



Noise impact assessment  
BOXPARK Shoreditch  
2-10 Bethnal Green Road, London E1 6GY

Prepared by: Richard Vivian, Principal Consultant at Big Sky Acoustics Ltd  
On behalf of: BOXPARK Ltd  
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| Submitted to:            | Mr Marcus Lavell<br>Barrister, Gregg Latchams Limited<br>7 Queen Square<br>Bristol<br>BS1 4JE<br>acting on behalf of BOXPARK Ltd |
| Submitted by:            | Big Sky Acoustics Ltd<br>46 Frenze Road<br>Diss<br>IP22 4PA<br>020 7617 7069<br>info@bigskyacoustics.co.uk                       |
| Prepared by:             | Richard Vivian BEng(Hons) MIET MIOA MAES MIOL<br>Principal Acoustic Consultant   |
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## **Executive summary**

An assessment of the impact of noise from the operation of an existing retail and food mall at Bethnal Green Road has been carried out. The purpose of the site visit and testing was to verify the sound system design, limiter configuration and other controls are in place to minimise noise breakout.

The remodelled site include upgraded physical containment of the end terraces and sliding doors to enclose the middle dining areas.

The sound systems are controlled and limited to a maximum level. At maximum level it was not possible to detect or measure noise at the façades of residential properties.

Given this location, revised style of operation, sound system limiter controls, and upgrading of the building envelope to provide additional acoustic screening, it is my professional opinion that the operation will not result in a public nuisance due to amplified music routed through a limiter and would not lead to an increase average noise levels in the area.

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## **1.0 Qualifications and experience**

- 1.1 My name is Richard Vivian. I am a Director and the Principal Acoustic Consultant at Big Sky Acoustics Ltd. Big Sky Acoustics Ltd is an independent acoustic consultancy that is engaged by local authorities, private companies, public companies and individuals to provide advice on the assessment and control of noise.
- 1.2 I have a Bachelor of Engineering Degree with Honours from Kingston University, I am a Member of the Institution of Engineering & Technology, the Institute of Acoustics, the Audio Engineering Society and the Institute of Licensing.
- 1.3 I have over twenty-five years of experience in the acoustics industry and have been involved in precision acoustic measurement and assessment throughout my career. My professional experience has included the assessment of noise in connection with planning, licensing and environmental protection relating to sites throughout the UK.

## **2.0 Introduction**

- 2.1 Big Sky Acoustics Ltd was instructed by Mr Marcus Lavell, acting on behalf of BOXPARK Ltd, to carry out an assessment of the noise arising from the use of 2-10 Bethnal Green Road.
- 2.2 This report was prepared following a site visit and testing of the sound systems in-situ on a Wednesday evening between 18:30hrs and 21:30hrs. A weekday survey was specifically chosen as indicative of quieter noise levels: there is increased pedestrian and vehicle activity associated with the late night economy in this area at the weekend.
- 2.3 Noise was monitored at ground floor level of the façades of residential properties on Bethnal Green Road, Chance Road, and Holywell Lane. Inspection and testing of the sound system controls, and limiters, was carried out. Testing then proceeded to checking sound propagation from the site with the sound system, in all zones, operating at maximum level. The noise measurement data gathered during the survey is simplified and summarised in Appendix C of this report.
- 2.4 A glossary of acoustical terms used in this report is provided in Appendix A.
- 2.5 All sound pressure levels in this report are given in dB re: 20µPa.

## **3.0 Description of the operation**

- 3.1 BOXPARK consist of retail units (at ground floor) and a restaurant with multiple food retailers at first floor (with a few food outlets also at ground floor). The Shoreditch site was the first operation and now a second BOXPARK has opened in Croydon using the same concept of constructing the site out of recycled shipping containers.
- 3.2 Customers purchase food from their chosen outlet and then either eat at the unit or in the communal dining areas. Some customers take food away from the site. There are open air terraces to the east and west of the site, and two enclosed dining spaces in the centre of the site, all at first floor level.
- 3.3 Currently all food and beverage (F&B) provision at BOXPARK is by way of various independent operators; tenants renting unit space from BOXPARK. Each of the F&B tenants has a different Premises Licence with different conditions. Some tenants

have to sell alcohol as an ancillary to a full meal, some can sell alcohol with any amount of food, and some can sell alcohol on its own.

