

Sustainable Drainage Review

Application Name/Title: B & Q, Broadway Retail Park, Cricklewood Lane, London. NW2 1ES
Reference Number: 20/3564/OUT
Date Initial Comments Provided: 08/10/20
Initial Review By: David Leppard
Checked/Approved By: Jack Southon

Revisions / Amendments

Rev No.	Date	Description	Author/ Prepared By:	Approved For Issue By:

Summary of Review

Recommendations
<p>There is No Objection in principle and recommend the following conditions are imposed: Development shall not begin until the following information for the development has been submitted and approved in writing by London Borough of Barnet planning authority. The scheme shall subsequently be implemented in accordance with the approved details before development is completed.</p> <p>Drainage plans and calculations reflective of the latest drainage scheme demonstrating the surface water can be managed appropriately on site must be submitted to and approved in writing by the Local Planning Authority.</p> <p>Reason To ensure a satisfactory method of surface water drainage, and to prevent the increased risk of flooding to third parties in accordance with Policy CS13 of the Barnet Local Plan, Policies 5.13 and 5.14 of the London Plan, and changes to SuDS planning policy in force as of 6 April 2015 (including the Written Ministerial Statement of 18 December 2014, Planning Practice Guidance and the Nonstatutory Technical Standards for Sustainable Drainage Systems)</p>

Documents Reviewed
<ol style="list-style-type: none"> BQ_CRICKLEWOOD_SURFACE_WATER_DRAINAGE_STRATEGY_ BQ_CRICKLEWOOD_FLOOD_RISK_ASSESSMENT

Notes
<ol style="list-style-type: none"> The proposed development will involve the demolition of a retail park to construct up to 1,200 homes as well as leisure and retail provisions and areas of open greenspace. This information was taken from the supplied Flood Risk Assessment and Surface Water Drainage Strategy. The site is classed as a major development and is situated in Flood Zone 1.

Detailed Review

Site Details	
Site Location	B & Q, Broadway Retail Park, Cricklewood Lane, London. NW2 1ES
Site Area	2.88 ha
Existing use	Developed brownfield land occupied by warehouse buildings and car parks
Proposed use	Comprehensive redevelopment of the Site for a mix of uses including residential and flexible commercial and community floorspace in uses classes A3/B1/D1 and D2; associated access; car and cycle parking; landscaping; and associated works
Major or Minor Development?	Major

Sustainable Drainage Systems (SuDS) – Design	
Are SuDS Required?	Yes
Does drainage strategy follow the SuDS hierarchy?	Yes
Is justification for selection of discharge method within SuDS hierarchy adequate?	Yes, but the rational provided for excluding open water features on the grounds of space constraints is not strong seeing that the site in 2.88 ha.
Have boreholes / infiltration testing been performed?	Yes
Boreholes / infiltration test findings	London Clay
Has a ground investigation / contaminated lands assessment performed?	Yes
Contaminated lands assessment report findings.	There is potentially a large varied amount of contamination
Is the site located within a Source Protection Zone?	TBC
Do the above tests indicate infiltration is appropriate?	No
What type(s) of SuDS practices have been proposed?	Rainwater Harvesting, Green/Brown Roofs, Rain Gardens, Geocellular Storage,
Infiltrating SuDS proposed?	No
Infiltration (yes) - Have infiltration systems been designed adequately? Is a sufficient factor of safety proposed?	N/A
Infiltration (no) – what justification is given for not implementing infiltration SuDS?	London Clay and contaminated ground
Infiltration (no) – is justification adequate?	Yes

Does SuDS scheme provide sufficient detail regarding biodiversity / amenity?	Not at this stage
Is the design cost-effective to operate and maintain over the design life of the development, in order to reduce the risk of the drainage system not functioning?	No details provided at this stage
Has design of SuDS practices been adequately documented in plans and schemes?	No details provided at this stage

