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Mr T Roberts
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Our Ref: 201345/ml/KL/02

19 April 2023

Dear Tom

KINGSTON BRIDGE HOUSE

Further to your recent email we have reviewed the comments from LLFA and their reasons for objecting. Firstly, the storage volumes to achieve greenfield rates has been provided in the SuDS proforma a copy of which is enclosed. The storage requirements for a 1 in 1 year event is 24 cubic meters, for the 1 in 30 year event 52 cubic meters and the 1 in 100 year event requires 68 cubic meters. I trust the storage requirements are now clear.

The LLFA are correct in the depth of storage on the roofs has been reduced from 200mm to 150mm the modelling clearly demonstrated that the depth of rainfall over the roofs was only 66mm deep for a 1 in 100 year +40%, so the opportunity to reduce the building height was taken and the available storage depth was reduced to 150mm which still allows a 100mm freeboard over the model flood depth.

The drainage calculations do not need to be rerun as they depth of available storage has no impact on the actual depth of rainfall over the roof as it is greater then the rain fall the SuDS proforma has been updated to reflect the reduction in storage from 200 to 150mm and a copy is enclosed.

The site comprises of roofs permeable paving and soft landscaping, the roof and paving areas are all pick up in the SuDS proforma, there is no section for landscaping areas to be included. As the LLFA insist the entire area of the site needs to be considered we have included the soft landscaped areas under bioretention in the proforma.

With regards to the last part of the objection Westcombe Management will be responsible for the maintenance of the drainage and SuDS features.

I trust the above is sufficient for the LLFA to review the strategy and remove their objection, however if you require further information please let me know.

Yours sincerely

Kevin Lang

1. Project & Site Details	Project / Site Name (including sub-catchment / stage / phase where appropriate)	Kingston Bridge House
	Address & post code	at Kingston Bridge house, Church Road, Hampton Wick, KT1 4AG
	OS Grid ref. (Easting, Northing)	E 517487 N 169400
	LPA reference (if applicable)	
	Brief description of proposed work	Conversion of existitng building from student accomodation to residential apartments
	Total site Area	2,780 m ²
	Total existing impervious area	2,550 m ²
	Total proposed impervious area	0 m ²
	Is the site in a surface water flood risk catchment (ref. local Surface Water Management Plan)?	no
	Existing drainage connection type and location	Sewer
	Designer Name	
	Designer Position	
Designer Company		

2. Proposed Discharge Arrangements	2a. Infiltration Feasibility		
	Superficial geology classification	Kempton Park Gravels	
	Bedrock geology classification	London Clay	
	Site infiltration rate	-	m/s
	Depth to groundwater level	-	m below ground level
	Is infiltration feasible?	No	
	2b. Drainage Hierarchy		
		<i>Feasible (Y/N)</i>	<i>Proposed (Y/N)</i>
	1 store rainwater for later use	Y	Y
	2 use infiltration techniques, such as porous surfaces in non-clay areas	N	N
	3 attenuate rainwater in ponds or open water features for gradual release	N	N
	4 attenuate rainwater by storing in tanks or sealed water features for gradual release	N	N
	5 discharge rainwater direct to a watercourse	N	N
	6 discharge rainwater to a surface water sewer/drain	Y	Y
7 discharge rainwater to the combined sewer.	N	N	
2c. Proposed Discharge Details			
Proposed discharge location	Existing conection to sewer		
Has the owner/regulator of the discharge location been consulted?	No		

3a. Discharge Rates & Required Storage				
	Greenfield (GF) runoff rate (l/s)	Existing discharge rate (l/s)	Required storage for GF rate (m ³)	Proposed discharge rate (l/s)
Q _{bar}	0.4	 	 	
1 in 1	0.4	26.1	24	0.6
1 in 30	1	51.1	52	1.2
1 in 100	1.3	51.2	68	1.3
1 in 100 + CC	 	 	99	1.6
Climate change allowance used		40%		
3b. Principal Method of Flow Control		orifice		
3c. Proposed SuDS Measures				
	Catchment area (m ²)	Plan area (m ²)	Storage vol. (m ³)	
Rainwater harvesting	0	 	0	
Infiltration systems	0	 	0	
Green roofs	1031	1031	206	
Blue roofs	0	0	0	
Filter strips	0	0	0	
Filter drains	0	0	0	
Bioretention / tree pits	1129	1129	2	
Pervious pavements	620	620	57	
Swales	0	0	0	
Basins/ponds	0	0	0	
Attenuation tanks	0	 	0	
Total	2780	2780	265	

4a. Discharge & Drainage Strategy		Page/section of drainage report
Infiltration feasibility (2a) – geotechnical factual and interpretive reports, including infiltration results		section 2.2
Drainage hierarchy (2b)		section 4.2
Proposed discharge details (2c) – utility plans, correspondence / approval from owner/regulator of discharge location		Appendix B
Discharge rates & storage (3a) – detailed hydrologic and hydraulic calculations		section 4
Proposed SuDS measures & specifications (3b)		section 4.2
4b. Other Supporting Details		Page/section of drainage report
Detailed Development Layout		Appendix C
Detailed drainage design drawings, including exceedance flow routes		n/a
Detailed landscaping plans		Appendix C
Maintenance strategy		section 5
Demonstration of how the proposed SuDS measures improve:		n/a
a) water quality of the runoff?		Greenroof / permeable paving
b) biodiversity?		Greenroof
c) amenity?		