

2025 Sustainable Solutions Challenge Theme:

"Beyond Green: Solutions for a Better Campus"

Registration: January 31 – February 16

Design Thinking Challenge Workshop: February 17, 11:30am – 1:00pm (lunch provided) Individual participants are required to attend; at least 1 member from each team is required to attend **Proposed solution due**: March 3 **First round decision notification**: March 17 **Second round presentation**: Week of March 24 – 28 **Final presentation**: Week of April 7

The 2025 Sustainability Solutions Challenge (SSC) invites student-led innovations in sustainability at the University of Richmond. This year's theme, "*Beyond Green: Solutions for a Better Campus*," emphasizes the need for solutions that address all three pillars of sustainability—environmental, economic, and social. Participants are tasked with creating comprehensive ideas that demonstrate a broad impact across these interconnected areas, ensuring meaningful and lasting change. Participants will compete in the SSC, gaining valuable experience in entrepreneurship, social enterprise, leadership, and teamwork. Students are encouraged to collaborate across disciplines to develop solutions that influence

sustainability culture at the university. Sustainability must be visible, shared, and embraced collectively to create lasting change.

The winning proposal will receive funding, allowing you to oversee its implementation and leave a lasting legacy of sustainability on campus.

To help participants generate ideas and understand campus needs, interviews were held with key university offices, including the Office of Sustainability, Dining Services, the Well-Being Center, and the Office for Institutional Equity and Inclusion. These discussions highlighted important sustainability challenges and priorities, shaping the following prompts designed to guide impactful and innovative solutions. Participants are also welcome to suggest original ideas beyond these areas.

- 1) Dining Services: Recycling bulk plastic and aluminum; food recovery and donation
- 2) Recycling Department: Reusables food containers and cups
- **3)** Custodial and Environmental Services: Promoting sustainability education through public art and sustainability culture
- 4) Landscape Services: Golf carts batteries
- 5) Engineering Services: Alternative energy sourcing;" "Low flow" plumbing fixtures
- 6) Business Services: Sustainably procured products and purchasing
- 7) Health & Well-Being Unit: Campus-wide wellness campaign
- 8) Office for Institutional Equity & Inclusion: Cultivating campus community and inclusivity
- 9) CREATE YOUR OWN.

1) UR Campus Office/Facility: DINING SERVICES

The University of Richmond's award-winning Dining Services are dedicated to providing sustainable and nutritious dining experiences for the campus community. The UR dining service program is ranked the #3 dining services program in the country by the Princeton Review. Sustainability is woven throughout Dining Service's mission to nourish the UR campus community. Current sustainability efforts focus on green purchasing, efficient storage, and thoughtful food preparation processes, as well as waste reduction, recycling, and environmentally sound cleaning practices. Key achievements include increased utilization of local products, the elimination of single-use plastic products and trays in D-Hall, the implementation of a Food Waste Tracking System (Leanpath), and the introduction of both a Cardboard Recycling Program and a Compost Program. Interviewed for the SSC:

Upen Malani, Executive Director of Dining Services (email: <u>upen.malani@richmond.edu</u>) Sustainability Challenges ("Recycling Bulk Plastic and Aluminum" and "Food Recovery and Donation"):

According to Upen Malani, Executive Director of Dining Services, two important initiatives to develop are a recycling program for bulk plastic and aluminum, and a food recovery and donation program. The recycling program should focus on improving collection systems, increasing awareness, and ensuring proper sorting to enhance the effectiveness of the process. Meanwhile, the food recovery initiative must aim to reduce food waste while supporting community members in need, aligning with sustainability goals and social responsibility.

