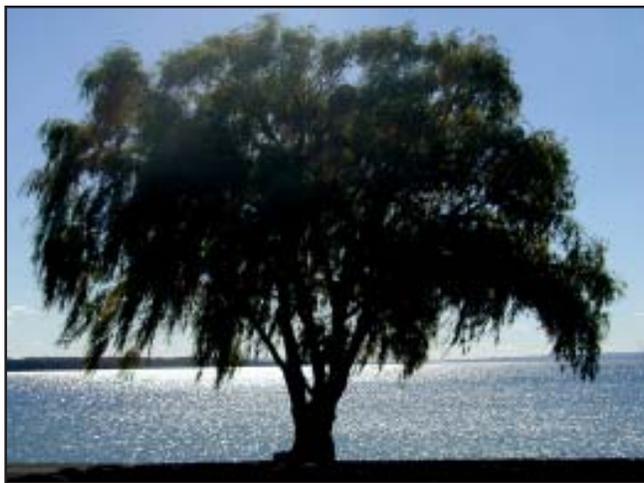




# Cayuga-Seneca Canal Trail Master Plan: Geneva to Seneca Falls



Prepared by:  
**Northeast Greenways**  
Prepared for:  
**Cayuga-Seneca Canal Trail Association**



**December 18, 2002**

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The *Cayuga-Seneca Canal Trail Masterplan* was funded by the Seneca County Health Department with funding provided from the New York State Healthy Heart Program.

The **Cayuga-Seneca Canal Trail Association** is an affiliate of the Canalway Trails Association of New York, a voluntary organization working with citizens, state agencies and local municipalities to help manage the Canalway Trail across New York State. The Canalway Trails Association promotes the completion and proper maintenance of the Canalway Trail and coordinates the Adopt-a-Trail program. The Cayuga-Seneca Canal Trail Association is comprised of citizen volunteers and representatives of various non-profit and government organizations who are working to promote the development of the trail in Seneca County. Following is a list of association members:

Vince Scalise, Chairperson  
Geneva Area Chamber of Commerce

Moe Koch, Director  
Seneca County Tourism

David-Iman P. Adler  
New York Parks and Conservation Association

Jeff McDonald, Capital Facilities Manager  
NYS Office of Parks, Recreation and  
Historic Preservation

Francis Caracillo  
Village of Seneca Falls Planning Department

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Peter W. Same, Supervisor  
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All photographs were taken by Rick Manning unless otherwise noted.

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# Cayuga-Seneca Canal Trail Master Plan

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# Executive Summary

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*Before (above) and visual simulation (left) of the NYSEG-owned abandoned railroad corridor parallel to the canal that is proposed to be converted to the Cayuga-Seneca Canal Trail.*

## Introduction

The Cayuga-Seneca Canal Trail is a proposed nineteen-mile multi-use trail that will follow the Cayuga-Seneca Canal from Seneca Lake to the Montezuma National Wildlife Refuge. The trail will link natural and historic sites of statewide and national importance and pass through picturesque Finger Lakes scenery. It will serve the recreation and transportation needs of residents and assist visitors in exploring the region's tourist destinations.

## Why Develop a Canal Trail?

Governor Pataki recently announced a \$50 million Canal Revitalization Program that includes funding to complete 348 miles of the Canalway Trail along the historic Erie Canal. This trail will be one of the longest and most historically significant recreational trail corridors in the United States. Just as the development of the Seneca Falls Canal Harbor created a destination that attracted boaters to explore the Cayuga-Seneca Canal, so will the Canal Trail invite trail users to enjoy the history, culture and beauty of the Finger Lakes region.

The destinations along this nineteen-mile corridor are one-of-a-kind resources: - a national park with a Women's Rights theme, a national wildlife refuge, two Finger Lakes each with their own state park, a burgeoning wine industry and beautiful scenery. Studies show that trails enhance tourism by attracting visitors and extending the length of visits. The Cayuga-Seneca Canal Trail will be a valued regional resource, enhancing the quality of life for residents and providing another destination for tourists to visit and enjoy.



*The Seneca Falls Canal Harbor attracted new boaters to the region by creating a destination with services in the Village Center.*



*Developing the Cayuga-Seneca Canal Trail will provide the infrastructure to attract bicyclists and other trail users to Cayuga, Seneca and Ontario Counties and the Finger Lakes Region.*

**What is the Trail?**

The proposed trail will be a 10' wide multi-use trail surfaced with compacted limestone dust. It will be designed for a wide range of users including walkers, hikers, joggers, bikers, and parents pushing strollers, persons in wheelchairs, and other mobility-impaired users.

**How Will the Trail Be Built?**

The Cayuga-Seneca Canal Trail is being planned and constructed in phases. Small sections of the trail are constructed in the City of Geneva (Lakeshore Park Trails) and the Village of Seneca Falls (Frank J. Ludivico Sculpture Trail). The Village of Waterloo has received funding and is developing plans to construct trails linking the village center to the Canal. In October 2002, Seneca County received \$420,000 in TEA-21 Enhancement Program funding to construct the first phase of the trail between Geneva and Waterloo. Cost for construction of the ten miles of the Cayuga-Seneca Canal Trail from Geneva to Seneca Falls is estimated at \$1.5 million dollars, not including property acquisition. Funding for future phases linking the Villages of Waterloo and Seneca Falls to the main line of the Erie Canal will be sought in the future. The Cayuga-Seneca Canal Trail Association is coordinating trail development efforts.

This report, the *Cayuga-Seneca Canal Trail Master Plan: Geneva to Seneca Falls*, describes trail development and management plans for a ten-mile section of Cayuga-Seneca Canal Trail between the City of Geneva and the Village of Seneca Falls. The majority of the trail is proposed to be located on an abandoned railroad corridor currently owned by New York State Electric and Gas (NYSEG) that runs parallel and adjacent to the Canal.



The proposed trail is a 10'-wide limestone dust trail that conforms with the Canal Corporation's design standards for the Canalway Trail.



The Montezuma National Wildlife Refuge is a 7,000 acre refuge and breeding ground for migratory birds and other wildlife.

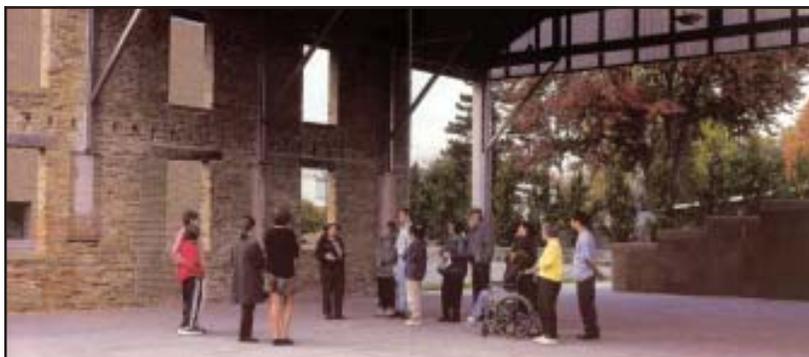


Right: "When Anthony met Stanton" sculpture in Seneca Falls overlooking Van Cleef Lake



Photo from Walking Tour of Waterloo, NY Brochure

Above: The Village of Waterloo is the birthplace of Memorial Day.



Jan Kegan

Left: Wesleyan Chapel at the Women's Rights National Historical Park.

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## Chapter One

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# Trail Corridor Inventory

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*The New York State Canal System and the Cayuga-Seneca Canal.*

The New York State Canal System is comprised of 524 miles of inland waterways from Albany to Buffalo, and the Great Lakes to the Finger Lakes. The main east-west spine is the 312-mile historic Erie Canal. Branch canals include the Champlain, Oswego and the Cayuga-Seneca Canals. The Cayuga-Seneca Canal is nearly 20 miles in length and links Cayuga and Seneca Lakes, the two largest Finger Lakes, to the Erie Canal.

### **Statewide Canal Recreationway Planning Initiatives**

In 1992 New York State transferred the operation and management of the New York State Canal System from the Department of Transportation to the New York State Thruway Authority and established the Canal Corporation to operate, preserve and renew the Canal System. The Canal Corporation commissioned the Canal Recreationway Plan to explore how the Canal could be reinvigorated as a linear recreationway to promote recreation, tourism and economic development along the canal corridor in Upstate New York. The plan identified strategies for enhancing recreational boating facilities, encouraging appropriate development, and preserving the scenic and environmental quality of the canal corridor. It also described the concept for the Canalway Trail, a 524-mile statewide multi-use trail to be developed along the canal for the enjoyment of walkers and bikers. The Canalway Trail would be developed adjacent to the Canal on old canal towpath, canal maintenance roads, abandoned railroad rights-of-way and other linear corridors, including roadways where necessary, to create a continuous and safe trail network.

In May 2002 Governor George E. Pataki announced the \$50 million Canal Revitalization Program, a five-year plan to complete the 348-mile Erie Canalway Trail and to fund harbor and port projects along the New York State Canal System. Funds for this initiative include \$25 million from the TEA-21 Transportation Enhancements



*New York State has invested millions of dollars improving canal facilities for boaters and land-side users. The Tonawanda Gateway Harbor was recently completed at the western entrance to the Canal with new docking, and pedestrian promenades.*



Jack Kida

*The Seneca Falls Canal Harbor is another of the seven canal harbors developed by New York's Canal Corporation. It provides docking with water and electrical hookups and a pedestrian promenade with benches and landscaping.*

Program and \$25 million in Canal Corporation capital funds. The 2002 Canal Revitalization Program is focused on the completion of the Canalway Trail along the historic Erie Canal and will not provide funding for the development of the Cayuga-Seneca Canal Trail.

### **Overview of Cayuga-Seneca Canal Trail Development Efforts**

The Cayuga-Seneca section of the Canalway Trail was described in the Canal Recreationway Plan (See Appendices). In November 1998, the Canalway Trail Partnership Project of the New York Parks and Conservation Association completed a **Canalway Trail Gap Assessment Report** for the Cayuga-Seneca Canal in Seneca and Ontario Counties. Much of the information included in the Gap Assessment has been incorporated into this document.

During the past 10 years, communities along the Cayuga-Seneca Canal have pursued community and waterfront revitalization efforts to enhance the quality of life for their residents and to attract tourists. Development of waterfront trails has been central to their revitalization strategies.

The City of Geneva has attracted hundreds of thousands of local, state, federal and private funds to improve Geneva Lakeshore Park, attract tour boats, develop a lakefront hotel/conference center - the Ramada Inn Geneva Lakefront - and the Geneva Area Visitors Center of the Geneva Chamber of Commerce. A network of multi-use trails and a lakefront promenade (10' wide asphalt trail, a 5' concrete sidewalk, lighting, and benches) have been developed to allow walkers, bikers, joggers, in-line skaters and mobility-impaired users to enjoy the Seneca Lake waterfront. Seneca Lake State Park, at the east end of Geneva's lakefront, will be extending this waterfront trail to provide a connection from the Visitors Center to the marina at the east end of the park and confluence of the Seneca River.

In November of 2001, Seneca County Board of Supervisors submitted a TEA-21 Enhancement Program grant application for \$421,000 in federal funding to construct the first phase of the Cayuga-Seneca Canal Trail between Geneva and the Village of Waterloo. Local and county government agencies and volunteer organizations provided \$115,000 in matching contributions. Grant awards will be announced in the fall of 2002. The first phase of the Cayuga-Seneca Canal Trail will link the successful trail development efforts in the City of Geneva and the Village of Waterloo.

The Village of Waterloo has also been successful in acquiring state and federal funding to help revitalize their village center and riverfront. The Village recently constructed a boat launch, transient docking facilities, and a picnic pavilion at Oak Island. The Village is currently developing design plans for trail improvements to link Oak Island and the Seneca River to the



*New multi-use trails have been developed in Geneva's Lakeshore Park.*



*Frank J. Ludovico Sculpture Trail in the Village of Seneca Falls features sculptures related to the theme of women's rights. The trail is located on the same NYSEG-owned railroad corridor as much of the proposed canal trail.*

Village center and for construction of a segment of Cayuga-Seneca Canal Trail within the limits of the Village. This trail development effort is funded with TEA-21 Enhancement Program funds received in 1998.

In the Village of Seneca Falls, the Frank J. Ludovico Sculpture Trail has been opened and is managed through the efforts of private citizens and the F.J. Ludovico Sculpture Trail, Inc. a non-profit organization. A pedestrian promenade along the north edge of the Canal has been developed at Seneca Falls Harbor, one of seven Canal Harbors being developed by the Canal Corporation. Efforts are currently under way to redevelop the Seneca Knitting Mill south of the Harbor in the heart of the Village. This redevelopment effort will include the construction of the Canal Trail from the Ludovico Trail to the Ovid Street Bridge and points east in the Village.

The Town of Seneca Falls submitted a TEA-21 Transportation Enhancement Program grant application for funding to develop the Arthur A. Baker Bicycle/Pedestrian Trail in October of 2001. The proposed 1.5 mile multi-use trail will connect the Village of Seneca Falls to Cayuga Lake State Park. This trail will follow much of the proposed route of the Cayuga-Seneca Canal Trail in the Village of Seneca Falls until it turns to the south to make the connection to the State Park located in the Town of Seneca Falls.