- 3.4 As the landlord of the site, BOXPARK provide facilities management services and hold events to promote the site to the public. The proposal would see BOXPARK transition from being a landlord to actively providing licensed activities at the site.
- 3.5 As part of the change in BOXPARK's role, promoted events would no longer be held. Rather, BOXPARK will provide musical entertainment for those customers attending the site for food and drink. Volume levels of the entertainment will be well below those present at previously promoted events, with all music amplification running through a tamper-proof sound limiter.
- 3.6 BOXPARK have obtained control of three Premises Licences, applying to three separate areas of the site, that allow alcohol to be sold with varying levels of restriction. These licences will be surrendered and the units they relate to will be incorporated into the terrace area so as to allow zoning of different activities. Through this, BOXPARK will continue to be a desirable site for product launches, brand events and corporate hospitality.
- 3.7 BOXPARK will also be responsible for the provision of SIA licensed security staff to ensure the safe enjoyment of the F&B offer. These will be experienced members of MJB Security's team, well used to the particular requirements of the licensed trade.
- 3.8 Food and drink will be available, with a focus on maintaining a balance that is attractive to BOXPARK customers. As with many F&B establishments, a customer will be able to by an alcoholic drink if they wish, without the need to purchase food, but quality food will be available at all times and it is BOXPARK's experience that customers want to have both food and drink available, with the flexibility to choose for themselves.

## **4.0 Site and surrounding area**

- 4.1 The location of the site is shown in Appendix B. The noise climate in the area is characterised by road noise, train noise from the elevated East London Line, pedestrian activity and plant noise. Commercial aircraft are noticeable at this location. Pedestrian activity is significant and has increased<sup>1</sup> since the opening of Shoreditch High Street Station. Major short duration noise peaks occur at this location due to emergency service sirens, police helicopters, and train passes.
- 4.2 It is important when assessing the impact of noise from an individual premises in an area that the concept of additional noise associated with the specific activity of that premises is taken into account. The incremental change to noise levels caused by the normal commercial operation of a licensed premises in an area where there is already established noise and activity could be small or undetectable if it is masked by the existing noise in the area. It is also a consideration that a bona-fide commercial premises in the area can deter street drinkers, rough sleeping, litter and crime as the commercial operation seeks to eliminate this type of activity from the immediate surroundings for the benefit and safety of their own patrons and employees. This is achieved through good lighting, CCTV coverage, litter removal and constant presence of professional security personnel who will be able to observe and record all activity in the immediate area.

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<sup>1</sup> 7,661,254 annual entries and exits. Source: 'Estimates of Station Usage for 2015-16' published by Office of Rail and Road (ORR) on 6 December 2016.



Figure 1: View across Bethnal Green Road showing Shoreditch High Street Station to left of image



Figure 2: View east along Bethnal Green Road (BOXPARK to the right of image)



Figure 3: BOXPARK site from end of Ebor Street



Figure 4: view from west terrace up Shoreditch High Street, not location of Block



## 5.0 Criteria

### **Licensing Act 2003**

- 5.1 Hackney Council has a duty under the Licensing Act 2003 to determine its policy with respect to the exercise of its licensing functions and to publish a statement of that policy.
- 5.2 The council's aim is to promote the four licensing objectives:
- The prevention of crime and disorder
  - Public safety
  - The prevent of public nuisance
  - The protection of children from harm

### **Other relevant legislation**

- 5.3 The Environmental Protection Act 1990 part III deals with statutory nuisance which includes noise. This Act allows steps to be taken to investigate any complaints which may then result in the issuing of an abatement notice and a subsequent prosecution of any breach of the notice. A statutory nuisance is a material interference that is prejudicial to health or a nuisance.
- 5.4 The Clean Neighbourhoods and Environment Act 2005 deals with many of the problems affecting the quality of the local environment and provides local authorities with more effective powers and tools to tackle poor environmental quality and anti-social behaviour in relation to litter, graffiti, waste and noise.

