

11 October 2023

Delivered by Planning Portal

Jennifer Atkinson
Planning and Building Control
Manchester City Council
Level 6, Town Hall Extension
St Peter's Square
Manchester
M2 5HD

Ref: IQSM3015

Dear Jennifer

DISCHARGE OF PLANNING CONDITION 7 (SURFACE WATER DRAINAGE SCHEME) PURSUANT TO PLANNING PERMISSION REFERENCE 136874/FO/2023 ECHO STREET, MANCHESTER, M1 3QJ

On behalf of iQ Student Accommodation ('iQ' / 'the Applicant'), I am pleased to enclose an application to discharge Condition 7 (Surface Water Drainage Scheme) pursuant to the above referenced planning permission.

This application has been submitted via the Planning Portal (ref. PP-12488753) and comprises electronic copies of the following documents:

- Application Form
- This covering letter
- Typical Bluerroof Details (drawing ref. ECHO-SRA-XX-RF-DR-A-27600), prepared by Sheppard Robson
- Typical Bluerroof Details Biodiverse Part 1 (drawing ref. ECHO-SRA-XX-RF-DR-A-27601), prepared by Sheppard Robson
- Typical Bluerroof Details Biodiverse Part 2 (drawing ref. ECHO-SRA-XX-RF-DR-A-27602), prepared by Sheppard Robson
- Blue Roof Calculation Summary (document ref. BR-5111-05), prepared by Radmat
- Drainage Layout (drawing ref. 2925-CIV-XX-XX-D-C-30001), prepared by Civic Engineers
- Existing and Proposed Surface Water Catchment GA (drawing ref. 2925-CIV-XX-XX-D-C-30002), prepared by Civic Engineers)
- Typical Drainage Details Sheet 1 (drawing ref. 2925-CIV-XX-XX-D-C-31001), prepared by Civic Engineers
- Typical Drainage Details Sheet 4 (drawing ref. 2925-CIV-XX-XX-D-C-31004), prepared by Civic Engineers

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- Surface Water Calculations (document ref. 2925 Echo Street SW Calcs), prepared by Causeway
- Surface Water Calculations 6-Hour Storm (document ref. 2925 Echo Street SW Calcs - 100Yr 6Hr Storm) prepared by Causeway
- 2925 Echo Street Greenfield - 100Yr 6Hr Storm
- 2925 Echo Street Ex 100Yr 6Hr Volume
- File Note (dated 25/09/2023), prepared by Civic Engineers
- CCTV survey report (document ref. 2023_07_17 Echo Street Murraywood), Team Drainage UK

The requisite planning application fee of £116 has been paid directly to Manchester City Council ('MCC') via the Planning Portal.

BACKGROUND

As you are aware, in May 2023, full planning permission was granted for the erection of 3 interlinked towers ranging from 27, 21 and 16 storeys together with intermediary link buildings (15 and 11 storeys) to form Purpose Built Student Accommodation (Sui Generis) with associated amenity space and external landscaping and other associated works (LPA ref. 136874/FO/2023). The permission includes a number of conditions to be discharged. This application relates to the discharge of condition 7 (Surface Water Drainage Scheme).

A summary of the information submitted is provided below.

Condition 7: Surface Water Drainage Scheme

Condition 7 states:

"Notwithstanding the details submitted on the Flood Risk Assessment and Drainage Strategy Prepared by Curtins received by the City Council, as Local Planning Authority, on the 2 May 2023, (a) the development shall not commence until a scheme for the drainage of surface water from that phase of the new development shall be submitted for approval in writing by the City Council as the Local Planning Authority. This shall include:

- *A feasibility assessment and engineering details of the Green / Blue Roof.*
- *Details of surface water attenuation that offers a reduction in surface water runoff rate to a maximum of 24.95 l/s.*
- *An existing and proposed impermeable areas drawing to accompany all discharge rate calculations.*
- *Runoff volume in the 1 in 100 year, 6 hours rainfall shall be constrained to a value as close as is reasonable practicable to the greenfield runoff volume for the same event, but never to exceed the runoff volume from the development site prior to redevelopment;*
- *Evidence that the drainage system has been designed (unless an area is designated to hold and/or convey water as part of the design) so that flooding does not occur during a 1 in 100 year rainfall event with allowance for 45% climate change in any part of a building;*
- *Assessment of overland flow routes for extreme events that is diverted away from buildings (including basements). Overland flow routes need to be designed to convey the flood water in a safe manner in the event of a blockage or exceedance of the proposed drainage system capacity including inlet structures. A layout with overland flow routes needs to be presented with appreciation of these overland flow routes with regards to the properties on site and adjacent properties off site.*

- Evidence from an appointed structural engineer, that the proposed works will not impact the structural integrity of the potentially existing circa 900mm culvert within close proximity to the works.
- CCTV survey and routing plan of existing drainage system to understand condition, capacity, connectivity.
- Hydraulic calculation of the proposed drainage system, including all engineering parameters

(b) The development shall then be constructed in accordance with the approved details, within an agreed timescale.”

The enclosed Typical Blueroof Details (drawing ref. ECHO-SRA-XX-RF-DR-A-27600), Typical Blueroof Details Biodiverse Part 1 (drawing ref. ECHO-SRA-XX-RF-DR-A-27601) and Typical Blueroof Details Biodiverse Part 2 (drawing ref. ECHO-SRA-XX-RF-DR-A-27602) provide the engineering details of the Green/Blue Roof. The enclosed blue roof summary (document ref. BR-5111-05), prepared by Radmat, provides further calculation details.

