

Our ref: 106885-PEF-ZZ-XX-CD-RP-000600
Planning ref:

This note has been written in response to the initial LLFA response provided by Camden Council in relation to the planning application for a site at 100 Chalk Farm Road. The response has been provided in email format, dated 19 March 2024.

The questions and comments raised by Camden have been summarised in the table below along with our response. The table provides information, responses, and links to the submitted information (where applicable) in response to these requests.

Camden Council – Requested Information	Pell Frischmann - Response
Demonstrates the inclusion of rainwater harvesting measures such as water butts within the drainage strategy unless technical justification can be provided for their non-inclusion.	The applicant has agreed to consider provision of water butts at podium level to support irrigation of the landscaping within the development proposals. Indicative locations have been included on drawing 106885-PEF-ZZ-XX-DR-CD-0500, but final positions and number of water butts will be subject to further design co-ordination, and consideration of other constraints such as future operation and management arrangements, and visual impact to amenity space.
Confirms details of the proposed blue roof, currently shown as being located “underneath the permeable paving”.	Full details will be provided as part of further detailed design. It is proposed that the blue roof structure will be located on top of the proposed basement at podium level, and located beneath the proposed permeable paving within the podium courtyard area. Runoff into landscape areas may also be discharged through the blue roof system
Shows the locations of the proposed rain gardens, tree pits, and rainwater harvesting features.	Indicative locations of tree pits are shown on drawing 106885-PEF-ZZ-XX-DR-CD-0500. The masterplan and drainage strategy does not currently have any rain gardens but these could be incorporated as the design develops.
Demonstrates that the minimum 150mm substrate for storage has been provided within the blue roofs and green roofs.	It is noted within the Sustainable Drainage Report and on the Initial Concept Drainage Strategy drawing

Pell Frischmann is the trading name of Pell Frischmann Consulting Engineers Ltd, Pell Frischmann Consultants Ltd and Pell Frischmann Ltd. We value your data, please see our UK Employee and Worker Privacy Notice on INNOV8 - BMS which details how we handle your data in compliance with GDPR.

Registered Office:
5th Floor, 85 Strand, London WC2R 0DW
Pell Frischmann Consulting Engineers Ltd
Registered in England No. 04403030
Pell Frischmann Consultants Ltd
Registered in England No. 1777946



Form ref: BF164/K

	<p>106885-PEF-ZZ-XX-DR-CD-0500, that the blue roof is designed to a depth of 0.2m (200mm).</p> <p>The blue roof will be located beneath a permeable paving system and the substrate depth will be subject to detailed design of the basement, landscape levels, and the permeable paving.</p> <p>An intensive green roof system is proposed, which will have a substrate greater than 150mm.</p>
Confirms the greenfield runoff rates for 1 in 1, 30, and 100 year events, and ensures these are consistent between the report and calculations provided.	<p>The greenfield runoff rate has been updated and is consistent throughout both the SDR and FRA as well as the Camden SuDS Proforma. The reports should reflect the following.</p> <p>1 in 1-year – 1.03l/s 1 in 30-year – 2.8l/s 1 in 100-year – 3.88l/s QBAR – 1.22l/s</p>
Shows calculations to support the existing runoff rate values given.	<p>The greenfield runoff rate has been calculated using an online Greenfield runoff tool from uksuds.com. This method of calculating greenfield runoff uses the Hr Wallingford method and the IH124 runoff estimation approach. For further details regarding input values refer to Appendix B of the Sustainable Drainage Report.</p>
The applicant should examine the opportunity to propose one discharge point, and provide justification for its feasibility, which would allow for a lower runoff rate.	<p>A single outfall strategy had initially been investigated, however, due to the extent of basement and arrangement of superstructure it has been deemed that it is not feasible to discharge all surface water via one outfall. As a result, two separate discharge routes have been proposed for resilience.</p> <p>At this stage, the design has been developed without a detailed utility and drainage survey of the site. As such, future design work may be able to rationalise the drainage proposal further than what has been submitted.</p>
Demonstrates the existing runoff volume for the site (1 in 100 yr 6 hr).	<p>Within Appendix C of the Sustainable Drainage Report, are the MicroDrainage outputs for the existing runoff volume, which states a return period of 100-years and a storm duration of 360-minutes (6 -hours). A section has also been included in 106885-PEF-ZZ-XX-RP-CD-000001 in section 2.3 to clarify this.</p>

Confirms the total attenuation volume from all proposed SuDS features.	A table (Table 3.2 Attenuation Size & Volume) has been included within Section 3 (Surface Water Drainage Strategy) of the SDR 106885-PEF-ZZ-XX-RP-CD-000001, which summaries the volumes and sizes of all attenuation structures implemented
Shows calculations for the 1 in 30 yr event to demonstrate there will be no flooding on site.	Within Appendix E of the Sustainable Drainage Report the results for the 1 in 30-year have been included for both the western and eastern permeable paving and cellular storage tanks.
Shows the anticipated overland exceedance flows.	Overland flow paths have been added to the Initial Concept Drainage Strategy drawing 106885-PEF-ZZ-XX-DR-CD-0500.
Clarifies the named maintenance owner for the proposed drainage system.	<p>Within Section 3.6 Maintenance and Adoption, three possible maintenance providers have been named, these are listed below;</p> <ul style="list-style-type: none"> • Thames Water (as the local sewerage undertaker) • The LLFA or SuDS Approval Body • A private management company <p>At this stage it is assumed that the drainage infrastructure on site will be retained in private ownership. The report has been updated to clarify this point.</p>
Demonstrates evidence that Thames Water have confirmed sufficient sewer capacity.	A letter sent by Thames Water on the 17 th January confirms they have sufficient capacity at the two locations in which connections are proposed. They have stated that in the adjacent foul water network that there is sufficient capacity. However, for surface water they have stated they await written approval from the Lead Local Flood Authority that the drainage hierarchy has been followed. A copy of the response from Thames Water will be attached to the SDR as Appendix J.
Provides detail to demonstrate that the proposed basement will not increase groundwater flood risk to the local area or be at risk of groundwater flooding, and that flood protection measures have been included within the basement.	<p>Section 4.4 of the Flood Risk Assessment covers in detail the risk groundwater poses to the site and surrounding area. The text within the report has been expanded further.</p> <p>Current groundwater data suggests that groundwater levels are lower than the proposed basement level. A Basement Impact Assessment has been prepared under reference 106885-PF-ZZ-XX-RP-005-P03 which provides further detail on this matter, and recommends</p>

	that the groundwater data is verified through further site investigation.
Demonstrates information detailing the management of Health and Safety risks related to the SuDS design.	Maintenance schedules for all surface water drainage and SuDS features has included within the Sustainable Drainage Report 106885-PEF-ZZ-XX-RP-CD-000001. Provided the drainage features are appropriately maintained the system will cater for surface water runoff up to and including the maximum design rainfall event, and will not present any significant Health & Safety Risk during normal operation.
Demonstrates the inclusion of a Flood Risk Emergency Plan.	Given the level of flood risk to the development is considered low, it is not envisaged that an FEMP will be required. An FEMP will be considered as part of further design of the proposed buildings and landscape/public realm. We would request the requirements is included as per-occupation conditions as would typically be expected.