## Supplementary material

Table S1. Total precipitation, duration and the maximum intensity on the rain events.

|  | Rain <br> event | Month $^{*}$ | Total <br> precipitation <br> $(\mathrm{mm})$ | Duration <br> (minutes) | Maximum <br> intensity <br> $(\mathrm{mm} / \mathrm{min})$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | 1 | September | 22.1 | 117 | 0.40 |
|  | 2 | September | 21.3 | 175 | 0.31 |
| Before the | 3 | October | 15.5 | 97 | 0.52 |
| construction | 5 | October | 19.0 | 200 | 0.47 |
|  | 6 | November | 24.4 | 80 | 0.43 |
|  | 7 | November | 48.3 | 80 | 0.82 |
|  | 8 | November | 7.4 | 185 | 0.59 |
|  | 1 | October | 18.5 | 99 | 0.18 |
| After the | 2 | October | 36.3 | 85 | 0.51 |
| construction | 3 | October | 27.2 | 105 | 0.72 |
|  | 4 | October | 76.5 | 90 | 0.66 |
|  | 5 | November | 39.1 | 185 | 1.12 |

[^0]

Fig. S1. Relationship between compressive strength and permeability of the hardened pervious concrete specimen.


Fig. S2. Mass loss of the 28-day hardened $\mathrm{PC}_{\mathrm{a}}$ and $\mathrm{PC}_{\mathrm{b}}$ pervious concrete specimen. Data shown are the average with standard deviations $(n=3)$.


Fig. S3. Precipitation intensity on eight monitoring days before the construction (a) and five monitoring days after the construction (b) of the pervious concrete area. Total precipitation depth on each monitoring day is shown in the parenthesis in the legend.


[^0]:    * The months of September, October and November before the construction of the pervious concrete area had 28, 29 and 26 rainy days, respectively. The months of October and November after the construction of the pervious concrete area had 29 and 27 rainy days, respectively.

