

# Transforming FDU's Commuter Campus into a Sustainable Eco-Park

Viridian's work for FDU has given the school a new sense of place, sense of purpose, and sense of self. Thanks to their new masterplan for a campus eco-park, the river that once divided the campus now unites it.

## PROJECT OVERVIEW

**Location:** Teaneck/Hackensack, NJ  
**Client:** Fairleigh Dickinson University  
**Size:** 12 acres  
**Cost:** \$4 million  
**Status:** Ongoing  
**Awards:** SCUP Excellence in Landscape Architecture  
 ASLA PA-DE Award of Excellence

Fairleigh Dickinson University (FDU), the largest private university in New Jersey, partnered with Viridian to transform its metro campus into a sustainable Eco-Park. Viridian's design improves student wellbeing, heals the local ecosystem, and creates a beautiful, resilient setting for living and learning. The Eco-Park concept was inspired by the FDU's location on the Hackensack River and their decision to incorporate stewardship of the river into the university's academic mission and long-term strategic plan. To support this mission, Viridian prepared a master plan that will have a profound and lasting effect on nearly every aspect of FDU's culture.

Founded in 1954, FDU's metro campus was built on drained wetlands. As the campus grew to stretch across both sides of the Hackensack, its new buildings were designed without any apparent relationship to one another or to the river that bisected the campus. As a result, the campus had no clear sense of identity. And, because most students were commuters, it had no real culture. With no reason or desire to stay on campus, students drove to campus for class and drove away right after.

To shift that culture, Viridian developed a plan that creates place through plants, invites the wider community to enjoy the health benefits offered by the campus grounds, and creates new public spaces where visitors can feel more connected with the river and with one another. The work is ongoing, but the plan has already created exciting education and recreation opportunities. It has helped form new relationships with civic groups and environmental organizations. It is knitting the campus together – in some ways, quite literally. It all began with the river.



### A restored sense of place.

Reconnecting FDU's landscape with the Hackensack River gives the campus a distinctive identity.



### A new sense of self.

Viridian's plan changed the way the school thinks about itself, from commuter campus to river steward.



### Improved retention rates.

Keeping students on campus, water in the ground, and infrastructure secure makes ecological & economical sense.



### Toolkit for maintenance.

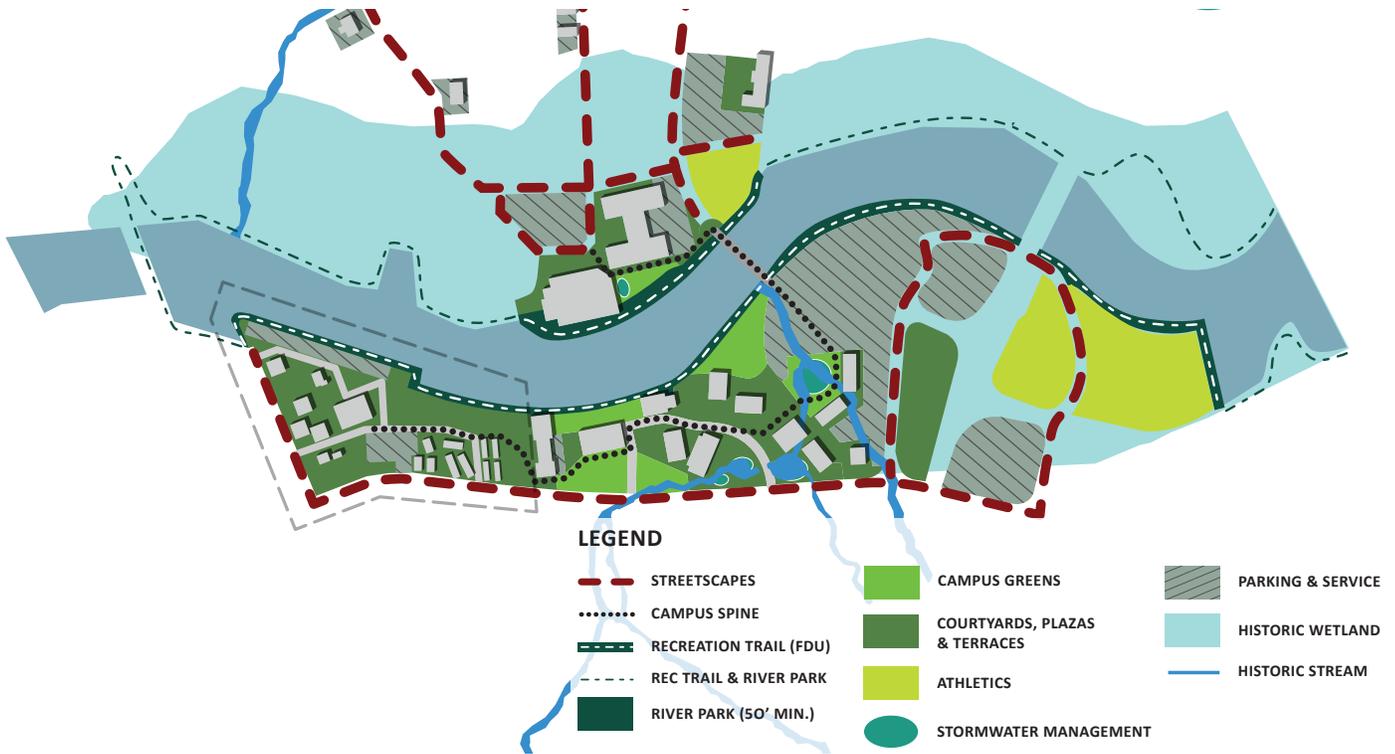
Viridian equipped the facilities team with a comprehensive toolkit to protect and maintain the landscape year-round.



