

Canalway Trail Gap Segment
Assessment Report
Amherst - Lockport
Niagara County, New York

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Introduction

This report is a product of the Canalway Trail Partnership Project which has been providing technical assistance to further the planning and development of this segment of the Canalway Trail. Under the Canalway Trail Partnership Project, New York Parks and Conservation Association (NYPCA), in partnership with the NYS Canal Corporation and the National Park Service Rivers, Trails and Conservation Assistance Program, is organizing and assisting Canal communities to plan and develop the Canalway Trail where critical gaps exist. When completed, the Canalway Trail will be a 524 mile continuous multi-use pathway along the New York State Canal System.

NYPCA is a statewide non-profit citizens' organization dedicated to protecting New York's parks and helping communities create innovative and popular forms of park lands such as greenways, rail and canal trails and heritage corridors.

Location

This trail segment is in Niagara County and starts at the border with Erie County at the Route 130 bridge over Tonawanda Creek. This is the eastern terminus of the completed Amherst section of the Canalway Trail. The trail segment continues approximately 7 miles north along the canal through the Towns of Pendleton and Lockport (4.7 miles) and the City of Lockport (2.3 miles) to the western terminus of the existing Canalway Trail at locks 34 and 35 in downtown Lockport. (See Figures 1 - 3).

Landscape Character

The canal in this segment is below grade for its entire length. The canal is in a deep rock cut which places water level at approximately 20-30 feet below street level.

The surrounding landscape varies from farmland to small city urban. At the western end of the segment the landscape is farmland changing to suburban. For most of the length of the trail through the town of Pendleton the land above the south side of the canal is lined with the spoils that were stockpiled at the time the canal was dug. These spoil piles are quite high (approximately 30-50') and very overgrown.

At the Lockport City line this changes to urban. The City of Lockport (the county seat of Niagara County) has many interesting, historic buildings both related and unrelated to the canal. These buildings are either in various states of repair or are included in plans that the town has for restoration. Many of the buildings along the canal face away to the city streets. The canal through the city is still below street level and is hardly visible to the pedestrian unless one is right next to the canal or on one of the bridges.

