

1. Project & Site Details	Project / Site Name (including sub-catchment / stage / phase where appropriate)	Sheldon House
	Address & post code	Cromwell Road Teddington TW11 9EJ
	OS Grid ref. (Easting, Northing)	E 516264 N 170626
	LPA reference (if applicable)	
	Brief description of proposed work	The scheme proposals comprise the demolition of the existing building to allow the construction of a new 5-storey residential development providing 27 residential units
	Total site Area	1650 m <sup>2</sup>
	Total existing impervious area	1110 m <sup>2</sup>
	Total proposed impervious area	690 m <sup>2</sup>
	Is the site in a surface water flood risk catchment (ref. local Surface Water Management Plan)?	Low Risk London Borough of Richmond upon Thames SWMP, December 2021
	Existing drainage connection type and location	Private drainage network connects to Surface Water Sewer on Cromwell Road
	Designer Name	Theo Risley
	Designer Position	Engineer
	Designer Company	Ardent Consulting Engineers

2. Proposed Discharge Arrangements	<b>2a. Infiltration Feasibility</b>		
	Superficial geology classification	Kempton Park Gravel Member	
	Bedrock geology classification	London Clay Formation	
	Site infiltration rate	0	m/s
	Depth to groundwater level	2.2	m below ground level
	Is infiltration feasible?	No	
	<b>2b. Drainage Hierarchy</b>		
		<i>Feasible (Y/N)</i>	<i>Proposed (Y/N)</i>
	1 store rainwater for later use	N	N
	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	Y	Y
	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	
<b>2c. Proposed Discharge Details</b>			
Proposed discharge location	Surface water sewer on Cromwell Road		
Has the owner/regulator of the discharge location been consulted?	Yes, capacity confirmed by Thames Water		

3a. Discharge Rates & Required Storage				
	Greenfield (GF) runoff rate (l/s)	Existing discharge rate (l/s)	Required storage for GF rate (m <sup>3</sup> )	Proposed discharge rate (l/s)
Q <sub>bar</sub>	0.17			
1 in 1	0.14	15.68	4	2
1 in 30	0.39	34.88	14	2
1 in 100	0.54	44.4	20	2
1 in 100 + CC			29	2
Climate change allowance used		40%		
3b. Principal Method of Flow Control		Orifice Plate		
3c. Proposed SuDS Measures				
	Catchment area (m <sup>2</sup> )	Plan area (m <sup>2</sup> )	Storage vol. (m <sup>3</sup> )	
Rainwater harvesting	0		0	
Infiltration systems	0		0	
Green roofs	345	345	0	
Blue roofs	0	0	0	
Filter strips	0	0	0	
Filter drains	0	0	0	
Bioretention / tree pits	0	0	0	
Pervious pavements	230	230	21	
Swales	0	0	0	
Basins/ponds	0	0	0	
Attenuation tanks	24		9	
<b>Total</b>	<b>599</b>	<b>575</b>	<b>30</b>	

4a. Discharge & Drainage Strategy	Page/section of drainage report
Infiltration feasibility (2a) – geotechnical factual and interpretive reports, including infiltration results	Section 2, Pages 4-6 Appendix C
Drainage hierarchy (2b)	Section 5, Page 18
Proposed discharge details (2c) – utility plans, correspondence / approval from owner/regulator of discharge location	Appendix E Appendix D Appendix J
Discharge rates & storage (3a) – detailed hydrologic and hydraulic calculations	Section 5, Page 22 Appendix H
Proposed SuDS measures & specifications (3b)	Section 5, Page 19 Appendix E
4b. Other Supporting Details	Page/section of drainage report
Detailed Development Layout	Section 5, Page 3
Detailed drainage design drawings, including exceedance flow routes	Appendix E
Detailed landscaping plans	
Maintenance strategy	Appendix I
Demonstration of how the proposed SuDS measures improve:	Section 5, Page 23
a) water quality of the runoff?	Appendix I
b) biodiversity?	
c) amenity?	