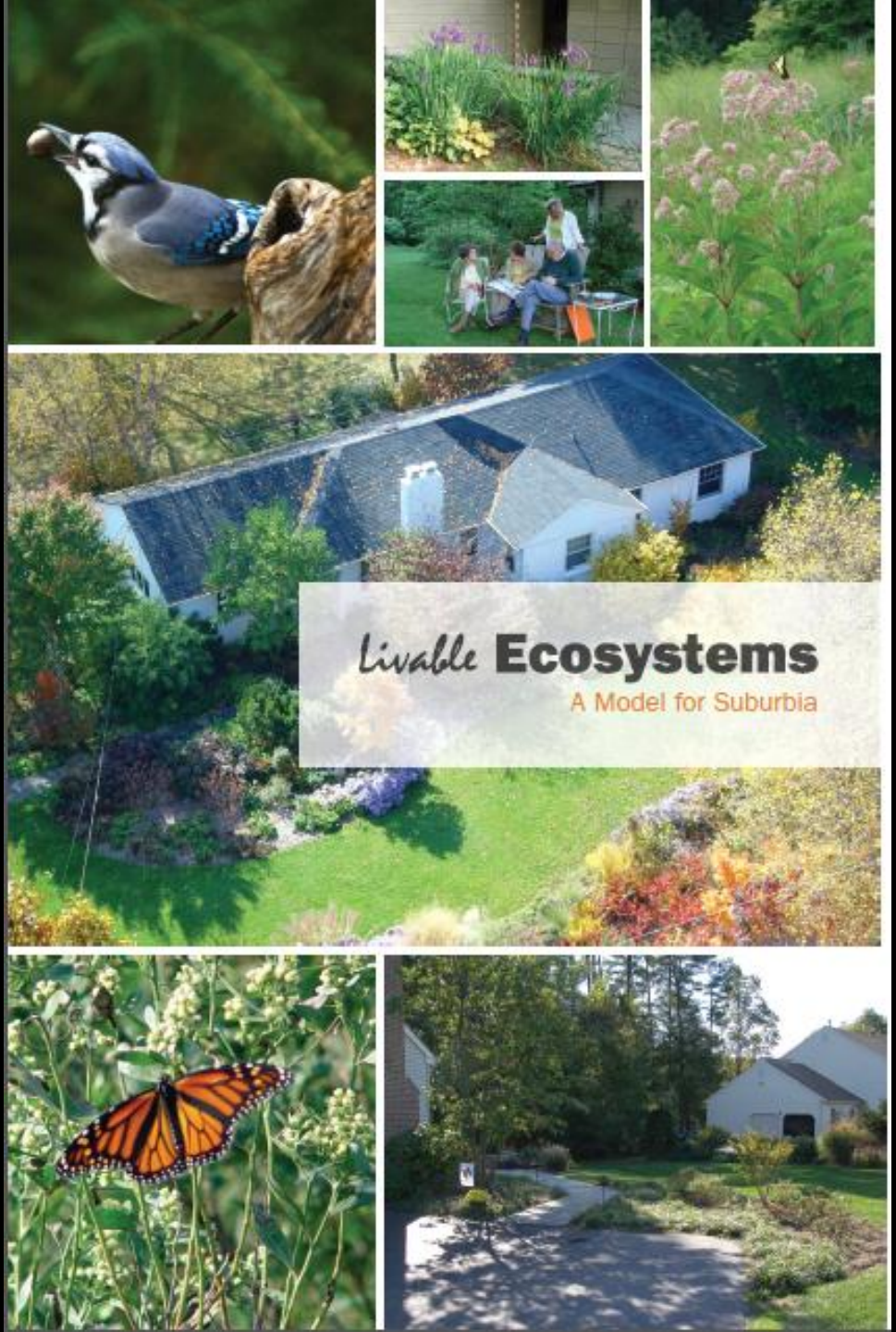


Changing the Suburban Landscape Paradigm

Susan Barton, PhD

HSCA Advisory Committee Meeting

September 4, 2014


(C) RICK DARKE


The
Windsor


Benefits?


