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Dear Tony,

### **2485790 Radcliffe Civic Hub - Bat Dusk Emergence Survey Report**

This letter report presents the results of the dusk emergence bat survey at Radcliffe Indoor Market, Market Place, Radcliffe, Manchester, M26 1PN (Ordnance Survey Grid Ref SD 78581 06937).

#### **Background Information**

The site comprises Radcliffe Market Hall, with four buildings comprising the south block (B1), the market chambers (B2), former TSB (B3) and the market basement (B4). Buildings B1 and B3 are to be demolished, while Buildings B2 and B4 will be retained. The layout of the building can be seen in Figure 2.

RSK Biocensus Ltd previously undertook a Preliminary Ecological Appraisal (PEA) 01 October 2021 and recommended follow-up bat and breeding bird surveys at the site. One dawn re-entry bat survey was carried out 21 June 2022 and one dusk emergence bat survey was carried out 05 July 2022. The bat surveys covered Building B1 and the adjoining canopy between B1 and B3 (at the west-facing side of B3). No bats were noted to emerge from or enter the buildings and no further precautions were therefore recommended.

It was noted during the PEA that the east-facing stone wall of Buildings B2-B4, adjacent to the River Irwell was considered to offer some opportunities for nesting birds and access for bats. A breeding bird survey has been carried out and identified sand martin (*Riparia riparia*), which have been dealt with separately to the bat surveys.

A lighting strategy was also recommended, to maintain a dark corridor along the River Irwell located along the eastern boundary of the site.

The proposals for the site (as detailed in Figure 1 and 2) involve building a glazed balcony overhanging the river along the eastern stone wall, leading to a courtyard terrace and a new three-storey building that will replace Building B3. The balcony and courtyard terrace will have communal seating to be used by the indoor market and new restaurants to be opened up inside the planned three-storey building. Prior to the surveys, it was considered very likely that this stretch of the river would be used by bats.

## Methods

### *Dusk Emergence Survey*

To inform the assessment of the glazed balcony and courtyard terrace seating area and its associated lighting, the following further bat survey was carried out.

One dusk emergence survey of the eastern stone wall from across the opposite river bank by two surveyors (Jonathan Scragg and Iveta Nikandrovaite) using two bat detectors (Elekon Batlogger M) and one infrared video camera (Panasonic X1500E with two Nightfox Red infrared torches). The surveyors observed the eastern stone wall for any bats emerging and also recorded bat foraging and commuting activity along the river and round the adjacent stone bridge.

The dusk emergence surveys commenced 15 minutes before sunset and continued 1.5 hours after sunset.

All surveys were undertaken in accordance with standard methodology (Collins, 2016). The date, weather conditions, survey period and sunset time are detailed in Tables 1 and 2 below.

*Table 1. Weather conditions for dusk emergence survey*

| Date       | Time  | Temperature (°C) | Wind speed (miles per hour) | Humidity (%) | General weather   |
|------------|-------|------------------|-----------------------------|--------------|-------------------|
| 22.06.2023 | 22:00 | 19°C             | 5mph                        | 60%          | No overnight rain |

*Table 2. Survey dates and timings for dusk emergence survey*

| Date       | Survey Type    | Official Sunset | Start Time | End Time |
|------------|----------------|-----------------|------------|----------|
| 22.06.2023 | Dusk Emergence | 21:41           | 21:11      | 23:11    |

### *Data analysis*

Recorded data was analysed and interpreted manually by an experienced bat call analyst using BatExplorer software (version 2.2.4) Elekon, in accordance with the species echolocation parameters detailed in Russ (2021)<sup>1</sup>.

The infrared video camera footage was reviewed on a laptop screen using real time speed (2 hours of footage) using VLC media player software.

### *Survey limitations*

No significant limitations were noted during the survey .

<sup>1</sup> Russ, J. (2012). British Bat Calls: A Guide to Species Identification. Pelagic Publishing.

