

PERMEABLE PAVING

Summary:

Impermeable surfaces, such as standard concrete or asphalt, do not allow water to drain through the surface, running off towards the surface to the lowest point. Water runoff from a storm has a negative impact on the environment by decreasing ground-water recharge, moving pollutants into water sources causing a degraded water quality, and erosion. Permeable paving can help prevent these negative effects.

Permeable paving is a type of paving system that allows water to flow through it rather than over it. Permeable paving reduces stormwater runoff from paved surfaces, reduces peak discharge rates, increases ground water recharge through infiltration, reduces the transport of pollutants through direct infiltration, has aesthetic benefits, and can reduce heat island effect.

There are three main types of permeable paving:

Porous asphalt and pervious concrete are mixtures with a very low content of fine sand, utilizing large aggregate particles. The single size particles create void space or a porous surface allowing water to filter through.

Paving stones, or unit pavers, are impermeable units of brick, stone, or concrete, set on a prepared sand and gravel base. The joints between the blocks are filled with sand or stone dust to allow water to filter between the units. Some pavers are made with pervious concrete further increasing the level of permeability.

Grass pavers, or turf blocks, are open-cell unit pavers where the cells are filled with soil and planted with grass. The pavers, made of concrete or a synthetic material, distribute the weight of traffic and prevent compression of the underlying soil. Grass pavers are often used for areas needing occasional parking.

Case Studies:

Chicago Center for Green Technology

CCGT, located west of Chicago's Loop, acts as a model for green construction, houses green businesses and organizations, and provides a place to learn about sustainability. It is only the third building in the United States to be designed with the highest standards of green technology, LEED Platinum, though it is the first LEED Platinum building to reuse an existing structure and provide public transportation. The building that houses CCGT was built in 1952 and was most recently owned by Sacramento Crushing.

Products:

VAST Pavers

Located in Minneapolis, MN, VAST pavers are made from 95% post-consumer recycled material including scrap tires and plastics. They are very durable, making them perfect for low volume vehicular applications such as parking lots, driveways, walkways, and patios. In fact, they are so durable they can easily withstand a fully loaded semi and come with a lifetime warranty against cracking. They are completely fade resistant, reduced through state-of-the-art UV inhibitors, and maintenance free.