2) UR Campus Office/Facility: RECYCLING DEPARTMENT

The Recycling Department plays a critical role in managing campus operations to ensure environmental sustainability and resource efficiency. Sustainability is at the core of their operations, and they have made tangible strides in implementing environmentally-friendly practices. According to David Donaldson, Rethink Waste Manager, composting, investing in renewable energy and energy efficient operations are just a few examples of the University's commitment to sustainability. Composting is now available at all retail dining locations and the HDC dining hall, processing approximately 200 tons annually into nutrient-rich soil. Donaldson acknowledges that "waste is something the campus community interacts with on a daily basis," making waste management a key priority for his department. The University of Richmond employs a single-stream recycling program, allowing all recyclable materials to be placed in the same bin. Additionally, recycling efforts extend to auto tires and batteries, scrap wood and metal, cardboard, and other waste materials. **Interviewed for the SSC**:

David Donaldson, Rethink Waste Manager (email: ddonalds@richmond.edu)

Nia Williams, Manager of Eight-Fifteen Café (email: nwillia2@richmond.edu)

Sustainability Challenges ("Reusables Food Containers and Cups"): As Donaldson admitted, while the shift to compostable packaging is a positive step compared to landfilling, it still produces more emissions and requires more water during production and transportation than reusable packaging. Therefore, the most impactful sustainable solutions for to-go food service will be those that establish a cost-effective framework for reusable containers and cups. A valuable addition to the campus's sustainability efforts could be a comprehensive reusables program. However, with GrubHub now managing most orders at retail dining locations through its mobile app, integrating reusable products presents a challenge. Donaldson shared that every program or webinar he had attended reported a return rate of 85–95% for reusables, with some even reaching 99%. How can such a program be implemented effectively at UR? How would price reductions be structured, and how would reusable items be supplied?

Nia Williams, Manager of Eight-Fifteen Café, also echoes the importance of implementing a reusable cup program, stressing the need for creative solutions that ensure high service quality and strict sanitation standards. Ms. Williams noted that Ozzi, a patented system for collecting and redeeming reusable containers, could be an ideal solution, as it has been proven to reduce operational costs and promote accountability. However, considerations around labor and the time needed for washing reusable containers must also be addressed.

3) UR Campus Office/Facility: CUSTODIAL AND ENVIRONMENTAL SERVICES

The Custodial Services Department aims to provide a safe and clean environment for all students, staff, faculty, and visitors. They set out to accomplish this by focusing on safety, hospitality, quality, and efficiency.

Interviewed for the SSC:

Scott Lincoln, Associate Director of Custodial and Environmental Services (email: slincoln@richmond.edu)

Sustainability Challenges ("Promoting Sustainability Education through Public Art and Sustainability Culture"): According to Scott Lincoln, Associate Director of Custodial and Environmental Services, promoting sustainability education is essential for cultivating a sustainability-focused mindset and fostering sustainable habits across campus. He suggests two potential ideas students might consider for the SSC. One idea can focus on leveraging public art to spark dialogue about environmental responsibility. Public art not only enhances the campus environment but also promotes community cohesion and encourages reflection on our relationship with the natural world. For example, students could propose a plan for a public artwork that gets the campus community thinking about sustainability. Lincoln suggests designing vibrant murals for campus trash cans to transform them into compelling reminders of environmental responsibility. Another way to promote sustainability education can be by addressing cultural resistance to waste-reduction initiatives. The University is transitioning toward centralized waste bin locations, a proven strategy at other institutions for reducing waste, labor, and plastic liner use. However, past efforts to implement this change at UR have faced significant pushback from faculty and staff, highlighting the need for targeted educational efforts to shift campus culture. Students might develop solutions incorporating educational campaigns or creative workshops to help the community understand the importance of waste reduction and embrace sustainable practices.

4) UR Campus Office/Facility: LANDSCAPE SERVICES

The Landscaping Services Department puts in great effort into maintaining the 378 acres of campus. They are responsible for overseeing 170 acres of turf, 21 acres of parking lots, and 16 flower beds. Landscape Services contributes to the campus's overall sustainability goals by promoting biodiversity, improving air quality, and enhancing the well-being of students and staff through accessible, green spaces.

Interviewed for the SSC:

Allison Moyer, Associate Director of Landscape Services and Horticulturist (email: amoyer@richmond.edu)

Sustainability Challenges ("Golf carts batteries"): Allison Moyer, Associate Director of Landscape Services and Horticulturist, proposed golf cart battery selection as a potential area for idea generation in the SSC. Moyer highlighted two primary options: flooded lead-acid batteries and lithium batteries. While lithium batteries are more expensive, they offer a longer lifespan (approximately 10 years), require no maintenance, and deliver greater torque for handling loads and navigating hills. However, a key challenge is identifying an effective recycling solution for these batteries at the end of their lifecycle. In contrast, flooded lead-acid batteries are more affordable but demand regular monthly maintenance to monitor water levels and have a shorter lifespan. Without proper upkeep, these batteries are prone to premature failure, which is a common issue.

