

Е	28.06.2022	UPDATED TO SUIT LATEST CLIENT COMMENTS	TMR	LB	CY

dge Height 3.62	10 File	<u>Area Su</u>	ummary Schedule		
	100.71 Eave Ht	Exist. Im	permeable Catchment	0.477 ha	
	99.97 Eave Ht	Prop. In	npermeable Catchment	0.308 ha	
95.28		Equival	ent Brownfield rate:		
		Existing at minir	brownfield based on max d mum grade:	lischarge of the existing 225Ø laid	
		Brownfi	eld Discharge Rate:	39.8 l/s	
		Equival	ent Greenfield Runoff Rates		
		The gre develop large a	enfield runoff rates have be pable area using the FEH Me reas of open space which w	en assessed for the net ethod. The calculation excludes vill remain undeveloped.	
		Return I	Period Greenfield	Rate (I/s)	
$ \rightarrow$		2 3 10	yr 0.7 Oyr 1.9 OOyr 2.6		
	$\rightarrow - \rightarrow - \rightarrow \rightarrow$	As far c	as practicable the site will se	ek to limit back to greenfield runoff /s as gareed with Thames Water	
	$\rightarrow - \rightarrow -$	Attenua	ation Summary		
		PPA 1 P	Porous Pavina		
\rightarrow		Catchn	nent lic Control	0.037 ha 500 Orifice @ll +0.000m	
		Porous	Paving Porosity Paving Dimensions	30% 174m ² x 0.5m deep	
	Existing private foul and storm drains which route through site will be diverted to accommodate	Comple			
	the proposed development and will remain separate from the site drainage.	Catchn Hydrau	nent lic Control	0.271 ha Hydrobrake @IL+0.000m Ref: MD-SHE-0101-5000-1300-5000	
		Cellular Cellular Over Siz PPA 2-5 PPA 2-3	r storage Porosity r storage Dimensions zed Pipe Dimensions i Porous Paving Porosity Porous Paving Dimensions	95% 5.0 m x 27.0m x 1.0m deep 450Ø X 60m 30% 78m ² x 0.5m deep	
		100-m-4		149.5 m ³	
		100yr+4 100yr+4	10% Discharge Rate:	5.0 l/s (87% betterment over	
		Notes:		existing brownfield conditions)	
	Surface Water Strategy: Surface Water Discharge Retained private surface water	 The proposed development has been assessed in line with the National Planning Policy Framework, to allow the planning application to be progressed and to show that the development can be undertaken in an acceptable manner from a flood risk perspective. 			
	connection to the existing surface water network, subject to remedial works to correct a joint displacement at connection. Flow Control Proposed surface water control chamber to restrict		 The proposed development is located within Flood Zone 1 a not known to be susceptible to flooding from pluvial, groundwater, infrastructure or artificial sources. To ensure the development is safe throughout its lifetime, the surface water strategy accounts for runoff in up to the 1 in 1 year return period. 		
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	5.0 l/s (or 'as close to greenfield as practicable'). Controlled flows are proposed to discharge into the surface water network to the north within the Castle Street. 450Ø oversized pipe to enable surcharged	4. The strategy also safeguards against climate change (40%), providing betterment over existing conditions, where the rate and volume of runoff would continue to increase due to climate change.			
- -)	Exceedance Flows Beyond the capacity of the site, flows would continue	5. The existing ground conditions preclude the use of soakaways. Instead, storm water runoff will be attenuated on-site and will discharge via the existing site connection to the TW stormwater sewer to the path of the site within Castle Streat.			
	off-site as per existing brownfield conditions, albeit at a reduced rate and not or volume.	sewer to the north of the site within Castle Street.6. The impermeable drained catchment will reduce though the development, also reducing the peak rates and volumes of			
	Indicative locations for RWP only	rur	nott from the site.		
	Underdrained Permeable Paving Proposed underdrained permeable paving to receive surface runoff from access road and parking court. To provide treatment and further storage upstream of proposed cellular attenuation tank with fin drain to convey flows into the surface water network. Additional capacity within PPA2-5 allocated for some exceedance storage. PPA5 Exceedance Route Cover level of PPA5, or part there of, to be 96.50mAOD to act as low point within private surface water network to allow re-emergence beyond the 200yr+40%CC event. Cellular Attenuation Cellular tank to receive flows from external hard paving and roof catchments. Chambers immediately upstream of tank to include silt traps. Maintenance Geocellular Attenuation to be fitted with access turets for maintenance of feature. Minimum 1no. cover to be vented in accordance with manufacturer recommendations.		 The attenuation requirements for the site are being delivered by a combination of cellular attenuation, oversized pipe and under-drained permeable pavements. The use of permeable pavements will offer treatment of runoff from trafficked areas prior to discharge 		
			e proposed drainage strateg close to the equivalent gree sviding significant bettermer	gy for this site reduces peak flows enfield rates as is practicable, nt compared to existing	
			lowing a pre-application en reed to the re-use of existing face water discharge to the	quiry, Thames Water (TW) has g sewer connections and agreed	
 			yond the 100-year critical sto ected towards any residual	orm, exceedance runoff will be areas of open space and/or car	
			rking, where any residual co n be utilised. JI flows generated by the pr	pacity or aboveground storage	
			ved by a new private gravit nnection to the TW foul sew en confirmed by TW.	y network, utilising the existing er network. Suitable capacity has	
			sting drainage connections e southeast of the developm ained and diverted to avoid rere possible it is recommen- site to avoid a \$185 sewer of	from the commercial building to nent (Land Tyre Service) will be a conflict with the development. ded that this is dealt with privately diversion application.	
		13. An be ab ne ⁻ Tre	y potential drainage conne accommodated by the pro ility to introduce a high-leve twork to assist in managing o wlawn House roof catchme	ctions from Trelawn House would oposed development, with the I weir within the stormwater any additional inflows from int.	
		14. All de Cli op	on-site proposed drainage signed in accordance with RIA C753 and will become th erator.	will remain private and will be Building Regulations Part H and ne responsibility of the building	
		15. As life the Pla pro	the development will be sat time and will actively reduc downstream catchment, it inning Authority confirm they oposed development.	fe from flooding throughout its e the flood risk to properties within is recommended that the Local y have no objections to the	

