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

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Report for: Roofoods Limited

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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 has temporary planning permission until the 17 November 2020 following the outcome of a Public Inquiry in September 2019. The planning inspector considered that a period was needed to assess the effects of the operation of the premises on the local area and the effectiveness of the control measures that had been implemented.

A range of operational management controls were implemented to mitigate the impacts of the site activities on the local area addressing issues relating to noise, vehicle management and odour. Specifically, on the issue of odour management the following assessments, controls, processes, procedures and monitoring were carried out:

- Odour Assessment (June 2019) by Michael Bull, Arup,
- 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.
- 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.
- A recent odour review (May 2020) by Michael Bull, Arup to review the outcomes and achievement of the above requirements.

Despite the aforementioned comprehensive technical and procedural odour control measures, there is a desire from the Roofoods Ltd management team to further reduce 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.

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

2.0 Methodology

The odour assessments were 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 can only provide a subjective snapshot assessment of the impact of an odour at the test locations at a particular time and date. Therefore, for a representative assessment of the odour impact of the cooking activities, in this instance, on the surrounding neighbourhood, repeat surveys were carried out over a suitably representative period of time. Following the initial site visit and on-site assessment carried out on the 12th June four further visits to the site and surrounding local area to undertake sniff tests were undertaken. One of the site visits was undertaken with the LB Camden Environmental Health Officer to provide transparency in the assessment process and methodology employed

In order to best assess the effectiveness of the kitchen extract odour filtration system the sniff tests were undertaken during times when takeaway order volumes were high, i.e. evenings and lunchtimes. These are the occasions when odours from site operations are potentially at their highest intensity and have the potential to have the most impact. Friday evenings and Friday lunchtimes were identified as the periods of typically the highest takeaway orders.

Assessments were carried out on the following dates:

- Friday 12th June, lunchtime between 12:30-14:00
- Friday 19th June, evening between 18:30- 20:00
- Friday 26th June, evening between 18:30 – 20:00
- Friday 3rd July, evening between 18:30 – 20:00
- Friday 10th July, lunchtime between 12:30 – 14:15

Over the 5 assessment periods sniff tests were carried out at a range of locations. Locations were chosen to be 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. *Belsize Road - Entrance to the car park at the rear of Cresta House
2. *Dobson Close (Outside No. 6)
3. *Dobson Close (outside No. 11-16 and r/o No. 8)
4. *Dobson Close (outside No. 17-20)
5. Finchley Road (at the entrance to the site o/s No. 115)

-
6. Finchley Road (outside the entrance to Cresta House)
 7. Top floor balcony of Cresta House
 8. 8th floor southern stairwell of Crest House
 9. 1st and 2nd floor rear balcony 115-119 Finchley Road
 10. Flat roof at the point of kitchen flue discharge
 11. Inside the kitchen (to witness the range of cooking and level of activity inside the premises following the sniff tests)

** correspond with previous assessment locations*

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

The assessor (Robert Lockwood) was considered to be fit and well and rested to undertake each of the assessments. He is not a smoker and has a tested acuity considered to be within the normal range. The assessor had not eaten within the previous hour of each 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 each of the assessments as events were witnessed; these are reproduced in Appendix 1.

3.0 Results

Detailed below is a narrative of the results of the sniff tests undertaken during the five separate assessments. The tables detailed in Appendix 1 are reproduced from the contemporaneous notes detailed at the time of each assessment.

Friday 12th June, lunchtime between 12:30-14:00

This was the initial visit to the site and the surrounding location. Arrived at the location at approximately 11:35am onwards and walked slowly around the area starting at Dobson Close and all the way round Dobson Close to Belsize Road to the entrance of the rear car park of Cresta House. This circuit was repeated from 12:30pm onwards. Prior to the second circuit the Deliveroo site manager confirmed that the kitchens were operational and orders were already being prepared and cooked. No other nearby commercial restaurant, pub or takeaway premises was observed to be operational at the time (i.e. Z Zang Korean Restaurant, Mia Lounge Lebanese Restaurant, Ye Olde Swiss Cottage Public House or Rest Bar Italian restaurant). During both circuits no distinguishable odours were apparent in the surrounding residential locality. A sniff test was then carried out on the rear roof-top balcony of Cresta House, adjacent to the balcony of the roof top residential accommodation. A further sniff test was undertaken at the partially open window of the 8th floor southern stairwell of Cresta House overlooking the Deliveroo Editions premises. At both locations no distinguishable odours were witnessed.

A further sniff test was undertaken on the 1st floor rear residential entrance balcony to the flats above 115-119 Finchley Road. No distinguishable odours were witnessed. A sniff test was then undertaken at the end of the 1st floor flat roof directly over two of Deliveroo kitchen's discharge flues. Faint to distinct cooking odours were evident at source. Within a few metres of the flue outlets on the flat roof, cooking odours had reduced to very faint or no odour. Subsequently inside the kitchen it was evidently busy. The majority of the kitchens were in the process of preparation and cooking including burgers, Chinese, Lebanese and Greek food. Smells inside the Deliveroo kitchen were mixed, as to be expected, but were a 'fresh' cooking smell throughout.

