

Honorable mention

CATEGORY

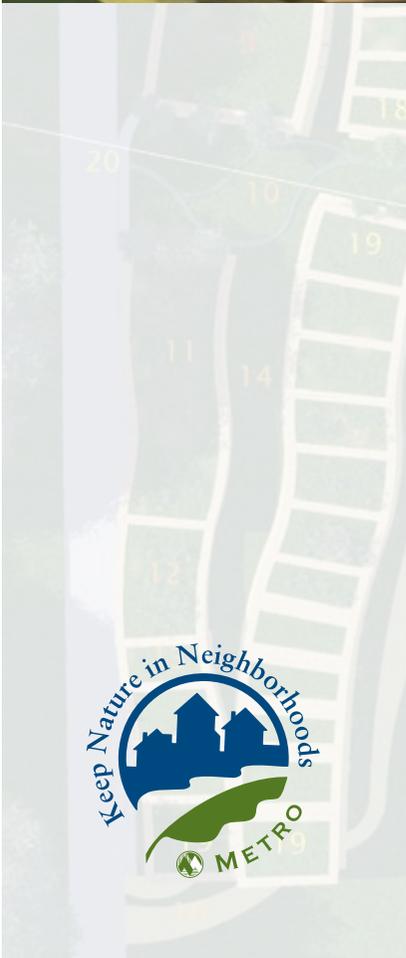
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# Nature in Neighborhoods: Integrating Habitats Winners Series

Mixed-use development and riparian forest

## terra+scapes

low impact landform design



Stormwater plazas

Riparian regeneration zone

Greenspace surrounds

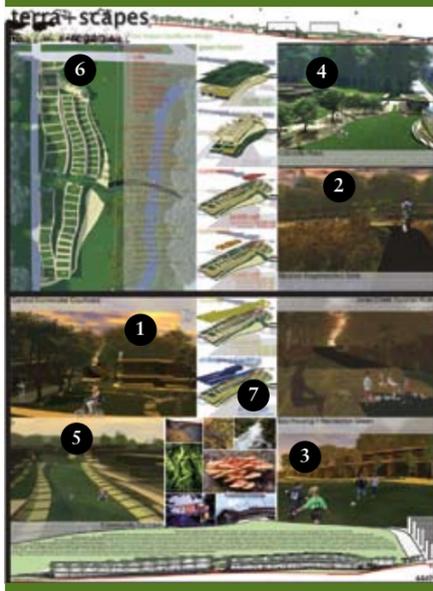
Cascading sitting stairs

Green corridor

74,500 foot ecoroof

Minimal disturbance





# Snapshot of a winner

Why do people choose to live in a particular place? Some important elements are clean air and water and a lush, healthy landscape just outside the door. In terra+scapes, successful integration of urban and natural systems exists in a design solution where human spaces, density and wildlife connections are achieved with maximum habitat regeneration. Work, play and home are blended in an environmental footprint that respects natural systems.



## ③ Greenspace surrounds

The presence of greenspaces adjacent to places where people work and live brings health and experiential benefits, while respecting the site's bounty of natural systems. In this design, public greenspace surrounds every structure, including the recreation green adjacent to the residential eco-housing units. The development's community buildings and the entire commercial center feature greenspaces just outside the doors.



## ⑤ Green corridor

The green community corridor serves as an appealing place for gathering and recreation. The gently sloping natural terrain becomes a valuable amenity when placed between structures.

**terra+scapes:** A landscape design that follows the site's topography and ecological processes, evolving into a series of terracing structures and urban plazas

## Inhabitant profiles



Wood duck (Dave Menke), Pacific chorus frog © Curt Zonick, River otters © Jim Cruce.



## ② Riparian regeneration zone

A healthy riparian habitat acts as an ecological amenity for both humans and wildlife. An important aspect of low impact design is the benefit achieved for water quality and habitat. This regenerated riparian zone will be the haven at the end of the journey through suburbia for riparian wildlife. The footprint of the regeneration zone doubles that of the development.

“Quite different to the other concepts, this project is organized in a monolithic structure north to south. On the ground floor are units adjacent to the gardens. Organized in terraces, all have a quite nice view over the river. In the middle of the project is an opening where a greenbelt reaches from the river through to the parklands. Public uses are located in a thinner element or a courtyard opening.”

—Stefan Behnisch, jurist



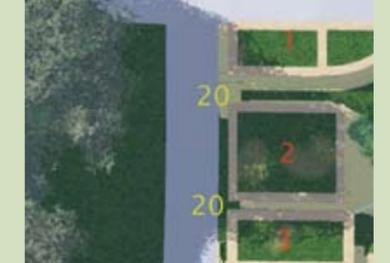
## ① Stormwater plazas

To clearly and artfully display the flow of stormwater from the nature park through the site, it is channeled through the courtyard and plazas, slowly terraced along with the topography and ultimately connects stormwaterfalls to the riparian regeneration zone. These urban plazas enhance and accommodate any amount of stormwater flow, resulting in a unique and dynamic public space.



