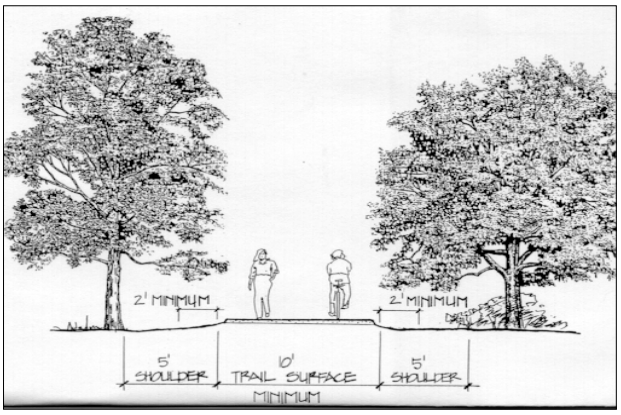
Regional Trails Initiative

FINAL REPORT & ACTION PLAN

PHASE 1 – Rochester TMA



Prepared By:
Alta Transportation Consulting, Inc.
Northeast Greenways, Inc.
Larsen Engineers, PC

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ACKNOWLEDGEMENTS

REGIONAL TRAILS INITIATIVE STEERING COMMITTEE

William Nojay *	Rochester-Genesee Regional Transportation Authority
Peg Churchill	Wayne County Planning Department
John DiMura	New York State Canal Corporation
Edward Doherty	City of Rochester
Angela Ellis	Ontario County Department of Planning and Research
Mike Garland	Monroe County Office of the Executive
Edward Hall	Greater Rochester Visitors Association
Charles Moynihan	New York State Department of Transportation – Region 4
David Woods	Livingston County Planning Department

* *Steering Committee Chairman*

REGIONAL TRAILS INITIATIVE ADVISORY COMMITTEE

Andrew August	Genesee Valley Bicycle Dealers Association
Steve Beauvais	New York State Department of Transportation – Region 4
JoAnn Beck	City of Rochester
Todd Calvin	Rochester Bicycling Club
Peg Churchill	Wayne County Planning Department
John DiMura	New York State Canal Corporation
Angela Ellis	Ontario County Department of Planning and Research
Carl Foss	Genesee Region Trails Coalition
Paul Howard	Genesee-Finger Lakes Regional Planning Council
Paul Johnson	Monroe County Planning Department
Amanda Mason	Western Erie Canal Heritage Corridor Planning Commission
David Woods	Livingston County Planning Department

Genesee Transportation Council Staff
Steve Gleason, Executive Director
Kristin Bennett, Bicycle/Pedestrian Program Manager

Consultant Team
Alta Transportation Consulting, Inc.
Northeast Greenways, Inc.
Larsen Engineers, PC

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1. INTRODUCTION

EXECUTIVE SUMMARY

The purpose of the Regional Trails Initiative 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.

This Initiative provides community leaders with both short- and long-term recommendations and the framework to systematically create a regional trail system that:

- Provides safe, healthy, and economical transportation options for all ages, abilities, and incomes as well as close-to-home recreational opportunities,
- Contributes to this region's efforts to improve air quality, and
- Constitutes a critical element of overall efforts to improve the attractiveness of this region and its ability to attract and retain the skilled workforce it needs to prosper.

The principal geographic focus of Phase 1 of the Regional Trails Initiative is the Rochester Transportation Management Area (TMA), which includes Monroe County and the adjacent developed areas of Livingston, Ontario, and Wayne Counties. The TMA is already home to over 105 miles of multi-use trails, including:

- A 40-mile segment of the Canalway Trail in Monroe County and western Wayne County,
- 17 miles of the Genesee Valley Greenway, a trail that will eventually connect Monroe, Livingston, and Wyoming Counties with the Southern Tier,
- The Genesee Riverway Trail system in the City of Rochester, and
- Numerous other local multi-use trails in area communities.

In addition, there are over $16 million of trail projects under development as of Spring 2002. These projects will create 33 miles of new multi-use trail, increasing the TMA's trail mileage to nearly 140 miles.

Despite this impressive existing system of trails and the high level of community support for trails, the region lacks a *coordinated* strategy to develop an interconnected regional trails system. The Regional Trails Initiative remedies this situation. When fully implemented, over 250 miles of new multi-use trail mileage will be added to the existing regional trails system in the TMA under Phase 1, enhancing the system's connectivity and functionality for transportation and recreational purposes:

Existing Trails/Trails Under Development	Miles	$ (millions)
Existing Trails	106 miles	$ n/a
New Trails Under Development	33 miles	$ 16.9
Subtotal	139 miles	$ 16.9 *
Regional Trails Initiative Recommendations		
Near-Term Recommendations (2003-2006)	42 miles	$ 23.9
Mid-Term Recommendations (2007-2011)	114 miles	$ 36.8
Long-Term Recommendations (2012-2014)	96 miles	$ 18.4
Subtotal	252 miles	$ 79.1
Total Regional Trails System – Phase 1	**391 Miles**	**$ 96.0 ***

** Excludes dollar value of existing trails*

BACKGROUND

The greater Rochester area is the third largest urban area in New York State and is known for its many recreational opportunities throughout every season. With over 11,000 acres of parkland for public use including hiking, bicycling, horseback riding, and cross-country skiing, it is no surprise that Rochester received the All-American-City award as a great place to live. Numerous local and regional trails already form an impressive skeletal network of trails, and many plans are underway to improve and expand existing trails.

Many citizen-based trail organizations in the area work within communities and with local and state agencies to develop and maintain trails for use by residents and visitors to the Greater Rochester area.

The City of Rochester, Monroe County, and GTC have a long history and support of trails as demonstrated by the seven plans prepared in the past twenty-five years to initiate and coordinate bicycle and trail development. The plans are listed below and described in the Summary of Relevant Plans section of this report:

- Monroe County Bikeway System Plan (1978)
- Bikeway Plan for the City of Rochester (1979)
- Genesee Transportation Council Coordinated Metropolitan Bikeway Plan (1980)
- Genesee Transportation Council Bikeway Implementation Program (1982)
- Revised Monroe County Bicycle Transportation Plan (1987)
- Bicycle and Pedestrian Action Plan for the Rochester Metropolitan Area (1996)
- Long Range Transportation Plan Update for the Greater Rochester Area (1999)

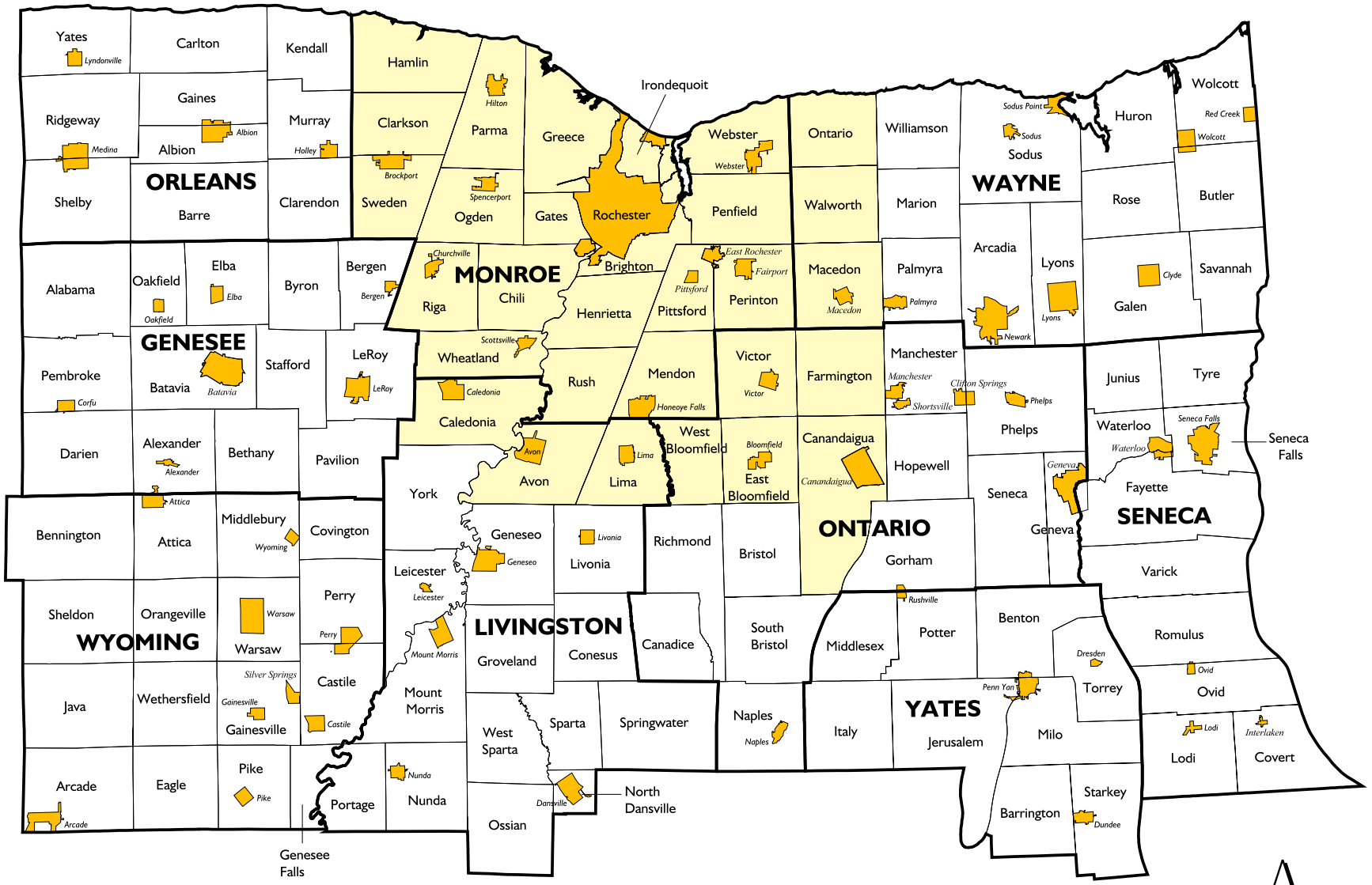
SETTING

Nine counties compile the greater Rochester, New York area, with a population of 1,179,743 (US Census Data, 2000). An overwhelming number of residents (735,343) live and work in Monroe County. Because of funding and staffing limitations, the work for the Regional Trails Initiative was split into two phases. Phase One encompasses only the area known as the Rochester Transportation Management Area (TMA), which consists of the City of Rochester, the 19 towns and 10 villages of Monroe County, and 11 adjacent towns, six villages and the City of Canandaigua, within Livingston, Ontario, and Wayne counties (See Figure 1).

The physical setting of the greater Rochester area is ideal in many aspects for trail use with gently rolling hills, wooded valleys, an extensive lakeshore and numerous in-land waterways, and many smaller towns and villages. Dairy farms, vineyards and orchards, and abundant open spaces help maintain the region's rural character. The region is also served by numerous major highways, active and abandoned railroad lines, an international airport (GRIA), and the historic Erie Canal.

Figure 1

Nine-County GTC Region and Rochester Transportation Management Area



Genesee Transportation Council
June 2002

The population of the TMA has increased 6.8% in the last twenty-five years and is projected to grow by 2.3% (nearly 19,000 people) between now and 2020. Six of the nine metropolitan areas in Upstate New York have seen a loss in population since 1990. In contrast, the Rochester metropolitan area experienced the largest gain as a result of growing birth rates and in-migration of residents. The number of elderly persons in the region is also projected to increase significantly in this time period as well. In Monroe County, 13% of the population was age 65 years or older in 2000. This age group is projected to make up nearly 16% of the County's population in 2020. (Source: GTC's Regional Transportation Atlas, 1998)

Despite over 106 miles of multi-use trail already in place, a high level of community support, a rich history to draw upon, and extraordinary man-made and geographical features, the Rochester region has yet to successfully complete a coordinated interconnected trail system. This Action Plan suggests ways to capitalize on the region's assets, and aims to help transform its existing trail system into a model for the nation.

BENEFITS

A comprehensive and integrated network of trails addresses many of the top priorities of the TMA residents, including:

Transportation: Trails provide opportunities for people, from school children to employed adults, to walk or bicycle to school or work—at least on occasion. Each trip on a trail helps to reduce traffic and related congestion, noise, and air quality problems.

Economics: Studies have shown that trails are one of the top amenities sought by people when choosing places to live and work. A world-class trail system will help the Greater Rochester area retain its economic vitality. Other studies have shown that trails can have a beneficial impact on property values as well, and can serve to attract and retain quality visitors.

Quality of Life: Though hard to quantify, the places commonly known as having a good 'quality of life' are typically walking and bicycling-friendly communities. Just like good parks and schools, a quality trails system will add this intangible but important element to the region's neighborhoods.

Health: With the health of our children and communities a local and national priority, trails can help provide opportunities for people to walk or bicycle to work, school, or other activities, integrating healthy exercise into their daily lives.

Access to trails is mentioned as the second highest 'community amenity' priority among people looking at new places to live (after parks), according to a National Association of

Home Builders June 2001 survey. While some of these benefits are difficult to quantify, most citizens intuitively understand the connection between trails and their community.

Recent air quality concerns related to the region's potential designation as a non-attainment area for ground-level ozone (a chief component of smog) have precipitated a landmark shift in the Genesee Transportation Council's transportation investment priorities. Central to these new investment priorities is the development of alternative modes of transportation, including safe and convenient bicycle and pedestrian transportation facilities. A comprehensive trail system that is integrated with the region's transportation system can create alternatives to driving alone in automobiles, the dominant mode of transportation.

Although pedestrians have been valued for their contribution to urban vitality, walking, like bicycling, has not, until recently, been considered a serious means of transportation. Thanks in part to the passage of 1991's ISTEA (Intermodal Surface Transportation Efficiency Act) and 1997's TEA-21 (Transportation Equity Act for the 21st Century) legislation and its companion funding opportunities, this is beginning to change.

Walking is the oldest and most basic form of human transportation; it is clean, requires little infrastructure, and is integral to the health of individuals and communities. A community that is designed to support walking is livable and attractive. Bicycling has also become recognized as a valuable means of non-polluting transportation, offering similar health benefits and further reaching access to points of interest. Since walking and bicycling are among the most popular forms of recreational activity in the United States (with 84% walking and 46% bicycling for pleasure), we assume that thousands of Rochester area residents enjoy these activities as well.

The bicycle is another low-cost and effective means of transportation that is quiet, non-polluting, extremely energy-efficient, versatile, healthy, and fun. Bicycles also offer low-cost mobility to the non-driving public, especially the young. Bicycling as a means of transportation has been growing in popularity as many communities work to create more balanced transportation systems and reclaim streets from auto dominance. In addition, recent national and local surveys find that more people are willing to cycle more frequently if better bicycle facilities are provided.[1]

If safe, attractive, and convenient alternatives to driving existed, more people would likely choose bicycling or walking to reach their destinations. Inclusion of convenient, linked non-motorized trail systems throughout a region may encourage residents to experience and interact with their community, allow workers to live close to their jobs and reach work or recreational destinations quickly and economically, eliminate air pollution sources by reducing the consumption of fossil fuels, and provide exercise opportunities and more efficient use of the existing transportation network. The Regional Trails Initiative is a central component of this effort for the TMA.

.A Trend on the Move: Commuting by Bicycle,≅ Bicycling Magazine, 1991.

Moreover, strong demand exists for even greater recreational opportunities. A multi-use trail system will enhance the recreational environment as well as tie existing parks and transportation facilities together. A well-designed, well-maintained trail network would undoubtedly become a tourist attraction, bringing new revenue to the local economy. Local hotels, restaurants and other businesses would benefit from increases in tourist activity and increased spending on durable goods such as bicycles and skates. Property owners would likely benefit since trails typically increase property values adjacent to a corridor, particularly near residential neighborhoods.

DESCRIPTION OF THE REGIONAL TRAILS INITIATIVE ACTION PLAN

The Regional Trails Initiative Action Plan is primarily a coordinating and resource document for the TMA towns and county areas, with a focus on developing a primary network of trails, programs, and specific enhancements. The regional trail system will help to ensure good connectivity between municipalities, develop joint projects where needed, and develop consistent trail design and management standards.

Each community has the option to develop and approve its own trail improvements. To the extent feasible, this plan has incorporated existing local plans and priorities as part of its recommendations. Local projects not specifically included in this plan can be adopted and funded by each community as well. Many projects and programs included in this plan would need to be sponsored by a local agency, requiring local approvals and additional public input. All projects in this plan will require additional feasibility, design, environmental, and/or public input prior to being funded and constructed. All projects and plans would need to conform with local general plans as well.

Many people think of trails as local facilities serving local destinations. A regional trail system is composed of existing local trails, that, when linked, form a regional network, and serve a specific function by connecting communities, serving major destinations, and providing longer distance riding or walking opportunities. A regional trail system will serve a wide variety of user groups including students, work commuters, joggers and long distance bicyclists, as well as provide connections for major existing gaps in community trail systems that inhibit people from walking or riding. A regional trail, while being composed of local trails developed by local agencies, provides a benefit that goes beyond any one community—and enhances the overall quality of life in the region.

TYPES OF RECOMMENDATIONS

There are four distinct types of recommendations in this Action Plan:

1. general recommendations
2. location-specific project recommendations

3. implementation recommendations, and
4. design, operation, and management standards and guidelines

Specific recommendations range from new trails to the development, expansion, or improvement of existing trails. General recommendations include:

- Planning and Implementation
- Trail Operations and Maintenance
- ADA Accessibility and Connectivity
- Trail Marketing / Trail Information Resources
- Trail Amenities

Implementation recommendations include phasing and prioritization recommendations, funding strategies, and partnership suggestions.

A final set of recommendations in the Regional Trails Initiative are the provision of trail design, operation, and management standards and guidelines that serve as an important resource for local agencies as they implement the regional trail system, ensuring consistent and best practices.

PLANNING AND PUBLIC INVOLVEMENT PROCESS

The Genesee Transportation Council (GTC) serves as the lead agency for the Regional Trails Initiative and is utilizing a team approach to conduct the Initiative. Partners include:

- City of Rochester
- Greater Rochester Visitors Association
- Livingston County
- Monroe County
- NYS Canal Corporation
- NYS Department of Transportation (NYSDOT)
- Ontario County
- Rochester-Genesee Regional Transportation Authority (RGRTA)
- Wayne County

A Steering Committee of community leaders from the above organizations was established to guide the Initiative. These groups will serve as champions for the regional trails system, meeting on a periodic basis after completion of this planning effort to ensure timely implementation of the recommendations. An Advisory Committee was also formed, consisting of staff-level representatives of many of the organizations on the Steering Committee as well as representatives of key trail user groups in the Rochester TMA. The Advisory Committee provided support to the GTC staff/consultant team by providing input

on trail-related projects and activity in the region from the perspective of trail project managers, trail maintainers, and trail users. A consulting team led by Alta Transportation Consulting conducted the Initiative's work tasks in partnership with GTC staff.

In order to gauge community needs and interest in trails in the Rochester TMA, the Steering Committee directed the consulting team and GTC staff to undertake a thorough needs assessment and public input process:

- The consultant team and GTC staff met with or spoke with various local officials, agency and community staff people, and representatives of area trail organizations to obtain more detailed information about local plans and objectives and trail needs, issues, and concerns.

- All available relevant planning documents and maps from GTC and other local and county agencies were reviewed to evaluate the existing trails, trails under development, planned trails, and potential corridors for future trail development. Master plans, parks and recreation, and trail plans, where available for every city, village, and town in the TMA were reviewed. This review also helped identify potential gaps in the trail network and possible on-street connections.

- Statistics extracted from GTC's Regional Transportation Atlas (1998), US Census Bureau, and locally collected trail counts on area trails were analyzed to assess current transportation and recreation usage of the region's trails and to project future need and demand.

- A one-page public survey consisting of six trail usage questions was distributed at the six public workshops and on GTC's website during the public comment period in November and December 2001. Interested persons could also mail, fax, or E-mail their general comments to GTC.

- A trail usage matrix was developed to clarify current transportation and recreational usage of the region's trails and to project future usage and needs based on information from the public via the trail user survey and analysis of past trail user counts.

- Twelve public workshops were held in Downtown Rochester, Greece, Perinton, Canandaigua, Avon, and Walworth in November 2001 and March 2002. At the first round of workshops, attendees learned about the objectives and planning process for the Regional Trails Initiative, and provided comments on desired system additions and improvements. In the second set of workshops, the public was introduced to the preliminary system recommendations, and their comments were again solicited. The workshops were advertised in the local media, through local citizen groups and through the groups participating in the Initiative's Advisory Committee.

2. REGIONAL TRAILS INITIATIVE GOALS

Goals provide the context for the specific objectives and policy actions discussed in the Regional Trails Initiative. The goals provide the long-term vision and serve as the foundation of the plan. Goals are broad statements of purpose that do not provide specific descriptions of the goal, while policy actions provide a bridge between general policies and actual implementation guidelines, which are provided in this plan.

GOALS

The Steering Committee established several goals for the Initiative that are based on the overall project purpose. These goals were fine tuned in response to the findings of the needs assessment and input from the public.

All new trails and improvements to existing trails should:

- Support the development of a high-quality trails system that is consistent with the goals and objectives of the overall regional transportation system.
- Reflect local community priorities and interests for transportation and recreational opportunities.
- Utilize accepted trail design, construction, and maintenance standards and guidance to enhance safety and functionality.
- Meet or exceed minimum standards and guidance for accessibility as defined by the Americans with Disabilities Act and the US Department of Transportation.
- Maintain and improve the quality, operation, and integrity of existing trail facilities, including the provision of adequate amenities and support facilities.
- Be "context sensitive", reflecting the setting in which they are or will be located and the desired trail uses.
- Respect the integrity of the natural, scenic, and historic environment.
- Facilitate partnerships among communities, agencies, and organizations to effectively market and promote the regional trails system inside and outside of the region.

3. SUMMARY OF RELEVANT PLANS

Planning for bicycling, walking and trails has a long history in the Rochester TMA, including the following seven plans that have been prepared over the past twenty-five years:

1) Monroe County Bikeway System Plan (1978)

   Defined four general goals for a County bikeway program: (1) making bicycling safer in Monroe County, (2) encouraging use of the bicycle as a means of everyday transportation, (3) encouraging bicycling for recreation, sport and physical fitness, and (4) developing a continuous bikeway system for travel within Monroe County.

2) Bikeway Plan, City of Rochester (1979)

   Provided a comprehensive review of the issues involved with bicycle transportation. It also developed a Bikeway System Plan, which accommodated recreational, commuter, cross-town and external link trips. Eight short-range projects and five long-range projects were identified and described.

3) Genesee Transportation Council Coordinated Metropolitan Bikeway Plan (1980)

   Synthesized the 1978 Monroe County Bikeway System Plan and the 1979 City of Rochester Bikeway Plan.

4) Genesee Transportation Council Bikeway Implementation Program (1982)

   Identified 43 problem areas, proposed solutions and prioritized the projects. It also identified the types of locations where bicycle parking was needed, and listed specific locations for bicycle parking.

5) Revised Monroe County Bicycle Transportation Plan (1987)

   Identified three general courses of action to manage the problems related to bicycle travel: (1) introduction of a system-wide set of standards for incorporation of bicycle-travel related design elements in roadway improvement design, (2) designation of a system of off-street bikeways in Monroe County to complement the existing roadway system, and (3) reduction of bicycle accidents through a cost-effective program of increased enforcement of traffic laws related to bicycle use and education of road users on practices related to safe bicycle use.

6) Bicycle and Pedestrian Action Plan for the Rochester Metropolitan Area (1996)

   In response to the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 (which required plans that "provide for the development of transportation facilities which will function as an intermodal transportation system"), this plan was

intended as a checklist for actions to improve bicycling and walking conditions, the recognized "quality of life" indicators.

7) Long Range Transportation Plan Update for the Greater Rochester Area: 2000-2020

GTC's responsibility as the Metropolitan Planning Organization for the greater Rochester area is to adopt a Long Range Transportation Plan. It serves as a 20-year perspective of existing and projected transportation system capabilities, needs, objectives, and strategies to achieve these objectives.

Additionally, there are two recent maps that have been published and widely distributed.

Greater Rochester Area Bike Map (1998 edition) contains road ratings for bicycling from "poor" to "very good". The "very good" routes are the least evident, pointing to the great need for road improvements to address road width, surfacing, shoulder pavement, traffic calming or signage.

Get Back On a Bike! Greater Rochester Bicycle Trail Map (May 2001 edition) illustrates 15 (11 of which are in the Rochester TMA) off-street, multi-use trails in existence within the region, wand one trail currently under development. It was produced through a partnership between GTC, the Genesee Valley Bicycle Dealers Association and The Bicycle Council.

4. EXISTING CONDITIONS

The Greater Rochester area has a great number of trails already built that provide the basis for a comprehensive regional trails system. This chapter summarizes existing trails in the study area, and identifies needs for additional trails or other improvements as expressed by local agencies or the public.

EXISTING TRAILS

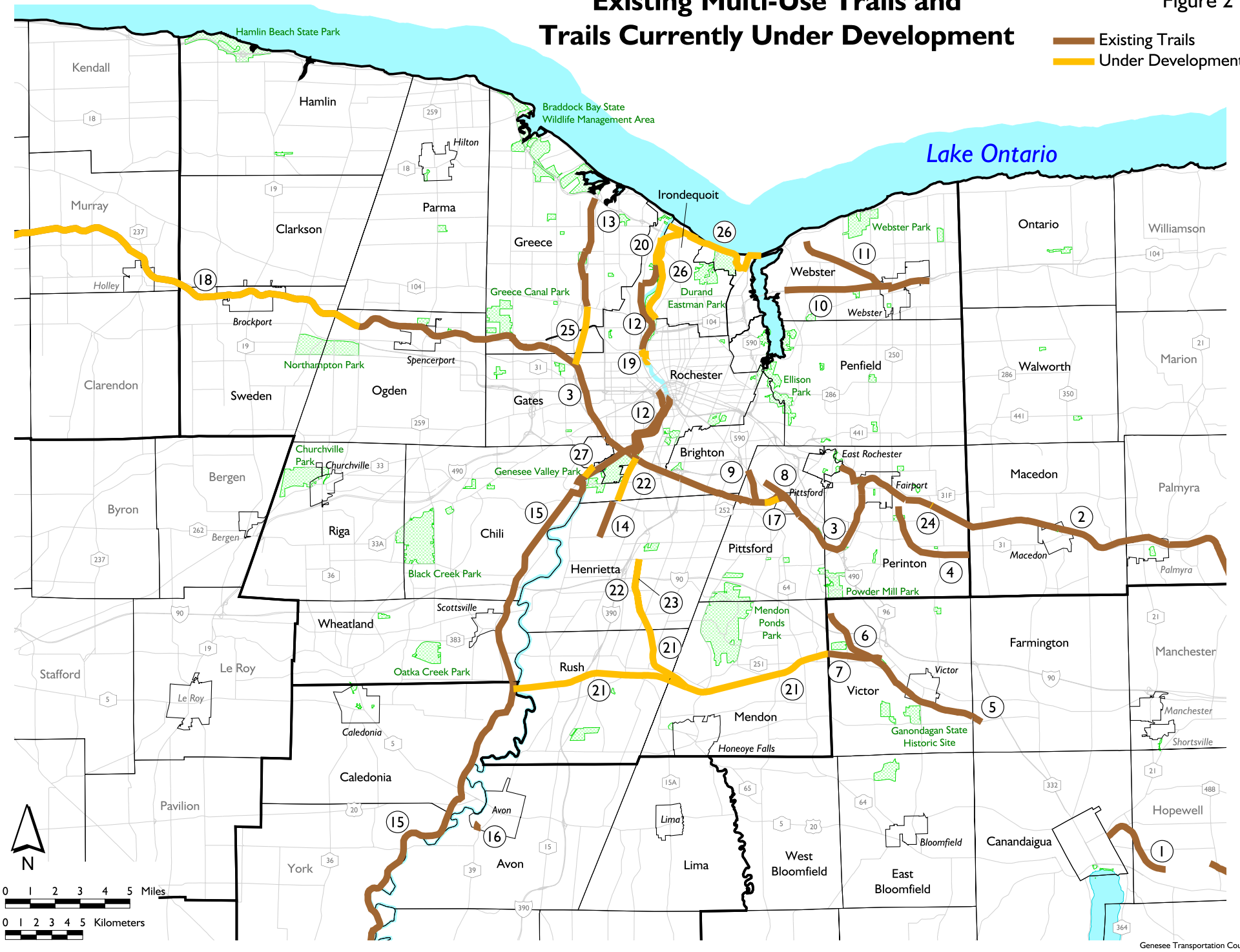
Currently, there are approximately 106 miles of trails in the TMA, about half of which are paved and the remainder unpaved (see Figure 2 and Tables 1 and 2). The existing trail system consists of some nationally recognized trails (such as the Canalway Trail along the Erie Canal) and many others.

While the TMA has a wide variety of existing trails, some do not meet the requirements of existing standards such as the Americans with Disabilities Act (ADA) or Chapter 18 of the New York State Department of Transportation Highway Design Manual. Not all trails need to meet these standards, but generally any trail that is expected to serve transportation purposes (such as commuting to work or school) or will be used by a significant number of people, should be designed to current transportation standards for grade, width, geometry, and accessibility.

Trails that are expected to be used almost exclusively for recreational purposes may not have to meet these standards, although it is always advisable to follow good engineering practices. Note: it is possible for unpaved trails to serve as a transportation facility and meet ADA standards; this is covered in the Design Guidelines section of the report.