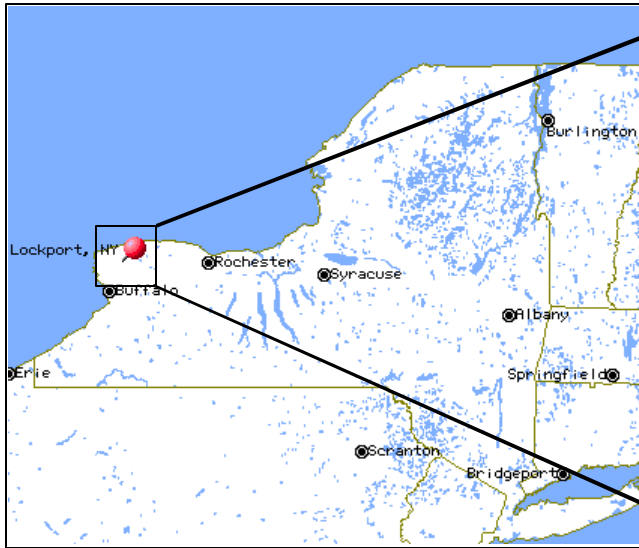


Fig. 1 Location of Lockport in New York State

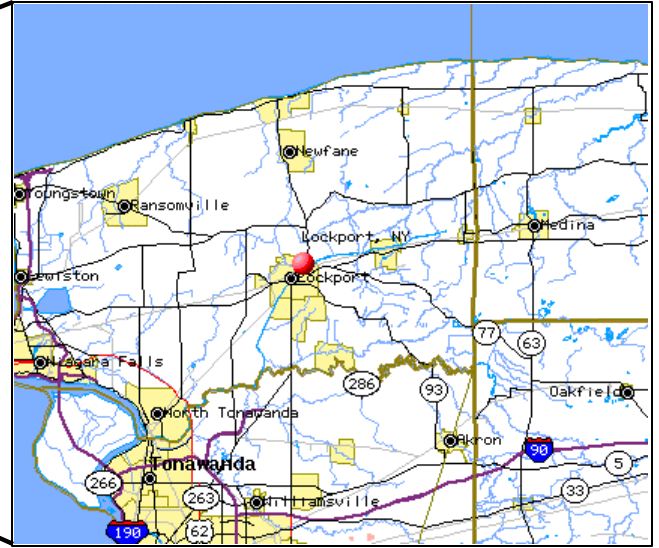


Fig. 2 Lockport Area

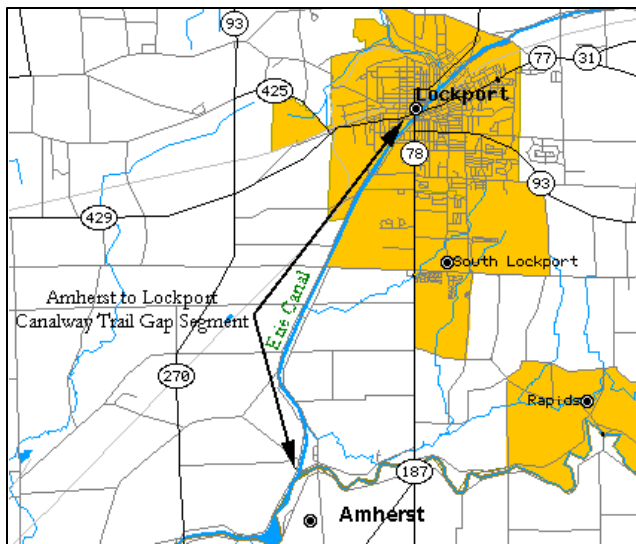


Fig. 3 Amherst to Lockport Trail Segment

From Canal Recreationway Plan

The Canal Recreationway Plan of 1995 identifies this section as “ET-4” in exhibit 7-7 *Canal Trail Route Segments*. The Ownership is attributed to NYS Canal Corporation and the condition is listed as “Right of Way assembled-Trail needs improvement.”¹

This characterization is misleading because at the time the plan was written the recommendation was to site the trail on the north side of the canal. The present intention is to route the trail on the south side of the canal for some of the portion through the Town of Pendleton (see *Proposed Routing* on page 5). The final trail route and design still needs to be done.

The Recreationway Plan, in Exhibit 7-8 *Proposed Canalway Trail Support Facilities, Hiking and Cycling*, identifies an existing Canal Service Package for this section of the trail. The plan also identifies the Pendleton Canal Park for a half-day stop.

Trail Partners

Several groups are interested in the development of this section of the Canalway Trail. The business community in Lockport and the Eastern Niagara Chamber of Commerce are very interested in this connection to the larger population centers in the Buffalo area. (See Economic Opportunities on page 4) The Niagara County Department of Planning and Development has worked consistently on many trail development issues. The Canal Corporation is a significant partner in this trail section because they own the land that the trail will travel on.

Another significant group in this trail section is equestrians. This section of trail has been chosen for a pilot project for including equestrian trails in Canalway Trail planning.

¹ The Recreationway Plan divides the status of trail right-of-ways into four groups as follows:

- 1 Improved Trail in use
- 2 Right-of-way assembled-Trail needs improvement
- 3 Trail sited, Right of way or easement to be acquired
- 4 Trail not sited.

Ownership

There is enough land owned by NYS Canal Corporation on either side of the canal to complete the trail in this section solely on Canal Corporation property.

Acquisition needs

There is no need for acquisition in this section.

Resources

The City of Lockport is a historic Erie Canal settlement and the Niagara County seat. There are numerous commercial buildings and private residences within the city limits and surrounding area, which are of significant historical value. The US Department of Housing and Urban Development is providing money to Lockport Hydraulic Race, Inc. to develop mixed use heritage complex within a block of the canal. This project includes limited restoration of features of the Lockport Pulp Mill and its adjacent ruins where 1800's pulp making will be interpreted.

The present day double locks are adjacent to the historic locks and the Lockport Canal Museum. The City of Lockport has interpreted an historic trail, called Riley's Way, in the downtown, which would be readily accessible to the trail. Ease of the city center is Wide Waters Marina, which provides full services for boaters. This is a significant resource for people interested in combining bicycling or hiking with boating.

Additionally, within a few miles of the city of Lockport is the Iroquois Wildlife Refuge, run by the US Department of Fish and Wildlife. This wildlife refuge is an important stopping point for migratory birds in the spring and fall and resident bird populations year round.

A private operator, Lockport Locks and Canal Tours, Inc. provides narrated boat tours on the canal and a restaurant and tourist facility at their canal-side building. They are also in the process of restoring an adjacent stone building as a history museum.

There are many hotels, motels and bed and breakfast facilities in and surrounding Lockport as well as nearby shopping. The city is also looking into acquiring the Richmond Avenue block for the development of retail space in the downtown.

