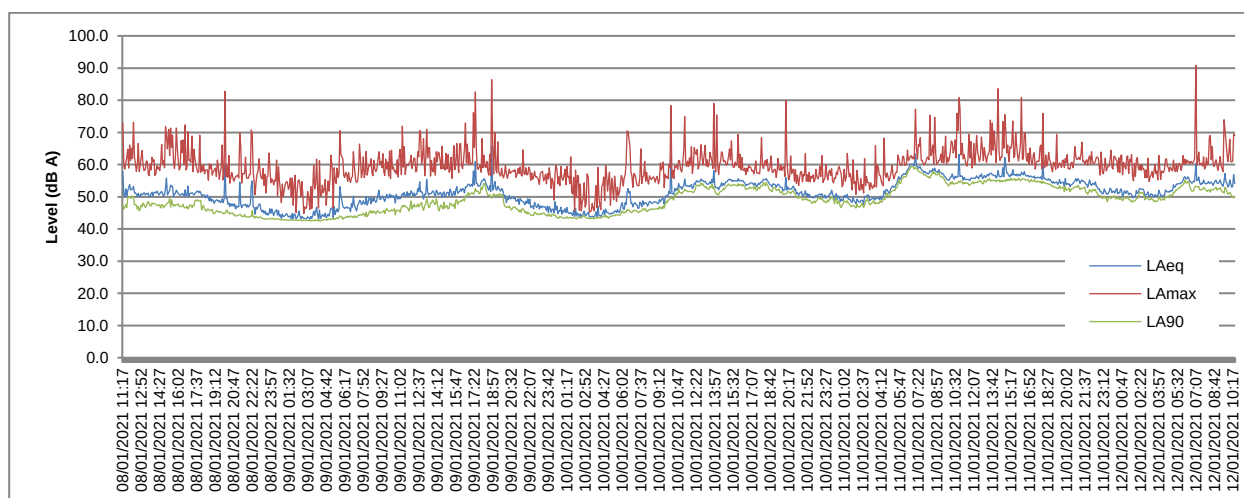
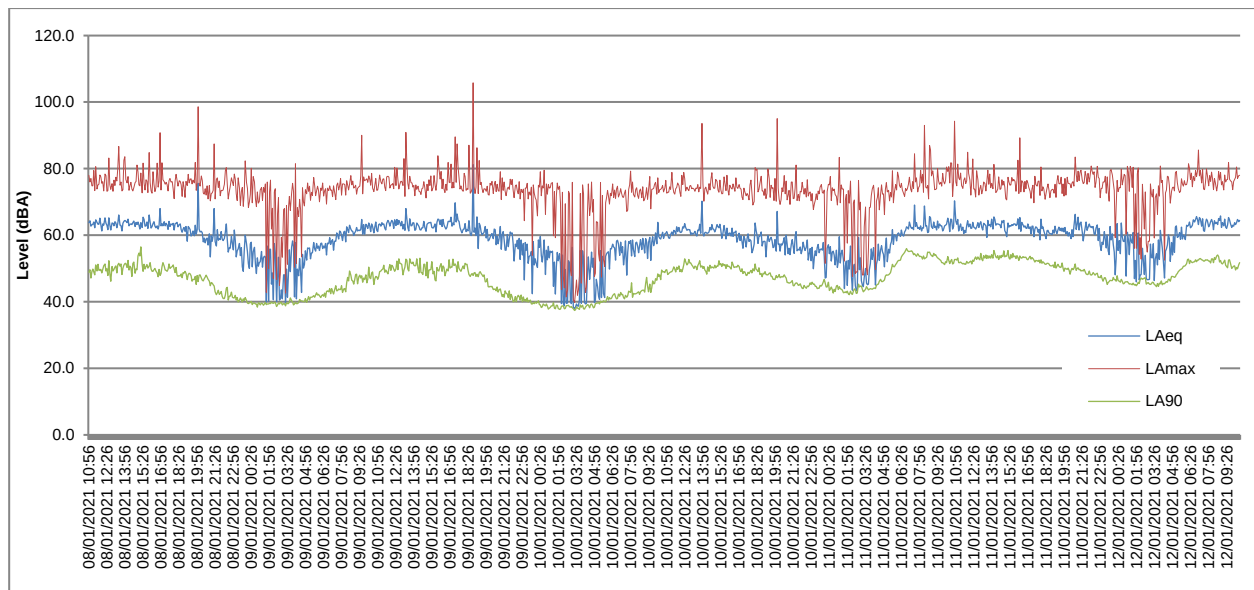
Figure 6 Time History of Measured Noise Levels: LT1


Figure 7 Time History of Measured Noise Levels: LT2

Furthermore, as noted within the Anderson Acoustics review, due to the nationwide restrictions that were in-place at the time of the baseline noise survey and the commensurate reductions in road traffic associated with the closure of nearby non-essential businesses and retail facilities, it is considered that the baseline noise levels recorded throughout the survey would typically be higher than the values used to inform the assessment. As such, the results of the assessment are considered to remain robust.

End of Document

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Appended:

Long-term noise monitoring at locations LT1 (Appendix A) and LT2 (Appendix B)

TECHNICAL MEMO

Our Ref: 5371_003M_1-0_CW



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Date: 17 August 2021

SUBJECT: SAINSBURY'S SUPERMARKET, YORK ROAD PROPOSED GROCERIES ONLINE (GOL) FACILITY 39439/APP/2021/2230 NOISE ASSESSMENT REPORT FOLLOW-UP REVIEW

1 INTRODUCTION

1.1 Brief

Following our review (ref. 5371_002M_1-0_CW) of the Noise Assessment, Anderson Acoustics Ltd has undertaken a review of the Noise Comments Response produced by Tetra Tech and submitted as part of Application ref. 39439/APP/2021/2230, to assist London Borough of Hillingdon (LBH) in the determination of the Application, as described in **Section 1.2** below.