Existing Multi-Use Trails and Trails Currently Under Development

Figure 2



Genesee Transportation Council
June 2002

Existing Multi-Use Trails within the TMA

Table 1

Map ID	Trail Name	Trail Limits	Approx. Length (mi.)	Trail Surface	Allowed Trail Uses	Jurisdiction(s)	County(s)	Trail Management Responsibility
1	Ontario Pathways	Ontario Street, City of Canandaigua to east of Smith Road, Town of Hopewell (Note: Ontario Pathways trail extends beyond the TMA)	4	Cinders Grass	Bicycling, walking/jogging, xc skiing	City and Town of Canandaigua; Town of Hopewell	Ontario	Ontario Pathways
2	Canalway Trail -- Wayne County	Monroe/Wayne County line (Macedon) to Village of Palmyra	7	Stone Dust	Bicycling, walking/jogging, xc skiing	Town and Village of Macedon; Town and Village of Palmyra	Wayne	NYS Canal Corporation
3	Canalway Trail -- Monroe County	Monroe/Wayne County line (Perinton) to Monroe/Orleans County line (Clarkson)	40	Asphalt Stone Dust	Bicycling, walking/jogging, xc skiing, skating	Perinton/Fairport, Pittsford, Henrietta, Brighton, Rochester, Chili, Gates, Greece, Ogden/Spencerport, Sweden/Brockport, Clarkson	Monroe	NYS Canal Corporation
4	RS & E Trolley Trail	Monroe/Wayne County line to Pebble Hill Road	4.5	Stone Dust	Bicycling, walking/jogging, xc skiing	Town of Perinton	Monroe	Town of Perinton
5	Auburn Line Trail -- Farmington	Victor/Farmington townline to Boughton Hill Road	1.1	Cinders Grass	Bicycling, walking/jogging, xc skiing	Town of Farmington	Ontario	Town of Farmington
6	Auburn Line Trail -- Victor	Probst Road to Victor/Farmington townline	7.2	Cinders Grass	Bicycling, walking/jogging, xc skiing	Town of Victor	Ontario	Town of Victor; Victor Hiking Trails
7	Lehigh Valley Linear Trail -- Victor Section	Auburn Line Trail to Ontario/Monroe County line	1.8	Cinders Grass	Bicycling, walking/jogging, xc skiing	Town of Victor	Ontario	Town of Victor; Victor Hiking Trails
8	Auburn Line Trail -- Pittsford Section	Route 96/North Main Street (Village of Pittsford) to French Road	1.4	Cinders Grass	Bicycling, walking/jogging, xc skiing	Village and Town of Pittsford	Monroe	Town of Pittsford
9	Erie Canal Towpath Trail	Canalway Trail (south of French Road) to Spring House Restaurant (near Clover Street/Monroe Avenue intersection)	1.2	Stone Dust Grass	Bicycling, walking/jogging, xc skiing	Town of Pittsford	Monroe	Town of Pittsford
10	Route 104 Trail	Salt Road to Bay Road	5.8	Asphalt	Bicycling, walking/jogging, skating	Town of Webster	Monroe	Town of Webster
11	Hojack Trail	Holt Road/Orchard Road to Vosburg Road	3.5	Stone Dust	Bicycling, walking/jogging, xc skiing	Town of Webster	Monroe	Town of Webster; Friends of Webster Trails
12	Genesee Riverway Trail	West side -- Erie Canal to Exchange Blvd., Driving Park Ave. to Turning Point Park East Side -- Erie Canal to Court Street	9	Asphalt	Bicycling, walking/jogging, skating	City of Rochester	Monroe	City of Rochester
13	Route 390 Trail	Lake Ontario State Parkway to Route 104 (West Ridge Road)	4.7	Asphalt	Bicycling, walking/jogging, skating	Town of Greece	Monroe	Greece
14	John Street Trail	Jefferson Road to Bailey Road (adjacent to RIT campus)	1.3	Asphalt	Bicycling, walking/jogging, skating	Town of Henrietta	Monroe	Rochester Institute of Technology
15	Genesee Valley Greenway	Genesee Valley Park south through Caledonia (Note: the Greenway extends beyond the TMA into Livingston, Wyoming, and Allegany Counties	17	Cinders Grass	Bicycling, walking/ jogging, xc skiing, snowmobiling, horseback riding	Rochester; Chili; Wheatland; Town of Caledonia	Monroe Livingston	NYSDEC; Friends of the Genesee Valley Greenway
16	Old Mill Road Trail	Avon Driving Park to Mill Road	0.7	Cinders Grass	Bicycling, walking/jogging, xc skiing	Town and Village of Avon	Livingston	Town and Village of Avon
		TOTAL MILES OF MULTI-USE TRAIL IN THE TMA	**106.2**					

Trail Projects/Improvements
Currently Under Development in the TMA

Map ID	Project Name	Project Description	Approx. Length (mi.)	Jurisdiction(s)	County(s)	Implementing Agency	Total Project Cost (all sources)	Funding Source(s)
17	Canalway Trail Realignment	Realignment of and safety improvements to the Canalway Trail at Brook Road and Old Monroe Avenue	0.7	Pittsford	Monroe	Town of Pittsford NYS Canal Corporation	$517,000	2001-2006 TIP funding (from the bicycle/pedestrian transportation earmark)
18	Canalway Trail Rehabilitation	Rehabilitation/upgrading of 17 miles of the Canalway Trail between Adams Basin (Spencerport area) and Albion, Orleans County	17.9	Ogden; Sweden; Murray; Holley; Albion	Monroe Orleans	NYS Canal Corporation	$1,600,000	1999 TEP funding allocation to NYS Canal Corporation
19	Genesee River Pedestrian Bridge	Construction of a new pedestrian bridge across the Genesee River between Brewer and Hastings Streets, Lower Falls Park	0.4	City of Rochester	Monroe	City of Rochester	$1,200,000	RG & E agreement w/ City of Rochester
20	Genesee Riverway Trail	Construction of a new section of the Genesee Riverway Trail from Turning Point Park to the new O'Rorke Bridge	1.4	City of Rochester	Monroe	City of Rochester	$4,450,000	2001-2006 TIP (related to the Lake Avenue reconstruction project)
21	Lehigh Valley Linear Trail	Construction of dual parallel unpaved trails on the former Lehigh Valley RR corridor -- one for bicycle/pedestrian use and one for equestrian use	15.5	Mendon; Rush	Monroe	Monroe County	$1,200,000	1999 TEP funding
22	Lehigh Valley Multi-Use Trail	Construction of two sections of unpaved trail between the Canalway Trail and Brighton-Henrietta Townline Road (Brighton) and between Lehigh Station Road and the Rush/Henrietta town line on the former Lehigh Valley Railroad corridor	6.3	Brighton; Henrietta	Monroe	Town of Brighton Town of Henrietta	$1,211,000	2001-2006 TIP funding (from the bicycle/pedestrian transportation earmark)
23	Lehigh Valley Multi-Use Trail Tunnel	Construction of a new tunnel under Erie Station Road to carry Lehigh Valley RR Trail (Henrietta section) traffic under Erie Station Road	0.1	Henrietta	Monroe	Monroe County	$160,000	2001-2006 TIP funding (connected with the Erie Station Road reconstruction project)
24	Lyndon Road Pedestrian Ramps	Construction of accessible ramps to connect Lyndon Road to the Canalway Trail at the new Lyndon Road bridge	0.2	Perinton	Monroe	Monroe County	$528,000	2001-2006 TIP funding (related to the Lyndon Road Bridge replacement project)
25	Route 390 Trail Extension	Construction of a new section of trail from Route 104 (West Ridge Road) to the Canalway Trail	2.2	Greece	Monroe	NYSDOT	$2,400,000	2001-2006 TIP (Project connected to the Rt. 390 Expressway reconstruction project)
26	Seabreeze/Charlotte/Seneca Trail	Construction of a new paved multi-use trail on the former Rochester Running Track railroad corridor and on-street connections to the Seabreeze area via Lakeshore Boulevard	6.1	Irondequoit	Monroe	Monroe County Town of Irondequoit	$3,387,000	1999 TEP funding
27	Genesee Valley Greenway/Scottsville Road Trail/Connection Improvement	Construction of an improved trail crossing at active railroad tracks and 0.8 mile trail section to create fully off-street trail connection at Scottsville Road (Route 383)	0.8	Chili	Monroe	NYS Office of Parks, Recreation, and Historic Preservation	$250,000	1995 TEP funding; RG & E Consent/Court Order funding
		TOTAL MILES OF <u>NEW</u> TRAIL UNDER DEVELOPMENT	**33.0**			**TOTAL FOR ALL PROJECTS**	**$16,903,000**	

Local Greater Rochester area trails include:

Auburn Line Trail (Victor Section) (unpaved)

This 8.3 mile unpaved trail links the Town of Victor with nearby Pittsford, utilizing an abandoned railroad right of way. This trail will eventually connect with the planned Lehigh Valley Trail to the west, and extend into Farmington on the east. Surface and accessibility improvements are planned within the Town of Victor if funding is obtained.

Credit: Victor Hiking Trails, Inc.

Auburn Line Trail (Pittsford Section) (unpaved)

This short trail (1.4 miles) extends northwesterly from the Erie Canal in the Village of Pittsford towards the Monroe Avenue commercial corridor. The trail connects at the Plaza with a short section of trail (the Erie Canal Towpath Trail) that winds back southward to the Erie Canal utilizing an abandoned section of the old 1820s Erie Canal. These two trails could serve as part of a future north-south route up to Ellison Park and Irondequoit Bay.

RS & E Trolley Trail (unpaved)

This 4.5-mile trail starts south of the Erie Canal within the Town of Perinton and extends to the border of Perinton and Macedon. It connects to the Town Hall and Park complex off Tuck Hill Road, Egypt Park, the Hamlet of Egypt, and the Humane Society at Lollypop Farm.

Credit: Bergmann Associates

Canalway Trail (paved and unpaved)

This multi-use trail along the historic Erie Canal spans three counties in the region for a total of 103 miles, approximately 45 of which are within the TMA. The trail follows the canal on the original mule towpaths.

Credit: Genesee Transportation Council

Genesee Riverway Trail (paved)

This urban waterfront trail (currently 2/3 complete) extends 13 miles through the center of Rochester, connecting numerous residential neighborhoods, downtown, several commercial areas, the University of Rochester, 11 parks, historic districts and points of interest, museums, viewing opportunities for the three waterfalls along the Genesee River and the river gorge itself, and the Canalway Trail and Genesee Valley Greenway. In some areas the trail will follow both sides of the river, while in others it will cross the Genesee River via its many bridges and five pedestrian-only structures. The trail also provides connections to three regional trails.

Credit: City of Rochester

Genesee Valley Greenway (paved and unpaved)

The Genesee Valley Greenway, while only partially completed at this time, is a 90-mile north-south trail following the abandoned 19th-century Genesee Valley Canal and Pennsylvania Railroad corridor. It passes through five counties, seventeen towns and numerous villages. Approximately 18 miles of the Greenway is located within the TMA. The trail winds through scenic woodlands, rolling farmlands and stream valleys, and is open to pedestrians, bicyclists, horseback riders, cross country skiers, and snowmobiles (in limited areas).

Credit: Friends of the Genesee Valley Greenway

Route 390 Trail (paved)

This north-south trail parallels State Route 390 from the Lake Ontario State Parkway south to West Ridge Road (Route 104). While not the most aesthetic environment, this trail serves several important destinations (schools, commercial areas and residential neighborhoods) and is well used in this fast-growing part of Monroe County. The trail does cross several very busy arterial streets and roadways.

Credit: Genesee Transportation Council

Route 104 Trail (paved)

Similar to the Route 390 trail, this 5.8 mile facility parallels State Route 104 east of Irondequoit Bay from Bay Road to Salt Road. The route does not provide a crossing of Irondequoit Bay. A link to the existing Hojack Trail was recently negotiated by the Friends of Webster Trails.

Hojack Trail (unpaved)

This 2.5 mile unpaved trail is on the former Rome, Watertown and Ogdensburg Railroad right-of-way in the Town of Webster. The trail was developed through a partnership between the Friends of Webster Trails, a local citizens group, the Town of Webster, and Rochester Gas and Electric, the owner of the abandoned railroad corridor.

Credit: Friends of Webster Trails

Ontario Pathways (unpaved)

The Ontario Pathways Trail is a 23-mile rails-to-trails project composed of two "legs" that connect the communities of Canandaigua, Stanley, Seneca Castle, Phelps and Clifton Springs. Nineteen of the 23 miles are currently open for use year-round for hiking, bicycling, horseback riding, and cross-country skiing. Note: only the most westerly part of this trail is located in the TMA.

Credit: Ontario Pathways

TRAILS UNDER DEVELOPMENT

Monroe County trails under development are outlined in Figure 2 and Table 2.

Lehigh Valley Trail (under development)

This multi-use trail is currently under development along a portion of the abandoned Lehigh Valley Railroad corridor. The Lehigh Valley Railroad right-of-way is physically one large trail corridor but contains four separate sections:

- Mendan/Rush Mainline
- Victor Section
- Rush/Henrietta spur
- Brighton section

Seabreeze/Charlotte/Seneca Trail (under development)

This trail will utilize the abandoned Rochester Running Track and on-street segments through Irondequoit. The trail has potential connections to the south into Rochester, to the west over the Genesee River to the Riverway, and to the east and west connecting with the Hojack Trail.

SUPPORT FACILITIES

Support facilities include trailheads, restrooms, bicycle parking, transit connections, benches, signs, and other amenities that support users of the trail system. While there are a few trailheads in the region, such as along the Canalway Trail, by and large most trailheads are difficult to find and do not provide restrooms or other important amenities. Communities along trails provide important support services to users, but again there is a general lack of signage both to find trail access points and, if on the trail itself, directing people to nearby amenities, stores, and other support facilities. The lack of signing, maintenance, restrooms, and other items was mentioned by the public many times in the public workshops and surveys.

Distinct trailhead and good use of directional signage on the Canalway Trail

At the same time, the City of Rochester has begun a distinctive trail signing system on the Genesee Riverway Trail that includes map kiosks, lighting, and other important amenities. Several Canal communities such as Pittsford are well planned and designed to attract and serve trail users, from local plazas and restaurants to bike shops and public restrooms. Appendix A - Design Guidelines at the end of this Action Plan illustrates examples of support facilities that could be developed throughout the TMA to enhance local trails.

5. NEEDS ANALYSIS

DESCRIPTION OF NEEDS

The purpose of reviewing the needs for Phase I of the Regional Trails Initiative is twofold: (1) it is instrumental when planning a system that must serve various user groups, and (2) it is useful when pursuing competitive funding and attempting to quantify future usage and benefits to justify expenditures of resources.

Trail users range from employees and students who commute to work and school; recreational bicyclists, pedestrians, hikers, equestrians, and in-line skaters of all ages; parents pushing strollers, children, and everyone disabled. The needs of this entire range of users must be anticipated and accommodated within the trail system. The greater Rochester area lends itself to having the potential for increased trail usage because of its relatively moderate terrain, accessibility to parks and water, and the location of its trails (existing and potential) to employment, shopping centers and schools.

PUBLIC INPUT

In order to gauge community needs and interest in trails in the Rochester TMA, the Steering Committee directed the consulting team and GTC staff to undertake a thorough public input process. The public was encouraged to become and stay involved in the planning process through participation at public workshops, completing trail user surveys, and commenting electronically through GTC's web site. A total of 12 public workshops were held in Downtown Rochester, Greece, Perinton, Canandaigua, Avon, and Walworth in November 2001 and March 2002.

SUMMARY OF PUBLIC COMMENTS

The response to the various public input opportunities was tremendous. Hundreds of comments were received from the public via the on-line Trail User Survey, E-mail, regular mail, and at the public meetings. Comments received identified several key trail desires and issues for the Rochester TMA:

The public comments were grouped into the following seven categories:

- General Comments
- Existing Trails/Conditions comments
- New Trails/Desired Connections comments

- Trail Amenities/Ancillary Facilities comments
- Trail Safety and Security comments
- Marketing the Regional Trails System comments, and
- Other comments that did not fit clearly in one of the above categories.

A summary of the public comments per these seven categories follows. Full summaries of all public comments received at the six public meetings and via the on-line Trail User Survey, general E-mail messages, and letters and surveys received via regular mail can be found at the end of this document in Appendices B, C and D.

General Comments

1) Trails are great
2) Trails should be reflective of their settings and their desired uses
3) Trail rules and regulations need to be effectively enforced

Existing Trails/Conditions

1) Improve/expand the existing system by:
   a) Directing more money towards trail planning, development, and maintenance
   b) Developing partnerships among all levels of government, transportation agencies, trail/community groups, and citizens-at-large
   c) Improving the street network to create connectivity between destinations
   d) Repairing and building trails with high design and construction standards
   e) Establishing maintenance policies and standards for year-round use
   f) Improving accessibility, parking, and amenities available at/along trails
   g) Complete trails in the region which are only partially built
2) Existing trails frequently identified for specific improvements or additions include:
   - Canalway Trail (all sections)
   - Genesee Riverway Trail
   - Route 390 Trail (Greece)
   - Genesee Valley Greenway
   - Route 104 Trail (Webster)
   - Hojack Trail (Webster)

New Trails/New Connections

1) Improve trail connections to parks, schools, other trails, and key community destinations.
2) New trails should improve connectivity between trails and destinations by:
   a) Developing bicycle lanes, paved shoulders, and sidewalks

b) Adding more north-south trails and more west side trails

c) Removing barriers to access (bridges, connector trails, and improved road conditions)

3) Plan ahead for extending trails as key properties and corridors become available.

4) Develop more trail loops: longer loops for bicyclists and horseback riders, shorter loops for hikers cross country skiers and snow shoeing.

5) Corridors frequently identified for new trail development include:

- Hojack Railroad Corridor (Greece to Hamlin)
- Auburn Railroad Corridor (Canandaigua to Brighton)
- Lake Ontario State Parkway/Seaway Trail (Monroe, Orleans, Wayne)
- Irondequoit Creek stream corridor

Desired Trail Amenities

1) More frequent trailheads

2) At trailheads and along trails:

a) Signage – all types (directional, informational, interpretive, historic, etc.)

b) Toilets, drinking fountains, vehicle and bicycle parking, benches, trash/recycling receptacles, landscaping, and public art

Trail Safety and Security

1) Separate trails or demarcation of separate space for pedestrians and bicyclists/skaters in congested areas to reduce speed-related conflicts

2) Road crossings need to be corrected or bypassed (e.g. inconsistent intersection treatments, wide and/or busy crossings)

3) Improve:

a) Parking area security to reduce vehicle break-ins

b) Perceived and real feelings of remoteness on some trails

c) Trailhead entry points to prevent motorized vehicle trespassing

Marketing the Region's Trail System

1) Maps are strongly desired, both paper and on-line interactive maps

2) A regional trails web site with resident and visitor trail information in one place should be developed

3) Utilize natural or historic interpretation to bring new users to the trails

Other Comments

1) Bicyclists and pedestrians need to be legitimized as means of transportation
2) Trail liability issues need to be defined more clearly for municipalities, trail groups, and property owners

COMMUTING AND RECREATIONAL USERS

COMMUTING NEEDS

Commuters in the Rochester TMA include employees who walk or ride to work, children traveling to school, or people running errands. Shorter commutes to all these destinations, typically less than three miles from residential areas, run counter to most land use and transportation policies that encourage people to live farther and farther from where they work. Access to transit helps extend all commute ranges, but transit systems also face an increasingly dispersed live-work pattern that is difficult to serve.

The majority of work places within the TMA are located in the cities of Rochester and Canandaigua, and in or just surrounding area villages. The majority of people, however, live significant distances away from these employment centers. This inhibits most people from walking or bicycling to work. Commute trips between work and home typically account for about one-third of all weekday person trips, and therefore represent a substantial opportunity for trail usage if regional links can be developed between employment and residential areas.

Despite these facts, the Rochester TMA has a great potential to increase the number of people who commute to work or school without a car because of:

- the small size and compactness of many of the cities with dense residential neighborhoods nearby,
- a favorable climate for most of the year,
- flat rolling terrain, and
- a high percentage of work trips that are less than 15 minutes.

According to a May 1991 national-level Lou Harris Poll, it was reported that "...nearly three million adults–about one in 60–already commute by bike. This number could rise to 35 million if more bicycle friendly transportation systems existed." In short, there is likely a large number of potential bicyclists and pedestrians in the Rochester TMA who do not ride or walk (or do either more often) simply because they do not feel comfortable using the existing street system and/or don't have appropriate bicycle facilities at their destination.

While walking is currently the more frequently used mode of transport for short trips in the Rochester TMA (as reported in the 2000 Census), the concerns below, with the exception of the last one, are typically shared by pedestrian and bicyclist commuters:

- Commuters generally prefer routes where they are required to stop as few times as possible, thereby minimizing delay.
- In general, a primary concern to all commuters is intersections with no stop signs or signal controls to provide safe crossing.
- Commuters typically seek the most direct and fastest route available.
- Major commuter concerns include changes in weather (rain and snow), traveling in darkness, personal safety and security.
- Commute periods typically coincide with peak traffic volumes and congestion, increasing the exposure to potential conflicts with vehicles.
- Commuter trips usually range from several blocks to ten miles.
- Places to safely store bicycles are of paramount importance to all bicycle commuters, but particularly in a place like Rochester, where challenging weather conditions can prevail.

RECREATIONAL NEEDS

Recreational trail use generally falls into one of three categories: exercise, non-work or shop destinations, and sight seeing. Directness of route is typically less important than being on routes with few traffic conflicts. Visual interest, shade, protection from wind, moderate gradients, and artistic or informational features have a much higher value. Traveling on a loop trail (as opposed to an out-and-back route) is also more desirable.

Recreational trail users within Rochester's TMA fall into the following main five categories:

- pedestrians (walkers, runners)
- bicyclists
- cross county skiers
- horseback riders
- bird watchers

Other trail uses, such as snowmobiling, are certainly possible, but these are generally not found on trails within the TMA. All commuter or recreational users require some basic essentials to have a safe and comfortable experience, one that would encourage them to return. These include trailheads, well marked trail connections, and even surfaced trails. Adequate visibility to see other trail users is very important, translating into trailside plantings maintained to provide minimal visual obstruction and lighting at night in areas with inadequate illumination.

PROJECTED USAGE AND BENEFITS

The key goals of the Regional Trails Initiative are to develop a regional trail system that will attract a broad variety of people, connect communities, link to important destinations, and help overcome barriers to walking or bicycling. In order to set the framework for these benefits, national statistics and policies were used as a basis for determining the benefits to the Rochester TMA.

The 2000 Census found that approximately 1.6 % of work trips were made by other means (including bicycles) in Monroe County and 2.2 % of work trips were made on foot. Nationally these percentages were .4 % and 3.9 % respectively, according to the 1990 Census. In addition, bicycling is one of the most popular forms of recreational activity in the United States. The Bureau of Transportation Statistics' October 2000 survey found that of the 41 million people riding bicycles (almost 15% of the 281,421,906 national population (Census 2000)), 54 percent are bicycling for recreation and 35 percent are bicycling for exercise. The 2001 'American Sports Data Study' by the Sporting Goods Manufacturer's Association tallied 84,182,000 national recreational walkers (almost 30% of the national population). If nothing else, this indicates a latent demand for connected trails and user facilities. Another way of saying this is, "if you build it, they will come."

Currently, the average household in the U.S. generates about 10 vehicle trips per day. Work trips account for less than 30 percent of these trips on average. According to the 1998 Regional Transportation Atlas for the Rochester TMA, 50% of non-work trips to or from home are less than three miles. In addition, considering that about 13,000 bicycle commuters live in the TMA and 35,000 households do not own a motor vehicle, there is strong indication that the regional trail system will be well used by TMA residents.

Alta Transportation Consulting has developed a state-of-the-art bicycle and walking demand model that also estimates future usage and cost benefits. This is the first model of its type to be based on empirical data. As shown in Table 3, completion of a regional trail system will result in approximately 4,700 daily weekday users, doubling on weekends to 10,170 daily users. It is important to note that this is simply an order-of-magnitude estimate based on available data.

Table 3

Projected Rochester TMA Trail Usage Systemwide

	Walking	Running	Bicycling	Other	Daily Total
Current number of average weekday users per mile*	2	1	4	5	12
Current number of average weekend users per mile*	5	2	8	11	26
Current number of average weekday users per day in existing trail system**	212	106	424	530	1272
Current number of average weekend users per day in existing trail system**	530	212	848	1166	2756
Projected number of average weekday users per day in future completed trail system***	782	391	1564	1955	4692
Projected number of average weekend users per day in future completed trail system***	1955	782	3128	4301	10166
Projected total annual weekday users (260 days x 4692 users) = 1,219,920 users					
Projected total annual weekend users (105 days x 10,166 users) = 1,067,430 users					
*Based on Canalway Trail usage data from 1994/95 and 2001					
**Assuming 106 miles of existing trails					
***Assuming 285 additional future miles, resulting in 391 miles of completed trails, and assuming 279% usage increase as system gets completed/trails are improved, based on nationwide user behavior.					

6. RECOMMENDATIONS

OVERVIEW

This regional trails initiative proposes to link the existing traffic system to neighborhoods, schools, parks, shopping centers and places of work with a comprehensive regional trails network totaling 391 miles, to be developed over the next 12 years. The proposed regional trails network will cost approximately $70 million to develop. The proposed network will connect to every community in the region and provide good north-south and east-west connectivity. A demand analysis of potential users found that, when completed, the regional trail system will be used by 2.3 million users per year. When put into practice, the recommendations aim to make the greater Rochester area a national model for bicycling and walking.

GENERAL RECOMMENDATIONS

The General Recommendations identify policies and processes within five recommendation areas that focus and support project implementation efforts as well as region-wide standards of practice:

PLANNING AND IMPLEMENTATION RECOMMENDATIONS

1. Establish a high-level Regional Trails Initiative Implementation Task Force and supporting staff resources to facilitate the full implementation of the Regional Trails Initiative and to:

    - Maximize coordination among agencies, communities, and trail groups
    - Identify and manage Priority Trail Advancement planning projects
    - Assist agencies, communities, and trail groups with trail planning efforts
    - Identify additional sources of funding and develop grant applications and other necessary information to compete for new funds
    - Continue identification and prioritization of new trail projects and opportunities as they emerge

2. Fund the Priority Trail Advancement planning project (or similar planning activity) in the Unified Planning Work Program on an on-going basis to help advance the Regional Trails Initiative and to provide a stable, consistent source for advancing concept-level trail planning

3. Support local communities' efforts to preserve and/or create corridors for trail development through local land use, planning, and zoning strategies

4. Inventory key trail corridor preservation opportunities, identify achievable preservation and acquisition strategies, and facilitate actual corridor preservation and acquisition efforts

5. Prioritize corridor preservation and/or acquisition in cases of imminent corridor loss over actual trail development where the corridor has been identified for trail development

6. Encourage the use of the Trail Design, Maintenance, and Operations "Best Practices" Guidance developed as part of this Initiative for all trail projects and improvements in the region

7. Ensure that trail projects that are under development progress in a timely fashion and with adequate funding to complete project as designed
8. Expand existing mechanisms and opportunities or develop new ones for receipt and distribution of donations, bequests, corporate sponsorships, and civic and volunteer activities that benefit trail development, operations, maintenance, and promotion

9. Update the Regional Trails Initiative on a 5- and 10-year schedule

TRAIL OPERATIONS AND MAINTENANCE RECOMMENDATIONS

1. Establish standards for trail maintenance appropriate for the type of trail and its users

2. Require all applicants for trail project funding provide a maintenance plan with their applications

3. Identify possible funding sources to assist local communities and agencies with on-going trail maintenance

4. Facilitate the development of multi-community / multi-agency trail maintenance agreements that cross community boundaries to improve maintenance quality and consistency and achieve cost and labor savings

5. Provide safe and convenient trail detours during reconstruction or major maintenance of existing trails

6. Ensure that construction and maintenance of all transportation facilities (roadways, expressways, sidewalks, trails) and construction on properties adjacent to trails minimizes disruption to trails and related facilities, trail users, and adjacent landowners
7. Encourage the use of Adopt-A-Trail community maintenance programs on trails region-wide for basic trail maintenance (e.g. litter pick-up, beautification projects)

ACCESSIBILITY AND CONNECTIVITY RECOMMENDATIONS

1. Identify locations and corrective measures to address existing trail accessibility problems that inhibit trail use by disabled and other mobility-challenged persons

2. Prioritize the development of off-street and on-street linkages to/from trails and between trails to close gaps in the regional system

3. Accommodate bicyclists, pedestrians, and other trail users on roadways and bridges in the region as appropriate

4. Support the identification and development of new and/or improved trail connections to adjacent land uses

5. Identify opportunities to improve and expand existing trailheads and parking areas, develop additional trailheads and parking areas, and enhance security at these locations.

TRAIL MARKETING / TRAIL INFORMATION RESOURCE RECOMMENDATIONS

1. Develop partnerships among trail groups, local communities, GTC, other government agencies, tourism promotion agencies, and related businesses and business organizations to effectively market trails as a major attraction in this region

2. Support the development and maintenance of an interactive regional trail information web site that would provide detailed information on trails in this region, including maps, user groups allowed, and other regulations, trail events, links to trail groups, and other relevant information

3. Promote the region's history and natural resources in trail tourism information, and ensure the linkage between general tourism information and trail tourism information

4. Maintain up-to-date centralized information databases and Geographic Information Systems (GIS) on trails in the region

5. Maintain up-to-date centralized information databases and GIS on abandoned rail corridors to facilitate the preservation and possible conversion of these corridors to trails

6. Establish legal resource and best practices materials relating to trails, including information on rails-with-trails, trails license agreements, Adopt-A-Trail program materials, NYS General Obligations law, etc. and samples of these materials

7. Clarify and disseminate information about key project implementation procedures and requirements

TRAIL AMENITIES RECOMMENDATIONS

1. Support the placement of functional trail amenities for trail users (e.g. bathroom facilities, drinking water, bicycle parking, benches, picnic tables, lighting, etc.)

2. Encourage the development of natural, scenic, and historic interpretation information and designation on trails to enhance trip experience and support community values

3. Encourage landscaping, public art, and other beautification efforts along trails as desired by local communities

4. Develop and disseminate trail amenity and signage guidance that addresses a variety of settings and budgets

5. Establish clear implementation procedures and contacts for local groups desiring to install trail amenities and signs that meet the standard design requirements and/or guidance

LOCATION-SPECIFIC RECOMMENDATIONS

Location-specific recommendations identify potential new trail projects and improvements to existing trails within the TMA. These projects were identified through a review of all relevant local, county, regional, and state plans; direct input from agencies, municipalities, trail groups, and the public; and identification of additional opportunities and needs by the project team.

These potential trail projects were sorted into three suggested implementation windows – Near- Term, Mid-Term and Long-Term – based on project sorting criteria established by the Steering Committee (a description of the project sorting criteria follows this section). The implementation windows are based on typical funding cycles and the time typically needed to advance trail projects:

- Near-Term Recommendations – 2003 – 2006
- Mid-Term Recommendations – 2007 – 2011
- Long-Term Recommendations – 2012-2014

Recommendations of three types are presented for the implementation windows. The physical projects are identified here; the programs are described under Follow-on Activities within the Implementation chapter:

1. short through long term proposed physical trail projects,
2. in-depth project fact sheets for 20 priority trail projects, and
3. new programs to be developed throughout the region.

The Near-Term, Mid-Term, and Long-Term Recommendations are detailed in the following Figures 3, 4, 5, and Tables 4, 5, 6. Recommendations are broken down between projects, phasing and prioritization, and programs. There are a total of 68 distinct trail projects identified in the Plan, the vast majority of which came directly from local agencies.

PROJECT SORTING CRITERIA

The Steering Committee, with guidance from GTC staff and the consulting team, developed a set of criteria by which location-specific trail projects could be sorted into potential implementation windows. These project sorting criteria are based on the Initiative's goals established by the Steering Committee and were refined using input from local officials and the public:

Project Feasibility

- Inclusion in a Local, Regional, or State Plan – Is the trail or trail improvement identified in a local, county, regional, and/or state plan?

- Public Comments/Community Support – Is there a high-level of community support for the project? Was the project or improvement frequently identified in the Regional Trails Initiative public input opportunities?

- Project-Specific Planning Advanced – Has a project's respective community and/or agency progressed any specific planning efforts for a project (e.g. feasibility study, cost estimation, site and/or structural inspections, environmental and/or historic resource reviews)?

- Right-of-Way Availability -- The availability of public right-of-way is very important to the overall feasibility of a trail due to the cost and difficulty of acquiring easements or property.

- Overall Project Readiness – Other factors that indicate a new trail or improvement to an existing trail is ready to go (e.g. funding resources in place, detailed planning and design completed)

Connectivity

- Gap Closure/Impact on Regional and Local Connectivity – The principal purpose of the project is to close a gap in the trail system (e.g. a new trail, new or improved linkage, bridge connection, etc.). The impact of a project is measured at two levels:
    - project's impact on regional connectivity
    - project's impact on local connectivity

- Mobility/Access Improvements – The project improves access to activity centers, either directly adjacent to the trail or with a half mile. Examples of activity centers include parks and other recreation destinations, employment centers, schools (all levels), village/town centers, and business districts.

