Town & Village of Livonia, New York

Lakeville-Livonia Trail Feasibility Study

CLARK PATTERSON ASSOCIATES
DESIGN PROFESSIONALS

T&W

Steinmetz Planning Group

Prepared for: *Town and Village of Livonia, New York*
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Final Plan
March 2006

Town & Village of Livonia, New York
Lakeville-Livonia Trail Feasibility Study
~Final Plan~

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Wetlands near South Lima

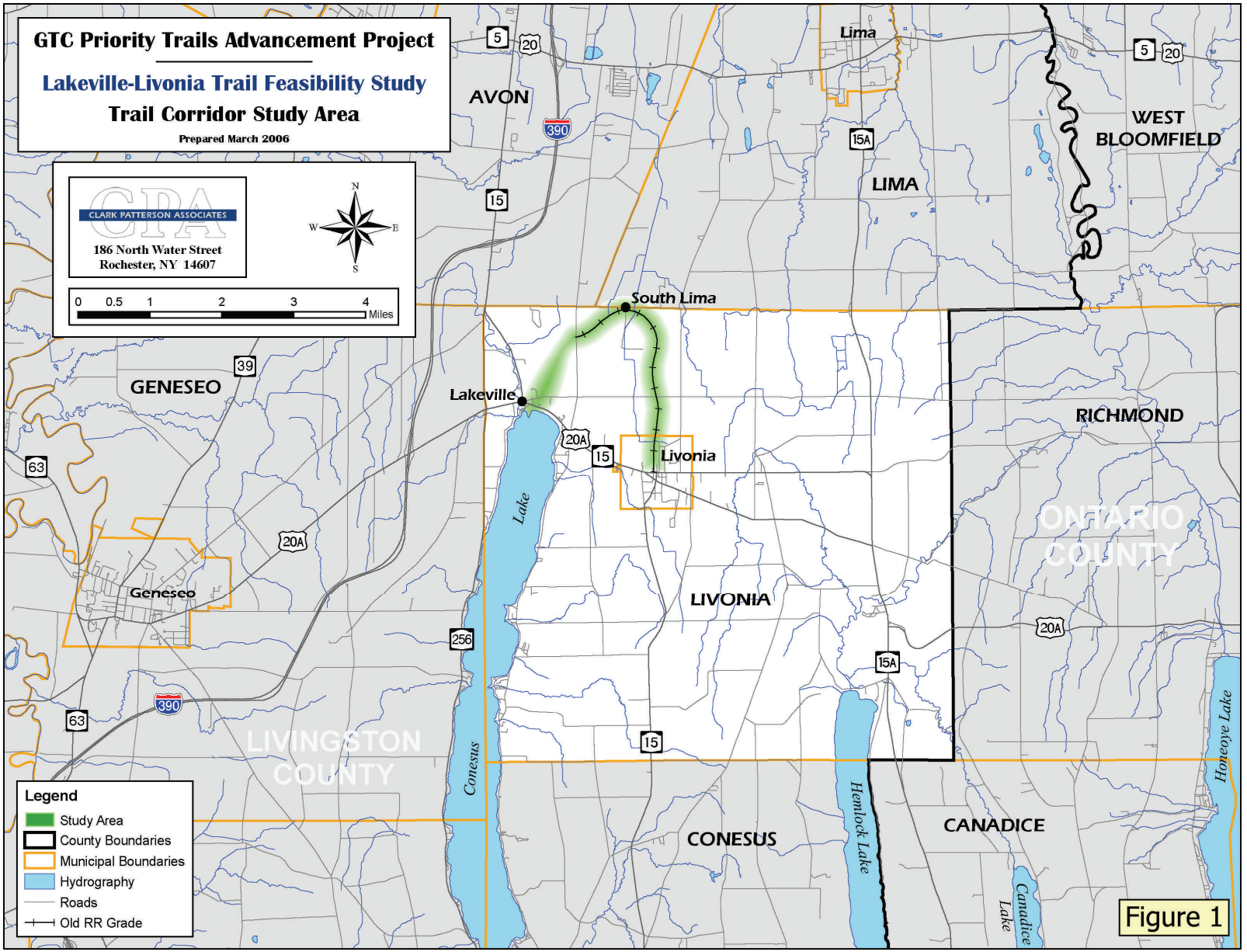
I. Executive Summary

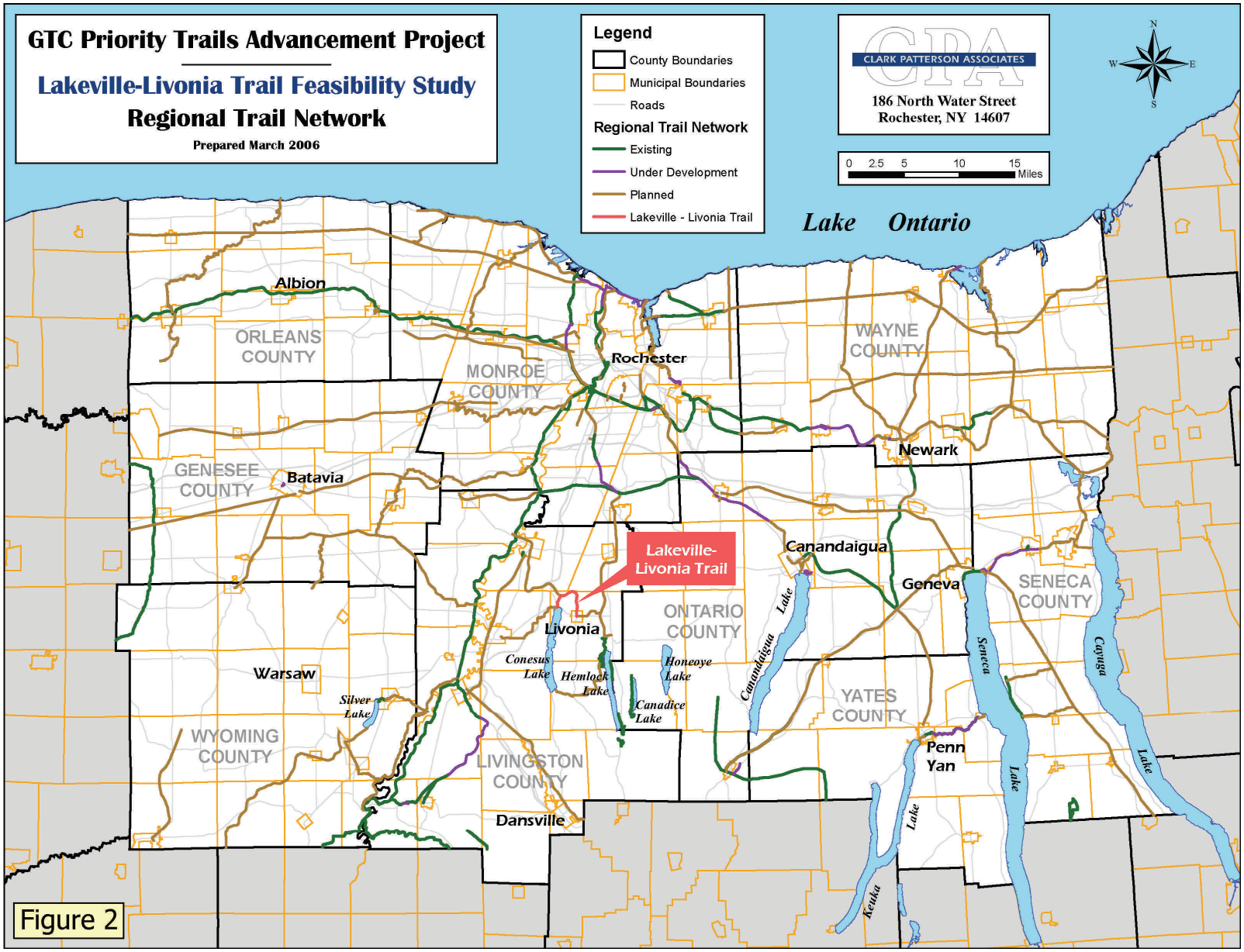
As part of the Genesee Transportation Council's Priority Trails Advancement program, the Town and Village of Livonia applied for and were successful in obtaining a grant to study the feasibility of the Lakeville-Livonia Trail. This study is being performed consistent with the Town and Village Comprehensive Plans and the GTC Regional Trails Initiative (RTI). The conceptual trail corridor is intended to take advantage of, though it is not limited to, an abandoned portion of the Livonia, Avon, and Lakeville (LA&L) Railroad that connects three different communities. The trail corridor study area begins at Vitale Park in the hamlet of Lakeville, travels north to the hamlet of South Lima, then heads south to the Village of Livonia (see Figure 1).