### Inspired champions.

Stakeholders at every level of the University are engaged and determined to make his project a success.





## Restoring the Hackensack River and creating a sense of place.

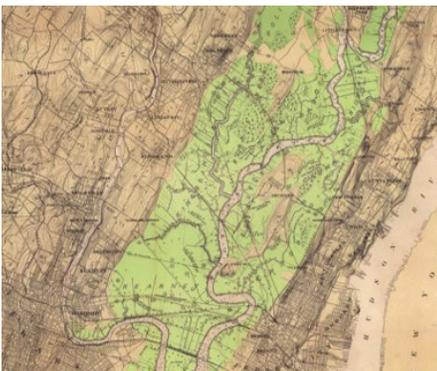
Fairleigh Dickinson University is split by the Hackensack River, with its campus divided between the towns of Teaneck and Hackensack, New Jersey. Decades of industrialization had degraded the river, and the car-centric nature of the school had discouraged any engagement with the environment. Viridian immediately recognized the opportunities to capitalize on this unique setting and transform the river from something that divided the campus into something that united it. By restoring and protecting the fragile riparian ecosystem, the firm began to define a distinctive sense of place.

it was hard to imagine the benefits and impact of such an ambitious plan. To gain support for the project, Viridian spent time educating the community about the river's history and showing them that native plants aren't just functional; they're beautiful as well. Through these experiences, the community began to understand how native plants would bring new life to the campus, affirm campus boundaries and wayfinding, preserve infrastructure, and save time and money with lower maintenance needs.