Friday 19th June, evening between 18:30- 20:00

Arrived at the site at approximately 18:30. Advised by the site manager that the Deliveroo orders were starting to increase as expected. Observed that the Z Zang kitchen rear exit door was open and a distinct burnt, oily, smoky, spicy, sweet cooking smell was noticeably evident near the door and where the flue ducting is routed to the 2nd floor roof level above. The kitchen of Z Zang was clearly operational. The same smell was witnessed outside 17-20 Dobson Close a short distance to the south of Z Zang and Deliveroo. No such odours were evident o/s the front of 6 Dobson Close or later outside 14-16 Dobson Close. The same distinct smell was then witnessed at the rear car park entrance to Cresta House. The same, this time stronger, smell was again witnessed outside 17-20 Dobson Close and on the 1st floor rear balcony of 115-119 Finchley Road. The same cooking odours were witnessed on the rear flat roof, but this time strong to very strong intensity.

The sniff test directly at the Deliveroo kitchen discharge flues confirmed the mixed cooking / 'vegetable-like' smell from the middle flue and more burger/meaty type smell from the right hand flue was not the same smell at all the locations around the area witnessed earlier. The smell was faint to distinct at its source. A few metres away from the Deliveroo kitchen flue on the flat roof and the distinct smell from the Z Zang kitchen/ flue was again dominant.

Inside the Deliveroo premises all kitchen pods were clearly busy preparing and cooking a wide range of different food including burgers, Chinese, Lebanese, Greek and Thai food.

None of the cooking smells witnessed inside the Deliveroo kitchen pods or from the flue extract were anything like the overarching smell of burnt, oily, fatty, sweet, spicy cooking odours witnessed from the Z Zang rear kitchen door or near to the Z Zang kitchen flue. Z Zang cooking odours were the predominant smell witnessed during the assessment period.

Friday 26th June, evening between 18:30 – 20:00

Arrived at the premises approximately 18:30 and met with the Camden council Environmental Health Officer who would be accompanying the site visit for the evening.

At all locations on Dobson Close, the entrance to the rear car park at Cresta House or at the front of Cresta House on Finchley Road, no particularly discernible cooking odours were witnessed.

Inside Cresta House from the southern facing 7th floor partially open windows of the hallway and 8th floor southern stairwell of Cresta House overlooking the rear of 115-119 Finchley Road, no odours were discernible entering from outside.

The cooking odours previously confirmed to be attributable to Z Zang were again witnessed on the 1st and 2nd floor rear residential balconies of 115-119 Finchley Road which are near to the Z Zang kitchen flue. Cooking odours witnessed this time were faint to distinct in intensity.

The sniff test directly at the Deliveroo kitchen discharge flue at the end of the premises flat roof confirmed the mixed cooking odour from the middle flue and more burger/ meaty type smell from the right hand flue was not the same smell witnessed on the balconies earlier. The smell was faint to distinct at its source. A few metres away from the Deliveroo kitchen flue and the smell was only wafts of faint cooking odours.

Inside the Deliveroo premises all kitchen pods were clearly busy preparing and cooking a wide range of different food including burgers, Chinese, Lebanese, Greek and Thai food.

None of the cooking smells witnessed inside the Deliveroo kitchen pods or from the flue extract were anything like the smell of burnt, oily, fatty, sweet, spicy cooking odours witnessed near to the Z Zang kitchen flue on the 1st or 2nd floor rear residential balcony or outside 17-20 Dobson Close. Z Zang cooking odours were the main smell witnessed during the assessment period.

Friday 3rd July, evening between 18:30 – 20:00

Arrived on site at approx. 18:30. Outside Z Zang on the Finchley Road and down the slope leading to the Deliveroo premises at the rear, the same smell of burnt, oily, fatty, sweet, spicy cooking odours witnessed from Z Zang on previous assessments was apparent again intermittently and at varying intensities from very faint to distinct. Outside 17-20 Dobson Close the same smell was more frequent and varied in intensity between distinct to strong. Outside 14-16 Dobson which is nearer the three Deliveroo kitchen flues and further away from the Z Zang flue, no particularly discernible smells were witnessed. Similarly outside 6 Dobson Close no distinguishable smells were witnessed.

At the entrance to the rear car park of Cresta House the same smell as witnessed earlier was intermittently prevalent between a distinct to strong intensity. At the front of Cresta House no odours were prevalent. The Mia Lounge appeared to be operational. Subsequently in rear car park of the Deliveroo premises, the cooking smells from Z Zang were again evident, albeit faint.

Inside Cresta House from the southern facing 8th floor partially open window of the stairwell of Cresta House overlooking the rear of 115-119 Finchley Road, a couple of brief wafts of the burnt, oily, fatty, sweet, spicy cooking odours were witnessed.

On the 1st floor rear residential balcony of 115-119 Finchley Road near to the Z Zang kitchen flue cooking odours witnessed this time were intermittent but between strong and very strong and the same burnt, oily, fatty, sweet, spicy cooking odours from Z Zang witnessed earlier and on previous occasions.

As on all previous occasions the sniff test directly at the Deliveroo kitchen discharge flue at the end of the premises flat roof confirmed the mixed cooking odour from the middle flue and more burger/meaty type smell from the right hand flue and once again not the same smell witnessed on the balconies earlier and the surrounding area. The smell was faint to distinct at its source and within a few metres away from the Deliveroo kitchen flue the smell was faint to very faint.

