

Report for – Roofoods Limited Swiss Cottage Deliveroo Editions Odour Assessment 2021 Final



Document Version Control

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Roofoods Limited Swiss Cottage Deliveroo Editions Odour Assessment Final



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1.0 Introduction and Context

The Swiss Cottage Deliveroo Editions premises, r/o 115-119 Finchley Road, London NW3 6HY operates as commercial kitchens and delivery service and had temporary planning permission until November 2020 following the outcome of a Public Inquiry in September 2019. That permission was subsequently extended for a further 9 months in March 2021 and a further planning application is now to be sort for permanent permission.

A range of operational management controls have been implemented to mitigate the impacts of the site activities on the local area. Specifically, on the issue of odour management the following assessments, controls, processes, procedures and monitoring have been carried out:

- Installation of an extract odour filtration system including bag and panel filters for particulate removal; UV/Ozone unit (Purified Air UV-O 1000) and carbon filters.
- A schedule of extraction equipment maintenance as part of a Plant Management Plan (PLP) including filter replacement schedule.
- Odour Assessment (June 2019) by Michael Bull, Arup,
- Weekly sniff testing by the site manager since September 2019.
- Further sniff testing by First Plan planning consultants between November 2019 and March 2020 as part of a wider compliance monitoring and review of the operations management plan.
- Investigation of complaints, as a requirement of the OMP.
- Odour review (May 2020) by Michael Bull, Arup to review the outcomes and achievement of the above requirements.
- Odour Assessment (July 2020) by Robert Lockwood, Lockwood Environment to determine the effectiveness of the control measures by on-site assessment.

Notwithstanding the aforementioned technical and procedural odour control measures and assessments there is a desire from the Roofoods Ltd management team to eliminate any doubts (as far as reasonably possible) of the local authority planning and environmental health officers and representatives of the local residents' group as to the effectiveness of those controls and the resulting outcomes.

Lockwood Environment Limited has been commissioned to carry out a second independent on-site odour assessment (sniff test) to witness and determine the effectiveness of the odour control measures implemented. The assessment was carried out by Robert Lockwood an environmental consultant experienced in odour assessment; his profile is provided in Appendix 3.

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2.0 Methodology

The odour assessment was carried out in accordance with recognised methodologies detailed in industry good practice guidance as follows:

- Odour Guidance for Local Authorities, Defra March 2010 (withdrawn September 2017)
- IAQM Guidance on the assessment of odour for planning, May 2014. Updated 2018
- Environment Agency, Draft 2009, H4 Odour Management, Technical Guidance

Sniff tests are designed to assess the odour impact and effect of the site activities by recording some or all of the FIDOL factors (Frequency of detection; Intensity as perceived; Duration of exposure; Offensiveness; and Location sensitivity.

A single survey only provides a subjective snapshot assessment of the impact of an odour at the test locations at a particular time and date. In this instance, following on-site assessment carried out on the 29th July 2021, and considered in combination with the outcome of last year's assessments carried out over a number of weeks during June and July 2020, it was determined to be sufficient as a representative reassessment of the odour impact of the Deliveroo cooking activities on the surrounding neighbourhood one year on.

In order to best assess the effectiveness of the kitchen extract odour filtration system the sniff test was undertaken when takeaway order volumes were typically high, i.e. the evening. This, along with lunchtimes, is when odours from site operations are potentially at their highest intensity and have the most impact.

The sniff test was carried out at a number of locations representative of either nearby sensitive residential receptor areas; or to help define source and characteristics of the smells witnessed and help define dispersion behaviour. The following assessment locations were used:

- 1. Dobson Close (outside No. 17-20)
- 2. Dobson Close (outside No. 11-16 and r/o No. 8)
- 3. Dobson Close (outside No. 6)
- 4. Belsize Road entrance to the car park at the rear of Cresta House
- 5. Finchley Road (outside the entrance to Cresta House)
- 6. Finchley Road (at the entrance to the site o/s No. 115)
- 7. 1st floor rear balcony 115-119 Finchley Road
- 8. Flat roof at the point of kitchen flue discharge
- 9. Inside the kitchens and premises (to witness the range of cooking and level of activity inside the premises following the sniff tests)

Weather conditions were checked in advance and considered throughout the assessment to ensure no adverse impact or influence on the results of the assessment.