5) UR Campus Office/Facility: ENGINEERING SERVICES

According to the university's <u>2022 STARS</u> report on energy, total site energy consumption at UR amounted to 299,068.36 MMBtu. The University is committed to reducing energy consumption and offsets 100% of its electricity usage with fossil-free energy supplied to the local grid via the Spotsylvania Solar Project. In 2016, a 204.8 kW bifacial solar array was installed on the roof of the Weinstein Center for Recreation, generating 19% more electricity than anticipated due to its innovative bifacial and inverter design. One of the latest sustainability innovations on campus is the installation of a green roof at Richmond Law, covering approximately 700 square feet with trays of sedum, a drought-resistant succulent. The green roof will reduce the need for air conditioning in the summer, provide insulation in the winter, and reduce the surface runoff of rainwater. **Interviewed for the SSC**:

Mark Beatty, Manager, Engineering Services (email: mbeatty@richmond.edu)

Sustainability Challenges ("Alternative Energy Sourcing" and "Low Flow" Plumbing Fixtures):

Mark Beatty, Manager of Engineering Services, noted that Facilities and the Office of Sustainability collaborate closely to ensure responsible campus resource management. However, operational realities often pose challenges. For instance, on a recent 21-degree morning at 4:30 a.m., the Steam Plant operated near full capacity, using natural gas to meet campus heating and hot water demands. Despite the university's sustainability commitment, natural gas remains the most effective option for

extreme weather. Beatty encourages students to propose innovative ideas for reducing energy consumption and exploring alternative solutions.

Regarding water conservation, Beatty suggested installing "low-flow" plumbing fixtures, a relatively simple change with significant potential impact. However, he raised concerns about the campus's aging infrastructure, noting that existing piping isn't designed for low-flow fixtures. This highlights the need for a comprehensive strategy to replace outdated systems, establish sustainable equipment standards, and reduce the campus's carbon footprint. While addressing these issues is complex and costly, especially on a busy campus, Beatty emphasized the importance of student creativity in finding practical solutions.

6) UR Campus Office/Facility: BUSINESS SERVICES

Campus Business Services delivers quality and creative services to enhance life on campus. They serve the campus community and external customers with the highest standard of integrity, striving to enhance the educational experience of UR students and advance the reputation of the University. **Interviewed for the SSC**:

Alison McCormick, Director of Purchasing (email: <u>amccormi@richmond.edu</u>)

Sustainability Challenges ("Sustainably Procured Products and Purchasing"): McCormick, Director of Purchasing, highlighted the need for student proposals to help university operations increase the ratio of sustainably procured products on campus, emphasizing the importance of student buy-in to ensure these options are embraced. As an example, McCormick used plastic water bottles which are the top-selling item at the campus convenience store, ETC. If ETC stopped stocking plastic water bottles, many students might drive off-campus to buy them. The challenge is to provide sustainable alternatives that students will embrace while balancing convenience with environmental responsibility. SSC participants are therefore encouraged to explore ways to cultivate a campus culture that prioritizes alternatives to single-use plastics. This can be done via a creative campaign which could highlight the benefits of sustainable products and promote ethical sourcing standards at ETC and the SpiderShop. Beyond student adoption, dining services must navigate vendor contracts that involve single-use plastic bottles, which can be complicated by varying purchasing guidelines. Proposals may focus on how dining services can integrate existing sustainable purchasing frameworks, such as Good Food, or develop new ones. Aligning sustainable purchasing guidelines across all departments is another key area for SSC ideas.

Finally, McCormick expressed interest in seeing proposals that promote the use of SWaM (Small, Women-owned, and Minority-owned Business) vendors. Such efforts would not only advance sustainability goals but also strengthen community relationships and partnerships.