The study consisted of the following tasks:

- Collecting and analyzing GIS and other existing conditions data within the trail corridor;
- Facilitating periodic meetings with the Project Steering Committee and the public to gather input and address specific concerns;
- Conducting limited traffic assessment(s) for all relevant streets and providing design recommendations such as crosswalk markings, sidewalk improvements, ADA compatibility, signage, traffic calming, and other needed or suggested treatments;
- Providing trail alignment alternatives, including short-term and long-term options;
- Providing itemized cost estimates for recommended improvements and amenities;
- Identifying specific and achievable follow-on activities that are needed to advance the findings and recommendations of the study, including potential sources of funding and preferred strategies to conduct these follow-on activities; and
- Creating a comprehensive guide for future development of the trail.

The study presents a recommended trail alignment that could connect the hamlets of Lakeville and South Lima with the Village of Livonia. The trail would begin in Vitale Park where Conesus Lake empties into Conesus Creek, then travel through the hamlet of Lakeville to the Firemen's Exempt Field. From there it would travel north and connect to the abandoned railroad line, which would host the remainder of the trail to South Lima and then to the Village of Livonia. The proposed trail alignment contains a highly-diverse collection of environments, both natural and man-made. The trail would travel through residential and commercial settings, as well as farms, woodlots, wetlands, and other remote undeveloped areas. Upon completion, the Lakeville-Livonia Trail will be a valuable addition to the recreational assets within the town and region.


GTC Priority Trails Advancement Project
Lakeville-Livonia Trail Feasibility Study
Trail Corridor Study Area
Prepared March 2006
CLARK PATTERSON ASSOCIATES
186 North Water Street
Rochester, NY 14607
0 0.5 1 2 3 4 Miles
AVON
Lima
WEST BLOOMFIELD
LIMA
South Lima
GENESEO
Lakeville
Livonia
RICHMOND
ONTARIO COUNTY
LIVONIA
Geneseo
LIVINGSTON COUNTY
CONESUS
CANADICE
Conesus Lake
Hemlock Lake
Canadice Lake
Honeoye Lake
Legend
Study Area
County Boundaries
Municipal Boundaries
Hydrography
Roads
Old RR Grade
Figure 1


GTC Priority Trails Advancement Project
Lakeville-Livonia Trail Feasibility Study
Regional Trail Network
Prepared March 2006
Legend
County Boundaries
Municipal Boundaries
Roads
Regional Trail Network
Existing
Under Development
Planned
Lakeville - Livonia Trail
CLARK PATTERSON ASSOCIATES
186 North Water Street
Rochester, NY 14607
0 2.5 5 10 15 Miles
N
W
E
S
Lake Ontario
Albion
ORLEANS COUNTY
MONROE COUNTY
Rochester
WAYNE COUNTY
Newark
GENESEE COUNTY
Batavia
Lakeville-Livonia Trail
Canandaigua
Geneva
SENECA COUNTY
ONTARIO COUNTY
Livonia
Conesus Lake
Hemlock Lake
Honeoye Lake
Canadice Lake
Canandaigua Lake
Seneca Lake
Cayuga Lake
Warsaw
Silver Lake
YATES COUNTY
Penn Yan
WYOMING COUNTY
LIVINGSTON COUNTY
Dansville
Keuka Lake
Figure 2

GTC Priority Trails Advancement Project

Lakeville-Livonia Trail Feasibility Study

Trail Corridor Segments

Prepared March 2006

CLARK PATTERSON ASSOCIATES
186 North Water Street
Rochester, NY 14607

0 750 1,500 3,000 Feet

Legend

- Municipal Boundaries
- Parcels
- Parks
- Hydrography
- Roads
- Railroads
- Abandoned Railroads

Trail Corridor Segments

- Lakeville to Bronson Hill Road
- Bronson Hill Road to Stone Hill Road
- Stone Hill Road to Livonia

Town of Avon
Town of Lima
Town of Livonia
Village of Livonia
Lakeville
South Lima
Conesus Lake
Conesus Creek
Bronson Hill Rd
Garden St
South Lima Rd
LIVONIA AVON & LAKEVILLE RR
OLD RR GRADE
Muck Rd (private)
Poplar Hill Rd
Rochester Rd
Firemen's Exempt Field
Vitale Park
Stone Hill Rd
Pebble Beach Rd
Big Tree Rd
East Lake Rd
Pennemite Rd
Washington St
Wildbriar Dr
Main St
West Ave
Commercial St
Big Tree St

Figure 3

GTC Priority Trails Advancement Project

Lakeville-Livonia Trail Feasibility Study

Trail Alignment Options

Prepared March 2006

CLARK PATTERSON ASSOCIATES
186 North Water Street
Rochester, NY 14607

0 750 1,500 3,000 Feet

LEGEND

- Municipal Boundaries
- Parcels
- Wetlands
- Proposed Trail
- Trail Options (A B C D)
- Proposed Gateway Road

Town of Avon
Town of Lima
Town of Livonia
Village of Livonia
Lakeville
South Lima
Conesus Lake

Bronson Hill Rd
Garden St
LIVONIA AVON & LAKEVILLE RR
South Lima Rd
OLD RR GRADE
Muck Rd (private)
Poplar Hill Rd
Gateway Rd
(proposed)
LA & L Office
Rochester Rd
Conesus Creek
Firemen's Exempt Field
Stone Hill Rd
Pedestrian Bridge
Vitale Park
(see inset below)
Pebble Beach Rd
Gateway Rd (proposed)
East Lake Rd
Big Tree Rd
Wildbriar Dr
Washington St
Main St
West Ave
Commercial St
Big Tree St
Whitford Dr
15
20A

Lakeville Inset

Figure 4

GTC Priority Trails Advancement Project

Lakeville-Livonia Trail Feasibility Study

Preferred Trail Alignment

Prepared March 2006

CLARK PATTERSON ASSOCIATES
186 North Water Street
Rochester, NY 14607

0 750 1,500 3,000 Feet

LEGEND

- Municipal Boundaries
- Parcels
- Wetlands
- Phase I Trail
- Phase II Trail
- Phase III Trail
- Trail Heads
- Street Crossings
- Missing Bridge or Culvert
- Proposed Gateway Road

Town of Avon
Town of Lima
Town of Livonia
Lakeville
South Lima
Village of Livonia

Bronson Hill Rd
Garden St
LIVONIA AVON & LAKEVILLE RR
South Lima Rd
Gateway Rd
(proposed)
OLD RR GRADE
Wetlands Loop Trail
Wetlands Loop
Muck Rd (private)
Poplar Hill Rd
LA & L Office
Rochester Rd
Conesus Creek
Phase I
Phase II
Phase III
Firemen's Exempt Field
Stone Hill Rd
Pedestrian Bridge
Future alternative
Vitale Park
(see inset below)
Pebble Beach Rd
Gateway Rd (proposed)
OLD RR GRADE
East Lake Rd
Big Tree Rd
Washington St
Main St
West Ave
Commercial St
Big Tree St
Conesus Lake

Lakeville Inset

Figure 5

II. Introduction

The Lakeville-Livonia Trail Feasibility Study has been funded with federal planning funds awarded through a competitive process administered by the Genesee Transportation Council (GTC). This study is being conducted consistent with the Town and Village Comprehensive Plans and the GTC Regional Trails Initiative (RTI). Comments received through the development of the RTI indicated that there was interest in a non-motorized recreational trail along an abandoned section of the Livonia, Avon, and Lakeville (LA&L) Railroad in the Town and Village of Livonia.

According to GTC, the purpose of the RTI is:

> *To develop a comprehensive and achievable action plan for community leaders to create and maintain a safe, accessible, and highly functional regional trail system that is fully integrated with the existing transportation system and constitutes a nationally recognized distinguishing feature of this region.*

Entrance to Vitale Park

Currently, more than 300 miles of trails exist within the nine-county Genesee-Finger Lakes Region, with over 900 miles of additional trails planned (see Figure 2). Each of these trails are intended to provide safe, healthy, and economical transportation options for all ages, abilities, and incomes. Trails are an important component in improving the quality of life and attractiveness of the region and its ability to attract and retain a skilled work force. Additionally, the transportation alternatives made possible by a well-developed regional trail network contribute to efforts to improve air quality.