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The assessor (Robert Lockwood) was fit and well and rested to undertake the assessments. He is a non-smoker and has a tested acuity considered to be within the normal range. The assessor had not eaten within the previous hour of the assessment nor consumed any strong flavoured drink or confectionary.

In order to avoid the likelihood of odour fatigue the sniff tests were each typically five minutes in duration and carried out in order of locations away from the premises before finally at the source of the odours i.e. directly at the kitchen flue and inside the premises.

Contemporaneous notes were taken throughout the assessment as events were witnessed; these are reproduced in Appendix 1.

In addition to the on-site assessment a review of the kitchen extract maintenance records was undertaken to ensure the system was being maintained in line with the premises Plant Management Plan (PMP).

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3.0 Results

Detailed below is a narrative of the results of the sniff test undertaken during the assessment and a review of maintenance records. The tables detailed in Appendix 1 are reproduced from the contemporaneous notes detailed at the time of the assessment.

Thursday 29th June, evening between 18:30-20:20

Arrived at the site at approximately 18:30. Advised by the site manager that all kitchens operational, although the Deliveroo orders were not currently at their busiest but starting to increase.

Observed that the Z Zang kitchen rear exit door was open the premises was also operational with seated guests inside. A faint burnt, oily, spicy, sweet cooking smell was intermittently evident outside 17-20 Dobson Close, a short distance to the south of Z Zang and Deliveroo. The smell was very similar to the smell witnessed last year during the odour assessments undertaken in June and July 2020 and attributable to Z Zang.

No such odours or distinctive cooking smells were evident outside of 14-16 Dobson Close or at the front of 6 Dobson Close.

The same faint to distinct burnt, oily, spicy, sweet cooking smell was then witnessed at the rear car park entrance to Cresta House, notably with a breeze from the south i.e. from the direction of Z Zang and Deliveroo.

No distinctive cooking smells were evident on Finchley Road outside Cresta House (Mia Lounge was observed to be operational with customers entering the premises at the time) or on the pavement on Finchley Road o/s Z Zang and the entrance/exit slope to Deliveroo.

The same, faint to distinct burnt, oily, spicy, sweet cooking smell was again intermittently witnessed during the second circuit of the area outside 17-20 Dobson Close and entrance to the rear car park of Cresta House and a 3rd time, again outside 17-20 Dobson Close.

Again, no such odours or distinctive cooking smells were evident outside of 14-16 Dobson Close or at the front of 6 Dobson Close during the second circuit.

On the 1st floor rear residential balcony of 115-119 Finchley Road above Deliveroo and Z Zang, near to the Z Zang kitchen flue, cooking odours witnessed were intermittent but between faint to distinct and the same burnt, oily, sweet, spicy cooking odours.

The sniff test directly at the Deliveroo kitchen discharge flues confirmed a mixed cooking / 'vegetable-like' smell from the middle flue and a more burger/meaty type smell from the right-hand flue. The smells were faint to distinct at source. Neither were like the smells at any of the locations around the area witnessed earlier. It was not possible to sniff directly over the left-hand flue, but no distinctive odours were witnessed within 2 metres of it.

A few metres away from the Deliveroo kitchen flues on the flat roof back towards the balcony and the faint to distinct burnt, oily, spicy, sweet cooking smell was again intermittently witnessed.

Inside the Deliveroo premises all kitchen pods were clearly busy preparing and cooking a wide range of different food including burgers, Chinese, Vietnamese, and Indian food. Smells inside the Deliveroo kitchen were mixed, as to be expected, but were a 'fresh' cooking smell throughout. None of the cooking smells witnessed inside the Deliveroo kitchen pods or from the flue extract were anything like the smell of burnt, oily, sweet, spicy cooking odours which in my opinion were

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again attributable to cooking odours from Z Zang, as they were last year, and the predominant smell witnessed during the assessment.

