



The Climate Tile

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## CONCRETE TILES REDIRECT RAINWATER TO PLANTS



**An architecture firm have designed a modular concrete sidewalk tile with holes for redirecting rainwater to reduce flooding risks and raise climate change awareness.**

Concrete is a durable material used to build many aspects of modern cities. For example, we have seen concrete used as [earthquake resistant material](#) and made [stronger with waste vegetables](#). However, sometimes concrete can be a drawback. Rainwater can't pass through it, which thus leads to increased flooding in major cities across the world.

[The Climate Tile](#) by Denmark-based TREDJE NATUR addresses this problem. The tile, which is designed to look more attractive than conventional concrete sidewalks, contain holes. These holes collect water whenever it rains. The holes connect to tubes that redirect the water to somewhere useful, like decorative plant boxes and trees. This process therefore removes excess rainwater from flooding street areas. In addition, the tiles provide a water source for growing vegetation. The tile also features a 'plug' on top. This enables alternate functions. For instance, in the winter, when the streets are salted, the salt runoff will instead be directed towards the sewer system rather than plant boxes. The plug will give the tile a modular element, with various functions planned. Smart sensors could update local residents about precipitation levels, for example.

TREDJE NATUR is running a pilot study in Copenhagen. It has collaborated with a local cafe, installing the tiles outside, where they feed water to the cafe's plants. TREDJE NATUR plans to implement

the tile throughout the city, combining their installation with ongoing infrastructure projects to minimize construction disruption.

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### **Takeaway:**

TREDJE NATUR hopes the impact of their tile will go beyond practicality. The attractive design is intended to also raise awareness of the climate change that is impacting cities. As the tiles help grow nearby plants, they play an active role in combating climate change in a positive way. Technology can help cities respond to the effects of climate change. New materials could make cities more robust. Smart sensors can keep residents informed and aware. Could your business make cities more prepared for climate change?