Benefit of a New Trail or Improvement to an Existing Trail

- Proximity to Population Centers
- Likelihood that the New Trail or Trail Improvement Will Generate New Trips
- Transportation Option Provided – The project provides a new and/or significant non-motorized transportation option to an area
- Accessibility to the Disabled Improved -- The project ensures full accessibility per the standards and guidance of the American with Disabilities Act and the US Department of Transportation. (Note: the US Architectural Board of Compliance considers properly installed unpaved trail surfaces to be accessible.)
- Safety and Security Improved -- The project improves the safety of trail and/or enhances personal and property security (e.g. trail/street intersection improvements, improved visibility, trail/trailhead lighting, improved access points)

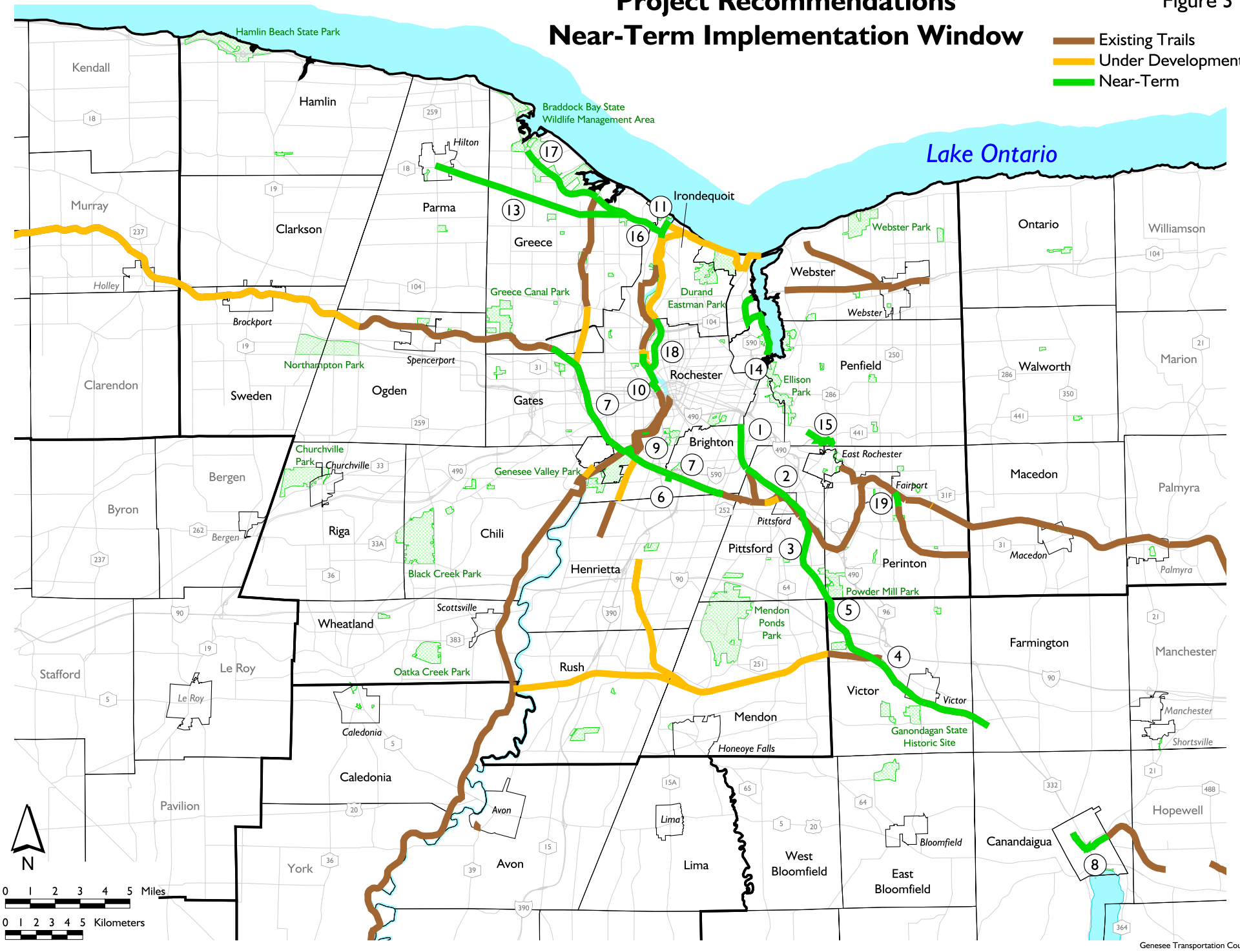
Economic Impact of Project

- Marketability of Trail
- Support or Potential Support to Nearby Businesses/Business Opportunities

Threat to Corridor or Facility Viability if Trail Project is Not Progressed

Project Recommendations
Near-Term Implementation Window

Figure 3



Genesee Transportation Council
June 2002

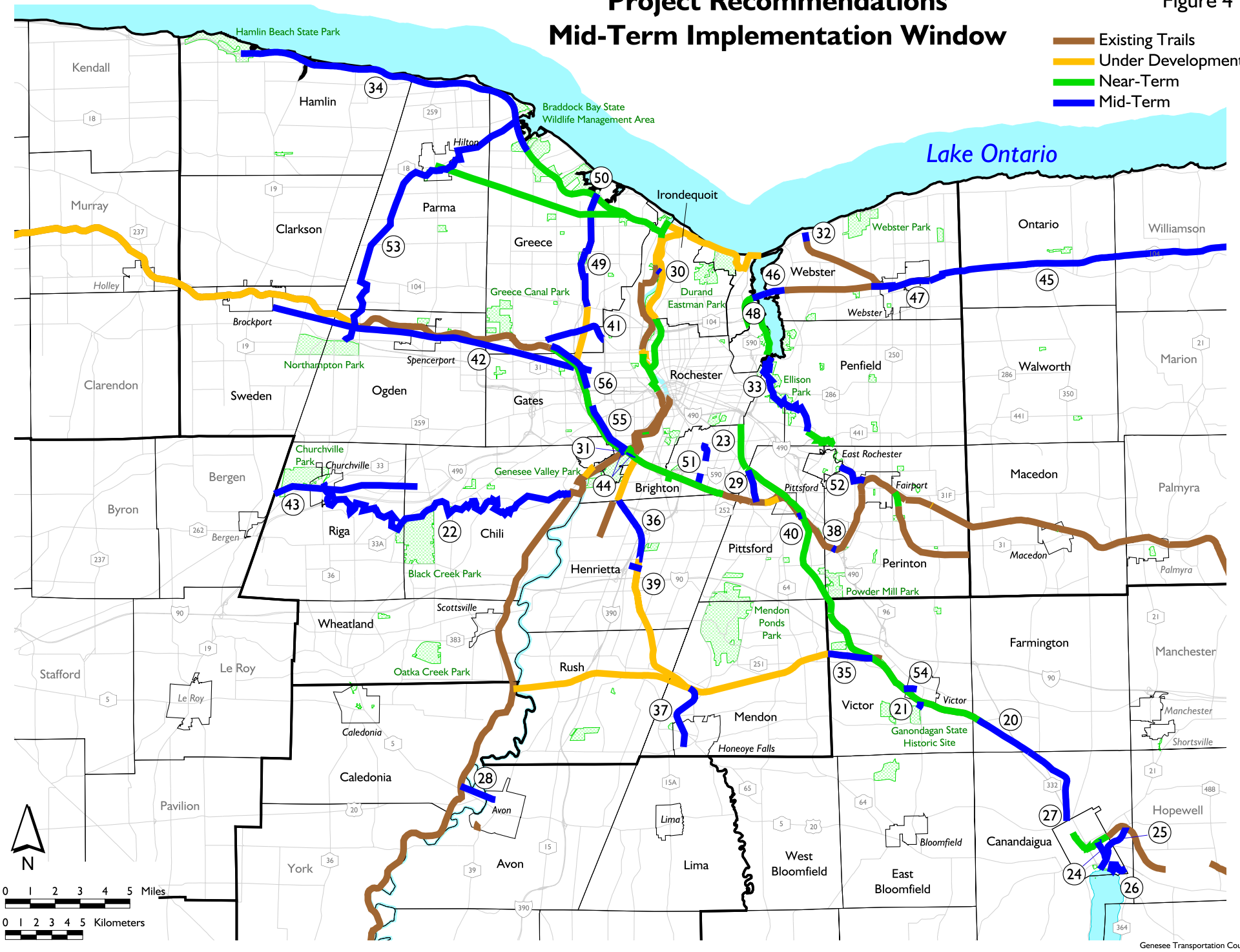
GTC Regional Trails Initiative
Project Recommendations
Near-Term Implementation Window

Table 4

Map ID	Project Name (in ALPHABETICAL order)	Project Description	Approx. Length (mi.)	Jurisdiction(s)	County(s)	Estimated Project Cost	Cost Estimate Developed By/Year	Surface Type Estimated
1	Auburn Line Trail -- Brighton Section Rail-to-Trail Conversion	Acquisition and conversion of the abandoned Auburn Line Railroad corridor from Clover Street to Highland Avenue in the Town of Brighton	2.7	Brighton	Monroe	$845,000	Alta Transportation Consulting (2002)	Asphalt
2	Auburn Line Trail -- Pittsford Section #1	Extension and upgrading of the Auburn Line Trail in the Town and Village of Pittsford (Village of Pittsford to Clover Street) parallel to Monroe Avenue	2.1	Pittsford	Monroe	$700,000	Alta Transportation Consulting (2002)	Asphalt
3	Auburn Line Trail -- Pittsford Section #2	Construction of a new trail section on the Auburn Line RR corridor from the Victor/Pittsford border to the Village of Pittsford to connect with existing Auburn Line Trail sections in Victor and the Village	5.2	Pittsford	Monroe	$930,000	Alta Transportation Consulting (2002)	Stone Dust
4	Auburn Line Trail -- Victor Section Upgrade	Upgrading the surface, trail width, trailheads, and amenities on the existing Auburn Line Trail -- Victor Section	9.0	Victor	Ontario	$950,000	TEP Application estimate (2001)	Stone Dust
5	Auburn Line Trail Historic Bridge Rehabilitation (Victor Section)	Rehabilitation or replacement of the historic stone arch bridge over Irondequoit Creek on the Auburn Line Trail -- Victor Section	0.8	Victor	Ontario	$500,000	Bergmann Associates (2001) (before SHPO review)	Wood
6	Canalway Trail Bridge Connection to MCC	Construction of a new bridge and trail connection between the Canalway Trail and Monroe Community College campus	0.3	Brighton	Monroe	$1,400,000	Alta Transportation Consulting (2002)	Concrete
7	Canalway Trail Upgrade -- Brighton to Greece	Reconstruction and upgrading of the existing Canalway Trail from Brighton to Greece	9.8	Brighton, Rochester, Chili, Gates, Greece	Monroe	$1,500,000	NYS Canal Corporation (2001)	Asphalt
8	Canandaigua Downtown Rail-with-Trail	Construction of a trail on the other half of the active Finger Lakes Railroad Corridor in downtown Canandaigua between the Ontario Pathways Trail (near Smith Road) and Buffalo Street	2.4	Canandaigua	Ontario	$840,000	Alta Transportation Consulting (2002)	Asphalt
9	Erie Attica Railroad Bridge Rails-to-Trails Conversion - City of Rochester	Conversion of the abandoned Erie Attica Railroad bridge over the Genesee River into a trail bridge connecting the Genesee Riverway Trail on east and west sides of the River	0.3	City of Rochester	Monroe	$1,500,000	City of Rochester staff (1998)	Concrete
10	Genesee Riverway Trail – Downtown Rochester to Lower Falls Park Section	Construction of a new section of the Genesee Riverway Trail between downtown Rochester and Lower Falls Park area	2.1	City of Rochester	Monroe	$1,000,000	Alta Transportation Consulting (2002)	Asphalt
11	Genesee Riverway Trail – O'Rorke Bridge to Port of Rochester Section	Construction of a new section of the Genesee Riverway Trail between the O'Rorke Bridge and Port of Rochester/Lake Ontario waterfront (gap completion)	0.7	City of Rochester	Monroe	$1,400,000	TEP Application estimate (1999)	Asphalt
12	Genesee Riverway Trail Neighborhood Connectors	Development of the City of Rochester's Neighborhood Trails Connectors (13 Genesee Riverway Trail neighborhood connectors are proposed; some are currently under development)	2.0	City of Rochester	Monroe	$750,000	Alta Transportation Consulting (2002)	Asphalt
13	Hojack Line Railroad Corridor Rails-to-Trails Conversion -- Greece to Hilton	Acquisition and conversion of the abandoned Hojack Line Railroad Corridor to a multi-trail in the Towns of Greece and Parma and the Village of Hilton	8.0	Greece; Parma; Hilton	Monroe	$2,800,000	Alta Transportation Consulting (2002)	Paved and Stone Dust
14	Irondequoit Bay Park West Trail	Construction of a trail along the west side of Irondequoit Bay from Route 404 (Empire Boulevard) through Irondequoit Bay West Park to Route 104 per the Monroe County Irondequoit Bay Trail Plan (1999)	5.8	Irondequoit	Monroe	$1,020,000	Alta Transportation Consulting (2002)	Stone Dust
15	Irondequoit Creek Stream Corridor Trail – Panorama Plaza to Linear Park	Construction of a trail along the Irondequoit Creek Stream Corridor Trail from Panorama Plaza area to Linear Park	1.5	Penfield	Monroe	$775,000	Alta Transportation Consulting (2002)	Stone Dust
16	Lake Ontario State Parkway Trail - Section #1	Construction of a new trail adjacent the Lake Ontario State Parkway between the Genesee River/Riverway Trail to the Route 390 Trail	3.0	Rochester; Greece	Monroe	$1,300,000	NYSDOT study estimate (2001)	Asphalt
17	Lake Ontario State Parkway Trail - Section #2	Construction of a new trail adjacent to the Lake Ontario State Parkway between the Route 390 trail to Braddock's Bay in the Town of Greece	3.7	Greece	Monroe	$2,600,000	NYSDOT study estimate (2001)	Asphalt
18	Rochester Running Track Rail-to-Trail Conversion - City of Rochester Section	Acquisition and conversion of the remainder of the abandoned Rochester Running Track corridor from St. Paul Blvd through the City of Rochester, including the existing bridge across the Genesee River	2.7	City of Rochester	Monroe	$1,660,000	Alta Transportation Consulting (2002)	Asphalt
19	RS&E Trolley Trail Bridge	Construction of a new trail bridge over Erie Canal to connect the RS & E Trolley Trail & Canalway Trail	0.6	Perinton	Monroe	$1,432,000	TEP Application estimate (2001)	Concrete
		TOTAL MILEAGE OF <u>NEW</u> TRAIL -- NEAR-TERM WINDOW	**41.8**	**TOTAL OF COST ESTIMATES**		**$23,902,000**		

Project Recommendations
Mid-Term Implementation Window

Figure 4



Genesee Transportation Council
June 2002

GTC Regional Trails Initiative
Project Recommendations
Mid-Term Implementation Window

Table 5

Map ID	Project Name (in ALPHABETICAL order)	Project Description	Approx. Length (mi.)	Jurisdiction(s)	County(s)	Estimated Project Cost	Cost Estimate Developed By/Year	Surface Type Estimated
20	Auburn Line Trail -- Farmington Section	Extension and upgrading of the Auburn Line Trail from the existing trail to the Farmington/Canandaigua townline	2.4	Farmington	Ontario	$430,000	Alta Transportation Consulting (2002)	Stone Dust
21	Auburn Line Trail -- Ganondagan Connection	Construction of a new trail connection between the existing Auburn Line Trail in the Town of Victor and the Ganondagan State Historic Site	0.4	Victor	Ontario	$125,000	TEP Application estimate (2001)	Stone Dust
22	Black Creek Stream Corridor Trail - Genesee Valley Greenway to Churchville Park	Development of a trail parallel to the Black Creek Stream Corridor connecting the Genesee Valley Greenway, Black Creek Park, and Churchville Park in the Towns of Chili and Riga	15.0	Chili; Riga	Monroe	$2,100,000	Alta Transportation Consulting (2002)	Stone Dust
23	Brighton Trail Development	Construction of a new trail between Elmwood Avenue and Westfall Road, possibly utilizing some Monroe County Developmental Center property	0.8	Brighton	Monroe	$440,000	Alta Transportation Consulting (2002)	Asphalt
24	Canandaigua Connector Trail	Construction of a new trail between the proposed Canandaigua Feeder Canal Trail and proposed Downtown Canandaigua Rail-with-Trail (near Leiceister Street)	0.8	Canandaigua	Ontario	$330,000	Alta Transportation Consulting (2002)	Asphalt
25	Canandaigua Feeder Canal Trail	Construction of a multi-use trail along the Feeder Canal in the City of Canandaigua, connecting to lakefront trails and Kershaw Park	2.1	Canandaigua	Ontario	$950,000	Alta Transportation Consulting (2002)	Asphalt
26	Canandaigua Lagoon Walk Trails	Rehabilitation of existing trails and construction of new trail bridges through the Lagoon area to provide accessible connections between residential, commercial, and recreation areas along Routes 5 & 20 and the lakefront	1.6	Canandaigua	Ontario	$583,000	TEP Application estimate (2001)	Stone Dust
27	Canandaigua-Farmington Trail Connection	Development of a new trail connection between the City of Canandaigua and the Auburn Line Trail in the Town of Farmington	5.1	Canandaigua	Ontario	$860,000	Alta Transportation Consulting (2002)	Stone Dust
28	Erie Attica Railroad Bridge and Corridor Rail-to-Trail Conversion -- Livingston County	Conversion of the abandoned Erie Railroad Attica Line Bridge over the Genesee River to connect the Genesee Valley Greenway and development of a trail connection from Genesee Valley Greenway to the Village of Avon	1.5	Caledonia; Avon	Livingston	$790,000	Alta Transportation Consulting (2002)	Stone Dust
29	Erie Canal Towpath Trail Upgrade	Upgrading of the existing Erie Canal Towpath trail in Town of Pittsford -- Canalway Trail to Clover Street	1.3	Pittsford	Monroe	$100,000	Alta Transportation Consulting (2002)	Stone Dust
30	Genesee Riverway Trail Northern River Trail Bridge	Construction of a new trail bridge across the Genesee River from Turning Point Park to Seneca Park (or vicinity)	0.2	City; Irondequoit	Monroe	$1,500,000	Alta Transportation Consulting (2002)	Concrete
31	Genesee Riverway Trail Rails-to-Trails Bridge Conversion	Conversion of the abandoned Penn Central railroad bridge over the Erie Canal south of Genesee Valley Park to a fully accessible crossing for the Genesee Riverway Trail (accessible alternative to the existing Olmstead bridge crossing)	0.2	City of Rochester	Monroe	$500,000	Alta Transportation Consulting (2002)	Wood
32	Hojack Trail/Lake Road Connection	Development of a trail connection between the Hojack Trail and Lake Road (the Seaway Trail) in the Town of Webster	0.4	Webster	Monroe	$150,000	Alta Transportation Consulting (2002)	Stone Dust
33	Irondequoit Creek Stream Corridor Trail – Panorama Plaza to Empire Blvd	Development of a trail along the Irondequoit Creek Stream Corridor Trail from Panorama Plaza area to Route 404 (Empire Boulevard)	7.0	Penfield; Brighton	Monroe	$1,300,000	Alta Transportation Consulting (2002)	Stone Dust
34	Lake Ontario State Parkway Trail - Section #3	Construction of a new trail adjacent to the Lake Ontario State Parkway between Braddock's Bay and Hamlin Beach State Park	10.2	Greece; Parma; Hamlin	Monroe	$2,200,000	Estimated by Alta Transportation (2002) and NYSDOT's paved trail estimate (2001)	Stone Dust
35	Lehigh Valley Linear Trail -- Victor Section Upgrade and Accessibility Improvements	Upgrading of the surface, width, and amenities on Lehigh Valley Railroad Trail (Victor Section), including the construction of an ADA-compliant ramp connection to the Auburn Trail (Victor Section)	1.8	Victor	Ontario	$190,000	TEP Application estimate (2001)	Stone Dust
36	Lehigh Valley Railroad Corridor -- Henrietta Section #2	Acquisition and conversion of the now active Lehigh Valley Railroad corridor section between Lehigh Station Road and Brighton-Henrietta Townline Road to a trail when it becomes available (gap closure)	1.7	Henrietta	Monroe	$1,100,000	Alta Transportation Consulting (2002)	Stone Dust
37	Lehigh Valley Railroad Corridor Trail -- Honeoye Falls to Mendon Section	Acquisition and conversion of the abandoned Lehigh Valley Railroad - Hemlock Line Corridor from Honeoye Falls to the Lehigh Valley Linear Trail in the Town of Mendon	2.9	Mendon; Honeoye Falls	Monroe	$990,000	Alta Transportation Consulting (2002)	Stone Dust

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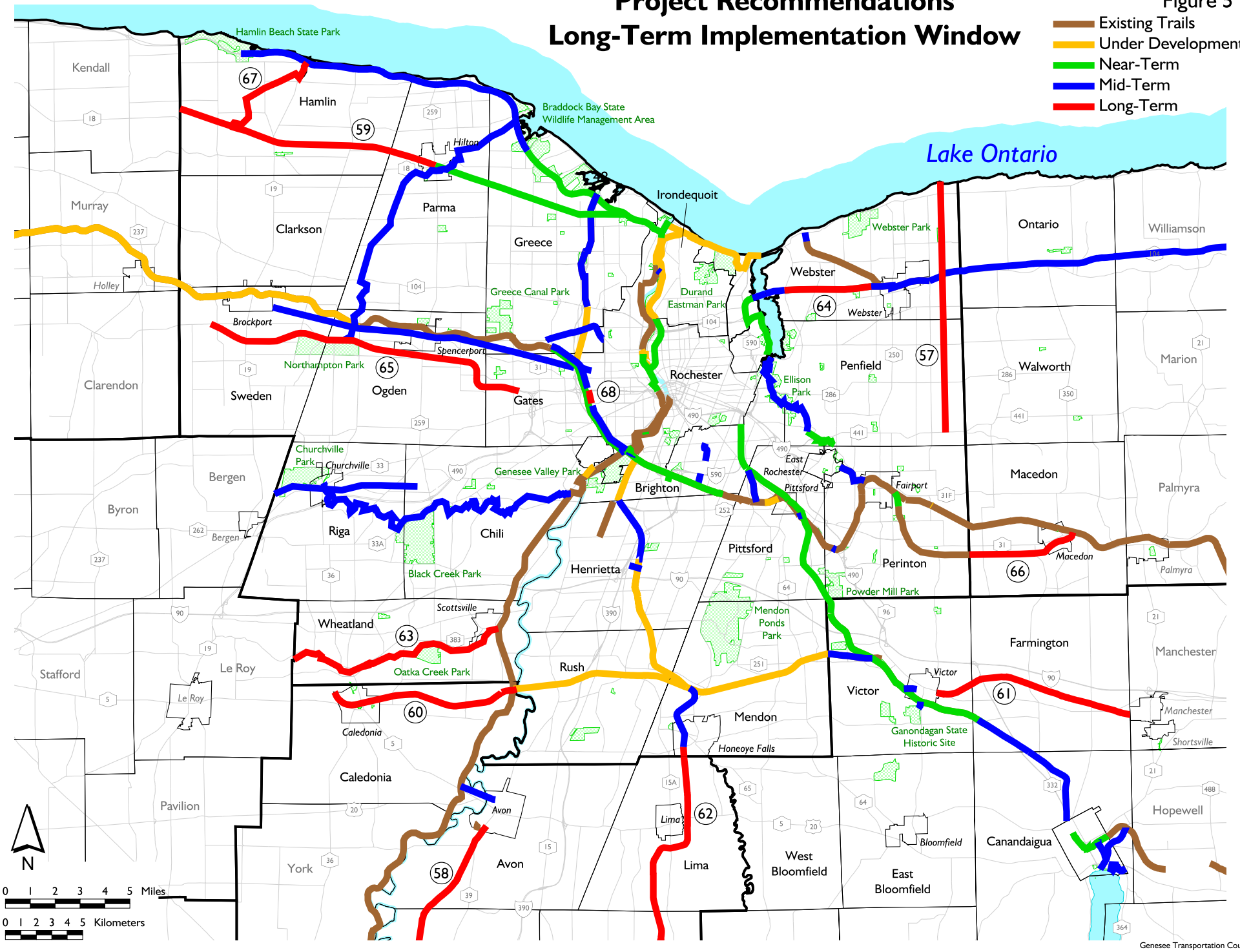
Table 5

Map ID	Project Name (in ALPHABETICAL order)	Project Description	Approx. Length (mi.)	Jurisdiction(s)	County(s)	Estimated Project Cost	Cost Estimate Developed By/Year	Surface Type Estimated
38	Marsh Road / Bushnell's Basin Canalway Trail Connection	Development of a trail connection between the Canalway Trail and Marsh Road to Bushnell's Basin	0.1	Perinton	Monroe	$625,000	Based on the Lyndon Road project (2001)	Concrete
39	Middle Road Connector Trail	Construction of a new trail along a NYS Power Authority easement and Henrietta town properties to connect Middle Road to the Lehigh Valley Trail - Henrietta section	0.5	Henrietta	Monroe	$250,000	LVRR Trail Feasibility Study (2000)	Stone Dust
40	Mitchell Road / Auburn Canalway Trail Connection	Construction of a new trail bridge over the Erie Canal near Mitchell Road (Pittsford) using the existing abandoned railroad bridge abutments	0.1	Pittsford	Monroe	$1,400,000	Based on RS&E bridge cost estimate (2001)	Concrete
41	Northwest Erie Canal Corridor Trail	Development of a trail along the former original Erie Canal Corridor in the northwest part of the City of Rochester with connections to Driving Park Avenue, the Route 390 Trail, and the Park Ridge Hospital campus	2.7	City of Rochester	Monroe	$1,200,000	Alta Transportation Consulting (2002)	Asphalt
42	NYC Falls Road Branch Corridor Trail	Acquisition and conversion of the abandoned NYC Falls Branch railroad corridor to a trail in the Towns of Greece and Ogden	12.4	Greece; Ogden; Sweden	Monroe	$2,300,000	Alta Transportation Consulting (2002)	Stone Dust
43	NYC Westshore Line Corridor Trail	Conversion of the abandoned NYC Westshore Line railroad corridor in Riga and Churchville to a trail	5.8	Riga; Churchville	Monroe	$1,000,000	Alta Transportation Consulting (2002)	Stone Dust
44	Olmstead Bridges Restoration -- Genesee Valley Park	Restoration of the 3 historic Olmstead bridges across the Genesee River and the Erie Canal that carry Canalway Trail and Genesee Riverway Trail traffic	0.3	City of Rochester	Monroe	$1,650,000	City of Rochester staff (2000)	Concrete
45	Route 104 Trail Extension -- East Webster through Western Wayne County	Extension of the trail along Route 104 corridor from Webster (Salt Road) through Wayne County along the shared highway and utility easement	17.2	Webster; Ontario	Monroe; Wayne	$825,000	Alta Transportation Consulting (2002)	Stone Dust
46	Route 104 Trail Extension -- Irondequoit Bay Overlook	Development of an extension of the existing Route 104 Trail west of Bay Road to the former rest area site overlooking Irondequoit Bay	0.8	Webster	Monroe	$1,000,000	Alta Transportation Consulting (2002)	Asphalt
47	Route 104 Trail Upgrade -- North Ponds Park to Salt Road	Widening and resurfacing of the Route 104 Trail in Webster from North Ponds Park to Salt Road	2.5	Webster	Monroe	$250,000	Alta Transportation Consulting (2002)	Asphalt
48	Route 104/Irondequoit Bay Bridge Bicycle/ Pedestrian Crossing	Development of a bicycle/pedestrian crossing of Irondequoit Bay between Webster and Irondequoit along the Route 104 Expressway (possibly cantilever a bicycle/pedestrian bridge off the existing structure)	0.5	Webster; Irondequoit	Monroe	$3,000,000	Alta Transportation Consulting (2002)	Concrete
49	Route 390 Trail Upgrade -- Route 104 to Lake Ontario State Parkway	Widening and resurfacing of the Route 390 Trail from Route 104 (West Ridge Road) and the Lake Ontario State Parkway	4.8	Greece	Monroe	$600,000	Alta Transportation Consulting (2002)	Asphalt
50	Route 390/LOSP Trail Intersection Improvement	Improvement of the current intersection of the Route 390 Trail and the Lake Ontario State Parkway. The current connection places trail users on the Route 390/LOSP interchange ramp.	0.4	Greece	Monroe	$50,000	Alta Transportation Consulting (2002)	Asphalt
51	Route 590 Bicycle/Pedestrian Bypass	Development of a connection under or over Route 590 and a trail connection to directly connect the Town of Brighton with the Canalway Trail	1.3	Brighton	Monroe	$1,680,000	Alta Transportation Consulting (2002)	Concrete
52	RS&E Trolley Trail Gap Closure -- Canalway Trail to East Rochester	Improvement and extension of the RS & E Trolley Trail section between the Canalway Trail and Eyer Park (East Rochester) (gap closure)	1.3	Perinton; East Rochester	Monroe	$100,000	Alta Transportation Consulting (2002)	Stone Dust
53	Salmon Creek Stream Corridor Trail - Lake Ontario State Parkway to Northhampton Park	Development of a trail parallel to the Salmon Creek Stream Corridor connecting the Lake Ontario State Parkway (and proposed trail), the proposed Hojack Line Trail, the Canalway Trail, and Northhampton Park	13.3	Parma; Hilton; Ogden	Monroe	$2,200,000	Alta Transportation Consulting (2002)	Stone Dust
54	Victor Trolley Trail	Construction of a paved trail on the former trolley corridor in the Village of Victor	0.6	Victor	Ontario	$300,000	TEP Application estimate (2001)	Asphalt
55	Westside Canalway Trail Section #1 -- Genesee Valley Park to CSX (south of Buffalo Road)	Construction of a new section of trail along the north side of the Erie Canal between Genesee Valley Park and the CSX railroad corridor (south of Buffalo Road), including a new pedestrian bridge across the Canal	2.1	City of Rochester	Monroe	$2,465,000	Alta Transportation Consulting (2002)	Asphalt
56	Westside Canalway Trail Section #2 -- I-490 to Canal Ponds Business Park	Construction of a new section of trail along the north side of the Erie Canal (opposite the existing trail) between I-490 and Canal Ponds, including a trail connector to Ferrano Street in the City of Rochester	2.9	City of Rochester; Gates; Greece	Monroe	$1,250,000	Alta Transportation Consulting (2002)	Asphalt
		TOTAL MILEAGE OF NEW TRAIL -- MID-TERM WINDOW	**113.9**	**TOTAL OF COST ESTIMATES**		**$36,783,000**		

Project Recommendations
Long-Term Implementation Window

Figure 5

- Existing Trails
- Under Development
- Near-Term
- Mid-Term
- Long-Term



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GTC Regional Trails Initiative
Project Recommendations
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Table 6

Map ID	Project Name (in ALPHABETICAL order)	Project Description	Approx. Length (mi.)	Jurisdiction(s)	County(s)	Estimated Project Cost	Cost Estimate Developed By/Year	Surface Type Estimated
57	"Chiller Line" Trail	Development of a trail on proposed MCWA "Chiller Line" corridor in partnership with the Monroe County Water Authority	10.1	Webster; Penfield	Monroe	$2,175,000	Alta Transportation Consulting (2002)	Stone Dust
58	Erie Railroad Mount Morris Branch Rail-to-Trail Conversion	Acquisition and conversion of the Erie Railroad - Mt Morris Branch railroad corridor to a trail from the Village on Avon south to Mount Morris	14.6	Avon	Livingston	$1,480,000	Alta Transportation Consulting (2002)	Stone Dust
59	Hojack Line Railroad Corridor Rails-to-Trails Conversion -- Hilton to Orleans County Line	Acquisition and conversion of the abandoned Hojack Line railroad corridor to new trail from the Village of Hilton to the Monroe/Orleans County line	10.6	Hilton; Parma; Hamlin	Monroe	$1,100,000	Alta Transportation Consulting (2002)	Stone Dust
60	Lehigh Valley Railroad Corridor Acquisition and Rails-to-Trails Conversion - Caledonia	Acquisition and conversion of the abandoned Lehigh Valley railroad corridor to a trail in the Town of Caledonia	7.8	Caledonia	Livingston	$1,800,000	Alta Transportation Consulting (2002)	Stone Dust
61	Lehigh Valley Railroad Corridor Rail-with-Trail	Development of a Rail-with-Trail parallel to the active section of Lehigh Valley railroad corridor in the Towns of Victor and Farmington in Ontario County (extends into the Town of Manchester)	8.2	Victor; Farmington	Ontario	$1,400,000	Alta Transportation Consulting (2002)	Stone Dust
62	Lehigh Valley Railroad Hemlock Branch -- Honeoye Falls through Lima	Acquisition and conversion of the abandoned Lehigh Valley Railroad - Hemlock Branch corridor into a trail from Honeoye Falls through the Tow of Lima	13.3	Honeoye Falls; Lima	Monroe; Livingston	$2,440,000	Alta Transportation Consulting (2002)	Stone Dust
63	Oatka Creek Stream Corridor Trail - Genesee Valley Greenway to County Line	Development of a trail parallel to the Oatka Creek Stream Corridor connecting the Genesee Valley Greenway, Oatka Creek Park to the Monroe/Genesee County line	9.5	Wheatland	Monroe	$1,500,000	Alta Transportation Consulting (2002)	Stone Dust
64	Route 104 Trail Upgrade -- North Ponds Park to Bay Road	Widening and resurfacing of the Route 104 Trail from North Ponds Park to Bay Road in the Town of Webster	3.5	Webster	Monroe	$630,000	Alta Transportation Consulting (2002)	Asphalt
65	Route 531 Extension Trail	Development of a trail within the right-of-way of the existing Route 531 corridor and the proposed extension of the Route 531 Corridor (right-of-way undefined at this time for proposed expressway extension)	12.4	Gates; Ogden; Sweden	Monroe	$2,400,000	Alta Transportation Consulting (2002)	Stone Dust
66	RS&E Trolley Trail -- Wayne County Section	Re-establishment of the former trolley corridor and construction of a trail on it connecting the existing RS&E Trolley Trail in Perinton, Monroe County to the Canalway Trail in Macedon, Wayne County	4.2	Macedon	Wayne	$860,000	Alta Transportation Consulting (2002)	Stone Dust
67	Sandy Creek Stream Corridor Trail	Development of a trail parallel to the Sandy Creek Stream Corridor	4.8	Hamlin	Monroe	$780,000	Alta Transportation Consulting (2002)	Stone Dust
68	Westside Canalway Trail Section #3 -- Buffalo Road to I-490	Construction of a new section of trail along the north side of the Erie Canal between Buffalo Road and I-490, including a new pedestrian bridge across the Erie Canal	0.7	City of Rochester	Monroe	$1,795,000	Alta Transportation Consulting (2002)	Asphalt
		TOTAL MILEAGE OF NEW TRAIL -- LONG-TERM WINDOW	**96.2**	**TOTAL OF COST ESTIMATES**		**$18,360,000**		

TOTAL MILEAGE OF NEW TRAIL -- ALL WINDOWS	**251.9**	**TOTAL COST FOR ALL WINDOWS**	**$79,045,000**
TOTAL MILEAGE OF ALL TRAILS -- EXISTING, UNDER DEVELOPMENT, AND NEAR-, MID-, AND LONG-TERM RECOMMENDATIONS	**391.1**		

PRIORITY TRAIL PROJECT FACT SHEETS

The following pages illustrate the 19 projects identified for immediate implementation as a result of the Steering Committee's project sorting process.

Priority Project #1:

Auburn Line Trail – Brighton Section

Sponsor/Owner:

Town of Brighton

Project Description and Location:

Acquire and convert a 2.7-mile section of the abandoned Auburn Line Railroad to a multi-use trail between Highland Avenue and Clover Street

Estimated Cost:

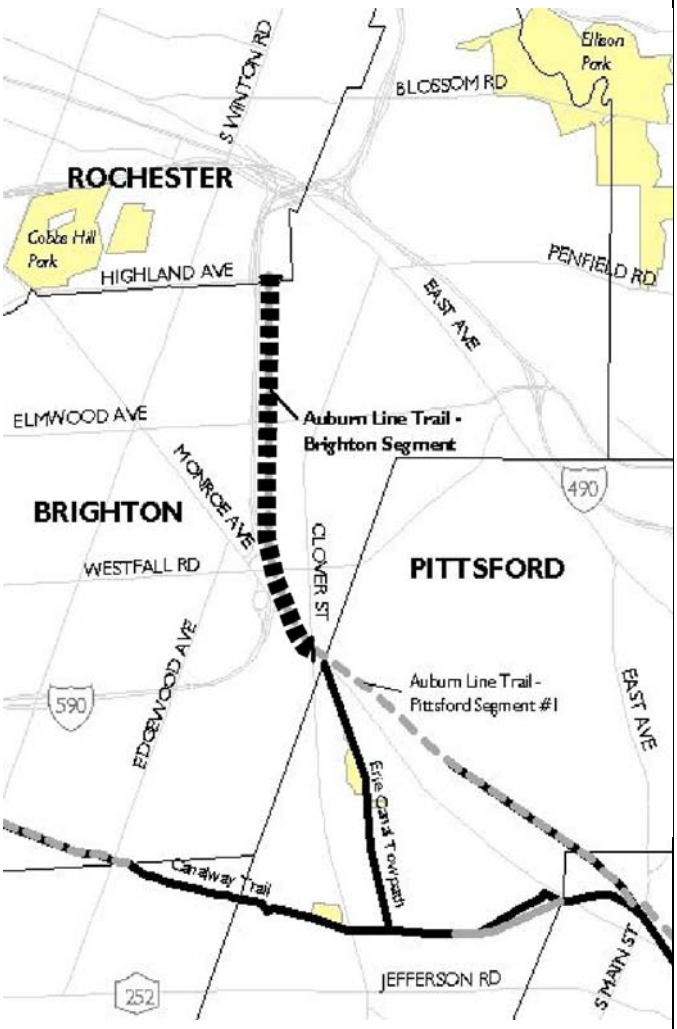
$845,000 (assuming an asphalt trail surface)

Project Benefits/Unique Elements:

Creates an off-street linkage between the City of Rochester, Brighton, and Pittsford along the former Auburn Line railroad corridor. Connections include dense residential areas, Harley School campus, office buildings, and restaurants and entertainment venues along Monroe Avenue (NYS Rt. 31/State Bike Route 5).

Project Status:

The corridor is owned by Rochester Gas & Electric and is used as a utility corridor. This project is in the Town's Master Plan (2001).