It was noted during the assessment inside the Deliveroo premises that cooking odours from the kitchen extract ducting were 'leaking' inside the plantroom, at the end of the building next to the kitchens, prior to the odour abatement filtration system and discharge to 1st floor roof level above. This could affect the effectiveness of the odour abatement system and was highlighted to the manager at the time and subsequently the Deliveroo management team with a recommendation to address the issue. Correspondence later confirmed that the ducting seals/gaskets had been tightened or replaced where required and that the 'leakage' had been repaired. This was confirmed during a revisit to the premises on Thursday, 2nd September where cooking odours in the plantroom had significantly reduced to a residual level akin to the adjacent kitchens.

Review of Maintenance Records

The Swiss Cottage Deliveroo Editions odour filtration system comprises bag and panel filters; carbon filters; and UV/Ozone unit (Purified Air UV-O 1000).

From records provided and correspondence with Deliveroo and their appointed kitchen ventilation engineers, the panel filters are currently being replaced monthly and carbon filters annually. The UV/ Ozone unit's cleaning, and replacement of filters and the UV lamps is carried out annually, next replacement being scheduled for the 21st September 2021. The kitchen extraction system ductwork undergoes cleaning quarterly and the grease panels / baffles in the extract hoods above the cooking areas are cleaned twice a week.

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4.0 Conclusion

An on-site odour assessment comprising a number of sniff tests has been carried out on Thursday 29th July to reassess the effectiveness of the odour control measures which have been implemented on the kitchen ventilation system at the Swiss Cottage Deliveroo Editions site. This assessment is supplementary to the odour assessment carried out over the period June to July 2020 and detailed in the Odour Assessment report by Lockwood Environment Limited, 29th July 2020.

The odour assessment was carried out during a period when cooking at the premises was typically at its highest due to the number of orders received.

During the assessment it was reconfirmed that no cooking odours from the Deliveroo kitchen ventilation system, or the premises itself, were discernible at any assessment point outside the boundary of the site.

From the assessment undertaken directly at the 1st floor point of discharge of the kitchen extraction system, i.e. within 1 metre, cooking odours were only witnessed at a faint to distinct level of intensity (the lower end of the intensity scale). Within 2-3 metres the cooking smells from the Deliveroo kitchen extract flue were difficult to discern.

From the on-site assessment undertaken, the odour filtration system currently being used is effective at reducing cooking smells from the Deliveroo Editions kitchens. The premises continues to demonstrate, that with regards to cooking odours, even during periods typically of highest volume of takeaway orders, it can and is being operated without detrimental impacts to the amenity of the predominantly surrounding residential area and its community.

If the ventilation system continues to be maintained in accordance with the premises Plant Management Plan it is entirely feasible that this can and will continue to be achieved.

In addition to the above conclusion, it was clearly evident from the assessment that the neighbouring restaurant, Z Zang, continues to be a significant contributor to the odour environment in the locality, albeit improved since last year's assessments. It should be brought to the attention of the local authority and local residents' group that the cooking odours associated with this separate commercial venture should not be confused or attributable to the Swiss Cottage Deliveroo Editions site.



Appendix 1 – Odour Report Forms

Report Form Template		Date: Project:		
Test Location No.	1.	2.	3.	4.
Test Location Description				
Time				
Weather Conditions (dry, rain, fog, snow etc.):				
Temperature (very warm, warm, mild, cold or degrees if known)				
Wind Speed (none, light, steady, strong, gusting): / Direction (e.g. from NE):				
Distance to Source				
Plant Operational				
Intensity See below				
Duration (of test)				
Frequency				
Notes and Odour Characteristics (What does it smell like)				
Receptor Sensitivity				
Is the source evident?				
Any other comments or observations				

Intensity	Receptor sensitivity
0 No odour	Low (e.g. footpath, road)
1 Very faint odour	Medium (e.g. industrial or commercial
2 Faint odour	workplaces)
3 Distinct odour	High (e.g. housing, etc.)
4 Strong odour	
5 Very strong odour	
6 Extremely strong odour	
Ref: German Standard VDI 3940	