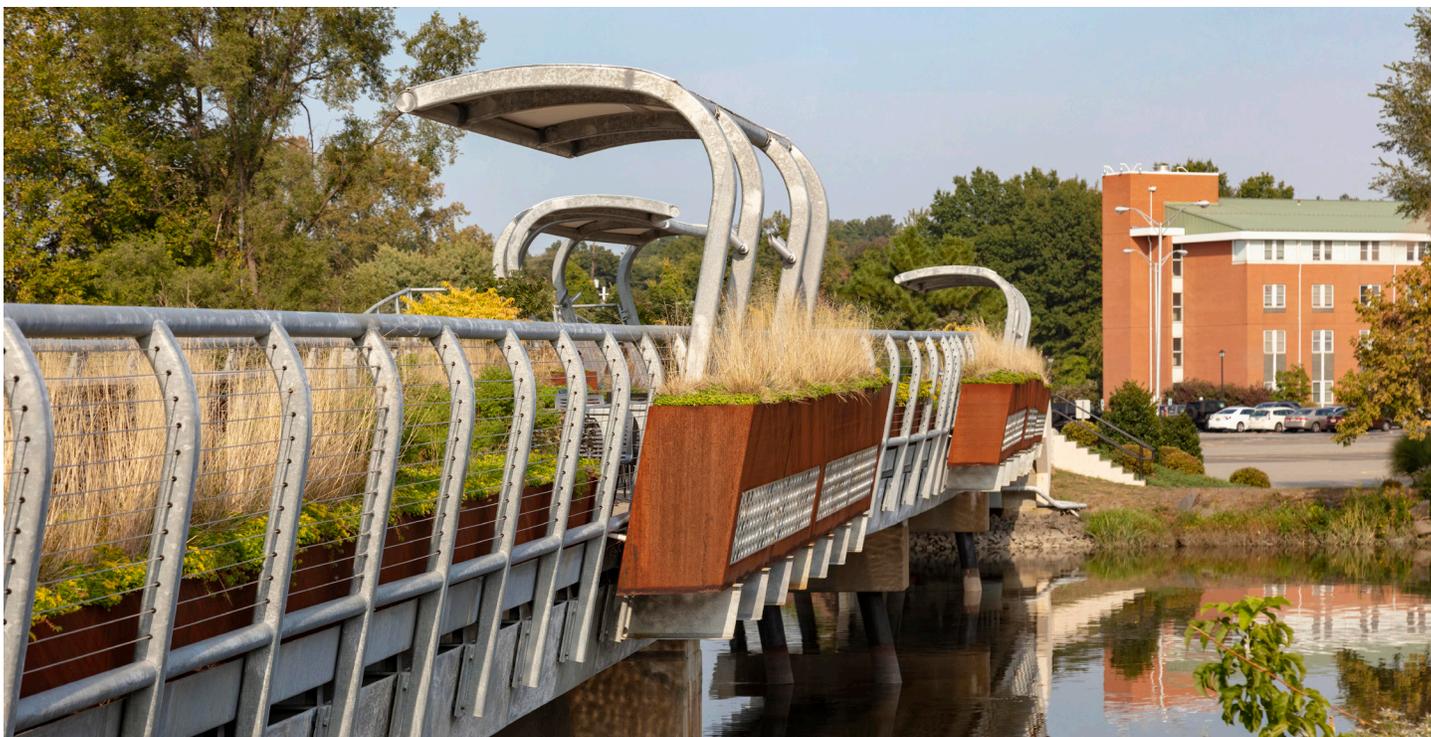
*“Viridian’s landscape is celebrated by students, faculty, and staff. It knits the campus together in ways that encourage academic research and community engagement.”*

- Heidi Fichtenbaum, Senior Project Manager, Fairleigh Dickinson University

University enthusiasm and support for the project are essential to its lasting success. With people getting excited about the possibilities, the transformation truly began.



Previously, the landscape and university were treated as two wholly separate entities. Viridian's master plan integrates them as one resilient, sustainable and productive Eco-Park. For some people in the community, it



## Building a bridge to a more sustainable future.

The improvement didn't happen all at once. Viridian demonstrated that a campus transformation towards a more sustainable and resilient future could be taken in steps, and not all interventions need to be meticulously planned feats of engineering. One of the most significant benefits of Viridian's plan is that it identified "a la cart" opportunities across the entire campus that the university could implement as resources become available. With every new intervention, the movement--it truly has become a movement--built momentum, and doubters were converted as the merits of the Eco-Park concept became clear.

The first intervention that truly tied the campus and its people to the ecosystem was a beautiful new rooftop sedum garden. Attracting pollinators and native birds, it became a symbol of sustainability – and possibility. Next, changes to campus parking lots and new salting policies turned campus heat islands into habitats. Soon after, wilting cabbages and chrysanthemums all over campus were replaced with native shrubs like red twig dogwood and dwarf inkberry holly that brighten the campus with splashes of color - even in winter. Every plant was selected for its year round-beauty and ability to thrive in the riparian ecosystem.

