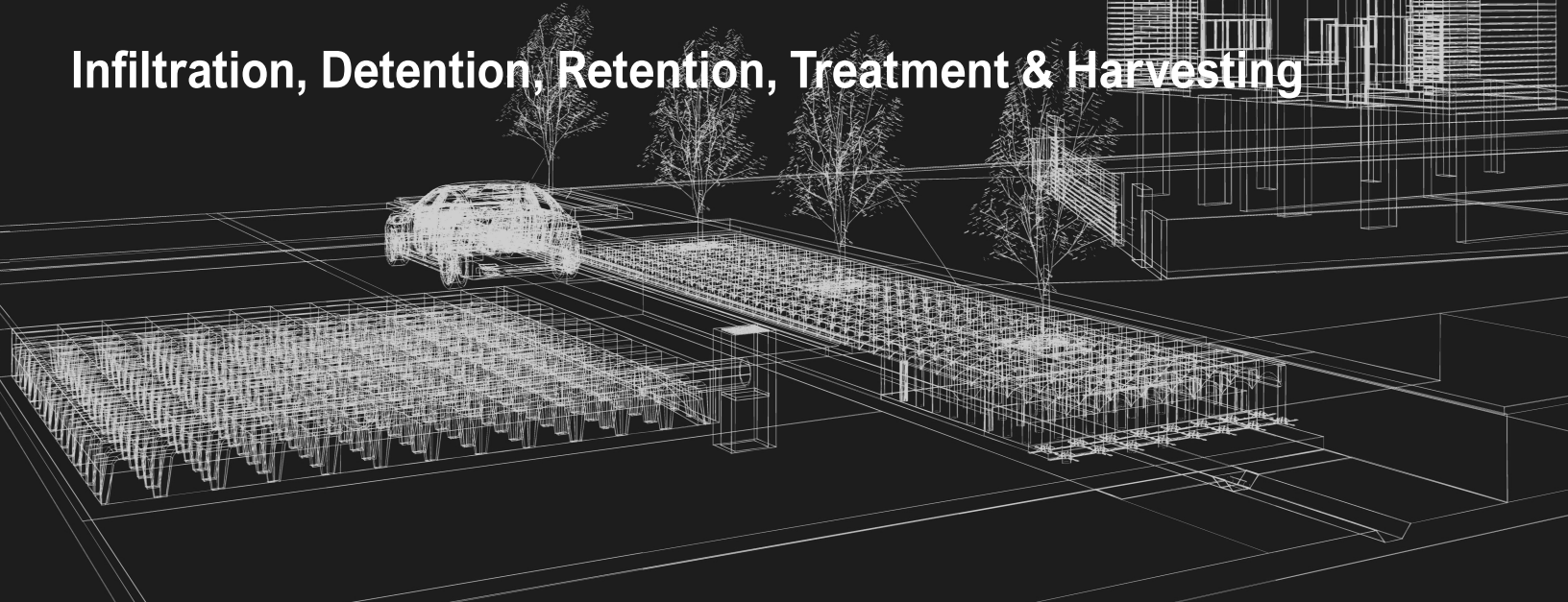


# Engineered Concrete Stormwater Systems



 CUPOLEX®

Infiltration, Detention, Retention, Treatment & Harvesting



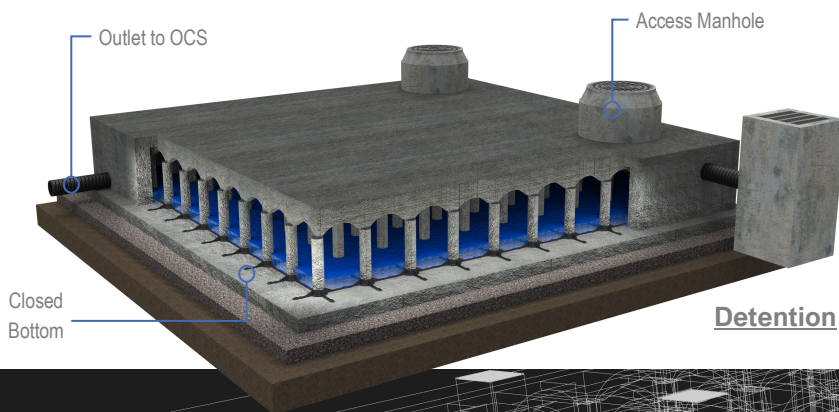
# Stormwater Management

Engineers are always looking for easier design solutions. CUPOLEX® does that by offering maximum structural integrity and flexibility to adjust for area, depth and volume, as well as accommodate pre-existing utilities. CUPOLEX® is not a product, but rather it gives civil engineers a form-based methodology to maximize the usage of space and budgets by sustainably manipulating the geometry of concrete. Whether capturing large quantities of stormwater, infiltrating or optimizing green infrastructure for flood mitigation and reducing urban heat, CUPOLEX® offers structurally sound options for civil engineers to creatively integrate resilience in their design plans.