Report Form		Date: 29/7/2021	Project: Swiss Cottage Deliveroo Editions	
Test Location No.	1.	2.	3.	4.
Test Location Description	o/s 17-20 Dobson Close	o/s 11-16 Dobson Close r/o 8 Dobson Close	o/s 6 Dobson Close	Car park r/o Crest House
Time	18:34	18:40	18:46	18:51
Weather Conditions (dry, rain, fog, snow etc.):	Dry	Dry	Dry	Dry
Temperature (very warm, warm, mild, cold or degrees if known)	Mild 20°C	Mild 20°C	Mild 20°C	Mild 20°C
Wind Speed (none, light, steady, strong, gusting): / Direction (e.g. from NE):	Light intermittent breeze multi- directional (SW prevailing wind)	Light intermittent breeze multi- directional	More sheltered – v light intermittent breeze / calm	Light breeze mainly from southerly direction (i.e. from Deliveroo and Z-Zang direction) sometimes changed to northerly.
Distance to Source	Z Zang approx. 15m to flue outlet Deliveroo flue 30m	Z Zang Flue approx. 40m Deliveroo Flue approx. 20m	40m to Deliveroo flues	Up to 50m Deliveroo flues 60m Z Zang flue
Plant Operational	Yes	Yes	Yes	Yes
Intensity	2	0	0	2-3
Duration (of test)	5 minutes	5 minutes	5 minutes	5 minutes
Frequency	Intermittent			Intermittent
Notes and Odour Characteristics (What does it smell like)	Burnt, spicy, sweet cooking smell	No cooking smells discernible	No cooking smells discernible	Burnt, spicy, sweet cooking smell
Receptor Sensitivity	High – residential	High – residential	High – residential	Low- Pavement
Is the source evident?	Yes – Cooking odours considered to be from Z Zang	No	No	Yes – cooking odours considered to be from Z Zang
Any other comments or observations	Sweet, spicy, SE Asian style cooking smell faint and intermittent. Slight burnt smell, like last year's distinct smells witnessed from Z Zang, but fainter. Deliveroo not yet at its busiest of the evening as informed by the manager albeit riders ready, approx. 10+ waiting. Z Zang was operational with seated guests inside.	No distinctive smells particularly evident during the test. Nearest flues x3 at Deliveroo	No distinctive smells particularly evident during the test.	When breeze from the south persisted the same burnt, sweet, spicy cooking odours are present. When blowing from the north, limited smells discernible. Mia Restaurant on Finchley Road North/Northeast from monitoring position.

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Report Form		Date: 29/07/2021	Project: Swiss Cottage Deliveroo Edition	
Test Location No.	1.	2.	3.	4.
Test Location Description	Front of Cresta House near Mia Lounge	o/s 115/117 Finchley Road	o/s 17-20 Dobson Close	o/s 11-16 Dobson Close r/o 8 Dobson Close
Time	18:57	19:02	19:07	19:13
Weather Conditions (dry, rain, fog, snow etc.):	Dry	Dry	Dry	Dry
Temperature (very warm, warm, mild, cold or degrees if known)	Mild 20°C	Mild 20°C	Mild 20°C	Mild 20°C
Wind Speed (none, light, steady, strong, gusting): / Direction (e.g. from NE):	Breezy, intermittent light gusty	Gusty southerly wind blowing up Finchley Road.	Light intermittent breeze multi- directional	Relatively calm at ground level, light breeze at higher tree canopy level.
Distance to Source	60+m		Z Zang approx. 15m to flue outlet Deliveroo flue 30m	Z Zang Flue approx. 40m Deliveroo Flue
Diant Operational	V	V	V	approx. 20m
Plant Operational	Yes	Yes	Yes	Yes
Intensity	0	0-1	2-3	0
Duration (of test)	5 minutes	5 minutes	5 minutes	5 minutes
Frequency			Intermittent	
Notes and Odour Characteristics (What does it smell like)	Nothing distinctive		Burnt, spicy, sweet cooking smell	No cooking smells discernible
Receptor Sensitivity	Low – Pavement	Low - Pavement	High – residential	High – residential
Is the source evident?	No	No	Yes – cooking odours considered to be from Z Zang	No
Any other comments or observations	Mia restaurant (Finchley Road) open with customers. No distinctive cooking odours witnessed.	Faint cooking smell but main smell was intermittent sewage smell from the nearby drain cover on the pavement. Busy traffic and fumes from bus parked in front. Six (6) customers in inside Z Zang. On the other side of the road Ye Olde Swiss Cottage operational but quiet (few customers o/s).	Faint burnt sweet cooking odour present. When breeze dropped, odour stronger.	No distinctive smells particularly evident during the test. Nearest flues x3 at Deliveroo