Implementation Steps:

- Purchase corridor or establish a permanent corridor easement for trail use with RG & E
- Implement a public input process to develop the trail project; include adjacent property owners, interested residents, RG & E City of Rochester, Monroe County, Town of Pittsford, GTC
- Utilize professional assistance to develop a trail development plan and quality cost estimates for the construction of a trail along the corridor
- Consider trailhead and parking and buffering and/or fencing needs to lessen any impacts on adjacent private properties and roadway shoulders
- Identify sources of local matching funds and in-kind services and resources
- Apply for trail development/construction funding through state and federal sources
- Develop an operations and maintenance plan for the trail

Priority Project #2:

Auburn Line Trail – Pittsford Section #1

Sponsor/Owner:

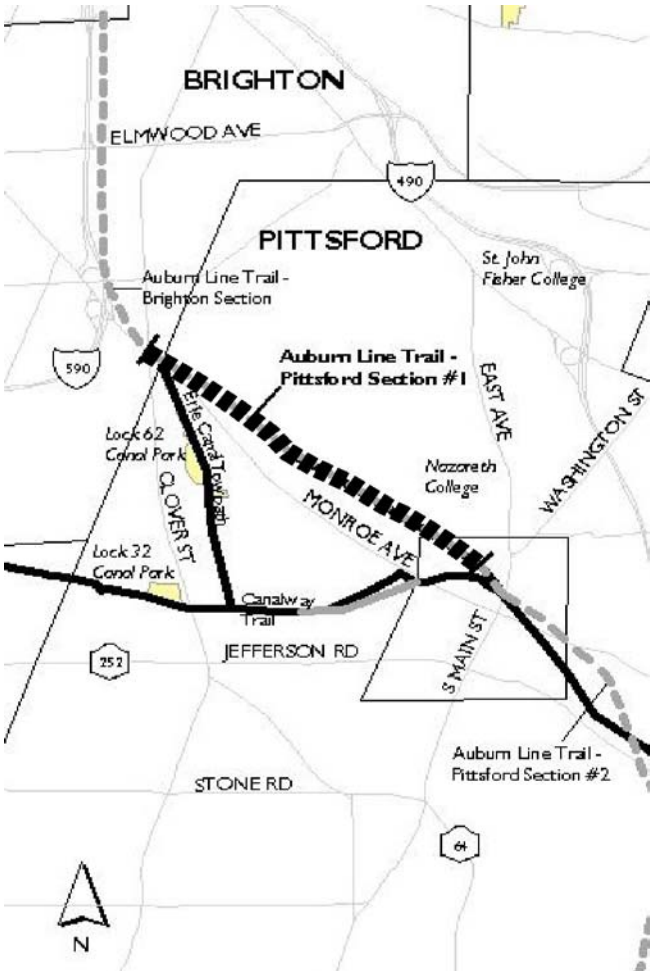
Town of Pittsford, Village of Pittsford

Project Description and Location:
Upgrade and extend the existing unpaved trail on the Auburn Line Railroad corridor between the Village of Pittsford and Clover Street. This trail would link to the proposed Auburn Line Trails in Brighton and in southern Pittsford.

Estimated Cost:
$700,000 (assuming an asphalt trail surface)

Project Benefits/Unique Elements:
Provides an off-street trail between the Village and the Monroe Avenue commercial corridor, bringing trail users to many businesses. Monroe Avenue is also State Bike Route 5.

Project Status:
The corridor is owned by Rochester Gas & Electric and is used as a utility corridor. The section between the Village and Pittsford Square plaza has been preserved through easements and is used as a trail. Sections north of the plaza may be in jeopardy due to the possible sale of the corridor to adjacent landowners.



Implementation Steps:

- Purchase corridor or establish a permanent corridor easement for trail use with RG & E
- Implement a public input process to develop the trail project; include adjacent property owners, interested residents, RG & E, Town of Brighton, Monroe County, GTC
- Utilize professional assistance to develop a trail development plan and cost estimates for the improvement and expansion of the existing trail along the corridor
- Consider establishing new and/or improved trailhead and parking areas and buffering and/or fencing to lessen any impacts on adjacent private properties and roadway shoulders
- Identify sources of local matching funds and in-kind services and resources
- Apply for trail development/construction funding through state and federal sources
- Develop an operations and maintenance plan for the trail

Priority Project #3:

Auburn Line Trail – Pittsford Section #2

Sponsor/Owner:

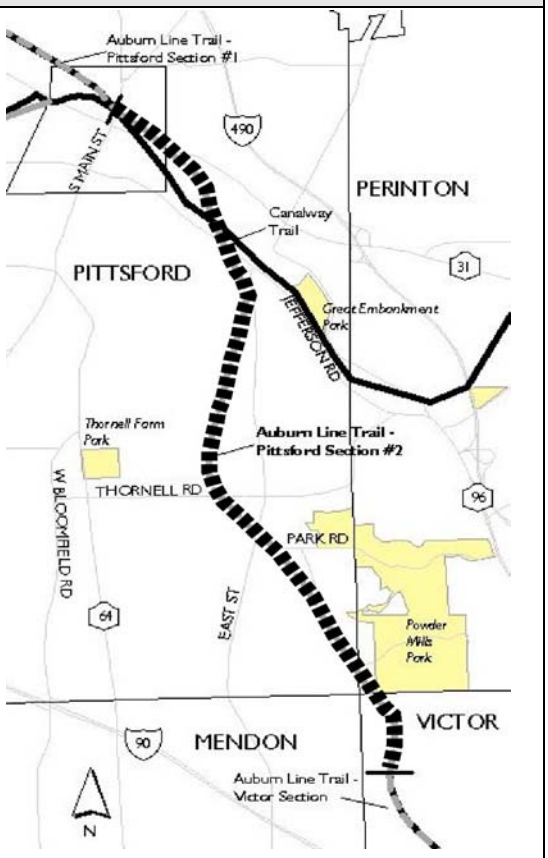
Town of Pittsford, Town of Perinton
(Monroe County)

Project Description and Location:
Construct a new 5.2-mile stone dust trail on the abandoned Auburn Line Railroad corridor from the Victor/Pittsford border to the Village of Pittsford to connect with the existing Auburn Line Trail sections in Victor and the Village.

Estimated Cost:
$930,000 (assuming a stone dust trail surface)

Project Benefits/Unique Elements:
Provides an off-street travel alternative between the Town of Victor and the Village of Pittsford, including connections to residential areas, Powder Mills Park, and the Erie Canal and Canalway Trail.

Project Status:
The corridor is currently owned by Rochester Gas & Electric and is used as a utility corridor.



Implementation Steps:

- Purchase corridor or establish a permanent corridor easement for trail use with RG & E
- Implement a public input process to develop the trail project; include adjacent property owners and interested residents, Monroe County, Towns of Pittsford, Perinton, and Victor, RG & E, GTC
- Utilize appropriate professional assistance to develop a trail development plan and cost estimates for the construction of a trail along the corridor
- Consider establishing a number of trailhead and parking areas and provide buffering and/or fencing to lessen any impacts on adjacent private properties and intersecting roadway shoulders
- Identify sources of local matching funds and in-kind services and resources
- Apply for trail development/construction funding through state and federal sources
- Develop a operations and maintenance plan for the trail

Priority Project #4:

Auburn Line Trail – Victor Section Upgrade

Sponsor/Owner: Town and Village of Victor

Project Description and Location:
Upgrade and widen the existing Auburn Line Trail in Victor from the Victor/Farmington townline to Irondequoit Creek. Trailheads and parking areas, signage, and other amenities would be included.

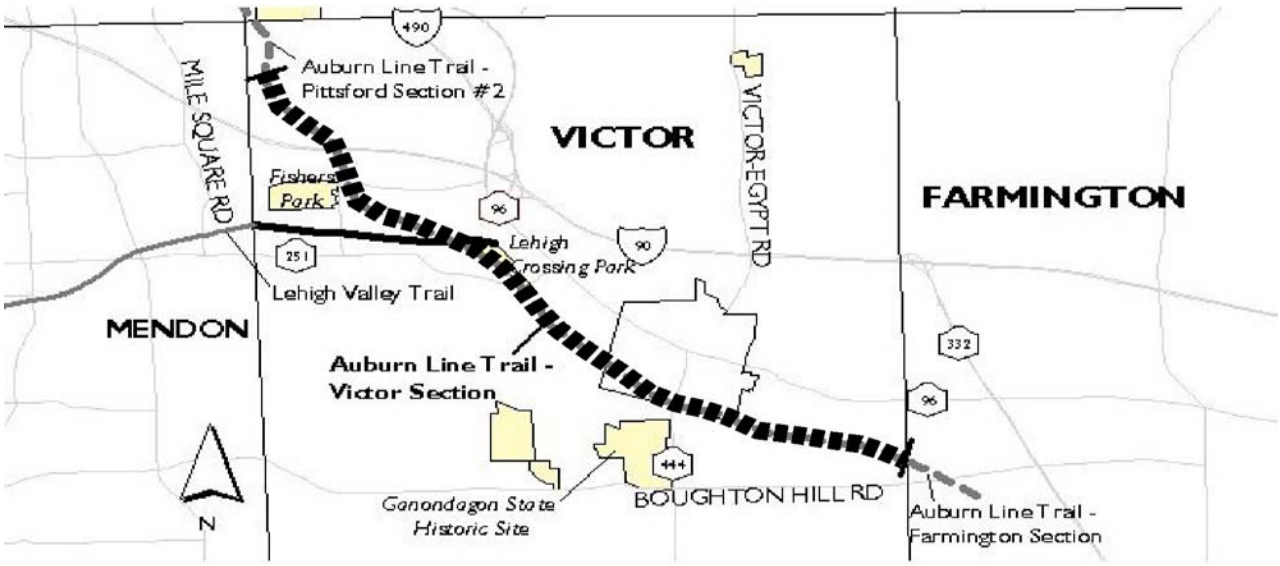
Estimated Cost: $950,000 (assuming a stone dust trail surface)

Project Benefits/Unique Elements:
Provides an off-street trail through the Town of Victor, including connections to the Lehigh Valley Linear Trail, the proposed Victor Trolley Trail, the Auburn Trail in Farmington, several parks, and the Ganondagan State Historic Site.

Project Status:
The Town of Victor is in the process of establishing permanent corridor easements for trail use. The Town and Village applied for funding through the 2001-2002 Transportation Enhancements Program and are awaiting confirmation of funding (successful projects will be announced in Fall 2002).

Implementation Steps:

- Upon award of federal transportation funding (anticipated), implement a public input process to further develop the trail project; include adjacent property owners, interested residents, Ontario County, the Town and Village of Victor, GTC
- Utilize professional assistance to develop detailed development plans, trail designs, and cost estimates for the construction of a trail along the corridor
- Develop an operations and maintenance plan for the trail



Priority Project #5:

Auburn Line Historic Bridge Rehabilitation

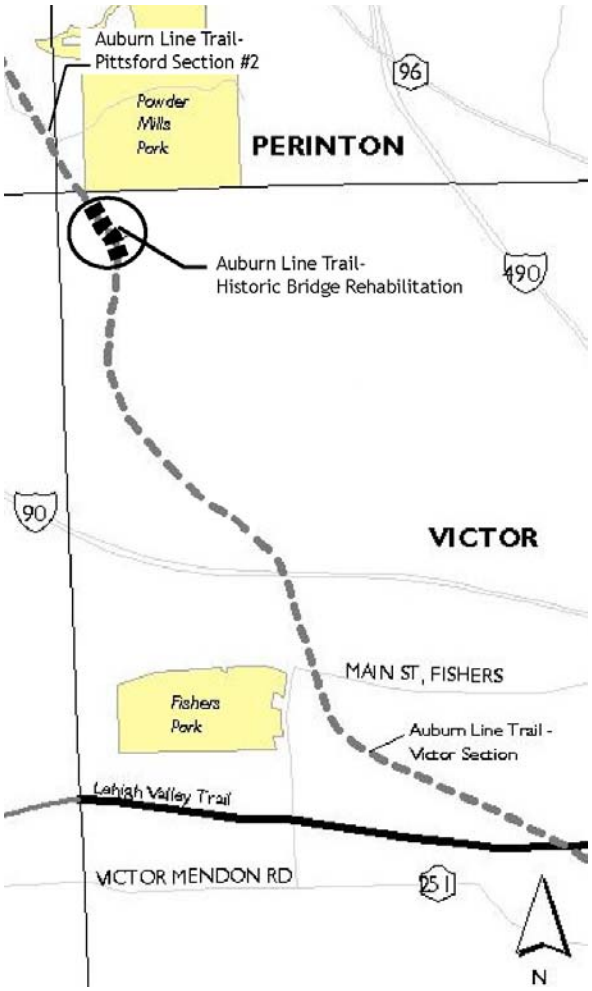
Sponsor/Owner: Town of Victor

Project Description and Location:
Restore the existing stone arch bridges (or construct a new bridge) over Irondequoit Creek and construct a short trail section (0.8 miles) between the Auburn Trail – Victor Section and the Auburn Trail – Pittsford Section #2

Estimated Cost:
$500,000 (estimate completed before full SHPO review and determination)

Project Benefits/Unique Elements:
Completes the connection between the existing Auburn Line Trail – Victor Section and the proposed Auburn Line Trail – Pittsford Section #2. Depending on SHPO review, the project could restore the existing historic stone arch bridge(s).

Project Status:
The Town of Victor is in the process of establishing permanent corridor easements for trail use. The Town has submitted preliminary information to the State Historic Preservation Office (SHPO) for its review and determination of the bridges' historic value.



Implementation Steps:

- Provide all information needed to complete a full review of the historic bridge by the State Historic Preservation Office (SHPO)
- Utilize appropriate professional assistance to develop detailed designs and cost estimates for the rehabilitation of the existing bridge or the construction of a new bridge depending on the outcome of the SHPO's review and historic determination
- Implement a public input process to develop the trail project; include adjacent property owners and interested residents, Ontario County, the State Historic Preservation Office, and GTC
- Identify sources of local matching funds and in-kind services and resources
- Apply for trail development and bridge rehabilitation funding through state and federal sources
- Develop an operations and maintenance plan for the bridge and short trail section

Priority Project #6:

Canalway Trail Bridge Connection to Monroe Community College

Sponsor/Owner: NYS Department of Transportation (NYSDOT)

Project Description and Location:

Construct a new trail bridge between the Canalway Trail and the Monroe Community College campus in the Town of Brighton.

Estimated Cost:

$1,400,000 (Estimate by Alta Transportation)

Project Benefits/Unique Elements:

Creates a direct connection between the Canalway Trail on the north side of the Erie Canal and the growing Monroe Community College campus on the south of the Canal and I-390. On-street conditions for bicyclists and pedestrians surrounding the campus are fair to poor.

Project Status:

This project was identified as a Phase 2 project in the Southern Corridor Study (1999). There has been no detailed planning or conceptual design work conducted yet. NYSDOT plans to include the planning and preliminary engineering for this project in an upcoming I-390/I-590 expressway interchange improvement project.

Implementation Steps:

- Implement a public input process to further develop this project; include the Canal Corporation, Monroe Community College, NYSDOT, the Town of Brighton, GTC, and other interested persons.
- Utilize in-house and/or professional assistance to develop detailed designs and cost estimates for the construction of a new bridge or cantilevered structure off I-390 and trail connections to the campus road network (to be combined with an upcoming NYSDOT project)
- Identify sources of local matching funds and in-kind services and resources
- Apply for bridge development/construction funding through state and federal sources; consider constructing the new bridge with planned expressway improvements
- Develop an operations and maintenance plan for the bridge

Priority Project #7:

Canalway Trail Upgrade- Brighton to Greece

Sponsor/Owner:

New York State Canal Corporation

Project Description and Location:

Reconstruct and upgrade 9.8 miles of existing paved Canalway Trail in Brighton, the City of Rochester, Chili, Gates and Greece

Estimated Cost:

$1,500,000 (Estimate by NYS Canal Corporation assuming an asphalt trail surface)

Project Benefits/Unique Elements:

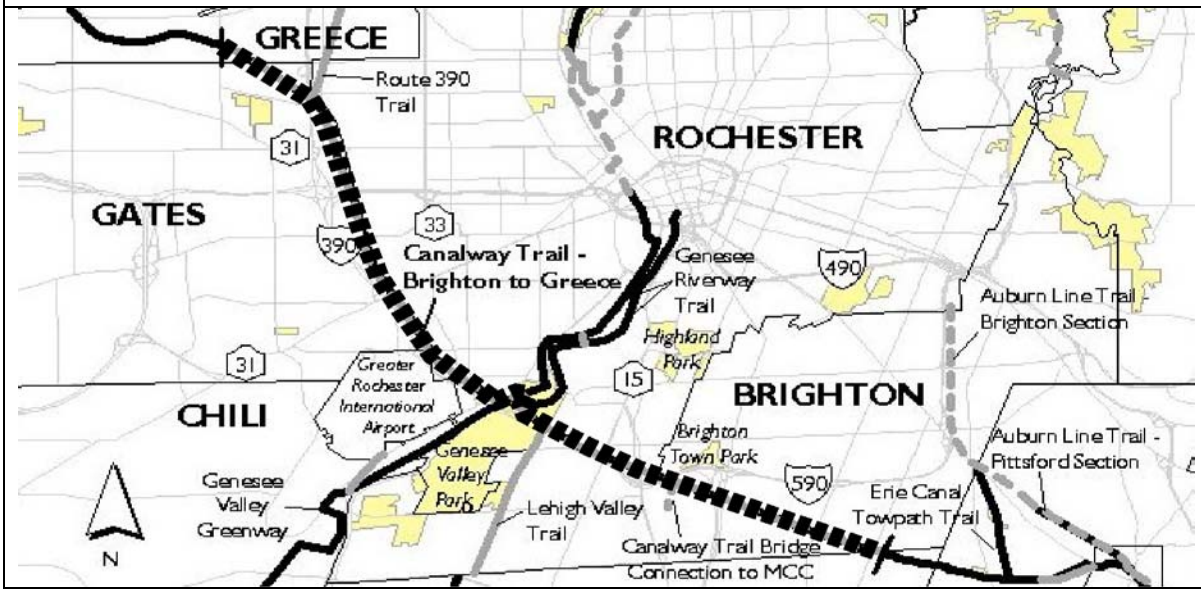
This section of the Canalway Trail is the most heavily used in the area. Existing connections include the Erie Canal Towpath Trail, Genesee Riverway Trail, Genesee Valley Greenway, Genesee Valley Park, University of Rochester, Greece Canal Park, the whitewater kayak course at Lock 32/Clover Street, and numerous employment sites.

Project Status:

The Canal Corporation has tentatively scheduled this project in its capital improvement program for 2004.

Implementation Steps:

- Implement a public input process to develop the trail rehabilitation project; include adjacent property owners, Brighton, City of Rochester, Gates, Chili, and Greece, trail user groups, interested residents, Monroe County, NYSDOT, GTC
- Utilize in-house staff and/or professional assistance to develop a trail redevelopment plan for the reconstruction and improvement of the trail along this corridor



Priority Project #8:

Canandaigua Downtown Rail-with-Trail

Sponsor/Owner: City of Canandaigua

Project Description and Location: Develop 2.4 miles of trail on the unused portion of the active Finger Lakes Railroad Corridor in downtown Canandaigua between the Ontario Pathways Trail and Buffalo Street. Project includes several existing bridges and some difficult intersections.

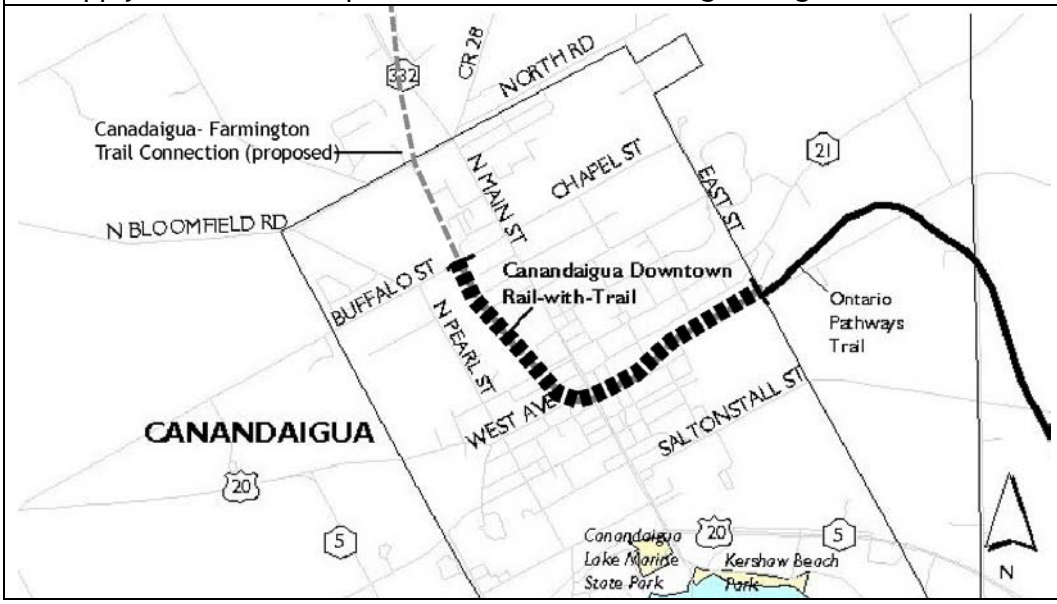
Estimated Cost: $840,000 (assuming an asphalt trail surface)

Project Benefits/Unique Elements: This trail would provide a cross-city connection between the Ontario Pathways trail on the east side, Main Street at City Hall, and then north to the elementary school and to Canandaigua Wine Brands, a major employer. It would also provide a safer walking/ bicycling alternative to those persons who currently walk along the active railroad tracks.

Project Status: The City of Canandaigua has consulted with NYDOT – Region 4 and GTC bicycle/ pedestrian staff contacts about project feasibility and next steps. The railroad is receptive to the trail concept because of trespassing problems on its active track.

Implementation Steps:

- Finalize permanent or long-term easement agreement with the railroad company
- Implement a public input process to develop the trail project; include adjacent property owners, interested persons, Ontario County, NYSDOT, Finger Lakes RR, GTC
- Conduct feasibility study of rail-to-trail corridor conversion with close attention to the road/trail intersections, trail/rail separation, and bridges
- Identify sources of local matching funds and in-kind services and resources
- Apply for trail development/construction funding through state and federal sources



Priority Project #9:

Erie Attica Railroad Bridge Rails-to-Trails Conversion

Sponsor/Owner: City of Rochester, University of Rochester

Project Description and Location:
Convert the former Erie Attica Railroad bridge over the Genesee River into a trail bridge

Estimated Cost:
$1,500,000 (Estimate by the City of Rochester)

Project Benefits/Unique Elements:
This abandoned railroad bridge would connect the Genesee Riverway Trail and Plymouth-Exchange (PLEX) neighborhood on the west side of the River to the University of Rochester, Wilson Boulevard, and Riverway Trail on the east side of the River.

Project Status:
The City of Rochester owns the bridge and its western approach; the University of Rochester owns the eastern approach. This project is a lower priority for the City as there are other river crossings within ½ to 1 mile north and south of this bridge. The PLEX neighborhood and the U of R are interested in redeveloping it.

Implementation Steps:

- Conduct a full structural analysis of this former rail bridge and develop more detailed cost estimates for the conversion of this bridge for bicycle and pedestrian use
- Implement a public input process; include adjacent property owners, interested residents, City of Rochester, University of Rochester, GTC
- Identify sources of local matching funds and in-kind services and resources
- Apply for bridge rehabilitation funding through state and federal sources

Priority Project #10:

Genesee Riverway Trail - Downtown to Lower Falls Park

Sponsor/Owner: City of Rochester

Project Description and Location:

Construct 2.1 miles of new Genesee Riverway Trail between downtown Rochester and Lower Falls Park.

Estimated Cost:

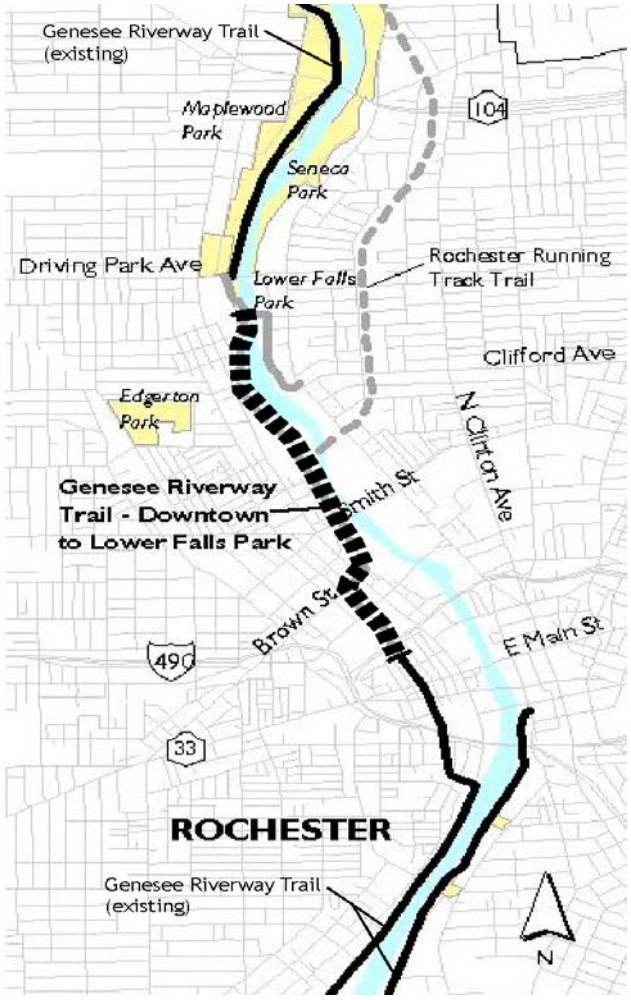
$1,000,000 (assuming an asphalt trail surface)

Project Benefits/Unique Elements:

This project would connect two existing sections of the Genesee Riverway Trail, completing the full trail corridor along the west side of the Genesee River from the Erie Canal to the Port of Rochester area. This area is characterized by lower income neighborhoods and would provide an off-street alternative to Lake Avenue. It would also provide access to new viewing opportunities of the River.

Project Status:

City of Rochester staff has begun a preliminary investigation of possible trail alignments along this corridor (Summer 2002). The corridor is characterized by commercial and industrial properties, some underutilized or abandoned.



Implementation Steps:

- Complete the in-house preliminary corridor planning phase
- Utilize in-house and/or outside professional assistance to develop a trail development plan, including detailed trail alignment alternatives, trail design elements, and cost estimates for the final engineering and construction of this trail section
- Identify property acquisition or easement requirements
- Identify sources of local matching funds and in-kind services and resources
- Apply for bridge development/construction funding through state and federal sources
- Incorporate this new section of trail into the operations and maintenance plan for the Genesee Riverway Trail system

Priority Project #11:

Genesee Riverway Trail – O'Rorke Bridge to Port of Rochester

Sponsor/Owner:

City of Rochester

Project Description and Location:

Construct a new 0.7-mile section of the Genesee Riverway Trail between the O'Rorke Bridge and Port of Rochester/Lake Ontario waterfront.

Estimated Cost:

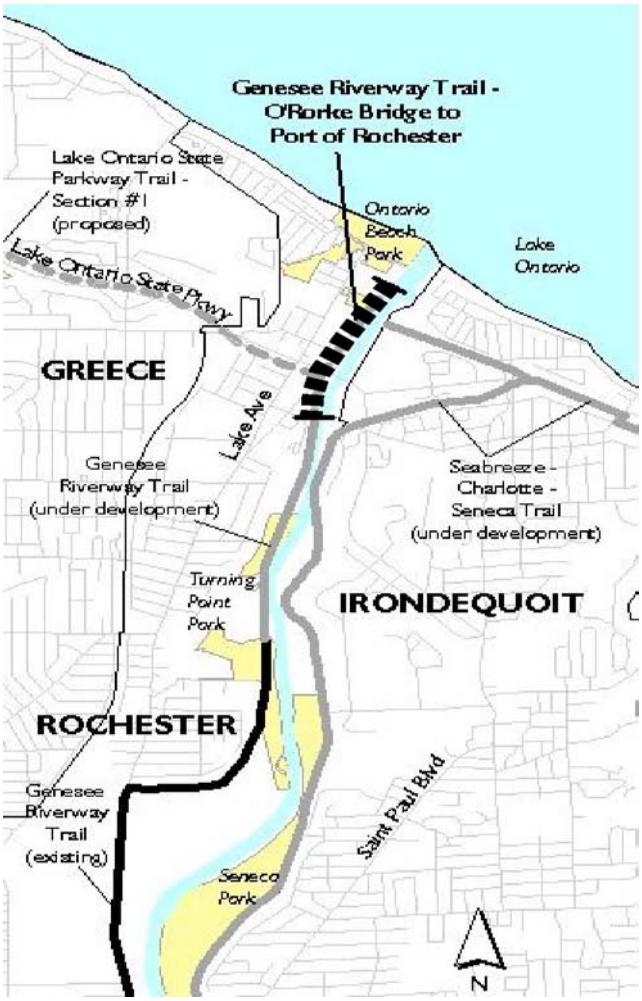
$1,400,000 (1999 Transportation Enhancements Program application estimate assuming a paved trail surface)

Project Benefits/Unique Elements:

This section of trail would connect to a new section of the Genesee Riverway Trail to the south (now under development), the new O'Rorke Bridge, Ontario Beach Park, the Port of Rochester, and the proposed Lake Ontario State Parkway Trail.

Project Status:

Some pieces of this project are being developed as part of the Port of Rochester redevelopment. Any remaining connections should be identified and proposed for completion.



Implementation Steps:

- Implement a public input process to further develop this project; include adjacent property owners, Port of Rochester and US customs officials, Monroe County, other interested persons
- Utilize in-house and/or professional assistance to develop detailed designs and cost estimates for the construction of this new section of trail
- Identify sources of local matching funds and in-kind services and resources
- Apply for trail development/construction funding through state and federal sources
- Incorporate this new section of trail into the operations and maintenance plan for the Genesee Riverway Trail system

Priority Project #12:

Genesee Riverway Trail Neighborhood Connectors

Sponsor/Owner: City of Rochester

Project Description and Location:
Support the development of the City of Rochester's Neighborhood Trails Connectors. Thirteen neighborhood trail connectors are planned.

Estimated Cost: $750,000 (Estimate by the City of Rochester and GTC, 2001)

Project Benefits/Unique Elements:

These projects will enhance the connectivity, convenience, and safety of the Genesee Riverway Trail for transportation and recreational use by making the trail more accessible to adjacent neighborhoods/land uses and improving connectivity with intersecting trails.

Project Status:

Highland Park/Brighton Park Connection – not started; progress cooperatively with Brighton

Strong Hospital Connection – under construction with Kendrick Road reconstruction project

McLean Street Connection – not started

South Wedge Connection – not started; construct with planned Byron Street project

Magnolia Street Connection – not started; extreme grade change requires investigation

Flint & Violetta Street Connections – under construction in Summer 2002

Corn Hill Neighborhood Connection – not started; construct with Corn Hill Landing project

Upper Falls Connection – not started; construct with proposed Running Track conversion

14621 Connection - not started; construct with proposed Running Track conversion

Edgerton Neighborhood Connection – not started; Hastings Street structural analysis needed

Maplewood Neighborhood Connection – will be constructed as part of Route 104 project

Town of Greece – Charlotte Connection - not started; progress cooperatively with Greece

Charlotte Neighborhood Connection – not started; investigate crossing of active CSX tracks

Implementation Steps:

- Utilize in-house and/or outside professional assistance to develop the remaining trail connections, including cost estimates
- Identify any property acquisition or easement requirements for each connection
- Identify sources of local matching funds and in-kind services and resources
- Apply for trail development/construction funding through state and federal sources
- Incorporate these new connections into the operations and maintenance plan for the Genesee Riverway Trail system; identify any shared maintenance with adjacent Towns

Priority Project #13:

Hojack Line Railroad Corridor Conversion- Greece to Hilton

Sponsor/Owner: Town of Greece, Town of Parma, and Village of Hilton (suggested)

Project Description and Location:
Acquire and convert 8.0 miles of the abandoned Hojack Line Railroad Corridor to a multi-use trail in the Towns of Greece and Parma and the Village of Hilton (Monroe County). Trail surface to be stone dust and asphalt.

