MOMENTUM

structural engineers

File note

Project	Date	Ву	Reference
Meadows Hall	07 July 23	RH	4821_FNT

Title

planning application 22/3112/FUL - Meadows Hall, Church Road, Richmond TW10 6LN - Surface Water

Introduction

This file note has been prepared to respond to further comments sent to Momentum on 29th June 2023, to the below ground drainage strategy. These comments have been raised via the planning case officer for proposed residential redevelopment at Meadows Hall in Richmond.

Comments received

Drainage hierarchy:

MORE INFORMATION REQUIRED - the permeable paving should be included on the plan drawings, to make it clear how much of the external surfacing will be permeable and impermeable, as the General Arrangement Plan shows that much of the external areas are concrete and it should be clear how these areas are to be infiltrating.

Runoff rate:

PASS - sufficient storage volume is proposed for the impermeable areas on site. The applicant has provided the brownfield runoff rate for 430m² of the site to demonstrate betterment for the proposed impermeable area and confirmed that the brownfield runoff rate has not been calculated for the full site as the whole site is not draining to the sewer.

Attenuation volume:

MORE INFORMATION REQUIRED - the applicant should explain using a drawing where the proposed external areas are infiltrating in relation to the proposed SuDS features and how they provide equivalent drainage to the 'soakaway equivalent' dimensions provided. The applicant should explain where runoff will drain to should the external areas become saturated in a worst-case storm event.

Responses

Drainage hierarchy:

As stated in the report and as used in the calculations, all the external surfaces are permeable. The concrete paver setts shown on the landscape Architect's drawings will be laid on sharp sand on Type 3 hardcore with permeable joints forming a permeable surface infiltrating directly to the ground below.

Runoff rate:

Noted

Attenuation volume:

We attach a more detailed set of landscape proposals showing further detail of the soft and hard landscape. All surface water will infiltrate to a drainage blanket laid below all surfaces providing the equivalent storage as noted in our previous response. As this is a uniform proposal we don't think a drawing is required to show how the surfaces relate to the SuDS features.

The exceedance drawing included in the original surface water strategy report shows where run-off will drain to should either the volume from the impermeable roof areas exceed the attenuation provided or should the volume of surface water permeating to the ground exceed the infiltration volume provided by the drainage blanket laid below the permeable surfaces.