### **British Standard 8233**

- 5.5 BS8233:2014 states that for steady external noise sources, it is desirable that the internal ambient noise level in dwellings does not exceed the guideline values in Table 4 of the standard as shown below.

| Activity                   | Location         | 07:00 to 23:00         | 23:00 to 07:00       |
|----------------------------|------------------|------------------------|----------------------|
| Resting                    | Living room      | 35 dB $L_{Aeq,16hour}$ | -                    |
| Dining                     | Dining room/area | 40 dB $L_{Aeq,16hour}$ | -                    |
| Sleeping (daytime resting) | Bedroom          | 35 dB $L_{Aeq,16hour}$ | 30dB $L_{Aeq,8hour}$ |

**Figure 5: Indoor ambient noise levels for dwellings (from BS8233 Table 4)**

### **World Health Organisation**

- 5.6 Guidance on maximum noise levels is given by the World Health Organisation (WHO) in a report entitled 'Guidelines for Community Noise'<sup>2</sup>. This report states that to avoid negative effects on sleep, the equivalent continuous internal sound pressure level during the sleeping period should not exceed 30 dB  $L_{Aeq}$ . If the noise is not continuous, sleep disturbance has an improved correlation with maximum

<sup>2</sup> World Health Organisation. Guidelines for Community Noise, 2000

noise levels and effects have been observed at 45 dB  $L_{Amax}$  internally. It goes on to recommend that, at night, noise levels outside dwellings should not exceed 45 dB  $L_{Aeq}$  and maximum noise levels should not exceed 60 dB  $L_{Amax}$  so that people may sleep with bedroom windows partially open.

- 5.7 The WHO guidelines also state that to protect the majority of people from being seriously annoyed during the daytime, the sound pressure level on balconies, terraces and outdoor living areas should not exceed 55 dB  $L_{Aeq}$  for a steady continuous noise.
- 5.8 However, in a review of health effect based noise assessment methods undertaken for the DETR and undertaken jointly by the NPL and Southampton University<sup>3</sup>, it is noted that: *"Perhaps the main weakness of both WHO-inspired documents is that they fail to consider the practicality of actually being able to achieve any of the stated guideline values".* According to the report transgression of the WHO guideline values does not necessarily imply significant noise impact and indeed, it may be that significant impacts do not occur until much higher degrees of noise exposure are reached. The report states: *"While in an ideal world it may be desirable for none of these effects to occur, in practice a certain amount of noise is inevitable in any modern industrialised society. Perhaps the main weakness of both WHO-inspired documents is that they fail to consider the practicality of actually being able to achieve any of the stated guideline values. It is important to make clear that ...exceedences do not necessarily imply an over-riding need for noise control, merely that the relative advantages and disadvantages of noise control action should be weighed in the balance. It is all a question of balance and mere exceedence of the WHO guidelines just starts to tip the scales."*
- 5.9 A noise incidence study was undertaken by the Building Research Establishment in 2000 and was published in 2002<sup>4</sup>. This study indicated that approximately 55% of the population in England and Wales are exposed to noise levels above 55 dB  $L_{Aeq}$  during the daytime. This study is considered to further support the findings of the DETR study and reinforce the apparent weakness of the WHO recommendations.
- 5.10 It is relevant to note that the WHO report has not been adopted into UK legislation or formal guidance; hence it remains a source of information reflecting a high level of health care with respect to noise, rather than a standard to be rigidly applied. The guideline values in the WHO report give the lowest threshold noise levels below which the occurrence rates of particular effects can be assumed to be negligible.

### **Operational objectives**

- 5.11 The executive team of BOXPARK Ltd are keen to promote good relationships with all commercial and residential neighbours. Therefore, in addition to all statutory obligations, it is a primary operational objective that noise from the normal operation of the premises does not have a detrimental impact on any neighbouring properties. A comprehensive Operational Management Strategy is now implemented at the site and a Noise Management Policy and Dispersal Policy can be found at appendices F & G.