In 2004, the Town and Village of Livonia appointed a Project Steering Committee to study the feasibility of a public trail connecting Lakeville, South Lima, and Livonia. The trail would be open to all users except motorized vehicles. The Town and Village also hired a team of consultants to assist with the development of the study.

In order to complete this study, the following tasks were required by GTC:

- Project initiation/kick-off meeting
- Corridor data collection and analysis
- Committee meeting one to discuss project alternatives
- Refinement of preliminary alternatives
- Public Open House to review alternatives
- Committee meeting to review public comments and select preferred alternative
- Preferred alternative conceptual design
- Final public meeting to review the final plan
- Committee meeting for final plan approval
- Deliver final plan

Working with the Town, Village, GTC, and Livingston County, the design team performed a comprehensive information review including past planning efforts, relevant County initiatives regarding tourism and economic development, and other related projects such as the wetland restoration project near South Lima.

Site visit on Muck Road

The design team completed several field visits throughout the winter and early spring of 2005. Examples of information collected include:

- Corridor length and general routing;
- Natural features and environmental constraints;
- Land ownership;
- Physical constraints such as stream crossings, lack of right-of-way, conflict points;
- Potential trail heads;
- Important destinations;
- ADA compliance;
- Conditions at relevant road crossings; and
- Presence/condition of sidewalks for on-road segments.

Based upon the information collected, the design team and the Steering Committee identified potential trail route options. When evaluating these options, the following goals were identified:

- Connecting the hamlets of Lakeville and South Lima with the Village of Livonia
- Utilizing the abandoned railroad line;
- Improving public access to the wetland restoration area;
- Enhancing outdoor recreation options for residents;
- Restricting non-motorized vehicles from the trail;
- Identifying low-impact alternatives to land owners; and
- Facilitating economic development for the Village, Town, and region.

III. Community Benefits

The Lakeville-Livonia Trail will provide a number of benefits to the Town and Village of Livonia and the surrounding region. It is quite common for communities to voice strong opposition to trail proposals, citing concerns over privacy, liability, and the use of public funds. However, most places have found that as the various benefits of having a trail begin to unfold, people's fears are relieved. Furthermore, communities typically discover that the quality of life is measurably higher after a trail is developed. The careful design of a trail corridor can transform urban and rural settings into vibrant places that entice people to stop and enjoy rather than simply pass through. Some of the many benefits include:

> *"...The Piedmont portion of the asphalt-paved trail touched off a health revival since it officially opened last September. Suddenly townspeople can walk, bike or skate without looking over their shoulder for motorized traffic."*
>
> -Eric Larson speaking of the Chief Ladiga Trail in Alabama

Improving Public Health

Recent decades have shown dramatic increases in the U.S. of cases of heart disease, adult and child obesity, and diabetes. Numerous studies have identified a direct correlation between poor physical health and people's lack of access to recreational opportunities. This correlation is also affected by our dependence on the automobile for nearly all of our daily trips. Having access to trails promotes healthier lifestyles and increases interaction within the community. Trails provide a safe and enjoyable recreation opportunity, which will help improve the overall physical fitness of local residents.

Transportation Alternatives

Trails provide important transportation options to communities. Well-designed trails connect people to key destinations including schools, parks, scenic rural areas, waterbodies, cultural attractions, commercial districts, and other population centers. For many people, these destinations are only accessible by automobile; trails provide a healthy, environmentally-friendly alternative for reaching them.

Bicyclists on the Genesee Valley Trail

Environmental Protection

Trail development typically includes the establishment of permanent conservation easements and/or the creation of new public open spaces in the community. This is an effective tool in slowing the advances of unplanned development that can have harmful long-term environmental impacts. Additionally, trails provide educational opportunities related to ecology, biology, and environmental stewardship. Such is the case with the U.S. Fish and Wildlife Service wetland rehabilitation project that is adjacent to the old rail line near Bronson Hill Road. The restored habitat and the Lakeville-Livonia Trail will work hand in hand to attract trail users and educational groups while preserving an important ecosystem.

Interpretive signage on the Genesee Valley Trail

Economic Development

In many cases, trail projects have helped stimulate economic activity. Trails promote foot traffic, which is essential to the vitality of commercial districts. Extensive pedestrian activity is a sign of a vibrant place. The presence of a trail fosters community interaction and a sense of civic pride, both of which are catalysts in the success of local economies. Trails are rapidly growing in popularity, and numerous studies have demonstrated an increase in property values adjacent to or nearby trail corridors. Additionally, a diverse collection of recreational opportunities within a community is important in attracting and retaining employers.

Cyclists on the Erie Canalway Trail

Cultural Preservation

Many trails are located along waterways or transportation facilities, as these corridors typically have scenic qualities and connect important places. The establishment of a trail can help preserve a community's heritage, such as valuable waterfront areas and old railroad lines. Additionally, these corridors are often dotted with historic structures, cultural institutions, and early industries that played a role in the town's formation. Trails provide access to these locations and help secure their status as cherished community assets.

Although there are numerous benefits to developing a trail, there are also many concerns related to safety and liability. Appendix B discusses these issues in depth.

IV. Study Area Overview

For the purposes of this study, the trail corridor has been divided into three distinct segments (see Figure 3). This division is intended to simplify analysis and break the study area into manageable pieces. It has no relevance to the final trail design nor does it correlate with the phases of implementation as outlined in Section VIII.

- **Lakeville to Bronson Hill Road**
- **Bronson Hill Road to Stone Hill Road**
- **Stone Hill Road to Village of Livonia**

Each of these segments has a unique blend of land uses and natural settings. Therefore, the design of the trail should be well-integrated into the community while being respectful of its surroundings.

Route 20A near the Fire Department

A. Lakeville to Bronson Hill Road

Lakeville is on the north end of Conesus Lake and contains a mix of commercial, residential, and light industrial uses. Uses directly related to or formerly supported by the LA&L Railroad define the pattern of development and style of architecture. This segment includes a varied series of land uses present in most traditional Finger Lakes hamlets. Vitale Park is considered to be the western terminus of the trail. A safe crossing of Route 20A from Vitale Park to the commercial district and the remainder of the trail is a formidable challenge for the project.

This segment includes the Fireman's Exempt Field, which includes a lodge, banquet facility, and large gravel parking lot. The area also features extensive farmland and open space between the Exempt Field and Bronson Hill Road. A local landowner has developed a trail from the northern end of the Fireman's Exempt property to Bronson Hill Road and is supportive of its incorporation into the proposed trail. The town is examining the possibility of a new industrial access road, Gateway Road, which would run perpendicular to Bronson Hill Road south of the railroad tracks and ultimately connect to the Village of Livonia.

Wetlands near South Lima

Parking lot in Village of Livonia

B. Bronson Hill Road to Stone Hill Road

East of Bronson Hill Road, the LA&L Railroad tracks are inactive. This presents a re-use opportunity for a rail-to-trail project, though there is a bridge and a culvert along the rail line that would need to be replaced. Additionally, there are segments that are underwater during seasonal periods of high snow melt or rains. The majority of the rail line is elevated as it passes through a wetland to the south, and thus provides excellent views of this unique landscape. The former rail line is conducive to trail construction, as the railroad tracks and ties are removed, most of the foundation remains intact, and the foundation is wide enough to support a 10-foot wide trail. The Livonia, Avon, and Lakeville Railroad owns the right-of-way and is willing to sell, though the price remains to be negotiated.

The segment study area also includes Muck Road, a private road in the hamlet of South Lima. East of Muck Road, a missing bridge over Little Conesus Creek necessitates the examination of other alignment options through this segment for potential intermediate linkages. The old rail line abuts the rear of residential properties in South Lima but is primarily surrounded by farmland on either side of the hamlet.

C. Stone Hill Road to Village of Livonia

Partially in the Town of Livonia and partially in the Village of Livonia, this segment continues along the old railroad grade to Main Street in the Village. Most of the segment is rural in nature, but it ultimately connects to the commercial center of the Village.