Inside the Deliveroo premises all but one of the kitchen pods were clearly very busy preparing and cooking a wide range of different food including burgers, Chinese, Lebanese, Greek and Thai food.

Definitely none of the cooking smells witnessed inside the Deliveroo kitchen pods or from the flue extract were anything like the smell of burnt, oily, fatty, sweet, spicy cooking odours witnessed near to the Z Zang kitchen flue on the 1st floor balcony or the surrounding areas on Dobson Close or rear car park entrance of Cresta House. Z Zang cooking odours were clearly the main smell witnessed during the assessment period.

Friday 10th July, lunchtime between 12:30 – 14:15

Arrived on site at approximately 12:30pm. Outside 17-20 Dobson Close the same smell of burnt, oily, fatty, sweet, spicy cooking odours witnessed from Z Zang on previous assessments was apparent again intermittently and at varying intensities from distinct up to strong on occasions. Outside 14-16 Dobson nearer the three Deliveroo kitchen flues and further away from the Z Zang flue, no particularly discernible smells were witnessed; similarly outside 6 Dobson Close, at the rear car park entrance of Cresta House, outside Cresta House on Finchley Road and the front of Z Zang.

Outside 17-20 Dobson Close again same cooking smell from Z Zang was witnessed between faint and distinct intensity when the wind changed. In the rear car park of Deliveroo no cooking odours were discernible.

On the 1st floor rear residential balcony of 115-119 Finchley Road near to the Z Zang kitchen flue no cooking odours were witnessed on this occasion.

As on all previous occasions the sniff test directly at the Deliveroo kitchen discharge flue at the end of the premises flat roof confirmed the same mixed cooking odour from the middle flue and burger/meaty type smell from the right hand flue and once again not the same smell witnessed earlier on Dobson Close. The smell was mainly faint to distinct at its source and within a few metres away from the Deliveroo kitchen flue the smell was faint to very faint.

Inside the Deliveroo premises all but one of the kitchen pods were clearly very busy preparing and cooking a wide range of different food including burgers, Chinese, Lebanese, Greek and Thai food.

None of the cooking smells witnessed inside the Deliveroo kitchen pods or from the flue extract were anything like the smell of burnt, oily, fatty, sweet, spicy cooking odours witnessed on Dobson Close and were also not witnessed in the surrounding area.

4.0 Conclusion

On-site sniff tests have been carried out over the period June to July 2020 to assess the effectiveness of the odour control measures which have been implemented on the kitchen ventilation system at the Swiss Cottage Deliveroo Editions site.

The odour assessments were carried out during periods when cooking at the premises was typically at its highest due to the number of orders received.

During each of the five assessments it was confirmed 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 assessments 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 assessments undertaken the odour filtration system currently being used is effective at reducing cooking smells from the Deliveroo Editions kitchens. The premises has demonstrated that, with regards to cooking odours, even during periods typically of highest volume of takeaway orders¹, 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 all but one of assessments that the neighbouring restaurant, Z Zang, is a significant contributor to the odour environment in the locality. It should perhaps 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.

¹ **Note:** Order volume over the assessment period was also approximately 20% greater compared to the order volume over a similar period during 2019

Appendix 1 – Odour Report Forms

| Report Form | | Date: 12/06/2020 | | Project: Swiss Cottage Deliveroo Editions | |
|--|---|---|---|---|--|
| Test Location No. | 1. | 2. | 3. | 4. | |
| Test Location Description | Roof Top balcony Cresta House | Southern 8 th floor Cresta House Stairwell | 1 st floor balcony r/o 115-119 Finchley Road | On flat roof of Deliveroo at flue exit | |
| Time | 13:14 | 13:29 | 13:40 | 13:47 | |
| Weather Conditions (dry, rain, fog, snow etc.): | Dry, cloudy | Dry, cloudy | Dry, cloudy | Dry, cloudy | |
| Temperature (very warm, warm, mild, cold or degrees if known) | Mild, 19°C | Mild | Mild | Mild | |
| Wind Speed (none, light, steady, strong, gusting): / Direction (e.g. from NE): | Calm with light intermittent light gusts | n/a | Sheltered but intermittent light gusts | Light gustier at flues | |
| Distance to Source | Approx. 50m-60m | Approx. 30-40m | Approx. 30m to Deliveroo flues | 0 – 0.5m | |
| Plant Operational | Yes | Yes | Yes | Yes | |
| Intensity See below | 1 | 0 | 0 | Middle 2-3 Right 3 | |
| Duration (of test) | 10minutes | 5 minutes | 5 minutes | 5 minutes | |
| Frequency | V intermittent | | | Constant | |
| Notes and Odour Characteristics (What does it smell like) | Nothing distinguishable, very faint cooking | | No distinguishable odours | Middle – faint mixed vegetable- like cooking smell Right - meaty burger smell | |
| Receptor Sensitivity | High residential balcony directly adjacent | Low – stairwell in residential block | | | |
| Is the source evident? | No not clearly | No | No | Yes – at source | |
| Any other comments or observations | | | | Inside kitchen directly after – busy preparation and cooking of various foods - Burgers, Greek, Chinese Lebanese. | |