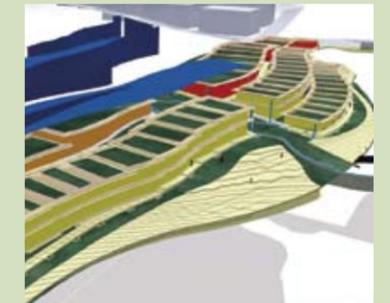
## ④ Cascading sitting stairs

The cascading sitting stairs flow along the stormwater plazas and habitat conservation area border. A pleasurable way to enjoy the landscape, the stairs act as stadium seating for viewing the action on the public greens and observing the flow of stormwater and wildlife in the riparian zone. The stairs also serve as a barrier for flooding around any main structure.



## ⑥ 74,500 foot ecoroof

An extensive green roof covers mixed-use areas including residential, commercial and community structures, creating a singular green footprint over the landscape.



## ⑦ Minimal disturbance

The design's green footprint includes 41,000 square feet of underground parking, freeing the terrain above for mixed-use structures and public greenspaces.

# terra+scapes

portland oregon

low impact landform design



## Commercial

- 1 cafe
- 2 grocery store
- 3 pharmacy
- 4 hardware store
- 5 restaurant
- 6 bar/nightclub
- 7 fitness center
- 8 outdoor store
- 9 professional offices

## Community

- 10 stormwater courtyard
- 11 community center
- 12 day care center
- 13 public storage
- 14 public greens
- 15 pedestrian overpass
- 16 underground parking

## Residential

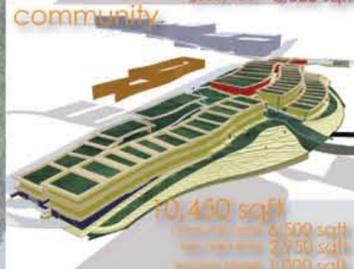
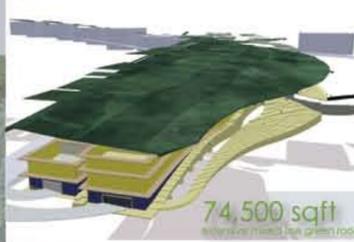
- 17 two bedroom eco lofts
- 18 studio eco lofts
- 19 single family lofts

## Ecological

- 20 off-site stormwater infiltration access
- 21 lightweight extensive eco roofs
- 22 riparian habitat regeneration
- low emission window systems

scale 1" = 50'

## green footprint



## Cascade Plaza

The inspiration behind the plaza design was to reflect and utilize the natural flow of off-site stormwater. The grass lawn is engineered with the terraced plaza to act as a natural stormwater basin which has off-site stormwater directed into it from flow strategies. Plants that reflect the topographical flow of water from off site to on site.



## Riparian Regeneration Zone

The riparian regeneration zone is the primary ecological effort in this design. The importance of a healthy riparian habitat is that it will act as an ecological artery for both humans and wildlife. The importance of a low impact design is that if there is no ecological habitat at the end of the journey, this regenerated riparian zone is what we act as the light at the end of the journey through suburban sprawl.

## Central Stormwater Courtyard

The main goal of the stormwater courtyard is to provide a park space for the development. In order to clearly and gently display the flow of stormwater through the site, it is channeled through the courtyard, slowly terracing along with the topography of the site while addressing existing stormwater flow to the riparian regeneration zone. The courtyard of this stormwater system reflects the larger contextual flood functions that feed the site.



## housing



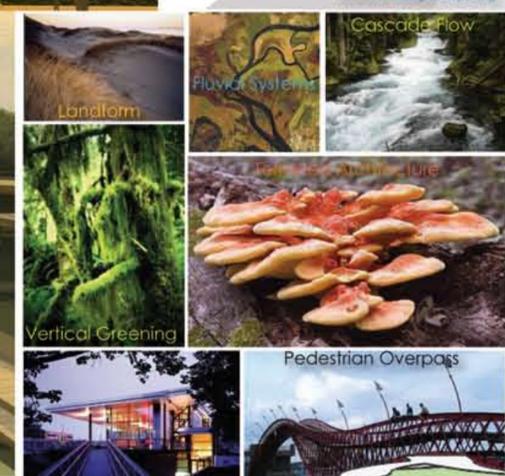
## Jones Creek Riparian Walk

The riparian walk allows pedestrians to safely cross the riparian regeneration zone, Jones Creek, and Highway 26 as foot bridges into the on-site green space and easy access to commercial areas and various public transportation stations that will access the plaza. The final shape of the bridge accentuates the topography and form of the creek while embracing innovative architectural design.