Report Form		Date: 29/07/2021	Project: Swiss Cottage Deliveroo Editions	
Test Location No.	1.	2.	3.	4.
Test Location Description	o/s 6 Dobson Close	Car Park r/o Crest House	o/s 17-20 Dobson Close	1st floor rear balcony to residential flats r/o 115-119 Finchley Road
Time	19:19	19:22	19:30	19:41
Weather Conditions (dry, rain, fog, snow etc.):	Dry	Dry	Dry	Dry
Temperature (very warm, warm, mild, cold or degrees if known)	Mild 20°C	Mild 20°C	Mild 20°C	Mild, 19 °C
Wind Speed (none, light, steady, strong, gusting): / Direction (e.g. from NE):	Light intermittent breeze / calm	Light breeze mainly from southerly direction (i.e. from Deliveroo and Z-Zang direction)	Light intermittent breeze multi- directional and sometimes gusty	Stronger breeze and gustier on flat roof outside flat No. 2/3
Distance to Source	40m to Deliveroo flues	Up to 50m Deliveroo flues Z Zang approx. 15m to flue outlet Deliveroo flue 30m		Approx. 30m to Deliveroo flues Approx. 10m to Z Zang flue outlet
Plant Operational	Yes	Yes	Yes	Yes
Intensity	0	3-1	3	3
Duration (of test)	3 minutes	5 minutes	5 minutes	6 minutes
Frequency		Intermittent	Intermittent	Intermittent
Notes and Odour Characteristics (What does it smell like)	No cooking smells discernible	Burnt, spicy, sweet cooking smell	Burnt, spicy, sweet cooking smell	Burnt, oily, smoky, spicy, sweet cooking smell
Receptor Sensitivity	High – residential	Low- Pavement	High – residential	High – Residential
Is the source evident?	No	Yes – cooking odours considered to be from Z Zang	Yes – cooking odours considered to be from Z Zang	Yes – cooking odours considered to be from Z Zang
Any other comments or observations	No distinctive smells particularly evident.	Burnt, sweet oily cooing smell evident as soon as walking onto Belsize Road. Distinct and then very faint.	Intermittent distinct whiffs of burnt oily, sweet, spicy cooking odours. The sweet, oily, burnt spicy, SE Asian cooking smell witnessed on each occasion is virtually same last year. Potentially not as strong but distinctive, nonetheless.	Same oily, sweet burnt, spicy cooking small evident between gusts of wind. Sometimes carried by the breeze. Nearest source the Z Zang flue



Report Form		Date : 29/07/2021	Project: Swiss Cottage Deliveroo Editions
Test Location No.	1.		2.
Test Location Description	On flat roof of Delivero	o at flue exit	Inside the ground floor kitchens of Deliveroo and the plant room
Time	19:47		20:09
Weather Conditions (dry, rain, fog, snow etc.):	Dry		
Temperature (very warm, warm, mild, cold or degrees if known)	Mild, 19 °C		
Wind Speed (none, light, steady, strong, gusting): / Direction (e.g. from NE):	Light gusty multidirection	onal	
Distance to Source	At source		
Plant Operational	Yes		
Intensity	3		
Duration (of test)	10 minutes		7 minutes
Frequency	Constant / *(Intermitter	nt)	
Notes and Odour Characteristics (What does it smell like)	Middle – faint cooked mixed vegetable-like cooking smell RHS - meaty burger smell LHS – no distinctive cooking odours *(By the aircon units (2-3 metres way) sweet, spicy, oily, burnt cooing smell intermittently witnessed)		
Receptor Sensitivity	At Source		
Is the source evident?	Yes		
Any other comments or observations	The same burnt, oily, sweet, spicy cooking smell evident at the end of the flat towards the air conditioning units about 2-3 metres away from the 3x Deliveroo flue discharges. However, sniffing directly over the flues – not the same smell further away on the flat roof and witnessed around the area. At source the flue on the RHS cooked burger/meaty-type smell The flue in the middle - vegetable-like cooking smell. Same as on all previous occasions last year. No distinctive odours coming from the LHS flue. (not possible to sniff directly over the flue outlet like the others but within 2m)		Busy kitchen pods all but one. All different types of cooking Burgers, Chinese, Indian and Vietnamese. In all kitchens fresh, pleasant, cooking smells witnessed. Not the burnt, oily, smoky, spicy, sweet cooking smell that is evident on the 1st floor flat roof and the surrounding area. In my opinion, the 'unpleasant' oily, spicy sweet burnt cooking smell witnessed on the flat roof and around the area is again attributable to the Z-Zang kitchen flue as it was last year. Vegetable-like cooking as witnessed from the middle extract flue at 1st floor also witnessed in the rear plantroom (where the fans and filters are located at GF level). Indicative of leakage in the flue prior to the filters. Would recommend investigating and remedying by kitchen extract engineer.



