

Green Roof at the Beach

Triad Associates, a Kirkland-based land development consulting company, recently completed the green roof component for the **Porter House Going Green at the Beach** demonstration project. The first green roof project for Triad and its Landscape Architecture department, the eye-catching installation is exceeding the expectations of both the project team and homeowners.

If you're considering installing a green roof on your home, here's a brief introduction to the subject and a few things we learned along the way. Internet resources are abundant; if you're interested in knowing more, we encourage you to look there. In the meantime, we hope the following information will help you get started.

What is a Green Roof?

A Green Roof is a layer of living vegetation that's installed on top of a conventional flat or sloping roof for environmental, economic, aesthetic and psychological advantages. While more widely adopted outside the US, this country's building industry – encouraged by environmentally focused home owners and jurisdictions – is beginning to offer green roof options to its new-construction customers. A good example of this is the innovative GreenGrid[®] modular system selected for the Porter House installation.

The Benefits of a Green Roof

- Moderating temperature extremes in the building, on the roof and in surrounding areas
- Controlling stormwater by capturing, absorbing and slowing runoff
- Adding aesthetic value to the building
- Contributing to water and air purification
- Extending the life of a roof
- Creating an effective sound buffer



Construction Engineering Considerations

- Roof substructure materials
- Waterproofing and root barrier materials
- Adjacent building infringement
- Roof slope
- Roof construction
- Load bearing capacity including water-saturated weight of the materials
- Wind uplift safety measures
- Roof drainage systems
- Irrigation systems – even drought-resistant plants need occasional irrigation
- Roof access and safety precautions during installation and maintenance
- Building permit approval

Vegetation Considerations

- Local temperature, wind, and rainfall conditions
- Growing medium
- Plant selection including:
 - size
 - tolerance to climate conditions
 - appearance
 - variety
- Special plant maintenance during the first year
- Ongoing maintenance such as deadheading and weeding
- Transportation and logistics
- Costs

Additional Green Roof Resources

- International Green Roof Association
www.igra-world.com
- The Green Roof Industry Resource Portal
www.greenroofs.com
- Green Roofs for Healthy Cities of North America
www.greenroofs.org
- GreenGrid® Green Roof Systems
www.greengridroofs.com
- David Hilgers, Landscape Architect,
Triad Associates, 425.821.8448

About Triad Associates

Triad Associates has devoted 32 years to Pacific Northwest land development consulting. We help our clients create inviting communities and unique community spaces by delivering collective expertise that goes well beyond our individual disciplines.

With over 120 employees and headquartered in Kirkland, we offer professional services in project management, civil engineering, land planning, site design, landscape architecture, and surveying. Working together across disciplines, our project teams support clients as they develop and improve land, while keeping an experienced eye on complex environmental, social, and economic issues.

