Claims

1. A sponge-type integration system of road and green space, characterized by comprising:

a pavement (100), wherein a mounting space is arranged below the pavement (100);

greenbelts (300), located on one side or two sides of the pavement (100); and

a water supply device (200), arranged in the mounting space and connected with the pavement (100) so as to supply water to the greenbelts (300) under the action of an intermittent downward pressure of pedestrians on the pavement (100);

the pavement (100) comprises a surface layer (1), a first buffer layer (2), a pressure bearing plate (3), a second buffer layer (7), a bottom layer (5) and a foundation (6) laid from top to bottom;

the water supply device (200) comprises:

a water storage tank (9), wherein the water storage tank (9) is connected with a municipal rainwater pipe network (12) to store and collect rainwater;

a piston (11), wherein the piston (11) is arranged in the water storage tank (9) and is in sliding and sealing contact with the inner wall of the water storage tank (9);

telescopic spring rods (8), wherein one end of each of the telescopic spring rods (8) is connected with the piston (11), and the other end of each of the telescopic spring rods (8) is connected with the pressure bearing plate (3) of the pavement (100); and

water outlet pipes (10), wherein each of the water outlet pipes (10) is provided with a water inlet and a water outlet, the water inlet communicates with a water storage space inside the water storage tank (9), and the water outlet extends to the upside of each of the greenbelts (300).

2. The system of claim 1, characterized in that a bonding layer (4) is arranged between the second buffer layer (7) and the bottom layer (5).

3. The system of claim 1, characterized in that the water supply device (200) further comprises an air pressure adjusting device (17) so that the air pressure inside the water storage tank (9) is adjusted.

4. The system of claims 1, characterized in that the water outlet of each of the water outlet pipes (10) is provided with a rotating nozzle.

5. The system of claim 4, characterized in that the pavement (100) is a slow-moving walkway pavement.

6. The system of claim 1, characterized in that each of the greenbelts (300) comprises a plain soil layer (14) and a planting soil and packing layer (13) laid on the plain soil layer (14).

7. The system of claim 6, characterized in that a water-permeable geotextile (15) is laid between the planting soil and packing layer (13) and the plain soil layer (14).

8. The system of claim 7, characterized in that each of the greenbelts (300) is provided with an overflow-type rainwater outlet (16).