Table 1: Photographs of building and surveyor positions.

| Photographs                                                                       |                                                                                    |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|  |  |
| Surveyor viewpoint from Position 1                                                | Surveyor viewpoint from Position 2                                                 |

## Results

### *Dusk Emergence Survey*

**No bats were noted to emerge from the eastern stone wall** (where the proposed glazed balcony and terrace will be situated) during the emergence survey. **No bats were noted to emerge from the eastern parts of Building B3** (to be demolished), both of which were fully observed during the survey.

### *Commuting and Foraging*

Commuting and foraging bat activity was noted along the opposite river bank and under the adjacent stone bridge. Common pipistrelle (*Pipistrellus pipistrellus*) activity was noted from 22:06 – 23:08 (with a total of 48 recordings of up to 5 seconds made), Myotis bat (*Myotis* sp.) activity was noted at 22:17 and 22:58 (with a total of 11 recordings of up to 5 seconds made). **The commuting and foraging activity during the survey was deemed to be relatively low** for this type of vegetated river, likely to be because of its urban context.

## Conclusion and Evaluation

This bat survey was conducted to inform the planning application in relation to the part of the proposed Radcliffe Civic Hub development that affects the east-facing stone wall of Buildings B2-4 that faces the river.

No bats were noted to emerge from the surveyed east-facing wall areas. The survey was conducted during optimal weather conditions and at a time of the year when bats are fully active

and would have formed their maternity colonies. It is therefore deemed unlikely that the proposed demolition and building works will have a direct impact on a bat roost.

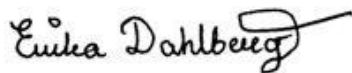
### Recommendations

The commuting and foraging activity during the survey was deemed to be relatively low considering the river location. Common pipistrelle, *Myotis* species and soprano pipistrelle were noted during the survey. However, more information will be needed to assess the impact of the proposed lighting scheme.

Further acoustic monitoring, over a period of five nights, has been conducted (22 – 26 June 2023) to inform the impact of the proposed development along the river in relation to increased lighting. A sensitive lighting scheme for bats is being proposed and will be conditioned as part of the planning permission. A further bat survey report and review of the lighting scheme will be submitted separately for this purpose.

If you require any further information or have any further queries regarding this project please do not hesitate to contact me on mobile number **07388 381827** or alternatively via email, [erika.dahlberg@rskbiocensus.com](mailto:erika.dahlberg@rskbiocensus.com)

Yours sincerely,



Erika Dahlberg BSc (Hons), PGDip.  
Senior Ecologist (Bat Expert)  
On behalf of RSK Biocensus

