

GREEN ROOF CASE STUDY: LITTLE WING OFFICE BUILDING \$70,000 SAVINGS

- Project Narrative -

The 'Little Wing' office building was constructed on a corner lot next to existing, adjacent residential buildings. The building's core was placed to one side in order to maximize the efficiency of plumbing utilities and to provide a buffer between the adjacent residential use. The civil engineer had initially planned to do underground detention tanks to meet on-site stormwater requirements, but Jason Twill (Vulcan Inc. Project Manager) challenged the team to see if a combination of a green roof (for retention/filtration) and rainwater harvesting tanks (for non-potable water reuse) could do double-duty... which they could.

By eliminating underground stormwater detention (~\$80k), and a secondary storm/sewer discharge connection 18' below the street (which would have required excavation, street closures, etc. to the cost of approximately \$170k), the project was able to save roughly \$250,000 on traditional infrastructure. This savings more than paid for the necessary cistern (~\$140k) and allowed the size of the green roof to be roughly doubled to 4,200sf. In addition to providing an immediate "green" amenity to the building, the project also received more LEED points as a result of the inclusion of the vegetated roof.

**Net Savings Realized by Using a Green
Infrastructure Approach = \$70,000**

- Project Team -

Vulcan Inc. Owner / Developer
Howard S. Wright General Contractor
Collins Woerman Architect
Wayne's Roofing, Inc Green Roof Installer

"We selected Columbia Green for the quality and reputation of the product and the intelligence and confidence of the team in assisting our design and construction team in integrating the vegetative roof into the project."

-Jason Twill, Vulcan Inc.



- Quick Facts -

- Project: 'Little Wing'. Built 2013.
- 54,000 sq ft. Experience Music Project administrative office building.
- Location: Seattle, Washington
- LEED platinum
- Uses a combination Cistern / Green Roof to manage stormwater.
- Extensive Green Roof : 4,200sf
- Green Roof System: Columbia Green Technologies' Extensive Layered System planted with sedum tiles.
- Cost: Rainwater harvesting cistern (~\$140k)
- Cost: Green Roof (~\$40k)
- Savings: Eliminate underground detention tank (~\$80k) .
- Savings: Eliminate secondary storm/sewer discharge connection below the street (~\$170k).

About Columbia Green Technologies

Columbia Green Technologies offers a variety of comprehensive green roof solutions; from extensive to intensive green roofs, available with both layered and tray-based systems. Columbia Green Technologies offers complimentary, project-specific stormwater calculations to help your project demonstrate return on investment (ROI) for a green roof. Using the green roof for stormwater retention may allow the project to downsize or even eliminate other costly stormwater treatment mechanisms, such as underground detention tanks.



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