V. Public Involvement

The Transportation Equity Act for the 21st Century (TEA-21) requires that "the metropolitan transportation planning process... include a proactive public involvement process that provides complete information, timely public notice, full public access to key decisions, and supports early and continuing involvement of the public in development plans" (Title 23 CFR 450.316).

GTC has a long history of involving the public in its planning and programming activities, and the Long Range Transportation Plan sets it as a priority by stating:

> *The transportation planning process shall be conducted in as open and visible a manner as possible, encouraging community participation and interaction between and among citizens, professional staff, and elected officials.*

The public involvement program provides an important link between the agencies, interest groups, the public, and the planning team, ensuring that the study is a collaborative effort and one where all have the opportunity to comment and provide input to technical decisions. The community participation program for this study was conducted in accordance with the goals and policies of both GTC and the Town and Village of Livonia.

A. Steering Committee

In order to best represent the public interest, a group of stakeholders were assembled from a variety of organizations and interest groups. The committee consisted of Town and Village residents as well as representatives from:

- Town of Livonia
- Village of Livonia
- Livingston County
- Genesee Transportation Council
- New York State Department of Transportation

The Steering Committee met several times throughout the conceptual design phase to provide input into the study, including the recommendations for specific planning activities.

B. General Public

Public input opportunities were provided during two public meetings. The first was held at the Livonia Courthouse on August 8, 2005. Conceptual trail designs were presented for the public to review and submit comments. The second, held at the Lakeville Fire Training Grounds on February 14, 2006, reviewed the Draft Feasibility Study recommendations and provided an opportunity for public comment. This input was important to the process of refining the options and ultimately selecting a preferred option.

VI. Trail Design Considerations

A. Steering Committee and Public Input Recommendations

The following list is a broad summary of comments received by the Steering Committee and the general public. They represent the concerns, questions, and suggestions that were raised regarding the alignment, design, and construction of the proposed trail. A summary of comments about specific portions of the trail are outlined in Section VI.

- The trail should utilize the abandoned rail line as much as possible.
- The trail should include periodic and strategically placed destinations, including points of interest, interpretive signage, public art, scenic views, and rest areas.
- The trail should be designed in a way that protects the privacy of residences in South Lima and the Village of Livonia.
- The project presents many opportunities for educating citizens about local history and environmental stewardship.
- Trail development and maintenance should encourage and include volunteer efforts by local citizens.
- The trail should be designed to restrict access by motorized vehicles (snowmobiles, ATVs, etc.)

B. General Design Recommendations

The Lakeville-Livonia Trail needs to meet certain guidelines that address the needs of the intended users. Design and use of the trail should be contextual and reflect the nature of the surrounding man-made and natural environments.

1. On-Street Trail Segments

As the trail passes through Lakeville and Livonia, it will at times be located along local streets. In such cases, pedestrians using the trail will utilize the sidewalk network, following strategically placed signage. Existing sidewalk conditions, crossing conditions, and overall aesthetics will determine which side of the street will have its sidewalk designated as part of the trail.

Bicyclists should travel on the roadways. Dedicated bike lanes are recommended for the on-street sections although they would require NYSDOT approval. Bicycles should always travel in the direction of traffic and should avoid the use of sidewalks.

Although many might perceive the idea of bicycles on the street to be unsafe, it has proven to be safer than sidewalks. It is also one of many ways to reinforce the fact that the public right-of-way, i.e. streets, are intended to be used by the public, regardless of the transportation mode of choice. As such, streets should be designed with multiple modes of transportation in mind. The presence of the trail along streets in Lakeville and Livonia should reinforce these principles.

2. Off-street Trail Segments

Off-street portions of the trail should be a minimum of 8 feet in width, with at least a 2-foot shoulder on each side whenever possible. This width will accommodate pedestrian and bicycle traffic, providing enough space for the passing of slower traffic. The trail should have a stone dust surface in the rural off-street sections and should be asphalt paved in the off-street areas in the hamlet of Lakeville and the Village of Livonia.

Whenever the trail intersects a public roadway, the design should include various techniques to restrict access by motorized vehicles such as snowmobiles and ATVs. Removable gates and/or bollards can be installed that will restrict access to these vehicles, yet still allow temporary access to emergency service vehicles. Signs should be installed identifying permitted and non-permitted uses. Enforcement of these restrictions is also important to the success of the trail. Local law enforcement authorities should be made aware of these restrictions and encouraged to monitor the trail. In some communities, volunteer groups have taken the initiative to maintain and monitor the trail. The active presence of volunteers as well as everyday users can significantly deter illegal uses, dumping, and trespassing.

Police enforcement and trail bollards are examples of ways to prevent motorized vehicles from using the trail.

3. ADA Compliance

All portions of the trail should comply with the standards of the Americans with Disabilities Act. Compliance is necessary for securing state and federal funding for the project. This includes designing to minimize grades greater than 5% and providing ramp access wherever stairs are present along the trail. All sidewalks should have curb ramps for the sake of handicap accessibility. It is recommended that handicap accessible parking be provided at each trail head parking lot.

VII. Trail Alignment Options

Upon completion of the site analysis and the public input process, numerous trail alignment options were identified (see Figure 4), including options for each of the three trail segments outlined in Section IV. Concepts proposed take into account the trail design considerations outlined in Section VI.

A. Lakeville to Bronson Hill Road (4 options)

Each option outlined below begins at a proposed pedestrian bridge over Conesus Creek in Vitale Park, then heads north through the park to Route 20A.

Option A travels west along Route 20A to the intersection with Stone Hill Road and Route 15, where it then heads east to connect to the Exempt Field.

Option B travels west on Route 20A, then heads north behind the Firehouse to connect to Stone Hill Road, before heading east to the Exempt Field.

Option C travels east on Route 20A, then heads north at the existing railroad crossing. It parallels the railroad north to Stone Hill Road, then heads east to the Exempt Field.

Option D travels east on Route 20A to Vincenzo's Pizzeria, then connects to Stone Hill Road using the pizzeria's driveway and Whitford Drive. Next it travels west to the Exempt Field.

Vitale Park overlooking Conesus Lake

After the Exempt Field, each of these options travels north through farmlands to connect to Bronson Hill Road. Additional design considerations in this segment include:


LA&L Railroad spur in Lakeville

- Private property easements would be needed for Options B, C, and D
- A long crosswalk would be required for trail users to cross Route 20A at the intersection of Stone Hill Road and Route 15.
- Options B and D would require a mid-block crossing of 20A and Stone Hill Road which poses safety concerns. Option C would require a mid-block crossing at Stone Hill Road.
- The Town's Comprehensive Plan includes sidewalks only on the north side of Route 20A. This section of roadway has numerous driveways and open parking lots.
- Though the railroad spur from Stone Hill Road south to Vitale Park is technically active, it has extremely limited use. If the railroad company were to close it, the trail could potentially use that corridor. If Option C were selected and the railroad spur remained open, a fence between the two may be necessary for safety.
- Each of the Options would utilize the existing sidewalk on the north side of Stone Hill Road. However, the sidewalk is in poor condition for significant lengths and would need replacement. This endeavor is included in the Town's Comprehensive Plan.
- The parking lot at the Exempt Field could be used for trail head parking as it rarely fills to capacity.
- A local landowner has developed a trail on one of the properties north of the Exempt Field and is willing to incorporate this project into the Lakeville-Livonia Trail.

Muck Road near South Lima

B. Bronson Hill Road to Stone Hill Road (3 options)

Each of these options begins at Bronson Hill Road, then follows different paths to the point on the abandoned rail line that is parallel and to the west of Poplar Hill Road. South of this point, each option utilizes the rail line for the remainder of the segment to Stone Hill Road (see Figure 4).

Option A utilizes the rail line exclusively from Bronson Hill Road to Stone Hill Road.

Option B follows the rail line to South Lima, then travels south along Muck Road, then winds through farmland and woodlots until it connects with the rail line again.

Option C follows the rail line until it reaches the wetlands that are to the south. It then traces the southern edge of the wetlands area until Muck Road. From there it heads south along Muck Road, then winds through farmland and woodlots until it connects with the rail line again.