## NATURAL RESOURCES IN THE TRAIL CORRIDOR

### *Natural History and Landscape Character*

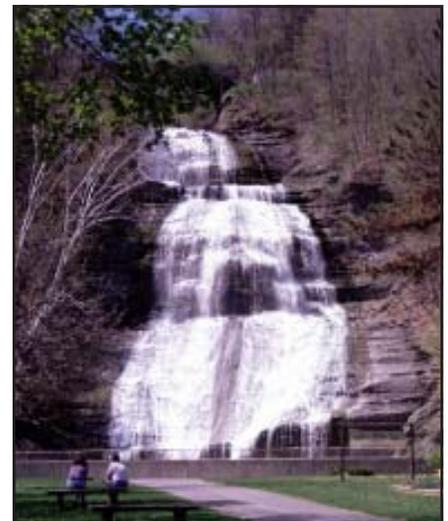
According to Iroquois legend, the Great Spirit placed his outstretched hand over the region leaving five finger-shaped impressions to form the Finger Lakes. The geological 'creation' story of the Finger Lakes, while perhaps less poetic, is equally as fascinating.

Glaciers have played a major role in forming the landscape of the Finger Lakes. Before the glacier, the Finger Lakes were river valleys with water flowing in a southerly direction. As the leading edge of the glacier advanced to the south, lobes of ice extended from the main glacier into the river valleys and turned the north-south aligned valleys into deep u-shaped troughs. Eventually the glacier covered all of the region.

When the glacier began to recede about 20,000 years ago, the rock, clay and silty debris held in the ice mass was deposited as a linear ridge with characteristic irregularly shaped mounds. This geologic feature, called the valley heads moraine, reversed the regional drainage pattern, forming the continental divide that separated north-flowing waters of the Finger Lakes/St. Lawrence River watershed from the south-flowing waters of the Susquehanna River/Chesapeake Bay watershed.



*View from the Ludovico Sculpture Trail across the Cayuga-Seneca Canal to the Village of Seneca Falls new community center.*



*Shequaqa Falls in the Village of Montour Falls is one of many Finger Lakes' waterfalls. It is located along the proposed Catharine Valley Trail being development by New York State Parks in the Watkins Glen area.*

As the glacier melted, the Finger Lakes formed in the deep, glacially formed troughs. Tributary streams that fed the pre-glacial rivers were left hanging sometimes hundreds of feet above the new lakes, creating high waterfalls and gorges along the east and west sides of the Finger Lakes valleys, primarily south of Seneca, Cayuga and Ontario counties. Many of the Finger Lakes' most dramatic state parks have been developed around these waterfalls such as Taughannock Falls State Park in Tompkins County or Watkins Glen State Park in Schuyler County.

The landscape in the northern Finger Lakes region is characterized by rolling farmland, expansive marshes, and meandering waterways. Terrain varies from flat in the Seneca River floodplain adjacent to the trail to gently rolling with sloping embankments toward the Lakes to the south. Agriculture is primarily dairy and general crop farming. As one moves south along both Finger Lakes, the terrain rises and lake embankments become more steep. Wineries, grape vineyards and other fruit orchards are proliferating along the edges of the lakes due to the moderating effects of the lakes on the area's climate.

The Montezuma National Wildlife Refuge, located at the east end of the Cayuga-Seneca Canal, is a 7,000 acre wetland that provides habitat for more than 300 species of birds and wildlife. The Refuge has a visitor center and observation deck and tower. The U.S. Fish and Wildlife Service, which operates the Refuge, intends to develop the trail through its properties to connect the Cayuga-Seneca Canal to the Erie Canal.

## CULTURAL RESOURCES IN THE TRAIL CORRIDOR

### *Native Americans in the Region*

Cayuga and Seneca Lakes derive their names from the Cayuga and Seneca Nations of the Iroquois Confederacy. The Cayuga and Senecas occupied portions of the lands around the Cayuga and Seneca Lakes prior to the Revolutionary War. Members of the Cayuga Nation settled in the north of the Seneca River in what is now Waterloo in the early 16th century. They called the settlement Skoi-Yase ('flowing water') after the rapids in the vicinity.

During the Revolutionary War, a force of 4,500 men under General John Sullivan swept through the Finger Lakes region destroying Native American villages to secure the western frontier from the British forces and the Iroquios. Soldiers' diaries noted the abundant fertility and beauty of the landscape, observing mile after mile of apple and peach orchards and productive croplands. After the Revolutionary War, nearly 1.5 million acres of land in Upstate New York, acquired from the Iroquios through post-war treaties, was set aside and parceled off to war veterans.



*Farm field adjacent to the proposed Cayuga-Seneca Canal Trail is characteristic of the rolling landscape of the Seneca River corridor.*



*Montezuma National Wildlife Refuge*



Map and legend from Seneca County tourism brochure showing on-road bike routes and locations of outdoor activities. Location of proposed trail is superimposed on the plan.

- Activities Locations**
- |                                      |   |
|--------------------------------------|---|
| 1 Seneca Lake State Park             | 3 Sampson State Park                                |
| 2 Silver Creek Golf Club             | 4 Bonavista State Golf Course                       |
| 3 Montezuma National Wildlife Refuge | 5 Willard Wildlife Management Area                  |
| 4 Cayuga Links Golf Course           | 6 Lodi Point State Marine Park                      |
| 5 Cayuga Lake State Park             | 7 Finger Lakes National Forest                      |
| 6 Dean's Cove                        | Camping available at Cayuga and Sampson State Parks |
| 7 Sheldrake Park                     |   |

### *The Cayuga-Seneca Canal*

The Seneca River, now the Cayuga-Seneca Canal, always has been an economic engine for the communities of Waterloo and Seneca Falls. Samuel Bear founded the village of Waterloo in 1792 when he built a gristmill on the south side of the river, opposite Skoi-Yase. In the 19th century, Waterloo businessmen used the water power of the river to manufacturer woolen goods, wagons, pianos and organs, whiskey and other products. The Seneca Lock Navigation Co., a private enterprise formed in 1813, dammed three sets of rapids and installed locks to allow goods to be transported to the Erie Canal. In 1818, a canal was opened between Cayuga and Seneca Lakes. By 1823, an average of eight boats a day were passing through the lock at Waterloo, carrying flour, potash, pork, whiskey, lumber and wool and returning with other products and merchandise.

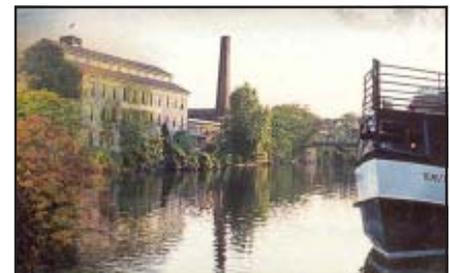
Job Smith, Seneca Falls' first businessman, opened a portage company on the eastern end of the river in 1787. The company transported travelers, boats and goods around a mile-long series of rapids with a 2-foot drop known as "the Falls." The Bayard Land Co. formed in 1794, owned much of what is now Seneca Falls. Col. Wilhelmus Mynderse was its local agent. Mynderse built a sawmill, gristmill and, in 1807, a second mill, harnessing the power of the rapids or falls. One of the apprentices at Mynderse's fulling was Millard Fillmore, 13th President of the United States. The locks at Seneca Falls were completed in 1818. Improvements between the lakes, completed in 1821, made eight stone locks and nearly two miles of dug canal in addition to sections of the river. To further develop industry, the rapids were dammed to form the Upper, Middle and Lower Falls, and rapid industrialization began in 1825. Through Seneca Falls, there was a lock for every important mill site, raising or lowering the boats a total of 42 feet.

In 1825, a canal was begun to connect Seneca Lake with the newly constructed Erie Canal at Montezuma and the Cayuga and Seneca Canal was put into use in 1828. The Canal was enlarged in 1862, and the Flats, an area adjacent to and east of the village center, grew into a major industrial area, producing fire engines, hose carts and other firefighting equipment, pumps and other iron goods including stove parts, bootjacks, corn shellers, meat choppers, sausage stuffers, flatirons and bells. A knitting mill made socks and once produced 85,000 pairs of socks for the Army and Navy.

C&S Canal locks were modified in 1918 when New York State created the Barge Canal System. State engineers replaced five locks with a large two-flight lock - a 49 foot lift that required a great pool of water for their operation. This spelled the demise of the Flats. Buildings were destroyed or moved to create Van Cleef Lake. Flooding was completed on August 20, 1915.



*Lock CS-4 in the Village of Waterloo*



*Seneca Knitting Mills overlooking the Cayuga-Seneca Canal in Seneca Falls.*

from Seneca County  
Tourism Brochure



*Van Cleef Lake.*

from Seneca County  
Tourism Brochure

### **Women's Rights**

A significant reform community emerged during the 1830's and 1840's in the villages of Seneca Falls and Waterloo. Quaker men and women active in the abolitionist movement to end slavery began to demand equal rights for women. In July 1848 Mary Anne M'Clintock, Elizabeth Cady Stanton and other women in the area planned a convention and wrote a list of grievances based on the Declaration of Independence that denounced inequities in property rights, education, employment, religion, marriage and family, and suffrage. This Declaration of Sentiments was presented before an audience of 300 at the First Women's Rights Convention at the Wesleyan Chapel in Seneca Falls. The Women's Rights National Historical Park has a Visitors Center and other sites along the proposed trail including the Stanton House in Seneca Falls and M'Clintock House in Waterloo.

### **Mormon Church**

On April 6, 1830, Joseph Smith and five other young men met at the Peter Whitmer Farm in Fayette to form the Church of Jesus Christ of Latter-day Saints. A replica of the Whitmer cabin has been constructed at the site. The Mormon Church also has a Greek Revival chapel and visitor center there.

### **Tile Drainage**

Tiles installed in fields helped farmers drain water from their croplands. The first tile drainage in America was manufactured in Waterloo at the Benjamin Whartenby factory located on the south side of the canal in the town of Fayette. The tiles were installed by John Johnson on his farm at Rose Hill.

### **Birthplace of Memorial Day**

In 1865, druggist and book seller Henry Carter Welles suggested that honor should be given to those who had died in the service of their country. He enlisted the aid of General John B. Murray, lawyer, politician and Seneca County clerk, to organize the nation's first remembrance of Civil War Veterans who had died in the war. The practice has continued every year since, making the village the site of the longest continuous observance of this day of remembrance. In 1966, the federal government formally recognizing Waterloo as the Birthplace of Memorial Day. Patriotism is strong in Waterloo. In 2000, it set a Guinness World Record for the most national flags in a small county.

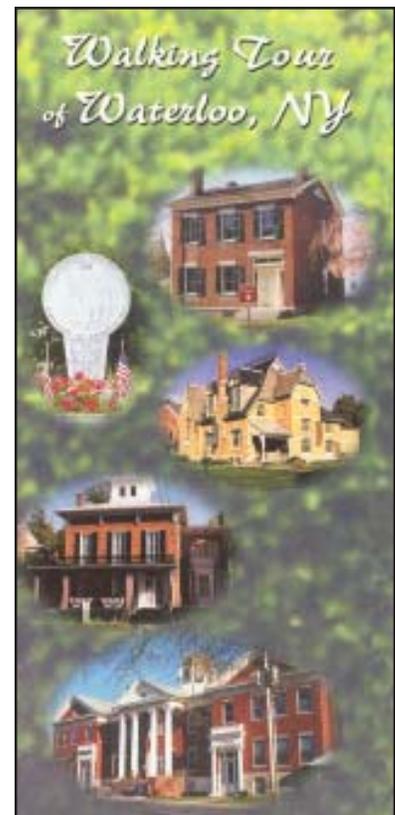
A free walking tour brochure, available in the village office, describes the village's history, including the funeral home where modern embalming was developed, the Scythe Tree listed on the state Register of Historic Trees, the home of the man who invented the railroad sleeping car and the site where wooden car bodies, known as Woodies, were produced.



*M'Clintock House in the Village of Waterloo is a site of the Women's Rights National Historical Park.*



*The Stanton House in Seneca Falls is a site of the Women's Rights National Historical Park.*



*Walking Tour Brochure*



Map and legend from Seneca County tourism brochure showing historical destinations. Location of proposed trail is superimposed on the plan.

- The History Tour**
- |  |  |
|--|--|
| <p>Day 1 (from the south)</p> <ul style="list-style-type: none"> <li>1 Lodi Historical Society</li> <li>2 Interlaken Historical Society Museum</li> <li>3 Three Bears Historical Site</li> <li>4 Ovid Historical Society Museum</li> <li>5 American Primitive Art Gallery</li> <li>6 Sampson Memorial Naval Museum</li> <li>7 Peter Whitmer Farm</li> <li>8 Rose Hill Mansion</li> <li>9 Mike Weaver Drain Tile Museum</li> <li>10 a. Hunt House</li> <li>11 b. M'Clintock House</li> <li>12 Terwilliger Museum</li> <li>13 Memorial Day Museum</li> </ul> | <p>Day 2</p> <ul style="list-style-type: none"> <li>14 Seneca Falls                     <ul style="list-style-type: none"> <li>a. Seneca Falls Heritage Area</li> <li>b. Seneca Museum of Waterways and Industry</li> <li>c. Seneca County Arts Council</li> <li>d. National Women's Hall of Fame</li> <li>e. Women's Rights National Historical Park</li> <li>f. Seneca Falls Historical Society</li> <li>g. Wilhelmina's Art Gallery</li> <li>h. "This is Woman's Hour" The Life of Mary Baker Eddy</li> </ul> </li> </ul> |
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## Chapter Two

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# Trail Benefits

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### ***Tourism and Economic Benefits: Enhancing Access to Historic Sites, Parks and Natural Areas.***

Tourism and agriculture are the cornerstones of the Finger Lakes' regional economy. Visitors to the Finger Lakes come to Seneca County for its rich historical resources and natural beauty. Finger Lakes wineries, located on the banks of Cayuga and Seneca Lakes, are a major attraction to the region.