Benefits?
• Better water management
• Support more wildlife
• Save time and energy
• Looks attractive

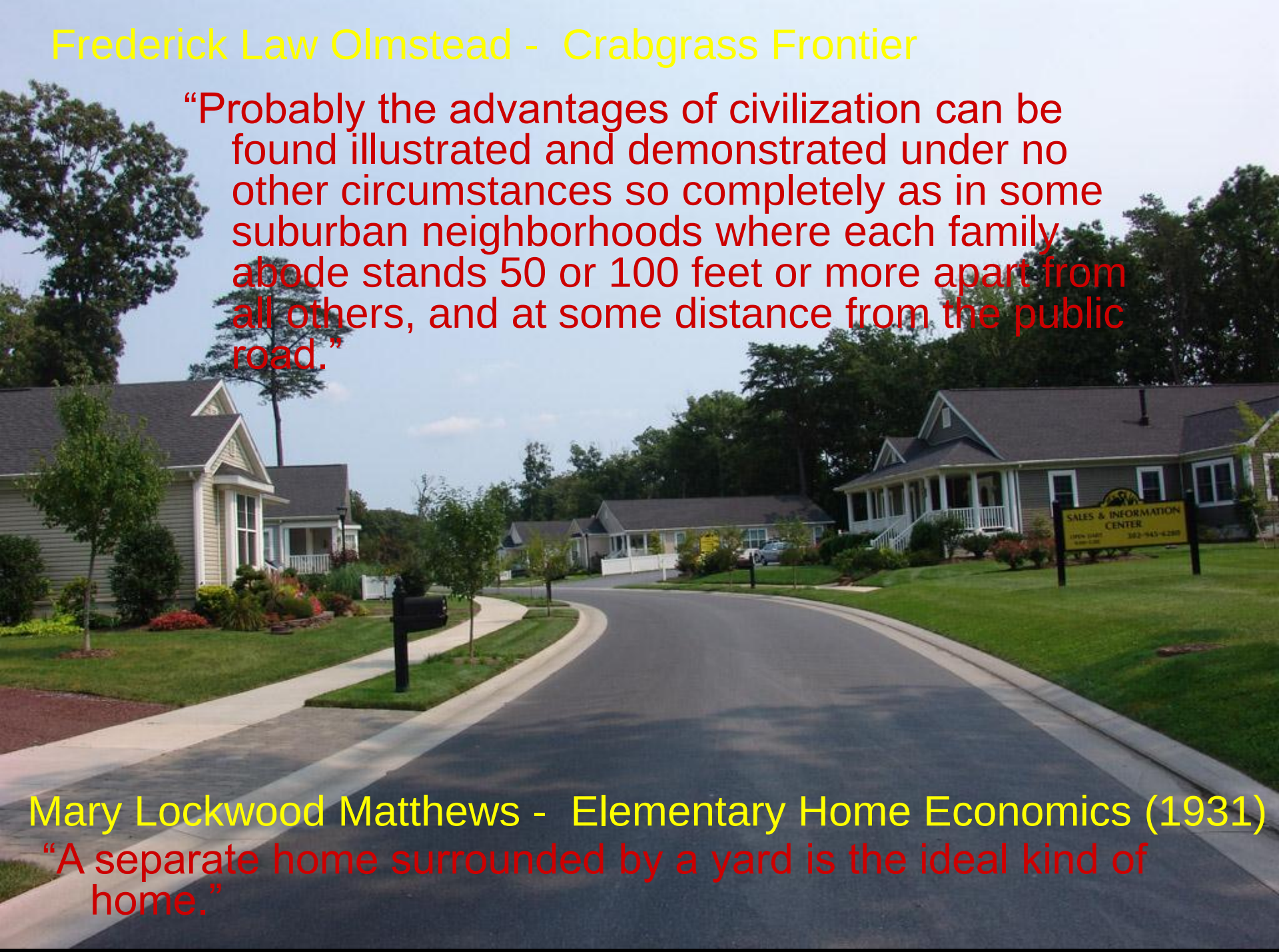
Ecosystem Services

Clean water/water management

Air quality/biodiversity

Pollination services/wildlife habitat

Human engagement



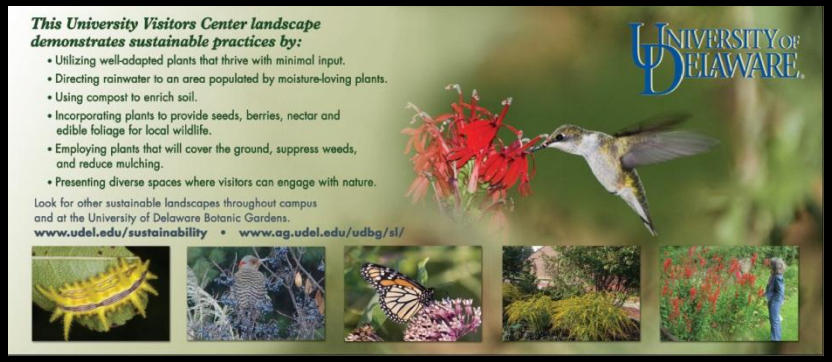
Frederick Law Olmstead - Crabgrass Frontier

"Probably the advantages of civilization can be found illustrated and demonstrated under no other circumstances so completely as in some suburban neighborhoods where each family abode stands 50 or 100 feet or more apart from all others, and at some distance from the public road."

Mary Lockwood Matthews - Elementary Home Economics (1931)

"A separate home surrounded by a yard is the ideal kind of home."

Sustainable Landscape: Definition



- a stable and productive ecosystem
- conserves the physical and biological processes occurring on that landscape

The Sustainable Sites Initiative, Standards and Guidelines, Preliminary Report, November, 2007, http://www.sustainablesites.org/

www.ag.udel.edu/udbg/sl/

Sustainable Landscapes

A sustainable landscape is a stable and productive ecosystem that conserves the physical and biological processes occurring on that landscape. Designers and managers of sustainable landscapes minimize site disturbances and work with existing site elements to the extent possible.

What are the benefits of sustainable landscapes?

Designed and managed sustainable landscapes maintain soil integrity, hydrological function, plant and animal diversity and biomass, and contribute to human wellness.

Click on the below images for more information on the goals and strategies of creating sustainable landscapes.