## Community Corridor

The Green Community Corridor serves as a place for exercise, play, care, and community gathering and recreation to occur. This gently sloping terraced landscape is a social community, which placed between structures. This subtle preservation of unique land among carefully crafted architecture is what makes this design unique.



## Eco Housing + Recreation Green

The riparian regeneration zone, Jones Creek, and Highway 26 as foot bridges into the on-site green space and easy access to commercial areas and various public transportation stations that will access the plaza. The final shape of the bridge accentuates the topography and form of the creek while embracing innovative architectural design.



Terra+Scapes design solution is rooted in the principles of organic design to ensure that the design is unique to its site geographically, socially, economically, and environmentally. The mixed use design aims to blend work, play, home, and education into a small environmental footprint that respects the natural systems of the site and also those influencing it. The result is terracing architecture with extensive green roofs, elaborate path systems intertwined through the site and architecture as to blur the transition, public green spaces surrounding every structure, urban plazas to display storm water processes and finally a riparian regeneration zone whose footprint doubles that of the development. The materials that comprise these structures are to be limited to Forest Stewardship Council (FSC) products, low VOC paints, natural/organic metals and masonry, along with maximum natural light and open air integration. The form giving from the design is a direct result of analysis and integration of the existing and outer lying topography. The idea that the structures needed to flow through the site with respect to the Habitat Conservation Line and adjacent stream was critical through all phases of design. The need for the design to respect the existing ecological processes such as storm water flow allowed the design to evolve into a series of terracing structures and urban plazas that are primarily based off of the natural flow of off site storm water into the designed area. These urban storm water plazas are designed to enhance and accommodate any amount of storm water flow as to result in purely unique and dynamic public spaces. The cascading sitting stairs flow with respect to these urban plazas and the HCA line to both serve as a barrier for flooding around any main structure and to act as stadium seating for viewing action on the public greens. The flow of storm water, and the wildlife in the riparian zone. The real integration that exists in this design solution is the amount of development and connection that can be achieved with an almost entirely green/permeable footprint, minimal earth disturbance, and habitat regeneration. This design solution embodies the principles of individuality, environmental responsibility, aesthetic beauty, and connectivity for all systems involved.

## Honorable mention

Mixed use development and riparian forest

Organic design unique to the landscape  
terra+scapes is rooted in the principles of organic design, giving form to a plan that is based on the existing and outer-lying shape of the land. The idea that structures need to flow through the site with respect to the habitat conservation area and adjacent stream is critical throughout. The result is terracing architecture with extensive green roofs and elaborate path systems intertwined through the site that blend the natural and built environments. The subtle preservation of existing land among carefully crafted architectural elements makes this design unique.

### Team members

**Pennsylvania State University**  
State College, Pa.  
**Matt Zambelli**  
e-mail: mlz146@psu.edu

“This kind of ego-less architecture, one that fits organically into the natural landscape, needs to be talked about a great deal. In addition to the kind and gentle buildings proposed, we are also asked to give careful consideration to details, which are just as important as the large scheme—low VOC paints to FSC certified woods, among other details.”

—Susan Szenasy, jurist

### Jurists

- Stefan Behnisch**, principal Behnisch Architects Stuttgart, Germany and Venice, Calif.
- Joan Nassauer**, professor Landscape architecture University of Michigan Ann Arbor, Mich.
- Tom Schueler**, founder Center for Watershed Protection Ellicott City, Md.
- Susan Szenasy**, editor-in-chief Metropolis Magazine New York, N.Y.
- Jim Winkler**, president Winkler Development Corporation Portland, Ore.
- David Yocca**, director Conservation Design Forum Elmhurst, Ill.



Nature in Neighborhoods:  
Integrating Habitats Winners Series

## Co-hosts, partners and sponsors



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# Nature in Neighborhoods: Integrating Habitats Winners Series

## Blend. Balance. Integrate.

Collaborate to redefine the built environment and restore nature.

More than 100 teams from around the world submitted entries to the Integrating Habitats design competition, proving that every space in which we live, work, shop and play can create places for both people and nature. These designs redefine current standards of environmental sustainability. The award winners illustrate new types of nature-friendly designs that balance development, human needs and the health of natural systems we all depend upon.



[www.oregonmetro.gov/integratinghabitats](http://www.oregonmetro.gov/integratinghabitats)

“The winners should whet everyone’s appetite for cities in which the beauty of nature is made commonplace—at the big box store or around the neighborhood.” —Joan Nassauer, jurist

## Metro regional government

serves 1.4 million people who live in the 25 cities and three counties of the Portland metropolitan area. Metro’s Nature in Neighborhoods initiative brings the regional government and local jurisdictions together to help ensure that the region’s wildlife and people thrive in a healthy urban ecosystem.

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