

Cody Rouge Community  
Action Alliance  
Warrendale Community  
Organization

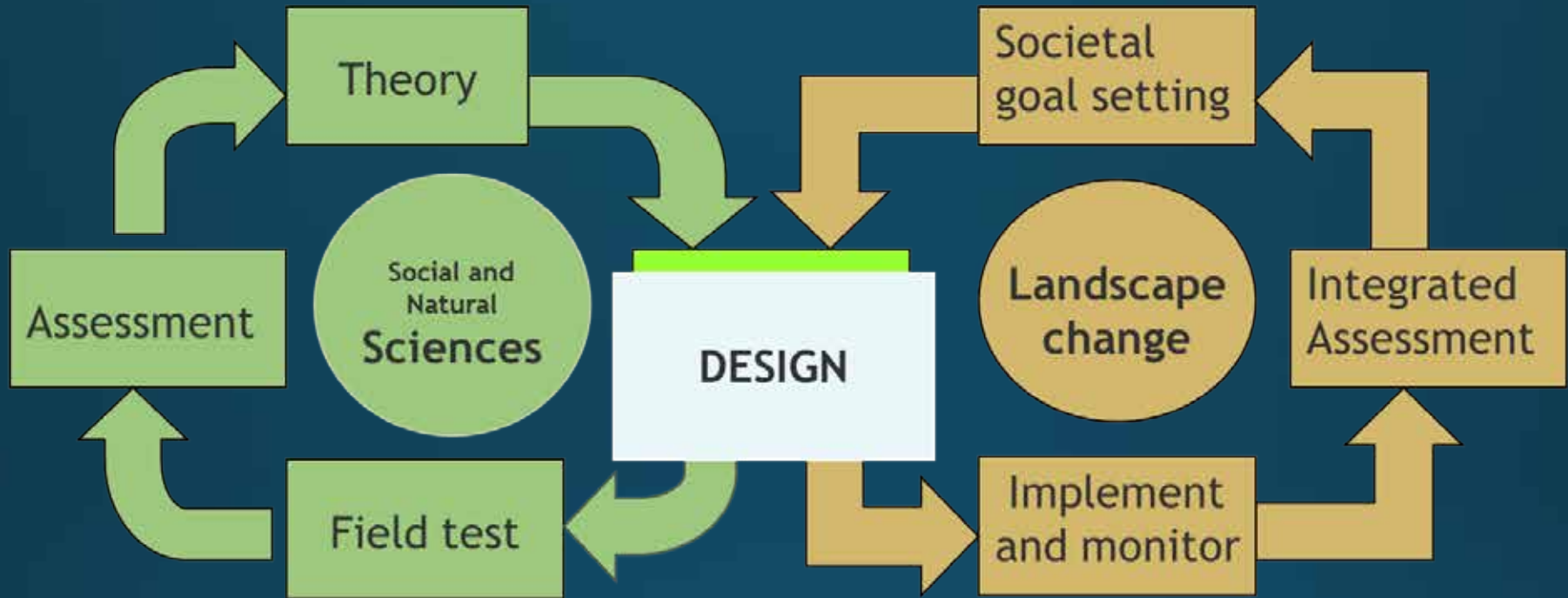
# Transdisciplinary



## Neighborhood Collaborations Neighborhood, Environment, and Water Collaborations for Green Infrastructure

Kenyetta Campbell, Khalil Ligon, Joan Iverson Nassauer,  
Natalie R. Sampson, Margaret E. Dewar,  
Shawn McElmurry, Noah Webster, Amy J. Schulz, Alicia Alvarez, Allen  
Burton, Catherine Riseng

Photos: Chris Faust



**Design is intentional intervention in landscape change.**

We develop approaches to green infrastructure design and governance as integrated hypotheses about “what works” to:

- achieve stormwater management goals,
- enhance residents’ well-being and perceptions of their neighborhood,
- and be practical for managers over the long term.

