













Innovative small-scale BGI for storm water management in the inner city **Climaponds**

5 Climaponds – biological reservoirs collecting rainwater from roofs (2 Public Kindergartens: No. 11 and No. 16; Public Primary School No.11 (climapond with wooden bench), 2 High Schools: No. III and No. XI)

A total of 5 small reservoirs - ponds collect rainwater from the roofs of the above educational buildings. The water is fed through gutters and then through a system of troughs or so-called dry streams. The reservoirs are designed to accumulate the incoming water during rainfall and the excess gradually infiltrates into the ground during the following days. Once the water has been returned, the reservoir is ready to receive the next portion of rainwater. In and around the reservoirs, aquatic and marsh vegetation species were planted, also in additional wooden pots. All locations are equipped with educational boards and secured by installing fencing.















Climapond built on the premises of Public Kindergarten No. 16 in Radom















Before



Photo 1 Appearance of the site before construction - Climapond



Photo 2 Appearance of the site before construction - Climapond

















Photo 3 Appearance of the site before construction - Climapond



Photo 4 Appearance of the site before construction - Climapond















After



Photo 5 Appearance of the site after the works - Climapond



Photo 6 Appearance of the site after the works - Climapond

















Photo 7 Appearance of the site after the works - Climapond



Photo 8 Appearance of the site after the works - Climapond

















Photo 9 Appearance of the site after the works - box garden and information boards by Climapond



Photo 10 Appearance of the site after the works - education boards by Climapond

















Photo 11 Appearance of the site after the works - Climapond



Photo 12 Appearance of the site after the works -emergency overflow to the sewage system by Climapond

















Photo 13 Appearance of the site after the works - Biodiversity effect

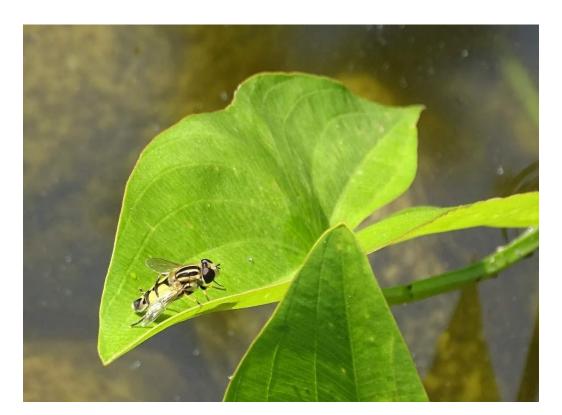


Photo 14 Appearance of the site after the works - Biodiversity effect

















Photo 15 Appearance of the site after the works - Biodiversity effect



Photo 16 Appearance of the site after the works - Biodiversity effect

















Photo 17 Appearance of the site after the works - Biodiversity effect



Photo 18 Appearance of the site after the works - Biodiversity effect

















Photo 19 Appearance of the site after the works - Biodiversity effect



Photo 20 Appearance of the site after the works - Biodiversity effect

















Photo 21 Appearance of the site after the works - Biodiversity effect



Photo 22 Appearance of the site after the works - Biodiversity effect

















Photo 23 Appearance of the site after the works - Biodiversity effect



Photo 24 Appearance of the site after the works - Biodiversity effect















Climapond built on the premises of Adam Jerzy Czartoryski **Public Primary School No. 11 in Radom**















Before



Photo 1 Appearance of the site before construction - Climapond with bench



Photo 2 Appearance of the site before construction - Climapond with bench

















Photo 3 Appearance of the site before construction - Climapond with bench



Photo 4 Appearance of the site before construction - Climapond with bench

















Photo 5 Appearance of the site before construction - Climapond with bench



Photo 6 Appearance of the site before construction - Climapond with bench















After



Photo 7 Appearance of the site after the works - Climapond with bench + fence



 ${\it Photo~8~Appearance~of~the~site~after~the~works~-~Climapond~with~bench}$

















Photo 9 Appearance of the site after the works - Climapond with bench + information board



Photo 10 Appearance of the site after the works - Climapond with bench + information board

















Photo 11 Appearance of the site after the works - Climapond with bench + information board



Photo 12 Appearance of the site after the construction - Climapond with bench

















Photo 13 Appearance of the site after the construction - Climapond with bench



 ${\it Photo}~14~{\it Appearance}~of~the~site~after~the~works~-~Climapond~with~bench~+~information~board$

















 ${\it Photo}~15~Appearance~of~the~site~after~the~works~-~Climapond~with~bench~+~information~board$



