

Rainwater management in Coffee Creek, Indiana

Without their craving for new things, without their inventiveness we would probably still not drink Coca-Cola, not put on baseball caps, would still pay cash at the petrol station and write our books and articles on typewriters. Americans enjoy their extravagant lifestyle, but inevitably come up against barriers from time to time, and are thus constantly looking for ways round them.

For example, the United States has come perilously close to an abyss with its settlement policy. There seems to be no lack of land, and yet it is worth nothing without the resource of water, and this is now scarce in a number of places. And so a project developer in the state of Indiana laid the foundation stone for a model settlement that also set standards. It is strongly oriented towards pedestrians and cyclists, efficient energy use, healthy building materials and development density, and as well as all this it is highly committed to intelligent water management. The only water worth mentioning before building started is Coffee Creek, from which the area takes its name.

In 1996, Herbert Dreiseitl made contact with an American planning group, and three years later he joined the team of landscape architects and hydraulic engineers responsible for sections of the creative and hydraulic open air planning for Coffee Creek. The project makes additional heavy demands because it is close to a conservation area. A master plan fixed the main rainwater management requirements: precipitation water flows via trenches with slits to infiltration areas that are topographically staggered one behind the other. These are completely planted with prairie vegetation with roots systems that are highly water absorbent. The entire system is able to contain once-in-a-century crisis rainfall within the area and allow it to soak away.



Detention swale with local prairie vegetation



Trenches channel the water from streets and parking areas.



An estate intended to provide 1,200 residential units can only be built in an ecologically acceptable way with a cleverly devised system for the water technology infrastructure. But this infrastructure will not be visible – in fact the water will appear in natural stream beds, in ponds that run into each other over massive cascades piled up from natural stone slabs, producing a charming open space.

This complex water management will enable typical woods and prairies areas to survive – also because the entire water situation of the area, which covers a total of 260 hectares, will remain unchanged.



Soakaway trenches for rainwater



Pedestrian bridge under construction

The new settlement at Coffee Creek was given a central park. Sustainable rainwater management was developed for the area as a whole.