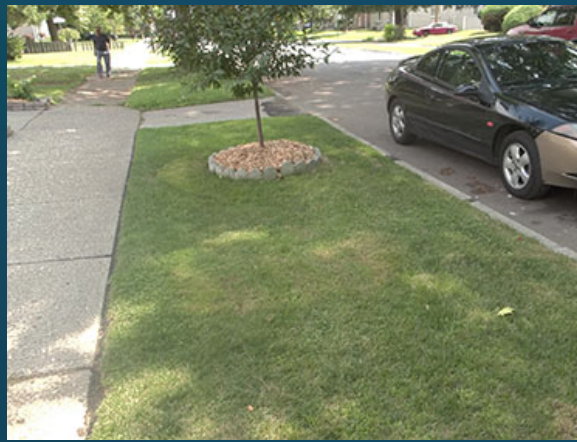
Nassauer and Opdam. 2008.

Design in science: extending the landscape ecology paradigm. *Landscape Ecology*





(East Side, Photovoice)



(Brightmoor, Photovoice)



(East Side, Photovoice)

*To further understand the perspectives of residents:*

Cues to care as recorded by participants in our PhotoVoice Project

(Brightmoor, Photovoice)

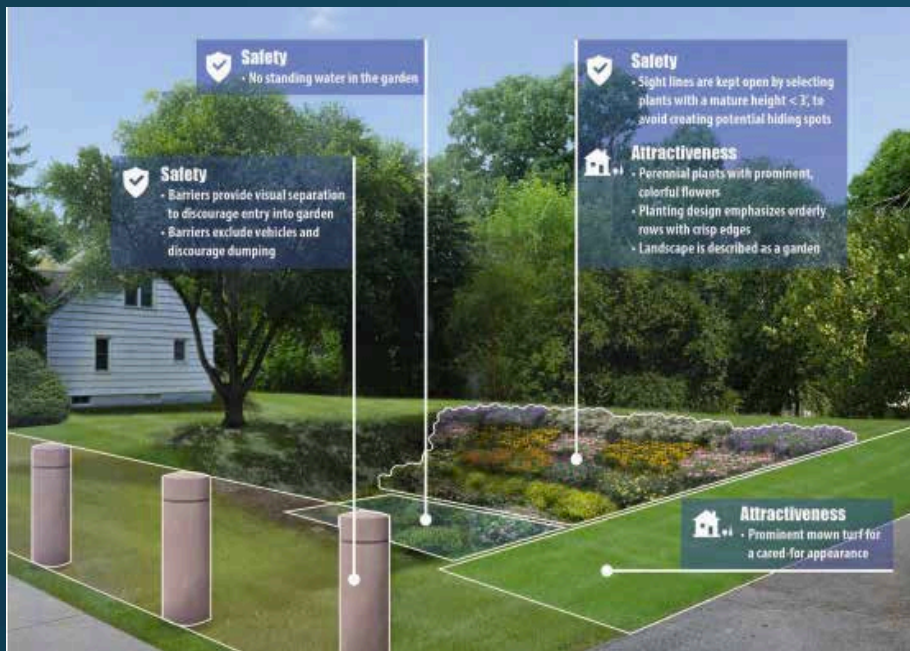


Neighborhood mowing, flowers, gardens, play spaces...  
And the Detroit River

Nassauer, Sampson, and Schulz. 2013-4.

(East Side, Photovoice)





