



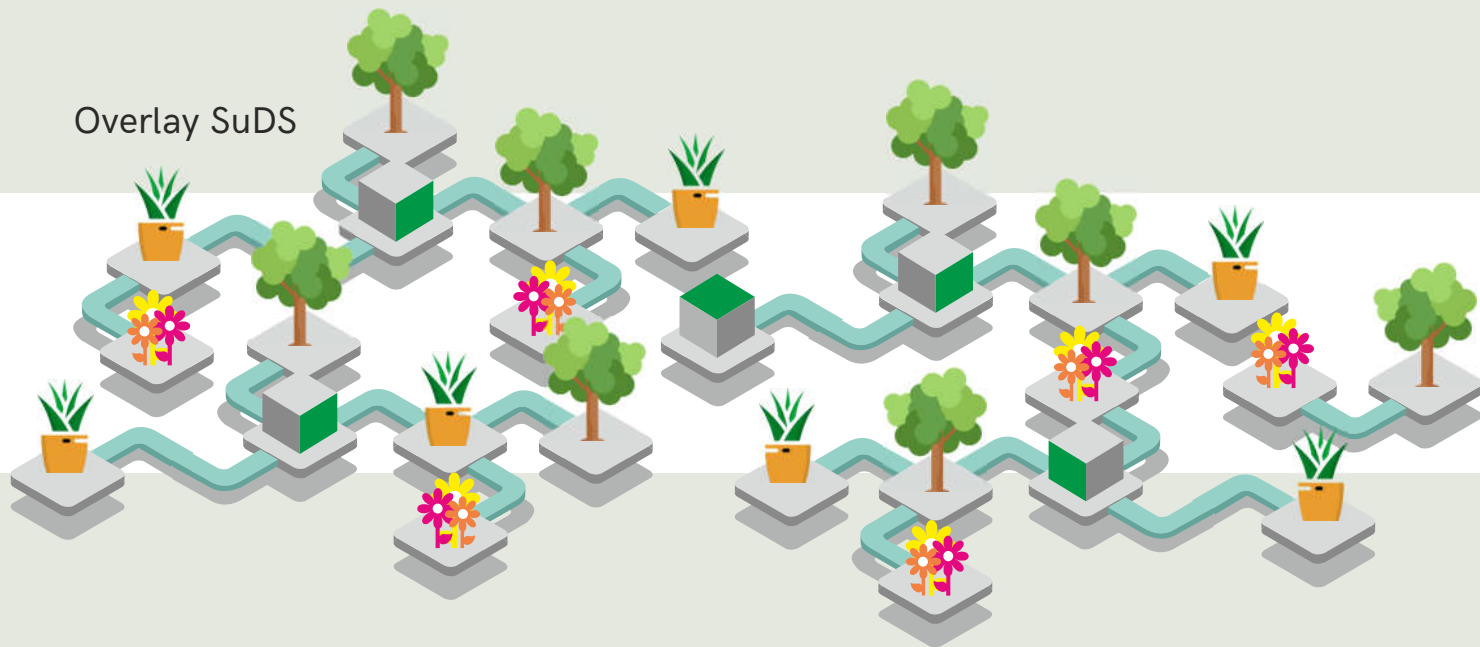
Overlay SuDS



Sel Environmental
Real Innovation.