Additional design considerations in this segment include:

- Options B and C would require private property easements.
- A bridge and a culvert are missing along the abandoned rail line east and west of the hamlet of South Lima, and their replacement costs could be significant.
- The U.S. Fish and Wildlife Service is enhancing the habitat at the wetlands, a project that may include trails and would compliment the Lakeville-Livonia Trail.
- A local landowner is willing to donate a small parcel of land for trail head parking at the northeast corner of Bronson Hill Road and the proposed Gateway Road.
- There is adequate space for trail head parking at the South Lima Post Office.
- An ADA compliant trail connection would need to be constructed from the Post Office parking lot up to the railroad bed.
- Portions of this area may be under a USDA nematode quarantine, which would need to be addressed in the design phase of the trail. Similarly, reducing trail users' exposure to pesticides should be addressed in the design phase.
- There is an opportunity for installing an elevated overlook area in the wetland area for bird watching and general environmental education.

C. Stone Hill Road to Village of Livonia (2 options)

Both options follow the abandoned rail line from Stone Hill Road south into the Village, but then diverge into different paths to connect to the commercial center.

Option A continues along the rail line and terminates at Main Street.

Option B heads west from the rail line to connect to the north end of Wildbriar Drive.

Additional design considerations in this segment include:

- Private property easements would be needed for both options.
- Volunteers have expressed interest in helping construct and maintain the trail as part of Option B.
- The municipal lot on Main Street adjacent to the rail line is a potential trail head location. However, site distances are potentially inadequate for a crosswalk on Main Street that would provide access to the south side of the Village.
- Traffic moves at a high rate of speed on Stone Hill Road at the rail line, requiring additional measures for a safe crossing.
- There is adequate space to create 2-3 trail head parking spaces on the north side of Stone Hill Road next to the rail line.
- A stream has cut through the railroad bed on the south side of Stone Hill Road. Some trail bed reconstruction would be necessary.
- A section of the railroad bed south of Stone Hill Road has become a major drainage route for fields west of Poplar Hill Road. A more extensive drainage system through this section may be necessary.
- A trail head location at the end of Washington Street was considered but may be inappropriate given topographical concerns.

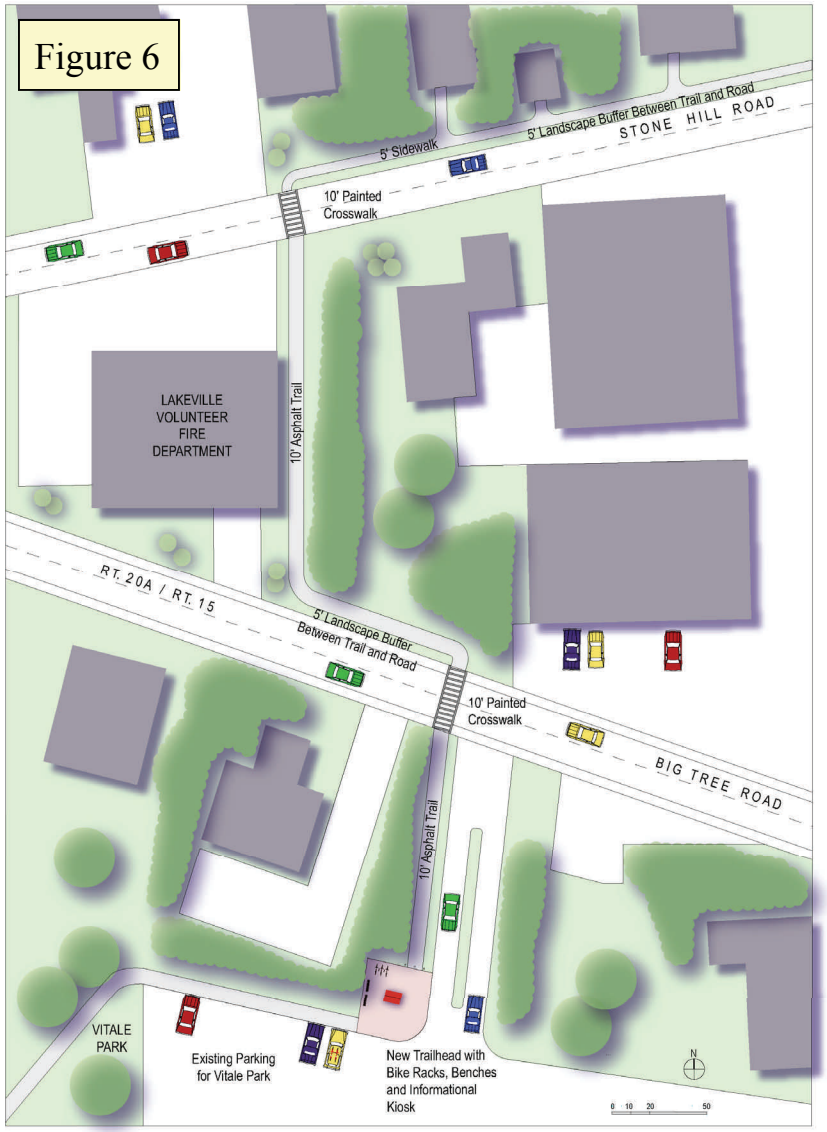
Old RR grade in Village of Livonia

VIII. Preferred Trail Alignment

After analyzing information gathered from site visits and Steering Committee and public input, a preferred option was identified. Additionally, this recommended trail alignment was broken into three phases of implementation, as outlined in Figure 5. The approximate lengths of the three phases are as follows:

- Phase I (Fireman's Exempt property to Muck Road) - *approximately 15,800 feet or 3.0 miles*
- Phase II (Wetlands/Muck Road to Village of Livonia) - *approximately 13,070 feet or 2.5 miles*
- Phase III (Conesus Creek to Fireman's Exempt property) - *approximately 3,010 feet or 0.6 miles*

For discussion purposes, the recommended trail will begin at a proposed pedestrian bridge crossing Conesus Creek. The bridge will link Vitale Park to the DEC parking area and trail-head, located off of Pebble Beach Road. Next it will cut through Vitale Park to the entrance on Route 20A (see Figure 6). During the design phase of the trail, the NYSDOT should be consulted to ensure a safe crossing is created. The location and design of the crossing should consider sight distances, traffic volumes, and traffic speeds in the area. A pedestrian refuge island should be considered as a means to provide safe crossing and reduce traffic speeds. The parking lot at Vitale Park will serve as an additional trail head location.



Once the trail crosses 20A, it will briefly head west to the Firehouse. This section of 20A will need sidewalks installed to accommodate the trail, which is consistent with the Town's Comprehensive Plan. Next the trail will connect to Stone Hill Road behind the Firehouse, which will require a property easement. The trail will cross Stone Hill Road to the existing sidewalk on the north side of the road.

As a long term option, it is recommended that the community pursue a Route 20A to Stone Hill Road connection via the LA&L Railroad property. Closing that portion of the rail spur will create a wide corridor for the trail. If this long-term option is achieved, it would utilize the existing railroad crossings on 20A and Stone Hill Road for street crossings. Additional traffic calming or other safety measures may be necessary to ensure safe crossing at these points.

Firemen's Exempt property

Once the trail reaches the north side of Stone Hill Road, it will head east to the Fireman's Exempt Field property. The trail would pass through the property adjacent to the gravel parking lot, which will serve as trail head parking. From the parking lot, the trail will head towards the northwest corner of the property to eventually connect with the existing trail on the adjacent property. This existing trail, which was developed by a local landowner, will need to be brought up to design standards consistent with the remainder of the trail. Because public money will be used to design and construct the trail, all segments developed on private property will require land acquisition or permanent easements to provide for public access.

The existing trail travels east along the edge of a property boundary, eventually terminating at Bronson Hill Road. From here the trail will travel north along the west side of the road. This rural road portion of the trail will be similar to installing a sidewalk for a short section of roadway, only made of stone dust rather than concrete.