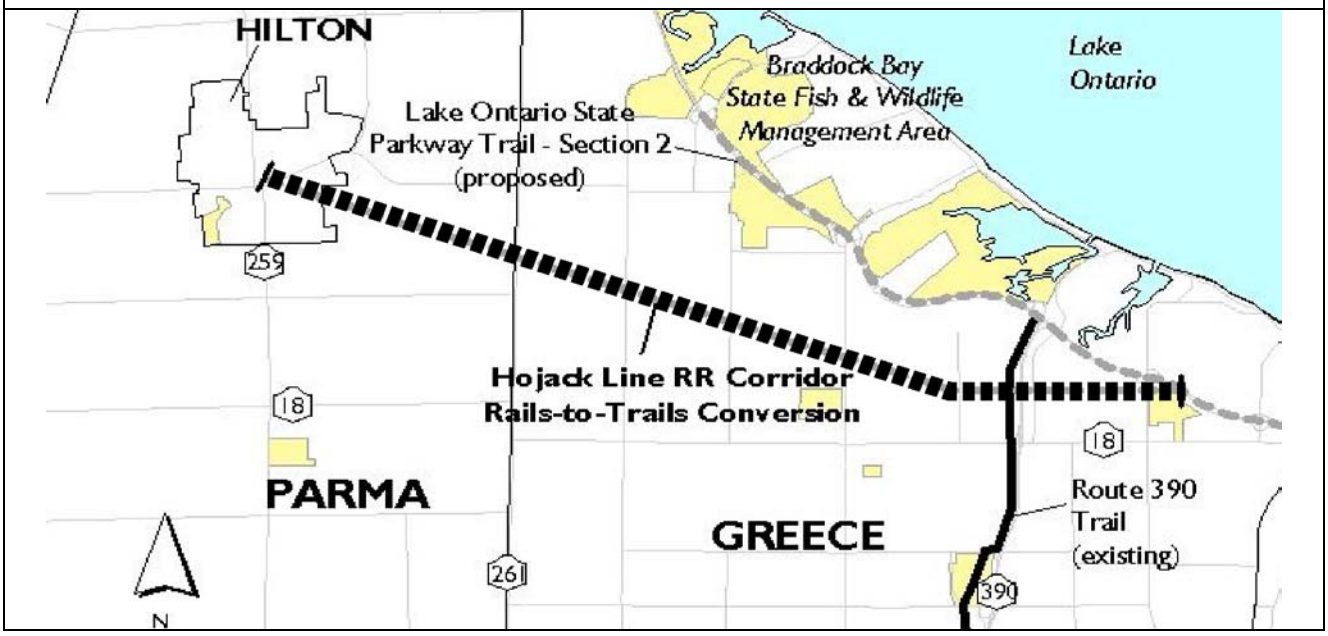
Estimated Cost: $2,800,000 (assuming both asphalt and stone dust trail surfaces)

Project Benefits/Unique Elements: The Hojack Trail would connect with the Route 390 Trail in Greece and create an east-west connection between Greece, Parma, and Hilton, an area presently underserved by trails. The acquisition or preservation of the corridor would also retain it indefinitely for public use.

Project Status: The corridor is currently owned by Rochester Gas & Electric and is actively used as a utility corridor. The Town of Greece identified the corridor in its Master Plan and its Open Space Plan as a potential trail corridor.

Implementation Steps:

- Purchase the corridor or establish a permanent corridor easement with RG & E for trail use
- Implement a public input process to develop the trail project; include adjacent property owners, interested residents, Greece, Parma, Village of Hilton, Monroe County, RG & E, GTC
- Utilize professional assistance to develop a trail development plan and cost estimates for the construction of a trail along the corridor, including trailheads and buffering
- Identify sources of local matching funds and in-kind services and resources
- Apply for trail development/construction funding through state and federal sources



Priority Project #14:

Irondequoit Bay Park West Trail

Sponsor/Owner:

Irondequoit, Penfield, and Monroe County

Project Description and Location:

Develop a 5.8-mile stone dust trail along the west side of Irondequoit Bay from Route 404 (Empire Boulevard) through Irondequoit Bay West Park to Route 104 per Monroe County's Draft Irondequoit Bay Trail Plan (1999)

Estimated Cost:

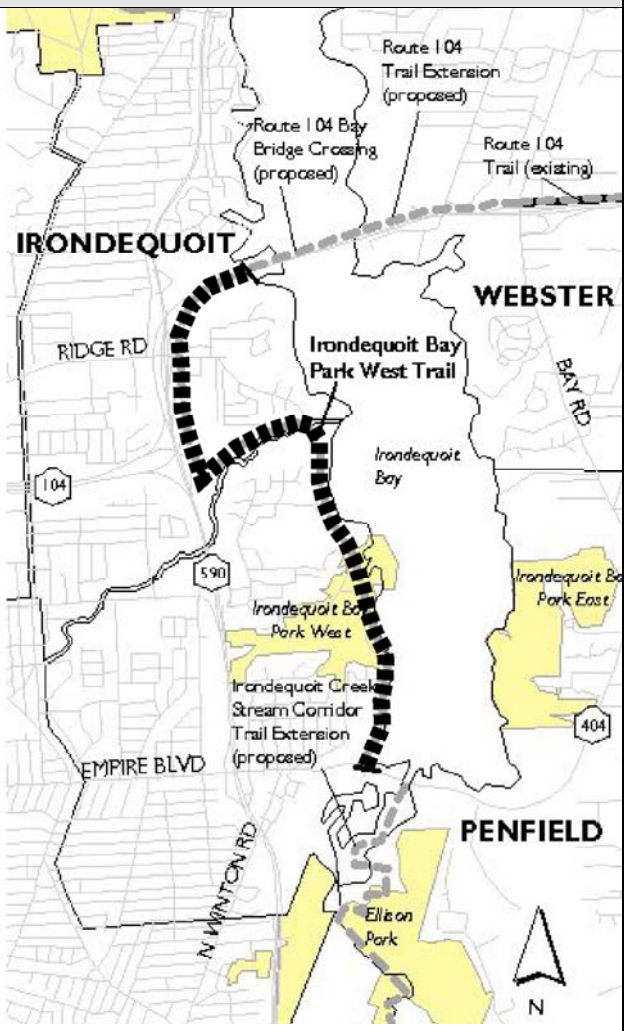
$1,020,000 (assuming a stone dust trail surface)

Project Benefits/Unique Elements:

Presently, Irondequoit Bay lacks poor access for bicyclists and pedestrians. This project supports local and County efforts to develop the LaSalle's Landing area.

Project Status:

The Town of Penfield is developing a boardwalk trail along the south end of the Bay utilizing state grant funds. Monroe County is acquiring properties along the west side of the Bay along Bay Front South. NYSDOT is building sidewalks as part of its road reconstruction project on the north side of Empire Boulevard that will connect Empire and Winton Road to the Bay. (All as of Summer 2002)



Implementation Steps:

- Implement a public input process to develop the trail project; include adjacent property owners and other interested persons, Towns of Penfield and Irondequoit, Monroe County, NYSDEC, GTC
- Utilize a consultant and/or in-house professionals to develop a trail development plan and cost estimates for the construction of a trail along this corridor
- Identify any private property acquisition and/or easements needed
- Identify sources of local matching funds and in-kind services and resources
- Apply for trail development/construction funding through state and federal sources
- Develop an operations and maintenance plan for the trail

Priority Project #15:

Irondequoit Creek Stream Corridor Trail

Sponsor/Owner: Town of Penfield

Project Description and Location:
Develop a 1.5-mile stone dust trail along the west side of Irondequoit Creek corridor from Panorama Plaza area to Linear Park in the Town of Penfield

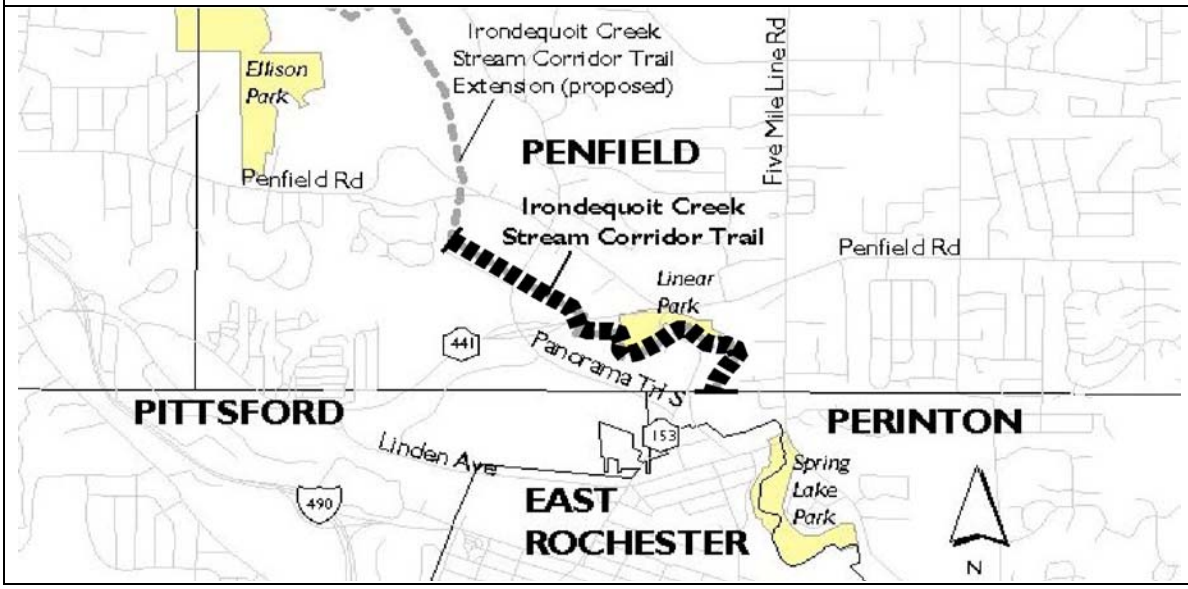
Estimated Cost: $1,500,000 (assuming a stone dust trail surface)

Project Benefits/Unique Elements:
This trail would connect the historic Four Corners area of Penfield to the Panorama Plaza area via an off-street trail, which would bypass several highly-trafficked highways and follow the scenic Irondequoit Creek corridor.

Project Status:
The Town applied for funding through the 2001-2002 Transportation Enhancements Program and is awaiting word if it has been selected (to be announced in Fall 2002).

Implementation Steps:

- Implement a public input process to develop the trail project; include adjacent property owners, interested residents, Town of Penfield, Penfield Trails Committee, Monroe County, NYSDOT, and GTC
- Utilize a consultant and/or in-house professionals to develop a trail development plan and cost estimates for the construction of a trail along this corridor
- Identify sources of local matching funds and in-kind services and resources
- Apply for trail development/construction funding through state and federal sources
- Develop an operations and maintenance plan for the trail



Priority Project #16:

Lake Ontario State Parkway Trail – Section #1

Sponsor/Owner: NYSDOT, NYSOPRHP, City of Rochester, Town of Greece

Project Description and Location:
Construct a new 3.0-mile asphalt trail adjacent to the Lake Ontario State Parkway between the Genesee River and Riverway Trail to the Route 390 Trail

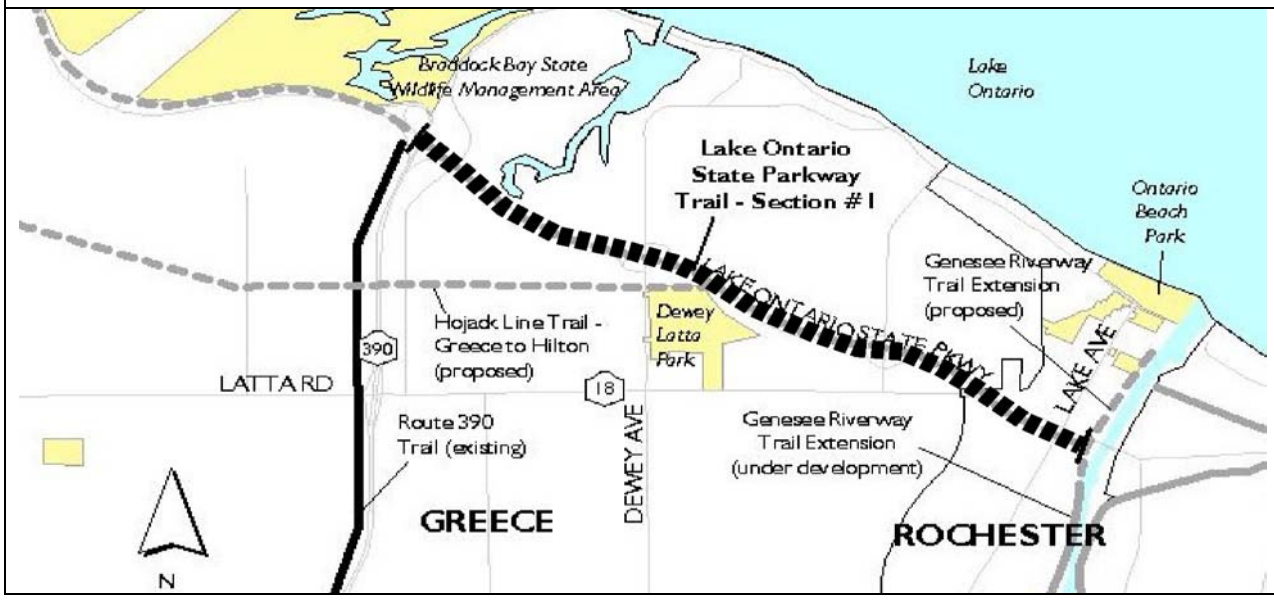
Estimated Cost: $1,300,000 (2001 NYSDOT estimate assuming an asphalt trail surface)

Project Benefits/Unique Elements:
This trail would connect to the Genesee Riverway Trail in the Charlotte area of the City of Rochester and to the existing Route 390 Trail in the Town of Greece and eventually the Canalway Trail upon completion of the extension of the Route 390 Trail (project under development by NYSDOT).

Project Status:
NYSDOT and NYSOPRHP completed a safety study in 2001 that included a feasibility study for developing a trail along the Parkway, including a conceptual trail route and cost estimates.

Implementation Steps:

- Implement a public input process to further develop the trail project; include adjacent property owners, interested persons, Town of Greece, City of Rochester, Monroe County, NYSDOT, NYSOPRHP, NYSDEC, GTC
- Identify sources of local matching funds and in-kind services and resources
- Apply for trail development/construction funding through state and federal sources
- Develop an operations and maintenance plan for this trail



Priority Project #17:

Lake Ontario State Parkway Trail – Section #2

Sponsor/Owner: NYSDOT, NYSOPRHP, Town of Greece

Project Description and Location:
Construct a new 3.7 mile asphalt trail adjacent to the Lake Ontario State Parkway between the Route 390 Trail to Braddock's Bay in the Town of Greece

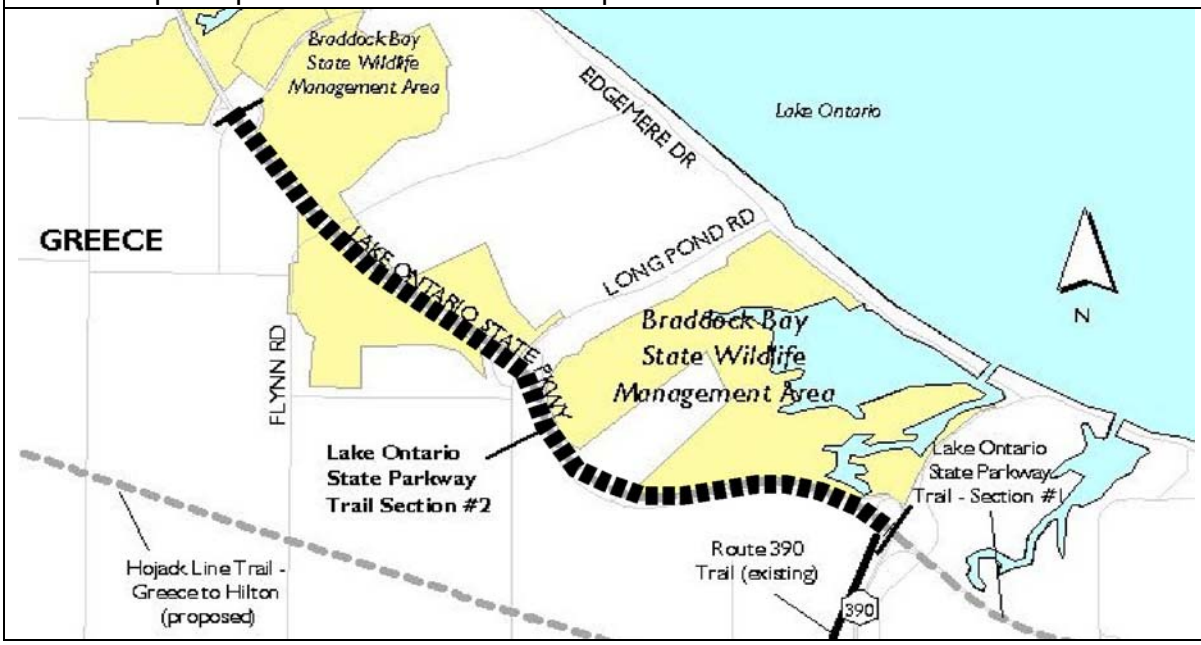
Estimated Cost: $2,600,000 (2001 NYSDOT estimate assuming an asphalt trail surface)

Project Benefits/Unique Elements:
This trail would connect to the existing Route 390 Trail in the Town of Greece and eventually the Canalway Trail upon completion of the extension of the Route 390 Trail (project under development by NYSDOT).

Project Status:
NYSDOT and NYSOPRHP completed a safety study in 2001 that included a feasibility study for developing a trail along the Parkway, including a conceptual trail route and cost estimates.

Implementation Steps:

- Implement a public input process to further develop the trail project; include adjacent property owners, interested persons, Town of Greece, Monroe County, NYSDOT, NYSOPRHP, NYSDEC, GTC
- Identify sources of local matching funds and in-kind services and resources
- Apply for trail development/construction funding through state and federal sources
- Develop an operations and maintenance plan for this trail



Priority Project #18:

Rochester Running Track Rail-to-Rail Conversion

Sponsor/Owner: City of Rochester

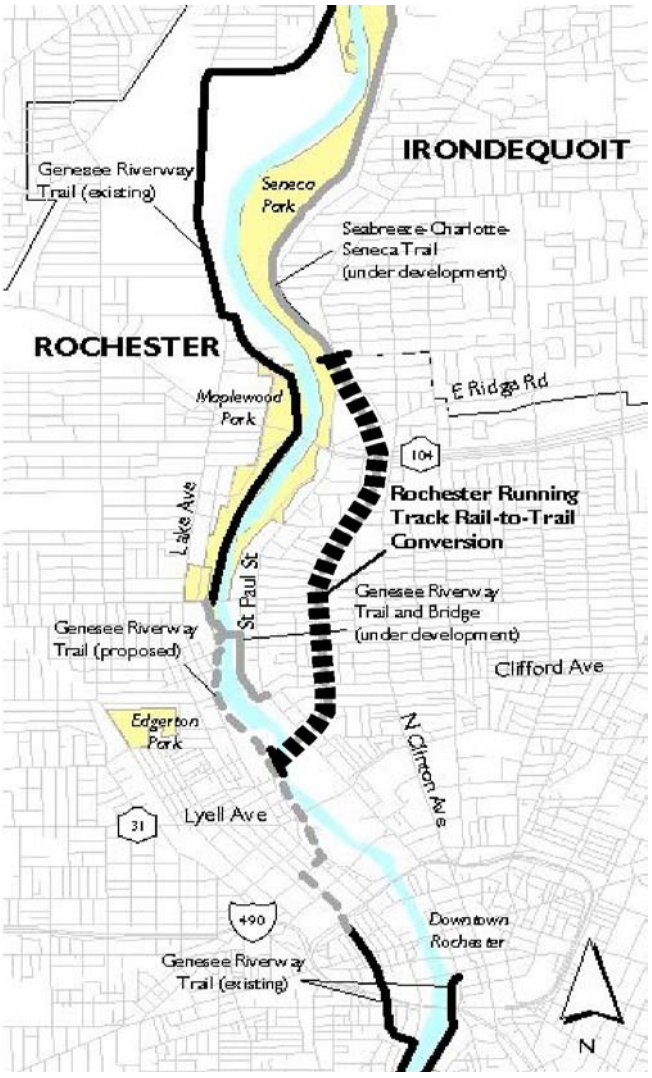
Project Description and Location:
Convert the remainder of the abandoned Rochester Running Track corridor (2.7 miles long) from St. Paul Boulevard through the City of Rochester into a multi-use trail, including the conversion of the existing railroad bridge across the Genesee River.

Estimated Cost:
$1,660,000 (assuming an asphalt trail surface)

Project Benefits/Unique Elements:
This segment of trail would extend the Genesee Riverway Trail system on the east side of the Genesee River from the SeaBreeze/Charlotte/ Seneca Trail (under development) to the west side of the River and proposed Genesee Riverway Trail – Downtown to Lower Falls section. This corridor could serve as an alternative north-south travel route to St. Paul Boulevard passing through several low-income neighborhoods.

Project Status:

Monroe County is negotiating the purchase the Rochester Running Track corridor from CSX for the SeaBreeze/ Charlotte/Seneca Trail (under development) (Summer 2002). The Genesee Land Trust and Group 14621 Community Association are also interested in this rail-to-trail conversion.



Implementation Steps:

- Implement a public input process to develop the trail project; include adjacent property owners, interested residents, City of Rochester, Monroe County, Group 14621, Genesee Land Trust, GTC
- Utilize a consultant and/or in-house professionals, if available, to develop a trail development plan and cost estimates for the construction of a trail along this corridor
- Identify sources of local matching funds and in-kind services and resources
- Apply for trail development and construction funding through state and federal sources
- Incorporate this new section of trail into the operations and maintenance plan for the Genesee Riverway Trail system

Priority Project #19:

RS&E Trolley Trail Bridge

Sponsor/Owner: Town of Perinton

Project Description and Location:

Construct a new trail bridge over Erie Canal to connect the RS&E Trolley Trail and Canalway Trail. Bridge is 0.6 miles in length and surfaced in concrete.

Estimated Cost:

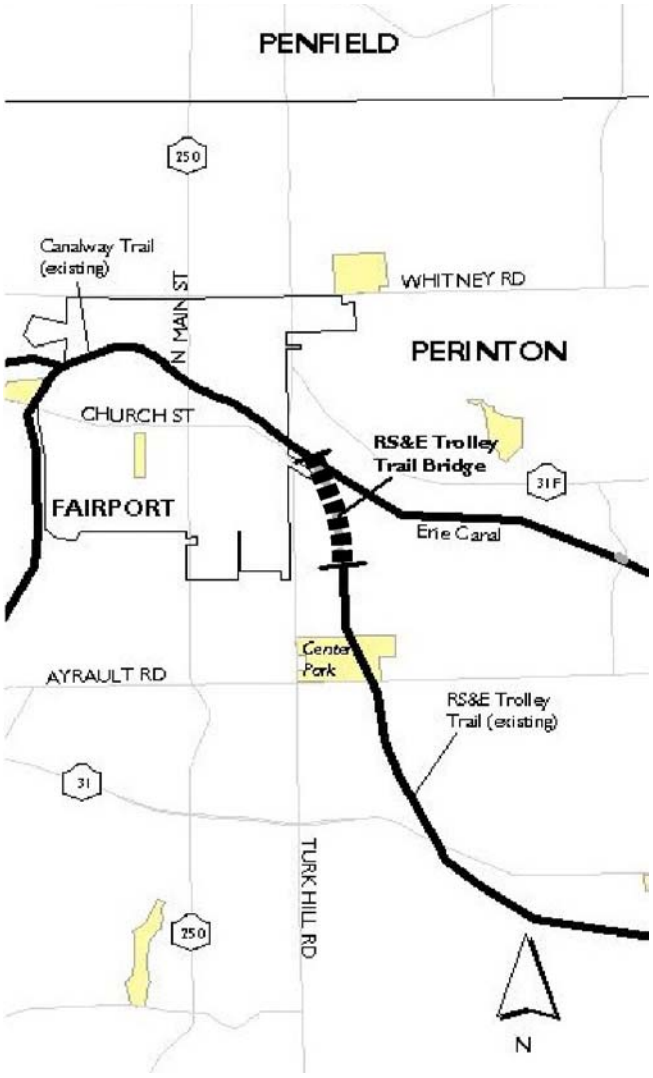
$1,432,000 (2001 Transportation Enhancement Program application estimate)

Project Benefits/Unique Elements:

The construction of a new trail bridge over the Erie Canal utilizing the existing RS & E Trolley abutments would create a direct connection between the RS & E Trolley Trail and the Canalway Trail. This connection would allow trail users to bypass the very busy intersection of Route 31F and Turk Hill Road, where there are limited bicycle and pedestrian accommodations.

Project Status:

The Town of Perinton had a consultant complete conceptual planning and cost estimates for its 2001-02 TEP application. The Town's application for TEP funding is pending (Summer 2002) (successful projects to be announced in Fall 2002)



Implementation Steps:

- Contact the State Historic Preservation Office (SHPO) about the need for a more detailed review of the Town's proposed bridge as it would span a state historic resource (the Erie Canal)
- Identify sources of local matching funds and in-kind services and resources
- Apply for bridge development/construction funding through state and federal sources
- Incorporate this new bridge into the operations and maintenance plan for the RS&E Trolley Trail

ON-STREET TRAIL CONNECTION RECOMMENDATIONS

Part of the purpose of the Regional Trails Initiative is to create and maintain a regional trails system that is highly functional. However, off-street trails cannot directly serve all desired origins and destinations. To meet the transportation and recreation needs of this region's residents and visitors, it is necessary to fully integrate this region's trails with its existing road network.

GTC staff and the consulting team identified gaps between existing trails or between existing trails and proposed new trails, as well as gaps between major origins or destinations and existing or proposed new trails. Numerous roads or segments of roads in the Rochester TMA were identified as possible on-street trail connections that could close the gaps. See Table 7 for a listing of the roads in the Rochester TMA suggested for improvement.

On-street improvements to better accommodate typical trail users may include:

- the inclusion of bicycle lanes on the road
- new and/or improved paved shoulders
- installation of sidewalks
- enhanced trail/road intersections

Many of these improvements could be made when these roads are reconstructed or undergo extensive maintenance. However, because of their connectivity benefits, some roads may need improvements before any scheduled reconstruction or maintenance projects occur in order to safely accommodate trail users, pedestrians, and other trail users.

In order to determine what type of bicycle and pedestrian improvements are needed and feasible on specific roadway corridors, **Roadway Corridor Feasibility Plans** should be undertaken as part of a Regional Bicycle and Pedestrian Plan Update that will allow for more detailed engineering analysis of physical and operating conditions.

On-Street Trail Connection Recommendations
Rochester TMA

Table 7

Highway Name	Limits	Jurisdiction	1998 Rating*
Monroe County			
Allens Creek Road	Edgewood Avenue to Route 96	Pittsford, Brighton	fair, poor
Archer Road	Beaver Road to Ballantyne Road	Chili	fair
Attridge Road	Buffalo Road to Route 33A	Riga	fair
Baird Road	Whitney Road to Route 31F	Perinton	fair
Ballantyne Road	Jefferson Road to Route 33A	Henrietta, Chili	fair
Bay Road	Lake Road to Empire Boulevard	Webster	fair/good
Bay Street	Portland Avenue and North Goodman	Irondequoit	fair
Beahan Road	Paul Road to Chili Avenue	Chili	fair
Beaver Road	Route 33A to Ballantyne Road	Chili	fair
Blossom Road	Route 590 to Atlantic Avenue	Penfield, Brighton	fair
Brighton-Henrietta Townline Road	Winton Road to West Henrietta Road	Henrietta, Brighton	fair, poor
Brooks Avenue	Erie Canal to Chili Avenue (Route 33)	Chili	fair
Browncroft Boulevard (Route 286)	Old Browncroft Boulevard to Clark/Qualtrough	Penfield	fair
Bulls Saw Mill Road	Mendon Center Road to West Bloomfield Road	Mendon	not rated
Buffalo Road (Route 33)	Mount Read to West Side Drive	City of Rochester, Gates	fair
Calkins Road	Route 15 to Route 64	Henrietta, Pittsford	fair, good
Carter Road	Furman Road to Whitney Road	Penfield	fair
Carter Street	East Ridge Road to Norton Street	Irondequoit	fair
Castle Road	Route 15A to Winton Road	Henrietta	fair
Chamberlain Road	Cheese factory Road to Mile Square Road	Mendon	not rated
Chili Avenue	Genesee Street to Paul Road	Rochester, Chili	fair
Clifford Avenue	St. Paul Street to Culver Road	City of Rochester	fair
Colby Street	Route 36 to Route 19	Ogden, Sweden	fair
Commercial Street	Country Club Road to Washington Street	East Rochester	fair
Creek Street	Embury Road and Plank Road	Penfield	fair
Crittenden Road	East Henrietta Road to West Henrietta Road	Brighton	fair
Culver Road	Clifford Avenue to Route 31	City of Rochester	fair
Culver Road	Brookdale Park to Route 104 (East Ridge Road)	Irondequoit	fair
Dewey Avenue	Lyell Avenue to Stone Road	Greece; City of Rochester	fair, poor
East Avenue (Route 96)	Main Street to Culver Road; Park Avenue to Route 490	City of Rochester	fair
East Avenue (Route 96)	Route 490 to Route 31F (St. John Fisher campus)	Brighton, Pittsford	fair
East Henrietta Road (Route 15A)	Mount Hope Avenue to Lehigh Station Road	Brighton, Henrietta	fair, poor
East Ridge Road	St. Paul Blvd. to Kane Drive	Irondequoit	fair
East River Road	Mount Hope Avenue to Jefferson Road (Route 252)	Brighton, Henrietta	fair
East River Road	Lehigh Station Road to Scottsville-Rush Road (Route 251)	Henrietta, Rush	fair
Edgemere Drive	Greenleaf Road to Manitou Road	Greece	not rated
Elmgrove Road (Route 386)	Straub Road to Buffalo Road	Greece, Gates	fair
Elmwood Avenue	Route 96 to Lattimore	Brighton, City of Rochester	fair
Empire Boulevard	Culver Road to Irondequoit Bay Basin	Irondequoit, Penfield	fair, poor
English Road	North Greece Road to Dewey Avenue	Greece	fair
Erie Station Road	Route 15A to East River Road	Henrietta	fair
Fairport Road (Route 31F)	Rout 96 to Village of Fairport	Pittsford, Perinton, Fairport	fair
Fishers Road	Route 96 to Main Street	Pittsford, Victor (Ontario Co.)	fair
Five Mile Line Road	Whalen Road to Whitney Road	Penfield, Perinton	fair
French Road	Route 96 to Edgewood Avenue	Pittsford, Brighton	poor
Frisbee Hill Road	Manitou Road to Flynn Road	Parma, Greece	fair
Genesee Street	Brooks Avenue to Chili Avenue	City of Rochester	fair
Golf Avenue	Marsh Road to Route 153	Pittsford	fair

On-Street Trail Connection Recommendations
Rochester TMA

Table 7

Highway Name	Limits	Jurisdiction	1998 Rating*
Highland Avenue	Monroe Avenue to South Goodman	Brighton, City of Rochester	poor
Holt Road	Klem Road to Route 104	Webster	fair
Hudson Avenue	Norton Street to Titus Avenue	Irondequoit	fair
Hylan Drive	Jefferson Road to I-390 Interchange	Henrietta	fair
Jackson Road	Route 404 and State Road	Webster	fair
Jefferson Avenue	Route 31F to Ayrault Road	Perinton	poor
Jefferson Road (Route 252)	Winton Road to Brighton Henrietta Townline Road	Henrietta	fair, poor
Jefferson Road (Routes 252 and 96)	Sutherland Street to Marsh Road	Pittsford	fair
King's Highway	Lakeshore Blvd. to Route 104	Irondequoit	fair
Knickerbocker Road	Route 64 to Route 96	Pittsford	fair
Kreag Road	Bushnell's Basin to Route 31 to Ayrault Road	Pittsford, Perinton	fair
Lake Avenue	Beach Street to Lyell Avenue	City of Rochester	fair
Lake Road	Bay Road to Monroe/Wayne County line	Webster	fair, good
Lake Road (Route 19)	East Avenue to Route 31	Brockport, Sweden	fair
Lakeshore Boulevard	St. Paul Blvd. to Colebrook Drive	Irondequoit	fair
Latta Road	Long Pond Road to Manitou Road	Greece	fair
Lattimore Road	Elmwood Avenue to Kendrick Road	Brighton	fair
Lehigh Station Road	Route 15 to Middle Road	Henrietta	fair
Lehigh Station Road	Pinnacle Road to Route 65 (Clover Street)	Henrietta, Pittsford	fair
Lincoln Road	Commercial Street to Route 31F	East Rochester, Perinton	fair
Linden Avenue	Route 441 to Washington Road	East Rochester, Pittsford	fair
Long Pond Road	Lyell Avenue to Latta Road	Greece	fair
Lyell Avenue	Glide Street to Elmgrove Road (Route 386)	City of Rochester; Gates	fair, poor
Lyell Avenue	Broad Street to Lake Avenue	City of Rochester	fair, poor
Maiden Lane	Dewey Avenue to North Avenue	Greece	fair
Main Street	North Union Street to State Street	City of Rochester	fair
Manitou Road	Route 104 to Buffalo Road	Greece, Gates	fair
Marsh Road	Garnsey Road to Great Embankment Park	Pittsford	fair
Mendon Center Road	Calkins Road to Mendon Ponds Park	Pittsford, Mendon	fair
Monroe Avenue (Route 31)	Highland Avenue to Village of Pittsford	Brighton, Pittsford	fair, poor
Mount Read Boulevard	Latta Road to Route 33	Greece, City of Rochester	fair, poor
North Avenue	Maiden Lane to Route 104	Greece	fair
Panorama Trail	Route 286 to Penfield Road	Penfield	poor
Pattenwood Drive	St. Paul Blvd. to O'Rorke Bridge	Irondequoit	fair
Penfield Road	Panorama Trail to Old Penfield Road	Penfield	fair
Phillips Road	Klem Road to Route 104	Webster	fair
Pittsford-Palmyra Road (Route 31)	Village of Pittsford to the Hamlet of Egypt	Pittsford, Perinton	fair, poor
Redman Road	Route 104 and Route 36	Clarkson	fair
Ridge Road (Route 104)	Gravel Road to Holt Road	Webster	fair
Ridge Road (Route 104)	Lake Avenue to Route 19	Rochester, Greece, Parma, Clarkson	
Ridegway Avenue	Elmgrove (Route 386) to Mount Read Blvd.	Greece, City of Rochester	fair
Route 15	Elmwood Ave to Calkins Road	Brighton, Henrietta	fair, poor
Rush-Lima Road	Rush Road to Plains Road	Rush	fair
Route 31	Route 36 to Redman Road	Ogden, Clarkson	fair
Route 96	Village of Pittsford to Route 250	Pittsford	fair
Route 104	Bay Road to Hard Road	Webster	fair, good
Route 441	Watson Road to Route 96	Penfield, Brighton	fair, poor
Route 590	Titus Avenue to Seabreeze	Irondequoit	fair
Saint Paul Boulevard	Lakeshore Avenue to Titus Avenue	Irondequoit	fair

On-Street Trail Connection Recommendations
Rochester TMA

Table 7

Highway Name	Limits	Jurisdiction	1998 Rating*
Salt Road	State Road to Rote 441	Penfield	fair
Schlegel Road	Route 250 to Salt Road	Webster	fair
Scottsville-W. Henrietta Road (Rt. 253)	Route 383 to East River Road	Wheatland, Henrietta	fair
South Avenue	Averill Street to St. Paul Street	City of Rochester	fair, poor
South Clinton Avenue	Downtown Rochester	City of Rochester	poor
State Street/Exchange Street	Lyell Avenue to Court Street	City of Rochester	fair
Stone Road	Route 64 to Route 65	Pittsford	fair
Stone Road	Dewey Avenue to Stonewood Drive	Greece	fair
Stony Point Road	Route 33 to Route 36	Ogden	fair
Sweden Road	Colby Street to Route 31	Sweden	fair
Thomas Avenue	Pattenwood Drive to St. Paul Blvd.	Irondequoit	fair
Thornell Road	Route 96 to East Street	Pittsford	fair
Tobin Road	Route 65 and Reeves Road	Pittsford	fair
Turk Hill Road	Whitney Road to Route 31F	Perinton	fair
Vintage Lane	Dewey Avenue to Route 390	Greece	fair
Washington Road (Route 153)	Linden Avenue to Route 96	East Rochester, Penfield, Pittsford	fair
West Avenue (Route 18)	Colamer Road to Bennett Road	Hiilton, Parma	fair
Westfall Road	South Clinton Avenue to Mount Hope Avenue (Route 15)	Brighton; City of Rochester	fair
Wilder Road	Bennett Road to Manitou Road	Parma	fair
Winton Road	Westfall Road to Stone Road	Brighton, Henrietta	fair
Livingston County (TMA areas only)			
Routes 5 & 20	Genesee Street to Bronson Hill Road	Avon	fair
Ontario County (TMA areas only)			
Buffalo Street	Route 332 to North Pearl Street	Canandaigua	fair
County Road 16	Parrish Street to South Bristol/Canandaigus Townline	Canandaigua	fair
High Street	Route 96 to Valentown Road	Victor	fair
Main Street (Route 332)	Buffalo Street to Routes 5 & 20	Canandaigua	fair
Mertensia Road	Route 96 to CR 41	Farmington	fair
New Michigan Road	CR 41 to CR 30	Victor, East Bloomfield	fair
North Bloomfield Road	Route 332 to the Civic Center	Canandaigua	fair
Parrish Street	Pearl Street to Main Street (Route 332)	Canandaigua	fair
Route 332	North Street to Hook Road	Canandaigua, Farmington	fair
Route 364	Lakeshore Drive to Gorham/Canandaigua Townline	Canandaigua	fair
Routes 5 & 20	Western County Line through Town of Canandaigua	West and East Bloomfield, Canandaigua	good
Route 64	Monroe County Line to Routes 5 & 20	West and East Bloomfield	good
Route 96	Mosely Road to CR 8	Victor	fair
Turk Hill Road	Monroe County Line to Route 96	Victor	poor
Wayne County (TMA areas only)			
Lake Road (Seaway Trail)	Monroe County line to Williamson	Ontario	fair, good
Route 104	County Line Road to Ontario/Williamson townline	Ontario	fair

* Road condition ratings are derived from the 1998 Greater Rochester Area Bike Map. Road conditions may have improved or declined since the map was published.

