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2.15 Design level used for surcharge water level at point of discharge(14) ..34.4.... mAOD

2.16 Provide outfall levels if discharging to a watercourse.....

CALCULATION OUTPUTS REQUIRED

Note: Sections 3 and 4 refer to site where storage is provided by attenuation and / or partial infiltration. Where all flows are infiltrated to ground omit Sections 3 -5 and complete Section 6.

3.0 Defining rate of runoff from the site. These values must be calculated for each return period and should vary.

3.2 Max. discharge for 1 in 1 year rainfall ..3.6.....l/s/ha, ..2.1.....l/s for the site

3.2 Max. discharge for Q_{med} rainfall ..3.7.....l/s/ha, ..2.1.....l/s for the site

3.3 Max. discharge for 1 in 30 year rainfall ..9.7.....l/s/ha, ..2.4.....l/s for the site

3.4 Max. discharge for 1 in 100 year rainfall ..13.4.....l/s/ha, ..2.8.....l/s for the site

3.5 Max. discharge for 1 in 100 year plus 40%CC .....l/s/ha, ..3.0.....l/s for the site

4.0 Attenuation storage to manage peak runoff rates from the site. These values must be calculated for each return period

4.1 Storage - 1 in 1 year 4.6 m³ 0.0033 m³/m² (of developed impermeable area)

4.2 Storage - 1in 30 year (7) 9.4 m³ ~~0.0~~ m³/m² 0.0068

4.3 Storage - 1in 100 year (8) 16.2 m³ 0.010 m³/m²

4.4 Storage - 1 in 100 year plus 40%CC (9) 23.8 m³ 0.01 m³/m²

5.0 Controlling volume of runoff from the site

5.1 Pre development runoff volume(10) 54.38 m³ for the site

5.2 Post development runoff volume (unmitigated) (10) 57.29 m³ for the site

5.3 Volume to be controlled/does not leave site (5.2 - 5.1) 2.91 m³ for the site → But we now restrict to 3 l/s

5.4 Volume control provided by:

1. Interception losses(11) ..0.... m³
2. Rain harvesting(12) ..0.... m³
3. Infiltration (even at very low rates) ..0.... m³
4. Separate area designated as long term storage(13) 23.8 m³

5.5 Total volume control (sum of inputs for 5.4 (1-4) 23.8 m³ (15)

6.0 Site storage volumes (full infiltration only) N/A

6.1 Storage - 1in 30 year (7) .....m³ .....m³/m² (of developed impermeable area)

6.2 Storage - 1 in 100 year plus CC (9) .....m³ .....m³/m²

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This form identifies the information required by the LLFA to enable technical assessment of flows and volumes determined as part of drainage / SuDS calculations.

*Note : * means delete as appropriate; Numbers in brackets refer to accompanying notes.*

SITE BACKGROUND INFORMATION

1.0 SITE DETAILS AND RELEVANT CLASSIFICIATIONS

1.1 Planning application reference ..... NOT YET SUBMITTED .....

1.2 Site name ..... VICTORIA RETAIL PARK .....

1.3 Total application site area (1) ..... 1700 .....m² ..... 0.17 .....ha

1.4 Is the site located in a area at SW flood risk, a CDA or LFRZ (see L.B. Hillingdon website SWMP) (Y) / N

1.5 Is the site located in a SPZ (refer to Environment Agency website Groundwater) Y / (N)

2.0 VOLUME AND FLOW DESIGN INPUTS

2.1 Site area which is positively drained by SuDS (2) ..... 0 .....m²

2.2 Impermeable area drained pre development (3) ..... 815 .....m²

2.3 Impermeable area drained post development (3) ..... 1380 .....m²

2.4 Additional impermeable area (2.3 minus 2.2) ..... 565 .....m²

2.5 Predevelopment use (4) Greenfield / Brownfield / (Mixed)*

2.6 Method of discharge (5) Infiltration / (waterbody) / storm sewer / combined sewer*

2.7 Infiltration rate (evidence to be supplied to BRE365 as minimum)..... 0 .....m/s

2.8 Influencing factors on infiltration ..... LONDON CLAY .....

2.9 Depth to highest known ground water table ..... ? .....mAOD

2.10 Coefficient of runoff (Cv) (6) ..... 1.0 .....

The LLFA would typically anticipate a Cv of 0.95 from roofed areas and a Cv of 0.9 from other hard standing areas. These values should be applied for both summer and winter scenarios if using hydraulic design software

2.11 Justification for Cv used if less than this .....

2.12 FEH rainfall data used (for Hillingdon typical value 4l/s/ha (Note that FSR not to be used)) (Y) / N

2.13 Will storage be subject to surcharge by elevated water levels in watercourse / sewer Y / (N)

2.14 Invert level at outlet (invert level of final flow control) ..... 32.392 .....mAOD