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

| Report Form | | Date: 19/06/20 | Project: Swiss Cottage Deliveroo Editions | |
|--|---|--|---|---|
| Test Location No. | 1. | 2. | 3. | 4. |
| Test Location Description | Rear open door to kitchen of Z Zang | Front of Z Zang | o/s 17-20 Dobson Close | o/s 6 Dobson Close |
| Time | 18:37 | 18:44 | 18:48 | 18:55 |
| Weather Conditions (dry, rain, fog, snow etc.): | Dry | Dry | Dry | Dry |
| Temperature (very warm, warm, mild, cold or degrees if known) | Mild 18°C | Mild 18°C | Mild 18°C | Mild 18°C |
| Wind Speed (none, light, steady, strong, gusting): / Direction (e.g. from NE): | (Prevailing S Westerly Wind) Light intermittent breeze | Wind steady up ramp | Wind light multidirectional / intermittent | Barely any wind / sheltered. |
| Distance to Source | 1-2m to Z Zang Kitchen door | | Z Zang Kitchen door 10-15m Z Zang approx. 15m to flue outlet Deliveroo flue 30m + | 40m to Deliveroo flues |
| Plant Operational | Yes | Yes | Yes | Yes |
| Intensity | 2-3 | | 2 | 0 |
| Duration (of test) | 7 minutes | 3 minutes | 5 minutes | 5 minutes |
| Frequency | Intermittent | | Intermittent | None |
| Notes and Odour Characteristics (What does it smell like) | Burnt, oily, smoky, spicy, sweet cooking smell | | Burnt, oily, smoky, spicy, sweet cooking smell | none |
| Receptor Sensitivity | Low – Ramp | Low - o/s restaurant | High o/s residential | High – o/s residential |
| Is the source evident? | Yes – Z Zang | | Yes Z Zang | No |
| Any other comments or observations | Smell from open kitchen door or leaks in flue When wind stops gusting up ramp smell more apparent. Deliveroo reported preparing 40 orders | Drain outside Z Zang on Finchley Road just started overflowing – sewage smell appalling. | Same smell from o/s kitchen | Just pollen /vegetation smell on street – no cooking odours |

| Report Form | | Date: 19/06/2020 | | Project: Swiss Cottage Deliveroo Editions | |
|--|--|---|---|---|--|
| Test Location No. | 1. | 2. | 3. | 4. | |
| Test Location Description | Car Park entrance r/o Cresta House | o/s 17-20 Dobson Close | o/s 11-16 Dobson close and rear of 8 Dobson Close | 1 st floor rear balcony to residential flats r/o 115-119 Finchley Road | |
| Time | 19:01 | 19:10 | 19:18 | 19:28 | |
| Weather Conditions (dry, rain, fog, snow etc.): | Dry | Dry | Dry | Dry | |
| Temperature (very warm, warm, mild, cold or degrees if known) | Mild, 18°C | Mild 18°C | Mild, 18°C | Mild, 18°C | |
| Wind Speed (none, light, steady, strong, gusting): / Direction (e.g. from NE): | Light intermittent breezes – southerly | Light Gusty | Light | Light Gusty | |
| Distance to Source | Up to 50m Deliveroo flues 60ms Z Zang flue | Z Zang Kitchen door 10-15m Z Zang approx. 15m to flue outlet Deliveroo flue 30m + | Z Zang Flue approx. 40m Deliveroo Flue approx. 20m | Approx. 30m to Deliveroo flues Approx. 10m to Z Zang flue outlet | |
| Plant Operational | Yes | Yes | No | Yes | |
| Intensity | Up to 3 | 4 | 0-1 | 4-5 | |
| Duration (of test) | 5 minutes | 5minutes | 5 minutes | 5 minutes | |
| Frequency | Regular | Regular | | Regular | |
| Notes and Odour Characteristics (What does it smell like) | Burnt, oily, smoky, spicy, sweet cooking smell | Burnt, oily, smoky, spicy, sweet cooking smell | | Burnt, oily, smoky, spicy, sweet cooking smell | |
| Receptor Sensitivity | Low – pavement | High – o/s residential | High o/s residential | High – o/s residential | |
| Is the source evident? | Yes potentially | Yes Z Zang | No | Yes Z Zang | |
| Any other comments or observations | Same smell from o/s Z Zang Kitchen. Need to confirm characteristics of smells from Deliveroo flue to be absolutely sure | Same burnt, oily, smoky, spicy, sweet cooking smell. Stronger this time | No smells evident | | |

| Report Form | | Date: 19/06/2020 | Project: Swiss Cottage Deliveroo Editions | |
|--|---|---|---|----|
| Test Location No. | 1. | 2. | 3. | 4. |
| Test Location Description | On flat roof of Deliveroo at flue exit | On flat roof of Deliveroo | Inside Deliveroo kitchens | |
| Time | 19:35 | 19:38 | 19:55 | |
| Weather Conditions (dry, rain, fog, snow etc.): | Dry | Dry | | |
| Temperature (very warm, warm, mild, cold or degrees if known) | 16-17°C | 16-17°C | | |
| Wind Speed (none, light, steady, strong, gusting): / Direction (e.g. from NE): | Light gusty on flat roof | Light gusty on flat roof | | |
| Distance to Source | 0m | 2-3m | In kitchen | |
| Plant Operational | Yes | Yes | Yes | |
| Intensity | 2-3 | 3 | | |
| Duration (of test) | 2-3minutes | 5 minutes | < 5 minutes | |
| Frequency | Constant | | | |
| Notes and Odour Characteristics (What does it smell like) | Middle – faint mixed vegetable- like cooking smell Right - meaty burger smell | Burnt, oily, smoky, spicy, sweet cooking smell | 'Fresh' cooking smells varying between kitchen pods | |
| Receptor Sensitivity | Low – at source on flat roof | Low – on roof | Low – In kitchen | |
| Is the source evident? | Yes – at source | Yes – Z Zang | | |
| Any other comments or observations | The cooking smell directly at the Deliveroo kitchen flue exit is nothing like the burnt, oily, smoky, spicy, sweet cooking smell witnessed at Z Zang open kitchen and other locations | The burnt, oily, smoky, spicy, sweet cooking smell from Z Zang was the overarching smell on the flat roof. One brief waft of pizza cooking at one point – intensity 2. | At no point within the kitchen was the burnt, oily, smoky, spicy, sweet cooking smell evident. Varied cooking smells in each kitchen pod Pizza, Burgers, Chinese, Indian , Greek Thai – all 'fresh'/ 'clean' cooking smells | |