The Cayuga-Seneca Canal Trail will help to preserve and provide access to many natural and historic resources, enhancing quality of life and strengthening the local tourist economy. When completed, the Cayuga-Seneca Canal Trail will:

- Preserve an abandoned railroad corridor and make it available for public use.
- Provide access along a historic branch of the Erie Canal system. The Canal Trail will link Geneva Lakefront Park to the Seneca Falls Canal Harbor, one of seven Canal Harbors being developed along the New York State Canal System, and eventually to the 348-mile Canalway Trail currently under development along the historic Erie Canal.
- Provide access to sites in the Villages of Waterloo and Seneca Falls that comprise the Women's Rights National Historical Park, where the women's equality movement began in the United States.

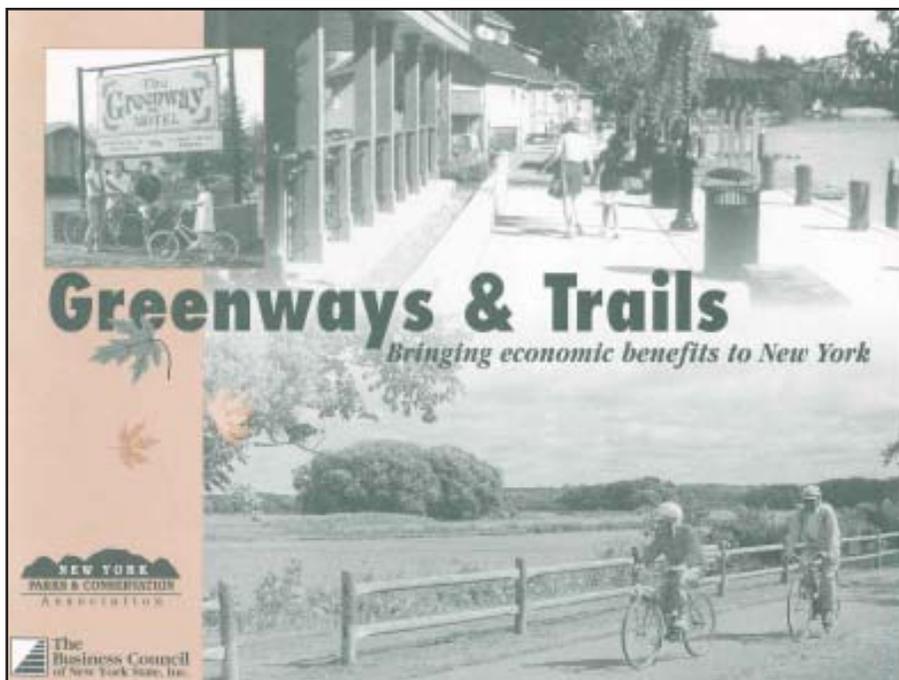


*Cyclists participating in "Cycling the Erie" on the Canalway Trail in western New York.*



*Bikers and boaters on the Erie Canal.*

NYS Canal Corporation



*"Tourism is currently the second largest industry in New York State and the largest industry worldwide. Studies have shown that a growing number of Americans view outdoor activities as a way to enjoy safe, scenic recreation for the entire family. That is why communities looking to attract additional tourists may want to consider greenways and trails as part of their mix of attractions."*

*Quote by Assemblyman Paul Tokasz, Chair, NYS Assembly Tourism, Arts and Sports Development Committee. From **Greenways and Trails** brochure.*

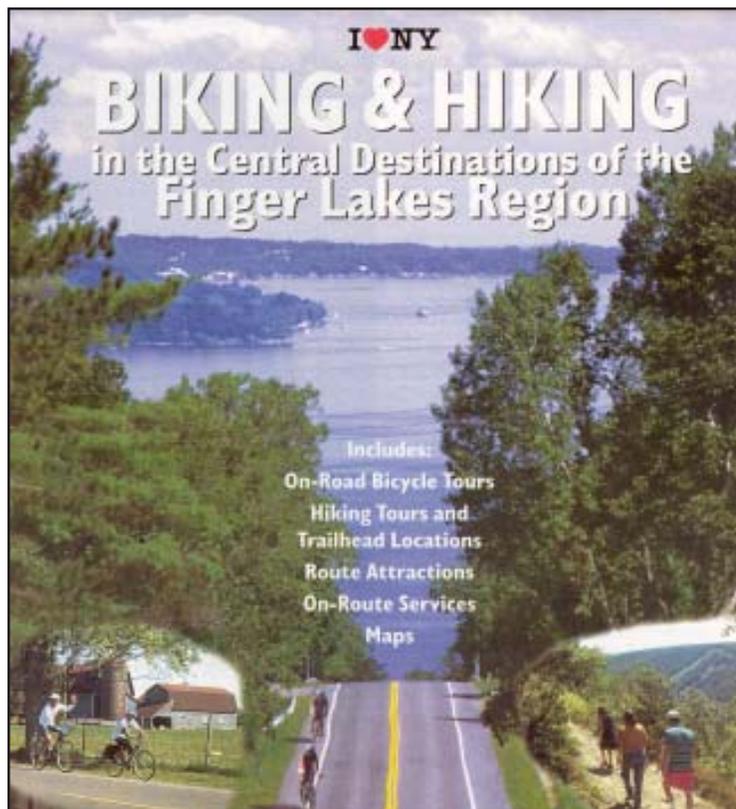
- Encourage non-motorized access to areas of unique natural beauty and significance, including the Montezuma National Wildlife Refuge, Bishops Preserve and two state parks - Cayuga Lake and Seneca Lake State Parks.
- Provide an economic boost to local communities. A National Park Service study found that trail use pumped between \$1.2 and \$1.9 million annually into the economy of nearby communities.
- Provide a venue for activities that bring community members together and help promote the community to visitors. Waterloo and Seneca Falls both have annual festivals utilizing the canal that are attended by more than 3,000 people.



*Multi-use trails are ideal recreation facilities for families and children.*

The development of an attractive off-road facility linked to a regional trail network would be a valued alternative to on-road cycling, particularly for less experienced and young cyclists. This type of trail facility is ideal for family vacations, often extending trip length and increasing return visits to the region.

Bicycle tourism plays an increasing important role in the local and regional tourism economy. About six bike treks, including the Bon Ton Roulet, pass through the county annually, attracting more than 1,000 visitors to the Finger Lakes from all over the country. Currently, the New York Parks and Conservation Association hosts "Cycling the Erie" a 400-mile, eight-day bicycle tour that will bring 400 cyclists through Waterloo and Seneca on their trek from Buffalo to Albany in 2003.



*I Love NY Bicycling Guide for the Finger Lakes Region.*

**Health Benefits**

America is in the midst of a health crisis of epidemic proportions. Physical inactivity combined with overeating has turned us into a nation of out-of-shape, overweight people. Health professionals now recognize that the physical design of a community has a direct effect on the level of physical activity undertaken by residents. Trails and safe sidewalks can help create an 'active community environment' that encourages physical activity. State and federal governments now are actively supporting community efforts to construct facilities that support active living. The Cayuga-Seneca Canal Trail passes through population centers and links key destinations along the canal. It will be a great facility for walking and biking for recreation and transportation.

**Transportation Benefits**

The City of Geneva, population 15,000, is at the west end of the proposed trail and is home to Hobart and William Smith Colleges. The colleges have an enrollment of 1,800 with a student and faculty population likely to take advantage of an attractive regional trail facility. The proposed trail will be linked to the Geneva Area Chamber of Commerce Visitors Center and its 15,000 annual visitors. Programming on the Geneva lakefront includes boat tours and a whale watch event that attracts 23,000 people annually.

The Village of Waterloo, population 5,111, is a historic village - the home of the Memorial Day Museum and the M'Clintock House, a site of the Women's Rights National Historical Park. Waterloo has promoted its many attractions by developing a Walking Tour of the village and is currently constructing trails to strengthen the linkage between the village center and the canal and proposed canal trail.

The Village of Seneca Falls receives more than 27,000 annual visitors to the Women's Rights National Historical Park. Park sites are located throughout the Village along the proposed trail. A safe, accessible and attractive trail between park facilities would encourage visitors to walk through the Village rather than drive from site to site. The town of Seneca Falls is the home to the New York State Chiropractic College with a year-round enrollment of 1,900 students.

Current transportation linkages between Geneva, Waterloo and Seneca Falls parallel the east-west running Seneca River/Cayuga-Seneca Canal. NY Route 5 and 20 is north of the River and forms the most direct automobile linkage. South of the River, River Road connects Seneca Falls and Waterloo to NY Route 96A, southeast of Geneva near Seneca Lake State Park. The proposed trail will provide a safe and continuous off-road non-motorized transportation route linking Geneva, Waterloo, Seneca Falls and, eventually, the Erie Canal.



*Stone dust trails are suited for use by mobility-impaired users.*



*Family transportation.*



*Geneva Area Chamber of Commerce Visitors Center on the shore of Seneca Lake in Geneva.*



*Main Street in the Village of Waterloo.*



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## Chapter Three

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# Trail Design

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NYS Canal Corporation

*Canalway Trail in Adam's Basin, west of Rochester.*

### **Introduction**

The Cayuga-Seneca Canal Trail is a proposed nineteen-mile multi-use trail that will follow the Cayuga-Seneca Canal from Geneva on Seneca Lake to the Erie Canal. The trail will be a ten-foot-wide, limestone dust trail comparable to other sections of the Canalway Trail already constructed in Upstate New York. The trail will be accessible and designed to accommodate a wide range of users, including walkers, joggers, bicyclists, parents with strollers, and persons in wheelchairs.

This report describes the proposed trail route and design of the ten-mile section of the canal trail between Seneca Lake State Park in Geneva and Seneca Falls. The eastern nine-mile section of the canal trail will link Seneca Falls through the Montezuma National Wildlife Refuge to the Erie Canal. A separate master plan will be prepared for this section of the trail at a future time.

Chapter Three: Trail Design has two sections. The first section, Trail Route Description, uses text and photographs to describe the existing conditions along the proposed trail route. The second section, Trail Design Guidelines, describes the Canal Corporation's trail design standards that must be followed when constructing the trail.



NYS Canal Corporation

*Dockside Orientation Kiosk at Canal Harbor in Rochester.*



Figure 1

### TRAIL ROUTE DESCRIPTION

Seneca Lake State Park is currently redesigning its lakeshore trail to extend from the City of Geneva's Lakefront Promenade (Figure 1) across the swimming area and new play facilities to the marina at the southwest corner of the park. The proposed Cayuga-Seneca Canal Trail will begin near the pavilion in the vicinity of the new playground. From this point it will head north in the west shoulder of the park road (Figure 2) then cross the park and run parallel to NY Route 5 & 20. Following the shoulder of the state highway, the trail will turn to the east and go under the active railroad bridge that crosses over 5 and 20, then turn south in the west shoulder of NY Route 96A (Figure 3). Fencing may be required to limit off-hour access to Seneca Lake State Park from Rt. 5 & 20.

The trail will stay in this shoulder until it approaches the Seneca River/Cayuga-Seneca Canal. It will follow a gravel access road ramping down until it turns to the east under the NY Route 96A bridge that passes over the Canal.

An alternative trail route (shown on Master Plan - Sheet #1) follows the east edge of the State Park Marina until it meets the Cayuga-Seneca Canal. The trail then turns left under the active railroad line on a structure cantilevered from the railroad bridge abutment over the canal. Canal Corporation review will be required to ensure that canal navigability is not compromised by this structure.

The trail will then turn to the north and ramp up along the east shoulder of the highway until it reaches the NYSEG-owned railroad corridor where it turns right and to the south east. Within 200 feet the trail crosses the Cayuga-Seneca Canal on an existing railroad bridge (Figure 4).



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6

The concrete bridge decking is in good condition. South of the bridge the railroad corridor curves to the east and crosses the access road to Barrett's Marina (Figure 5).

From Barrett's Marina, the trail follows the NYSEG-owned railroad corridor to the east. The gate shown in Figure 6 is the only obstruction to the trail between Barrett Marina and the Village of Waterloo other than encroaching vegetation and old railroad bridges in need of repair. The western-most section is somewhat overgrown but passable on foot or bicycle (Figure 7). The corridor passes the Finger Lakes Land Trust's Bishop Preserve (Figure 8) located between the proposed trail corridor and River Road to the South. Linkages between the canal trail and preserve trails should be explored. Some sections of the railroad corridor are cleared and mowed by adjacent landowners and/or farmers (Figure 9). Approximately 3/4 mile northeast of the Barrett Marina road crossing, the Seneca River and the proposed trail converge. Inland Harbor Marina, located north of the Seneca River, is visible from the proposed trail. Continuing to the northeast the trail crosses two 10' railroad bridge structures (See Figure 10). Both are in good condition, requiring only decking, railing, and minor abutment repairs.



Figure 7



Figure 8



Figure 9



Figure 10



Figure 11

A half-mile further to the east the trail crosses a 110' long railroad bridge (Figure 11). Like the smaller ones to the west, the bridge structure appears sound and will require decking, railing, approaches, and bridge abutment repair.