Economic Opportunities

The Canalway Trail in this section will play a significant role in the tourism development of the area. This is the main gap in the trail, which will bring people from Buffalo to the west and south and connect to a 90-mile section of existing Canalway Trail to the east. The trail to the east of Lockport is completed through to Palmyra and will bring tourism dollars from eastern Niagara county as well as Rochester and other points in Monroe County.

When the Pendleton-Lockport section is linked with the Amherst trail and the planned trail section in Tonawanda, it will form a continuous trail link between Buffalo and Rochester with Lockport positioned strategically. Lockport area business leaders believe the completion of this segment will result in many bicyclists from the populated Buffalo area visiting Lockport. Hiking and bicycling tourism from the east and west will find Lockport an interesting and convenient spot to stop for a meal, shopping, repairs, rest, or overnight. The facilities that exist will enjoy increased usage and new opportunities will appear. The potential for bicycle and hiking based tourism, including rentals and equipment repair and sales will increase. Canal-side restaurants and overnight boarding establishments would enhance the trail experience and encourage Lockport visitors and residents to take advantage of the recreation potential of the canal.

The completion of this segment of the Canalway Trail will provide an important recreational facility for area residents and showcase the significant historic resources of the canal. This will measurably add to the quality of life and the view that this is a great place to live and work. The economic implications are significant. The perceived quality of life in a community is a major factor in many business's decisions either to stay in a community or to relocate there.

Proposed Routing/Condition of Trail

This description of the proposed routing proceeds from west to east. Several options are presented for the section through the City of Lockport. It is assumed that the trail will link to the Amherst Trail in the south and travel through the Towns of Pendleton and Lockport, and the City of Lockport to connect to the existing trail heading east out of Lockport. (See figure 4)

The routing descriptions given below are preliminary. The exact routing will be done considering site-specific conditions and may differ from these descriptions.

This proposed routing is the product of many meetings and site visits by individuals representing various interest groups. Organizations that have participated in this process include NY Canal Corporation, Eastern Niagara Chamber of Commerce, Niagara County Department of Planning, Development and Tourism, City of Lockport Engineering Department and New York Parks and Conservation.

| Route Description | Present Condition of Trail |
|--|--|
| <i>Town of Pendleton</i> (4.7 miles) | |
| <p>Multi-Use Trail - The trail begins at the end of the trail in the Town of Amherst, Erie County. In Niagara County it begins on the Route 130 bridge over Tonawanda Creek. On the Pendleton side of the bridge the trail proceeds west on North Tonawanda Creek Road and crosses over the canal. On the north side of the canal the trail goes north on Irish Road for a short distance where it turns right onto the canal service road. It then runs along the north side of the canal for approximately 1.5 miles where it comes out onto Bear Ridge Road by way of West Canal road. The trail continues north on the Bear Ridge Road shoulder until the intersection with Feigle Road. At this point the trail turns right, crosses the canal and Feigle Road and continues East on the canal side of the spoil piles to Robinson Road.</p> | <p>The trails are totally unimproved but have been cleared for approximately 1.5 miles from the beginning of the canal service road on the north side of the canal to the spur road off of Bear Ridge Road through Pendleton. As has been noted previously, the land on the south side of the canal east of Feigle Road is covered with 30-50' high spoil piles. These piles are extremely steep, and are covered with a thick growth of vegetation that has invaded since the canal was dug. The spoil piles cut off the view of the canal from the road and become a physical barrier to accessing the canal and the multi-use trail for much of the length of this segment. Extensive clearing and grading will be needed to implement the trail through these spoil piles.</p> |
| <p>Equestrian Trail - The trail begins on the south side of the canal at a point yet to be determined on Tonowanda Creek Road.</p> | <p>The trail proceeds on the south side of the canal to the intersection with Feigle Road, crosses Feigle Road and proceeds east on the East Canal Road side of the spoil piles to Robinson Road.</p> |