A new sign and landscaped gateway gave FDU a more confident face to the world and improved its public recognition. But the landscape, more than the sign, tells the story of the new FDU. More effective than fences in demarcating the boundaries of the campus, the new landscape creates a visceral feeling of being "on campus." That feeling carries through to the river, its natural point of origin.

The largest, most visible, and most impactful single intervention is the New FDU Spirit Footbridge. Spanning more than 200 feet across the Hackensack River, the bridge connects the two halves of FDU's campus while supporting its academic goals and commitment to stewardship.

Viridian led a multidisciplinary team of designers and engineers to create the softly winding footbridge, which is built on the existing structure of a former concrete and chain-link pathway. To reduce weight and maximize plantable areas, Viridian used a custom



designed lightweight soil matrix and drainage system, and employed hanging planters to provide additional vegetation outside the railing. The tiered landscaping feels like an extension of the adjacent river banks, with creek sedge and other ground covers, colorful shrubs like bush honeysuckle, and small trees such as the Tiger Eyes sumac, whose sculptural branches complement the bridge's form.

As they did across the entire campus, Viridian selected the plants for their year-round visual interest, as well as their suitability to the shallow soils, full sun, and windy conditions of the bridge microclimate and their ability to restore the riverine ecosystem by attracting native birds, insects, and turtles. The team similarly chose materials for their lightness, durability, and sustainability, including recycled teak sourced from a program that protects elephants in the Republic of Myanmar. To assist with ongoing maintenance—a critical aspect of the entire Eco-park plan, electrical and irrigation systems are discreetly embedded into the furnishings.

*“The Footbridge is an important literal and symbolic force uniting the campus.”*

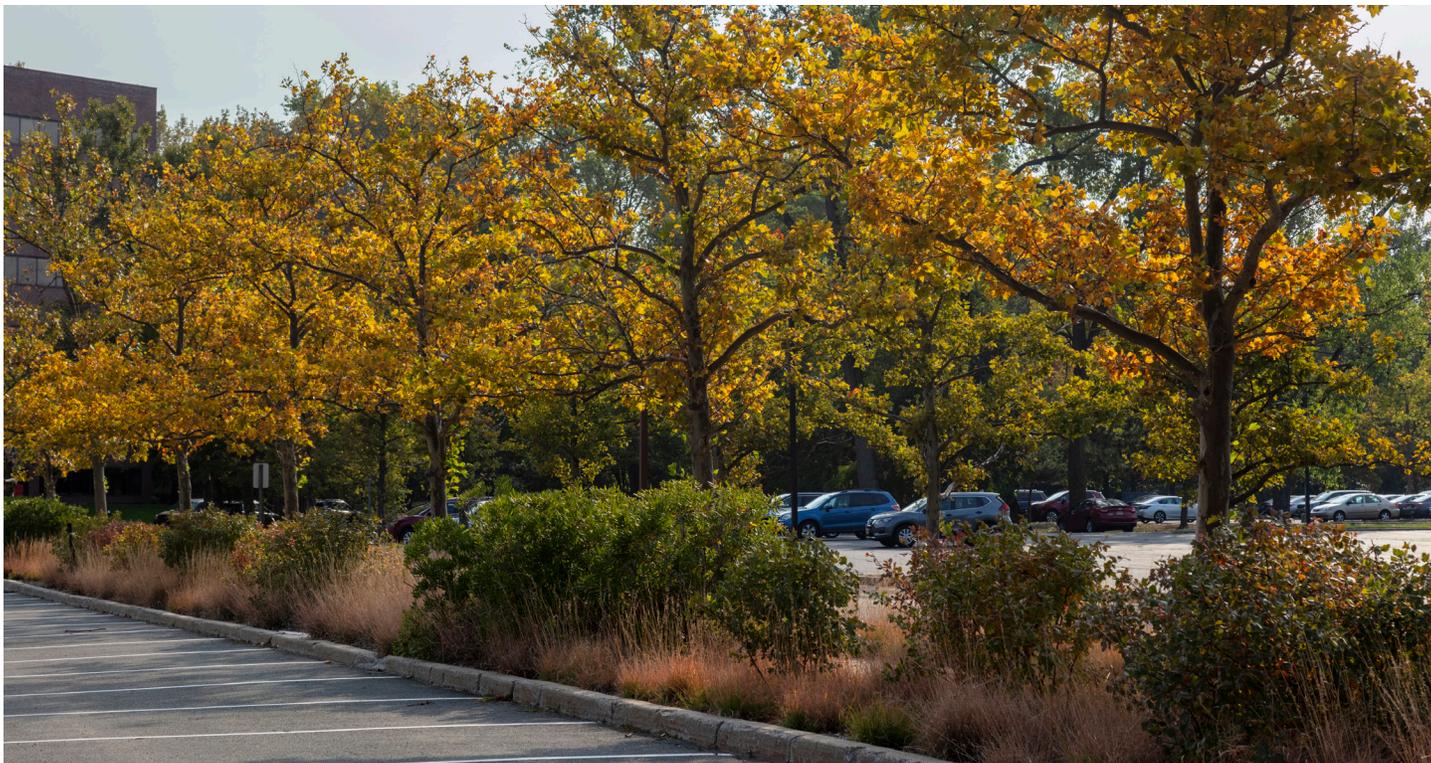
– Dr. Christopher A. Capuano,  
FDU President