Sustainable Drainage Systems (SuDS) – Construction, Adoption, Operation & Maintenance	
Has a Construction Phasing Plan been submitted?	No
Is Construction Phasing Plan adequate?	No
Have party(ies) adopting / owning SuDS post-construction been identified?	At this stage it is assumed that the Developer will be the owner of the post-construction SuDS
SuDS Adopter details	Not at this stage
Has proof of party(ies) adopting SuDS been submitted?	Not at this stage
Has an Operation & Maintenance (O&M) Plan for the SuDS been submitted?	An indicative maintenance plan has been provided
Is SuDS O&M Plan adequate?	A more detailed plan will be required
Has an assessment of operation and maintenance costs over the lifecycle of the SuDS been provided?	N/A
Is O&M lifecycle costs assessment adequate?	N/A
Has the applicant demonstrated that sufficient funds have been set aside and / or sufficient funds can be raised during the planned lifecycle of the SuDS to cover O&M costs?	N/A

Flood Risk Assessment (FRA)	
NPPF Vulnerability Classification	As the development will contain both buildings used for dwelling houses and non-residential uses, it is classified as “more vulnerable”
Flood Zone	The Site is located entirely in Flood Zone 1, which is defined as an area of land that has less than 1 in 1,000 annual probability of river or sea flooding.
uFMfSW Flood Risk	The EA’s surface water flood map indicates the flood risk to the site from surface water flooding variable, with small areas at high risk, small areas at medium risk and about 20% of the site at low risk.
Reservoir Breach Flood Risk	The EA’s Flood Risk from Reservoirs mapping indicated the flood risk to the site from reservoir breach is very low – 0.1%
Proximity to nearest Flood Zone 2 / 3	1,700 metres
Groundwater Flood Risk?	Low
Site located within a Critical Drainage Area?	Yes
Vulnerability Classification permitted within Flood Zone?	Yes
Basement proposed?	No
Basement use(s)	N/A
Sequential Test Required?	Insufficient information provided
Sequential Test Supplied?	Insufficient information provided
Exception Test Required?	Insufficient information provided
Exception Test Supplied?	Insufficient information provided
FRA Supplied?	Yes
FRA Required?	Yes
Adequate assessment of flood risk to site users / others?	Yes
Adequate mitigation of flood risk to site users / others?	Yes

Drainage Strategy	
Adequate documentation provided to permit review?	Greenfield runoff rate calculations required
Have the inputs and assumptions for the surface water runoff / volume calculations been clearly specified and discussed?	Yes
Are the inputs and assumptions used for the SW runoff / volume calculations valid?	Yes
Have overland flows from outside the site been adequately considered?	No
Have exceedance flows been adequately considered?	No
Where site runoff is to be discharged to the local ordinary watercourse, has the relevant authority been consulted as to whether any additional or alternative discharge controls are required?	N/A
Where site runoff is to be discharged to the surface water sewer or combined sewer, has the sewerage undertaker been consulted as to whether any additional or alternative discharge controls are required?	Yes
Where site runoff is to be discharged to highway drainage, has the highway authority been consulted as to whether any additional or alternative discharge controls are required?	N/A
If the site is within a CDA, has the council identified the site / area / future development as being able to offer opportunities to contribute to a wider reduction in flood risk?	Not within a CDA
Does the submission meet peak runoff rate requirements as S2 and S3 of the Non-Statutory Technical Standards for Sustainable Drainage Systems?	The development is unlikely to meet S2 and S3 until all three phases are online. A phased implementation plan is required to show how the scheme will meet the greenfield commitment at each stage
Does the submission meet volume control requirements as outlined in S4, S5 and S6 of the Non-Statutory Technical Standards for Sustainable Drainage Systems?	Yes
Where a component is designed to convey or store flows in excess of the 1 in 30-year return period event. Has it been demonstrated that the upstream system (including any inlets such as gullies or pervious paving) provides the capacity to allow the flows to reach the component without surface flooding ¹ ?	No
If attenuation is proposed, is the specified drawdown time adequate?	Yes
Is pumping of surface water proposed?	No

¹ Water UK. (2020). Sewerage Sector Guidance Appendix C - Design and Construction Guidance for foul and surface water sewers offered for adoption under the Code for adoption agreements for water and sewerage companies operating wholly or mainly in England ("the Code"), Ver2.0. Page 57, section C6.1.

Does the submission meet structural integrity requirements as outlined in S10 and S11 of the Non-Statutory Technical Standards for Sustainable Drainage Systems?	Yes
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Watercourse Consents	
Works taking place within 20m of a watercourse?	No
If yes, type of watercourse?	N/A
Ordinary Watercourse Consent Required?	N/A
EA Flood Defence Consent Required?	N/A
Is a watercourse drainage consent required?	N/A
Comments	