Neighborhood experience design hypotheses



Stormwater management design hypotheses

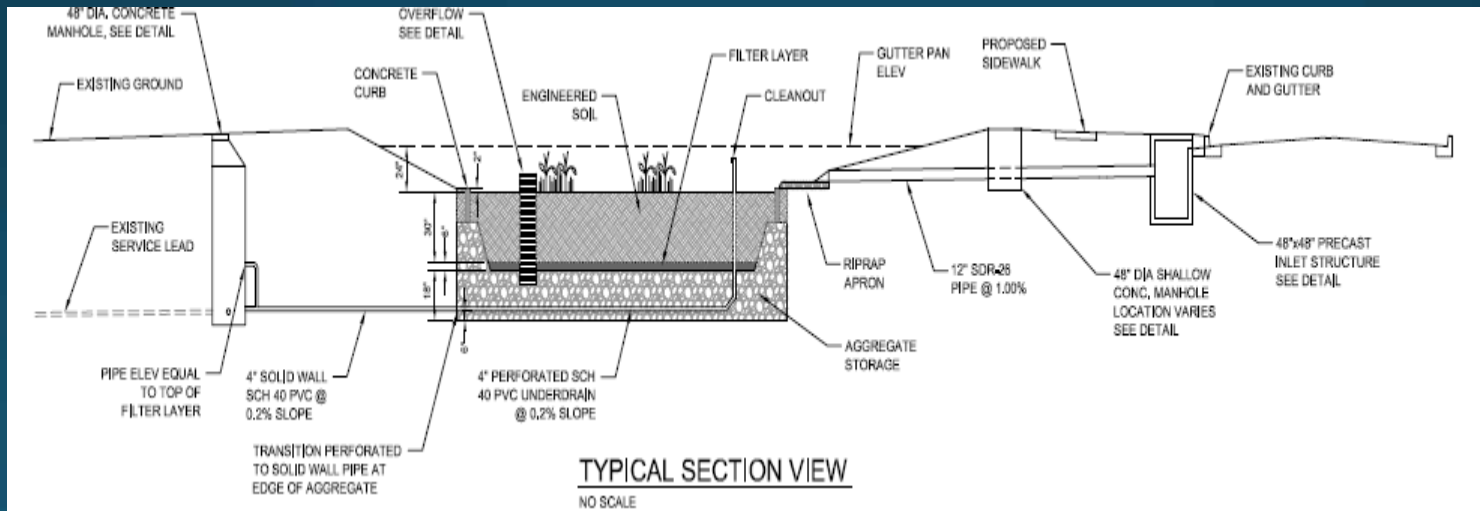


Image and Detail design: Tetra Tech



# How do different bioretention garden designs for vacant lots perform compared with control vacant lots in the neighborhood?

We built and are measuring performance on four pilot bioretention sites. For social effects, we also compare with other vacant lot treatments, control sites and a well-mown lawn with no visible bioretention.

Control



Well-mown only



Flowers and bollards with bioretention



Flowers and berm with bioretention



# Lessons Learned for Legacy Cities

- GI can address challenges of property vacancy and related disparities
- Maintained GI, designed to respect residents' norms and preferences, can enhance perceptions of neighborhoods and residents' health
- Residents' stewardship – from actual maintenance to reporting issues – can be encouraged.
- Collaborative cross-sector efforts that engage residents are needed.



# Kenyetta Campbell, Cody Rouge Community Action Alliance

## Khalil Ligon, Alliance for the Great Lakes

How has your neighborhood been affected by vacancy?

How have people in your neighborhood been involved in developing and refining proposals to address vacancy in their neighborhoods?

How have people in your neighborhood reacted to the proposals for GI on vacant property? What do they like? What are their concerns about different design approaches?

How have they reacted to the pilot bioretention gardens built in Warrendale? What do they like? What are their concerns?

So far, our research points to the need for GI design and implementation processes to engage different sectors of government and engage community members. In your view, is this an important need? What suggestions do you have to help GI decisionmakers achieve this goal?





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Fred A. and Barbara M.  
Erb Family Foundation



WATER CENTER  
UNIVERSITY OF MICHIGAN

## Green Infrastructure on Vacant Land: Achieving Social and Environmental Benefits in Legacy Cities

Nathaniel Lichten, Joan Iverson Nassauer, Margaret Dewar,  
Natalie R. Sampson, Noah J. Webster

NEIGHBORHOOD, ENVIRONMENT, AND WATER RESEARCH  
COLLABORATIONS FOR GREEN INFRASTRUCTURE  
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Personal contact: [nassauer@umich.edu](mailto:nassauer@umich.edu)

FACT SHEET: [http://graham.umich.edu/media/pubs/Detroit-Green-InfrastructureFactsheet\\_0.pdf](http://graham.umich.edu/media/pubs/Detroit-Green-InfrastructureFactsheet_0.pdf)

WHITE PAPERS FOR DECISION MAKERS: [newgi-contact@umich.edu](mailto:newgi-contact@umich.edu)