Designed to meet the needs of today and tomorrow, the bridge will become increasingly vital—and visible—as FDU grows, with a potential new hotel and student center planned for nearby sites. The bridge is also the centerpiece of the Eco-park's public “wellness” loop and, perhaps more than any other intervention is responsible for increasing pedestrian activity and inspiring other healthy behaviors.

## Improving retention rates - for students, water, and the university budget.

As the natural landscape continues to evolve, it isn't just transforming the FDU's sense of place; it's transforming its sense of self. Viridian's landscapes are encouraging more pedestrian activity on the historically commuter school. It's becoming a place where people want to be and where they are creating memories – there was even a marriage proposal on the FDU footbridge soon after its completion! Although the plan is still in its early stages, the University leadership is confident that it will help improve admission and retention rates, make the school more specialized and competitive by creating new hands-on research opportunities, and strengthen FDU's identity.





The efforts to improve the riverine ecosystem are also improving the university's relationship with the towns of Hackensack and Teaneck. Viridian's work has led to FDU develop a productive relationship with the Hackensack Riverkeeper, a local organization committed to the stewardship of the Hackensack River watershed. This fruitful partnership has opened the door for new learning opportunities and broader community engagement.

These projects and partnerships will have a lasting impact on the area watershed by improving water retention rates, reducing water runoff, and improving the longevity of infrastructure on campus and throughout the Hackensack and Teaneck communities – all while reducing operating costs.