Appendix 2 – Photographs at Assessment Locations

o/s 17- 20 Dobson Close

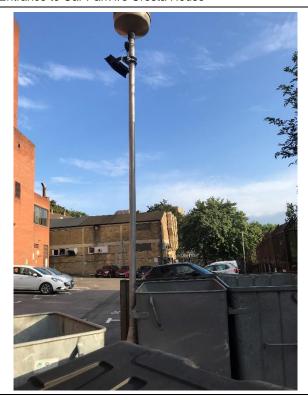
o/s 11-16 Dobson Close, r/o 8 Dobson Close





Entrance to Car Park r/o Cresta House

1st Floor Deliveroo Kitchen Three (3) Extract Flues







Z Zang Kitchen Flue (taken from the 1st Floor balcony)









Appendix 3 – Robert Lockwood Profile

Robert is a qualified environmental professional with over 25 years experience and key skills in air quality and odour management, noise control and acoustics, statutory nuisance and environmental management. He has extensive experience in the assessment, investigation, mitigation and enforcement of air quality and odour related projects and cases relating to commercial kitchens, waste sites, waste water treatment and industrial premises. Having successfully worked as an environmental consultant, local authority environmental health professional, Environment Agency regulator and central government policy advisor, he is able to take a holistic approach to project delivery with a greater appreciation of all key stakeholder requirements.

Robert spent more than 13 years in local authority environmental health ending up as point of technical and legislative expertise for the disciplines of environmental planning and statutory nuisance and manager of a team of qualified Environmental Health Practitioners.

He was policy and Technical Advisor to Defra's Atmosphere and Local Environment Programme (2008 – 2013). Contributing to the development of new government environmental policies and author of government guidance on the management of noise and statutory nuisance including odour, dust and artificial lighting. He delivered and managed innovative research projects and advised and contributed to the drafting of new national legislation and planning policy guidance.

Robert co-authored and project managed the government guidance, Odour Guidance for Local Authorities, Defra – March 2010 (withdrawn September 2017) designed primarily for use by Environmental Health Practitioners (EHPs) but also useful to other local authority professionals, regulators and industry professionals engaged in the prevention, investigation and management of odours.

Robert was also Technical Advisor supporting Defra through the drafting, review and revision of the Appraisal of Sustainability (AoS) for the Waste Water National Policy Statement (WWNPS) (2010-12) and providing further recommendations on amendments to the WWNPS, odour being a key environmental consideration.

Qualifications and Professional Memberships

- Masters in Business Administration (MBA), Open University (2005).
- Masters in Environmental Science with Legislation and Management (MSc.), Brunel University (2002).
- Post Graduate Diploma in Acoustics and Noise Control, South Bank University (1997).
- Degree in Building Management BSc (Hons), Coventry University (1993).
- Diploma in External Lighting (Modules 1, 2 &3), Institute of Lighting Professionals, (2012)
- Chartered Environmentalist (CEnv.) 2017
- Member of the Institute of Environmental Management and Assessment (MIEMA) (2000)
- Member of the Institute of Acoustics (MIOA) (1999).
- BREEAM UK New Construction Assessor & BREEAM Accredited Professional, 2019

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