| Report Form | | Date: 26/06/2020 | 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 | Entrance to car park at the r/o Crest House |
| Time | 18:36 | 18:41 | 18:47 | 18:53 |
| Weather Conditions (dry, rain, fog, snow etc.): | Dry | Dry | Dry | Dry |
| Temperature (very warm, warm, mild, cold or degrees if known) | Warm 27°C | Warm 27°C | Warm 27°C | Warm 27°C |
| Wind Speed (none, light, steady, strong, gusting): / Direction (e.g. from NE): | Light intermittent breeze (Prevailing S Westerly Wind) | Light intermittent breeze | Light intermittent breeze | Southerly wind |
| 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 | 0-1 | 0 | 0 | 0-1 |
| Duration (of test) | 5 minute | 5 minute | 5 minute | 5 minute |
| Frequency | | | | |
| Notes and Odour Characteristics (What does it smell like) | | none | none | Very faint infrequent |
| Receptor Sensitivity | High- o/s residential | High – o/s residential | High – o/s residential | Low – Car park / pavement |
| Is the source evident? | No | No | No | No |
| Any other comments or observations | A few seconds of cooking odours but nothing distinguishable | 40 -50 live orders reported | | |

| Report Form | | Date: 26/06/2020 | Project: Swiss Cottage Deliveroo Editions | |
|--|--|---|--|---|
| Test Location No. | 1. | 2. | 3. | 4. |
| Test Location Description | o/s 125 Finchley Road | 1st floor rear balcony to residential flats r/o 115-119 Finchley Road | On flat roof of Deliveroo at flue exit | 2 nd floor rear balcony to residential flats r/o 115-119 Finchley Road |
| Time | 18:58 | 19:23 | 19:31 | 19:37 |
| Weather Conditions (dry, rain, fog, snow etc.): | Dry | Light Rain | Light Rain | Light Rain |
| Temperature (very warm, warm, mild, cold or degrees if known) | Warm | Cooler but still warm | Warm | Cooler |
| Wind Speed (none, light, steady, strong, gusting): / Direction (e.g. from NE): | More southerly wind , increased light gust | Wind increased | Light Gustly | Light Gustly |
| Distance to Source | Intervening building(s) Crest Cresta House | Approx. 30m to Deliveroo flues Approx. 10m to Z Zang flue outlet | At source | Approx. 30m to Deliveroo flues Approx. 8-10m to Z Zang flue outlet |
| Plant Operational | Yes | Yes | Yes | Yes |
| Intensity | 0-1 | 2-3 | 2-3 | 2-3 |
| Duration (of test) | 5 minutes | 5 minutes | 2-3 minutes | 5 minutes |
| Frequency | | Intermittent | Constant | Intermittent |
| Notes and Odour Characteristics (What does it smell like) | | Burnt, oily, smoky, spicy, sweet cooking smell | Middle – faint mixed vegetable- like cooking smell Right - meaty burger smell | Burnt, oily, smoky, spicy, sweet cooking smell |
| Receptor Sensitivity | Low – Pavement | High – Residential | Source | High – Residential |
| Is the source evident? | No | Yes – Z Zang | Yes | Yes Z Zang |
| Any other comments or observations | Faint smell of fruit and veg o/s Adil Food | Reported 78 active Deliveroo orders 6 Z Zang orders | The cooking smell directly at the Deliveroo kitchen flue exit is nothing like the burnt, oily, smoky, spicy, sweet cooking smell witnessed at Z Zang open kitchen and other locations Reported 80 active orders Waft of faint cooking smells approx. 2m away | At 19:52 |

| Report Form | | Date: 26/06/2020 | Project: Swiss Cottage Deliveroo Editions | |
|--|---|------------------|---|----|
| Test Location No. | 1. | 2. | 3. | 4. |
| Test Location Description | Inside Kitchen | | | |
| Time | 19:52 | | | |
| 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 | | | | |
| Duration (of test) | | | | |
| Frequency | | | | |
| Notes and Odour Characteristics (What does it smell like) | 'Fresh' cooking smells varying between kitchen pods | | | |
| Receptor Sensitivity | Low – In kitchen | | | |
| Is the source evident? | | | | |
| Any other comments or observations | Very busy in all kitchen pods. Varied cooking smells in each kitchen pod Pizza, Burgers, Chinese, Indian , Greek Thai – all 'fresh'/ 'clean' cooking smells At no point within the kitchen was the burnt, oily, smoky, spicy, sweet cooking smell evident. | | | |