7. IMPLEMENTATION STRATEGIES

This proposed regional trail system is composed of a series of discreet projects to be implemented over the next 12 years. At the end of 12 years, it is envisioned that the region will have a world-class trail system that will have tangible health, economic, transportation, and recreation benefits to residents and visitors. While this Action Plan identifies and prioritizes projects that form a regional trail system, the trails themselves will be initiated by local communities, local and state agencies, and trail organizations.

The Genesee Transportation Council will play a supporting role in this effort, but ultimately all projects must be initiated and developed by local communities, local and state agencies, and trail organizations themselves.

In addition to meeting specific design standards for trail projects, the responsible entity must also consider impacts on local neighborhoods, safety, privacy and security issues, parking needs, drainage, pedestrian movement, signals, traffic volumes and speeds, property acquisition, and environmental impact. However, it is expected that through individual or combined efforts, many of the proposed projects, or major portions of them, will be implemented over the next 12-20 years.

The steps between the concepts outlined in this Action Plan and new or improved trails becoming reality will vary from one community to the next. Some communities, agencies, and groups have definite plans, designs, and often funding for specific trail projects, while others may not. One of the key goals of this Action Plan is to facilitate implementation of the trail system. The following Implementation Strategies are recommended:

LEADERSHIP

- ***FORM A REGIONAL TRAILS IMPLEMENTATION TASK FORCE***

This task force would be staffed by GTC and composed of local and state agency and trail organization representatives. The focus of the Task Force would be refining the implementation measures identified in this Plan, reviewing and updating the Recommended Project Lists and project screening criteria, and assisting communities, agencies, and trail groups in implementing trail projects.

CORRIDOR PRESERVATION

Virtually all of the existing and proposed trails in the region are located on abandoned railroad corridors, utility corridors, the Erie Canal, or stream corridors. Corridor preservation is one of the most important first implementation steps needed.

- ***CORRIDOR INVENTORY & EVALUATION***

GTC is currently proceeding with a parallel effort to inventory and evaluate existing corridors in the region (Regional Rights-of-Way Initiative). This GIS-based inventory will serve as a valuable resource to local agencies for locating and analyzing corridors in their jurisdictions for use as future trail corridors. To assist GTC with this effort, local agencies should help GTC identify corridors in their jurisdictions, provide GTC with updated information, identify any easements or licenses, and monitor changes in ownership that may impact future trails development.

- ***LOCAL ADOPTION OF TRAILS CORRIDORS***

The single most effective method of protecting future trail corridors is to show the corridors in an adopted community Master Plan or related plan (eg. trails plan, transportation, parks and recreation, open space, etc.). In the event a corridor is sold prior to a local agency obtaining needed access, having the corridor in an adopted plan will give the agency an important tool to require an easement as part of any future development. A local agency may also 'adopt' this plan as its trails plan, with appropriate amendments.

- ***ZONING***

When updating zoning regulations, local committees may influence how corridors are preserved through zoning changes. This may include, for example, a stream setback requirement for environmental protection purposes, changing the zoning of a corridor to reflect adjacent zoning, and enforcing existing setback, access, and other requirements that would impact the development potential of a corridor. Any community must study any zoning change carefully to ensure that a zoning change did not result in an illegal 'taking' of property. At the same time, local communities have a right and responsibility to identify land needed for future schools, roads, parks, trails, and other public infrastructure.

- ***LICENSES & EASEMENTS***

Most corridors involve a license or easement agreement between the property owner and a variety of other users who are given surface, air, or sub-surface rights to the property as well. Local agencies should identify existing license and easement agreements on key corridors in their jurisdictions, and seek to preserve corridor access by obtaining a license or easement agreement for future trail development. This process may require extensive negotiations with the property owner, should be granted in perpetuity or for a long period, and may need to be purchased.

A common corridor implementation strategy that involves 'Zoning' and 'Licenses & Easements' issues is a negotiation whereby a land owner agrees to grant an easement for a trail (minimum 15-20 feet wide) in exchange for zoning changes that ensure the development potential of the parcel is not impacted. For example, if a piece of the corridor is being sold to an adjacent development site, a local agency could negotiate as part of the

approval process to obtain an easement on a corridor identified in its Master Plan (see 'Local Adoption of Trails Corridors' above) in exchange for changes in setback and Floor Area Ratio requirements.

- ***CORRIDOR PURCHASE***

A local community or other public agency may need to purchase a corridor in order to preserve it. By implementing 'Local Adoption of Trails Corridors' and 'Zoning', the purchase price of the property may be greatly reduced. In any event, the community or agency may be required to expedite the acquisition process if a corridor or portions of a corridor are put on the market. The local community or public agency will need to have local approvals in place to pursue the purchase, and may option the property in the expectation it can find the needed funding.

During the option process, the local agency will need to (a) negotiate an acceptable purchase price and (b) seek funding. In order to identify an acceptable price, the agency may wish to use a 'friendly condemnation' process whereby a neutral third party is enlisted to determine the fair market value. This Action Plan provides considerable flexibility in the selection of project funding every year. A corridor that is on the regional trails network may be moved up the priority list to receive funding (as available) if a unique opportunity presents itself.

Other acquisition strategies that may be utilized but may take more time are using a third party non-profit land trust as an intermediary in the purchase process. The land trust would offer the seller a tax benefit, which may be combined with some cash as well. The land trust would then turn the property over to the local agency or may grant a permanent easement.

Another approach that could be used on utility-owned corridors may be to offer to purchase the corridor for a discounted price, and then grant a permanent easement back to the utility company in exchange for allowing a trail. The utility company generates some cash, lowers their property taxes, and maintains access while the corridor is preserved.

PROJECT ADOPTION

- ***PROJECT IDENTIFICATION & APPROVAL***

This Regional Trails Initiative Action Plan identifies specific near-, mid-, and long-term trail project recommendations for the TMA. Most of these projects come directly from local agencies, while some have been identified during this process. Regardless, all trail projects must be initiated by a local community or public agency through the official adoption process in the form of an adopted resolution. This process may include the commitment for matching monies, opportunities for public input, and identification of the responsible department. Many local boards and commissions will want to understand the project they are committing to prior to approval, and the public may object to the approval if they sense they are being left out of the process. In this event, the local community or public agency may wish to proceed to 'Preliminary Design' prior to final approval.

- ***PRELIMINARY DESIGN***

The sequence of what comes next depends on local practice and on the nature of the project itself. At this point, the 'project' may be no more than a concept for a corridor that may include two or more different alternative locations or trail types. Often local neighbors may have no idea of what is being proposed, and local staff little idea of the cost or complexity of the project.

On complex projects that may have impacts on adjacent land uses, environmentally sensitive areas, or historical resources, it is suggested that the preliminary design process be conducted first in order to address these issues and to develop reasonably accurate cost estimates. Preliminary design studies may be funded through GTC or with local funds, and typically range between $10,000 and $50,000 for a typical 1 to 5 mile trail segment. This effort typically includes:

1. Summary of existing conditions
2. Environmental analysis
3. Historic analysis
4. Needs and benefits analysis
5. Alternative alignment analysis
6. Preferred alignment/trail type selection
7. Design standards and guidelines
8. Costs
9. Implementation and funding strategies

This process allows for adequate research into various elements that may impact the feasibility and cost of the project, and provide the public and staff with the opportunity to provide input into the design process. The final product should yield a preferred design alternative, environmental clearance, and an accurate cost estimate. Once approved, the preliminary design effort will be packaged with funding applications and greatly increase the competitive chances of receiving funding.

On other trail projects that do not involve complex issues and are relatively straightforward, the preliminary design process may be skipped if the community or agency feels comfortable they have a viable project.

PROJECT FUNDING

There are a variety of potential funding sources including local, state, regional, and federal programs that can be used to develop the proposed trail projects and programs. Most of the federal, state, and regional programs are competitive and involve the completion of extensive

applications with clear documentation of the project need, costs, and benefits. Local funding for trail projects typically comes from local capital improvement programs (CIPs), which are typically used to leverage larger competitive grants.

The total cost of the regional trail system's near-, mid-, and long-term improvements over 12 years is estimated to be approximately $79 million, of which local agencies are expected to be responsible for approximately 20%. The costs do not include potential on-road improvements such as bike lanes or shoulder improvements that will need to be identified as part of future preliminary engineering studies.

- ***FUNDING***

A trail project that has been identified as part of the Regional Trails Initiative and rates high according to the established criteria will likely have a better chance obtaining funding, assuming the right of way is publicly owned, it has local approval, and has either the preliminary design step completed or is straightforward with no complexities. Typically to acquire funding, all environmental work must be completed, local approval obtained, and the right-of-way in public control. Funding for TMA trail development including corridor acquisition is available from a variety of sources listed on Table 9.

DESIGN

- ***DESIGN STANDARDS & GUIDELINES***

Once an entity has been awarded funding, it will have a specific amount of time to complete final design and construction. A typical sequence for project implementation is completing Final Plans, Specifications, and Estimates (P, S & E) in order to obtain bids for construction services.

In some cases, an agency may be awarded funding to simply complete design, in which case one of the key outcomes of the design process is a detailed cost estimate. Design and engineering for trails typically constitute between 8% and 15% of the total project cost. Projects that involve more detailed engineering (such as bridges) will have a higher design fee.

In the selection of the design or engineering firm or staff, it is imperative that the team have someone who has experience in trail projects. The required design standards for trails are actually quite complex, and it is rare for less experienced firms to understand the latest ADA, NYSDOT, MUTCD, AASHTO, other requirements and "best practices". The team should also thoroughly understand local construction and maintenance needs and practices.

A set of typical trail design standards and guidelines is presented in Appendix A - Design Guidelines at the end of this Action Plan. These graphics can serve as a resource for local trail planning and design efforts.

Summary of Funding Programs

Table 8

Funding Programs	Modes (Bicycle, pedestrian-walkways, trails)	Trip Types (Commute/ Transportation, Recreational)	Project Types (Construction, Non-construction, both)	Required Matching Funds	Deadlines	Available Annual NY Funding	Contact & Website Information
FEDERAL FUNDING							
Transportation Enhancements Program (TEP)	Both	Transportation	Construction	20%	Variable	$155 million over the 6-year legislative period	http://www.dot.state.ny.us/progs/tep.html
Surface Transportation Program (STP)	Both	Transportation	Both	20% for bike and ped. projects	Biennial Nov. 1	Approximately $320 million statewide (biennially)	http://www.dot.state.ny.us/pubtrans/funding.html
National Highway System (NHS)	Both	Transportation	Both	20%	See STP	Approximately $500 million annually	http://www.fhwa.dot.gov/tea21/factsheets/nhs.htm
Highway Bridge Repair and Replacement (HBRR)		Transportation	Construction	20%	See STP	Approximately $160 million annually	http://www.dot.state.ny.us/pubtrans/funding.html
Railroad/Highway At-Grade Crossing Program	Both	Both	Construction	10%	Check March 1 annually	Approximately $10 million annually	http://www.dot.state.ny.us/pubtrans/funding.html
Recreation Trails Program (RTP)	Both	Both	Both	20%	Check with Parks & Rec in October	Approximately $1.5million statewide, competitive	http://nysparks.state.ny.us/grants/
Highway Safety Program	Both	Transportation	Non-construction	20%	Check	Approximately $165 million	http://www.nysgtsc.state.ny.us/overview.htm
Transportation and Community and System Preservation Pilot Program (TCSP)	Both	Transportation	Both	N/A	Variable	Approximately $25 million annually nationwide	http://www.fhwa.dot.gov/tcsp/index.html
STATE FUNDING							
State Dedicated Fund (SDF)	Both	Transportation	Both			Approximatley $9 million	http://www.dot.state.ny.us/
Environmental Protection Fund	Both	Both	Both	100%	Call for projects in June, August deadline	Each project not to exceed $350,000	http://nysparks.state.ny.us/grants/
State Clean Water / Clean Air Bond Act, 1996	Both	Both	Both	100%	Call for projects in June, August deadline	Each project not to exceed $500,000	http://nysparks.state.ny.us/grants/
Land and Water Conservation Fund	Both	Both	Both	100%	Call for projects in June, August deadline	Each project not to exceed $500,000	http://nysparks.state.ny.us/grants/
REGIONAL FUNDING							
GTC's Transportation Improvement Program 1% Bicycle & Pedestrian Set Aside	Both	Both	Both				http://www.gtcmpo.org/Index.htm
PRIVATE FUNDING							
Developer Impact Fees	Both	Both	Both	N/A	N/A	N/A	Local Jurisdiction
Bikes Belong Coalition	Bicycle	Both	Both	N/A	On going	Each project not to exceed $10,000	www.bikesbelong.org
American Greenways Kodak Awards	Both	Both	Both	N/A	Early June	Each project not to exceed $2,500	http://www.conservationfund.org/
Powerbar's Direct Impact on Rivers and Trails (DIRT)	Both	Both	Both	N/A	Early June	Project awards between $1,000 - $5,000	http://www.powerbar.com/
Genesee Regional Trails Coalition							
Private Foundations							

OPERATIONS AND MAINTENANCE

Operations and maintenance of the regional trail system is of utmost importance for safe and frequent use of the trails by Greater Rochester Area residents, and the reduction of liability issues for the local jurisdictions. A high standard of maintenance is a key ingredient in a successful project that cannot be over stressed. As a neighbor to the various communities the trail passes through, the managing agency has an ongoing relationship with those communities and the state of maintenance along the trail is a reflection of that relationship. Maintenance activities required for safe trail operations should always receive top priority.

OPERATIONS

Operation activities on the trails will consist primarily of monitoring and security. Monitoring accidents, including identifying the primary cause and rectifying any physical deficiencies, must be accomplished by each jurisdiction. A local police department typically has the responsibility for collecting accident information and identifying fault, while a public works department has the responsibility for identifying and improving physical or operational conditions that may have contributed to the accident. A public works department typically also has the responsibility for making the determination to warn trail users of problems and to close the trail when conditions warrant.

Security

Most multi-use trails in the United States do not have a dedicated police patrol of the facility. It is more common for local police or even volunteers to patrol sections of paved trails not visible from adjacent streets on an intermittent basis. As a rule of thumb, a multi-use trail will require one dedicated man-hour per day for every five miles of actively used trail, and .5 man-hours per day for every low- activity five miles of trail. For the TMA's existing 106 miles of trails, this translates into 21 man hours/day for the current actively used regional trail system. This figure would also vary by time of week and year. Off-peak weekdays may require only two man-hours per day, while peak weekends may require as much as 20 man-hours per day.

While each local police department is responsible for selecting the most appropriate means of patrolling trails in their jurisdiction (if at all), it may be beneficial to patrol the regional trail system using bicycle-mounted patrols. Trail patrols may be supplemented by volunteers from local trail organizations, who could provide information to trail users and report problems to the authorities. However, police or volunteer patrols are not required elements to a successful multi-use trail.

A summary of key security recommendations is presented below.

1. Make all segments of the trails accessible to within 500 feet of emergency vehicles

2. Locate mile posts every mile or one half mile; identify markers on maps

3. Illuminate all grade crossings and undercrossings using photo-sensitive triggers

4. Locate all vegetation at least 10 feet from trails where possible

5. Design bridges and undercrossings so that visibility is maximized; undercrossings should have visibility along their entire length; use graffiti resistant materials

6. Provide bicycle parking racks and lockers at key destinations that allow for both frame and wheels to be locked

7. Provide fire and police departments with map of the regional trail system, including all access points and keys/combinations to gates/bollards identified

8. Enforce speed limits and other rules of the road

9. Maintain adequate recording and response mechanisms for reported safety and maintenance problems. Thoroughly research the causes of each reported accident on the trails. Respond to accident investigations with appropriate design or operation improvements

10. Provide emergency phones in isolated areas approximately every mile, providing a direct link from the trail to local law enforcement agencies

Monitoring

Each jurisdiction should assign an individual to be responsible for monitoring the implementation of any new trail segments within the jurisdiction. This individual or Trail Coordinator would be responsible for assuring that appropriate design and construction standards are used. The Trail Coordinator could also be the clearinghouse for all reported maintenance and safety problems, collecting information from and dispersing information to the appropriate departments. The Trail Coordinator would work with local public advocacy and advisory bodies in the design and operation of the trails. The Coordinator would also help identify and prepare funding applications to implement and maintain the trail over time.

The most effective and most visible enforcement on the trail will be other trail users. Getting as many "eyes on the trail" is a key deterrent to undesirable activity along the trail. There are several components to accomplishing this as outlined below:

Provide good access to the trail

Wherever feasible, public access should be provided. Access ranges from providing conveniently located trailheads along the trail, building sidewalk linkages at intersections, to accommodating access from private developments adjacent to the trail. Access points should be inviting and signed so as to welcome the public onto the trail.

Good visibility from adjacent neighbors

Neighbors adjacent to the trail potentially provide 24-hour surveillance of the trail and can become the public agency's biggest ally. Though some screening of the trail is needed for privacy of adjacent neighbors, complete blocking out of the trail from neighborhood view should be discouraged. This eliminates the potential of neighbor's "eyes on the trail," and could result in a "tunnel effect" on the trail.

High level of maintenance

A well maintained trail sends a message to the public that the community really cares about the facility. This message by itself can help discourage undesirable activity along the trail.

Programmed events

Events along the trail will help increase public awareness of the trail and thereby bring more people to the trail. A friends group in support of the development of a trail can help initiate numerous public events in an effort to raise public awareness and increase support for the trail. Events might include a trail clean up day or a series of interpretive walks.

Community projects

The support generated through a friends-of-the-trail group could be further capitalized on by involving neighbors and friends of the trail in a community project along the trail. Ideas for community projects that have been successful on other trail projects include volunteer planting events, art projects (often associated with adjacent schools), interpretive research projects, or even bridge building events. These community projects are the strongest means of creating a sense of ownership along the trail that is perhaps the strongest single deterrent to undesirable activity along the trail.

Local law enforcement agency staff

Local law enforcement staff must be in tune to the trail and development plans for the trail. Early involvement of law enforcement staff in the trail planning process is critical. Trail projects often do not follow the street system, and law enforcement staff often has difficulty responding to a call because no one can reference a location along the trail, or local law enforcement staff may think the call site is in someone else's jurisdiction. To overcome this obstacle, law enforcement staff should be involved early in the design process and given a basic orientation of the trail. They should be invited to participate in planned events on the site.

Input should be sought as to the best public safety measures that can be taken along the trail. This might include physical improvements along the trail such as emergency call boxes and lighting, and might also include maintenance practices such as vegetative pruning to allow easy surveillance of "trouble spots" along the trail. Local law enforcement staff may also have key knowledge of unique challenge areas along the trail. These can then be addressed through appropriate design solutions.

Adopt-a-Trail Program

Numerous business and residential communities abut the regional trails. As neighbors to the trail, they often see the benefit of their involvement in the trail development and maintenance. Many developments may view the trail as an integral piece of their community and taking on some level of responsibility for the trail becomes a source of civic pride. The NYS Canal Corporation's Adopt-A-Trail Program could serve as a local model for other trails in the region.

Local businesses and organizations can "adopt" a trail or trail segment similar to the adoption of segments of the highway system. Small signs located along the trail identify supporters acknowledging their contribution. Support could be in the form of an annual commitment to pay for the routine maintenance of the trail, or as employee volunteer hours to physically clean up the trail monthly. Local communities, counties, or private trail groups could sponsor and/or administer such programs.

MAINTENANCE

Maintenance is as important in property management as property acquisition is to development. It includes such activities as trail surface upkeep, sign replacement, fencing, mowing and other landscape maintenance, litter removal, painting, and pest control. However, the effects of a good maintenance program are not limited to the physical and biological features of the trail:

- A high standard of maintenance is an effective way of helping advertise and promote the trail as a regional and state recreational resource;
- The psychological effects of good maintenance can be an effective deterrent to vandalism, litter, and encroachments;
- Good maintenance is necessary to preserve positive public relations between the adjacent land owners and the managing agency;
- Good maintenance can help make enforcement of regulations in the trail more efficient. Local clubs and interest groups will take pride in 'their' trail and will be more apt to assist in protection of the trail.

A successful maintenance program requires continuity and a high level of citizen involvement. Regular, routine maintenance on a year-round basis will not only improve trail safety, but will also prolong the life of the trail. It is assumed that each jurisdiction will perform their own operations and maintenance on their trail segments, or develop local volunteer groups to assist with this. With this understanding, a consistent set of standards that may be used by each local jurisdiction is presented here.

Cross-jurisdiction Trail Maintenance Agreements

There may be certain advantages to the forming of a regional trail authority or assigning that responsibility to an existing regional agency simply for coordination and cost savings benefits. If such a regional agency is not assigned responsibility, it will be imperative that a coordinating framework for maintenance between jurisdictions be established.

Surfacing

Pavement surface is one of the most important trail elements to maintain in good condition for all users. Cracks, ruts and water damage will have to be repaired periodically. The trail surface should be kept free of debris, especially broken glass and other sharp objects, loose gravel, leaves, and stray branches. Trail surfaces should be swept (paved surfaces) or graded (unpaved surfaces) periodically. This is very important where the trail is located on steep slopes or curves. In addition, encroaching vegetation will need to be cut back on a regular basis.

Trail Closures

Trail users will need to be managed during construction and periodic maintenance of trails and the transportation facilities they intersect, including roadways, expressways, and sidewalks. It is imperative to minimize disruption to the trails, related facilities, trail users and adjacent landowners. Trail users must be warned of impending trail closures, and given reasonable detours (length, difficulty, accessibility, etc. must be considered) to bypass closed or unfinished sections of trail.

"Best Practices" for trail construction zones include standard signing at the entrance to each affected section of the trail ("Trail Closed"), including, but not limited to information on alternate routes and dates of closure. Trail sections that are closed must be gated or otherwise blockaded and clearly signed as closed to public use. Alternate routes should provide a reasonable level of directness and lower traffic volumes, and signed consistently. If no reasonable alternate routes are available, the trail should have an "End Trail" sign and provide access to the street and sidewalk system.

Maintenance Best Practices

Many of the maintenance items listed below are dependent on the type and amount of landscaping and supporting infrastructure that is developed along each trail. It is recommended that a consistent maintenance procedure be developed for each jurisdiction to ensure, at a minimum, that their trail segments are safe for trail users. Each jurisdiction should have a mechanism to identify, record, and respond to maintenance problems, and to keep written records of such actions. Maintenance of the regional trail system will include the following regular activities:

Item	Frequency
Sign replacement/repair	1 - 3 years
Pavement marking replacement	1 - 3 years
Trees, Shrub, & grass trimming/fertilization	5 months - 1 year

Pavement sealing/potholes	5 - 15 years
Clean drainage system	1 year
Pavement sweeping	Weekly-Monthly / as needed
Surface grading (unpaved trails)	Monthly / as needed
Shoulder and grass mowing	Weekly / as needed
Trash disposal	Weekly / as needed
Lighting replacement/repair	1 year
Graffiti removal	Weekly-Monthly / as needed
Maintain furniture	1 year
Fountain/restroom cleaning/repair	Weekly-Monthly / as needed
Pruning	1 - 4 years
Bridge/tunnel inspection	1 year
Remove fallen trees	As needed
Remove snow and ice	Weekly / as needed
Weed control	Monthly / as needed
Maintain emergency telephones, CCTV	1 year
Maintain irrigation lines/replace sprinklers	1 year
Irrigate/water plants	Weekly-Monthly / as needed

Special maintenance equipment such as sweepers may be purchased jointly by all local jurisdictions, thereby reducing costs. Typical maintenance vehicles for the trails are light pick up trucks and occasionally heavy dump trucks and tractors. Care should be taken when operating heavier equipment on the trails to warn trail users and to avoid damaging the edge of the trail surface.

If a trail will serve as a maintenance access road for an active railroad or utility company, the trail width and pavement section should reflect the anticipated weight and frequency of such vehicles. Access agreements to the trail and methods of warning trail users when railroad or utility work is in progress should be developed as part of the easement process. Safe, clearly marked, adequate detours must be provided when work activities will impact trail access or user safety.

All applicants for trail project funding should provide a maintenance plan with their applications. Maintenance plans should, at a minimum, identify:

1. Necessary maintenance activities
2. Maintenance cost estimates
3. Agency and/or group(s) responsible for maintenance
4. Sources of maintenance funding, labor, and equipment

The total estimated annual maintenance for the existing regional trail system is $535,000, based on the current approximate 40 miles of paved trails ($340,000) and 65 miles of unpaved trails ($195,000). This is based on an industry-standard maintenance cost of $8,500

per mile, per year for paved multi-use trails. Unpaved multi-use trails typically cost $3,000 per mile, per year to maintain.

MARKETING

The success of the Regional Trails Initiative depends largely on the region's acceptance and promotion of the Action Plan's contents. To gain the most benefit from the regional trails system in the region, marketing efforts should be geared not only toward current residents but also potential residents, businesses and tourists.

Education is also an important component in implementing a safe and highly functional regional trails system. Trail users should be educated on what trail are open to respective trail uses and how to operate safely and appropriately around other trail users. Both trail users and motorists should be educated on their rights and responsibilities, especially in locations where trails intersect with roadways and where trail users require the road network to reach their destinations.

The public comments received throughout this project indicate a high demand for trail information. Numerous strategies and suggested partners for marketing and promotion of the regional trails system are outlined below. Implementing even a small selection of them will help ensure that the Action Plan becomes a living document, helping shape the greater Rochester area's future.

WEBSITE & DATABASE RESOURCES

- Maintain an up-to-date centralized information database and GIS on abandoned rail corridors to facilitate the preservation and possible conversion of these corridors to trails
- Maintain an up-to-date centralized information database and GIS on trails information in the region
- Support the development and maintenance of a web-based interactive regional trail information web site that would provide detailed information on trails in the region, including maps, allowed uses and other regulations, trail events, links to trail groups, and other relevant information.
- Develop an interactive, Web-based regional trail mapping system that can provide detailed route maps and help trail users find their way without a physical map. This would be a long-term development and implementation project.

LOCAL EVENTS

- Encourage local businesses to provide incentives to their employees to try bicycling or walking to work. Employers can pro-actively sponsor bike fairs and races, provide

bicycle lockers and shower facilities, offer flexible arrival and departure times, and pay for mass transit costs during inclement weather.

- Create an annual commuter challenge for area businesses that rewards businesses with the greatest number or percentage of employees that have changed their commute style from driving to bicycling or walking.
- Develop, promote and publicize local bicycle commuter services, such as bike shops selling commute gear and Greater Rochester Area maps, or regularly organized, escorted commute rides.
- Create events such as "bicycle to the grocery store" days where cyclists receive discount coupons for store purchases, or "walk to the movies" days where cyclists and pedestrians receive free or discounted movie tickets or refreshments.
- Establish annual, local community events that encourage residents to replace one car trip a week with a bicycle or walking trip to help promote these commute alternatives.
- Support planning and implementation of an annual mass bicycle ride or walk on key connector trails in the Greater Rochester Area to attract new users, showcase Monroe County, and demonstrate the benefits of recreating on trails.

PUBLIC EDUCATION

- Establish and promote education and encouragement programs and activities as cooperative efforts between GTC, Monroe County and neighboring county Park and Recreation and Public Works departments, local governments, private sponsors, community groups, and businesses.
- Create public service announcements on radio and TV to promote the health and livability benefits of bicycling and walking, as well as the detrimental effects of excessive motor vehicle use (e.g. pollution, traffic noise, congestion, loss of life and mobility).
- Develop and implement a public education campaign to encourage bicycling and walking; some promotion methods include ads on movie screens, city bench signs, bicycle locker and billboard advertising, and videos on cable access television.
- Work with the relevant agencies to deliver a "benefits of bicycling and walking message" to youth groups that are involved with water, air, and general pollution activities.

PROFESSIONAL TRAINING & GUIDELINES

- Develop and implement bicycle and pedestrian planning and design training opportunities for all transportation engineers, planners, and designers at the state, county, and local levels.

- Educate contractors, subcontractors, and municipal maintenance and utility crews regarding the needs of bicycle and pedestrian trail users.
- Develop "best practice" guidance for trail signage development, construction, and application
- Develop measures to reduce bicycle theft such as a registration program, subsidized locks, and training for proper locking techniques.
- Establish legal resource and best practice materials relating to trails, including information on rails-with-trails, trails license agreements, Adopt-A-Trail program materials, NYS General Obligations law, etc. and samples of these materials
- Clarify and disseminate information about key project implementation procedures and requirements, including:
    - State Historic Preservation reviews/approvals
    - Federal Aid process
    - Relevant SEQRA elements
    - Preliminary design and engineering needs

CROSS MARKETING & PARTNERSHIPS

- Develop partnerships among trail groups, tourism promotion agencies, government agencies, and related businesses and business organizations to effectively market trails as a major attraction in this region.
- Cross-marketing the regional trails system with other key attractions, such as Lake Ontario and the Finger Lakes, the historic Erie Canal, and the region's extensive parklands, cultural amenities, and the numerous historic sites
- Promote the region's history and natural resources in trail tourism information, and ensure the linkage between general tourism information and trail tourism information
- Inclusion of trail information in regional tourism and business publications
- Attraction of a national-level trails conference to the region.

FOLLOW-ON ACTIVITIES

The Regional Trails Initiative will put in motion numerous activities and efforts that will ensure a consistent and effective implementation effort. The following pages contain detailed descriptions of region wide projects/programs that are recommended to implement throughout Monroe County.

Aside from the Initiative itself and subsequent up-dates, specific follow-through efforts include:

- Establishment of Regional Trails Initiative Implementation Task Force.
- Completion of Phase 2 of the Regional Trails Initiative (for the non-TMA areas of Livingston, Ontario, and Wayne counties, and all of Genesee, Orleans, Seneca, Wyoming, and Yates counties).
- Identification of a project(s) for concept-level planning through the Priority Trails Advancement project (approved in the 2002-2003 GTC Unified Planning Work Program).
- Revision of the 1996 Regional Bicycle and Pedestrian Plan, including the identification of low cost on-street improvements through Corridor Feasibility Studies.
- Completion of Preliminary Engineering studies for proposed trails projects so that the cost, feasibility, impacts, and other aspects of the project are known prior to receiving funding.
- Completion and adoption of local trails, bikeway, and/or pedestrian plans (as needed).
- Encourage local agencies to complete trails plans for their communities either as stand alone products, or as part of master plans, transportation plans, or parks and recreation plans.
- Encourage local communities to conduct feasibility studies on proposed trail projects in advance of design.
- Consider adopting or amending local ordinances requiring new or improved trailheads and support facilities such as bicycle parking to be built as part of new development projects.