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<sup>3</sup> Porter N D, Flindell I H and Berry B F. NPL Report CMAM 16, Health Effect Based Noise Assessment Methods: A Review and Feasibility Study, DETR, 1998

<sup>4</sup> DEFRA. The National Noise Incidence Study 2000/2001, 2002

## **6.0 Balancing planning and licensing noise conditions**

- 6.1 The guidance issued under Section 182 of the Licensing Act 2003 is clear in its general principles (Para 1.16) that "*[licence conditions] should not duplicate other statutory requirements or other duties or responsibilities placed on the employer by other legislation*". Therefore if the objective of the prevention of public nuisance is satisfactorily upheld because there already exist tests of nuisance through The Environmental Protection Act 1990; The Noise Act 1996; and The Clean Neighbourhoods and Environment Act 2005, then additional conditions on a premises licence that merely duplicates these statutory requirements should not be necessary according to Home Office guidance.
- 6.2 Similarly planning guidance has, for a long time, stated that additional planning conditions which duplicate the effect of other legislation should not be imposed, and current planning practice guidance is clear that conditions requiring compliance with other regulatory requirements will not meet the test of necessity and may not be relevant to planning.
- 6.3 A pragmatic approach to specifying relevant requirements for noise control conditions would be that more general noise criteria relating to the principle of use of the site are applied under the planning regime; these may include boundary noise conditions or plant operating level limits. More specific requirements relating to licensable activities such as hours of operation, the requirement for a sound system limiter or a noise management policy should then be implemented through the licensing process.

## **7.0 Noise measurement procedure**

- 7.1 Noise measurements were taken on site and in the surrounding area. Noise measurements were made in continuous samples of 1-second intervals. Measurements included the  $L_{Aeq}$ ,  $L_{A90}$  and  $L_{Amax}$  indices. Simultaneous octave and third octave frequency spectra were also obtained during the survey. Measurements were taken at 1.5 m above grade level. Measurement duration was typically 5-minutes per sample although where the  $L_{Aeq}$  had stabilised over a shorter period these measurements were also used. Throughout the course of the survey an outdoor microphone wind-shield was used. For the purposes of this assessment all attended measurements were paused for emergency service sirens, aircraft passes and other significant short-duration noises.
- 7.2 The instrumentation used to carry out the noise measurements is detailed in Appendix D. The calibration of the measuring equipment was checked prior to and immediately following the tests and no signal variation occurred. Calibration of equipment is traceable to national standards. The weather conditions during the survey are reported in Appendix E.

## **8.0 Noise measurement analysis**

- 8.1 The site was not operating at first floor level allowing each individual sound system to be tested and adjusted. Noise levels in the surrounding area were consistent with previous surveys I have carried out in the area (for other projects) and a 2013 survey prepared for BOXPARK by Hepworth Acoustics (report reference 31407.1v1 dated 17<sup>th</sup> May 2013).

| Location  | Leq       | Leq       | SPL (Max)   | Stats (Ln) | 1:1 Octave | 1:1 Octave |
|---|-----------|-----------|-------------|------------|------------|------------|
|   | LAeq (dB) | LZeq (dB) | LAFMax (dB) | LAF90 (dB) | 63Hz (dB)  | 125Hz (dB) |
| Corner of Chance Street and Whitby Street (70m from nearest point of BOXPARK) | 62        | 75        | 76          | 56         | 69         | 68         |
| Corner of Ebor Street and Bethnal Green Road directly opposite Boxpark (20m)  | 69        | 82        | 81          | 64         | 74         | 70         |
| Middle dining area 1, doors open (NB traffic noise), daytime operating level  | 71        | 78        | 74          | 68         | 73         | 73         |
| Middle dining area 1, doors closed, daytime operating level                   | 71        | 78        | 75          | 68         | 72         | 72         |
| Middle dining area 1, maximum operating level                                 | 76        | 81        | 79          | 71         | 75         | 76         |
| East terrace, maximum level   | 75        | 81        | 84          | 69         | 73         | 73         |
| Middle dining area 2, maximum operating level                                 | 81        | 85        | 88          | 78         | 77         | 82         |
| West terrace, maximum level   | 74        | 80        | 79          | 68         | 73         | 76         |
| Inside Porky's (the only large sound system)                                  | 91        | 107       | 102         | 86         | 106        | 98         |

**Figure 6: Noise measurement data summary**

- 8.2 In quiet residential areas away from road traffic and other activity a notable drop in levels is to be expected as noise generating activity reduces in the early hours of the morning. But referring to historic data for this location there is no significant drop in levels in this area until post 03:00hrs.
- 8.3 These data indicates high noise levels (far in excess of WHO guidelines) that will effectively mask other, quieter, noise sources. The sound system was set at a level where it was not possible to measure, or subjectively notice, noise from the sound systems on site operating at full level.
- 8.4 Realistically higher operating levels would be possible without causing a nuisance, particularly when considering the relatively early closing time of the site. However a recommendation, given later in this report, is that all sound systems continue to operate through a limiter and that the setting of that limiter is carried out in co-operation with a technical officer from the licensing authority. In this was any future changes to the site, sound system or the local area (such as remodelling or re-routing of traffic) can be accommodated with a simple re-adjustment of the sound system limiter.