| Report Form | | Date: 03/07/2020 | | Project: Swiss Cottage Deliveroo Editions | |
|--|--|--|--|---|--|
| Test Location No. | 1. | 2. | 3. | 4. | |
| Test Location Description | o/s 115 Finchley Road | o/s 17-20 Dobson Close | o/s 11-16 Dobson Close r/o 8 Dobson Close | o/s 6 Dobson Close | |
| Time | 18:36 | 18:43 | 18:49 | 18:55 | |
| Weather Conditions (dry, rain, fog, snow etc.): | Dry | Dry (few light drops of rain) | Dry (light drops of rain) | Dry (few light drops of rai) | |
| Temperature (very warm, warm, mild, cold or degrees if known) | Mild 19°C | Mild 19°C | Mild 19°C | Mild 19°C | |
| Wind Speed (none, light, steady, strong, gusting): / Direction (e.g. from NE): | Light gusty multi-directional (SW Prevailing wind) | Light gusty multidirectional | Light gusty – more sheltered | More sheltered – v light intermittent breeze | |
| Distance to Source | o/s Front Door of Z Zang Approx. 15m to Z Zang kitchen flue Approx. 40m to Deliveroo kitchen flues | Z Zang approx. 15m to flue outlet Deliveroo flue 30m | Z Zang Flue approx. 40m Deliveroo Flue approx. 20m | 40m to Deliveroo flues | |
| Plant Operational | Yes | Yes | Yes | Yes | |
| Intensity | 1-2-3 | 3-4 | 0 | 0-1 | |
| Duration (of test) | 5 minutes | 5 minutes | 5 minutes | 5 minutes | |
| Frequency | Intermittent | Regular | | | |
| Notes and Odour Characteristics (What does it smell like) | Burnt, oily, smoky, spicy, sweet cooking smell | Burnt, oily, smoky, spicy, sweet cooking smell | No cooking smells discernible | Mainly flower / tree / vegetation | |
| Receptor Sensitivity | Low – pavement | High – residential | High – residential | High – residential | |
| Is the source evident? | Yes – Z Zang | Yes - Z Zang | No | No | |
| Any other comments or observations | On arrival at the location the same burnt, oily, smoky, spicy, sweet cooking smell previously witnessed on two assessments | Light gusts of wind for the north bring he the same burnt, oily, smoky, spicy, sweet cooking smell form what is evidently Z Zang | No smells particularly evident during the test. Nearest flues x3 at Deliveroo | For short period time the faintest cooking smells present. But could've ben from a residential property on Dobson Close | |

| Report Form | | Date: 03/07/2020 | Project: Swiss Cottage Deliveroo Editions | |
|--|--|--|--|---|
| Test Location No. | 1. | 2. | 3. | 4. |
| Test Location Description | Car park r/o Crest House | Front of Cresta House near Mia Lounge | Rear car park of Deliveroo | Inside 8 th floor southern stairwell of Cresta House |
| Time | 19:01 | 19:07 | 19:15 | 19:27 |
| Weather Conditions (dry, rain, fog, snow etc.): | Dry - light drops of rain | Dry – Light drops of rain | Dry – light drops of rain | Inside |
| Temperature (very warm, warm, mild, cold or degrees if known) | Mild 19°C | Mild 19°C | Mild 19°C | Inside |
| Wind Speed (none, light, steady, strong, gusting): / Direction (e.g. from NE): | Light Gusty | Intermittent light gusty | Intermittent gusty | Light breeze entering gap window |
| Distance to Source | Up to 50m Deliveroo flues 60m Z Zang flue | 60+m | 10m to Deliveroo flues 30m to Z Zang Kitchen flue | Approx. 20m to Z Zang flues Approx. 30-35m to Deliveroo flues below |
| Plant Operational | Yes | Yes | Yes | Yes |
| Intensity | 3-4 | 0 | 2 | 3 when evident |
| Duration (of test) | 5 minutes | 5 minutes | 5 minutes | 5 minutes |
| Frequency | Intermittent | | Intermittent | V intermittent |
| Notes and Odour Characteristics (What does it smell like) | Burnt, oily, smoky, spicy, sweet cooking smell | Nothing distinctive | Burnt, oily, smoky, spicy, sweet cooking smell | Briefly x2 only Burnt, oily, smoky, spicy, sweet cooking smell |
| Receptor Sensitivity | Low- Pavement | Low – Pavement | Low – on site | Low – Still in residential block but stairwell |
| Is the source evident? | Yes – Z Zang | | Yes – Z Zang | Yes – Z Zang |
| Any other comments or observations | On arrival at the location southerly wind bringing burnt, oily, smoky, spicy, sweet cooking smell 4 x prolonged distinct to strong episodes witnessed | Infrequent vehicle fumes. No smell form Mia Lounge 60 – 70 Deliveroo Orders | 70 Deliveroo order reported | Nothing evident for most of the test and then strong waft of burnt, oily, smoky, spicy, sweet cooking smell (from Z Zang) about 19:30 |