Concept

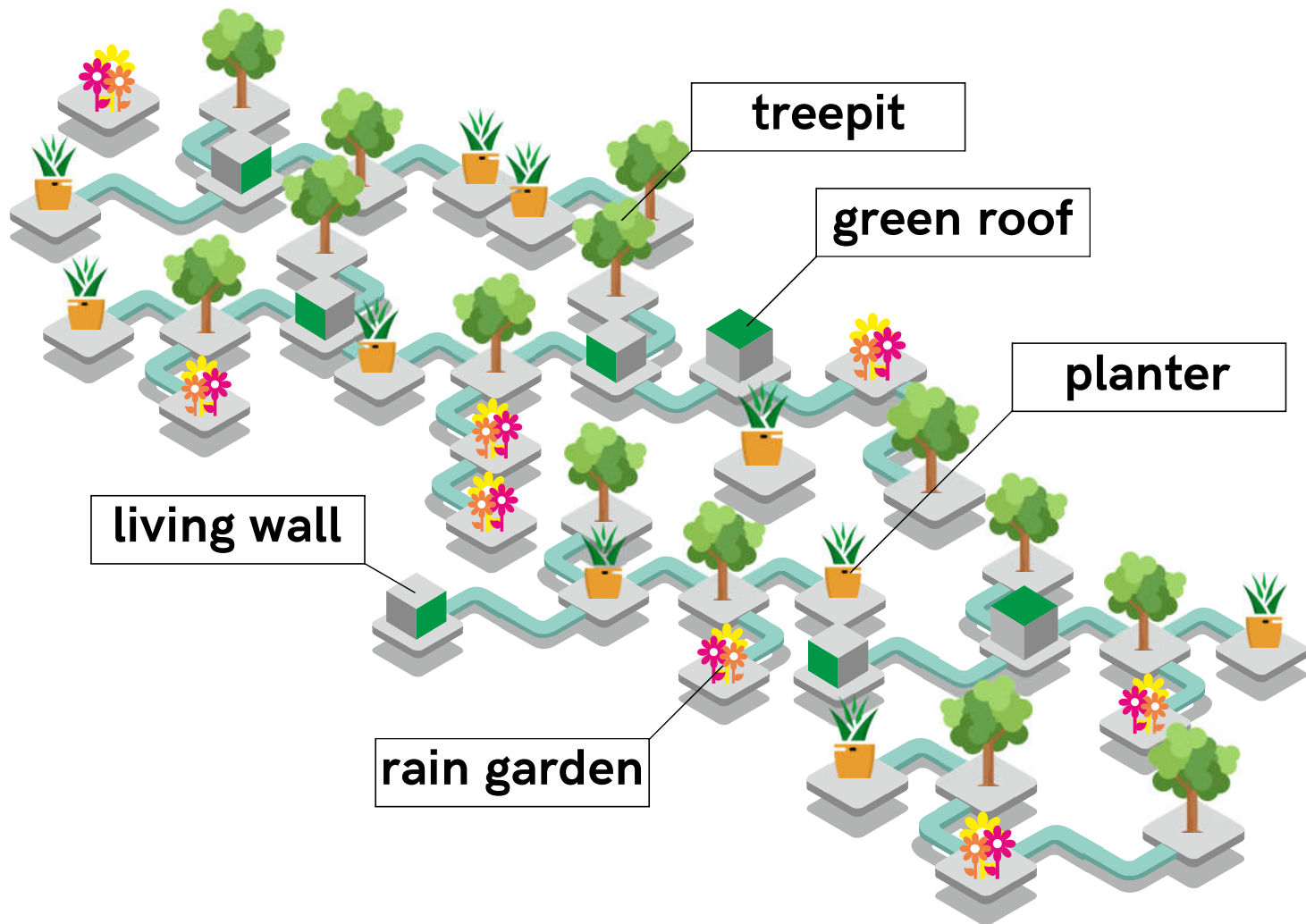
Overlay SuDS



Overlay retro-fit SuDS technology that can improve health and wellbeing, provide greater biodiversity and reduce pressure on local sewers and water resources.

A slim overlay drainage layer provides a 'motherboard' that will convey and attenuate surface water as well as interlink an array of 'bolt-on' options.

A designer can easily connect options such as rain gardens, tree pits, wetlands, swales, living walls, green roofs, sports facilities and cycle paths.



Drainage Motherboard



In it's simplest form, the drainage motherboard is simply laid over existing surfaces for rapid deployment to deliver a permanent installation.

The overlay drainage layer can be installed in soft landscaped areas, hard landscaped areas, within road construction and even on rooftops if desired.