REGION WIDE PROJECT

SIGNING AND STENCILING

Jurisdiction(s): County and local public works agencies

This project addresses one of the most common concerns expressed in surveys and workshops: the lack of directional signage for trail users, and signs warning and advising motorists of bicycles on shared roadways. This project could be implemented in the following three phases:

- Phase I: primary north-south and east-west commute routes
- Phase II: secondary commute routes
- Phase III: rural routes

The project would consist of the following specific elements:

1. **Bikeway Logo Signs**. Posted along the primary north-south and east-west corridors, this sign would help direct inter-city bicycle travel using a customized logo for the TMA. These signs can provide a numbered or named route designation as well.
2. **Bike Route and Bike Lane Signs**. These signs will help advise motorists to expect bicyclists and provide assurance to cyclists that they can expect a consistent type of bikeway. This type of sign is typically used in developed areas, and may be as close as every 500 feet. In rural areas, fewer signs are often needed or desirable.
3. **Shared Roadway Signs**. The Shared Roadway sign is a simple but effective sign that should be used judiciously to maintain visual impact on motorists. It should be placed where there is a known regular flow of bicycles that are forced to share narrow travel lanes with motor vehicles, and especially where there is limited visibility and higher traffic volumes and/or speeds.
4. **Bikeway Stencils**. While bike lanes include pavement stencil markings, there has been a new, yet-to-be-approved stencil type (being tested in San Francisco) that helps mark bike routes and may be more effective on motorists and help avoid visual pollution of too many signs. This stencil has an arrow with a bicycle symbol in it, and helps to educate motorists that bicycles are using this route and will be sharing travel lanes.

Examples of these signage types are shown in Appendix A - Design Guidelines at the end of this Action Plan.

REGION WIDE PROJECT

PATHWAY REHABILITATION

Jurisdiction(s): County and local agencies

Many people commented on the need to improve the TMA's existing multi-use trails, especially those that serve as critical transportation connections. Some of the comments are related to the need for better maintenance, while other comments are related to the need for better trail management between various user groups. This project would consist of a variety of improvements, with each trail or section requiring different improvements from this list:

1. Re-paving as needed to provide a consistent smooth surface.
2. Providing centerline striping where pathway volumes are high.
3. Widening the paved section to 10 feet where appropriate and needed to provide additional capacity, subject to environmental, visual, and community review.
4. Providing a more compacted and consistent unpaved surface on one or both sides of the pathway for runners and walkers.
5. Evaluation of roadway crossings and improvements as needed including additional advisory and warning signs, longer signal times, etc.
6. Providing consistent pathway management signing advising users about maximum speed limits (20 mph), overtaking protocol, slower traffic staying to the right, leash requirements and dog etiquette, and any applicable enforcement codes.
7. Pathway enhancements such as benches, historic markers, gateways, and/or landscaping as appropriate to make the pathway a more functional and enjoyable transportation facility.
8. Exploration of innovative techniques such as colored pavement demarking user groups, possibly though a demonstration project. Colored multi-use trails have proven effective in Portland, Oregon, especially where the paths cross busy roadways.

Examples of paved and unpaved trails are shown in Appendix A - Design Guidelines at the end of this Action Plan

REGION WIDE PROJECT

BICYCLE PARKING

Jurisdiction(s): local agencies

Examples of bicycle parking facilities are shown in Appendix A - Design Guidelines at the end of this Action Plan. Individual or groups of local agencies could seek funding to purchase and implement bicycle parking in their communities. The bicycle parking could be strictly on public property, or also available to private entities on an at-cost basis.

The following bicycle parking improvements are recommended for adoption:

Recommendation #1: Bike parking should be provided at all public destinations, including parks, schools, libraries, downtowns, transit stations, ferry terminals, and public buildings like Rochester's City Hall.

All bicycle parking should be in a safe, secure, covered area (if possible). Bicycle parking in public areas will be provided by the appropriate jurisdiction. Bicycle parking on sidewalks in commercial areas will be provided according to specific design criteria, reviewed by merchants and the public, and installed as demand warrants. As a general rule, 'U' type racks bolted into the sidewalk are preferred on downtown sidewalks, to be located intermittently and/or at specific bicycle destinations (such as bike shops).

Recommendation #2: All new commercial development or redevelopment in excess of 5,000 gross leasable square feet should be required to provide one space in an approved bicycle rack per 10 employees.

All bicycle racks should be located in safe, secure, covered areas, be anchored to the ground, and allow bicycles to lock both frame and wheels. Bike locker and bike rack examples are shown in Appendix A - Design Guidelines at the end of this Action Plan. Bike lockers will generally not be located in unsupervised public areas.

Recommendation #3: Bicycle parking for existing non-residential uses should be implemented through one or both of the following two methods:

(1) Require existing non-residential use to provide bicycle parking per the requirements described above as part of the building permit process.

(2) Subsidize the cost of bicycle parking through small advertisements on the racks themselves and/or through grants from public or private sources (see Funding section).

Recommendation #4: Construct bicycle corrals where needed at schools. These simple enclosed facilities are locked from the beginning to the end of each school day, and address the theft and vandalism concerns of students.

Note: There may need to be zoning ordinance changes to achieve Recommendations #3 and #4.

Recommendation #5: Provide closed-in secure bicycle corrals at all major special events (such as at summer music and art festivals) throughout the region, to encourage residents and visitors to bicycle rather than drive to these inherently crowded events. The appropriate city should sponsor this corral and seek volunteers to staff the corral during the events.

REGION WIDE PROJECT

BICYCLE AND PEDESTRIAN MAINTENANCE AND DEVELOPMENT

Jurisdiction(s): County and local agencies

A common concern expressed by local agency staff responsible for building and maintaining infrastructure is the lack of consistent and adequate funds for maintenance. Capital funding for the projects identified in this report is available through Federal and State sources, but maintenance funds are not included. This implementation project would seek to establish a regular source of maintenance funds for the TMA trails.

In many cases, it would be more cost-efficient to maintain and re-construct facilities on a larger multi-jurisdiction level rather than have each local city or town act independently. Recommended minimum maintenance activities and practices to be funded under this project are presented below. However, it should be noted that participation in such a program would be optional for the local jurisdictions, whose priorities may be different.

Many of the TMA's trails need maintenance attention, such as fixing broken asphalt and clearing woody overgrowth, as well as regular sweeping to clear trash and debris. Industry-standard multi-use trail maintenance costs are currently $8,500 per mile, per year for paved trails and $3,000 per mile, per year for unpaved trails. These estimates cover labor, supplies, and amortized equipment costs for weekly trash removal, monthly sweeping, and bi-annual resurfacing and repair patrols.

Other maintenance costs include bike lane line and crosswalk re-striping, sweeping debris, and tuning signals for bicycle and pedestrian sensitivity. Underbrush and weed abatement should be performed once in the late spring and again in mid-summer. Although these latter aspects are generally associated with routine roadway maintenance, special attention to multi-use trail safety and usability is important and can mean additional costs are incurred.

Recommendation #1: Develop a region-wide funding source for a trail maintenance program. The funding could also be used to develop a bicycle and pedestrian maintenance request system, similar to those in Seattle, Portland, and other cities.

Recommendation #2: Create a program to install and mark signal loop detectors that are responsive to bicycles at existing and new intersections. Such markings should show cyclists where to stand to trip lights.

Recommendation #3: Consider bicycles and pedestrians in all maintenance and repair projects.

- Consider alternatives to chipsealing on roadways; install durable and long lasting surfaces

- Ensure that roadway, path, and sidewalk construction projects are adequately signed for trail users and pedestrians, with detours provided as needed.
- Ensure that roadways and sidewalks meet minimum smoothness standards after repairs.

REGION WIDE PROJECT

SAFE ROUTES TO SCHOOL PROGRAMS

Jurisdiction(s): Local agencies, school districts, community groups

School commute improvements are a way to increase the number of students walking or bicycling to schools, instilling a healthy habit early on, and reducing the amount of traffic congestion at the start and end of each school day. The following steps outline specific tasks to undertake at the schools themselves and within their surrounding neighborhoods to develop a Safe Routes to School system.

1. Form a School Commute Task Force composed of representatives from the school district, local public works and police departments the local neighborhood, parent-teachers or other similar group, and the school itself.

2. Set objectives and a reasonable schedule for this Task Force to accomplish its goals.

3. Determine the preferred basic school commute routes to the school based on (a) parent and student input, (b) a survey of parent and student community patterns, (c) local public works and police input, and (d) observations of actual commuting patterns.

4. Research whether there any efforts to guide students who wish to walk or bicycle to school. Does the school provide a map of recommended routes?

5. Does the school wish to encourage more students to walk or bicycle to school? While there often is a perception of safety being a concern, statistics show that walking and bicycling are just as safe as driving. Yet many parents insist on driving their children even a few blocks to school--thus contributing to the traffic congestion.

6. Study the parking lot and drop off areas of the school. Is there a pattern where students are walking between cars or through parking lots or drop off areas to reach the school? Are there are management efforts to get parents to follow any specific drop-off protocol?

7. Are there adequate sidewalks and bike lanes on the streets directly serving the school? Are there school access points which encourage students to cross mid-block or at other less desirable locations?

8. Where are the first major street crossings on the main school commute routes? Many accidents occur at these intersections. Are they signalized? Is the signal timing adequate even for younger students? Are right turns on red allowed? Are there crossing guards?

9. Are there any locations where students are crossing major or minor streets at mid-block or unprotected locations, i.e., no stop signs or signals? Because children are sometimes hard to see and have difficulty in gauging vehicle speed, these locations can be the focus of improvements.

10. Do students have to cross intersections that have very wide turning radii, where vehicles can accelerate and merge while turning? These are problematic because drivers are focused to their left at merging traffic rather than in front at crosswalks.

11. Do all intersections have properly designed crosswalks? The crosswalks should be located so that students can wait safely on the sidewalk prior to seeing if they can cross. Is there adequate visibility and lighting given the speed of traffic? Are there adequate warning signs in advance of the crosswalk?

12. What are the 85th percentile speeds of traffic on the major school commute corridors? Are they significantly above or below the posted speed limits? When was the last speed survey conducted? What is the level of police enforcement, and does it occur only at the beginning of the school year? It is possible to lower speed limits near schools. In other locations, it may be necessary to make physical changes, such as narrowing travel lanes, to slow traffic. It may also be preferable to accept slightly more congestion on a two-lane street, and have slower speeds, than have free flowing high-speed traffic on a four-lane street.

13. School Commute Programs involve numerous, often small, incremental changes to sidewalks and roadways, such as adjustments to signal timing or new signing or lighting. In other cases, innovative lighted crosswalk treatments or even grade separation may be warranted. Working with the Task Force will help a school determine the best mix of improvements suitable for each corridor, and compatible with local traffic conditions.

14. A more detailed evaluation methodology, one that rates improvements and corridors according to objective criteria, has been developed and is available for use by local schools. However, it may require the services of specialists who understand traffic safety and engineering.

15. Once the improvements have been identified, a preliminary design or plan must be completed which describes the project and its cost. For example, a crosswalk improvement would need to be designed so that it can be reviewed and approved by the local agency. Again, a professional may be engaged for this effort.

16. With a plan and cost estimate, the project still needs a sponsor. Typically this would be the local public works department, who is best connected to available funding sources. The project sponsor will need an official authorization, and confirmation that (a) the right-of-way is publicly owned, (b) local staff have reviewed and approved the project, and (c) no negative impacts have been identified. With this in hand, the project sponsor can seek

funding, which usually requires a 10% or greater matching amount. This matching amount can sometimes include in-kind services such as administration or design, rather than cash.

17. Programs that may be implemented include a "Walking School Bus Program", which involves parents taking turns walking (or bicycling) with groups of children to school. Other innovative programs are identified in the following Marketing, Education, and Support Programs section.

REGION WIDE PROJECT

ENFORCEMENT, EDUCATION AND SUPPORT PROGRAMS

This section covers future efforts to educate trail users and motorists, and efforts to increase the use of bicycles as a transportation alternative. Some of these efforts will be led primarily by local bicycle groups, and some in collaboration with public agencies and private sponsors.

Education

The School Districts, Police Departments, and City and County Departments of Public Works have a long history of trying to improve safety conditions for trail users. Unfortunately, the lack of education for trail users, especially younger students, continues to be a leading cause of accidents. For example, the most common type of reported bicycle accident in California involves a younger person (between eight and 16 years of age) riding on the wrong side of the road in the evening hours. Studies of accident locations around California consistently show the greatest concentration of accidents is directly adjacent to elementary, middle, and high schools. Many less-experienced adult trail users are unsure how to negotiate intersections and make turns on trafficked streets.

Motorist education on the rights of trail users and pedestrians is virtually non-existent. Many motorists mistakenly believe, for example, that on-road trail users do not have a right to ride in travel lanes and that they should be riding on sidewalks. Many motorists do not understand the concept of 'sharing the road' with trail users, or why a bicyclist may need to ride in a travel lane if there is no shoulder or it is full of gravel or potholes.

Bicycle education programs in schools are typically taught once a year to third, fourth and fifth graders. Curriculum is generally derived from established programs developed by groups such as the New York State Automobile Association, and taught by members of the Police Department. Budget cuts, demands on students' time, and liability concerns limit the extent of bicycle education to schoolchildren. Formal adult bicycle education is virtually non-existent.

Pedestrian education programs are rare, but important as well. School children need to understand how to safely cross the road (e.g. scanning for cars), where the best places to cross are, never to cross behind a bus or car, seatbelt safety, etc. Pedestrian education should be taught as early as first grade, and continue through third grade.

Recommendation #1: Expand Current Education Programs

Existing educational programs at TMA schools should be expanded in a cooperative effort between the County and the School Districts, and supported by a secure, regular funding source. A joint County/School District Safety Committee should be formed consisting of appointed parents, teachers, student representatives, administrators, police, active trail users,

and public works staff whose task it is to identify problems and solutions, ensure implementation, and submit recommendations to the School Board or County Council.

This effort will be complementary to the physical improvements recommended in the Safe Routes to School Program.

Recommendation #2: Develop New Educational Program Materials and Curriculum

Education materials should be expanded to promote the benefits of bicycling, the need for education and safety improvements, the most recent educational tools available in the country (including the use of low-cost safety videos), and directives to parents on the proper school drop-off procedure for their children. Educational pamphlets for children should be made more readable. Incentive programs to reward good behavior should be developed. Educational programs, and especially on-bike and on-street pedestrian training should be expanded to more grades and for more hours per year. Education curriculum should, at a minimum, cover the following lessons:

- on-bike training or bicycle 'rodeos'
- the use and importance of bicycle helmets
- how to adjust and maintain a bicycle
- night riding (clothes, lights)
- rules of the road
- riding on sidewalks
- how to negotiate intersections
- riding and walking defensively
- use of hand signals
- seatbelt safety

A standard safety handbook format should be developed incorporating the best elements of those currently in use, and made available to each school on disk so they may be customized as needed. The TMA schools should develop a circulation map of the campus and immediate environs to include in the handbooks, clearly showing the preferred circulation and parking patterns and explaining in text the reason behind the recommendations. This circulation map should also be a permanent feature in all school newsletters. Bicycle helmet subsidy-programs should be used to provide low-cost approved helmets for all school children trail users.

Recommendation #3: Develop an Adult Education Program

Establish an adult bicycle education program through the regional bicycling organizations in cooperation with the Parks and Recreation Departments and/or other County departments. This program should:

- teach adults how to ride defensively,
- teach adults how to ride on a variety of streets, and
- encourage adults to feel more confident to ride to work or for utilitarian and recreational trips.

Work with local bicycling groups who could provide the training expertise, and possibly lead organized bicycle-training sessions, tours and rides.

Recommendation #4: Educate Motorists

Educate motorists about the rights and characteristics of trail users through a variety of means including:

- making bicycle safety a part of traffic school curriculum in the TMA,
- producing a brochure on bicycle safety and laws for public distribution,
- enforcing existing traffic laws for both motorists and bicycles,
- working to improve the DMV manual's treatment of trail users
- sending an official letter to the Department of Motor Vehicles recommending the inclusion of bicycle laws in the drivers license exam, and
- installing signs that read 'Share the Road' with a bicycle symbol at least every 1,000 feet along all routes of the proposed trail system where bike lanes are not feasible, travel lanes are under 14 feet wide, and ADTs exceed 10,000.

Other Support Programs

Without community support, a regional trail plan lacks the key resources that are needed to ensure implementation over time. While the Public Works Department may be responsible for designing and constructing physical improvements, strategies for community involvement will be important to ensure broad-based support--which translates into political support--which can help secure financial resources. Involvement by the private sector in raising awareness of the benefits of bicycling and walking range from small incremental activities by non-profit groups, to efforts by the largest employers in the TMA. Specific programs are described below.

Bicycle Donation Program

A fleet of lender bicycles available to employees to use as a commute alternative has proved successful in Portland and other U.S. cities. The bicycle may be purchased new or obtained from police auctions, repaired, painted and engraved with ID numbers, and made available free of charge to employees. Depending on demand, bicycles may be made available through reservations or on a rotating basis. The bicycles themselves should be lower-end heavy-duty bicycles that have minimal re-sale value.

Employer's responsibilities would be limited to an annual maintenance inspection and repairs as necessary. The objective of the program is to encourage employees to try bicycling to work as an alternative, without making a major investment. Employers may wish to allow bicycle commuters to leave 15 minutes early from work, or some other type of incentive to encourage use of the bicycles. The Counties and City of Rochester may consider such a program and may wish to encourage private employers to offer subsidized purchases of bicycles.

Bicycle Clunker and Parts Program, Bicycle Repair Program

This program ties directly into the previous program by obtaining broken, stolen, or other bicycles and restoring them to working condition. The program's dual mission is also to train young people (ages 12 to 18) how to repair bicycles as part of a summer jobs training effort. Bicycles are an excellent medium to teach young people the fundamentals of mechanics, safety, and operation. Young people can use these skills to maintain their own bicycles, or to build on related interests. The program can be staffed by volunteers from local cycling organizations and bicycle shops, who can help build an interest in bicycling as an alternative to driving.

The seed money to begin this program often comes from a local private funding source. The proposal submitted to this source should clearly outline the project objectives, operating details, costs, effectiveness evaluation, and other details. The bicycles themselves could be derived from unclaimed stolen bicycles from the police department, or from donated bicycles. The program will need to qualify as a Section 501C(3) non-profit organization to offer tax deductions. The Trips For Kids non-profit organization in San Rafael, California offers guidance for duplicating their Re-Cyclery training program on their website: www.tripforkids.org.

Community Adoption

Develop programs to have local businesses and organizations 'adopt' a trail segment or corridor similar to the adoption of segments of the Interstate Highway system. Small signs located along the trail would identify supporters, acknowledging their contribution. Support would be in the form of an annual commitment to pay for the routine maintenance of the pathway, which in general costs about $8,500 per paved mile. Parks & Recreation or other groups may administer this program.

Bike and Walking Fairs and Races

To encourage increased bicycling and walking, interest groups are well positioned to capitalize on the growing interest in on-road and off-road bicycle and walking races and criterions. Events would need to be sponsored by local businesses, and involve some promotion, insurance, and development of adequate circuits for all levels of riders. It is not unusual for these events to draw up to 1,000 riders and walkers, which could bring some additional consumer spending into the area.

The Genesee Transportation Council can assist in developing these events by acting as a co-sponsor, and expediting and possibly underwriting some of the expense of, for example, police time. GTC should also encourage these events to have races and tours that appeal to the less experienced cyclist. For example, in exchange for local governments underwriting part of the costs of a race, the event promoters could hold a bicycle repair and maintenance workshop for kids, short fun races for kids, and/or a tour of the route lead by experienced cyclists who could show less experienced riders how to safely negotiate local streets.

Employer Incentives

Beyond programs described earlier such as the Bicycle Donation Program, employer incentives to encourage employees to try bicycling or walking to work include sponsoring bike fairs and races, providing bicycle lockers and shower facilities, and offering incentives to employees who commute by bicycle or walk by allowing for more flexible arrival and departure times, and possibly paying for transit or taxis during inclement weather. The Counties may offer incentives to employers to institute these improvements through air quality credits, lowered parking requirements, reduced traffic mitigation fees, or other means.

Bike-to-Work and Bike-to-School Days

GTC, the Counties and the City of Rochester could promote a regional bike-to-work day. Bike-to-school days could be jointly sponsored with local school districts, possibly in conjunction with bicycle education programs.

APPENDIX A

DESIGN GUIDELINES

DESIGN GUIDELINES

The Regional Trails Initiative provides "Best Practices" design standards and guidelines to aid local agencies and communities in implementing a high quality regional trail system. All recommendations are based on accepted state and national standards developed by the New York State Department of Transportation (NYSDOT), Canalway Corporation, American Association of State Highway Transportation Officials (AASHTO), and other sources.

The regional trail system will utilize a combination of off-street and on-street routes to fully link its established trail segments to its neighborhoods, schools, parks, and places of work. Design decisions ultimately rest with the engineer responsible for project implementation; the ideas presented here are guidelines and offer a starting point for the development of project-specific solutions. A combination of text and graphics illustrate the details, and multiple options are presented, where relevant, within these categories:

- Trail Types & Construction Specifications
- Bridges, Overcrossings & Undercrossings
- ADA Accessibility
- Trailheads & Amenities
- Signage
- Fences, Gates & Other Barrier Treatments
- Unique Features

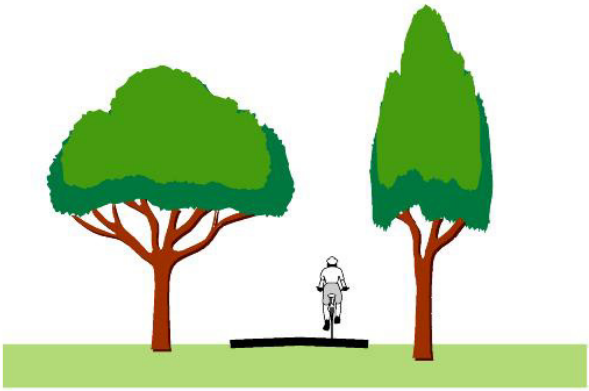
TRAIL TYPES & CONSTRUCTION SPECIFICATIONS

The 1999 AASHTO "Guide for the Development of Bicycle Facilities" uses the term shared use trail (also called multi-use trails) to refer to facilities on exclusive right-of-way and with minimal cross flow by motor vehicles. Shared-use trails are distinctly different from on-street striped bicycle lanes and signed, shared roadways, although all provide useful and complementary facilities.

In addition to multi-use trails completely separated from vehicular traffic, installation or improvement of bicycle lanes or shoulders on many streets will be necessary to provide an interconnected system of facilities available to the widest possible variety of potential users. Figure A1 illustrates the three typical bicycle facilities used in the United States.

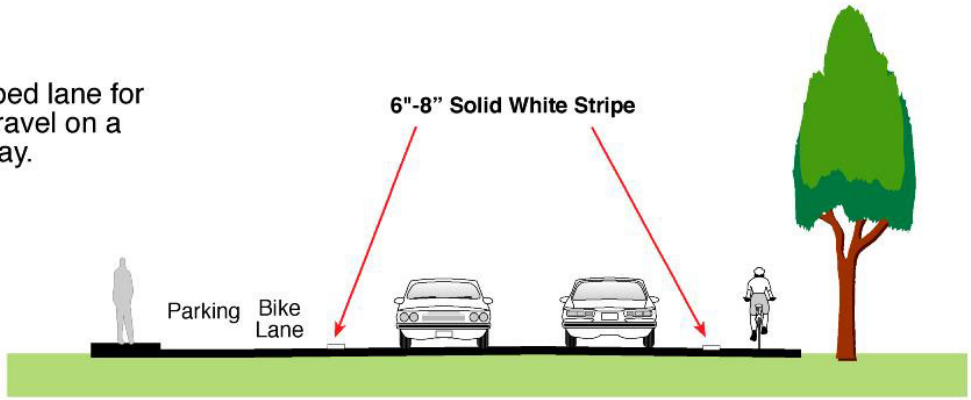
Shared Use Path

Provides a completely separated right of way for the exclusive use of bicycles and pedestrians with crossflow minimized.



Bike Lane

Provides a striped lane for one-way bike travel on a street or highway.



Bike Route
Signed Shared Roadway

Provides for shared use with pedestrian or motor vehicle traffic, typically on lower volume roadways.

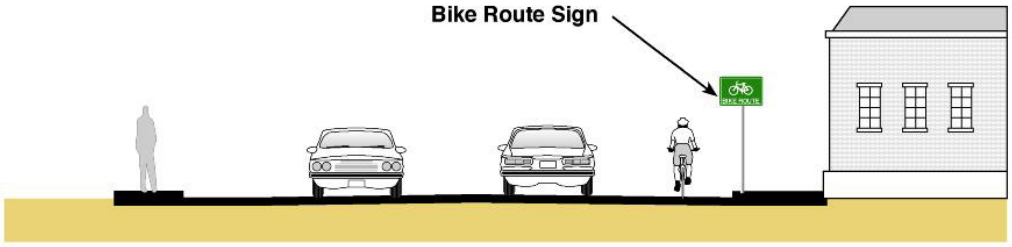


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Figure A1	Bicycle Facility Types	GENESEE TRANSPORTATION COUNCIL

NYSDOT design standards for multi-use trails coincide with those of the 1999 AASHTO guidebook with two exceptions: the height of bridge railings for cyclists must be 54" (AASHTO accepts 42"), and the signing and striping of bicycle facilities is outlined in NYSDOT's own Manual of Uniform Traffic Control Devices. Therefore, the details shown here conform to AASHTO standards, and are intended to provide conceptual ideas utilizing acceptable standards.

Design guidelines for the three trail facilities (multi-use trails, bike lanes, and bike routes) are presented below. Actual designs for any specific project will require engineer approval prior to their construction for project relevance and structural soundness. The AASHTO guidebook should be consulted for specific information regarding the design of:

- Separation between trail and roadways
- Bicycle trail and roadway intersections
- Trail width and clearance standards
- Design speed and curve radii
- Grades
- Horizontal and vertical trail alignment
- Sight distance
- Railroad crossings

MULTI-USE TRAILS

Multi-use trails are defined as facilities providing a completely separated right-of-way for the exclusive use of non-motorized traffic. AASHTO's 1999 Guide for the Development of Bicycle Facilities notes that, "When shared use trails are called trails, they should meet all design criteria for shared use trails to be designated as bicycle facilities. Users are non-motorized and may include but are not limited to: bicyclists, in-line skaters, roller skaters, wheelchair users (both non-motorized and motorized) and pedestrians, including walkers, runners, people with baby strollers, people walking dogs, etc."

Multiple users on the Canalway Trail.
Credit: Genesee Transportation Council

AASHTO's guidebook states that under most conditions, a recommended paved width for a two-directional multi-use trail is 3.0 m (10 feet), and minimum paved width for a one-way trail is 1.8 m (six feet). NYSDOT's 1996 Highway Design Manual states that a minimum recommended width for multi-use trails is 4m (13 feet). This wider trail design guidance is appropriate for higher use trails, particularly trails that are paved and will likely generate bicycle, pedestrian, and in-line skate traffic. Multi-use

trail widths less than the recommended 10-13' are the "exception" and should only be used where conditions such as 1) right-of-way is limited, 2) wetlands are immediately adjacent to the trail corridor, or 3) it would be prohibitively expensive to meet the 10' recommended minimum width. In these instances, a minimum 8' trail is acceptable. In addition, all trails should have shoulders with a minimum width of two feet.

As a general rule, trails adjacent to roadways are not recommended in areas with frequent driveways, side streets, or other trail crossings. The level of danger to the trail user increases with each trail crossing. Trails constructed near roadways are preferred along uninterrupted land uses such as waterfronts.

The following guidelines present the recommended minimum design standards and ancillary support items for multi-use trails.

1. Multi-use trails and unpaved facilities that serve primarily a recreation rather than a transportation function and will not be funded with federal transportation dollars may not need to be designed to these standards.

2. The intersections of trails with highways and streets should be minimized, and their design requires preliminary design review. When bicycle and/or motorized traffic are heavy (Average Daily Traffic counts of over 20,000 vehicles), grade separation or signal installation should be considered. When traffic is not heavy, stop or yield signs for bicycles is sufficient.

3. Bicycle trail intersections and approaches should be on flat surfaces with adequate sight distance provided. Figure A6 provides an example of a trail crossing prototype with signage.

4. Landscaping should generally be native vegetation that requires minimal maintenance and watering (irrigation).

5. Lighting should be provided where the trail will be used by commuters, to provide safe and visible evening transit. Relevant locations may include trail crossings, in tunnels, under bridges, and in low-light or high-trafficked areas. Lighting should be appropriately placed and/or shielded, to limit impacts on adjacent properties.

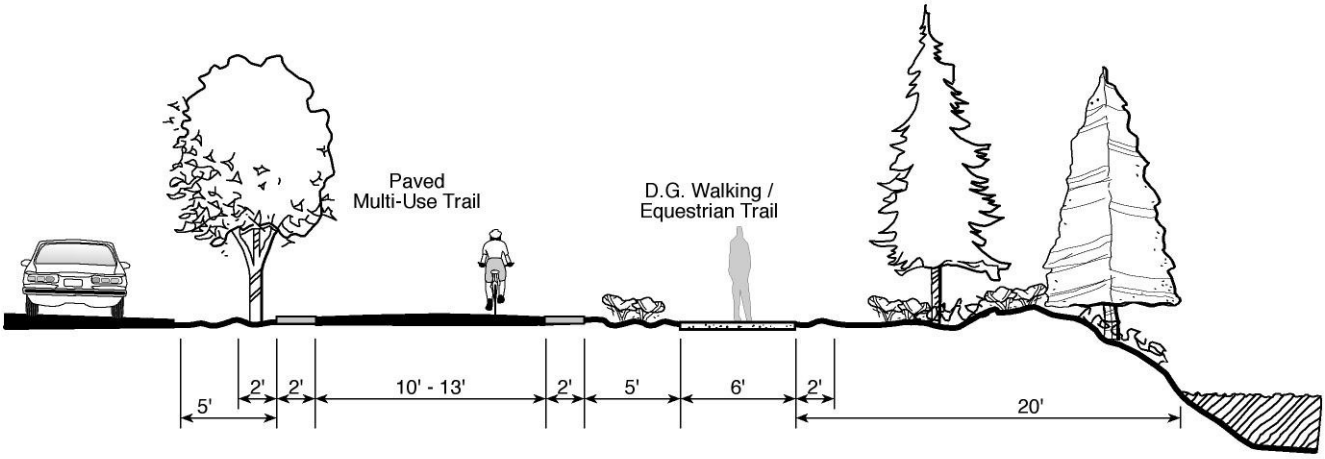
6. Barriers at trail entrances should be clearly marked with reflectors and should be ADA accessible (minimum 5 feet clearance).

7. Multi-use trail construction should take into account impacts of maintenance and emergency vehicles on shoulders and vertical requirements.

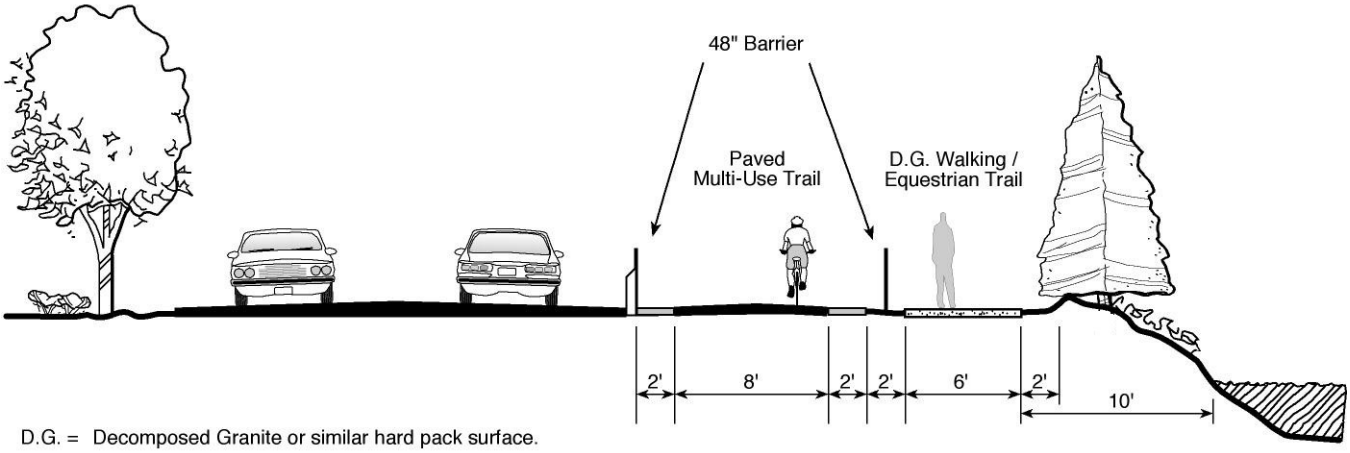
8. Provide minimum two feet wide unpaved shoulders for pedestrians/runners or a separate tread way where feasible. Direct pedestrians to right side of trail with signing and stenciling.

9. Provide adequate trailhead parking and other facilities such as restrooms, drinking fountains, and telephones at appropriate locations when user demand and volume calls for them.

Preferred Dimensions



Minimum Dimensions



D.G. = Decomposed Granite or similar hard pack surface.

