CONTECH®
ENGINEERED SOLUTIONS
A QUIKRETE® COMPANY

Rapterra™
High Flow Rate Bioretention

The experts you need to solve your stormwater challenges

Contech is the leader in stormwater solutions, helping engineers, contractors and owners with infrastructure and land development projects throughout North America.

With our responsive team of stormwater experts, local regulatory expertise and flexible solutions, Contech is the trusted partner you can count on for stormwater management solutions.

Your Contech Team

STORMWATER CONSULTANT

It's my job to recommend the best solution to meet permitting requirements.

STORMWATER DESIGN ENGINEER

I work with consultants to design the best approved solution to meet your project's needs.

REGULATORY MANAGER

I understand the local stormwater regulations and what solutions will be approved.

SALES ENGINEER

I make sure our solutions meet the needs of the contractor during construction.

Contech is your partner in stormwater management solutions

Green Infrastructure in a Small Footprint – Rapterra™

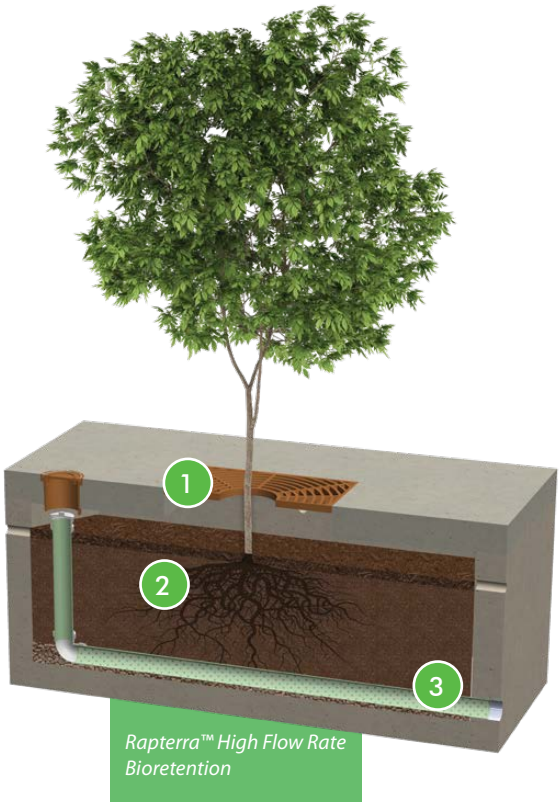
Rapterra is an engineered biofiltration system certified to remove 80% of total suspended solids at flow rates up to 941 in/hr – the highest treatment flow rate of any New Jersey Department of Environmental Protection (NJDEP) Certified Green Infrastructure MTD.

These high flow rates help engineers minimize treatment footprint, enabling compact designs at decentralized inlet structures. With a shallow profile that integrates into most sites, Rapterra also supports a range of plant types to align with site aesthetics. The result is a high-performance, NJDEP-Certified bioretention solution that fits tight sites, and supports attractive landscape integration.

Rapterra™ Features and Benefits

FEATURE	BENEFIT
NJDEP certified flow rates up to 941 in/hr	Minimizes footprint and cost
Compact Design	Optimizes treatment at decentralized inlet structures
Multiple configurations and aesthetic options	Integrates easily into any site or landscape plan
Delivered as a complete package with all system components	Quality control for easy, fast and successful installation

How the Rapterra™ Works



NJDEP Approved Performance at 941 in/hr ...

1. Stormwater enters the Rapterra via pipe, curb inlet, or sheet flow and ponds above the pretreatment mulch layer, where heavy sediment and debris are captured. The mulch layer also helps retain moisture for vegetation.
2. Stormwater then passes through engineered Rapterra media at flow rates up to 941 in/hr, filtering fine sediment and suspended solids.
3. Treated water discharges through an underdrain pipe.