Bottom Watering

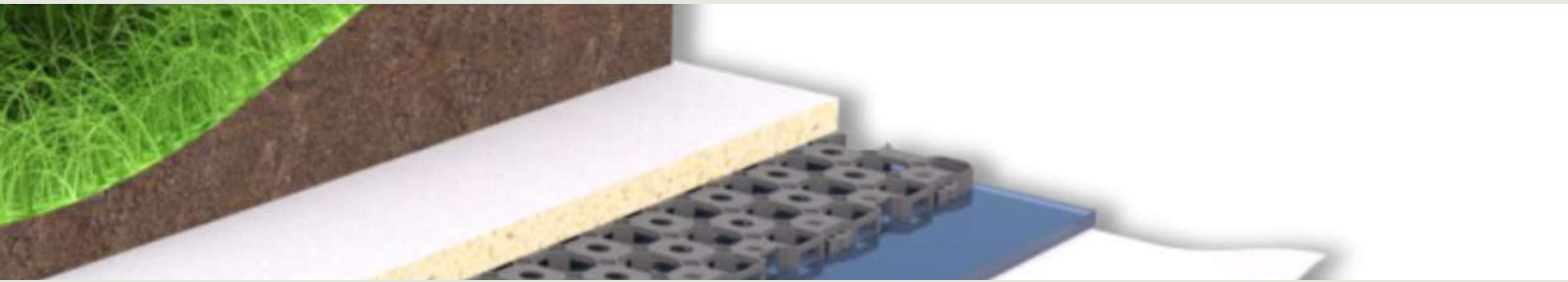


The motherboard system enables the designer to achieve more effective water management with passive irrigation that waters plants from the bottom up.

The benefits of bottom watering are many including the top of the soil remains dry, discouraging pests and it encourages plant roots to spread out and get stronger.



Pollution Control



The overlay drainage system can provide a significant reduction in pollution from surface water run-off by utilising permeable surfaces, bio-retention and treatment geotextiles.

Where required, one or all of these pollution control methods can be incorporated into a motherboard system to intercept, store and treat the surface water pollution at source.



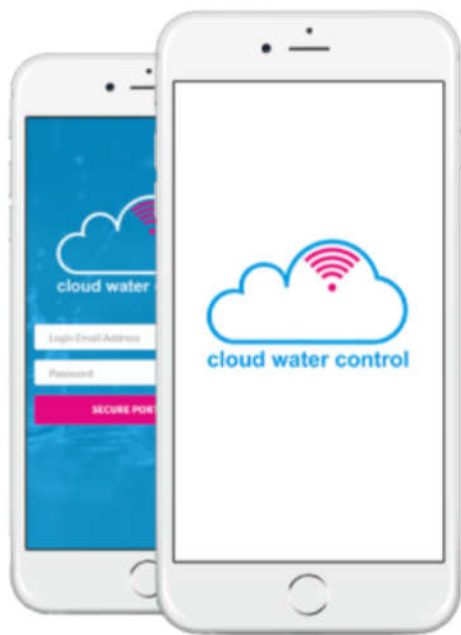
Remote Cloud Based Monitoring & Control



All elements of the overlay system have been carefully developed to assure their compatibility with the remote Cloud Water Control monitoring and control platform.

This allows the end user to monitor inputs and outputs of an installation such as, surface water flows in and out, water levels and soil moisture conditions.

SMART WATER MANAGEMENT THAT COMBINES MONITORING SENSORS, REMOTE CONTROL HARDWARE AND CLOUD COMPUTING



Cloud Water Control (CwC) is a remote management platform that allows users to monitor and control water systems from remote destinations.

The CwC platform is made up of two parts, on-site firmware and remote monitoring and control software. CwC systems integrate on-site firmware with the CwCPortal where users can login and monitor water systems in real-time, view and download historical data, and control multiple systems from anywhere, at any time.