As the proposed trail approaches the Village of Waterloo there is evidence of ATV and dirt bike use of the railroad corridor and adjacent properties (Figure 12). Restricting access to the trail by motorized recreational vehicles must be addressed during the design phase of the project. Within the Village of Waterloo the railroad corridor passes directly north of the Soil and Water Conservation District warehouses. The proposed trail then turns to the north-east, off the railroad corridor, through the former NYSDOT Residency to Lock CS-4 (Figures 13 and 14). From the NYSDOT property it will use the roadway adjacent to Lock CS-4 (Figure 14) to the intersection of Route 96.

The trail will follow Huff Street (Figure 15) to the south-east both on the roadway and on new sidewalks until it reaches the abandoned railroad corridor. It will then follow the NYSEG-owned corridor east through the village.

The Village of Waterloo has developed a walking tour that links the Canal Trail to significant historic buildings and services in the village center, including the National Park Service's M'Clintock House.



Figure 12

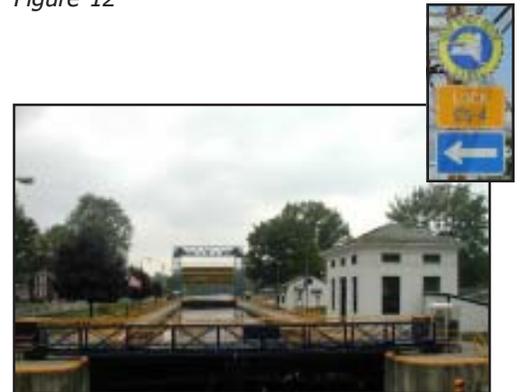


Figure 13



Figure 14



Figure 15



Figure 16

The Canal Trail will follow the abandoned railroad corridor past Waterloo's Wastewater Treatment Plant located towards the east edge of the village (Figure 16). The trail will cross an existing railroad bridge over Silver Creek (Figure 17). New decking and railings will be required. The trail continues on the railroad corridor between River Road and the Canal to the north and enters the Town of Seneca Falls. Construction of the Water Falls Bridge encroached on the railroad corridor. The proposed trail will pass under the Water Falls Bridge and be terraced into the road shoulders east and west of the bridge (Figure 18).

East of the bridge the trail returns to the NYSEG-owned railroad corridor located between River Road and the Canal. As the trail approaches the intersection of River and Kingdom Roads, it will shift into the north shoulder of River Road to avoid a small complex of industrial buildings adjacent to the roadway (Figure 19). The drainage ditch in the 15-foot shoulder will have to be piped and a guide rail constructed between the trail and River Road. East of the Kingdom Road intersection, the trail will again return to the railroad right-of-way between the canal and the Elks property (Figure 20).



Figure 17



Figure 18



Figure 19



Figure 20



Figure 21

A new trail bridge is needed to cross Sucker Brook (Figure 22). The 1.75-mile Frank J. Ludovico Sculpture Trail (Figure 21) begins at Sucker Brook and continues for 1.75 miles to the Bridge Street intersection in the Village of Seneca Falls. The Ludovico Trail was developed by volunteers and is managed by a non-profit, membership organization - Frank J. Ludovico Sculpture Trail, Inc. The trail is home to numerous sculptures inspired by the women's rights movement and created primarily by women sculptors. The trail has been cleared and graded, but does not have an improved trail surface. It is anticipated that stone dust will be installed when the Canal Trail is constructed. A trailhead (Figure 23) with a small parking area and trail information is located west of and adjacent to Bridge Street.

Trail users can cross the canal at Bridge Street to visit the Women's Rights National Historical Park, the Seneca Falls Canal Harbor (Figure 24), the Seneca Falls Heritage Area, and other village attractions and services. They can return to the trail by crossing on Bridge or Ovid Streets or can follow a loop around Van Cleef Lake that ends at Lock No. 2, near the National Park Service's Stanton House.

The trail route across the Knitting Mill (Figure 25) between Bridge and Ovid Streets will be designed as site plans for Knitting Mill reuse are developed.



Figure 22



Figure 23



Figure 24



Figure 25



Figure 26

At Ovid Street the trail will split into separate bike and pedestrian routes. Pedestrians will cross under Ovid Street and ramp up to a proposed promenade at the “When Anthony Met Stanton” Sculpture (Figure 26). The lawn and sidewalk area around the sculpture has spectacular views of Van Cleef Lake and would be an excellent location for a trail promenade with specialty paving, benches and lighting (Figure 27). Pedestrian trail users can use the sidewalk along Bayard Street between Ovid and Washington Streets. Bicyclists using the trail can cross Bayard Street at the Ovid Street signalized intersection and continue east to a mid-block crossing at Washington Street.

The trail follows Washington Street where bicyclists can comfortably ride on the street and pedestrians can use existing sidewalks (Figure 28). Just past the Stanton House Washington Street drops steeply towards C-S Lock #2. The main trail will turn right on Seneca Street and head east towards the cemeteries. At the corner of Seneca and Jay Streets the trail will follow an existing footpath (Figure 29) that crosses a seasonal creek between the residential neighborhood and St. Columbkille Cemetery. The creek crossing will require a structural assessment and the trail surface will need to be upgraded and railing provided.



Figure 26



Figure 27



Figure 28



Figure 29



Figure 30

Once in the St. Columbkille Cemetery, the trail will follow existing sidewalks and cemetery roads to the east (**Figure 30**). In the Rest Vale Cemetery, the trail will simply use the existing gravel cemetery road (**Figure 31**). Surface upgrades on cemetery must be provided to facilitate continuity and accessibility. At the southeast corner of the Rest Vale Cemetery, the trail will move into the landscape shoulder adjacent to the paved north shoulder of the westbound travel lane of Bayard Street (**Figure 32**). The trail will ramp up the west side of the abandoned railroad corridor that crosses Bayard Road (**Figure 33**).

In future phases, the trail will continue on the railroad corridor to Montezuma National Wildlife Refuge and the Canalway Trail along the Erie Canal (**Figure 34**).



Figure 31



Figure 32



Figure 33



Figure 34

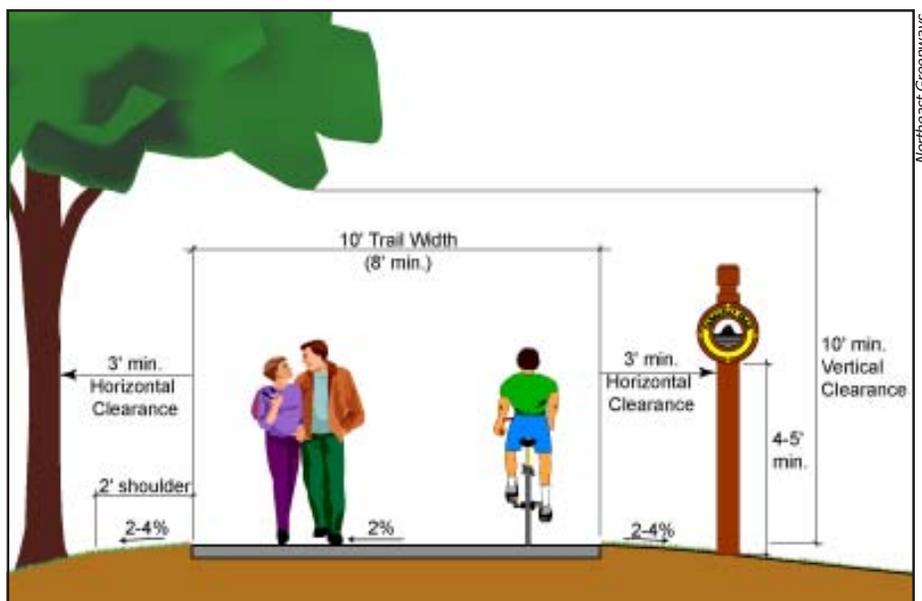
## TRAIL DESIGN GUIDELINES

The Cayuga-Seneca Canal Trail is being designed to meet Canalway Trail standards as described in *Draft Design, Maintenance and Management Guidelines for the Canalway Trail* (April 3, 2001), prepared by the New York Canalway Trails Association. The following sources also provide guidance for trail design:

- *New York State Highway Design Manual*, Chapter 18 - Facilities for Pedestrians and Bicyclists;
- *Guide for the Development of Bicycle Facilities*, 1999 prepared by the American Association of State Highway and Transportation Officials (AASHTO);
- *New York State Building Code* and Chapter 5 of the *NY Manual of Uniform Traffic Control Devices*;
- *Designing Sidewalks and Trails for Access: Best Practices Design Guide*, USDOT.

### Trail Surface

The trail surface will be ten feet wide where site conditions permit. Eight feet is the minimum allowable width. The trail surface should have a cross slope of 2% (1/4" per foot) in the direction shown on construction drawings or as directed by the project engineer during construction. Two-foot grass trail shoulders will be constructed adjacent to the trail on either side where space allows. This shoulder, also referred to as a trail backup, provides the space for a trail user to safely leave the main trail without striking obstacles. The transition between the trail surface and shoulder should be smooth to reduce the chance of falling or stumbling. The cross slope of the trail shoulder should drain away from the trail surface at a pitch of 2 to 4%, depending on site conditions.



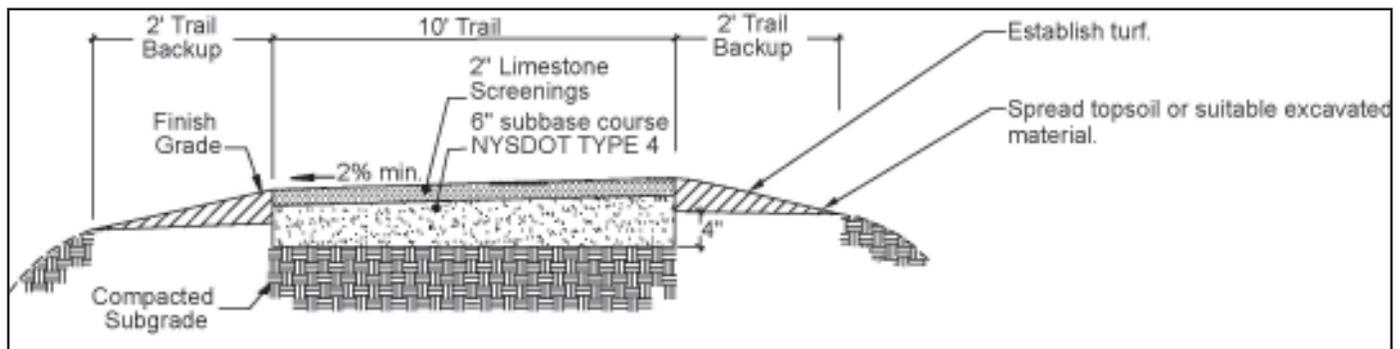
*Cayuga-Seneca Canal Trail cross section showing trail width and recommended clearances.*

The trail surface material recommended for use for the Cayuga-Seneca Canal Trail is compacted limestone dust ('stone dust'). This surface meets ADA accessibility guidelines and is suitable for use by persons in wheelchairs and other mobility-impaired users. In addition it is somewhat resistant to rutting, erosion, weed growth and puddling. On other sections of the Canalway Trail, stone dust has also proven to be more resistant to tree root damage than an asphalt surface. Where the trail intersects a roadway, the surface should be asphalt or concrete for a minimum of 10 feet from the paved edge of the road to reduce the risk of erosion. This treatment also provides a visible and tactile clue that the trail user is approaching a road.



Walking on the Canalway Trail in Lockport, NY. This trail has a 10' wide, stone dust surface.

The trail construction section (or cross section) should consist of a 6" layer of subbase (NYS DOT type 4) set on compacted subgrade and a 2" top layer of stone dust (as per Canal Corporation specifications).



Construction detail of stone dust trail.

### **Clearances - Vertical and Horizontal**

A clear zone should be provided in both horizontal and vertical directions for the safety and protection of trail users. Horizontally, no vertical object should be located within 3' of the edge of the trail surface. This includes both existing elements (trees, utility poles, rails, abutments, etc.) or elements constructed for the trail such as sign posts and railings. Exceptions include bollards and swing gates placed at roadway intersections that must be spaced closely (5' +/-) to restrict access by unauthorized motor vehicles. Vertically, a 10' clearance is recommended (8' absolute minimum according AASHTO) under bridges, tree branches and other structures or obstacles.