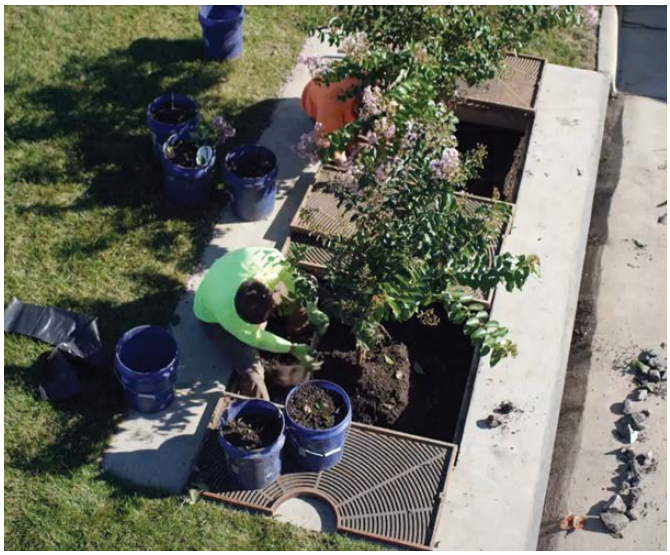
Rapterra® Maintenance

Activation is included with every system.

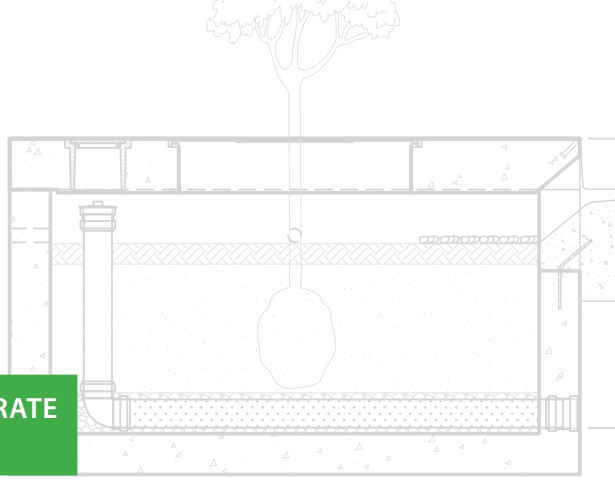
With proper routine maintenance, the engineered media within the Rapterra system should last as long as traditional bioretention media installed in a similar configuration.

Maintenance is low-cost, low-tech and simple:

- Remove scour protection netting (will reuse)
- Remove trash, debris, mulch, and sediment
- Trim vegetation (if needed)
- Replace mulch
- Reset scour protection netting
- No confined space entry required



Rapterra delivers fast, simplified maintenance compared to conventional systems up to 20 times larger.

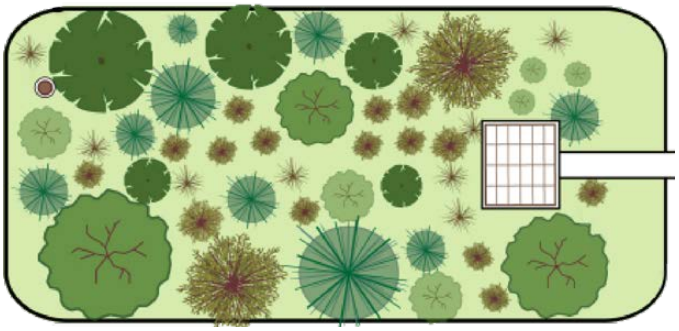


Rapterra™ System Sizing

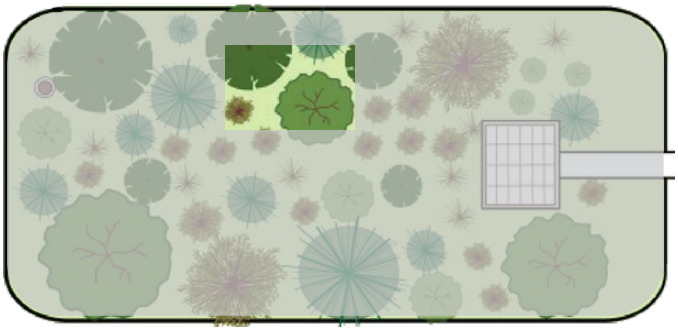
STANDARD OFFLINE MEDIA BAY SIZES	MAXIMUM TREATMENT FLOW RATE (CFS)
4'x4'	0.344
6'x4' or 4'x6'	0.518
8'x4' or 4'x8'	0.693
4.5'x7.83' or 7.83'x4.5'	0.763
6'x6'	0.780
8'x6' or 6'x8'	1.041
10'x6' or 6'x10'	1.299
12'x6' or 6'x12'	1.561
13'x7' x 7'x13'	1.975
14'x8'	2.424
16'x8'	2.775
18'x8'	3.121
20'x8'	3.470
22'x8'	3.818