| | |
|---|---|
| <i>Town of Lockport</i> (1.5 miles) | |
| <p>Multi-Use Trail - Robinson Road is the border between the towns of Pendleton and Lockport. After the trail crosses Robinson Road it continues east through Canal Corporation property on the canal side of the spoil piles for approximately 1.5 miles to the City of Lockport line. The entire section through the Town of Lockport will be on the south side of the canal with little or no diversion except for small, site specific considerations.</p> <p>Equestrian Trail - This trail also continues east on the south side of the trail on the road side of the spoil piles to the Lockport City Line.</p> | <p>The trails to the Lockport City line are on either side of the spoil piles. Some of this land is also being used by Canal Corporation for storage of materials and needs clearing and grading due to these uses.</p> |
| <i>City of Lockport</i> (.8 miles) | |
| City of Lockport (Option 1) | |
| <p>Equestrian Trail - In all three of the following options the Equestrian trail continues on the south side of the canal to the Route 93 bypass and ends.</p> | <p>From the city line to the Route 93 bypass are more canal spoil pile areas. East of the bypass is approximately 1/4 mile of waste piles from the bypass construction and then comparatively level ground to the point where the options branch off. Beyond this point the trail has not been routed. If the trail were routed on city streets (option 1) from the intersection of route 78 to the existing locks the streets would need striping and signage to accommodate bicycle traffic.</p> <p>If routed on towpath (option 2), the towpath exists in this section and with engineering (such as cantilevered trail structures) could carry the Canalway Trail. The trail would need to go under existing bridges, past a canal terminal and the existing double locks.</p> <p>The trail section for option 3 is on abandoned rail line and would require grading and paving to convert the rail bed to trail.</p> |
| <p>Multi-Use Trail - The trail continues on the south side of the canal to the Route 93 bypass, crosses that road and continues on the south to where it intersects with Route 78. At this intersection the trail will proceed, on street through Lockport north of the canal to the existing lock park where it uses a canal service road to join with the existing trail east of the locks.</p> | |
| City of Lockport (Option 2) | |
| <p>The trail continues on the south side of the canal to a proposed bridge over the canal at Prospect Street. From there it will continue on the north side of the canal to the existing Canal Terminal where it will join with the existing towpath on the north side of the canal. It will follow the towpath through Lockport, under several bridges, and finally entering the lock area and meeting up with the existing Canalway Trail east of the locks.</p> | |

