

Camden Hostels

Chester Road

Blue Roof Viability Report to Chester Road Hostel

September 2024



Review of viability for a blue roof to Camden Rd Hostels

As part of Morgan Sindall Construction's sustainability commitment, blue roof systems were part of a review during the pre-contract services agreement period in terms of viability. This desktop review was conducted initially in September 2023 as part of our commitment and then again more recently in July 2024 following queries raised by Camden's sustainability team. In summary, Blue Roofs are not a viable option on the Camden Rd and Chester Rd Projects.

The initial review was conducted along with the design team (Civil and structural engineer and architects) to ensure that the discharge rate requirements with the policies CC2 and CC3 of the London Borough of Camden Local plan 2017 could be met in order to discharge Condition 21 and where possible to better this.

The initial review by the Civil engineers indicated that the schemes discharge rate was lower than intended and a blue roof scheme should be reviewed alongside other SuDs measures. The architect (Watkins Gray Architect) explored blue roof systems on Chester Road with the roofing product supplier Bauder. Bauder's initial assessment was that it would not meet the requirements of the planning approved design. The design for Chester Road on the approved planning application was for a minimal parapet along the road facing perimeters of the roof to slope back to a gully outlet located over the external walkways. Bauder explained in their email response:

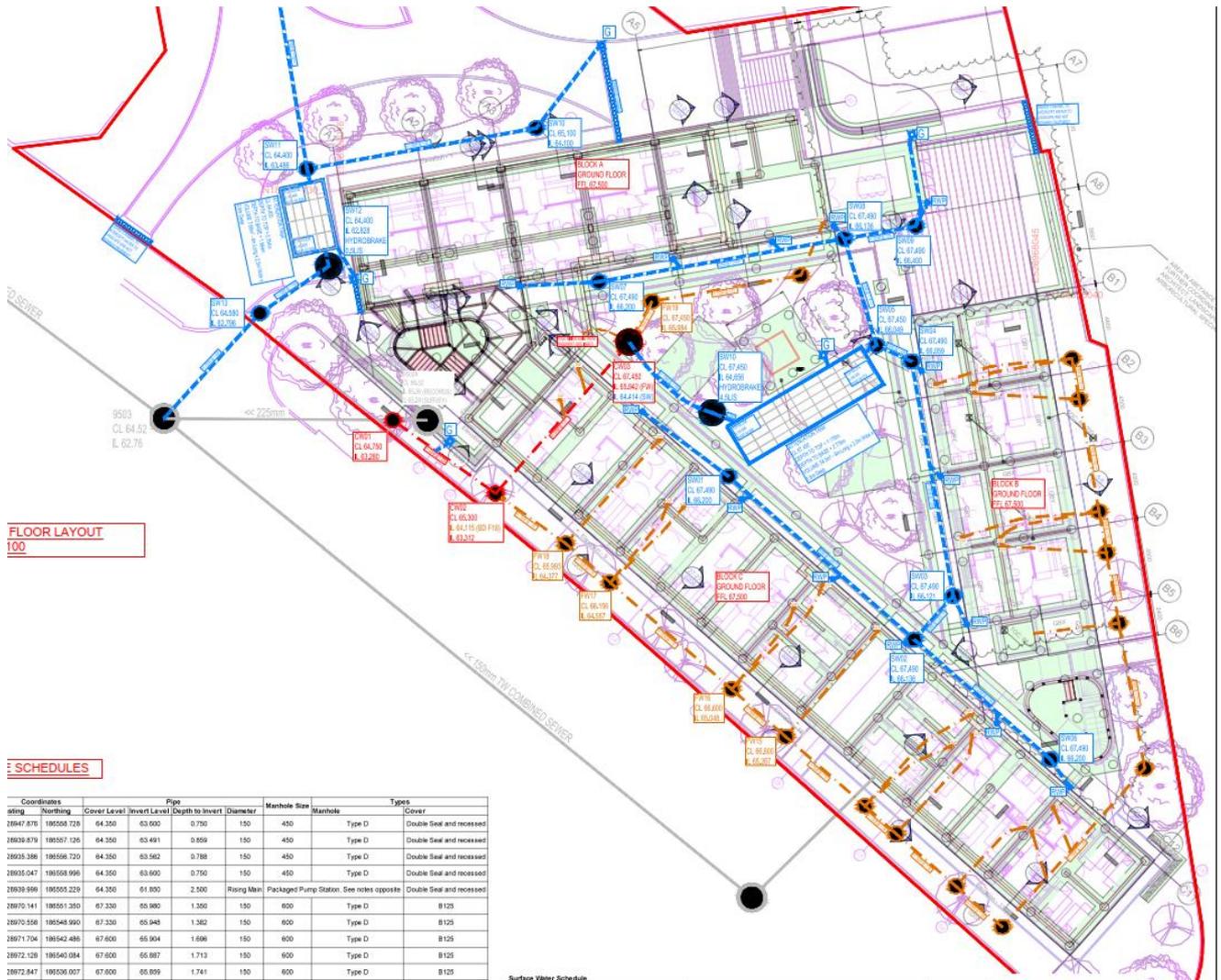
"Blue roofs have to be zero falls. If not, the attenuation cells are tipped and you start to lose a lot of rainwater storage space." The green roof without the blue roof can reduce rainwater run-off and can sit on tapered insulation but can-not be taken into account with regards to attenuation."

The architect investigated a proposed change to the roof build up, utilising flatboard but it became clear that a flat roof solution would not be possible with the proposed requirements from the preferred list of the Warranty providers.

The design progressed and discharge rates reduced further accounting for the limited space on the site for attenuation storage due to tree root protection zones, building foundations and piling.

A further review was conducted on the viability of a blue roof storage system but the limited weight capacity of the Metframe Superstructure does not permit for this to be accommodated on the roof. This conclusion was highlighted to the design team by the Metframe designers upon receipt of the fully saturated weight of the systems being investigated from Bauder.

See extract from Civil Engineering Drainage Drawing **CH0011-PEF-CH-XX-DR-C-0550** demonstrating constraints of external space on site:



The following site conditions have led to a constrained area of possible locations for a ground floor blue roof:

- Existing Trees on the North and the East of the proposed development with the associated Tree Root Protection Areas, limiting the excavation feasibility
- Adjacent Properties on the North Side
- Tower Crane and Hoist Bases to facilitate the development
- Soft Landscaping area within the Courtyard of the three blocks