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ADVISORY

Electricity Supply Nominees (Scotland) Limited c/o CBRE Investment Management

Piccadilly Trading Estate

Noise Impact Assessment

267096

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Piccadilly Trading Estate

Noise Impact Assessment

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EXECUTIVE SUMMARY

This noise assessment has been prepared by BWB Consulting Ltd on behalf of Electricity Supply Nominees (Scotland) Limited c/o CBRE Investment Management for Piccadilly Trading Estate which consists of seven Industrial/Commercial Units off Adair Street, Manchester.

Prediction of noise levels of fixed plant noise sources associated with Piccadilly Trading Estate has been made based on measurements on site.

The requirements of Planning Condition 4 relating to Planning Reference 129498/FO/2021 are achieved at all residential Noise Sensitive Receptors and therefore Condition 4 can be discharged.

The requirements of Planning Condition 6 relating to Planning Reference 128054/FO/2020 are achieved at all residential Noise Sensitive Receptors and therefore Condition 6 can be discharged.

CONTENTS

EXECUTIVE SUMMARY iii
1. INTRODUCTION 1
Appointment & Background 1
Planning Reference 128054/FO/2020, Condition 6 'External Plant/Machinery' 1
Planning Reference 129498/FO/2021, Condition 4 (External Boiler Room Acoustic Installation) 2
Site Setting 2
Existing Sensitive Receptors 1
2. STANDARDS AND GUIDANCE 2
BS 4142:2014+A1:2019 Methods for Rating and Assessing Industrial and Commercial Sound (BS 4142) 2
Consultation with Manchester City Council 3
3. Baseline Sound Levels and Planning Condition Criteria 4
4. Noise Measurements 5
Measurement Equipment 5
Meteorological Conditions 5
Observations 5
Measurement Results 5
5. Noise Predictions and Comparison with Planning Condition Criteria 8
External Boiler 8
All Other Fixed Plant 8
6. CONCLUSION 10
Noise 6-13
Acoustic Terminology 6-14

FIGURES

Figure 1.1: Site Location
Figure 1.2: Proposed Site Layout
Figure 1.3: Noise Sensitive Receptor Locations

APPENDICES

APPENDIX A: Glossary of Terms

1. INTRODUCTION

Appointment & Background

1.1 This noise assessment has been prepared by BWB Consulting Ltd (hereafter referred to as 'BWB') on behalf of Electricity Supply Nominees (Scotland) Limited c/o CBRE Investment Management (hereafter 'the Applicant') for Piccadilly Trading Estate(hereafter referred to as the 'Site') consisting of seven Industrial/Commercial Units off Adair Street, Manchester.

1.2 This application seeks full planning permission for the change of use of Units 12–16 to Use Class B8 (storage and distribution) with ancillary Use Class E(a) (retail) within Unit 16; and Units 17–18 to Use Classes B2 (microbrewery) and B8 (storage and distribution), with ancillary Sui Generis (tap room) use; and the installation of a gas-fired outdoor mobile boiler room within the external service yard of Units 17 & 18.

1.3 The site has been in long-standing employment and industrial use; however, its lawful use class was previously unclear. As a result, planning permission was applied for and granted in 2021 to regularise the existing uses on a temporary five-year basis (ref: 128054/FO/2020 and 129498/FO/2021). These permissions have since lapsed, necessitating the submission of a further change of use application to enable the site to continue operating as existing.

1.4 The application site comprises seven industrial units, providing a total of 3,676 sqm of ground floor industrial floorspace and 431 sqm of ancillary office accommodation. Units 12–16 operate under B8 use *(storage and distribution) with ancillary Use Class E(a) (retail) within Unit 16* , while Units 17–18 are occupied by Track Brewery, which operates a micro-brewery under Use Class B2 with ancillary Sui Generis (taproom) use, and B8 (storage and distribution) use. To support brewing capacity, a gas-fired mobile boiler room has been installed within the external yard area. The current application seeks to regularise this arrangement on a permanent basis.

1.5 Noise assessments were submitted alongside these previous applications; however, Manchester City Council (MCC) identified that the associated acoustic / noise planning conditions were never discharged. This noise assessment will compare current operations against these conditions.