## Water Management Beyond the Traditional Pipe System

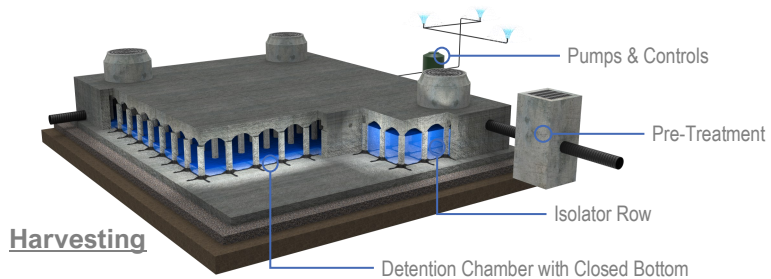
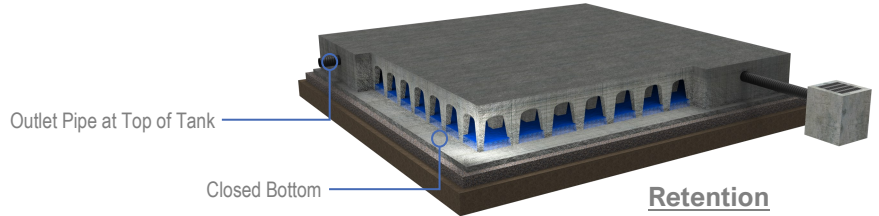
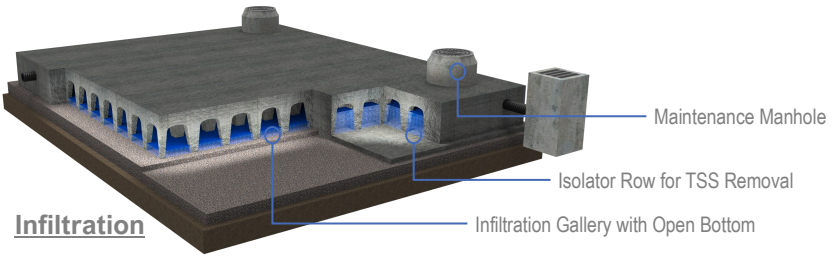
### FEATURES

- High Load Bearing concrete designed structures that can exceed HS-20-44 full truck load plus impact.
- Custom designed to any layout.
- Can be designed as a watertight system.
- Applications for pavements or green space.
- Streamlined installation supporting required work loads.
- Suitable in minimum or no cover applications.
- Cost-effective, modular, quick and easy installations.
- Maximum storage volume up to 98% void space.
- Allows for inlet/outlet pipes and cleanout/observation ports installed at any location of the tank.
- Saves space and money.
- Time tested cast-in-place forming technology with hundreds of millions of sq.ft. installed.
- CUPOLEX® concrete forming manufactured to ISO 9001:2015 high quality standards.
- Complete construction documents with stamped and sealed design drawings provided by CUPOLEX® licenced PEs