## 9.0 Historic noise issues at the site

- 9.1 During my site inspection I discussed the historic issues at the site that may have led to noise complaints. The site operational procedures have evolved as the site has evolved, but the initial operation appears to have been more a collective of individual businesses and as time has progressed procedures have been put in place to empower the BOXPARK team to have greater control over the different tenants in each unit.
- 9.2 With regard to noise controls it was noted that at one time the outlet called Arni's had a relatively large sound system for the size of the unit and also had to be told not to operate the sound system after close of business: they were playing music simply for the benefit of their staff cleaning down the unit. There was also a sound system capable of significant low frequency levels at Cotton's Rhum Shack. These issues have now been fully addressed by the BOXPARK management.
- 9.3 It is also of note that at the west end of the site other sources of amplified music noise can include the Block pop-up food market, and the entirely unregulated street performers, often with significant amplified music systems, that perform under the railway bridge.
- 9.4 Further to the west of the site along Holywell Lane is Village Underground and then Dinerama on Great Eastern Street.

## 10.0 Changes to building envelope

- 10.1 Noise concerns have been taken seriously by BOXPARK, both in terms of redesigning the site layout and installing more controlled sound equipment.
- 10.2 The end terraces are now bounded by glass walls and the centre section is enclosed with large sliding doors which will be shut for later night trading.



Figure 7: End terraces now enclosed with glass walls which form a significant acoustic barrier



Figure 8: Both centre sections have sliding doors which can be closed for later night trading

## 11.0 Sound system design and recommendations

- 11.1 The sound systems for the four dining spaces (the east terrace, dining area 1, dining area 2, and west terrace) are all controlled from a central location in the manager's office. A Formula Sound AVC-2 provides limiting for these areas.
- 11.2 Each 'zone' features two JBL Control 28 wall mounted speakers. There are no additional bass speakers on these systems. For the end terrace areas the addition of smaller 'in-fill' speakers at the far end would allow a dropping of the level from the two main speakers and create a more even distribution of sound.



Figure 9: Amplifier rack in Manager's Office with Formula Sound AVC-2 limiter

- 11.3 There is a new sound system in Porky's Bar which has a separate AVC-2 to limit the system.
- 11.4 It is recommended that control for all areas is centralised, in the manager's office, ideally using a BSS Soundweb BLU100 which will provide a greater level of control and will be entirely tamper-proof.
- 11.5 I also recommend that the premises licence includes a limiter condition such as:  
*"A noise limiter must be fitted to the amplification system and set at a level approved by an authorised officer of the Environmental Health Service so as to ensure that no noise nuisance is caused to local residents. The operational panel of the noise limiter shall then be secured by key or password and access shall only be by persons authorised by the Premises Licence Holder. No additional sound generating equipment shall be used on the premises without being routed through the sound limiter device."*

## 12.0 Conclusions

- 12.1 Big Sky Acoustics Ltd was instructed by Mr Marcus Lavell, acting on behalf of BOXPARK Ltd, to carry out an assessment of the noise arising from the use of 2-10 Bethnal Green Road.
- 12.2 This assessment makes reference to the Licensing Act 2003, the Environmental Protection Act 1990, the Clean Neighbourhoods and Environment Act 2005, the National Planning Policy Framework, the Noise Policy Statement for England, BS8233, the WHO, and operational objectives of the applicant.
- 12.3 Testing was carried out and the limiters set at such a level as to not cause a nuisance at residential premises.
- 12.4 Updated operational controls in the form of a Noise Management Policy and Dispersal Policy are presented in this report.
- 12.5 Noise breakout from all sound systems, and other activities inside the premises, is minimised by the sound system controls and physical structure of the building which has been substantially upgraded.
- 12.6 Revised wording for a limiter condition is suggested at Paragraph 11.5.
- 12.7 Given this location, revised style of operation, sound system limiter controls, and upgrading of the building envelope to provide additional acoustic screening, it is my professional opinion that the operation will not result in a public nuisance due to amplified music and would not increase average noise levels in the area.