1.6 This report is necessarily technical in nature, so to assist the reader, a glossary of acoustic terminology can be found in **Appendix A**.

Planning Reference 128054/FO/2020, Condition 6 'External Plant/Machinery'

a) *"Any externally mounted ancillary equipment, shall be acoustically insulated in accordance with a scheme submitted to and approved in writing by the City Council as local planning authority prior to installation in order to secure a reduction in the level of noise emanating from the equipment. This shall ensure that it achieves a background noise level of 5dB below the existing background (La90) in each octave band at the nearest noise sensitive location.*

b) Prior to first use of any external plant, a verification report will be required to validate that the work undertaken throughout the development conforms to the recommendations and requirements in the approved acoustic consultant's report. The report shall also undertake post completion testing to confirm that the noise criteria has been met. Any instances of non-conformity with the recommendations in the report shall be detailed along with any measures required to ensure compliance with the agreed noise criteria."

Planning Reference 129498/FO/2021, Condition 4 (External Boiler Room Acoustic Installation)

a) "Before the installation and operation of the external boiler room hereby approved, shall be acoustically insulated in accordance with The Noise Impact Assessment prepared by KP Acoustics received by the City Council as local planning authority on 23 February 2021, in order to secure a reduction in the level of noise emanating from the equipment.

b) Upon completion of the development and prior to the equipment hereby approved being first used, a verification report shall be submitted to the City Council as local planning authority to validate that the work undertaken throughout the development conforms to the recommendations and requirements in the approved acoustic consultant's report (a). The report shall also undertake post completion testing to confirm that above criteria is met. Any instances of non-conformity with the recommendations in the report shall be detailed along with any measures required to ensure compliance with the noise criteria.

This report shall be submitted to and approved in writing by the City Council as local planning authority prior to the equipment hereby approved being first used along with a timescale that confirms when any necessary changes will be implemented.

c) The equipment hereby approved shall be operated fully and only in accordance with the approved documents for the duration of the use hereby approved."

1.7 Site Setting

The Site is located to the east of Manchester Piccadilly Railway Station off Adair Street in an area of general industrial use.