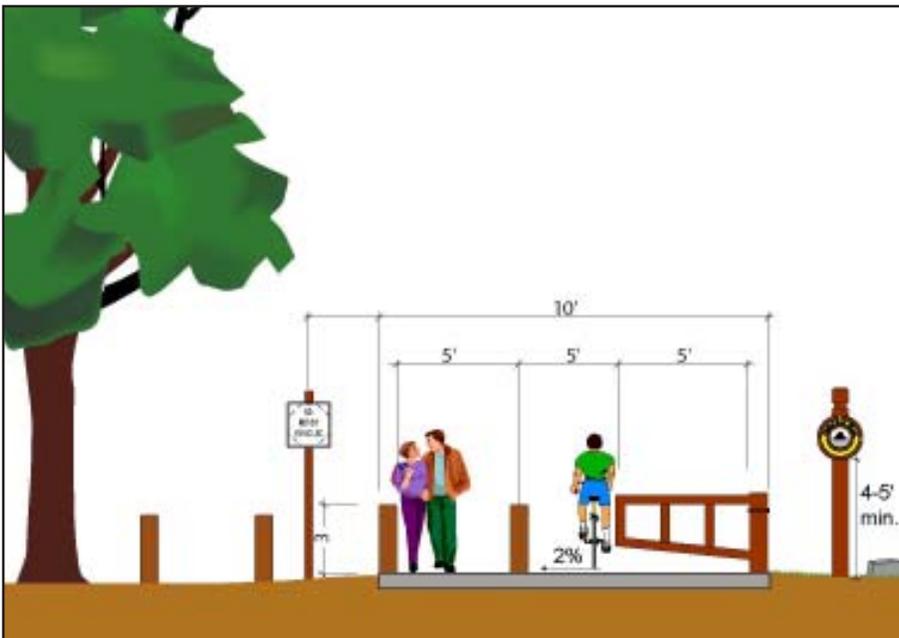
### **Trail Grade**

Gradients along the trail of 5% or less can be continuous. If gradients are between 5 and 8%, level rest areas at least 5' in length must be provided every 30' to conform to ADA Accessibility Guidelines. The Cayuga-Seneca Canal Trail, like much of the Canalway Trail, is predominately a flat site. However some ramps will likely have to be constructed at areas where significant grade changes occur.

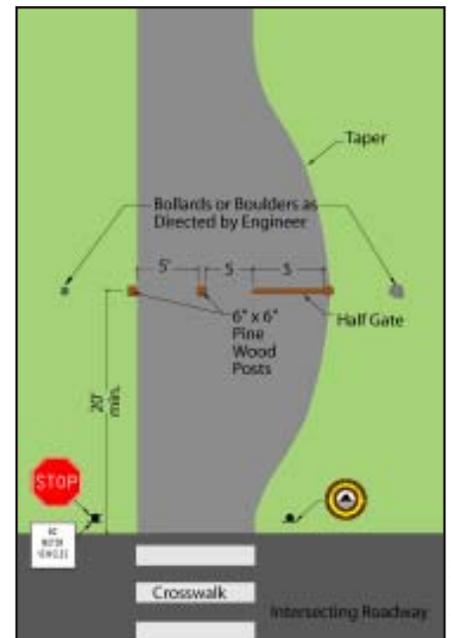
**Trail Access Control - Bollards and Gates**

Bollards and swing gates are used at trailheads and trail access points to restrict access to the trail by unauthorized motor vehicles. These barriers should be easy to operate for authorized maintenance or emergency personnel. The Canal Corporation typically uses wood posts in conjunction with a removable, lockable bollard or a swing, half gate. Where space allows, the swing gate is the preferred solution as it is easier to open than a removable bollard, which must be unlocked, lifted and placed to the side of the trail.

**Half gate at road intersection to limit unauthorized motor vehicle access to Canalway Trail.**

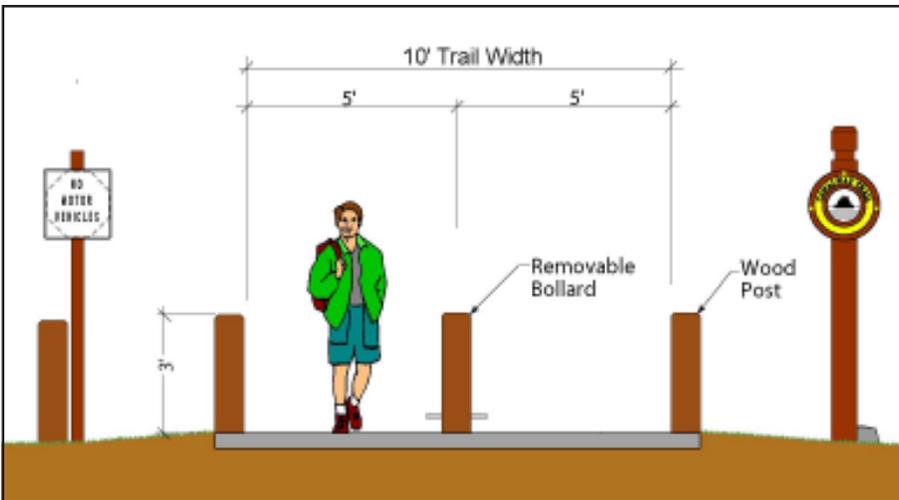


Section

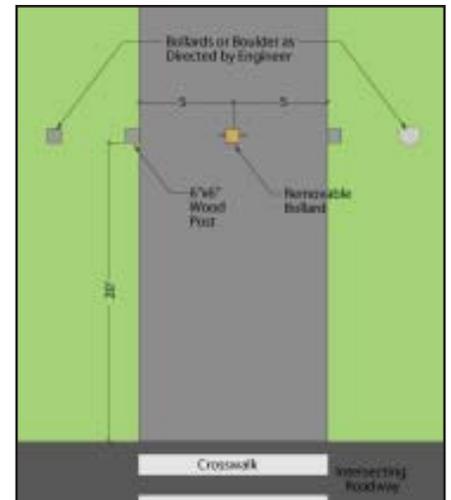


Plan

**Center removable bollard at road intersection to limit unauthorized motor vehicle access to Canalway Trail.**



Section



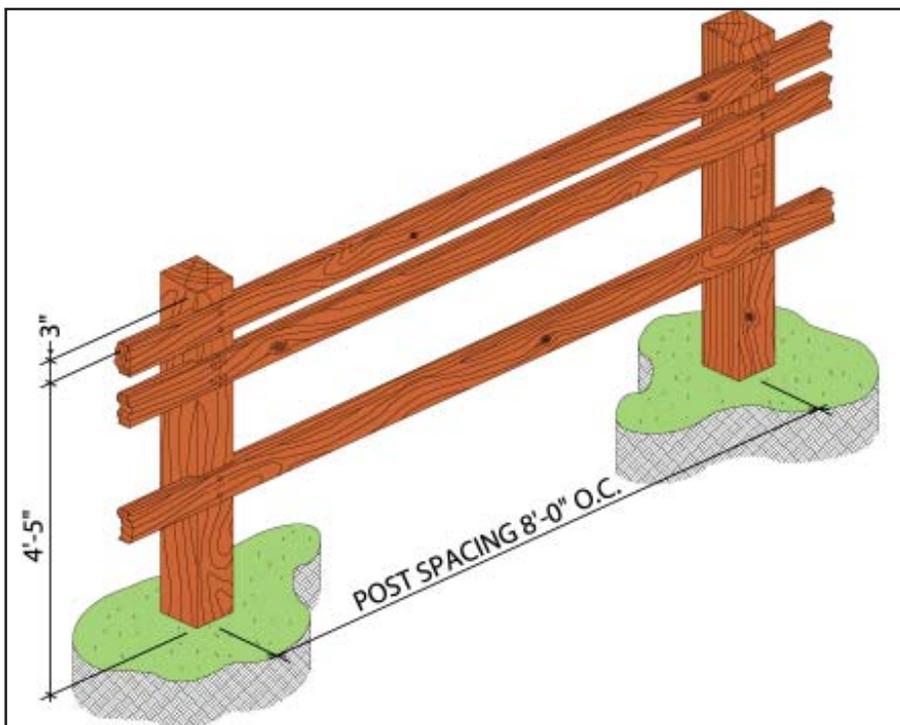
Plan

### Fences

Fences are generally not recommended on the Canalway Trail. They should only be installed to screen unsightly views from the trail or to provide privacy for adjacent landowners. If screening is required, providing a landscape barrier that blends into the surrounding landscape is the preferred solution. If a fence is necessary it should follow clearance guidelines described earlier and should have horizontal bicycle handlebar rub rail that conforms to AASHTO guidelines.

### Railings

Railings are generally used to protect trail users from steep gradients located close to the edge of the trail. A general landscape guideline from the NYS Building Code is that if there is a sheer drop of 18" or greater then a railing should be provided. In New York State, all railings along bike paths should be 54" high. While there are no specific warrants for providing safety railings where steep slopes are adjacent to a trail, the NYS Highway Design Manual does indicate (Figure 18-16 Safety Railings Along Bicycle and Multi-Use Paths) that a 54" high (1.4 meter) safety rail be provided when a significant slope is closer than 5' from the trail edge. Sound professional judgement should be used to assess whether the slope gradient, vertical drop or dangerous obstacles on the slope (trees, poles, concrete structures, etc.) warrant the installation of a safety rail.



Canal Corporation's three-rail fence is used to protect trail users from steep gradients, vertical drops or obstacles close to the trail.

Adapted by Northeast Greenways from Canal Corporation construction detail.

NYS Canal Corporation

### **Benches**

Benches provide places for resting and viewing along the trail corridor. Bench locations should be based on scenic quality, views, shade and other trail amenities and infrastructure such as trailheads, kiosks and interpretive sites. Frequency of benches along a trail will depend on intensity of use of the trail section and type of trail users. For instance, benches should be placed at regular intervals, no more than ¼ mile apart, where the trail will be frequently used by senior citizens. Benches should be placed at least 3' from the trail edge and should be accessible (i.e. trail surface or other hard surface should extend from trail to front of bench). Groupings of two or more benches can be installed at trailheads or kiosk areas in conjunction with special pavements and landscaping. Benches should be durable, low-maintenance, and designed to discourage use by skateboarders.

### **Bridges**

Bridges should be designed to accommodate year-round access by emergency and maintenance vehicles. Structures should be at least 10' wide to accommodate two-way user traffic and authorized motor vehicles. Vertical clearances should be 10' (8' minimum). Bridge rails must be 54" high to meet NYS DOT standards (Chapter 18 - Highway Design Manual) and should be opened (wings) at bridge approaches to minimize potential for crashes. Consideration should be given to providing rest and viewing areas on long bridges and to installing warning signs at bridge approaches.

### **Kiosks**

The Canal Corporation has two types of information kiosks. The dockside orientation kiosk has two or three sign panels and is recommended for use at canal harbors and ports. The rustic wood kiosk shelter has two sign panels. It is recommended for use at interpretive sites along the trail.



*Trail bridge with 54" high railings.*



*Above: Dockside Orientation Kiosk at Canal Harbor in Rochester.*



*Left: Wood kiosk along Canalway Trail in Macedon.*

**Trail Signage**

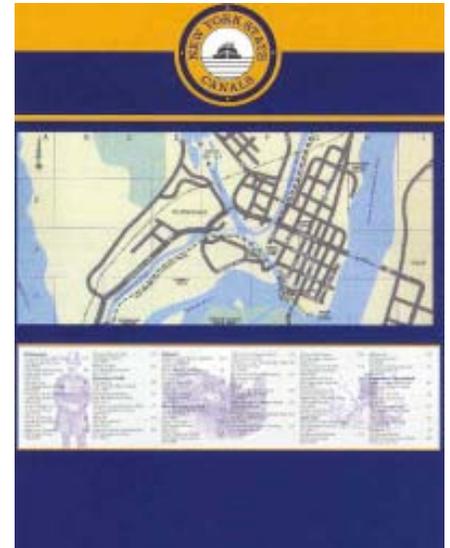
Trail signage should present the trail user with a clearly marked and easily identifiable trail route, information related to trail conditions, rules and regulations, wayfinding, interpretation of natural, cultural and historic resources, and location of off-trail services and destinations. Signs for the Cayuga-Seneca Canal Trail should be consistent with the NYS Canal Corporation’s **UNLOCKING THE LEGEND - Signage Design Guidelines** (March 1999). Following are the types of signs used along the Canalway Trail:

**Kiosk Panels**

Dockside orientation kiosks are most often three-sided structures. The three panels include a canal system map and description, a services directory (right), and an interpretive sign about the site or community. The rustic wood kiosk has a map and description of the New York State Canal System and an interpretive panel about the site.

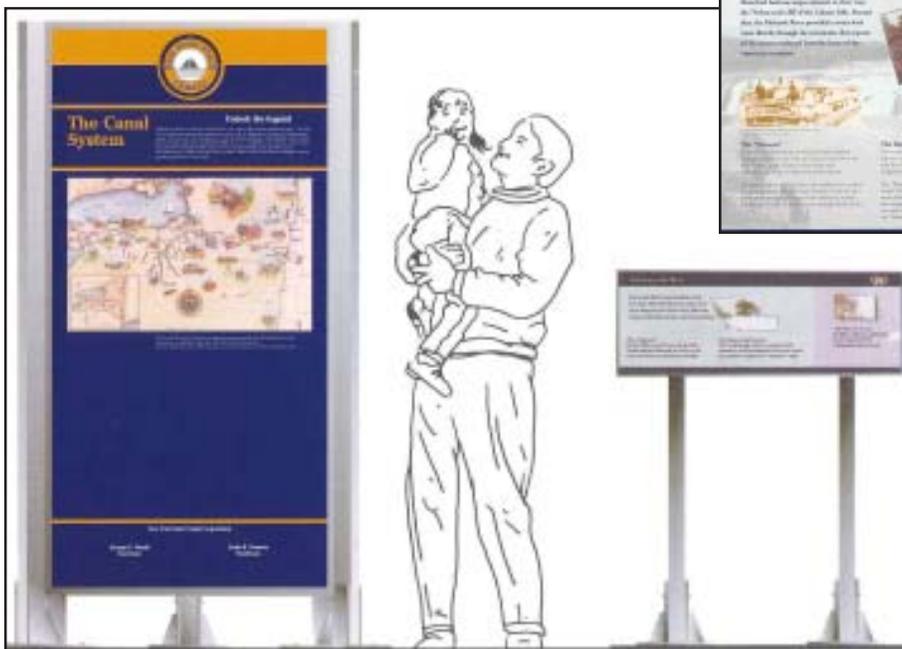
**Interpretive Signs**

Interpretive signs on the canal are located at or within viewing distance of special features along the trail. Signs can be vertical panels that are incorporated into kiosks or low-profile wayside exhibits which provide information without interfering with views. Sign panels can incorporate photographs, maps and text to tell stories in a very dynamic and graphic fashion. All sign panels are fabricated from either porcelain enamel or embedded laminate material as specified in the Canal Corporation’s signage design guidelines.