7) UR Campus Office/Facility: HEALTH AND WELL-BEING UNIT (HWB)

The overall mission of the HWB is to create and sustain a culture and community of wellness that supports and enhances lifelong learning and helps all students and members of the UR community reach their full potential. Their core values are a student focus, collaboration, sustainability, and inclusivity. The University of Richmond is already a leader among our peers in the area of wellbeing, but there is always room to maximize and grow, based on our community's needs. **Interviewed for the SSC**:

Aesha Uqdah, Associate Vice President Health & Well-Being (email: <u>aesha.uqdah@richmond.edu</u>) **Sustainability Challenges ("Campus-Wide Wellness Campaign")**: According to Aesha Uqdah, Associate Vice President Health & Well-Being, one of the key HWB's goals is to increase awareness of current programming to ensure that our students, staff, and faculty are aware of all HWB has to offer. To that end, students could help create a wellness campaign that engages the entire campus, including faculty and staff, in well-being awareness and initiatives. Campus-wide collaboration on events and messaging would help create a campus culture of well-being. Uqdah noted, "I've gotten feedback from students that many are struggling to be "ok," but no one is talking about it." She recommended that "perhaps the campaign could include messaging regarding: how to say no (without ruining the relationship or missing out on the opportunity in the future), or managing being overwhelmed as a high achiever, etc. (whichever issues students feel are the most pervasive or important to address). I think getting staff and faculty on board for a "failing up" campaign could be impactful—sharing with students our failures or "good enoughs" in college and beyond. It's important that this type of campaign include administrators, faculty and students.

8) UR Campus Office/Facility: OFFICE FOR INSTITUTIONAL EQUITY & INCLUSION

The UR Office for Institutional Equity & Inclusion supports and aligns diversity, equity, inclusion, and belonging (DEIB) efforts for the entire campus community by providing resources, ongoing education, consultation, and signature programs. The Office has launched several impactful initiatives, one of which is the Community Dialogue Network (CDN). The CDN is designed to enhance the campus's collective ability to navigate challenging conversations by equipping students, staff, and faculty with equity-minded group facilitation skills. The CDN includes an 18-hour comprehensive training series, enabling participants to join a network of equity-minded individuals who serve as vital resources for addressing complex campus discussions. Participant feedback has been extremely positive, with many noting that the CDN not only fosters a sense of belonging within a community dedicated to inclusivity but also significantly enhances their facilitation skills—benefits that translate directly into professional growth and success. Now in its fourth year, the CDN has trained over 150 participants.

Interviewed for the SSC:

Glyn Hughes, Director of Institutional Equity & Inclusion (email: <u>ghughes@richmond.edu</u>) **Sustainability Challenges ("Cultivating Campus Community and Inclusivity"):** Despite positive feedback the CDN receives, student participation has remained notably low, with only 5 students engaging in the program to date. Dr. Glyn Hughes, Director of Institutional Equity and Inclusion, notes that student participation remains low despite efforts to experiment with various training delivery methods, such as one-on-one courses and asynchronous learning formats. Dr. Hughes highlights this issue as indicative of a broader need for more immersive skill-building opportunities that effectively engage students in these critical efforts. SSC participants can develop innovative strategies to foster student engagement with the CDN. They could propose solutions that not only enhance participation but also contribute to a more inclusive, equity-driven campus culture.

9) CREATE YOUR OWN

In addition to the proposed challenges and ideas, the SSC offers the opportunity to identify your own areas of focus and direct your recommendations towards them. If you have a unique idea or challenge in mind that aligns with our goal of creating a more sustainable campus, you are encouraged to develop and present it. This is your chance to take ownership of an initiative that could have a lasting impact on the University of Richmond. Whether it's a completely new concept or an innovative twist on an existing idea, the SSC welcomes creative and out-of-the-box thinking.

IMPORTANT: Your ideas need to align with the UR <u>Strategic Sustainability Plan</u> developed by the Office of Sustainability. This plan serves as "a blueprint for how we, as a campus community, will

achieve a long-term vision of integrating sustainability into the fabric of the University." Rob Andrejewski, Director of Sustainability, and Daniel Hart, Associate Director of Sustainability and Environmental Justice, have played key roles in shaping and advancing many of the sustainability initiatives outlined in this document, a contribution widely recognized by the individuals interviewed.