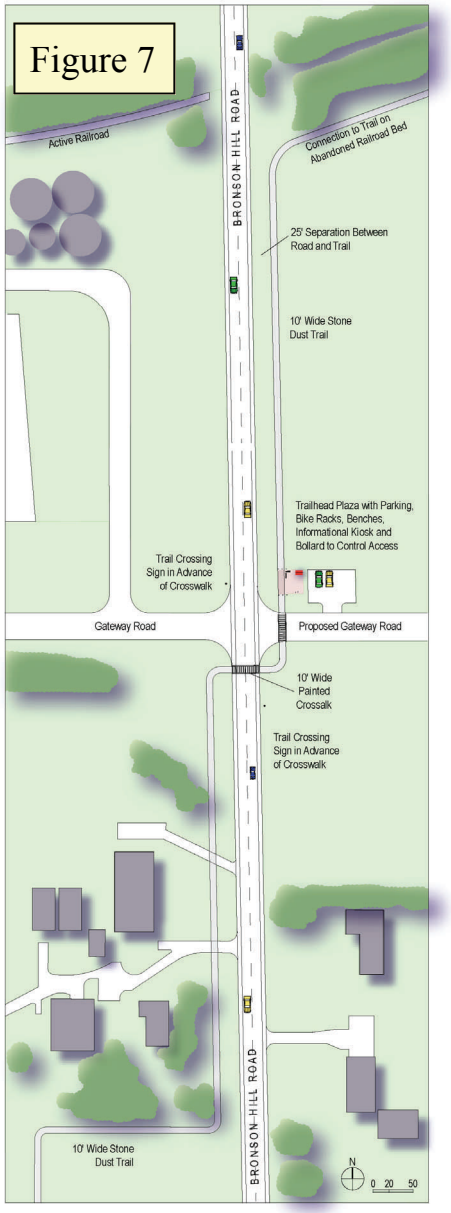
Wetlands as seen from old railroad grade

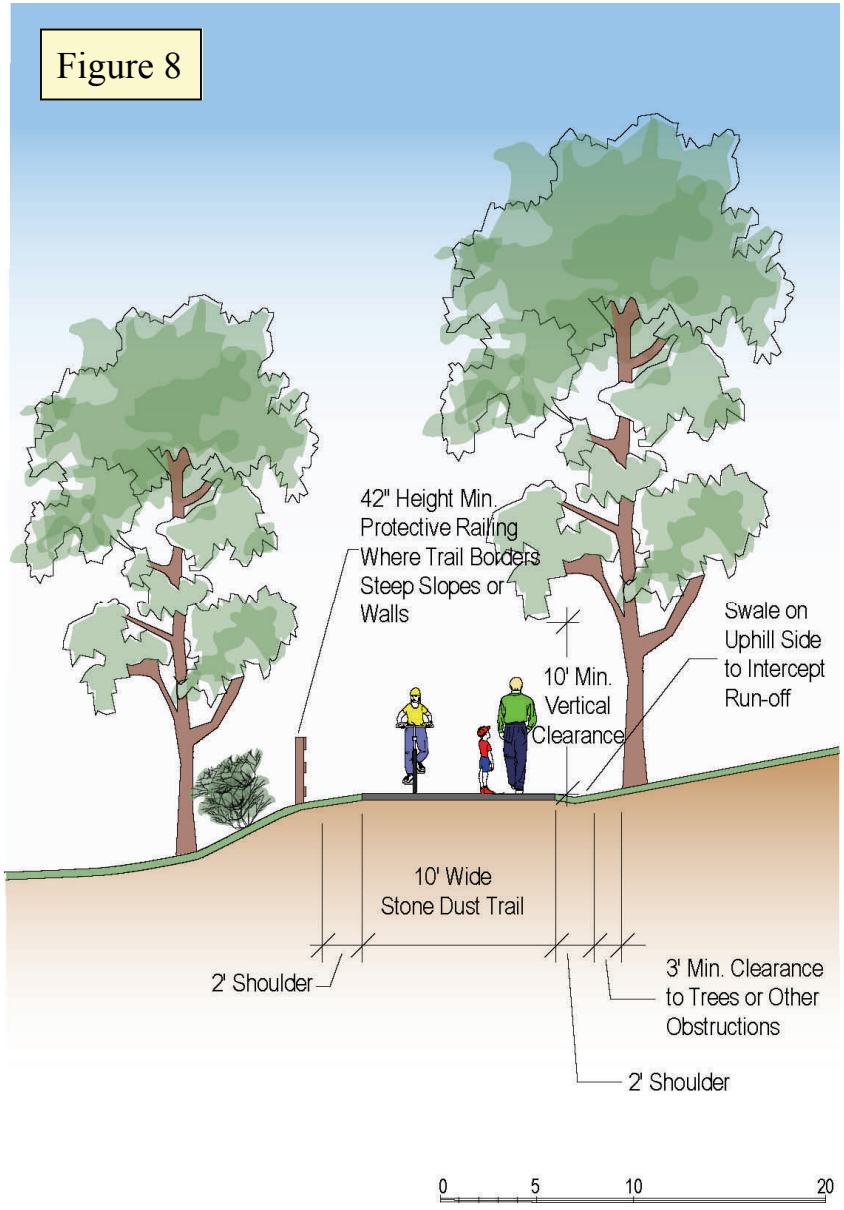
The Town is proposing an industrial access roadway, known as Gateway Road, that will be perpendicular to Bronson Hill Road south of the old rail line. A portion of this future roadway exists on the west side of Bronson Hill Road. At this intersection, the trail will cross from the west side to the east side of Bronson Hill Road (see Figure 7). The property owner at this location has expressed willingness to donate a small piece of land to accommodate parking for an additional trail head. From the trail head, the trail will continue north along Bronson Hill Road to the railroad overpass.

The active railroad ends at Bronson Hill Road and the former rail line to the east will host much of the remainder of the trail. Utilizing the railroad bed, the trail will travel northeast to the wetlands. This point on the railroad bed marks the western end of a loop trail that will provide access to the wetlands. The U.S. Fish and Wildlife Service is currently rehabilitating this habitat. As part of this project, a walkway will be developed that protrudes from the Wetlands Loop Trail to provide additional access to the wetland environment. Local citizens have expressed concern over the potential impact on endangered bog turtles that are known to reside in the wetlands. The trail is not expected to impact their habitat although this should be a primary consideration during the detailed design process.

The Wetlands Loop Trail itself will consist of the railroad bed on the north side of the wetlands and a route that traces the southern edge of the wetland to Muck Road. The loop is completed at the intersection of Muck Road and the railroad bed, which is immediately adjacent to the hamlet of South Lima. The Post Office in South Lima has adequate parking to support a trail head at this location, giving the hamlet a clearly delineated access point to the trail. Liability and safety concerns related to the active farmland along Muck Road are addressed in Appendix B. The Wetlands Loop Trail should be closed during waterfowl hunting season for safety reasons.

Farmlands adjacent to old railroad grade





Heading east from the hamlet, the trail will continue on the railroad bed (see Figure 8). The bridge over Little Conesus Creek will need to be replaced to accommodate the trail, as will a culvert west of South Lima. After the bridge, the trail will continue east and then south along the railroad bed to Stone Hill Road. A clearly delineated crosswalk with appropriate signage is recommended for this crossing, as vehicle speeds are high in this area. This intersection will also have a trail head with parking for 2-3 cars.

The trail continues along the old railroad grade south into the Village of Livonia. Prior to reaching the Gibbs Gas Service property in the Village, the trail will meander west through a wood lot until it reaches the northern end of Wildbriar Drive. This location will also have a trail head, and is the eastern/southern terminus of the trail. Trail users can then utilize Wildbriar Drive to access commercial or residential destinations in Livonia. Appropriate trail signage will be installed along Route 20A to direct people from the central business district to the trail. As a long term option, it is recommended that the community pursue a direct connection to Route 20A along the former rail line.

6. Trail Heads

To provide frequent access points to the trail, the following trail heads are recommended (see Figure 5):

- on the west end of the pedestrian bridge over Conesus Creek
- at the entrance to Vitale Park
- at the Fireman's Exempt Field
- at the intersection of Bronson Hill Road and the railroad tracks
- at the South Lima Post Office
- where the trail crosses Stone Hill Road
- at the north end of Wildbriar Drive

7. Trail Phases

Phase I consists of the section from the Fireman's Exempt Field property north to South Lima. It begins at the entrance to the Exempt Field and travels north along the existing trailway to Bronson Hill Road. From there it heads north on Bronson Hill Road to the railroad, then east along the old railroad grade to the wetlands. Phase I ends with the southern portion of the Wetlands Loop Trail, which traces the southern edge of the wetlands and follows Muck Road north to the railroad bed.

Phase II consists of the section from the Wetlands Loop Trail south to the Village of Livonia. It begins with the northern section of the Wetlands Loop Trail, which utilizes the railroad bed west of South Lima, then heads south along the railroad bed into the Village. It ends at the northern end of Wildbriar Drive.