From *Unlocking the Legend*

Services directory panel is one of three panels found on dockside orientation kiosk. This panel lists and shows location of restaurants, shops and other services and destinations in the vicinity of the harbor or port facility.



Above: Illustrations of dockside orientation kiosk (left) and low-profile wayside exhibit panel (right) from **Unlocking the Legend: Signage Design Guidelines** for the Canal System.



From *Unlocking the Legend*

Below: Low-profile wayside exhibit with interpretive panel along canal in Rochester.



NYS Canal Corporation

**Trail Markers**

Trail markers, a trail logo and directional arrow on a post, are used in two ways. They are placed along adjacent roadways to direct trail users and motorists to the trail, trailheads and trail access points and parking areas. Trail markers are also used to direct trail users at decision points along the trail.

**Warning Signs**

Warning signs are typically diamond-shaped metal signs with black lettering on a yellow background. They advise trail users and motorists when caution is advised, such as at intersections of trails and roadways. They can also provide advance warning of upcoming crossings to motorists.

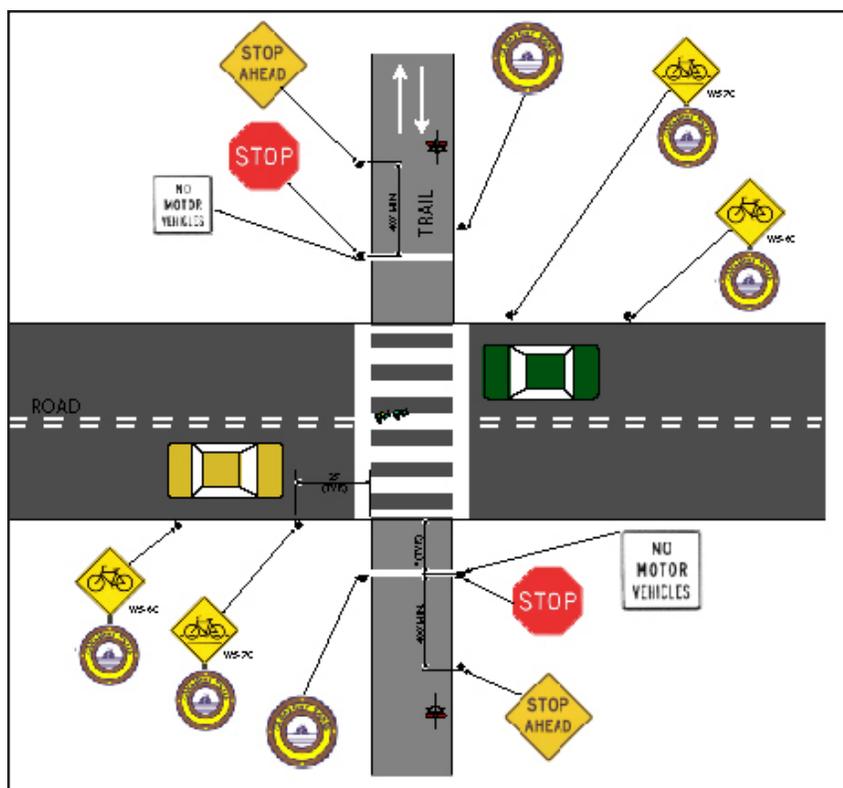
**Regulatory Signs**

Regulatory signs are white metal signs with black or red letters which tell motorists and trail users what is allowed and not allowed. No motor vehicles signs, no parking signs and handicap parking signs are common regulatory signs found along the trail.



NYS Canal Corporation

Trail marker directs bicyclist to the trail.



Adapted by Northeast Greenways from Canal Corporation detail.

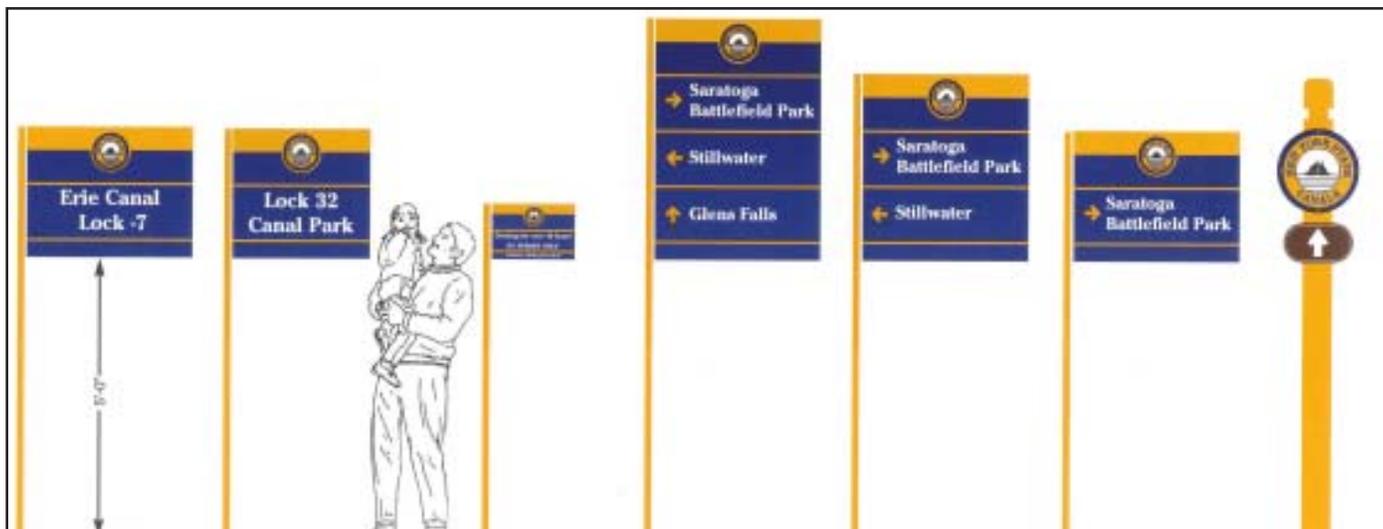
Typical signage configuration at road intersections include numerous warning and regulatory signs. Note the use of trail logo panels underneath bicycle crossing warning signs to inform motorists they are crossing the Canalway Trail.

**Trail Services Signs**

Trail services signs indicate the location of and distance to services and off-trail destinations. At this time the Canal Corporation has no standard design for this type of sign.



Services sign at street intersection indicates direction and distance of off-trail services.



Various sign types for use on the New York State Canal System (from **Unlocking the Legend: Signage Design Guidelines**).

### Trail Mileage Markers

Many communities install mileage markers to help trail users keep track of their location or the length of their workout, walk or run.

### Landscaping

Landscaping along the trail corridor can serve many purposes:

- Creating shade and more comfortable conditions for trail users;
- Creating a greenbelt effect along the trail that provides a continuity of experience while not being uniform or monotonous;
- Controlling erosion on steep slopes adjacent to the trail;
- Enhancing wildlife habitat along the trail corridor;
- Visually enhancing trailheads, trail access points and points of interest along the trail;
- Screening unsightly views or enhance privacy of adjacent landowners; and
- Creating vegetative barriers to help control access to the trail.



Mileage marker along Town Lake Trail in Austin, Texas.

Landscape elements to be considered include trees, shrubs, hardy perennials and grasses (ornamental and lawn), boulders, fencing and decorative paving. Landscaping should be used sparingly and only at key locations where it will be visible and significantly enhance the trail project. Only native plants or those well adapted to the site should be selected. Poisonous or invasive species should be avoided.

### Drainage

Canal Trail drainage structures and improvements must comply to the Canalway Trail's performance standards which are: 1. Preserve or improve water quality in the Canal and other adjacent water bodies and wetlands; 2. Preserve existing drainage patterns and stormwater storage; and, 3. Protect the trail from erosion and standing water. Trail drainage strategies and structures should be designed according to AASHTO and ADA guidelines and according to local guidelines, regulations and best management practices.

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## Chapter Four

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# Implementation

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### ***Ownership Status of Proposed Trail Corridor***

The majority of the proposed trail is located on an abandoned railroad corridor owned by New York State Electric and Gas (NYSEG). Currently they have no plans to develop the railroad corridor, but would like to maintain ownership for the possible future development of utility transmission infrastructure. NYSEG has expressed support for the trail project and is considering allowing the trail to be developed under an easement to be negotiated with Seneca County. Seneca County is currently ordering an appraisal of the corridor to begin the negotiation process.



*NYSEG-owned abandoned railroad corridor is the proposed route for the Cayuga-Seneca Canal Trail.*

Other landowners along the proposed trail corridor include:

- NYS Office of Parks, Recreation and Historic Preservation (Seneca Lake State Park);
- NYS Department of Transportation (Routes 96A shoulders and vacant NYSDOT residency land in Waterloo);
- Seneca County (River Road right-of-way in various locations);
- Frank J. Ludovico Sculpture Trail, Inc. (Village of Seneca Falls);
- Seneca Knitting Mills Development Corporation (between Bridge and Ovid Streets);
- Village of Seneca Falls (Bayard Street, Washington Street, Seneca Street and Restvale Cemetery);
- Roman Catholic Church in Seneca Falls (St. Columbkille Cemetery);
- NYS Canal Corporation (vicinity of canal locks in the villages of Waterloo and Seneca Falls).

### ***Phasing***

The Cayuga-Seneca Canal Trail is being planned and constructed in phases as opportunities for construction funding arise. Currently there are two sections of the proposed trail that are open for use. Geneva Lakeshore Park has developed a lakefront promenade, between the Chamber's Visitors Center and Seneca Lake State Park, with an asphalt multi-use trail and a parallel concrete pedestrian trail, lighting and benches. In Seneca Falls, Frank J. Ludovico Sculpture Trail, Inc. has cleared and opened 1 3/4 miles of trail along the canal with a trailhead and numerous sculptures. The Ludovico Trail will need to be surfaced with stone dust when the trail between Waterloo and Seneca Falls is developed.

Following is the status of trail development in other sections of the proposed trail corridor from west (Geneva area) to east (Montezuma):

- OPRHP will be converting the existing lakefront roadway into a multi-use trail that will create a link to the future canal trail.
- Seneca County received \$420,000 in TEA-21 Enhancement Program funding in October 2002 for funding to construct the Cayuga-Seneca Canal Trail between the State Park and the Village of Waterloo. This funding will be matched by local contributions valued at approximately \$115,000 for a total phase one budget of \$535,000. Before construction can begin the County must negotiate the acquisition of the abandoned railroad corridor from NYSEG.
- The Village of Waterloo received TEA-21 Enhancement Program funding in 1999 to construct trail linkages between the canal and the village center. Preparation of construction documents is under way and construction is likely to begin in 2003.
- The proposed trail route between the Villages of Waterloo and Seneca Falls is described in this report. No formal approvals have been made and funding for this section has been not sought to date.
- As described earlier, the Frank J. Ludovico Sculpture Trail in the Village of Seneca Falls is now open to the public. Funding to upgrade the trail surface has not been sought.
- The proposed trail route and treatment for the trail through the Village of Seneca Falls is described in this report. This route has not been presented to or approved by the village or other landowners. No funding for this section of the trail has been sought to date.
- The trail route between the Village of Seneca Falls and Montezuma National Wildlife Refuge and the Erie Canal has not been studied in detail. Seneca County is seeking the funds to prepare a trail master plan for the eastern section of the Cayuga-Seneca Canal Trail linking Seneca Falls through the Montezuma National Wildlife Refuge to the Erie Canal.



*Geneva's Lakefront Trail ends at the border of Seneca Lake State Park. New York State Parks is continuing this trail to the new playground and lakefront pavilion area, the beginning of the proposed canal trail.*

### ***Opinion of Probable Construction Cost***

The Opinion of Probable Construction Cost for the ten-mile section of the Cayuga-Seneca Canal Trail between Geneva and Seneca Falls is \$1,500,000. This figure represents a total project cost including planning, design, acquiring required permits and trail construction. The following assumptions are included in this cost estimate:

- The \$1,500,000 is in 2002 dollars and must be prorated at the time of construction in the future.
- This figure does not include property acquisition or easements.
- It is assumed that OPRHP is providing funding for the construction of the lakefront walkway between the Geneva City line and the park playground and pavilion area.

- This figure does not include spur trail construction in Villages of Waterloo and Seneca Falls.
- This figure assumes that the trail route is constructed as described in this report. Any significant changes required due to unresolvable property issues or other unforeseen circumstances may cause the construction costs to vary significantly.
- This figure does not include the development of the promenade overlook in the vicinity of the “When Anthony Met Stanton” Sculpture overlooking Van Cleef Lake.
- This figure does not include any special enhancements or construction materials in the vicinity of the Seneca Knitting Mills.
- This figure does not include traffic lights or special control devices in the Village of Seneca Falls.
- This figure assumes that the creek crossing in Seneca Falls between Seneca Street and the cemeteries will not require a new bridge structure, only resurfacing and railing installation.