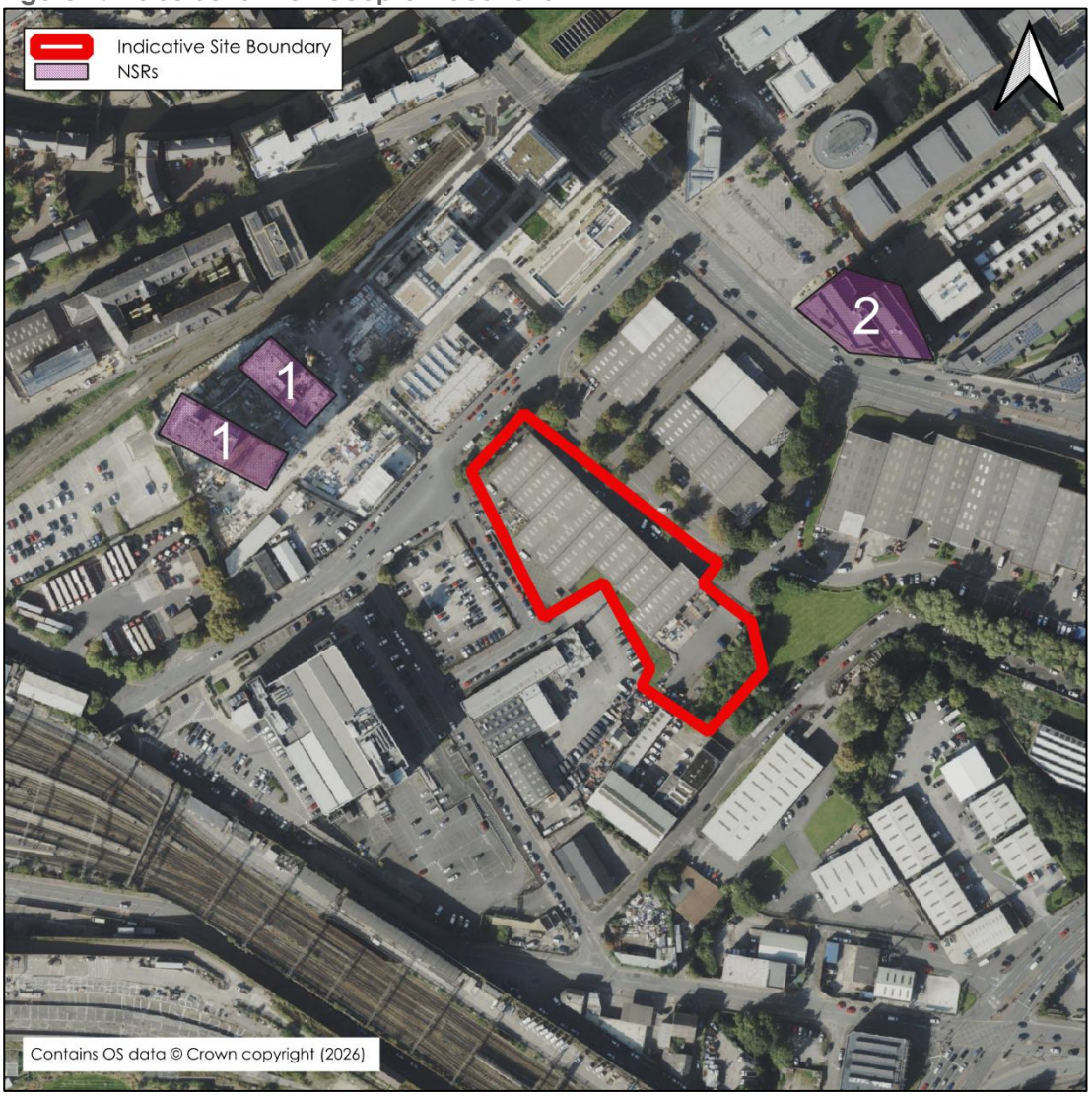
Existing Sensitive Receptors

1.8 Noise from any proposed sources have been assessed at nearby existing Noise Sensitive Receptors (NSRs). The nearest NSRs have been identified in **Table 1.2** and are shown on **Figure 1.1**.

Table 1.2: Existing Noise Sensitive Receptors

Receptor Location	Receptor	Approximate Distance to Planning Boundary
NSR 1	Fairfax Manchester Residential Buildings	~ 80 m to the northwest
NSR 2	Ancoats Grove	~ 250 m to the northeast

Figure 1: Noise Sensitive Receptor Locations



2. STANDARDS AND GUIDANCE

BS 4142:2014+A1:2019 Methods for Rating and Assessing Industrial and Commercial Sound (BS 4142)

2.1 The BS 4142 Standard describes methods for rating and assessing the following:

- Sound from industrial and manufacturing processes;
- Sound from fixed installations which comprise mechanical and electrical plant and equipment;
- Sound from the loading and unloading of goods and materials at industrial and/or commercial premises; and
- Sound from mobile plant and vehicles that is an intrinsic part of the overall sound emanating from premises or processes, such as that from forklift trucks, or that from train movements on or around an industrial and/or commercial site.

2.2 The methods use outdoor sound levels to assess the likely effects of sound on people who might be inside or outside a dwelling or premises used for residential purposes upon which sound is incident. The Standard advises the purpose of the methodology includes the assessment of sound from any plant and activities associated with existing industrial and/or commercial uses at proposed residential dwellings.

2.3 If appropriate, the specific sound level of the source ($L_{Aeq,T}$) is corrected, by the application of one or more corrections for acoustic features such as tonal qualities and/or distinct impulses, to give a 'rating' level ($L_{Ar,Tr}$). The Standard effectively compares and rates the difference between the rating level of the specific sound and the typical background sound level ($L_{A90,T}$) in the absence of the specific sound.

2.4 The Standard advises that the time interval ('T') of the background sound measurement should be sufficient to obtain a representative or typical value of the background sound level at the time(s) the source in question operates or is proposed to operate in the future.