This follow-up document (ref. 5371_003M_1-0_CW), therefore, presents the findings of the review in relation to the initial review, and thus, as before, in terms of potential noise effect(s) of the development on the environment, in the context of national and local policy, and good practice guidance. Recommendations are made for any further actions considered appropriate (see **Section 4**).

1.2 Application Proposal

The Noise Assessment report and the Noise Comments Response (see **Section 2** below) have been submitted as part of the application for:

Extension to the store to provide a new groceries online (GOL) facility with new service yard and non-food retail floorspace with ancillary warehousing. External alterations, a new click and collect facility, alterations to the existing car park layout and the installation of new mechanical plant.

2 DOCUMENTS REVIEWED

2.1 Noise Assessment (Previously Reviewed)

- **Groceries Online (GOL) Facility Uxbridge Noise Assessment** (ref. 784-A117904, Issue 2, dated 19/05/2021), by Tetra Tech on behalf of Sainsbury's Supermarkets Ltd. Herein referred to as the Noise Assessment report.

2.2 Noise Comments Response (Subject of this Review)

- **SSL Uxbridge – Noise Comments Response** (ref. 784-A117904 (014), dated July 2021), by Tetra Tech. Herein referred to as the Response.

3 NOISE COMMENTS RESPONSE REVIEW

Rather than update the Noise Assessment report, the approach has been taken to respond to the comments separately in the form of the eight-page Response document (plus appended survey data), with additional information provided in some instances. Whilst this would not have been our preference, helpfully the Response does directly respond the main recommendations within our previous review.

Indeed, each of the seven recommendations are addressed in turn, and we appreciate the extra effort that has been made. Despite this, however, we do not believe that two of the main areas of concern have been adequately addressed, which revolve around the assessment criteria and handling of the survey data.

In terms of criteria, it was pointed out in the previous review that there was no reference to local or regional policy or guidance, with Hillingdon Council having its own SPD on noise and a joint SPD with other London councils, for which hyperlinks were provided. Helpfully, these documents are referenced and quoted in the Response, but no action taken as a result. It is not acknowledged, therefore, that the Council's standard requirement for rating levels to be at least 5 dB below the background level(s) is not met in a number of instances; and whilst there can be mitigating circumstances, this must surely be considered the goal in the first instance, and mitigation considered where this requirement is not achieved. As it is, no mitigation/noise control is mentioned to date.

In terms of the survey data, it was acknowledged in the previous review that the survey itself would seem to be robust, but with the data considered to be unhelpfully presented, and with the links between the measured levels and those adopted for the assessment considered unclear. Further details are provided in the Response, which certainly help answer some questions, but also raise others.

With the now provided time-history traces (for LT1 and LT2), it can be seen that the levels across the various days were not necessarily consistent, with the Sunday and Monday night-time, and Monday daytime, $L_{A90,5min}$ levels being notably higher, which have seemingly influenced the adopted values.

Being able to view the data in this way also highlights the need to account for potential differences between weekend and weekday baseline conditions. It is simply stated in the Noise Assessment report that the hours of operation will be from 06:00 to 23:00, with no mention of the days of the week. Presumably, therefore, the hours apply seven days a week, and so, rather than adopt a single (background and/or ambient) value (per period), it would be appropriate to explore if different values apply to different days.

Indeed, focussing on LT2, which is used to represent the nearest dwellings opposite the site, we have found from the tabulated 5-minute data provided in the Response that the daily arithmetic averages of the 06-07, 07-19 and 19-23 (hour) levels range by 11, 5 and 6 dB, respectively. In other words, for the 06-07 hour, the average of the 5-minute levels on one of the days surveyed was 11 dB less than on another day surveyed. Bearing in mind these are based on averages (and not the minimum to maximum levels, for example), these are large, and likely significant, degrees of variation.

In fact, for the Saturday and Sunday, the average level on both days was 41 dB, but 52 and 51 dB on the Monday and Tuesday, with a level of 51 dB having been used in the assessment. The adopted level does not appear to reflect the conditions at the weekend, therefore. If a level of 41 dB had been adopted, as per the weekend data, the rating level (of 51 dB) would be 10 dB above, and thus an indication of a significant impact, depending on context.

It has been found, therefore, that not only is the Council's standard requirement shown to be exceeded, the adopted background sound levels do not necessarily reflect the baseline conditions currently experienced by the nearest residents, whereby the exceedance of the Council's requirement could be even greater than that shown.

4 RECOMMENDATIONS

In the absence of acknowledging the exceedance of the Council's standard requirement and the lack of discussion on noise control as a result, together with the remaining uncertainty over the choice of background sound levels for the assessment, it is considered further work is required prior to the Council making a decision on the application. Accordingly, it is again recommended that the Noise Assessment report is updated, taking into account the concerns raised in this, and the previous, review. Indeed, whilst the Response considered the recommendations of the previous review, this was seemingly, in the main, without taking the review as a whole into account, as requested.

DOCUMENT END

Appendix D – Report Conditions

This Report has been prepared using reasonable skill and care for the sole benefit of Sainsbury's Supermarkets Limited ("the Client") for the proposed uses stated in the report by [Tetra Tech Limited] ("Tt"). Tt exclude all liability for any other uses and to any other party. The report must not be relied on or reproduced in whole or in part by any other party without the copyright holder's permission.

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The whole of the report must be read as other sections of the report may contain information which puts into context the findings in any executive summary.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. Tt accept no liability for issues with performance arising from such factors.