Reviewed by

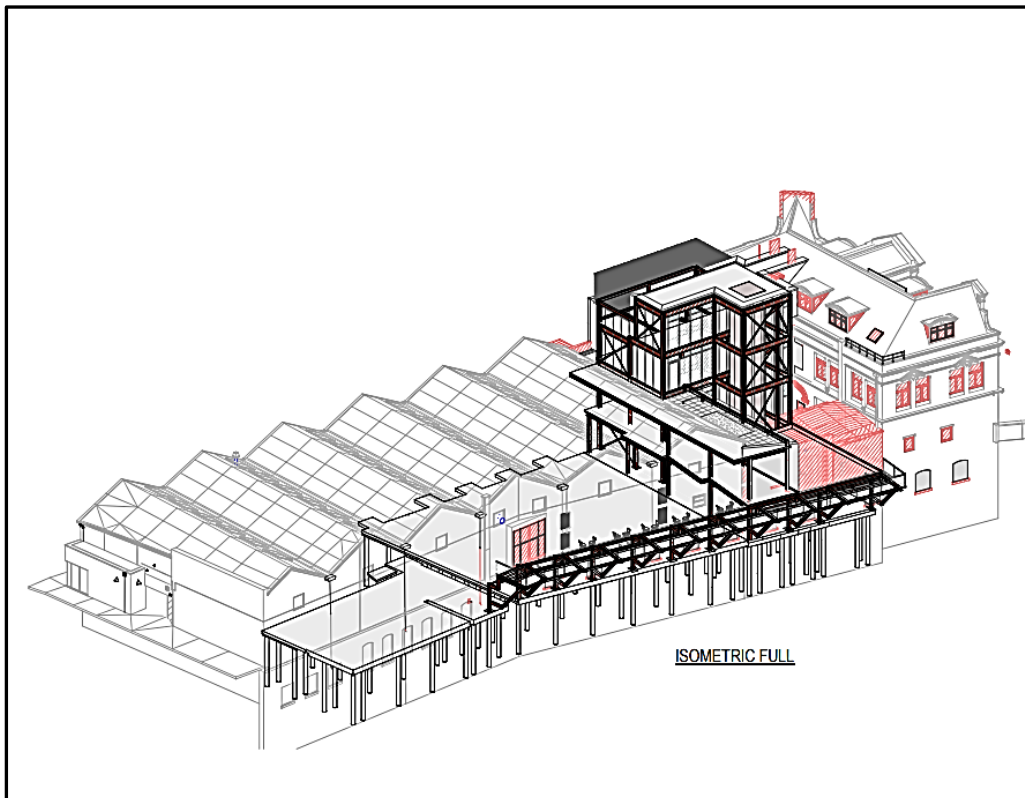


**Paola Reason** BSc MSc CEnv FCIEEM MIEMA SpDipEM  
Director

**Figure 1. Proposed Development showing eastern face and location of proposed balcony**

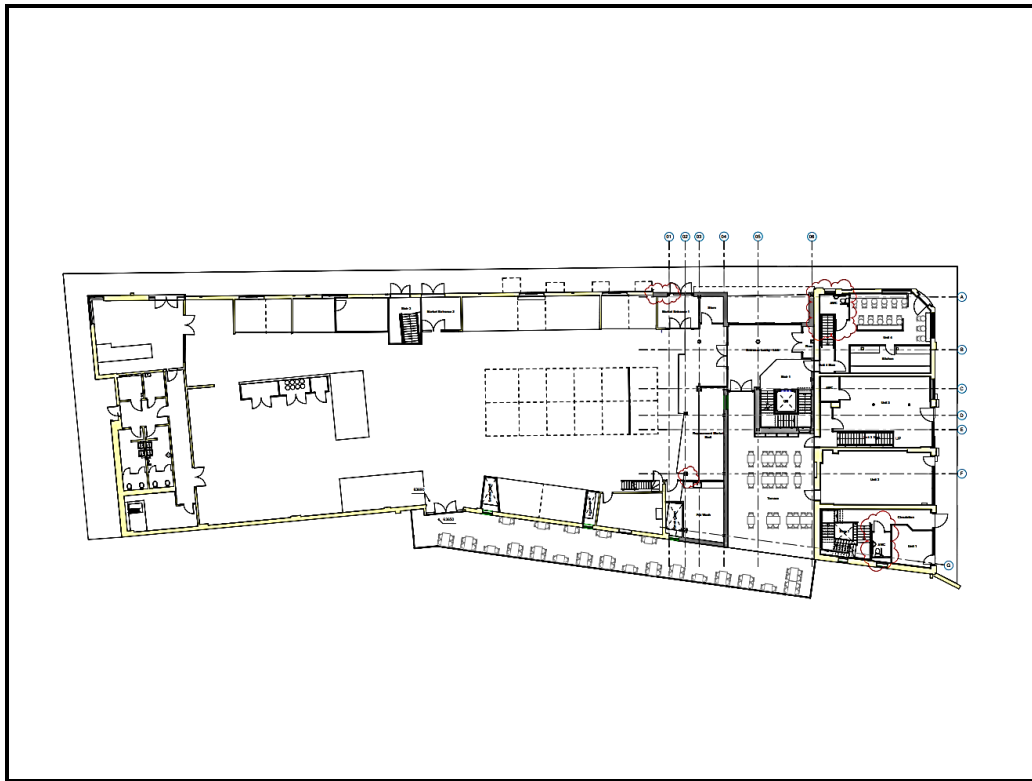


**Proposed East Elevation**



**Proposed 3D Views**

**Figure 2. Proposed Development**



**Proposed Ground Floor Plan**



**Proposed Overall Development**