2.5 Comparing the rating level with the background sound level, BS 4142 states:

> *"Typically, the greater this difference, the greater the magnitude of impact.*
>
> *A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context.*
>
> *A difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context.*
>
> *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. 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."*

Consultation with Manchester City Council

2.6 Consultation was undertaken with the Environmental Health Department at MCC by email on 5th June 2026, seeking opinion on the specific requirements for the noise assessment to support the application. The methodology proposed was:

- In order to meet the requirements of Planning Condition 6 and Planning Condition 4 noise measurements of the currently installed plant on site whilst in operation. These post completion tests will be used to predict noise levels at the nearest noise sensitive receptors.

- Existing background sound levels will be determined from measurements at noise sensitive receptors undertaken in 2021 for the Noise Impact Assessment prepared by KP Acoustics for 129498/FO/2021

- A noise assessment will be prepared comparing the predicted noise levels to the requirements of Condition 6 and Condition 4

2.7 On 18th June 2026 a reply was received from Sue Jones of the Environmental Health team at MCC stating agreement with the proposed methodology.

3. BASELINE SOUND LEVELS AND PLANNING CONDITION CRITERIA

Baseline Sound Levels

3.1 Existing background sound levels have been determined from measurements at noise sensitive receptors undertaken in 2021 for the Noise Impact Assessment prepared by KP Acoustics (reference: 22110.PCR.01) for planning application 129498/FO/2021.

3.2 The representative background sound levels are reproduced in **Table 3.1**.

Table 3.1 Representative Background Sound Levels

Receptor	Period	dB $L_{A90,T}$
NSR 1	Daytime (07:00-23:00)	48
	Night-time (23:00-07:00)	37
NSR 2	Daytime (07:00-23:00)	58
	Night-time (23:00-07:00)	47

External Boiler Condition 4 Criteria

3.3 Condition 4 does not state a noise level to be achieved only that it shall be acoustically insulated in accordance with The Noise Impact Assessment prepared by KP Acoustics. It is therefore considered that where the criteria proposed in the KP Acoustics report of a rating level of 5 dB below the typical background sound level (L_{A90}) level at the nearest noise sensitive location is achieved the requirements of Condition 4 are met.

3.4 The boiler only operates in the daytime and so only daytime criteria is included in **Table 3.2**.

Table 3.2 External Boiler Condition 4 Criteria

Receptor	Period	Rating Level Limit dB $L_{Aeq,\ 1hr}$
NSR 1	Daytime (07:00-23:00)	43
NSR 2	Daytime (07:00-23:00)	53

Other Plant Condition 6 Criteria

3.5 The criteria stated in Condition 6 is that the rating level of 5 dB (L_{Aeq}) below the typical background sound level (L_{A90}) level at the nearest noise sensitive location. The rating level limits are shown in **Table 3.3**.

Table 3.3 External Plant Condition 4 Criteria

Receptor	Period	Rating Level Limit dB $L_{Aeq,\ 1hr}$
NSR 1	Daytime (07:00-23:00)	43
	Night-time (23:00-07:00)	32
NSR 2	Daytime (07:00-23:00)	53
	Night-time (23:00-07:00)	42

4. NOISE MEASUREMENTS

4.1 Noise measurements have been undertaken on the morning of 30th June 2026 to determine sound source noise levels.

Measurement Equipment

4.2 The baseline noise measurements were undertaken using the Class 1 specification noise measurement equipment detailed in **Table 4.1**. The equipment's sensitivity was checked using a portable calibrator immediately before and after the measurements with no significant drift observed. The sound level meter, pre-amplifier and microphone was calibrated to traceable standards at an accredited laboratory within the 24 months prior to the measurements. The portable calibrator was calibrated within the 12 months preceding the date of the survey.

Table 4.1: Noise Measurement Equipment

ML	Equipment	Make and Model	Serial Number
All	Sound Level Meter	Svantek 971	72616
	Microphone	ACO 7052E	69463
	Pre-amp	Svantek SV18	72283
	Calibrator	Svantek SV33A	73421

Meteorological Conditions

4.3 The weather throughout the measurements remained conducive to environmental noise measurement, it being dry with winds <5 ms^{-1}.