It is assumed that as grant applications are written to fund the construction of different project phases, detailed cost estimates will be developed for each of these sections.

### ***Funding Sources for Trail Planning and Construction***

There are numerous federal and state funding programs for trail planning, design and construction funds available to local government agencies. Most require local matching funds or in-kind contributions, ranging from 20% to 50% of the total funding request. In addition there are numerous private funding sources, including foundations, where funding can be sought often to match state and federal requests. Following is a summary of the grant programs most commonly used for trail projects (A detailed list of funding sources is provided as an appendix to this report):

### **Federal Programs**

#### Transportation Equity Act for the 21st Century

- *Transportation Enhancements Program (TEP)*  
TEP is the most significant source of funding for trail, bicycle and pedestrian projects in New York and throughout the United States. Federal funding is administered by the NY Department of Transportation. TEP is a reimbursement program where the Federal government pays for up to 80% of the total project cost and local match is a minimum of 20%. The Village of Waterloo has received TEP funding for design and construction of village trail projects. Seneca County submitted TEP application for nearly \$420,000 in November 2001 to construct the Cayuga-Seneca Canal Trail between Geneva and Waterloo.

NYS DOT solicits applications for Transportation Enhancement Program funds every two to three years.

- *Recreational Trails Program (RTP)*  
The Recreational Trails Program funds non-motorized and motorized recreational trail projects and can be used for planning, design and construction projects. In New York State this program is administered by the NYS Office of Parks, Recreation and Historic Preservation. Like the TEP, RTP provides reimbursement for up to 80% of the total project cost and requires a minimum 20% local match. RTP grants are relatively small, up to \$100,000, and highly competitive.

### State Funding Programs

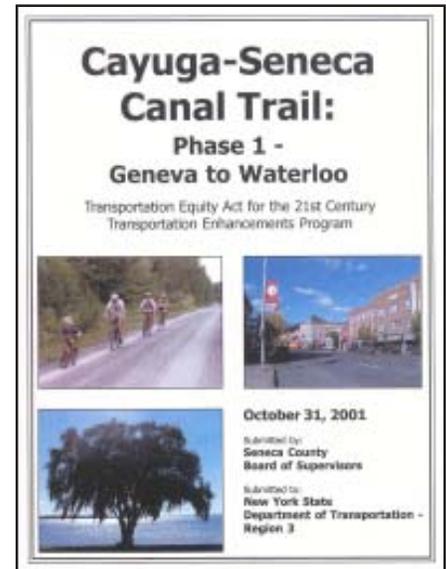
Environmental Protection Act and the Clean Water/Clean Air Bond  
Four separate funding programs are available under these grant programs. These funds are available on an annual basis and provide a maximum reimbursement of 50%, thus requiring a minimum local match of 50%. The following programs are most commonly used for trail projects:

- *Parks Development Fund*  
This program is administered by NYS Office of Parks, Recreation and Historic Preservation. It can be used for trail construction on publicly-owned park lands.
- *Local Waterfront Revitalization Program*  
This program is administered by NYS Department of State and can be used for a variety of planning and construction projects related to waterfront revitalization efforts. Projects from municipalities with an adopted or in progress Local Waterfront Revitalization Plan are given priority under this program.

### NYS Department of Health

Health professionals are interested in helping communities create facilities that encourage increased physical activity. Trail advocates and planners can work with state and local health officials to identify funding sources for trail planning, promotion and construction. Contact Deborah Spicer, Coordinator of the Healthy Heart Program, NYS Department of Health for more information on possible health-related funding opportunities at 518-474-6683 or [das09@health.state.ny.us](mailto:das09@health.state.ny.us).

For more detailed information on federal, state, and foundation funding sources see Appendix No. 1.



*Seneca County Transportation Enhancement Program grant application.*

# Maintenance & Management

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## **Trail Management**

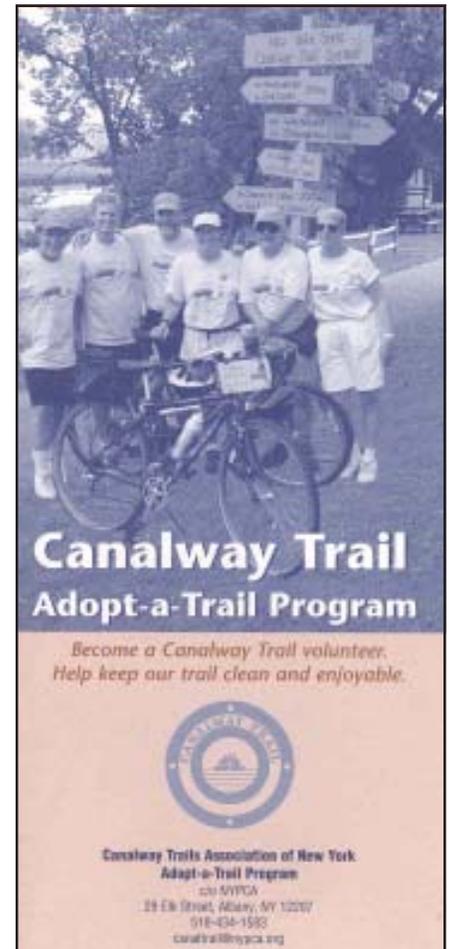
The Canalway Trail should be managed to provide a consistently enjoyable experience for trail users. Volunteerism and formation of partnerships should be used where possible to ensure that the public is invested in maintaining a high quality of the trail environment.

Canalway Trails Association of New York (CTANY) is a statewide organization under the umbrella of the New York Parks and Conservation Association and the Canal Corporation that oversees the development and management of the statewide Canalway Trail. The Association is made up of representatives from Regional Canalway Trail Groups(RCTG) throughout New York State. The local RCTG is the Cayuga-Seneca Canal Trail Association, a group of trail enthusiasts, representatives of federal and state recreation attractions, public officials and members of Geneva and Seneca County Chambers of Commerce who see the need for a trail facility that links the Cayuga-Seneca Canal with the Erie Canal. The group meets on a regular basis to oversee planning, development and management of the nineteen mile trail.

The Cayuga-Seneca Canal Trail Association anticipates that many groups will adopt sections of the canal trail. These groups may include the Friends of the Trail in Seneca Lake State Park, Friends of the Fayette Trail, Waterloo Historic Trail Association, Friends of the Frank J. Ludovico Trail, Seneca Knitting Mill Heritage Association, Friends of Seneca Falls Trail and the Montezuma Wildlife Refuge Association. Adopt-a-Trail groups undertake many types of trail maintenance tasks, such as litter pick-up, mowing, trimming brush, removing fallen branches, raking, maintaining signs, painting and landscaping.

## **Trail Maintenance Activities**

The following trail maintenance task descriptions are based on the *Draft Canalway Trail Design, Maintenance and Management Guidelines, dated April 3, 2001*, and describe the typical maintenance activities that will be required after the trail is constructed. Proper and consistent trail maintenance will provide the trail user with a safe and aesthetically pleasing trail facility. A well maintained trail will encourage trail users to act respectfully and clean up after themselves and others.



CTANY Adopt-a-Trail Program brochure.

### Inspections

The trail should be inspected on a regular basis, at least seasonally to ensure it is in safe condition. Inspections should include checking the condition of trail surface, for erosion and drainage problems in the trail corridor, for required clearances (vegetation encroachment or fallen trees), and for condition and proper function of trail furnishings and amenities including signs, gates, bollards, kiosks, benches, etc. Inspections after storm events is recommended to check for erosion, drainage problems and fallen trees or debris blocking the trail surface. Inspections can be effectively done by volunteers who are familiar with the corridor and use patterns of the trail.



*Volunteer labor can be used to clear brush and pick up litter along trail corridors.*

### Trail Surface

Inspect surface on a regular basis, particularly after heavy rains. Maintain original trail width by eradicating encroaching grass, weeds or seedling vegetation. Contact Canal Corporation to determine best means for eliminating encroaching vegetation (chemical, physical removal, fire, etc.). Repair surface erosion as soon as possible after it occurs to minimize damage and maintain trail in best condition. Coordinate repairs to minimize conflicts with existing trail users.

### Mowing

The grass shoulder adjacent to the trail should be kept to a maximum height of 4" throughout the growing season. In highly visible or landscaped areas such as trailheads the lawn should be kept to a maximum height of 2".

### Graffiti and Vandalism

Graffiti and damage from vandalism should be repaired as quickly as possible after it is discovered to demonstrate the community's commitment to maintaining a high quality trail environment. This demonstrates to trail users that the trail is a valued public space and to vandals this type of behavior will not be tolerated. If vandals can be identified and convicted, authorities should consider having their involvement in cleaning and repairing damaged property.

### Erosion

Erosion of the trail surface, shoulders, base and sub-base courses can create hazardous conditions for trail users and compromise the structural integrity of the trail. Erosion damage should be reported to authorities and repaired as soon as possible.

### Signage

Signs are critical to the safe and convenient functioning of the trail and must be kept graffiti free and free of obstructions, such as vegetation. Signs should be fabricated with vandal proof coatings to facilitate easy cleanup.

**Pavement Markings**

Pavement markings, like trail signs, are critical to the safety of trail users. On a stone dust trail, such as proposed for the Cayuga-Seneca Canal Trail, pavement markings only occur at roadway intersections or other special areas. Crosswalks on the roads and stop bars on the trail should be inspected annually as repainted as required to maintain visibility. The use of reflective tapes that can be applied to pavement is recommended to reduce frequency of maintenance.

**Site Furnishings - Kiosks, Bollards and Gates, Fences and Information Racks**

Site furnishings are typically constructed of wood or metal. They should be inspected seasonally to check for graffiti, splintering, chipped paint or general deterioration or damage. They should operate as designed and be repaired if damage is identified. Information racks should be kept stocked with brochures.

**Litter and Trash**

A regular schedule of litter and trash pickup should be developed to keep the trail clean. Trail users should be encouraged through appropriate signage to clean up after themselves and to pick up litter they find as they use the trail. Dog litter should be picked and trail managers should consider the use of dog litter dispensers to provide baggies for dog owners.

**Vegetation and Plantings**

Encroaching vegetation should be pruned to maintained recommended clearances. Annual or semi-annual pruning days may suffice to manage vegetation along the trail corridor. Special plantings at trailheads, access points or other special sites should be planted and maintained by voluntary organizations with the required expertise and energy.

***Liability Concerns of Trail Property Owners and Adjacent Landowners***

Liability in the event of an injury on or near the trail is a common concern for sponsoring communities, landowners and abutting property owners. A government agency's standard liability insurance is sufficient to provide coverage for multi-use trail projects. The Rails to Trails Conservancy has not documented any instances where a municipality's insurance premium has increased after the development of a trail. Landowners who grant public and non-profit agencies permission to develop a trail on their land or who own property that abuts a trail are protected under the New York Recreational Use Statute (General Obligations Law, Section 9-103). Under this statute, the landowner is liable only if willful and malicious conduct to create a dangerous condition, use or structure can be demonstrated, or if a fee is charged for the use of the land.





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# Trail Funding Sources

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## Federal Grant Programs

### FEDERAL GRANT PROGRAMS

**COMMUNITY DEVELOPMENT BLOCK GRANTS (CDBG)** - Since the mid 70's funding from the US Department of Housing and Urban Development has flowed into Cities and Town's for programs such as Comprehensive Planning to physical improvements to housing and parks. Strict program requirements must be met (ie; income guidelines).

### LAND & WATER CONSERVATION FUND

In the past, the Land & Water Conservation Fund provided Federal funds to support open space and recreation projects through a state-run matching grants program. Between 1995 and 2001, no Federal monies were allocated to the program. However, \$1.6 billion was appropriated in the FY 2001 budget. In New York State \$8 million of these federal funds are being distributed by the Office of Parks, Recreation and Historic Preservation. These funds are being distributed through the same Parks Development funding program that distributes Clean Water/Clean Air Bond Act and Environmental Protection Funds. The last round of grant applications were due in June 2002 and the next round has not been announced. These grants require a 50% local match.

### ENVIRONMENTAL PROTECTION AGENCY

**Sustainable Development Challenge Grant Program** - funds development of place-based approaches to problem solving that can be replicated in other communities. Problems addressed should be related to current patterns of growth that accelerate loss of open space and wetlands, fragment habitat, and increase consumption of fossil fuels. The program strongly encourages partnering among community members, public and private, to work cooperatively to develop flexible, locally oriented approaches that link environmental management and quality of life with sustainable development and revitalization. More information is available on a website at <http://www.epa.gov/ecocommunity>.

#### Contact:

Marsha Seidner  
US EPA Region 2  
290 Broadway, 26th Floor  
NY 10007-1866  
212-637-3590  
[seidner.marcia@epa.gov](mailto:seidner.marcia@epa.gov)

### DEPARTMENT OF HEALTH AND HUMAN SERVICES

#### **Micro-Grants to Support Goals of Healthy People 2010 Program:**

HHS Secretary Tommy G. Thompson recently announced that HHS plans to award hundreds of "micro-grants" to community organizations for activities that support the goals of Healthy People 2010. Worth up to \$2,010 each, the micro-grants represent a new, low-cost approach to foster effective

prevention efforts at the community level. Each grant will support efforts by local groups to promote health education, quality care, access to care and other projects that support the far-reaching national health goals of Healthy People 2010. Healthy People 2010 has established a broad set of goals and specific targets for improving the nation's health over the next 10 years. The plan is grouped into focus areas devoted to a comprehensive array of diseases, conditions and public health challenges, such as promoting exercise, reducing obesity and discouraging tobacco use.