Richard Vivian BEng(Hons) MIET MIOA MAES MIOL  
Principal Acoustic Consultant, Big Sky Acoustics Ltd

## Appendix A - Terminology

### Sound Pressure Level and the decibel (dB)

A sound wave is a small fluctuation of atmospheric pressure. The human ear responds to these variations in pressure, producing the sensation of hearing. The ear can detect a very wide range of pressure variations. In order to cope with this wide range of pressure variations, a logarithmic scale is used to convert the values into manageable numbers. Although it might seem unusual to use a logarithmic scale to measure a physical phenomenon, it has been found that human hearing also responds to sound in an approximately logarithmic fashion. The dB (decibel) is the logarithmic unit used to describe sound (or noise) levels. The usual range of sound pressure levels is from 0 dB (threshold of hearing) to 140 dB (threshold of pain).

### Frequency and Hertz (Hz)

As well as the loudness of a sound, the frequency content of a sound is also very important. Frequency is a measure of the rate of fluctuation of a sound wave. The unit used is cycles per second, or hertz (Hz). Sometimes large frequency values are written as kilohertz (kHz), where 1 kHz = 1000 Hz. Young people with normal hearing can hear frequencies in the range 20 Hz to 20,000 Hz. However, the upper frequency limit gradually reduces as a person gets older.

### A-weighting

The ear does not respond equally to sound at all frequencies. It is less sensitive to sound at low and very high frequencies, compared with the frequencies in between. Therefore, when measuring a sound made up of different frequencies, it is often useful to 'weight' each frequency appropriately, so that the measurement correlates better with what a person would actually hear. This is usually achieved by using an electronic filter called the 'A' weighting, which is built into sound level meters. Noise levels measured using the 'A' weighting are denoted dBA. A change of 3dBA is the minimum perceptible under normal everyday conditions, and a change of 10dBA corresponds roughly to doubling or halving the loudness of sound.

### C-weighting

The C-weighting curve has a broader spectrum than the A-weighting curve and includes low frequencies (bass) so it can be a more useful indicator of changes to bass levels in amplified music systems.

### Noise Indices

When a noise level is constant and does not fluctuate over time, it can be described adequately by measuring the dB level. However, when the noise level varies with time, the measured dB level will vary as well. In this case it is therefore not possible to represent the noise level with a simple dB value. In order to describe noise where the level is continuously varying, a number of other indices are used. The indices used in this report are described below.

- L<sub>eq</sub>** The equivalent continuous sound pressure level which is normally used to measure intermittent noise. It is defined as the equivalent steady noise level that would contain the same acoustic energy as the varying noise. Because the averaging process used is logarithmic the L<sub>eq</sub> is dominated by the higher noise levels measured.
- L<sub>Aeq</sub>** The A-weighted equivalent continuous sound pressure level. This is increasingly being used as the preferred parameter for all forms of environmental noise.
- L<sub>Ceq</sub>** The C-weighted equivalent continuous sound pressure level includes low frequencies and is used for assessment of amplified music systems.
- L<sub>Amax</sub>** is the maximum A-weighted sound pressure level during the monitoring period. If fast-weighted it is averaged over 125 ms, and if slow-weighted it is averaged over 1 second. Fast weighted measurements are therefore higher for typical time-varying sources than slow-weighted measurements.
- L<sub>A90</sub>** is the A-weighted sound pressure level exceeded for 90% of the time period. The L<sub>A90</sub> is used as a measure of background noise.