| Report Form | | Date: 03/07/2020 | Project: Swiss Cottage Deliveroo Editions | |
|--|--|--|--|----|
| Test Location No. | 1. | 2. | 3. | 4. |
| Test Location Description | 1st floor rear balcony to residential flats r/o 115-119 Finchley Road | On flat roof of Deliveroo at flue exit | Inside kitchen of Deliveroo | |
| Time | 19:40 | 19:47 | 19:57 | |
| Weather Conditions (dry, rain, fog, snow etc.): | Wet light rain | Wet light rain | | |
| Temperature (very warm, warm, mild, cold or degrees if known) | 17/18°C | 17/18°C | | |
| Wind Speed (none, light, steady, strong, gusting): / Direction (e.g. from NE): | Light gusty multidirectional | Light gusty multidirectional | | |
| Distance to Source | Approx. 30m to Deliveroo flues Approx. 10m to Z Zang flue outlet | At source | | |
| Plant Operational | Yes | Yes | | |
| Intensity | 4-5 | 2-3 | | |
| Duration (of test) | 5 minutes | 2-3 minutes | | |
| Frequency | Intermittent | Constant | | |
| Notes and Odour Characteristics (What does it smell like) | Burnt, oily, smoky, spicy, sweet cooking smell | Middle – faint mixed vegetable- like cooking smell Right - meaty burger smell | | |
| Receptor Sensitivity | High – Residential | Source | | |
| Is the source evident? | Yes – Z Zang | Yes | | |
| Any other comments or observations | Cooking smell strong to very strong on the balcony and same burnt, oily, smoky, spicy, sweet cooking smell as before on previous occasions | 2-3 metres away smell much less. | Busy kitchen pods all but one. All different types of cooking Burgers, Chinese, Lebanese, Greek, Chinese. In all kitchens – ‘fresh’ cooking smell. Definitely <u>not</u> the burnt, oily, smoky, spicy, sweet cooking smell that is evident around the area form Z Zang | |

| Report Form | | Date: 10/07/2020 | | 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 | Entrance to car park at the r/o Crest House | |
| Time | 12:36 | 12:42 | 12:50 | 12:56 | |
| Weather Conditions (dry, rain, fog, snow etc.): | Dry, Sunny, Cloudy | Dry, Sunny, Cloudy – light sprinkle of rain | Dry, Sunny, Cloudy – light sprinkle of rain | Dry, Sunny, Cloudy | |
| Temperature (very warm, warm, mild, cold or degrees if known) | Approx. 16°C | Approx. 16°C | Approx. 16°C | Approx. 16°C | |
| Wind Speed (none, light, steady, strong, gusting): / Direction (e.g. from NE): | Light intermittent – multidirectional (Prevailing wind westerly) | | | Light intermittent wind mainly from the east occasionally from the west. i.e. not from the south and therefore not from Z Zang or Deliveroo | |
| 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 | 3 (up to 4) | 0 | 0 | 0 | |
| Duration (of test) | 5minutes | 7 minutes | 5 minutes | 5 minutes | |
| Frequency | Regular – intermittent | | | | |
| Notes and Odour Characteristics (What does it smell like) | Burnt, oily, smoky, spicy, sweet cooking smell | | | | |
| Receptor Sensitivity | High- o/s residential | High – o/s residential | High – o/s residential | Low – Car park / pavement | |
| Is the source evident? | Yes – Z Zang | No | No | No | |
| Any other comments or observations | Same burnt, oily, smoky, spicy, sweet cooking smell witnessed on previous occasions. Intensity strong sometimes | No cooking smell evident at the time. Spoke with a resident who approached who lives at the rear of Deliveroo. They informed me that they don't get any cooking smells in their garden | House intervening between Deliveroo and assessment location. No distinguishable smells at the time. | | |





| Report Form | | Date: 10/07/2020 | | Project: Swiss Cottage Deliveroo Editions | |
|--|---|--|--|--|--|
| Test Location No. | 1. | 2. | 3. | 4. | |
| Test Location Description | o/s Cresta House on Finchley Road | o/s Z Zang Finchley Road | o/s 17-20 Dobson Close | r/o Deliveroo in car park | |
| Time | 12:03 | 12:09 | 12:14 | 12:21 | |
| Weather Conditions (dry, rain, fog, snow etc.): | Dry, Cloudier | Dry, Cloudier | Dry, Cloudier | Dry, Cloudier | |
| Temperature (very warm, warm, mild, cold or degrees if known) | Approx. 16°C | Approx. 16°C | Approx. 16°C | Approx. 16°C | |
| Wind Speed (none, light, steady, strong, gusting): / Direction (e.g. from NE): | Intermittent light gusty wind from north mainly | Steady light wind from west | Light gusty multidirectional | Light breeze – multidirectional | |
| Distance to Source | 60+m | Approx. 15m to Z Zang kitchen flue Approx. 40m to Deliveroo kitchen flues | Z Zang approx. 15m to flue outlet Deliveroo flue 30m | 10m to Deliveroo flues 30m to Z Zang kitchen flue | |
| 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) | | Smells not distinguishable | Burnt, oily, smoky, spicy, sweet cooking smell | | |
| Receptor Sensitivity | Low – pavement | Low – pavement | High – o/s residential | Low car park albeit residential gardens beyond | |
| Is the source evident? | No | No | Yes – Z Zang | No | |
| Any other comments or observations | Wind in opposite direction i.e. from the north. Light traffic fumes smell but nothing distinguishable. Mia Lounge closed | Wind west up ramp and steady and quite strong | Same burnt, oily, smoky, spicy, sweet cooking smell as witnessed before from Z Zang. Wind mainly taking smell away. Intermittent faint to distinct when wind calm or gust from the north | Walking down ramp past Z Zang burnt, oily, smoky, spicy, sweet cooking smell evident. No smells at assessment location at the rear. | |