*This website is based on the document "**Sustainable Landscapes Practices**," created by the Univeristy of Delaware Botanic Gardens Advisory Board's Green Initiatives Subcommittee. It is based on "Standards & Guidelines: Preliminary Report" by the Sustainable Sites Initiative. For more information, visit **http://www.sustainablesites.org/**.*

*For more information about sustainability at the University of Delaware, visit **http://www.udel.edu/sustainability/**.*

Vegetation - *Sustainable Landscapes*

Goal: Develop plant communities that serve as a foundation for a healthy ecosystem.

Use lawn only when it performs a specific function such as a play surface, pathway, or foreground for plant display, thus reducing extra inputs of chemicals, energy and time.

> Turf Grass Madness: Reasons to Reduce the Lawn in Your Landscape

> Groundcover Alternatives to Turf Grass

Eliminate the use of and remove vegetation that can harm ecosystems, such as recognized invasive species.

> Controlling Backyard Invaders

> Mistaken Identity? Invasive Plants and their Native Look-Alikes

> Plants for a Livable Delaware

Choose plants that are adapted to the site's conditions and support local wildlife.

> Livable Plants for the Home Landscape

Consider replacing alien species with appropriate native species that achieve the same purpose (e.g. aesthetics, function).

> Native Plants for Delaware Landscapes

> Plants for Wildlife Habitat and Conservation Landscaping

Use Integrated Pest Management (IPM) strategies (i.e. scouting, life-cycle knowledge and decision-making based on that information).

> IPM for Homeowners

Maintain and increase vegetative coverage to increase biodiversity.

> Supporting Biodiversity in the Garden

> Wildlife-Attracting Plants for the Home Landscape

Preserve as many important (mature, healthy, native) plants as possible.