Observations

4.4 As part of the measurements, observations of the surrounding noise environment at the NSRs and site boundary were made. Frequent traffic on Adair Street was dominant with more distant road traffic on the Ring Road also audible. The condensers at unit 13 were just audible at the boundary. No fixed plant noise sources from the Piccadilly Trading Estate were audible at the NSRs.

Measurement Results

4.5 Measurements were undertaken for all external fixed plant. The fixed plant items measured are shown in **Figure 4.1**.

Figure 4.1 Plant Item Locations (shown in red boxes) and Plant Item References



4.6 A summary of the measured sound levels while equipment is in operation to be used within the assessment are provided below in **Table 4.2** for the external boiler and **Table 4.3** for all other fixed plant.

Table 4.2 Measurements of Boiler Noise Levels

Measurement Number	Plant Item Reference	Location Description	Duration (seconds)	$L_{Aeq,\,T}$, dB
1	1	1 m from boiler side vent	74	67
2	1	Between boiler rear vent and Wall	17	72
3	1	Inside the boiler container	15	75
4	1	10 m from the boiler, perpendicular to the boiler/building	17	58

Table 4.3 Measurements of all Other Fixed Plant Noise Levels

Measurement Number	Plant Item Reference	Location Description	Duration (seconds)	$L_{Aeq, T}$, dB
5	2	1m from Track Brewery Chiller	16	73
6	3	1 m from Track Brewery Condenser	10	66
7	5	1 m from Cloudwater Condenser 2 (only this condenser operating)	17	64
8	4	1 m from Cloudwater Condenser 1 (all condensers operating)	17	67
9	6	1 m from Cloudwater Condenser 3 (all condensers operating)	12	68
10	5	1 m Cloudwater Condenser 2 (all condensers operating)	10	67

4.7 It is noted that the measured boiler external noise levels are lower than the manufacturers noise emission data of 72 dB at 1 m for measurement 1 and the same for measurement 2 although this will be affected by reflection from the adjacent wall.

5. NOISE PREDICTIONS AND COMPARISON WITH PLANNING CONDITION CRITERIA

External Boiler

5.1 Noise from the boiler subjectively comprised breakout noise from the container through the side vent and rear vent. It was observed there was a boiler flue but noise from this source was not discernible from the overall noise.

5.2 Boiler noise cycled on and off, however given the boiler operation is variable according to the demands of the brewery it has been assumed it will operate for the full one-hour daytime reference period as a worst case.

5.3 Simplified calculations have been undertaken applying point source attenuation to measurement 4. This is considered to represent a worst case. The predicted rating levels are shown **in Table 4.1**.

5.4 Based on the observation that the sound source was not audible at the NSRs there is therefore no perceptible acoustic character that would require a character correction.

Table 4.1 Comparison with Planning Condition 4 Criteria

Receptor	Predicted Rating Level ($L_{r,\ 1\ hour}$ dB) at NSR	Rating Level Limit dB	Difference	Meets Planning Condition 4 Criteria
NSR 1	32	43	-11	Yes
NSR 2	34	53	-19	Yes

5.5 As shown in **Table 4.1** the requirements of Planning Condition 4 are met and rating levels are significantly below the limit at all NSRs.

5.6 It is therefore considered that compliance with the required rating levels has been validated and that Condition 4 can be discharged.

All Other Fixed Plant

5.7 The Track Brewery Chillers (Reference 2) do not operate at night however it has been assumed all other plant may operate at night.

5.8 The Cloudwater Condensers (Reference 4,5 and 6) were observed to operate intermittently in response to temperatures in the cold store. As a worst case, it has been assumed they could operate for the full reference period.

5.9 Simplified calculations have been undertaken applying point source attenuation to measurement 5 and 6 and 8 (measurement 8 has been corrected to allow for three chillers in operation). This is considered to represent a worst case.

5.10 Based on the observation that the sound source was not audible at the NSRs there is therefore no perceptible acoustic character that would require a character correction.