Phase III consists of the Lakeville section of the trail. It begins at the pedestrian bridge in Vitale Park, heads north through the park to Route 20A, then heads west on 20A to the Firehouse. From here it travels north through the Firehouse property to Stone Hill Road, then east to the Exempt Field.

Route 20A at the LA&L Railroad crossing in Lakeville

IX. Funding Resources

Figure 9 is an overview of federal, state, and local funding sources available for the design and construction of the Lakeville-Livonia Trail. In August 2005, the President signed into law SAFETEA-LU, the latest federal surface-transportation reauthorization bill. SAFETEA-LU includes programs such as the Surface Transportation Program (STP), which provides money for multi-use trails. The Transportation Enhancements Program (TEP) is another source. TEP is designed specifically for developing trails as part of a region's transportation network. Coordinated by the NYSDOT, it promotes bicycle and pedestrian infrastructure and requires a 20% local match. New York State offers a variety of funding sources as well such as the Environmental Protection Fund, which provides money for recreational trails. The community will need to review the funding resources listed in this study and their eligibility to determine which program best facilitates the design and construction of the trail.

X. Conclusions

The Lakeville-Livonia Trail will be a significant enhancement to the quality of life and transportation options in the Town and Village of Livonia and the surrounding region. It will provide opportunities for outdoor recreation and promote healthy lifestyles. It will serve as an important alternative mode of transportation in the community and will function as a key recreational resource. Finally, the establishment of the Lakeville-Livonia Trail will prove to be a vital link in the ever-expanding regional trail network.

Fire Department at Routes 15 and 20A

Figure 9

Funding Source	Program Focus	Fundable Activities	Required Local Match	Deadlines
FEDERAL FUNDING				
Transportation Enhancements Program (TEP) *www.dot.state.ny.us/progs/tep.html*	Trails for transportation; on-street bicycle and pedestrian facilities	Preliminary engineering, design, right-of-way purchase, construction, inspection	20% *	Variable - confirm schedule with NYSDOT
Recreational Trails Program (RTP) *www.nysparks.state.ny.us/grants*	Trails for recreation	Planning, design, construction, maintenance equipment purchase	20% *	Annual program - confirm deadline with NYSOPRHP
Land and Water Conservation Fund Program (LWCF) *www.nysparks.state.ny.us/grants*	Trails for recreation	Acquisition, development, and/or rehabilitation of outdoor park and recreation facilities	50% or more *	Annual program - confirm deadline with NYSOPRHP
Surface Transportation Program (STP)	Trails for transportation; on-street bicycle and pedestrian facilities	Preliminary engineering, design, right-of-way purchase, construction, inspection	20% *	Biennial - part of region's Transportation Improvement Program (TIP)
Highway Bridge Repair and Replacement (HBRR)	Transportation -- projects must be located on a highway bridge	Preliminary engineering, design, right-of-way purchase, construction, inspection	20%	Biennial - part of region's Transportation Improvement Program (TIP)
Rivers, Trails, and Conservation Assistance Program (RTCA) *www.nps.gov/rtca*	Trails for transportation and/or recreation	Concept-level planning, public involvement, resource assessment	n/a	Annual program - July 1
STATE FUNDING				
Environmental Protection Fund *www.nysparks.state.ny.us/grants*	Trails for recreation	Acquisition and/or development of parks and recreation facilities, protection of open space	50% or more *	Annual program - confirm deadline with NYSOPRHP
Clean Air/Clean Water Bond Act *www.dec.state.ny.us*	Trails for transportation and/or recreation with focus on environmental and open space protection	Acquisition and/or development of parks and recreation facilities, protection of open space	50% or more *	Annual program - confirm deadline with NYSDEC
Governor's Traffic Safety Grant Program (GTSC) *www.nysgtsc.state.ny.us*	Transportation safety	Education, limited capital improvement projects	Not required	Annual program - confirm with county GTSC grant coordinator
LOCAL FUNDING/OTHER DEVELOPMENT OPTIONS				
GTC Bicycle/Pedestrian STP Set Aside Funding *www.gtcmpo.org*	Trails/other bicycle and pedestrian projects for transportation	Planning, preliminary engineering, design, right-of-way purchase, construction	20% *	Biennial - part of region's Transportation Improvement Program (TIP)
Local capital improvement programs	As determined by local municipality	As determined by local municipality	n/a	n/a
Incentive Zoning	As determined by local municipality	As determined by local municipality	n/a	n/a

*In-kind match allowed for all/part of the required local match.
Typical in-kind or "soft" match provisions include force account labor, volunteer labor, materials and/or equipment donation, etc.

XI. Acknowledgements

Many people have assisted in the successful completion of the Lakeville-Livonia Trail Feasibility Study. We would like to thank all of the community members who participated in the public meetings and community forums. The input and ideas received at these venues helped drive the direction and specific detail contained in this plan. We would also like to thank the Project Steering Committee which worked diligently to guide this process and ensure broad community participation.

Project Steering Committee Members

Steve Beauvais
Dave Bimber
Les Cole
Rob Dewey
Jerry Fazackerly
Heather Ferrero
Erik Frisch
Chris Genthner
Leo Gottorf
Keith Lyons
Kevin Masterson
Randy Nemecek

Appendix A:

Lakeville-Livonia Trail Cost Estimate

Note: Trail design, construction, and maintenance costs can be reduced through a variety of sources including volunteer labor, fund raisers, and private donations.

PHASE I

Trail through Firemen's Exempt Property (including trailhead) (1523')

Item	*Unit Cost ($)*	*Quantity*		*Total*
Kiosk	10,000/kiosk	1		10,000
Wayfinding Signage	150/sign	2		300
Benches	1,000/bench	2		2,000
Trash Recepticle	350/recepticle	1		350
Stonedust Path (10' wide)	1.50/square foot	15,230		22,845
Lighting (inlcuding conduit, etc.)	2,300/pole	6		13,800
			Subtotal	**$49,295**

Trail from Firemen's Exempt to Bronson Hill (4,411')

Item	*Unit Cost ($)*	*Quantity*		*Total*
Wayfinding Signage	150/sign	6		900
Stonedust Path (10' wide)	1.50/square foot	44,110		66,165
Bollards	700/bollard	2		1,400
			Subtotal	**$68,465**

Trail along Bronson Hill to Old RR Grade (651')

Item	*Unit Cost ($)*	*Quantity*		*Total*
Wayfinding Signage	150/sign	2		300
Stonedust path (10' wide)	1.50/square foot	6,510		9,765
Lighting (inlcuding conduit, etc.)	2,300/pole	2		4,600
Crosswalk (60' ladder style)	180/crosswalk	1		180
			Subtotal	**$14,845**

Trailhead @ Old RR Grade

Item	*Unit Cost ($)*	*Quantity*		*Total*
Parking	900/space	10		9,000
Kiosk	10,000/kiosk	1		10,000
Wayfinding Signage	150/sign	2		300
Benches	1,000/bench	2		2,000
Trash Recepticle	350/recepticle	1		350
Lighting (inlcuding conduit, etc.)	2,300/pole	6		13,800
			Subtotal	**$35,450**

Trail along Old RR Grade from Bronson Hill to Wetlands Loop (1,791')

Item	*Unit Cost ($)*	*Quantity*		*Total*
Wayfinding Signage	150/sign	1		150
Stonedust Path (10' wide)	1.50/square foot	17,910		26,865
			Subtotal	**$27,015**

Wetlands Loop from Old RR Grade to Muck Rd (3,226')

Item	*Unit Cost ($)*	*Quantity*		*Total*
Wayfinding Signage	150/sign	3		450
Stonedust path (10' wide)	1.50/square foot	32,260		48,390
Benches	1,000/bench	2		2,000
Raised Overlook/Decking	75,000/overlook	1		75,000
			Subtotal	**$125,840**

Trail along Muck Rd to Old RR Grade (1,392')

Item	*Unit Cost ($)*	*Quantity*		*Total*
Wayfinding Signage	150/sign	4		600
Stone Road Reconstruction for shared use	3.75/square foot	36,192		135,720
			Subtotal	**$136,320**

PHASE I Subtotal	**$457,230**
Contingencies & Soft Costs (20%)	**$91,446**
PHASE I TOTAL	**$548,676**

PHASE II

Trail along Old RR Grade from Wetlands Loop to Muck Rd (2,380')

