**Required Design Criteria**

To design the Aquaflow System we need to ensure that the sub-base has sufficient capacity to attenuate the rainfall and has adequate structural strength to accommodate the proposed loading requirements.

To facilitate the design of the Aquaflow System and achieve the parameters above, the following information would be required:

**Section 1 – Project & Design Information**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name & address of scheme.**  **(with post code if available)** | | |  | | | | | | | |
| **CBR Test Results**  CBR results indicate the subsoil load bearing capacity. This allows us to design with adequate pavement strength for the proposed vehicle loadings. Refer BS 7533-13:2009 clause 4.4 subgrade assessment, which recommends the method described in BS1377 to carry out **soaked** CBR tests.  (3% can be assumed if not available & confirmed prior to construction) | | | | | | | | | (%) | Not available  (assume 3%) |
|  | | | | | | | | |  |  |
| **Expected Loading** |  | | |  | |  | |  |  | |
| Heavy Duty | (Heavy Goods Vehicles, Buses etc) | | | | | | | |  | |
| Medium Duty | (*Cars, occasional delivery trucks etc*) | | | | | | | |  | |
| Light Duty | (*Cars only)* | | | | | | | |  | |
| Pedestrian | (Foot traffic only - no cherry pickers) | | | | | | | |  | |
| Others | (Please specify) ………… | | | | | | | |  | |
| **Rainfall Data 1**  FEH Rainfall Data is required for Hydraulic design | Please visit & register to gain access to FEH Rainfall Data for a small fee | | | | | | | | <https://fehweb.ceh.ac.uk/> | |
| **Rainfall Data 2**  Return Period for the system to be designed to.  (e.g. 1:100 years) | | | | | | |  | | | |
| **Climate Change Allowance**  (e.g. 20-40%) | | | | | | |  | | | |
| **Rainfall Catchments** | | Car park | | | Road | Roof | | Footpath | Other  (please specify) | |
| What is the proposed catchment area for the system?  Please tick the appropriate box or identify on the drawing. | |  | | |  |  | |  |  | |
|  | |  | | |  |  | |  |  | |
| **Contamination Report** | | | | | |  | | | | |
| Is the site contaminated? | | | | | | Yes | | No | Not available | |
|  | | | | | |  | |  |  | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Layout Drawings** | Are they attached? | | |
| We require a layout drawing/s in **AutoCAD** format indicating the General Arrangement, Proposed Levels and Proposed Aquaflow locations. | **Yes** | **No** | **Not available** |
|  |  |  |

In addition to the basic criteria needed to design the Aquaflow system the different types of system require some specific information:

**Section 2 - Specific Information for the Different Systems**

**Infiltration**

|  |  |  |  |
| --- | --- | --- | --- |
| Infiltration test results at formation level |  | Rate | Not available |
| These are used to ascertain the infiltration rate at which water soaks into the existing ground beneath the Aquaflow sub-base material |  |  |  |

Infiltration tests should be in accordance with the BRE365 method and reflect the rate at the depth of the paving formation. Typically between 500mm and 1000mm below finished cover.

**Attenuation**

|  |  |
| --- | --- |
| Discharge restrictions  To design adequate capacity in the sub-base we will need the discharge rate imposed on the system. Please ensure the discharge locations and inverts are identified on the AutoCAD drawing | (litres/second) |
|  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Rain Water Harvesting** |  | |  |
| Please tick box if you would like the system to be considered for RWH? | |  |  |

|  |  |
| --- | --- |
| **Completed by :** |  |
| **Date :** |  |

* Advantages of using the Formpave Aquaflow system:
  + Reduced construction costs with SC Intergrid.
  + Warranted design solution.

|  |  |
| --- | --- |
| **Please tick to confirm the above statements are read and understood** |  |

* + Water cleaning removing the need for petrol interceptors.