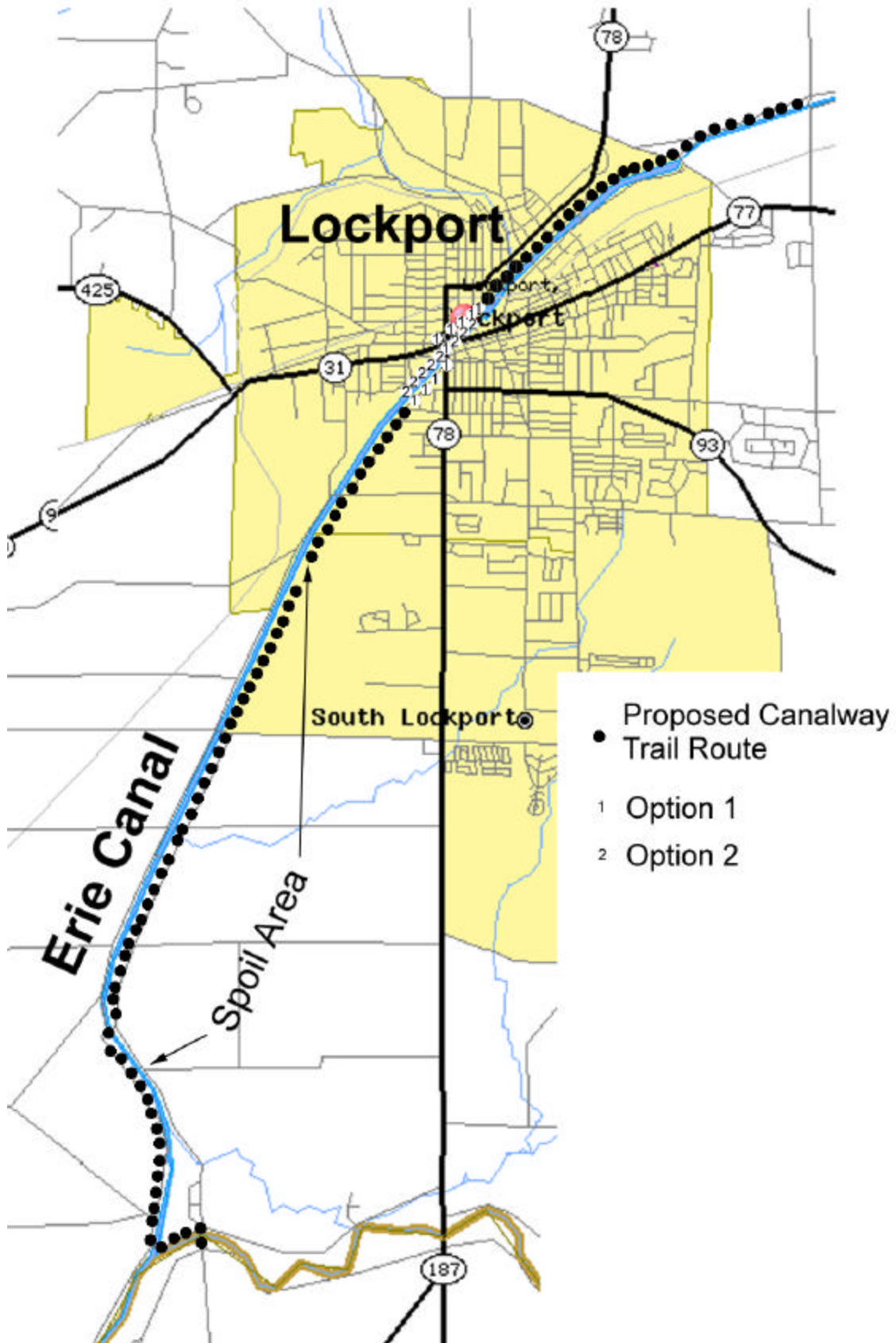


Fig. 4 Proposed Canalway Trail Routing

Constraints

The following constraints are considered from east to west on the proposed trail route.

Bridges

Two bridges are needed in the Pendleton area, the first goes over a Department of Transportation drainage structure and the second goes over Donner Creek. The bridge over the drainage structure can be designed with switchbacks to make it ADA compliant and still reasonably priced. Topographic information is essential to designing this structure. The bridge over Donner Creek would be a simpler structure and carry pedestrian and bicycle traffic. An alternate route at this point could be directed down towards the canal on an existing hiking path where there is an existing stream crossing and then back up the other side of the creek. This alternate would not be ADA compliant and is not intended to replace the bridge but rather to offer another experience at this place in the trail.

Spoils Piles

As has been discussed above, the spoil piles from the excavation of the canal present a significant impediment to trail development. Any trail that is routed along the south side of the canal in Pendleton needs to go either at the foot of or over these spoil piles. This is seen as mainly an engineering constraint, however, and one that can be dealt with given good topographic information and careful design. The nature of the spoil piles is such that there is a level area along the canal side and the road side. These areas are intrinsic to the way the piles were placed and could be used for trail routing if given specific topographic information. It is also possible to grade viewing areas and trail entry areas. These spots can provide resting, automobile and horse trailer parking.

Robinson Road Crossing

The trail will need to cross Robinson Road to stay on the south side of the canal. This road presents a somewhat busy crossing and some kind of traffic warning should be posted on both the road and on the trail as it comes to the road. A painted crossing and road and trail signs could be installed.

Lockport Bypass Crossing

This crossing (Route 93) is extremely hazardous and there is no on-canal alternative. The traffic is high speed, there is a second entering street (State Road) and limited shoulder width. In order to continue on the south side of the canal, the trail needs to cross Rt. 93. A solution here should be considered in conjunction with NYS DOT who has control over the road. It is unlikely that a traffic signal can be installed

here but it is possible that painted pedestrian/bicycle walkways, traffic warning signs and widened shoulders will mitigate the hazards. It may also be possible to install pedestrian/bicyclist controlled signals that would only operate upon request and would keep traffic flowing at other times. A third possibility would be to install blinking traffic signals that would blink yellow for Rt. 93 and red for the trail users.

It also may be possible to grade the trail down under the highway bridge over the canal at this point. An engineering study should be performed to study this option.

Another option would be to not allow bicycle and pedestrian crossing on the south side of the canal but rather to require crossing the Rt. 93 bridge west across the canal to where there is a traffic light. A painted crossing here combined with the traffic light could provide a safer crossing of Rt. 93. The trail would then proceed back east across the canal and up the south side towards Lockport.

Cost Estimates

The standard cost estimates being used by NYS Canal Corporation for the Canalway Trail at this date are \$70,000 - \$80,000 per mile for stone dust surfacing and \$110,000-\$125,000 for asphalt surfacing. Either surface would be appropriate in this area. The stone dust surface encourages slightly slower bicycling than the asphalt surface and requires more maintenance after installation. The maintenance costs should be considered if there is no volunteer group in the area to help with these tasks.

The two bridges that are needed will add significant cost to this segment of the trail. Final cost estimating on these structures can only be made after design. A preliminary cost estimate, based on similar structures elsewhere in New York State would put the cost at approximately \$200,000. The engineering costs would be an additional \$20,000-\$25,000.