The enclosed Drainage Strategy (drawing ref. 2925-CIV-XX-XX-D-C-30001) provides details of surface water attenuation and causeway flow calculations. Due to United Utilities restricting the connection size to a maximum diameter of 150mm into the public combined water sewer in Granby Road, the surface water flow rate has been restricted to a rate no greater than 10.80l/s for up to and including the 1 in 100-year rainfall with 45% climate change event.

The enclosed drawing ref. 2925-CIV-XX-XX-D-C-30002 prepared by Civic Engineers, provides details of the existing and proposed impermeable areas which accompanies the discharge rate calculations. The table below provides details of the surface water discharge volumes in the 1 in 100-year 6 hours rainfall event.

Table 1: Surface Water Discharge Volumes in the 1 in 100-year 6 hours rainfall event

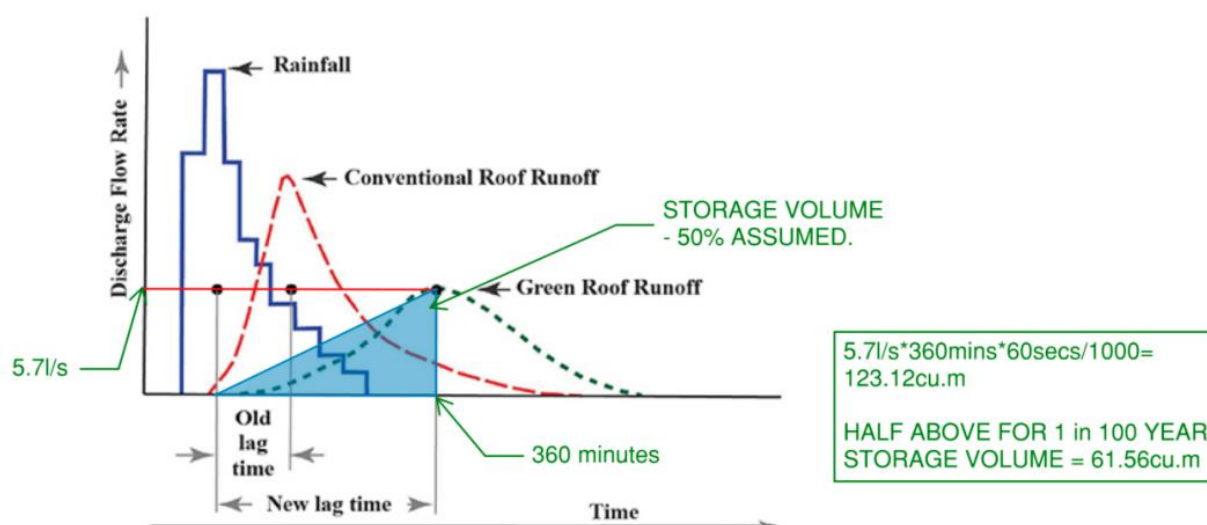
Pre-development Volume ¹	155 m3
Post-development Volume ² (see Figure 1)	40m3 non green/blue roof areas +61.6 m3 = 101.6m3
Greenfield Volume ³	95m3

¹ Document ref. 2925 Echo Street Ex 100Yr 6Hr Volume

² Document ref. 2925 Echo Street SW Calcs - 100Yr 6Hr Storm

³ Document ref. 2925 Echo Street Greenfield - 100Yr 6Hr Storm

Figure 1: Hydrograph Calculation



The enclosed causeway flow calculations provide evidence that the drainage system has been designed to ensure that no flooding for up to and including the 1 in 100-year rainfall event with 45% climate change.

With regards to the existing River Medlock culvert approximately 200m to the southeast of the site and the Shooters Brook culvert approximately 175m to the north of the site, it is anticipated that due to these large separation distances, that the structural integrity of these culverts will not be impacted by the works associated with below ground drainage works of the proposed development.

Furthermore, this condition relates specifically to the existing 900m brick foul water sewer on Granby Row. This sewer has been recorded via ground CCTV works as approximately 5.50m deep. It is important to highlight that the piling works on this site have already been completed as part of the previous development works in 2022. Recent below ground CCTV works have been undertaken and these do not reveal any indication of structural issues with the existing brick sewer which may have been associated with the piled works which have already been carried out. Further below ground construction works are to be carried out in the near future however these are not penetrative and include local excavations for foundations only. These works are situated behind the existing highway retaining wall of Granby Row and contiguous piled retaining wall within the site. Piles constructed are approximately 10.70m deep and circa 10m offset from the position of the existing foul sewer. Pile toes will therefore extend significantly beyond the depth of the existing brick foul sewer and will not directly load the existing sewer. The existing brick sewer is believed to have a level c.35.900mAOD. However, due to the proximity of piled retaining wall at circa 10m away from the existing sewer it is not anticipated that the action of shaft friction will impact the existing sewer as this lies outside the 45-degree influence zone.

The enclosed CCTV survey report (document ref. 2023_07_17 Echo Street Murraywood) provides information of the existing drainage system to understand the condition, capacity and connectivity.

It is therefore considered that surface water drainage scheme satisfies the requirements of condition 7 and can be successfully discharged.

CONCLUSION

In reviewing the information detailed above, we trust you have all the information you require to validate this application and approve the details associated with Condition 7 (Surface Water Drainage Scheme) to planning

permission 136874/FO/2023. However, please do not hesitate to contact me or my colleague Olivia Carr (olivia.carr@turley.co.uk) if you have any queries.

Yours sincerely,

A handwritten signature in black ink that reads "RBoston". The signature is written in a cursive, flowing style.

Rebecca Boston
Assistant Planner

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