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INTEGRALNI PRISTUP ODVODNJI OBORINSKIH VODA S PROMETNICA I PARKIRALIŠTA

Sažetak:

Dobro koncipirana odvodnja prometnica i parkirališta veoma je važan čimbenik za njihovu trajnost i stabilnost. Do sada se oborinska voda koje se prikupila, brzo i najkraćim putem odvodila do recipijenta ili otvorenog vodotoka. Prometnice i parkirališta predstavljaju izvor različitih onečišćenja, posebno za vode, budući da oborinska voda koja padne na površinu prometnice ispire onečišćenja u recipijent, odnosno okoliš. U posljednja dva desetljeća odvodnji oborinskih voda u razvijenim zemljama se poklanja velika pažnja primjenom tehnika planiranja i projektiranja koje se različito nazivaju ovisno o državi u kojoj se primjenjuju. Tako, u USA i Kanadi se nazivaju LowImpactDevelopment (LID), u Velikoj Britaniji Sustainable Urban DrainageSystems (SUDS) ili Water-Sensitive Urban Design (WSUD) u Australiji. Svima je zajedničko da oborinsku vodu ne doživljavaju kao nešto čega se treba riješiti, što treba sakriti, nego nešto što se može ponovo koristiti, odnosno što ne treba sakrivati. Svrha takvog pristupa je smanjenje negativnog utjecaja oborinskih voda na gradski prostor i recipijent. Integralni pristup podrazumijeva korištenje različitih tehnologija kao što su: ponovno korištenje vode, retencija, infiltracija, evaporacija, filtracija i biljno pročišćavanje. Neka rješenja koja će biti analizirana u ovom radu su: biljni pojasevi, jarci (kanali), umjetne močvare, porozni zastori, lagune, pješčanifiltri, infiltracijski spremnici te različita "uobičajena" rješenja kao što su slivnici s rešetkom ili kanalice. Također, dat će se neka rješenja odvodnje vode s parkirališta. Slikama će biti prikazani različiti primjeri izvedbe prethodno navedenih načina odvodnje.

Ključne riječi:

biljno pročišćavanje, evaporacija, infiltracija, integralni pristup, oborinske vode, odvodnja, parkirališta, prometnice, retencija

INTEGRAL APPROACH TO RAINWATER DRAINAGE FROM ROADS AND PARKING LOTS

Summary:

Well planned road and parking lot drainage is a very important factor for their durability and stability. Till now, rain water was collected quickly and it was taking the shortest route to the recipient or to open water courses. Roads and parking lots are a source of various pollutants, especially for water, because the rainwater that falls on the surface of the road was hespollution into the recipient, or into the environment. In the last two decades, rain water drainage in developed countries has been receiving plenty of attention through the application of planning and design techniques with various names, depending on the country where they are being applied. Thus, in the USA and Canada they are called Low Impact Development (LID), in the UK their name is Sustainable Urban Drainage Systems (SUDS), or Water-Sensitive Urban Design (WSUD) in Australia. The thing that all of them have in common is that rainwater is not seen as something that should be solved or hidden, but something that can be reused and does not need to be hidden. The purpose of this approach is to reduce the negative impact of rainwater in the urban area and in the recipient. The integral approach involves the use of various technologies, such as water reuse, retention, infiltration, evaporation, filtration, and plant purification. Some solutions that will be analyzed in this paper are: filter strips, swales (channels), constructed wetlands, porous pavement, ponds, sand filters, infiltration basins, and various "common" solutions, such as gullies with grates, or channels. Also, a solution will be provided for draining rainwater from parking lots. Pictures will be used to show various examples of the performance of previously mentioned rain water drainage solutions.

Key words:

plant purification, evaporation, infiltration, integral approach, rainwater, drainage, parking lots, roads, retention

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