

Case study

The Moderne, Saratoga Springs, NY

Rooftop Detention- Vegetated and Hardscape (roof area: 11,000 sf @ 2% slope)

A traditional stormwater tank system was replaced with rooftop detention, providing maximum efficiency of space and over \$700k in ROI to the Owner.

1 Problem:

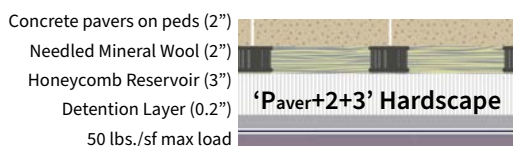
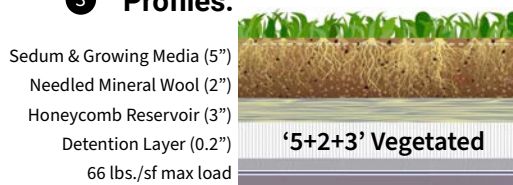
Traditional stormwater options would require either (1) substantial structural work or (2) the loss of parking, thereby the loss of one residential unit.

2 Solution:

The traditional green roof specified for the project was upgraded to a Purple-Roof system by adding:

- Needed Mineral Wool (2")
- Honeycomb Reservoir (3")
- Detention Layer (0.2")

3 Profiles:



4 Results:

Upgrading to Purple turned the under-utilized green roof into a complete stormwater solution. It eliminated the need for a traditional tank and the related excavation, hauling, concrete and utilities.

www.purple-roof.com



The Moderne is a 5-story condominium located in Saratoga Springs, New York. Constructed in 2021, it contains a mix of 24 high-end residential units with exterior and underground parking. It also includes an 11,000 sf green roof and amenity terrace. The greenroof designed was a traditional profile, consisting pre-grown sedum mat on 5" deep engineered growing media, over a filter fabric and drainage panel.

Project Information

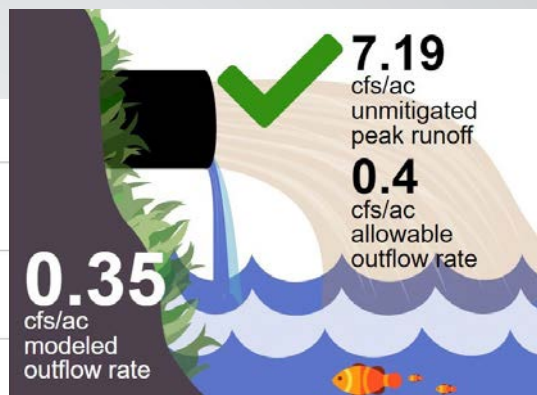
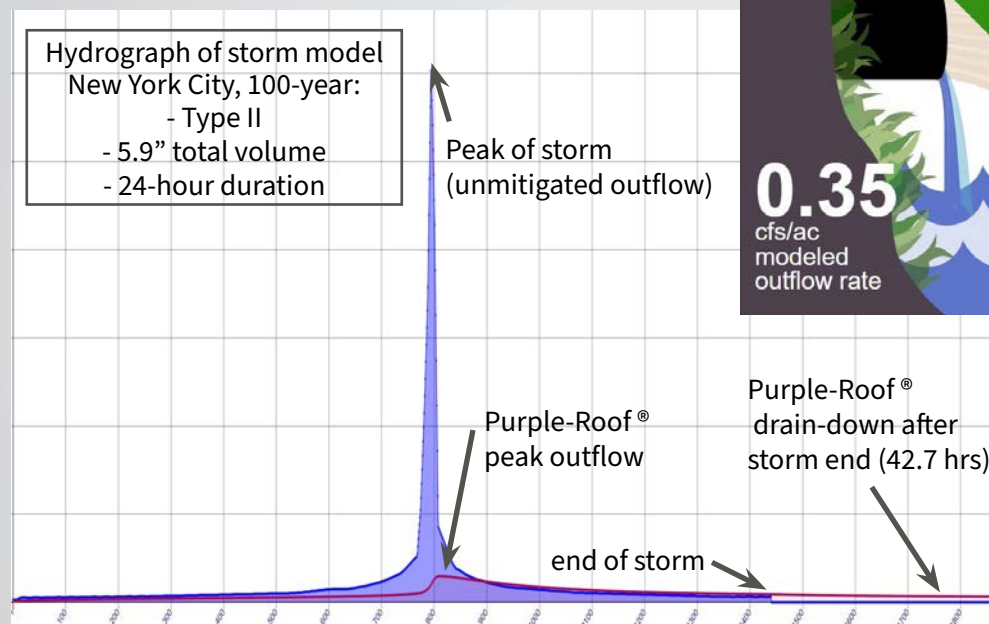
| | |
|-----------|--|
| Owner | Bonacio Construction |
| Architect | Design Logic Architects, New York |
| Installer | Apex green Roofs, Boston MA |
| Cost Info | The upgrade from the traditional green roof specified to the Purple-Roof profiles installed was \$195,000 (approx. \$18.00 psf). |
| ROI Info | <p>The upgrade:</p> <ul style="list-style-type: none"> • eliminated a custom detention tank and pump system • reduced the structural and mechanical scope • allowed for 1 additional condo unit • allowed for maximum exterior parking • generated over \$700,000 in ROI. |



Technical

The Moderne, Saratoga Springs, NY

Peak Outflow Reduction



**95%
Peak
Outflow
Reduction**

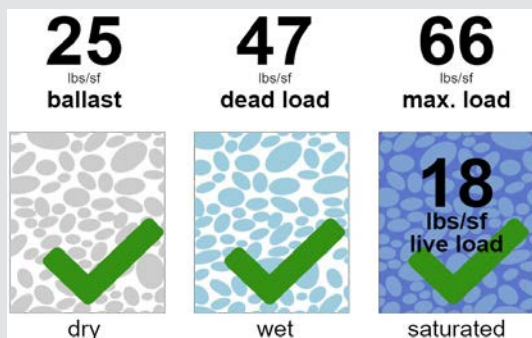
Purple-Roof® Detention Storage

The Purple-Roof® profiles were engineered and installed to provide 4,151 CF of stormwater detention capacity over the 11,000 sf roof area.



**4,151
CF of
Detention
Storage**

Structural Load Info



*The added weight of the Purple-Roof system was within the original snow-load parameters, therefore no structural upgrade was required.

Vegetated Profile Components