> Checklist for Plant Removal Decisions

Water management - paradigm shift

Clean water/water management

- From efficient collection

to

- Percolation on site

Mitigation of Nonpoint Pollution by a Riparian Forest Buffer in an Agricultural Watershed of the Mid-Atlantic Piedmont

STROUD PRESERVE WATERSHEDS NATIONAL MONITORING PROJECT

Final Report

J. Denis Newbold, Susan Herbert, and Bernard W. Sweeney

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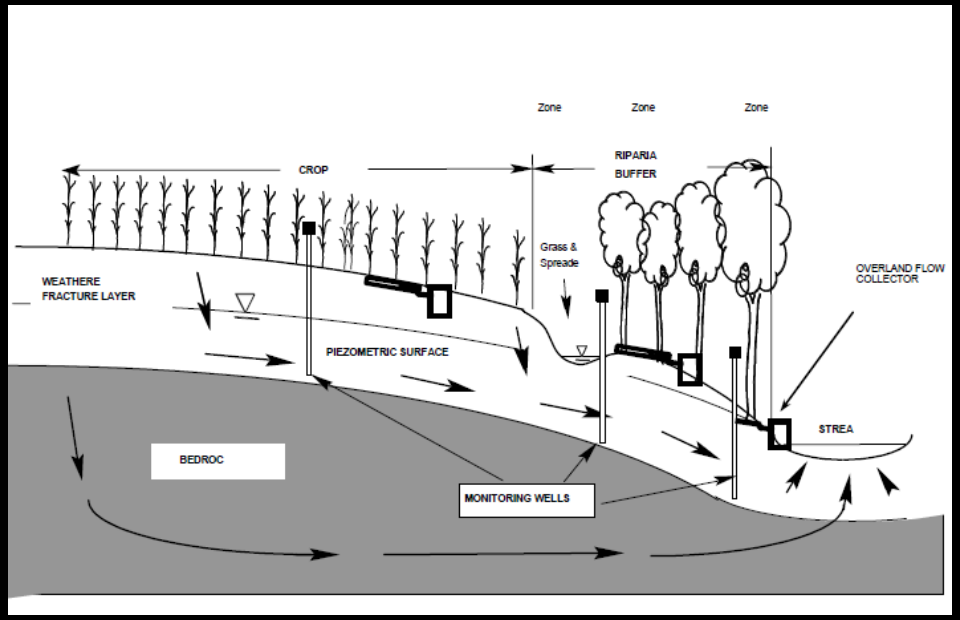
Stroud Contribution No. 2009002