HHS will launch the new micro-grant initiative with a two-year pilot project. If successful, the approach could be expanded nationally. HHS will commit between \$500,000 to \$700,000 to a pilot project this year in order to study the potential of the micro-grant approach to further the goals of Healthy People 2010.

The money will be distributed to local, non-profit organizations – and coalitions of such groups – in different geographic areas to support programs designed to increase the quality and years of healthy life of residents and to eliminate health disparities.

HHS will choose several not-for-profit organizations or groups of organizations to recruit, review and award grant applications in different geographic areas. Those organizations will make the decisions about micro-grants for specific community projects in their region. A notice published in today's Federal Register explains the application process. HHS' Office of Disease Prevention and Health Promotion will oversee the pilot project.

More information about Healthy People 2010, including a copy of the Federal Register notice, is available at <http://www.health.gov/healthypeople>.

## STATE GRANT PROGRAMS

### ***2001 GRANT PROGRAMS UNDER THE ENVIRONMENTAL PROTECTION ACT OF 1993 and the CLEAN WATER/CLEAN AIR BOND ACT OF 1996 (including the 2002 Federal Land and Water Conservation Fund)***

Four separate funding programs are available under these grant programs, depending on the type of project. They are administered by the Office of Parks, Recreation and Historic Preservation; the Department of State; the Department of Environmental Conservation; and the Department of Agriculture and Markets . The EPF and Bond Act will provide up to 50% reimbursement of the total approved project cost. The 2001 application deadline for these programs is August 31, 2001. An application may be submitted to request funding under either the Clean Water/Clean Air Bond Act or the Environmental Protection Fund. Under the Clean Water/Clean Air Bond Act, a project must develop, expand, or enhance public access to water bodies, promote water-based recreation, or enhance the natural, cultural, or historic aspects of water. Federal and State funds are not eligible to be used as matching monies under the Clean Water/Clean Air Bond Act. State funds may be used as a match under the Environmental Protection Fund.

Funding programs relevant to this project are described below:

**Office of Parks, Recreation and Historic Preservation Programs:  
Parks Development, Historic Preservation, Heritage Areas and Acquisition.**

Separate applications are available from OPRHP for the four funding programs listed below:

- 1. Parks Development:** for projects to preserve, rehabilitate or restore lands, waters or structures for park, recreation or conservation purposes, including playgrounds, courts, rinks, bandshells, community gardens and facilities for swimming, boating, picnicking, hunting, fishing, camping or other recreational facilities.
- 2. Historic Preservation:** for projects to improve, protect, rehabilitate or restore properties on the State or National Register for use by all segments of the population for park, recreation, conservation or preservation purposes, in accordance with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation.
- 3. Heritage Areas:** for projects to preserve, rehabilitate or restore lands, waters or structures identified in a management plan approved by the Commissioner in accordance with section 35.05 of the Parks, Recreation and Historic Preservation Law. Binghamton is within the Susquehanna Heritage Area and is eligible for this source of funding.
- 4. Acquisition:** for acquisition of a permanent easement in or fee title to lands, waters or structures for use by all segments of the population for park, recreation, conservation or preservation purposes, including open space or properties on the State or National Register or identified in a local heritage area management plan.

**Contact:** Jean Eganhofer, Central Region Grant Administrator 315-492-1756

**Department of State, Division of Coastal Resources Programs:**

**Local Waterfront Revitalization Program**

In 2001 the state budget provided \$6 million for eligible local waterfront revitalization program activities. Planning, design, feasibility studies, and construction projects that advance preparation or implementation of Local Waterfront Revitalization Programs are funded on a 50/50 matching basis. The priorities for grant awards in 2001-02 are:

- 1. Urban Waterfront Rediscovery:** Prepare and implement redevelopment strategies for urban waterfront areas to provide new public access, spur economic activities, and improve environmental quality of the redeveloped area.
- 2. Starting a New Local Waterfront Program:** Municipalities may apply for grants to initiate a community participation program that fosters an appreciation of local and regional coastal resources; introduces local leaders and community residents to the waterfront planning process; generates a community consensus for the future of the waterfront; and develops a strategy to address the most critical issues.
- 3. Completing or Implementing a Local Waterfront Revitalization Program:** Municipalities who are working on, or have completed a LWRP, may apply to undertake planning and community participation to complete or revise a LWRP; project-specific planning or design to advance a LWRP; construction of projects necessary to implement an approved LWRP; or development of Geographic Information Systems.
- 4. Preparing or Implementing Waterbody Management Plans.**
- 5. Coastal Education Programs**

**Contact:** Steve Ridler at DOS's Division of Coastal Resources at 518-473-3942;  
[sridler@dos.state.ny.us](mailto:sridler@dos.state.ny.us); [www.dos.ny.us/cstl](http://www.dos.ny.us/cstl)

**Department of Environmental Conservation:**

**Brownfields Program, Water Quality Improvement Projects, Etc.**

Under the Brownfields Program, New York State provides grants to municipalities to reimburse up to 75% of eligible costs for site investigation and remediation activities. The municipality must own the property and cannot be responsible for contamination.

**Contact:** Christine Costopoulos,  
Chief of Brownfields and Voluntary Cleanup Section, NYSDEC  
518-402-9711  
[cjcostop@gw.dec.state.ny.us](mailto:cjcostop@gw.dec.state.ny.us)

**EMPIRE STATE DEVELOPMENT CORPORATION**

**Empire State Economic Development Fund Infrastructure Development Planning Program** - this state agency's primary focus is manufacturing and job creation. If job creation is an important aspect of a project,

Contact:  
Empire State Development Corporation  
44 Hawley Street  
Binghamton, NY 13901  
607-721-8605

**LEGISLATIVE MEMBER ITEMS**

These are items introduced by state senators and assemblymen for funding support for specific projects and programs in their districts. Elected officials should be kept informed about the project so they can seek funds as they become available.

**NYS DEPARTMENT OF TRANSPORTATION GRANTS**

**TEA-21 (Transportation Equity Act for the Twenty-First Century)**

TEA-21 continues pedestrian and bike trail funding programs begun under ISTEA (Intermodal Surface Transportation Efficiency Act). Enacted in 1998, TEA-21 expanded the eligibility and funding for trails for the period between 1998 and 2003. TEA-21 funding, like many other federal funding programs, provide 80% of the total amount requiring 20% local matching funds.

The Transportation Enhancement Program (TEP) is the most common funding source for bicycle and pedestrian transportation projects, including the development of off-road, multi-use trails. This program requires states to utilize 10% of their Federal Surface Transportation Program allocation for the enhancing the transportation system. TEA-21 spells out eligible purposes, which include bicycle and pedestrian facilities, as well as historic preservation, scenic beautification and others.

Seneca County submitted a TEA-21 Enhancement Program Grant for the section of the Cayuga-Seneca Canal Trail between Geneva and Waterloo in November 2001. Grant awards should be announced in the fall of 2002. It should be noted that TEP is a reimbursement program not a

grant program. The project applicant or sponsor will be reimbursed for 80% of the work upon its completion. The 20% local match can be provided through in-kind contributions, cash, or force account labor.

Other TEA-21 funding programs include the Recreational Trails Program (applications for final round were submitted in February and awards have yet to be announced in New York State), Surface Transportation Program (STP), National Highway System Funds, and Hazard Elimination Program.

### ***NYS COUNCIL ON THE ARTS GRANTS***

**Architecture, Planning & Design Program** - Grants of up to \$10,000 to architects, planners, designers, and scholars (New York residents only) for specific projects to advance the field and contribute to the public's understanding of the designed environment. Projects must be submitted through a sponsoring non-profit organization. The program is interested in innovative ideas being explored outside of traditional practice. Some eligible activities:

- **Development of design prototypes**
- **Historical studies of building types**
- **Product development**

Applications are typically due by March 1st with additional data requested for prior projects to be funded in the Spring. Awards usually delayed until December.

A complete set of the Councils guidelines and the application form can be found :  
[www.nysea.org](http://www.nysea.org)

Contact:

**Anne Van Ingen, Director of Architecture, Planning & Design**  
NYS Council on the Arts  
212-387-7013  
[avaningen@nysca.org](mailto:avaningen@nysca.org)

### ***PRIVATE GRANT PROGRAMS***

In order to receive funding from private foundations, an organization must be a 501 (c) (3) charitable corporation. In some cases, local governments are also eligible. Two guides to private foundation grants programs are:

**The Foundation Directory** - published annually, the Directory includes current information on all foundations with assets exceeding \$1 million or annual grants totaling \$100,000 or more. Grant programs are listed by topic, by state, and by type of organization supported. Cost: \$185.

Contact:

Foundation Center, New York, NY  
800-424-9836

**National Directory of Corporation Giving** - published every two years, this directory provides a reference to grants programs offered by corporations. Cost: \$195.

Contact:  
Foundation Center  
NY, NY  
800-424-9836

***AMERICAN GREENWAY AWARDS PROGRAM***

Sponsored by Eastman Kodak Company, the program provides small (\$500-2,500) grants for greenway and trail projects throughout the country. New guidelines are due in early 1999 for grant award in Fall 1999. Deadline for submissions is June 1.

Contact:  
**Denise Swol**  
American Greenways Coordinator  
703-525-6300  
dswol@conservation fund.org

***BIKES BELONG COALITION GRANT PROGRAM***

Bikes Belong Coalition is sponsored by members of the American Bicycle Industry. Our goal is putting more people on bikes more often through the implementation of TEA-21. We seek to assist local organizations, agencies, and citizens in developing bicycle facilities projects that will be funded by TEA-21, the Transportation Equity Act for the 21st Century.

Bikes Belong Coalition will accept applications for grants of up to \$10,000 each, and will consider successor grants for continuing projects. Funding decisions will be made on a rolling basis. Applications and proposals will be reviewed under the auspices of the Bikes Belong Coalition's Executive Director and presented to the Board of Directors for approval, rejection, or resubmission. Application and proposal guidelines are available on-line.

Contact:  
  
Bikes Belong Coalition, Ltd.  
1368 Beacon Street  
Suite 102  
Brookline, Massachusetts 02446-2800  
617-734-2800  
www.bikesbelong.org

## Appendix No. 2



# Opinion of Probable Construction Cost

Prepared by Northeast Greenways for TEP grant application for Cayuga-Seneca Canal Trail: Geneva to Waterloo, November 2001.

ITEM DESCRIPTION	UNIT	EST. QTY	COST/UNIT	ITEM TOTAL	MAIN TRAIL TOTAL
<b>Seneca Lake State Park to Ramp Under Route 96A</b>					\$58,000.00
Stone Dust Trail* (10' width)	LF	4000	\$10.00	\$40,000.00	
Trail Boardwalk under RR Bridge	LS	1	\$12,000.00	\$12,000.00	
Grading in (96A Shoulder)	LS	1	\$5,000.00	\$5,000.00	
Trail Sign Allowance	LS	1	\$1,000.00	\$1,000.00	
<b>Ramp Under Route 96A</b>					\$26,700.00
Grading in both shoulders from road level to underpass	LS	1	\$1,000.00	\$1,000.00	
Gabion retaining walls along ramps	FF	400	\$25.00	\$10,000.00	
Stone Dust Trail*	LF	500	\$10.00	\$5,000.00	
Gabion retaining walls under bridge	FF	180	\$25.00	\$4,500.00	
Trail sign allowance	LS	1	\$1,000.00	\$1,000.00	
Railing (3 rail Canal Corp Standard)	LF	80	\$40.00	\$3,200.00	
Temporary Erosion Control	LF	500	\$1.00	\$500.00	
Bollards and Half Gates (at old RR bridge off 96A)	LS	1	\$1,500.00	\$1,500.00	
<b>Trail From Route 96A to Waterloo Village Line</b>					\$277,500.00
Stone Dust Trail* (10' width)	LF	24000	\$10.00	\$240,000.00	
RR Bridge - two 11 LF Bridges - decking and railing	LS	2	\$3,000.00	\$6,000.00	
RR Bridge - one 110 LF Bridge - decking and railing	LS	1	\$15,000.00	\$15,000.00	
RR Bridge abutment repair	LS	1	\$5,000.00	\$5,000.00	
Trail Sign allowance	LS	1	\$3,000.00	\$3,000.00	
Benches	EA	5	\$800.00	\$4,000.00	
Bollards and Half Gates ( 2 sets at Barrett's Marina and 1 set in Village of Waterloo)	LS	1	\$4,500.00	\$4,500.00	
Temporary Erosion Control	LS	1	\$10,000.00	\$10,000.00	
* Unit Cost for Stone Dust Trail includes clearing, grubbing, grading, trail sub-base, trail surface, minor drainage structures, stripping and spreading topsoil, and seeding trail shoulders.					
<b>SUB-TOTAL MAIN TRAIL CONSTRUCTION</b>					\$372,200.00
Mobilization, Survey/Stakeout (5%)					\$18,610.00
Contingency (15%)					\$55,830.00
<b>TOTAL CONSTRUCTION COST</b>					<b>\$446,640.00</b>
DESIGN/ENGINEERING FEES (20%)					\$89,328.00
<b>TOTAL PROJECT COST</b>					<b>\$535,968.00</b>