5.11 The predicted rating levels are shown **in Table 4.2**.

Table 4.2 Comparison with Planning Condition 6 Criteria

Receptor	Time Period	Predicted Rating Level ($L_{r,\ 1\ hour}$ dB) at NSR	Rating Level Limit dB	Difference	Meets Planning Condition 6 Criteria
NSR 1	Daytime (07:00-23:00)	33	43	-11	Yes
	Night-time (23:00-07:00)	31	32	-1	Yes
NSR 2	Daytime (07:00-23:00)	31	53	-19	Yes
	Night-time (23:00-07:00)	28	42	-14	Yes

5.12 As shown in **Table 4.2** the requirements of Planning Condition 6 are met and rating levels are below the limit at all NSRs.

5.13 It is therefore considered that compliance with the required rating levels has been validated and that Condition 6 can be discharged.

6. CONCLUSION

6.1 This report summarises the prediction of noise levels from fixed plant noise sources associated with Piccadilly Trading Estate based on measurements on site.

6.2 The requirements of Condition 4 relating to Planning Reference 128054/FO/2020 are achieved at all residential Noise Sensitive Receptors and therefore Condition 4 can be discharged.

6.3 The requirements of Condition 6 relating to Planning Reference 128054/FO/2020 are achieved at all residential Noise Sensitive Receptors and therefore Condition 6 can be discharged.

APPENDICES

APPENDIX A: Glossary of Terms

Noise

Noise is defined as unwanted sound. Human ears are able to respond to sound in the frequency range 20 Hz (deep bass) to 20,000 Hz (high treble) and over the audible range of 0 dB (the threshold of perception) to 140 dB (the threshold of pain). The ear does not respond equally to different frequencies of the same magnitude but is more responsive to mid-frequencies than to lower or higher frequencies. To quantify noise in a manner that approximates the response of the human ear, a weighting mechanism is used. This reduces the importance of lower and higher frequencies, in a similar manner to the human ear.

Furthermore, the perception of noise may be determined by a number of other factors, which may not necessarily be acoustic. In general, the impact of noise depends upon its level, the margin by which it exceeds the background level, its character and its variation over a given period of time. In some cases, the time of day and other acoustic features such as tonality or impulsiveness may be important, as may the disposition of the affected individual. Any assessment of noise should give due consideration to all of these factors when assessing the significance of a noise source.

The most widely used weighting mechanism that best corresponds to the response of the human ear is the 'A'-weighting scale. This is widely used for environmental noise measurement, and the levels are denoted as dB(A) or L_{Aeq}, L_{A90} etc., according to the parameter being measured.

The decibel scale is logarithmic rather than linear, and hence a 3 dB increase in sound level represents a doubling of the sound energy present. Judgement of sound is subjective, but as a general guide a 10 dB(A) increase can be taken to represent a doubling of loudness, whilst an increase in the order of 3 dB(A) is generally regarded as the minimum difference needed to perceive a change under normal listening conditions.

Acoustic Terminology

Term	Description
dB (decibel)	The scale on which sound pressure level is expressed. Sound pressure level is defined as 20 times the logarithm of the ratio between the root-mean-square pressure of the sound field and a reference pressure (2x10-5Pa).
dB(A)	A-weighted decibel. This is a measure of the overall level of sound across the audible spectrum with a frequency weighting (i.e. 'A' - weighting) to compensate for the varying sensitivity of the human ear to sound at different frequencies.
$L_{Aeq,T}$	L_{Aeq} is defined as the notional steady sound level which, over a stated period of time (T), would contain the same amount of acoustical energy as the A - weighted fluctuating sound measured over that period.
L_{Amax}	L_{Amax} is the maximum A - weighted sound pressure level recorded over the period stated. L_{Amax} is sometimes used in assessing environmental noise where occasional loud noises occur, which may have little effect on the overall L_{eq} noise level but will still affect the noise environment. Unless described otherwise, it is measured using the 'fast' sound level meter response.
L_{10} and L_{90}	If a non-steady noise is to be described it is necessary to know both its level and the degree of fluctuation. The L_n indices are used for this purpose, and the term refers to the level exceeded for n% of the time. Hence L_{10} is the level exceeded for 10% of the time, and the L_{90} is the level exceeded for 90% of the time.
Free-field Level	A sound field determined at a point away from reflective surfaces other than the ground with no significant contributions due to sound from other reflective surfaces. Generally as measured outside and away from buildings.
Façade Level	A sound field determined at a distance of 1m in front of a large sound reflecting object such as a building façade.

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