STROUD WATER RESEARCH CENTER

11 February 2009

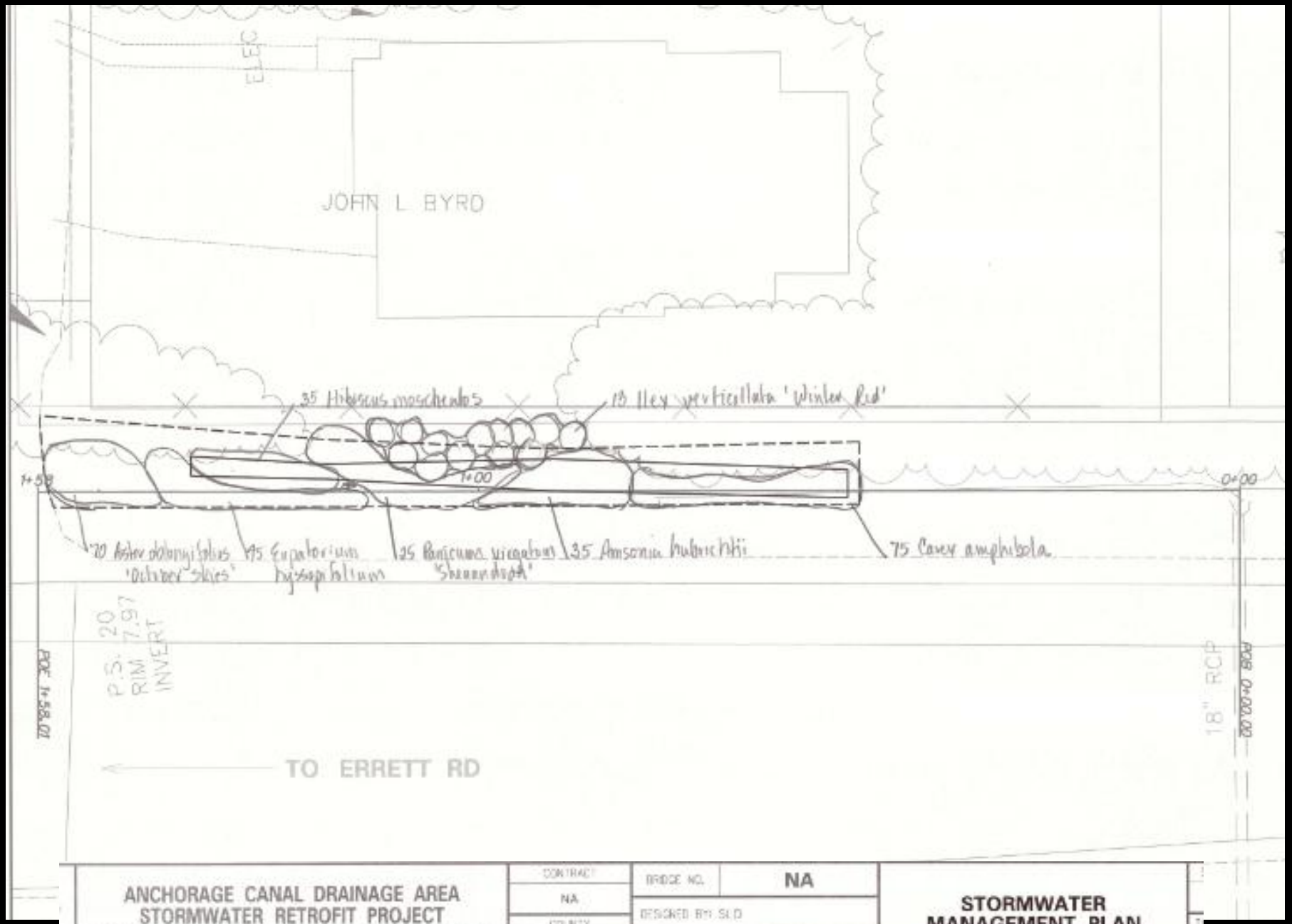



LIBRARY


SEA COLONY


SEA COLONY


NO
STOPPING
STANDING
OR
PARKING



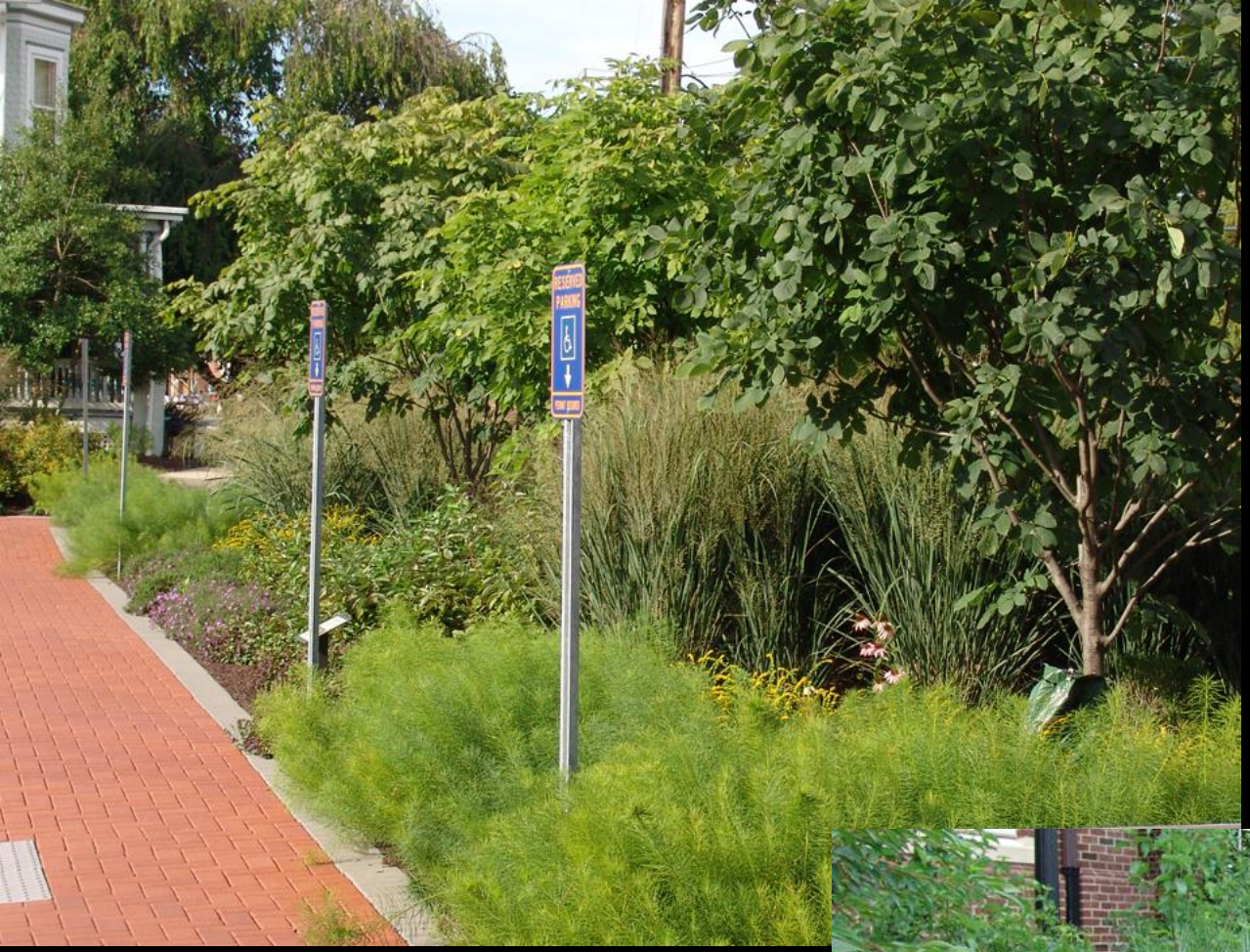
ANCHORAGE CANAL DRAINAGE AREA STORMWATER RETROFIT PROJECT EAST AND WEST SIDE COASTAL HIGHWAY	CONTRACT NA	BRIDGE NO. NA	STORMWATER MANAGEMENT PLAN
	COUNTY SUSSEX	DESIGNED BY: SLD CHECKED BY: LGT	

BRINGING NATURE HOME

How Native Plants Sustain Wildlife in Our Gardens

DOUGLAS W. TALLAMY

Pollination services/wildlife habitat



Air quality/biodiversity

Human engagement


Change design paradigm

Landscape designer – Jules Bruck


New design paradigm

Not lawn – other options

- Landscape beds
- Forest
- Meadow


NOTICE OF VIOLATION


Cues of Care:
Mowed paths
Stepped mowing
Mowed edges
Perennial enhancements
Artwork
Explanatory signs

The carbonized tree trunks provide a dramatic rhythmical element to visually structure the sowing.

Meadows

Combining long grass meadow and short grass lawn creates a functional and productive landscape

Meadow Benefits:

- Increased wildlife habitat
- Reduced carbon emissions from mowing
- Greater biodiversity in the landscape
- Ornamental interest
- Decreased use of fertilizers and pesticides

