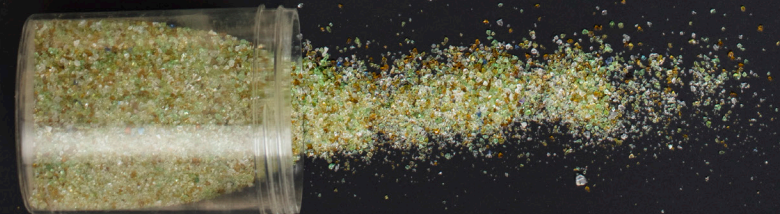




From Waste



to Resource

Increasing Circularity in
Engineered Soils Through
Renewable Materials

Image credit: Sahar Coston-Hardy

OLIN

 **CIRCULAR
PHILADELPHIA**

**PHILADELPHIA
WATER**
— DEPARTMENT —

ASLA 2024
INSIGHT
Conference on Landscape Architecture
OCTOBER 6-9 | Washington, DC

Speakers



Pia von Barby, ASLA, PLA
OLIN - Landscape Architect

Pia von Barby is a licensed landscape architect at OLIN and has been practicing landscape architecture since 2018. Her experience includes private, public, and institutional projects such as healthcare and corporate campuses, universities, multi-family housing, and high end residential projects. In addition to project-based work, Pia is deeply involved with OLIN's research and development group, OLIN Labs. Her research focuses on waste-based material design, including OLIN's Circular Soil and Biochar Initiatives. Pia's research involves a constellation of collaborators in the fields of soil science, engineering, geochemistry, biology, horticulture, economics, and more. Pia holds a MLA from the University of Virginia.



Nic Esposito
Circular Philadelphia - Director of Policy and Engagement

Nic Esposito is an accomplished writer, entrepreneur, urban farmer and circular economy professional. Nic served as the City of Philadelphia's Zero Waste and Litter Director from 2016-2020. He is currently the Director of Policy and Engagement for Circular Philadelphia and is the founder and CEO of Circa Systems, which is dedicated to building the circular retail platforms of the future. Nic also founded the non-profit bookstore and publishing company The Head & The Hand and co-manages Emerald Street Community Farm in the Kensington neighborhood of Philadelphia. Nic was named one of the top 150 most influential Philadelphians in 2023 by Philadelphia Magazine.



Lindsay Reul, ASLA
Philadelphia Water Department - Landscape Design Supervisor

Lindsay Reul is the Landscape Design Supervisor of the Philadelphia Water Department's Green Cities Clean Waters Program. The Landscape Design group develops and quality-assures all green components of the green stormwater infrastructure systems. Lindsay has specialized in public sector green infrastructure landscape architecture since 2009, initially working in the Washington DC RiversSmart Schools program before joining PWD in 2013. As a Philadelphia resident, Lindsay guest lectured at the landscape architecture programs of University of Pennsylvania, Temple University, and Jefferson University, and served as an adjunct professor for Temple. Lindsay holds a BSLA from Cornell University and an MCP from MIT.

Learning Objectives

1. Understand the impacts of material sourcing for engineered soils.
2. Contextualize opportunities and barriers to adoption of sustainable materials in public works projects and private development.
3. Understand the properties of glass-sand as a component in engineered soils, including its performance in comparison to mined sand.
4. Demonstrate strategies for connecting local nonprofits, city departments, and small businesses with landscape architects and with each other.

Session Outline

1. Framing the problem: introduction + context
 - a. Extractive practices related to manufacturing engineered soils
 - b. Environmental footprint of GSI projects
2. Overview of EPA-funded study assessing the potential of mixed color glass as a component in engineered soils
 - a. Initial research question
 - b. Previous research conducted
 - c. Research methods & results
 - d. Discussion of findings
3. Challenges of waste and recycling and opportunities in Philadelphia and similar cities
 - a. Infrastructure and logistical challenges
 - b. Cost of waste disposal and recycling
 - c. Small businesses commercialization
4. GSI planning and design at the Philadelphia Water Department
 - a. Philadelphia's Green Cities, Clean Waters program
 - b. Department standards
 - c. Sourcing materials and cost
 - d. Stormwater regulations and incentive frameworks
5. Reflections from each speaker
6. Q & A

Sources

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