	Manhole Name	Cover Level	Invert Level	
	\$101	96.750	95.500	
	\$102	97.350	95.170	
le (to be	\$103	98.350	95.000	
):	S104	96.750	94.876	
nmended	\$105	96.750	94.775	
quency	\$106	96.750	94.629	
for 3	\$107	96.750	94.583	
then six	S108	96.750	94.537	
/	S109	96.490	94.270	
	S201	96.750	95.040	
months	\$301	96.750	95.250	
	\$302	96.750	95.120	
months	\$303	96.750	95.040	
	S401	96.750	94.840	
v	\$501	96.750	94.589	
,	S1	97.470	96.350	
years	\$8	96.660	95.450	
) vears	F1	97.540	96.670	
y yours	F4	96.650	93.230	
ired				

Manhole Information

Proposed and retained existing private drainage maintenance schedule undertaken by building operator or appointed management company)

Maintenance Schedule	Required Action	Recommended Frequency	
	Inspect and identify any areas that are not operating correctly. Take remedial action where required.	Monthly for 3 months, then six monthly	
Develop	Remove debris from gullies, manholes and flow controls.	Every 6 months	
Regular Maintenance	Remove debris from catchpits upstream of private attenuation/soakaways.	Every 6 months	
	Inspect gullies, manholes, flow controls, attenuation and soakaways.	Annually	
	Jetting of pipes.	Every 5 years	
	Internal inspection of pipes (CCTV).	Every 10 years	
Occasional Maintenance	Repair/rehabilitate gullies, pipes, manholes and flow controls.	As required	

CASTLE STREET, BANBURY

PRELIMINARY DRAINAGE LAYOUT REV: DRAWING No: 01-PDL-1001 Е 10 1:200 metres

DESIGN BY:

awcockward partnership

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