

1. Why is green infrastructure needed in the East Bloomfield Historic District?

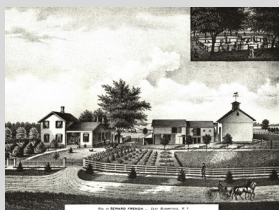
2. What are the green infrastructure practices and techniques suitable for this area? Where should these practices be implemented?

3. What are the advantages of implementing these practices?

4. What are examples of successful green infrastructure practices here and in other historic districts?

## History

East Bloomfield was founded in 1789 and was then simply "Bloomfield". It was settled in Iroquois territory. East Bloomfield is home to the Spy Apple, and historically hosted a myriad of industries including breweries, copper smiths, and mills. The Spy Apple is one of the most well-known apples, and characterized by a crisp and juicy bite. The East Bloomfield Historic District encompasses 49 properties, with 90 contributing resources including residential, commercial, religious, and civic properties. It became a nationally recognized historic district in 1989.



Historically, the village was centered around two different centers. The first was the commercial core that was centered around the intersection of Main Street and South Avenue, where Pickle Park is today. The second center was focused around the intersection of South Avenue and State Street where religious and institutional development occurred. A village square was created here in 1798, and is now Elton Park.

## Acknowledgements

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## About the FLI-Community Design Center (FLI-CDC)

The Finger Lakes Institute, in partnership with Hobart & William Smith Colleges has created a community design center that strives to provide Finger Lakes communities with innovative, creative, and sustainable design solutions that improve the built environment and quality of life, while protecting the natural environment.

Communities throughout the Finger Lakes region share similar economic, environmental, and social characteristics mainly as a result of the natural assets and history of the region. The current and future state of communities relies on improving quality of life for all citizens, being good stewards of natural resources, and fostering the responsible growth of the built environment. To support these efforts, we offer comprehensive sustainable community development planning and design services to communities throughout the Finger Lakes region.

It is our mission to:

- Raise awareness of the benefits and potential of sustainable community development and design for small towns, villages, cities and other entities;
- Encourage preservation and protection of natural resources and the built environment;
- Facilitate regional planning and collaboration among communities, businesses, non-profits, higher education institutions, and other entities;
- Foster community resilience by providing an active resource center for holistic community planning and design and disseminating our expertise nationally.

Please contact us at [fli@hws.edu](mailto:fli@hws.edu) for more information.

## About this Project

The primary goal of Green Infrastructure for Historic Districts is to provide assistance to municipalities and residents who wish to incorporate the concepts and practices of green infrastructure into their structures while maintaining the historic integrity of the individual buildings and the overall character of their community.



# How to Grow a Green Community

## A Guideline for Stormwater Management

East Bloomfield Historic District

**1.** In the context of stormwater management, the term **“green infrastructure”** includes a wide array of practices at multiple scales to manage and treat stormwater, maintain and restore natural hydrology and ecological function by infiltration, evapotranspiration, capture and reuse of stormwater, and establishment of natural vegetative features.

As impervious ground cover increases with development, such as roadways, buildings and sidewalks, run-off from rain and snow events increases. As this run-off travels across these surfaces, it collects pollutants and contaminants. With traditional grey infrastructure, it travels to sewers and pipes, and is often deposited untreated into local waterbodies, harming the ecosystem. Green infrastructure provides opportunities to reuse that water, filter it and re-charge the groundwater aquifer, protecting the natural environment. Many green infrastructure practices today actually were common place in the East Bloomfield Historic District in the 19th century, pre-industrialization.

East Bloomfield is located in a hilly and fairly wet area. Green infrastructure techniques, which are intended to improve the absorption of water, reduce risk of flooding, and minimize the spread of pollutants and contaminants, have been suggested as a way to help mitigate stormwater, while also preserving the historic feel of this area.

● A **filter strip** is a type of buffer strip that is an area of vegetation, generally narrow and long, that slows the rate of stormwater runoff from impervious surfaces. Vegetated filter strips are one of the best management practices to alleviate the pollution. The most ideal location for implementing filter strips would be one that can catch the most amount of water runoff, like along edges of driveways, or inbetween parking lots.



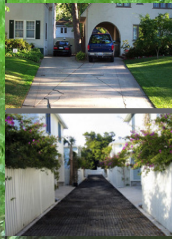
## **2.** The **green infrastructure techniques** proposed and recommended for East Bloomfield Historic District include:

**Porous Pavement, Shared Driveways, Rain Gardens, Rain Barrels, Vegetative Swales, and Filter Strips**

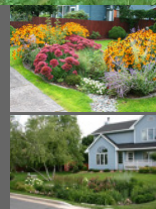
● **Porous, or permeable pavement** is material that allows storm water to move through the surface and be absorbed rather than flow over the surface. This technique is suitable for East Bloomfield since the area is usually low-traffic and typically only accessed by residents.



● **Shared driveways** refer to areas or spaces that are used to serve two or more properties. This is when individual land-uses, either on the same site or from nearby sites form an agreement to share available parking space and/or driveways.



● **Rain gardens** are shallow depressions in the landscape that are planted with deep rooted native plants and grasses. Rain gardens should be placed around edges of a building, near downspout outlets, or frequently wet and soggy areas of yards.



● **Rain barrels** are water tanks used to collect and store rainwater runoff, typically from rooftops via rain gutters. Barrels usually range from 50 to 80 gallons and have a spigot for filling watering cans and a connection for a soaker hose.



● A **bio-swale** is a drainage channel that is broad and shallow with a dense stand of vegetation covering the side slopes and bottom. Bio-swales slow and cleanse runoff by filtering it through natural vegetation processes.



**3.** The **benefits** of implementing these green infrastructure techniques include: minimizing the spread of pollutants, filtering out pollutants, reducing erosion, slowing the speed of water, recharging ground water, collecting and storing free water resources for use, improving aesthetics, reducing the heat island effect, and strengthening the local ecosystem.

Specifically, **porous pavement** is effective at taking out heavy metals from water and restoring ground water levels. **Shared driveways** not only have the ability to reduce impervious landscapes, but also have economic incentives such as reducing costs of developing and maintaining parking areas for businesses that agree to share parking between themselves. **Rain gardens** improve water quality and reduce storm water pollution by collecting and using rain water that would otherwise be drained into the sewer system. **Rain barrels** are useful tools for saving money and reducing stormwater run-off. They easily collect water for gardening, car washing, pet washing, and other lawn care utilities, which reduced the amount you are billed for each month. The usage of **vegetated bio-swales** both benefits homeowners monetarily, protects adjacent properties in the long run and is beneficial for the natural environment. **Filter strips** can provide many environmental benefits including protecting surface water quality by trapping and filtering sediment, nutrients, pesticides and pathogens in water runoff and protecting groundwater quality by preventing contaminants from leaching into the water table.

**4.** East Bloomfield historic photos show past **examples** of green infrastructure implementations such as heavily vegetated lawns and property lined by trees. Heavy vegetation helps absorb and filter rainwater - preventing it from collecting in natural depressions, collecting momentum in downhill areas and causing erosion, and minimizing flooding and the risk of flood damage. **Ribbon driveways** are also prevalent in this district and are examples of green infrastructure. Ribbon driveways help slow run-off and filter out contaminants like pesticides, motor oil, and car/pet washing soaps.