Photo 16 Appearance of the site after the construction - Climapond with bench

















Photo 17 Appearance of the site after the construction - Climapond with bench



Photo 18 Appearance of the site after the construction - Climapond with bench

















Photo 19 Appearance of the site after the works - biodiversity effect



Photo 20 Appearance of the site after the works - biodiversity effect

















Photo 21 Appearance of the site after the works - biodiversity effect

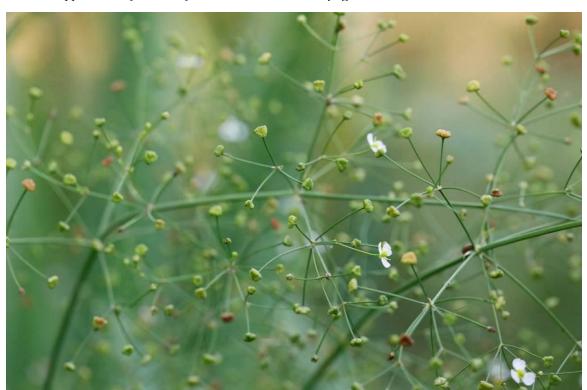


Photo 22 Appearance of the site after the works - biodiversity effect

















Photo 23 Appearance of the site after the works - biodiversity effect



Photo 24 Appearance of the site after the works - biodiversity effect

















Photo 25 Appearance of the site after the works - biodiversity effect



 ${\it Photo 26 Appearance of the site after the works-biodiversity effect}$

















Photo 27 Appearance of the site after the works - biodiversity effect



Photo 28 Appearance of the site after the works - biodiversity effect















Climapond built on the premises of Colonel Dionizy Czachowski High School No. 3 in Radom















Before



Photo 1 Appearance of the site before construction - Climapond



Photo 2 Appearance of the site before construction - Climapond

















Photo 3 Appearance of the site before construction – Climapond

















Photo 4 Appearance of the site before construction - Climapond

After



Photo 5 Appearance of the site after completion of the works -Climapond with educational boards

















Photo 6 Appearance of the site after completion of the works -Climapond



Photo 7 Appearance of the site after completion of the works -Climapond



Photo 8 Appearance of the site after completion of the works - dry streams collecting water from downspouts and directing it to the Climapond

















Photo 9 Appearance of the site after completion of the works -Climapond with educational boards



Photo 10 Appearance of the site after completion of the works -Climapond with educational boards

















Photo 11 Appearance of the site after completion of the works -Climapond with a water dispersal element made of plastic imitating natural stone; Climapond slopes lined with coconut mat to hold aquatic vegetation















Climapond built on the premises of Stanisław Staszic High School No. 11 in Radom















Before



Photo 1 Appearance of the site before construction - Climapond



Photo 2 Appearance of the site before construction - Climapond

















Photo 3 Appearance of the site before construction - Climapond



Photo 4 Appearance of the site before construction - Climapond

















Photo 5 Appearance of the site before construction - Climapond

After

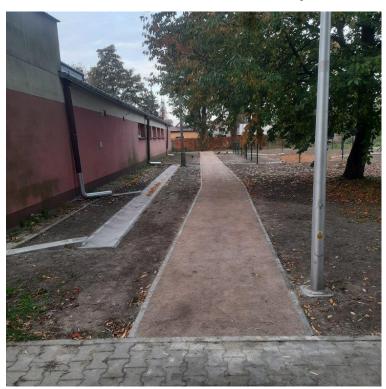


Photo 6 Climapond – Dry streams

















Photo 7 Climapond – dry streams



Figure 8 Appearance of the site after completion of works - Climapond, dry streams and culvert under the pavement - permeable surface

















Photo 9 Appearance of the site after construction – Climapond - a dispersing element in the form of a stone dam with a fascine support



 ${\it Photo}~10~{\it Appearance}~of~the~site~after~construction-Climapond$

















Figure 11 Appearance of the site after construction – Climapond



Photo 12 Appearance of the area after the construction – educational boards at Climapond

















Photo 13 Appearance of the area after construction – educational boards at Climapond



Photo 14 Appearance of the site after construction – safety board at Climapond















Climapond built on the premises of Public Kindergarten No. 11 in Radom















Before



Photo 1 site before the construction - Climapond



Photo 2 site before the construction - Climapind

















Photo 3 site before the construction - Climapond



Photo 4 site before the construction - Climapond















After



Photo 5 Appearance of the site after the construction – Climapond



Photo 6 Appearance of the site after the construction – Climapond















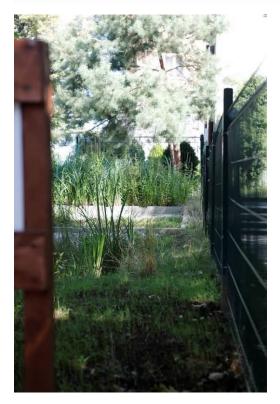


Photo 7 site after the construction – Climapond



 ${\it Photo~8~Appearance~of~the~site~after~the~construction-Climapond}$

















Photo 9 area after the construction – Climapond + information boards



Photo 10 Appearance of the site after the construction – Climapond + fence

















Photo 11 Appearance of the area after the construction – Climapond – information boards