### Example noise levels:

| Source/Activity        | Indicative noise level dBA |
|------------------------|----------------------------|
| Threshold of pain      | 140                        |
| Police siren at 1m     | 130                        |
| Chainsaw at 1m         | 110                        |
| Live music             | 96-108                     |
| Symphony orchestra, 3m | 102                        |
| Nightclub              | 94-104                     |
| Lawnmower              | 90                         |
| Heavy traffic          | 82                         |
| Vacuum cleaner         | 75                         |
| Ordinary conversation  | 60                         |
| Car at 40 mph at 100m  | 55                         |
| Rural ambient          | 35                         |
| Quiet bedroom          | 30                         |
| Watch ticking          | 20                         |



## Appendix B - Site location



## Appendix C - Summary of measurement data

| Location  | Leq       | Leq       | SPL (Max)   | Stats (Ln) | 1:1 Octave | 1:1 Octave |
|---|-----------|-----------|-------------|------------|------------|------------|
|   | LAeq (dB) | LZeq (dB) | LAFMax (dB) | LAF90 (dB) | 63Hz (dB)  | 125Hz (dB) |
| Corner of Chance Street and Whitby Street (70m from nearest point of BOX(PARK)) | 62        | 75        | 76          | 56         | 69         | 68         |
| Corner of Ebor Street and Bethnal Green Road directly opposite Boxpark (20m)    | 69        | 82        | 81          | 64         | 74         | 70         |
| Middle dining area 1, doors open (NB traffic noise), daytime operating level    | 71        | 78        | 74          | 68         | 73         | 73         |
| Middle dining area 1, doors closed, daytime operating level                     | 71        | 78        | 75          | 68         | 72         | 72         |
| Middle dining area 1, maximum operating level                                   | 76        | 81        | 79          | 71         | 75         | 76         |
| East terrace, maximum level   | 75        | 81        | 84          | 69         | 73         | 73         |
| Middle dining area 2, maximum operating level                                   | 81        | 85        | 88          | 78         | 77         | 82         |
| West terrace, maximum level   | 74        | 80        | 79          | 68         | 73         | 76         |
| Inside Porky's (the only large sound system)                                    | 91        | 107       | 102         | 86         | 106        | 98         |

## Appendix D - Instrumentation

All attended measurements were carried out using a Cirrus type CR:171B integrating-averaging sound level meter with real-time 1:1 & 1:3 Octave band filters and audio recording conforming to the following standards: IEC 61672-1:2002 Class 1, IEC 60651:2001 Type 1 I, IEC 60804:2000 Type 1, IEC 61252:1993 Personal Sound Exposure Meters, ANSI S1.4-1983 (R2006), ANSI S1.43-1997 (R2007), ANSI S1.25:1991. 1:1 & 1:3 Octave Band Filters to IEC 61260 & ANSI S1.11-2004.

|  |              |
|--|--------------|
| Description                                |              |
| Cirrus sound level meter                   | type CR:171B |
| Cirrus pre-polarized free-field microphone | type MK:224  |
| Cirrus microphone pre-amplifier            | type MV:200E |
| Cirrus class 1 acoustic calibrator         | type CR:515  |

## Appendix E - Meteorology

| <b>31 May 2017</b>                       | <b>Temperature</b> | <b>Wind speed</b>   | <b>Precipitation</b> |
|--|--------------------|---------------------|----------------------|
| <b>At start</b>                          | 21°C               | 0-1ms <sup>-1</sup> | None                 |
| <b>During assessment</b>                 | 20°C               | 0-2ms <sup>-1</sup> | None                 |
| <b>At finish</b>                         | 18°C               | 0-1ms <sup>-1</sup> | None                 |
| <b>Additional comments:</b> Mild and dry |                    |                     |                      |

## Appendix F - Noise Management Policy

BOXPARK Ltd operates a considerate business. There are both commercial and residential properties in the area around us, and whilst the area is a busy and relatively noisy part of the town we will manage all noise from our premises so we do not disturb people resting and sleeping in their homes.

We need to be particularly vigilant for special events when regulated entertainment is provided outside.

We have a comprehensive approach to managing noise from our premises including the areas outside the structures.