| Report Form | | Date: 10/07/2020 | Project: Swiss Cottage Deliveroo Editions | |
|--|--|---|--|---|
| Test Location No. | 1. | 2. | 3. | 4. |
| Test Location Description | Inside 8 th floor southern stairwell of Cresta House | 9 th Floor roof-top balcony Cresta House | 1 st Floor rear balcony 115- 119 Finchley Road | On flat roof of Deliveroo at flue exit |
| Time | 13:35 | 13:41 | 13:53 | 14:00 |
| Weather Conditions (dry, rain, fog, snow etc.): | Dry Cloudy | Dry Cloudy | Dry Cloudy | Dry Cloudy |
| Temperature (very warm, warm, mild, cold or degrees if known) | Approx. 16°C | Approx. 16°C | Approx. 16°C | Approx. 16°C |
| Wind Speed (none, light, steady, strong, gusting): / Direction (e.g. from NE): | Light breeze through open window | Light wind from West | Light intermittent breeze | Light intermittent breeze |
| Distance to Source | Approx. 20m to Z Zang flues Approx. 30-35m to Deliveroo flues below | Approx. 50m-60m | Approx. 30m to Deliveroo flues Approx. 10m to Z Zang flue outlet | At source |
| Plant Operational | Yes | Yes | Yes | Yes |
| Intensity | 0-1 | 0 | 0 | 2-(3) |
| Duration (of test) | 5 minutes | 7 minutes | 5 minutes | 2-3 minutes |
| Frequency | V intermittent | | | Constant |
| Notes and Odour Characteristics (What does it smell like) | Only brief light cooking smell (but burnt, oily, smoky, spicy, sweet cooking smell) | | | Middle – faint mixed vegetable- like cooking smell Right - meaty burger smell |
| Receptor Sensitivity | Low – stairwell of residential block | High – adjacent directly to residential balcony | High – o/s residential premises | Source |
| Is the source evident? | Yes – only just Z Zang | No | No | Yes |
| Any other comments or observations | Reported Deliveroo 20-25 orders | Reported 14 orders at time. Wind from across Deliveroo but no distinguishable odours during assessment. | Reported 10 Deliveroo orders at time. No cooking smells at the balcony. Nothing from Z Zang in the main only the briefest of burnt oily, smoky smell. | Same smells like on all previous occasions from the two flues, less intense than the Friday evening visits 2-3 metres away smell much less. |

| Report Form | | Date: 10/07/2020 | Project: Swiss Cottage Deliveroo Editions | |
|--|--|------------------|---|----|
| Test Location No. | 1. | 2. | 3. | 4. |
| Test Location Description | Inside Kitchen | | | |
| Time | 14:07 | | | |
| 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 | | | | |
| Duration (of test) | | | | |
| Frequency | | | | |
| Notes and Odour Characteristics (What does it smell like) | 'Fresh' cooking smells varying between kitchen pods | | | |
| Receptor Sensitivity | Low – In kitchen | | | |
| Is the source evident? | | | | |
| Any other comments or observations | <p>Still busy preparing and cooking in kitchen pods.</p> <p>Varied cooking smells in each kitchen pod Burgers, Chinese, Indian, Greek, Thai – all 'fresh'/'clean' cooking smells.</p> <p>This smell is not evident outside.</p> <p>Definitely <u>not</u> the source of the burnt, oily, smoky, spicy, sweet cooking smell evident and witnessed today and previous occasions and attributable to Z Zang</p> | | | |

Appendix 2 – Photographs of Assessment Locations

| | |
|---|---|
| <p>o/s 17- 20 Dobson Close</p>  A photograph showing a multi-story brick building. The ground floor features two large blue doors. Above the doors is a balcony with a metal railing. The upper floors have several windows. The sky is overcast. | <p>o/s 11-16 Dobson Close , r/o 8 Dobson Close</p>  A photograph of a brick building with a large tree in the foreground. The ground floor has blue doors. The building is partially obscured by the tree's branches. |
| <p>o/s 6 Dobson Close</p>  A photograph of a brick building with a large tree in the foreground. A green sign is attached to a brick wall in the foreground. The sign reads "PERMITS PARKING" and "Permitted parking only". | <p>Entrance to Car park r/o Cresta House</p>  A photograph of a car park entrance. In the foreground, there are several large red and black bins. In the background, there is a brick building and a street with parked cars. |

| | |
|---|---|
| <p>8th Floor Southern Stairwell Cresta House</p>  | <p>9th floor Roof-top balcony Cresta House</p>  |
| <p>1st Floor rear balcony 115 -119 Finchley Road</p>  | <p>1st floor rear balcony 115 – 119 Finchley Road (view from the flat roof)</p>  |

1st Floor Deliveroo Kitchen Exit (left and middle)



1st Floor Deliveroo Kitchen Flue Exit (middle and right)



Rear Car Park Deliveroo



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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