## Giving the campus caretakers a toolkit for the future.

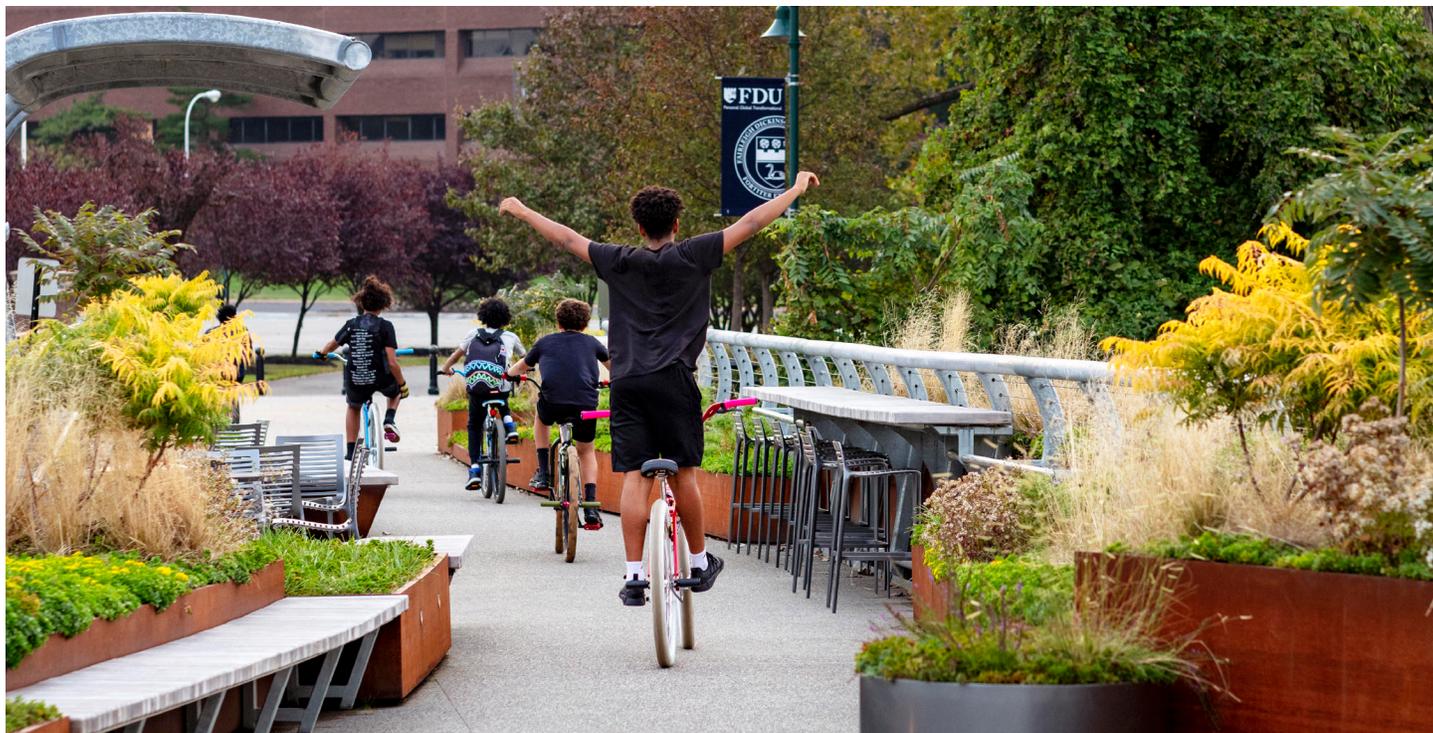
Creating a truly resilient landscape takes time. To support the campus caretakers and facilities department as they guide FDU's transformation, Viridian created an intuitive landscape maintenance toolkit that includes project- and location-specific field data sheets, a photo-illustrated four-season plant library, maintenance schedules, and an educational appendix. Every plant

species is photographed and annotated in detail, and keyed to a plan. Supplemental and educational materials include invasive plant and look-alike identification.

Because these materials are easy to use and understand, caregivers feel more invested in the landscape and encouraged to take things even further. With generous space for notes and documentation, the toolkit not only explains the original intent; it also acts as a living document that will change and grow over time to guide the evolution of the campus landscape.

The design team never lost sight of the university's mission and the need for a functional and beautiful design. Viridian continues to serve as a resource to share knowledge and advise the development of the campus, working with University stakeholders at every level, from maintenance crews to leadership.





## Inspiring champions for a sustainable legacy.

The FDU Eco-Park is an ongoing and iterative process that Viridian has by no means undertaken alone. Along the way, the landscape design firm has inspired champions across campus who are determined to complete the campus transformation and establish a legacy of stewardship. “We thought you were nuts, but you’ve completely changed my mind,” said one FDU facilities department to Viridian founding principal Tavis Dockwiller – and he’s not alone. The FDU Facilities Team has become the landscape’s biggest champion. But the University leadership has embraced it as well. And



now, as the University community begins to spend more time on campus, students and faculty are showing that they too are invested in the future of FDU and the Hackensack River. People truly want to get involved in making it even better. They are engaging with the campus in a way they never had before.

To ensure the continuing success of the Eco-Park, Viridian has formed a diverse “community of the willing” who are inspired by the changes they’ve seen on campus. The firm and its partners--both official and unofficial--continue to identify new allies and opportunities that can fit within institutional culture and connect to the educational mission. Viridian cares deeply for landscapes of learning and supports any initiative, no matter how small. The firm continues to advise and educate groups and individuals who are carrying this new legacy forward to build a brighter, more resilient future together.

### CASE STUDY: FAIRLEIGH DICKINSON UNIVERSITY ECO-PARK