Item	*Unit Cost ($)*	*Quantity*		*Total*
Stonedust path (10' wide)	1.50/square foot	23,800		35,700
Wayfinding Signage	150/sign	2		300
Benches	1,000/bench	2		2,000
Interpretive signage (ceramic w/ stand), installed	2,500/sign	1		2,500
Culvert replacement	65,000/culvert	1		65,000
			Subtotal	**$105,500**

Trailhead @ Muck Rd

Item	*Unit Cost ($)*	*Quantity*		*Total*
Parking	900/space	10		9,000
Kiosk	10,000/kiosk	1		10,000
Wayfinding Signage	150/sign	2		300
Benches	1,000/bench	2		2,000
Trash Recepticle	350/recepticle	1		350
Lighting (inlcuding conduit, etc.)	2,300/pole	6		13,800
			Subtotal	**$35,450**

Trail along Old RR Grade from Muck Rd to Stone Hill (7,788')

Item	*Unit Cost ($)*	*Quantity*		*Total*
Stonedust path (10' wide)	1.50/square foot	77,880		116,820
Wayfinding Signage	150/sign	4		600
Bollards	700/bollard	4		2,800
Bridge	250,000/bridge	1		250,000
Fencing (@ Stone Hill & bridge)	20/linear foot	180		3,600
Landscaping/trees (privacy)	300/tree	10		3,000
			Subtotal	**$376,820**

Trail along Old RR Grade from Stone Hill to Wildbriar (5,671')

Item	*Unit Cost ($)*	*Quantity*		*Total*
Stonedust path (10' wide)	1.50/square foot	56,710		85,065
Fencing	20/linear foot	60		1,200
Bollards	700/bollard	2		1,400
Trees	300/tree	10		3,000
			Subtotal	**$90,665**
			PHASE II Subtotal	**$608,435**
			Contingencies & Soft Costs (20%)	**$121,687**
			PHASE II TOTAL	**$730,122**

PHASE III

Pedestrian bridge over Conesus Creek (including trailhead)

Item	*Unit Cost ($)*	*Quantity*		*Total*
Kiosk	10,000/kiosk	1		10,000
Wayfinding Signage	150/sign	2		300
Benches	1,000/bench	2		2,000
Bridge [1]	150,000/bridge	1		150,000
Bollards	700/bollard	1		700
Trash Recepticle	350/recepticle	1		350
Lighting (inlcuding conduit, etc.)	2,300/pole	6		13,800
			Subtotal	**$177,150**

Trail in Vitale Park (including trailhead) (1,269')

Item	*Unit Cost ($)*	*Quantity*		*Total*
Kiosk	10,000/kiosk	1		10,000
Wayfinding Signage	150/sign	2		300
Benches	1,000/bench	2		2,000
Striping	.50/linear foot	500		250
Trash Recepticle	350/recepticle	1		350
Asphalt path (10')	2.75/square foot	7,000		19,250
Bollards	700/bollard	1		700
			Subtotal	**$32,850**

Trail along Route 20A and behind Firehouse (373')

Item	*Unit Cost ($)*	*Quantity*		*Total*
Wayfinding Signage	150/sign	4		600
Pedestrian actuated lighting	10,000/light	2		20,000
Asphalt path (10')	2.75/square foot	3,000		8,250
Crosswalk (40' ladder style)	120/crosswalk	3		360
Lighting (inlcuding conduit, etc.)	2,300/pole	5		11,500
			Subtotal	**$40,710**

Trail along Stone Hill from Firehouse to Firemen's Exempt (1,378')

Item	*Unit Cost ($)*	*Quantity*		*Total*
Concrete sidewalk (5' wide)	5/square foot	6,890		34,450
Lighting (inlcuding conduit, etc.)	2,300/pole	8		18,400
Bike lane striping	.50/linear foot [2]	1,378		700
Wayfinding Signage	150/sign	4		600
			Subtotal	**$54,150**

PHASE III Subtotal	**$304,860**
Contingencies & Soft Costs (20%)	**$60,972**
PHASE III TOTAL	**$365,832**

[1] inclusion of bridge over Conesus Creek in this project is yet to be determined.

[2] round up for additional symbol markings.

[3] land acquisition costs are not included in the estimate.

PHASE I TOTAL	**$548,676**
PHASE II TOTAL	**$730,122**
PHASE III TOTAL	**$365,832**
PROJECT TOTAL [3]	**$1,644,630**

Appendix B:

Common Landowner Concerns Related to Trails

COMMON LANDOWNER CONCERNS RELATED TO TRAILS
(Courtesy Genesee Transportation Council)

Potential problems related to the development of trails that are commonly cited by affected residents include increased crime, lower property values, and greater liability. These perceptions often lead to strong opposition to trails irregardless of the potential benefits. However, there exists no conclusive evidence that these perceptions actually occur on a regular basis. These common concerns of crime, property values, and liability are discussed below.

Some key points to keep in mind during the trail development process with respect to landowner concerns include:

- Any time something new is proposed there is always going to be a certain amount of anxiety which can spread and eventually delay or halt any project
- Support for a trail cannot be taken for granted and legitimate concerns about the impact of trails need to be addressed openly, early, and often
- Generally speaking, proposed trail development may be greeted by 25% acceptance, 25% disapproval and 50% indifference; it is the indifferent 50% who can be swayed in either direction
- Cooperation between municipalities, landowners, and trail users is essential in order to carefully and respectfully address all concerns and needs, creating a "win-win" situation for all affected parties

Crime

Perception

- Trails result in increased vandalism, trespassing, burglary, littering, and other criminal activity that negatively impacts safety.

Reality

- Actual increases in crime associated with existing trails rarely occur and are negligible at most (e.g., broken glass along the trail, damage to fences and other property, etc.).
- Trails often convert unmanaged quasi-public spaces into managed and maintained amenities through a "policing effect" of dedicated and observant trail users who report suspicious activities.
- There is usually controlled vehicular access to the trail, via bollards or fences that are opened by maintenance personnel only, reducing the opportunity for criminals to leave the scene quickly.
- Factual information and testimonials from police with experience patrolling trail areas can go a long way to easing landowner concerns over increased crime.
- The presence of voluntary or professional trail patrols equipped to alert emergency services and neighborhood watch groups can improve safety.

Property Values

Perception

- Development of a trail corridor will decrease property values and affect the ability of homeowners' to sell their houses.

Reality

- Numerous case studies have concluded that trails have no adverse effects on the value of property adjacent to trails – in some instances, trails result in increased value and desirability.
- Trails have the ability to positively stimulate local economies by providing linkages between businesses and visitors.
- A common concern related to property values is that once the trail is built no one will maintain it, resulting in increased trash, overgrown weeds, and lack of adequate sanitary facilities among others. Every trail plan should include a maintenance and operations component to address these fears. Volunteer groups should, when possible, include adjacent landowners to increase sense of ownership and stewardship.

Liability

Perception

- Trail users will wander onto adjacent landowners' property, injure themselves, and hold the landowner or municipality liable.

Reality

- State law provides a measure of protection for landowners via recreational use statutes (RUS) – RUS cannot prevent landowners from being sued, but they do grant landowners certain protections and offer limitations on a landowner's liability when they allow recreational use on their property.
- Local governments' standard liability insurance is sufficient for most trail projects.
- There are no documented cases where a municipality's insurance premium has increased after development of a trail.

Conclusion

The reality is that trails have produced significant positive benefits in many communities while only resulting in minimal negative impacts in limited instances. As with any project, community leaders and planners should be sure to involve affected property owners and residents in the planning process, informing them of the benefits of trails and presenting data that refute their fears of perceived problems.
Reducing the actual or perceived number of occurrences of the most commonly reported problems requires identifying solutions based on the specific circumstances. For example, noise and loss of privacy may be reduced by increasing buffers between the trail and home, while open wood rail fences may more clearly signify property lines and reduce trespassing.

Misconceptions about the effects of trails on nearby and adjacent residents need not prevent their development. This handout provides trail planners and residents alike with the knowledge essential for reducing fears, winning support, and decreasing the likelihood of any potential negative impacts.

This section was produced by the Genesee Transportation Council with information from
American Trails (http://www.americantrails.org) and the
Triangle Greenways Council of North Carolina (http://www.geo.duke.edu/tgc.htm)

Additional websites that examine the benefits of trails:
http://www.americantrails.org/resources/benefits/index.html
http://www.trailsandgreenways.org
http://railtrails.org/benefits/recreation/default.asp

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