If Option 2 is taken along the towpath another additional cost is incurred. This is due to the instability of the trail bed under the bridges and in several other areas. An engineered solution for this route will be expensive and will need to involve building cantilevered path sections. The cost of these would need to be estimated after design. A very approximate order of magnitude cost estimate can be made, based on concrete prices and roadway building, of \$100,000 per 300 feet.

The following tables incorporate the above estimates and add in costs of surveys, signage and contingencies.

Table 1 Option 1 (On streets in City of Lockport)

| Item | Cost | Unit | Amount | Sub Total |
|--------------------------------|-----------|----------|--------|--------------------------|
| Asphalt Surface | \$125,000 | mile | 6.25 | \$781,250 |
| Stone Dust Surface | \$80,000 | mile | 6.25 | \$500,000 |
| Two Bridges (Including Design) | \$225,000 | Lump Sum | 1 | \$225,000 |
| Signage | \$7,000 | mile | 7 | \$49,000 |
| Street Bike Lane Striping | \$5000 | mile | .75 | \$5,000 |
| Survey | \$25,000 | Lump Sum | 1 | \$25,000 |
| Total for Asphalt Trail | | | | \$1,100,000 ² |
| Total for Stonedust Trail | | | | \$900,000 ² |

Table 2 Option 2 (On the towpath in City of Lockport)

| Item | Unit | Cost | Length | Sub Total |
|---|-----------|----------|--------|--------------------------|
| Asphalt Surfaced Trail | \$125,000 | mile | 6.75 | \$843,750 |
| Stone Dust Surfaced Trail | \$80,000 | mile | 6.75 | \$540,000 |
| Structure for path under bridges on towpath. | \$100,000 | 300 feet | 1800' | \$600,000 |
| Bridges (including design) | \$225,000 | Lump Sum | 1 | \$225,000 |
| Signage | \$7,000 | mile | 7 | \$49,000 |
| Survey | \$25,000 | Lump Sum | 1 | \$25,000 |
| Total for Asphalt Trail | | | | \$1,800,000 ² |
| Total for Stonedust Trail | | | | \$1,500,000 ² |

Key Needs and Opportunities

The priorities and steps listed below should be set so that the trail can be designed and built as quickly as possible. Because of the constraints involved it is most important that these tasks be dealt with in a chronologically logical manner so that information they will provide will promote trail development.

Topographic Survey

The area adjacent to the canal needs to be surveyed to provide topographic base maps. This can be done either planimetrically or by ground survey. This survey is essential to the design of the trail. Without this survey none of the bridges on the south side of the canal can be designed. There are also several points along the proposed trail route that will need bridges or culverts. These designs cannot go forward without topographic data. This survey is also needed for the design of the trail through the spoil pile area and in the city of Lockport if it is routed along the towpath. This survey should show two-foot contour intervals and all topographic, geologic, vegetative and cultural vegetation items. The survey should be in electronic form so that the scale can be varied as necessary. The easiest and fastest way to develop this survey would be to hire an aerial photography firm that can develop the survey planimetrically. The Niagara County Planning Office has gotten an estimate of \$25,000 for this work.

Property Line Survey

The Canal Corporation should provide a survey of all property lines and mark these lines in the field. This survey can be combined with the topographic survey and is also essential to insure that the trail is designed solely on Canal Corporation Property.

Lockport Section

The route through the City of Lockport should be finalized. This can be done by a meeting with local business people, city officials and Canal Corporation representatives. If the trail is to be on the towpath, the issue of the leases should be considered and the lessees asked for input. The condition of the bedrock and headroom under bridges should also be considered as well as safety on the towpath. The route on street should also be presented as an alternative and comments should be sought from business owners and residents who would be affected.

Volunteer Organization

One of the first needs in this area would be to build up a grass roots volunteer committee that will help route the trail and lend support to trail development. This group would be made of a mix of representatives from the businesses, municipal and county officials, and community residents. Participants for this group should be actively recruited and meetings should start as soon as possible.

During routing and development the committee could participate in trail clearing and construction activities. The committee could recruit volunteers and businesses willing to donate time, money and materials to the development of the trail. The committee could also be active in encouraging trail development and helping to overcome impediments.

This group could also be active after the trail is constructed by becoming part of a statewide "Friends of the Canalway Trail" organization. This involvement would mean participating in maintenance of the trail under the auspices of the statewide organization as well as organizing and administering local trail events and initiatives, which would enhance the economic benefits of the trail.