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Drainage Strategy Town Centre West Uxbridge

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Drainage Strategy

It is proposed to discharge the surface water from the Town Centre West site into the drainage system in the adjacent Spine Road drainage infrastructure in accordance with Atkins Global Ltd Drainage Strategy VSM Estates Limited.

Residential Block 1 lies predominantly within Area 3 of the catchment drawing. The allowable impermeable area and discharge rate for Area 3 is 5468m² and 15l/s requiring storage of 225m³ for the 1 in 100yr + 30% event. The impermeable area of Block 1 is 2284m² which equates to a discharge of 6 l/s into the site wide drainage at the existing manhole in St. Andrews Road. It is proposed that an attenuation tank of 100m³ situated in the private road will also be required. With basement parking covering the extent of the plot there is no external space for other SuDS opportunities.

Block 2A lies within Area 4 of the catchment drawing. The allowable impermeable area and discharge rate for Area 4 is 5140m² and 15l/s requiring storage of 205m³ for the 1 in 100yr + 30% event. The impermeable area for Block 2A is 1770m² which equates to a discharge of 5 l/s into the surface water drainage system in the Spine road at Sstub 156 (Atkins ref). It is proposed that the car park bays to the rear of the block and the courtyard hard landscaping will be porous paving and an attenuation tank of 100m³ will also be required.

Apartment blocks 3A, 3B and 3C together with the common access road lie within Area 5 of the catchment drawing. The allowable impermeable area and discharge rate for Area 5 is 9760m² and 30l/s requiring storage of 375m³ for the 1 in 100yr + 30% event. The impermeable area for these residential units is 4925m² equating to a discharge rate of 15 l/s into the surface water drainage system in the Spine Road at Sstub158 (Atkins ref). It is proposed that the car park bays to the south of the block will be porous paving and an attenuation tank of 190m³ will also be required in the private road. The landscape courtyard between the blocks sits over the undercroft car park and has been considered as impermeable.

Jamie Glynn
B.Eng
For Nolan Associates

Component	Regular Maintenance	Occasional (Infrequent) Maintenance	Remedial Maintenance	Monitoring
Attenuation storage tanks	Inspect and identify any areas that are not operating correctly. If required, take remedial action monthly. Remove debris from the catchment surface monthly. For systems where rainfall infiltrates into the tank from above, check surface of filter for blockage by sediment, algae or other matter; remove and replace surface infiltration medium as necessary annually. Remove sediment from pre-treatment structures and/or internal forebays annually.		Repair/rehabilitate inlets, outlets, overflows and vents as required.	Inspect/check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed annually. Survey inside of tank for sediment build-up and remove if necessary every five years.
Trees	Remove litter and debris monthly. Manage other vegetation and remove nuisance plants monthly. Inspect inlets and outlets monthly.	Check tree health and manage tree appropriately annually. Remove silt build-up from inlets and surface and replace mulch as necessary annually. Water as required.		Inspect silt accumulation rates and establish appropriate removal frequencies half yearly.