Prefab Urban Tree Pit

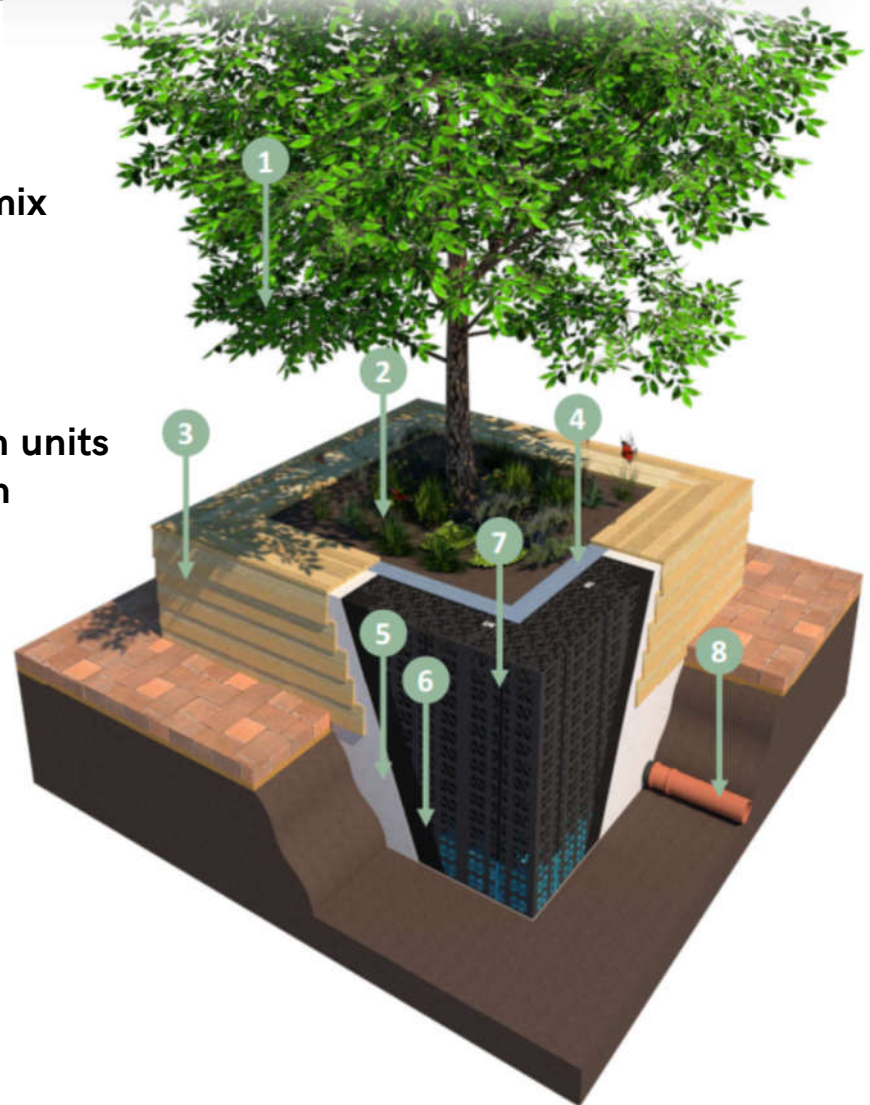


The Prefab Urban Tree Pit is designed to intercept existing road gullies and divert run off into the adjacent urban tree pit(s)

The urban tree pit is prefabricated from recycled plastic and strong enough to replace subbase whilst providing a 95% water storage void ratio.

The Prefab Urban Tree Pit is installed partly below ground level with the remainder above, this avoids interference with most underground services.

1. Tree of choice
2. Nutrient enriched tree root mix
3. Range of cladding finishes
4. Wicking geotextile
5. Protection geotextile
6. Impermeable membrane
7. Structural plastic attenuation units
8. Inlet / outlet pipe connection



Modular Rain Gardens



A modular prefabricated rain garden system that is flexible and scalable, that can attenuate and cleanse storm water and provide amenity and biodiversity to new and existing spaces.

The rain garden modules are supplied with nutrient enriched soils and planted with wildflowers and biodiverse grasses carefully selected to attract and support pollinators.



Prefab Urban Planter



The Prefab Urban Planter is manufactured from timber sleepers to meet any project requirements, suitable for all commercial applications.

The planter connects into the underlying drainage motherboard which will provide a source for passive irrigation to the vegetation within the planter.



Living Wall



Living walls can be easily incorporated into any design utilising the attenuation board to provide irrigation. Consideration for the inclusion of bird boxes

and bug boxes at appropriate locations along with lighting at ground level that is sympathetic to nocturnal wildlife especially bats.