Typical NJ GI Project – 0.5ac site

- Conventional small-scale bioretention system: ~1700sf
- Contech Rapterra system: 6'x12' Unit (72sf)
- Increased usable land space (e.g. parking spaces or green space)

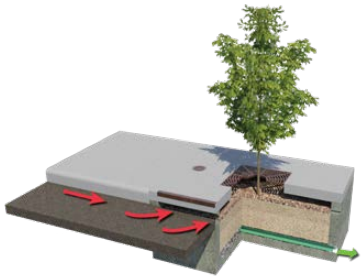


Conventional Bioretention System Land Space



Contech Rapterra System Land Space

Rapterra™ Configurations



Rapterra Offline - Top Slab

The most economical and simplest Rapterra configuration. It uses a downstream catch basin or curb inlet for bypass flows, allowing the shallowest profile and the most flexible design of any Rapterra configuration. It is ideal for both new and retrofit projects.

Rapterra Online - Open Top or Top Slab

Provides internal bypass through a grated overflow, eliminating the need for an additional structure.

Rapterra Peak Diversion - Open Top or Top Slab

Provides treatment and high-flow bypass in one structure, eliminating the need for an external bypass structure, and includes an inlet bay for debris collection outside of the biofiltration chamber. This configuration also supports multiple inlet options, including curb, pipe, and grate inlets.

Rapterra Bioscape Vault - Online or Offline

Allows for a vault-based system to be fully integrated into the landscape. Multiple inlet options are available via the side slopes, including sheet flow. Bypass is typically achieved via an upstream structure or with internal stand pipe.

Rapterra Bioscape - Online or Offline

Utilizes all of the Rapterra components, but without the concrete structure, allowing for multiple inlets and installation directly into a basin. Bypass is achieved via an upstream structure or with internal stand pipe.

Multiple configurations allow for easy site integration

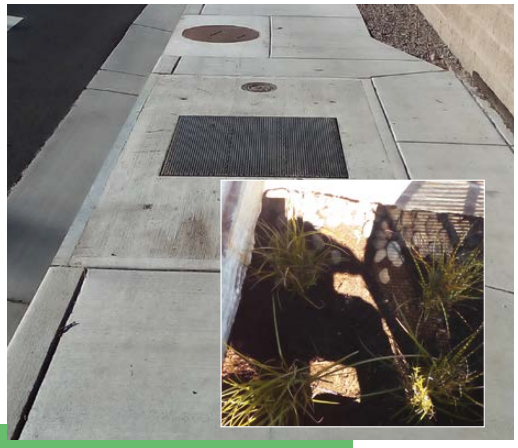
Rapterra™ Aesthetic Options

Multiple aesthetic options to enhance the appearance and integrate with landscaping ...

Contech can assist with Rapterra plant selection by recommending low-maintenance species suited to your climate.

Standard Tree Grate

Recessed Top Slab



Full ADA Compliant Grate with Grasses.

Open Top Planter - Bioscape

An aesthetic solution to meet your green infrastructure needs

A partner you can rely on

STORMWATER SOLUTIONS

PIPE SOLUTIONS

STRUCTURES SOLUTIONS

Few companies offer the wide range of high-quality stormwater resources you can find with us — state-of-the-art products, decades of expertise, and all the maintenance support you need to operate your system cost-effectively.

MANUFACTURING AMERICA'S INFRASTRUCTURE™

We manufacture engineered solutions for complex civil infrastructure challenges and create lasting value for project stakeholders through unrivaled expertise, support and workmanship.

To us, it's about being a trusted partner for project owners, engineers and customers while doing meaningful work that helps build our communities.

TAKE THE NEXT STEP

For more information: www.ContechES.com

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