The following points are critical to our noise management policy:

- We will ensure that noise emanating from our premises will not cause a nuisance at the nearest residential properties.
- Arrangements are in place to ensure that, whenever practicable, deliveries will only take place between the hours of 08:00-11:00, Monday-Saturday.
- Empty bottles will be placed into storage receptacles and then taken to the refuse storage area. No empty bottles will be tipped or thrown into outside storage receptacles after 23:00hrs.
- We will ensure that waste is correctly packaged and that refuse can be removed quickly and efficiently.
- A noise limiter must be fitted to the amplification system and set at a level approved by an Acoustic Consultant so as to ensure that no noise nuisance is caused to local residents or businesses. The operational panel of the noise limiter shall then be secured and access shall only be by persons authorised by the Premises Licence Holder or BOXPARK Management.
- No additional sound generating equipment shall be used on the premises without being routed through the sound limiter device.
- Where activities are held we will patrol the boundaries observing any noise from our premises and taking immediate corrective action whenever necessary.
- The Duty Manager will take readings at an event both internally and externally. These points as follows: West deck, central space West, events space, East deck, and outside nearest residential premises. Readings will be taken as spot checks and documented.
- Any events where amplified music is employed will be wound down in a professional manner.
- Notices shall be prominently and permanently displayed at or near the exits requesting patrons to leave quietly and to avoid creating disturbances.
- We will ensure that there is management presence at the exits at the end of the evening.
- So as to minimise disturbance to local residents at night all employees are given appropriate instructions and training to encourage customers to leave the premises and the area quietly.
- A registered security contractor will be employed on a base min staff ratio of 1:100 customers + 1 security manager to provide security internally and to monitor sound levels and ensure external noise control.

- We will provide details of public transport and local taxi numbers for our patrons if requested.
- We will attach the utmost importance to the careful investigation and prompt resolution of any complaint made in respect of the running of the premises. Particular emphasis will be placed on building and maintaining close links with local residents including hosting meetings where necessary to allow our neighbours to raise any issues and for those issues to be quickly resolved. The telephone number of the premises will be provided to all our immediate residential neighbours.

We will constantly review our Noise Management Policy and respond quickly to the needs of our neighbours.

## Appendix G - Dispersal Policy

BOXPARK Ltd is committed to the safe, orderly and effective dispersal of all patrons.

The dispersal procedure (around the terminal hour) is dedicated to make maximum contribution by exercising positive measures towards and at the end of trading in moving customers from the venue and its immediate area in such a way as to cause minimum disturbance or nuisance and to make the minimum impact upon the neighbourhood in relation to potential nuisance, anti-social behaviour or crime.

It is recognised that the sudden emergence of patrons onto the street at the terminal hour may cause unnecessary noise and lead to anti-social or offending behaviour. Accordingly the following control measures have been put in place:

- Approximately half an hour before the end of trading, SIA badged security staff shall become proactive in encouraging dispersal outside the venue. This will usually be the responsibility of security staff at the main entrance. Security will ensure that customers stay for no longer than is necessary outside the premises.
- Approximately half an hour before the end of trading, the managers shall gradually introduce a more relaxed style of music, which shall not be cut abruptly but continue at a background level whilst customers wind down at their own pace. The lighting shall gradually be increased and announcements shall be made via PA system regarding quiet and swift dispersal and of the presence of CCTV systems monitoring the internal & external environs of the premises.
- Security shall not overly encourage the customers out of the building but shall maintain a watchful presence whilst the crowd naturally disperses.
- As BOXPARK clears of customers, all security shall proceed outside in high visibility jackets where, under the direction of the security manager, they shall assist in politely encouraging people to vacate the area. The high visibility clothing adds to 'capable guardianship' within the public space highlighting them as authority figures controlling our private premises.
- All security shall remain outside for up to 30 minutes after the terminal hour or until (at the security manager's discretion) all customers from BOXPARK have sufficiently dispersed.
- All security and managers shall be proactive in advising customers to vacate the environs of the premises quietly and with respect for others. It is to be made clear that any transgressors will not be welcome back to BOXPARK in future. Clear signage to the above effect shall be on permanent display in the exit areas. This message is to be reinforced by PA announcements during the last hour of trading.
- When customers have finally dispersed staff outside the premises will check the immediate vicinity to ensure that no rubbish is left lying around that might later be used to commit crime or cause a public nuisance.
- Staff will invariably leave the premises later than customers will. Their behaviour can impact on local disturbance also and have therefore been instructed to leave quietly. BOXPARK has introduced a training regime to bring every member of staff up to date with the implications of the Licensing Act 2003 and the need to respect this policy. Staff will thereafter be knowledge checked every 3 months.