

1. Why is green infrastructure needed in the Genesee Park Historic District?

 What are the green infrastructure practices and techniques suitable for this area? Where should these practices be implemented?
2. _____
 What are the advantages of implementing these practices?
3. _____
 What are the examples of successful green infrastructure practices here and in other historic districts?
- 4.

History

Genesee Park Historic District in Geneva, NY contains 14 buildings, one site, and one object that total the 16 contributing properties. The district covers about 12 acres in total and include Genesee St., Genesee Park Place, and Lewis St.. The properties encircle the actual park, which is the focal point of the historic district, created in 1849. The park was originally used as an informal green space and now is comprised of a couple benches and is bordered by an iron fence (image on the top), originally built out of wood in 1871 (second image).



The two photographs on the bottom depict the evolution of the pathway that runs through Genesee Park. Historically, the path was marked by dirt then laid with brick, and finally poured concrete. Private roads encompassed two sides of the park originally, which led to residences. The bottom photo, taken in 1886, shows a transition from dirt roads to gravel, and eventually the private road was paved over and now is a city road titled "Genesee Park Place".



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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 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

Genesee
Park
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 Genesee Park Historic District in the 19th century, pre-industrialization.

The green infrastructure techniques recommended are intended to improve the absorption of water, reduce risk of flooding, and minimize the spread of pollutants and contaminants. The district surrounds an open green space, therefore the recommended techniques are meant to blend in with existing infrastructure.

2. The green infrastructure techniques proposed and recommended for Genesee Park Historic District include:

Porous Pavement, Ribbon Driveways & Shared Driveways

- **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 indeed an ideal application for Genesee Park and the surrounding streets, which are very low-traffic and typically only accessed by residents or the infrequent park visitor who travels by car.



- **Ribbon driveways** are drives where the ruts from wheels are paved leaving a strip of grass or other permeable material in the center. A ribbon driveway helps slow the water moving over a driveway during storm events causing sediment and pollutants to drop out or be caught by plants and soil and slowly filtered out. The Genesee Park Historic District encourages every drive way to implement ribbon driveways.



- **Shared driveways** refer to areas or spaces that are used to serve two or more individual properties. This is when individual properties, either on the same site or from nearby sites form an agreement to share available parking space and/or driveways. Residents in the Genesee Park Historic District who have driveways adjacent to one another can create singular shared driveways, which can also increase their lawns and garden spaces.



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 extremely beneficial and effective at taking out heavy metals from water, restoring ground water levels, and in some cases reduces the need for salting and plowing. Ribbon and shared drives are two prime examples of places that can be constructed with a porous pavement. **Ribbon drives** are now being encouraged and recommended in many historic communities and often help increase property values and the appeal of a neighborhood. **Shared driveways** can help during events at the church’s that line the district, or during tourist season when traffic picks up. They 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.

4. **Examples** of water management techniques that we call “green infrastructure” today existed prior to industrialization. Pre-industrialization the pathway in Genesee Park was made of a porous material - first dirt, then gravel, then brick, and now is impervious - concrete. The asphalt that paves the surrounding roads used to be dirt, and then was cobblestone. In historic photos sugar maple saplings can be seen planted, a native species that helps soak up approximately 30% more water and filter out air, ground, noise, and water pollution.

Besides, many **ribbon driveways** can be observed in East Bloomfield Historic District. Most of these drives were characterized by gravel “ruts” with a patch of grass growing in the middle. This is a great district to pull some local inspiration from, and proves that both a **porous and ribbon driveway** are possible in this climate--especially in the winter. Most people are turned off by worries about snow removal, and frost heave in this climate, or any other extra maintenance issues that ribbon driveways may need. However, the sheer number seen so locally is positive reinforcement and can serve as encouragement and inspiration for the construction of more.