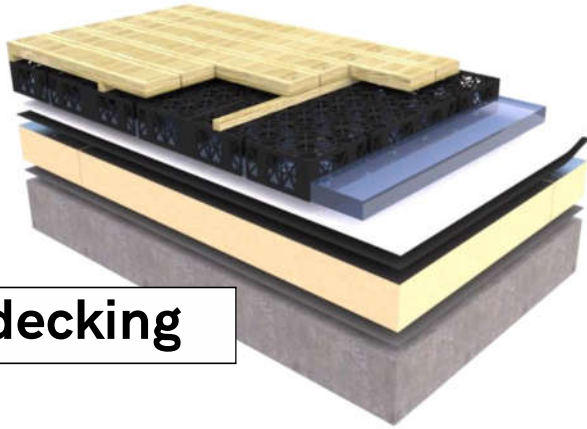


Surfaces Finishes

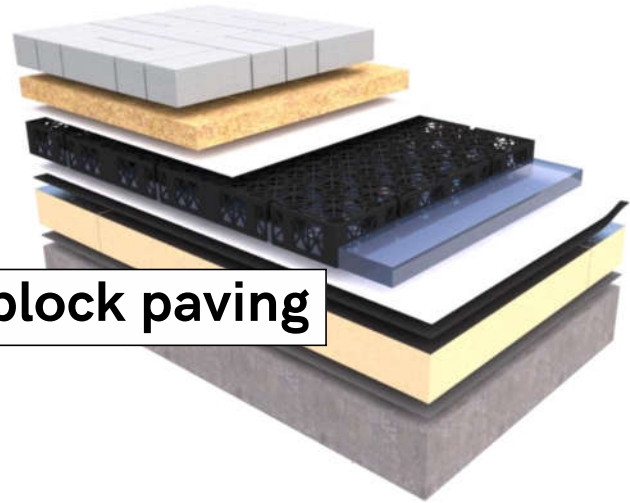


The attenuation board can be covered with a plethora of surfacing options to create an amenity space thriving with biodiversity.

Surfacing types can be mixed and matched to satisfy the end use or provide a sympathetic scheme to the surrounding environment.



decking



block paving



resin bound gravel



epdm rubber

Sports



The mental wellbeing and physical health benefits associated with playing sports are endless. Sports pitches and facilities designed with

clever water management solutions can contribute towards reducing the Urban Heat Island effect in cities.



Cycle Routes

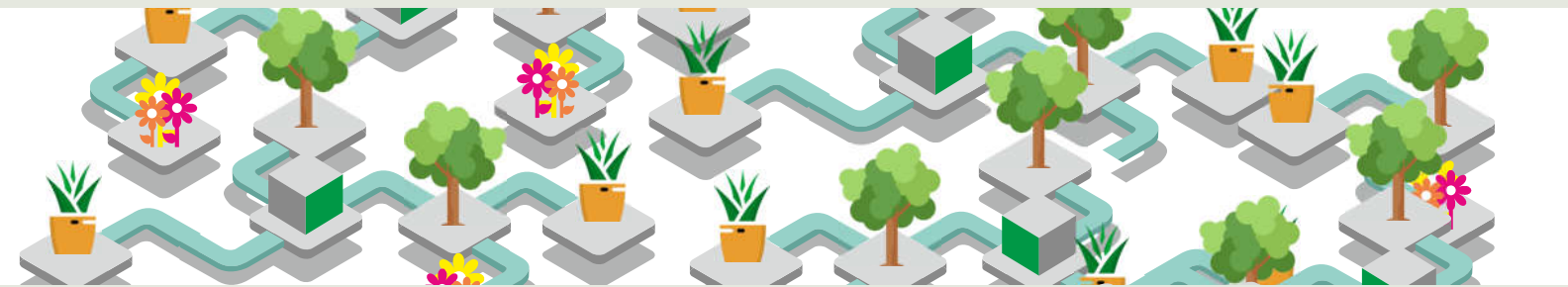


The components of the overlay cycle path solution are modular and prefabricated such that all components can be assembled

on site. This characteristic means the cycle path can be deployed very quickly and with a small installation team and basic tools.

The cycle path also creates a raised platform, which provides a clear physical differentiation between the cycle path and road.





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