# Applications

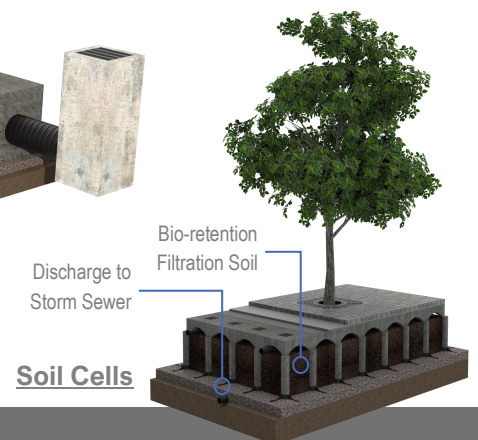
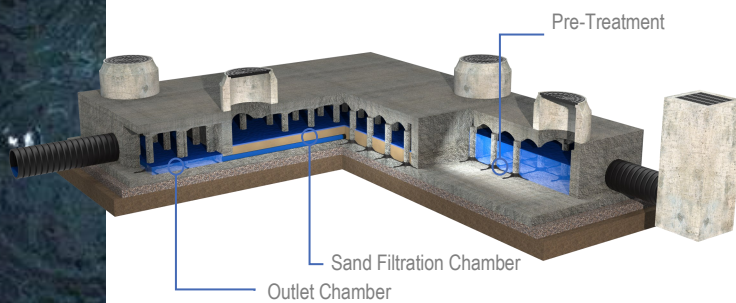
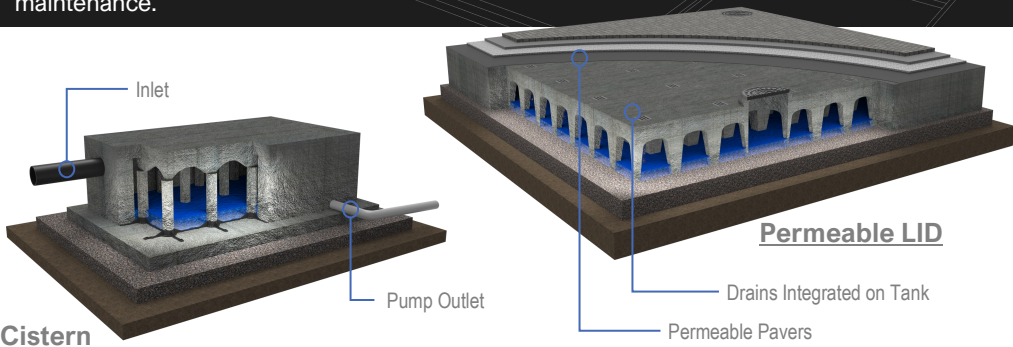
Detention  
Infiltration  
Retention  
Harvesting  
Permeable  
Cisterns  
Treatment  
Soil Cells



## CUPOLEX® Cast-In-Place Concrete Structures for Stormwater Capture

CUPOLEX® concrete structures and pavements can be designed at various depths either as shallow or deep subsurface structures or as surface pavements. The CUPOLEX® Dome Forming System with depths ranging from 260mm (10 inches) to 700mm (28 inches) and the CUPOLEX® Rialto Forming Systems with depths ranging from 700mm (28 inches) to 2500mm (96 inches) can be used for constructing shallow or deep stormwater capturing structures and pavements. Isolator Rows for TSS removal as high as 60-90% can be incorporated in the design as well as manholes for easy access and maintenance.

CUPOLEX® is the leading global manufacturer of concrete cast-in-place solutions for stormwater management systems. Whether your site needs a detention system to prevent storm drain overloading, a groundwater recharge system for Low-Impact Development (LID), a storm water treatment system to improve water quality, or a complete stormwater harvesting system, CUPOLEX® will provide your solution.



URBAN RESILIENCE  
RESILIENT INFRASTRUCTURE  
SUSTAINABLE CONSTRUCTION

## Converting Risk-Driving Impervious Spaces Into Resilient Assets

We identify areas where contemporary challenges call for improved collaborative green infrastructure & urban flood management

CUPOLEX® Storm Tanks are a proprietary patented plastic concrete forming system manufactured by Pontarolo Engineering Inc. The concrete forms are part of a design package provided by CUPOLEX®. Our Engineers design the concrete structure by sustainably engineering the geometry of concrete through CUPOLEX® structural dome methodology. We then select the type and size of CUPOLEX® forms that are site-specific for meeting the required water storage volumes and that will provide the ultimate performance for your project. The forms are supplied to contractors by CUPOLEX® to assemble the storage chamber as to the design and specifications provided by the CUPOLEX® design engineers.

CUPOLEX® forms are also custom made to meet your site specific requirements such as providing isolator rows for TSS removal or harvesting; varying tank depths and providing chambers to contain filtration medium e.g. sand. We also provide special requirements for delivery and logistics; supporting working-load capabilities and any special impact resistance during installation and placement of the concrete.

### CUSTOMIZED DESIGN PACKAGE

- **Value engineering**  
CUPOLEX® engineers review each project, provide value engineering and identify the type and size of CUPOLEX® for every project
- **Preliminary drawings**  
Design coordination, conceptual designs, sections and details provided to designers
- **Engineered design drawings**  
Issued for construction (IFC) and supported with FEA structural calculations, PE stamp, construction documents and specifications
- **CUPOLEX® installation shop drawings**  
Issued to contractor with detailed CUPOLEX® formwork installation procedures
- **On-site Support**  
Construction training and inspections, with completion statements and regulatory compliance reporting where required