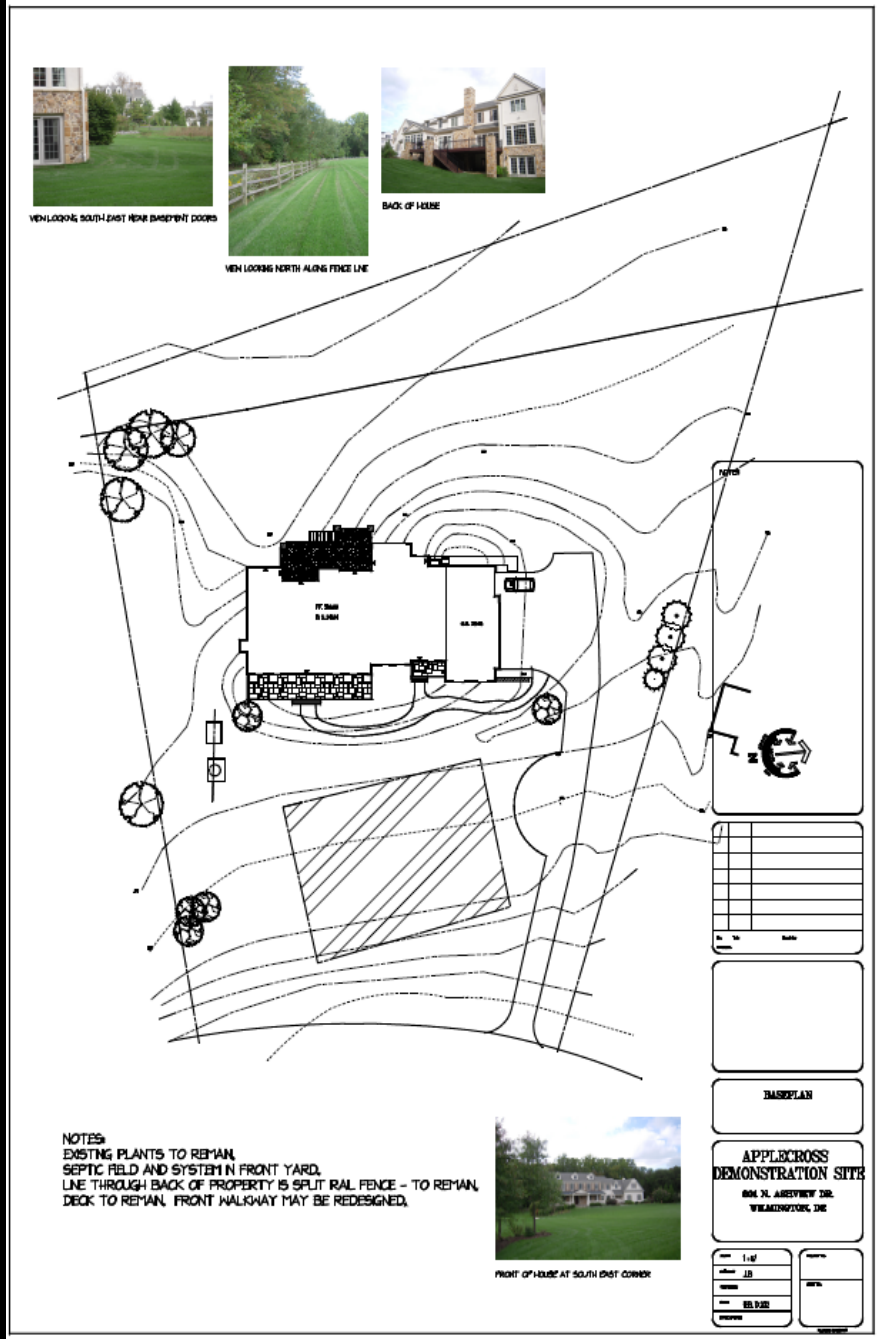
Rethinking Laird's Landscape

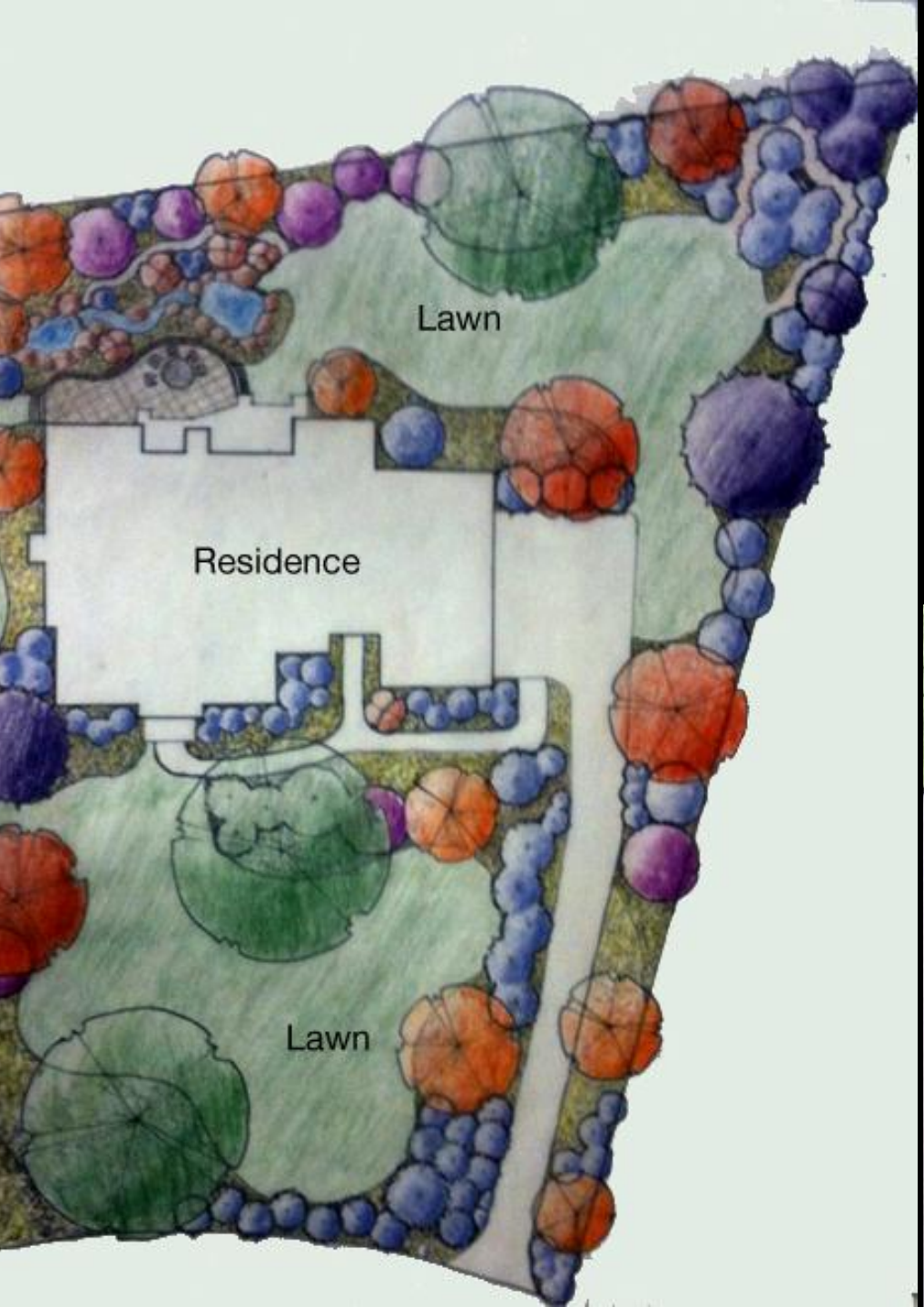
University of Delaware

Applecross project

The specific design challenges were to:

- Reduce the size of the 44,000 square foot lawn by half.
- Add trees, shrubs and perennials to attract wildlife.
- Use predominately native plants.
- Solve drainage problems, specifically water puddling in front yard by corner of garage
- Add a meadow and forest habitat.
- Increase the opportunity for homeowners to engage and participate in the landscape.
- Reduce maintenance (long term).





Elements from student designs made it into the final plan.

Clean water/water management

Pollination services/ wildlife habitat


KUBOTA

Human engagement

Livable Ecosystems: A Model for Suburbia

About Project

The Applecross Project is a demonstration project designed and installed by researchers and students at the University of Delaware. It displays sustainable practices that reduce lawn area to 50% of the site while maintaining enough lawn for circulation, play and entertaining.

One of the goals was to diversify plants by 100% (in actuality plant diversity was increased by 500%).

The landscape includes a 6,000 square foot meadow and 3,000 square foot reforestation area. Turf paths wind through the meadow and landscape beds connecting large areas of lawn. Planted landscape beds are helping control storm water runoff and increase percolation.

Contributors

- North Creek Nurseries
- Octoraro Nursery
- All Seasons Landscaping: Steve Gantz

Additional Resources

- Livable Ecosystems: A Model for Suburbia [pdf]

Meta

- Log in
- Entries RSS

http://sites.udel.edu/sld/




What do people dislike about sustainable landscaping?




What will it take to change the paradigm?

Not lawn – other options

- Landscape beds
- Forest
- Meadow