Note: Trails along roadways are recommended only where there are no or limited cross-streets or driveways

Figure A2	Multi-Use Trail Dimensions	GENESEE TRANSPORTATION COUNCIL

Multi-Use Trail Specifications

Pavement Type:	Recycled Asphalt[1]	3" thick	(75 mm)
	Asphalt[1]	3" thick	(75 mm)
	Concrete[2]	3" thick	(75 mm)
Sub-Base:	Granite	4-6" thick	(100-150 mm)
	Gravel	4-6" thick	(100-150 mm)
Shoulders:	Decomposed Granite	2-4" thick	(50-100 mm)
Width:	Minimum 1 way Trail	6' wide	(1.8 m)
	Minimum 2 way Trail	8' wide	(2.4 m)
	Preferred 2 way Trail	10-12' wide	(3-3.6 m)
Shoulders:		2-3' wide	(0.6-1 m)
Lateral Clearance:		2-3' wide	(0.6-1 m)
Vertical Clearance:		8-10'	(2.5-3 m)
w/ Equestrians		12'	(3.6 m)
Striping:		See New York MUTCD standards	
Centerline (dashed yellow or solid yellow)		4"	(100 mm)
Edgeline (solid white)		4"	(100 mm)
Signing:		See MUTCD standards	
Minimum Cross Slope:		2%	2%
Minimum Separation from Roadway[3]:		5'	(1.5 m)
Design Speed:		20-30 mph	(40-50 kph)
Maximum Superelevation:		5%	5%
Maximum Grades (over 100')		5%	5%
Barrier Posts (minimum spacing):		5'	(1.5 m)
Lighting (if night use expected):		5-22 LUX	5-22 LUX

Source: American Association of State Highway and Transportation Officials (AASHTO) 1999 Guidelines for the Development of Bicycle Facilities

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1. Asphalt may be unsuitable for trails near streams or riparian habitats due to asphalt oils.
2. A 6" concrete thickness may be used directly on compacted native material.
3. Unless physical barrier provided.

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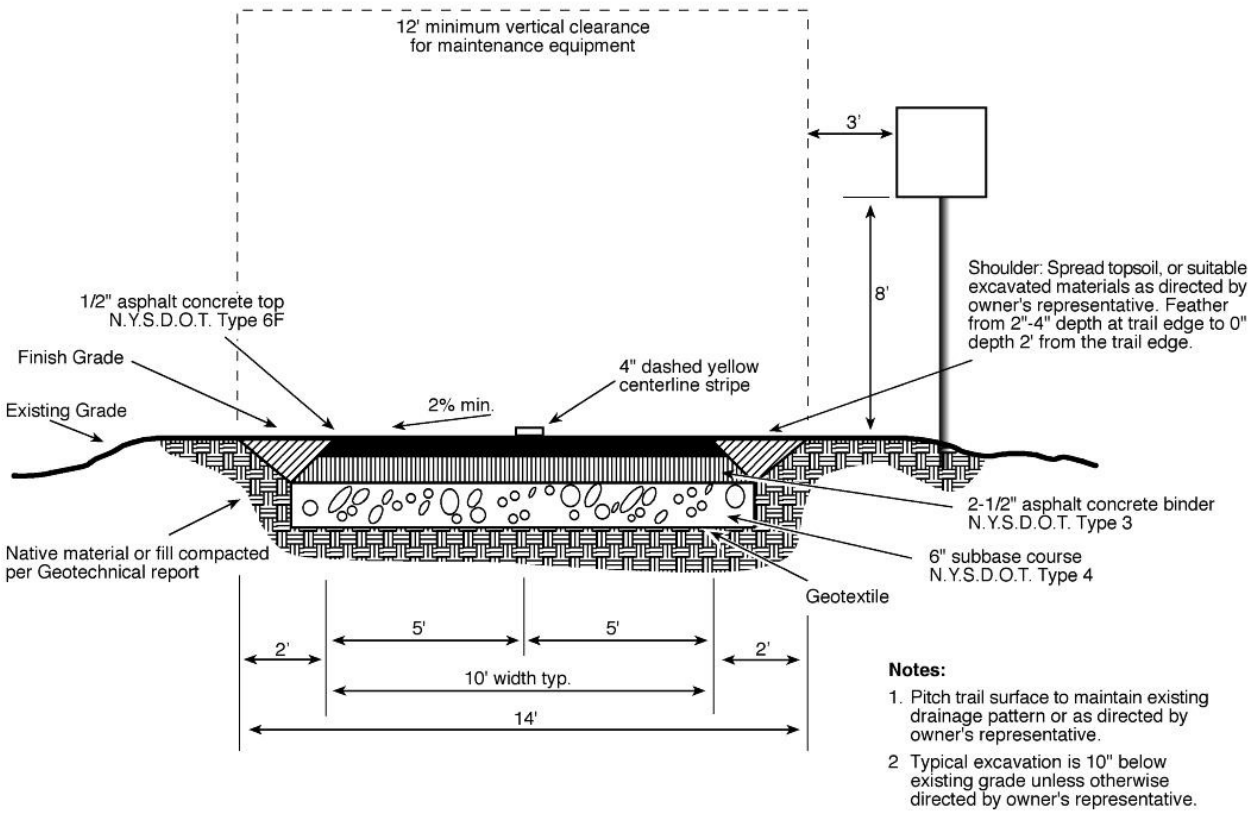
Figure A3	Multi-Use Trail Specifications	GENESEE TRANSPORTATION COUNCIL

Implementation on Level Ground



Implementation on Sloped Ground

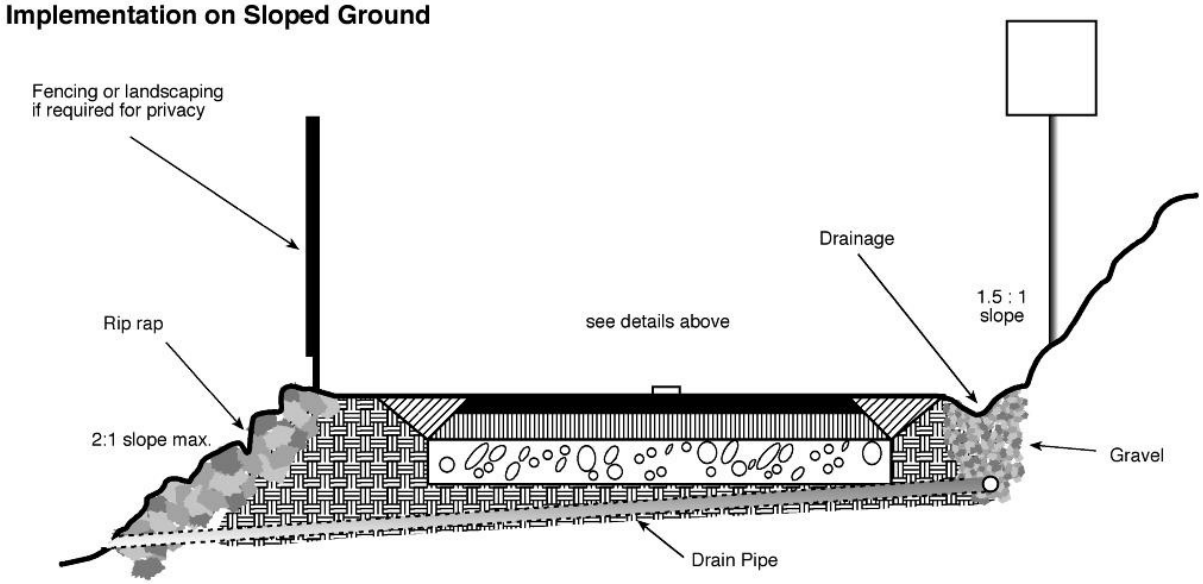
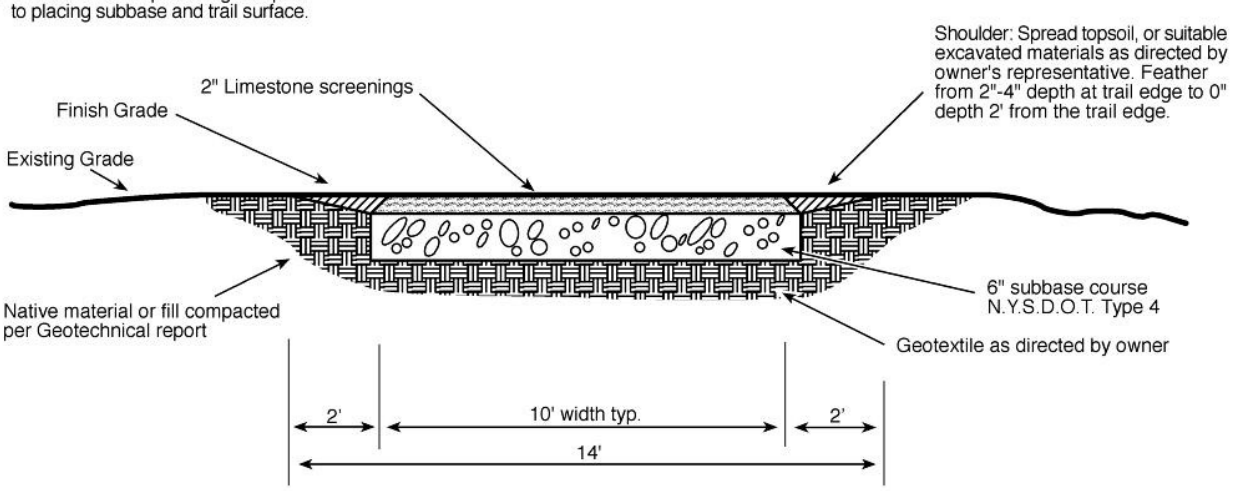


Figure A4	Multi-Use Asphalt Trail Cross-Section	GENESEE TRANSPORTATION COUNCIL

Implementation on Level Ground

Notes:

1. Pitch trail surface to maintain existing drainage pattern or as directed by owner's representative.
2. Smooth and compact subgrade prior to placing subbase and trail surface.



Implementation on Sloped Ground

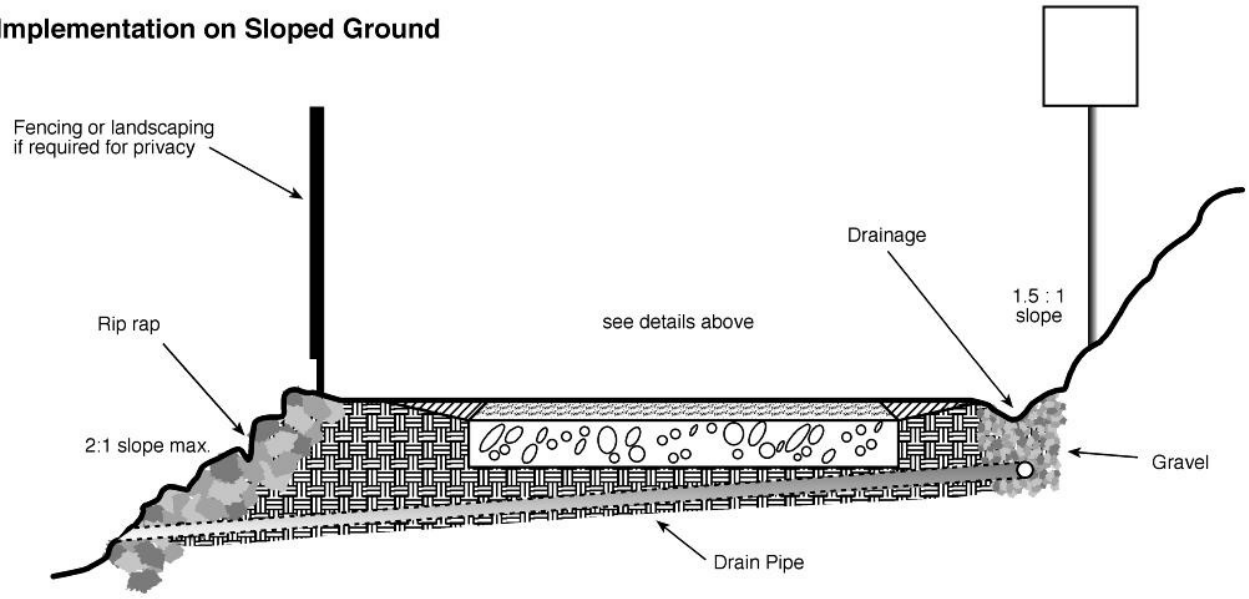


Figure A5	Multi-Use Stone Dust Trail Cross-Section	GENESEE TRANSPORTATION COUNCIL

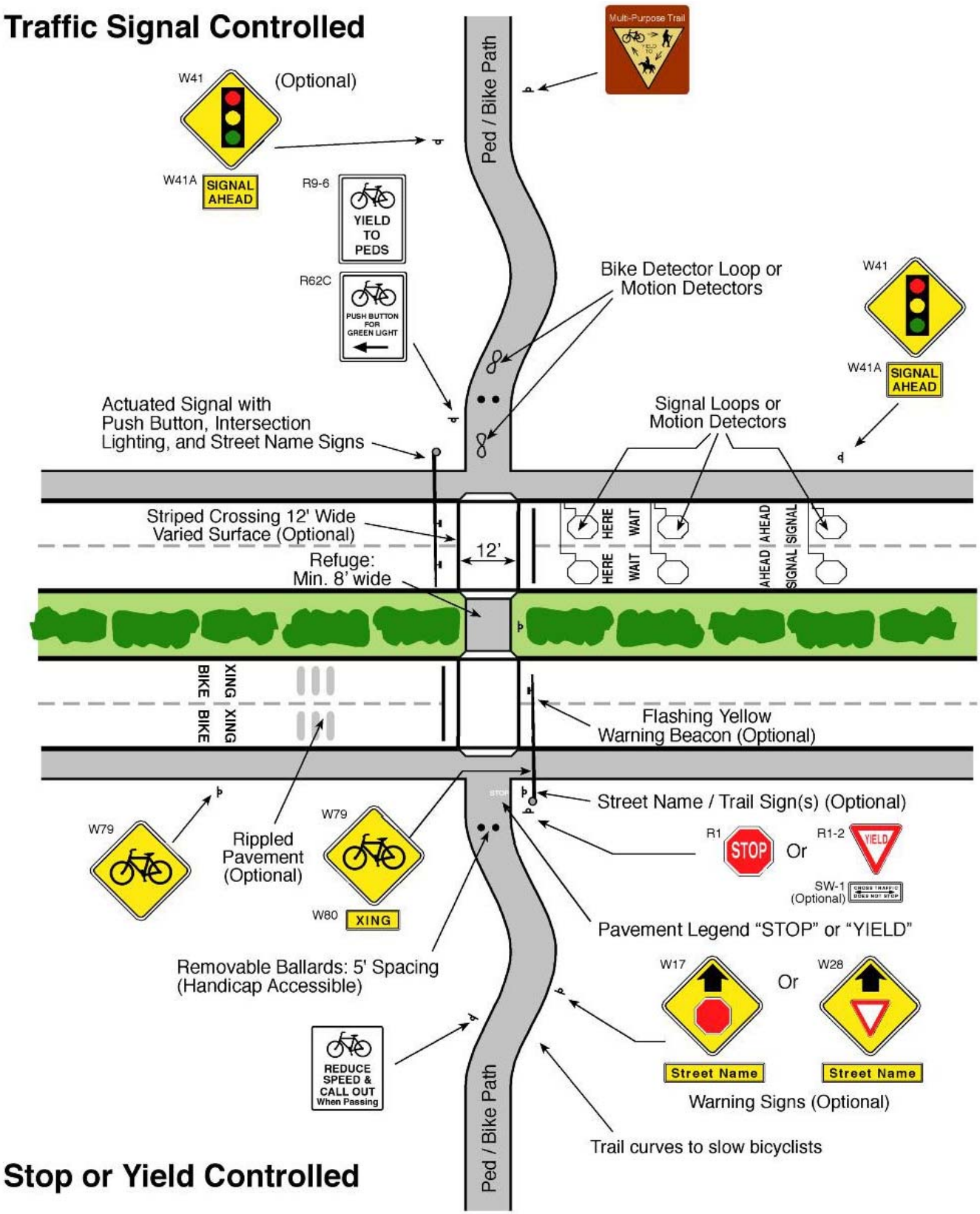


Figure A6	Multi-Use Trail Crossing Prototype with Signage	GENESEE TRANSPORTATION COUNCIL

BICYCLE LANES

Bicycle lanes are located immediately adjacent to moving vehicular traffic. Many inexperienced bicyclists are uncomfortable with this proximity to moving vehicles, and will prefer to use only those bicycle lanes located on secondary streets. Experienced riders will prefer to use major arterial streets as they are usually more direct and have fewer stops along their length. The tables below address bicycle lane width and vehicular lane width recommendations for such facilities. AASHTO's *A Policy on Geometric Design of Highways and Streets* (1994) recommends in general a minimum vehicle lane width of nine feet.

RECOMMENDED MINIMUM BICYCLE LANE & VEHICLE LANE WIDTHS			
Bicycle Lane Width	**Curb Lane Width (Adjacent to Bicycle Lane)**	**85th Percentile Speed (in miles per hour)**	**Weekday Average Daily Traffic**
4 feet without parking with at least 3 feet clear of joints	10 feet	Less than 35	Less than 5,000
5 feet	11 feet	35 to 45	5,000 to 10,000
6 feet	12 feet	45 to 55	Greater than 10,000

In addition to providing adequate lane widths for safety and user comfort, the various circumstances listed below are important design considerations as they all can potentially affect the safe travel of bicycle lane users:

Guard Rails – A 2-foot buffer must separate the bicycle lane from a guard rail.

Bridge Abutments - A 2-foot buffer must separate the bicycle lane from any bridge abutments.

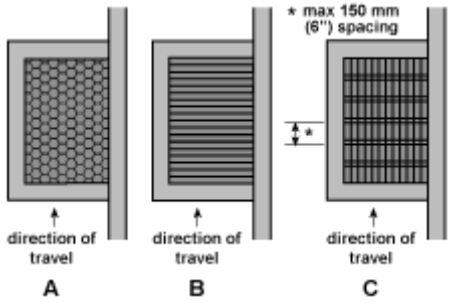
High Curbs - A 2-foot buffer must separate the bicycle lane from any curbs higher than one foot.

Railroad Crossings – Railroad crossings must provide a smooth, level surface for bicyclists. A smooth, level surface can be achieved by placing concrete between the rail tracks.

Drainage Inlets – When drainage openings perturb into the street more than 2 feet or more and create a hazard in the bicycle lane, the following recommendations are made:

- All efforts should be made to make the drain smaller; or

- Width of bicycle lane throughout the particular block or roadway segment shall be increased to compensate for the drainage opening.



Bicycle friendly drainage grates

Pinch Points – Within the length of a bicycle lane corridor, the width of the roadway may not accommodate a bicycle lane for a short distance. The following recommendations are made for a pinch point:

- Widen Roadway

- Install bicycle routes and proper signs (Shared space sign may also be installed.)

- Allow bicycles on sidewalks. Sidewalk must be at least 10 feet wide, and "Bicycles May Use Sidewalk" sign installed

One-Way Streets – On roadways where vehicular traffic is restricted to one direction, a bicycle lane in the opposite direction is permitted if it is separated from the vehicle lane with double yellow striping, has a minimum width of 6 feet, no parking allowed on the side of the street and clearly signed as a bicycle lane only.

BICYCLE ROUTES

Bicycle routes share the traveled right-of-way with motor vehicles (share the roadway - highway shoulder or marked bike lane or bicycles use the same travel lanes as motor vehicles) and are designated by signing and/or pavement markings only. Highway shoulders are the most common form of bicycle route provisions. By law, all roads are open to bicyclists (except where specifically prohibited, such as interstates and limited access highways such as parkways and some arterial highways, etc.). Motorists, bicyclists, in-line skaters and pedestrians are required by law to share the travelway on all roads, except where they are prohibited.

State bicycle routes are intended for experienced adult bicyclists who can share the road with motorized traffic and are primarily for transportation or long distance touring purposes. These routes are not recommended for children or inexperienced bicyclists due to the speed and volume of traffic generally encountered on most state highways. It is recommended that inexperienced adult bicyclists, families and children utilize the region's bike paths, rail trails, trails and lower volume / lower speed bicycle routes or roadways.

The design practices for bicycle routes are relatively simple relating mostly to the placement of signs. A New York state designated bike route is signed with a bike route number that generally corresponds with the number of the state highway route it follows in locations where the bike route meets NYSDOT standards.

There currently are no specified minimum widths for bike routes, as acceptable width is dependent on many factors, including the volume and character of vehicular traffic on the road, typical speeds, vertical and horizontal alignment, sight distance, and parking conditions.

The Federal Highway Administration has produced a guide for retrofitting streets (FHWA, *Selecting Roadway Design Treatments to Accommodate Bicycles*, November 10, 1992). A simplified version of these practices is presented below. The application of these practices is at the discretion of local agencies. Note that these practices cannot anticipate all potential field conditions, so should only be used as general guidelines with consideration of other site-specific issues.

RECOMMENDED MINIMUM CURB LANE WIDTH (EXCLUDING AREAS FOR PARKING)		
Curb Lane Width	**85th Percentile Speed (in miles per hour)**	**Weekday Average Daily Traffic**
No Minimum	Less than 25	Less than 3,000
12 feet	25 to 35	3,000 to 5,000
14 feet	35 to 45	5,000 to 10,000
16 feet	45 to 50	10,000 to 30,000
Bike Route Not Recommended	Greater than 50	Greater than 30,000

There are several caveats to these recommendations:

Where on-street parking exists, the area required for parking, generally 2.1 meters (7 feet) for low turnover parallel parking or 2.4 meters (8 feet) for high turnover parallel parking, is not included in the curb lane width.

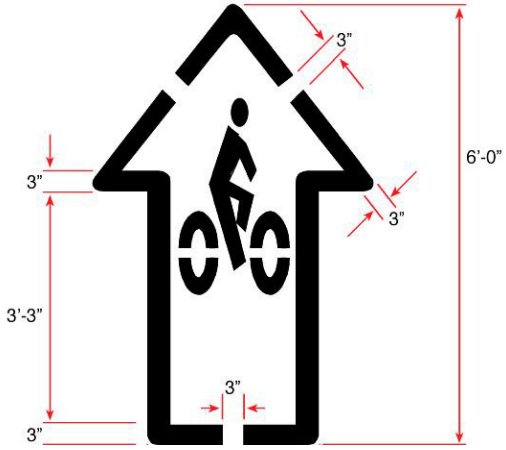
Where diagonal or perpendicular parking are present, bike routes are not recommended. Back-in diagonal parking may be considered more compatible with bicycle facilities and good visibility for bicyclists.

Special considerations are recommended for facilities with significant bus or truck traffic and/or located on an emergency response route.

Bike Routes with Edge Line – Provision of a 150-mm (6 inch) bike lane stripe is not recommended on bike routes. However, in areas where wide curb lanes are available for bike routes, provision of a 100-mm (4 inch) solid white stripe can be used to demarcate the

travel lane (that is, between the travel lane and the area intended for use by bicycles). Such a stripe is often referred to as an edge line.

Bike Routes with Pavement Stencil - In areas where wide curb lanes are available for bike routes, some jurisdictions may choose to consider use of a pavement stencil to identify the area intended for use of bicycles. Should a jurisdiction choose to employ the stencil on a test basis, it should be done only with the prior approval of relevant local agencies. Stencils should only be employed in areas where a vehicle will have reasonable opportunity to avoid traveling over the stencil. An example of a stencil is shown here.



A stenciled arrow in use on a San Francisco street.

Bicycle Boulevards – Bicycle boulevards are defined as roadways with traffic control devices that restrict vehicles from using the roadway as a thoroughfare. This is accomplished by providing barriers at intersections that force vehicles to turn, but allow bicycles to travel through the intersection. The specifications of bike boulevards are based largely on corner configurations, the number of movements at intersections that will be restricted, and other site-specific issues. An example of a bicycle boulevard is shown in Figure A7.

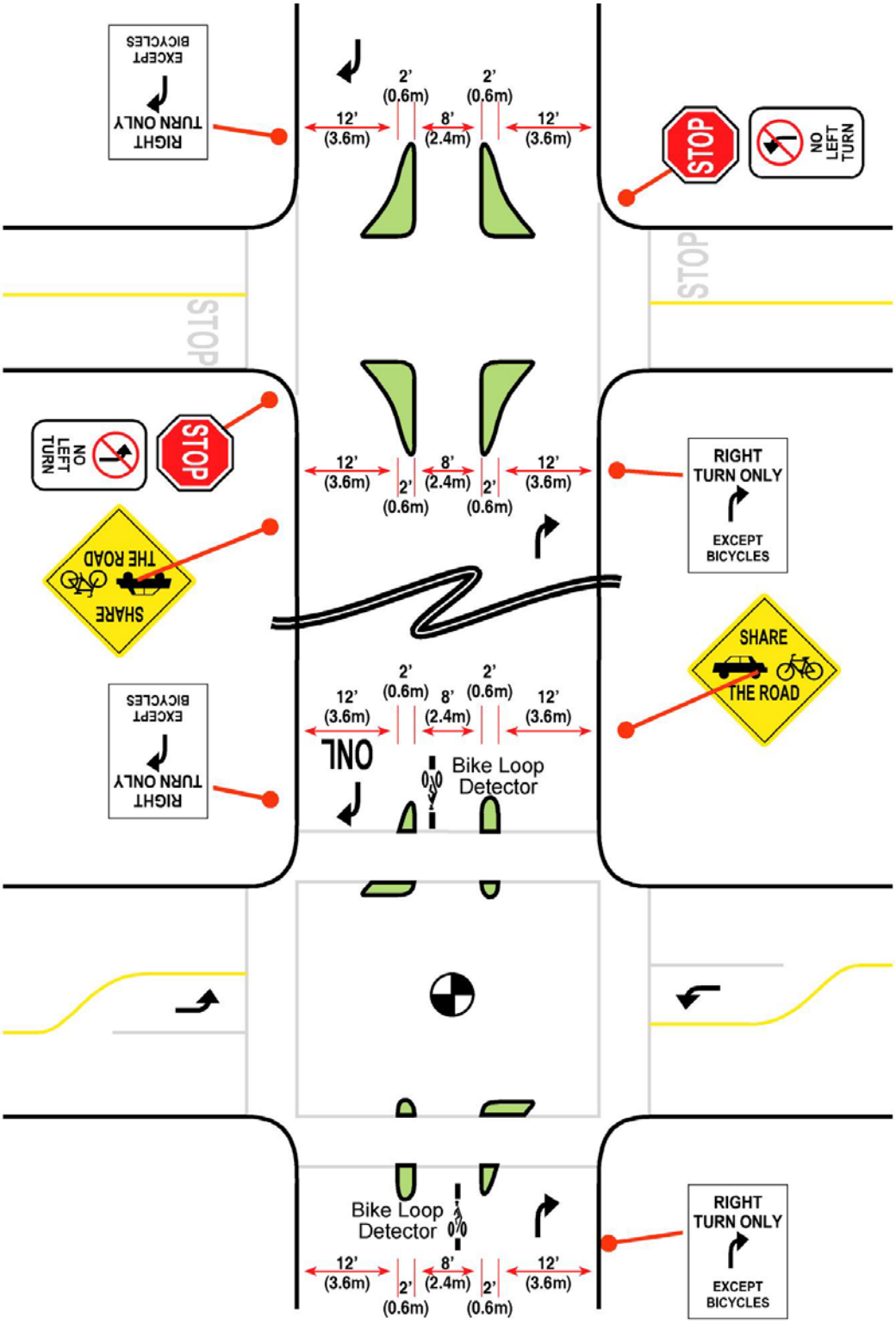
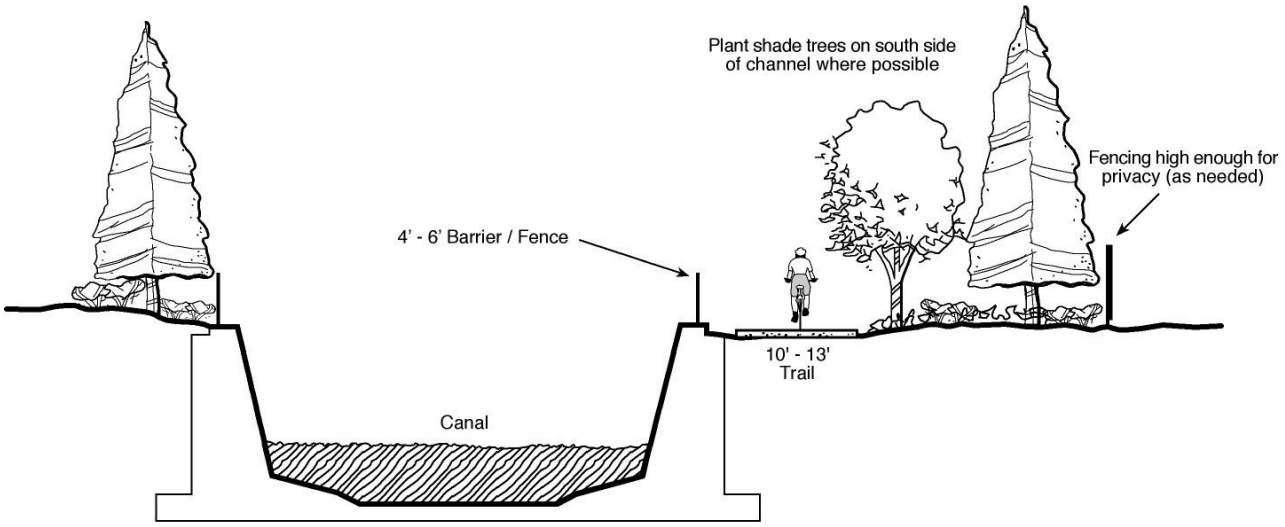
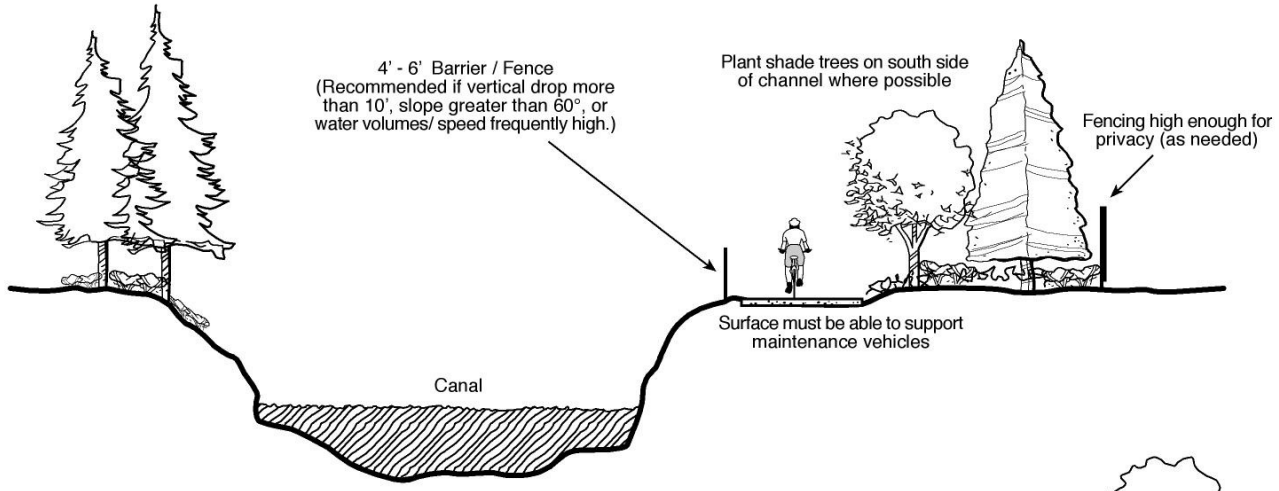


Figure A7	Bicycle Boulevard	GENESEE TRANSPORTATION COUNCIL





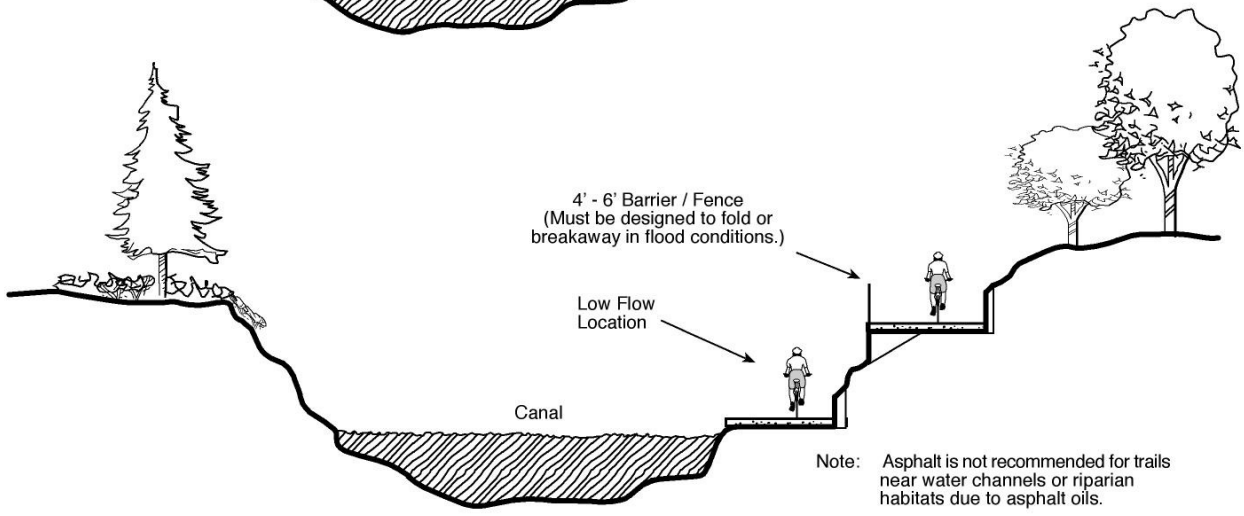


Figure A8	Trail Options Along Canals	GENESEE TRANSPORTATION COUNCIL

Width and slope varies. Recommend:

5' Min. width for residential streets
15' Min. width for collector streets
25' Min. width for arterials and highways

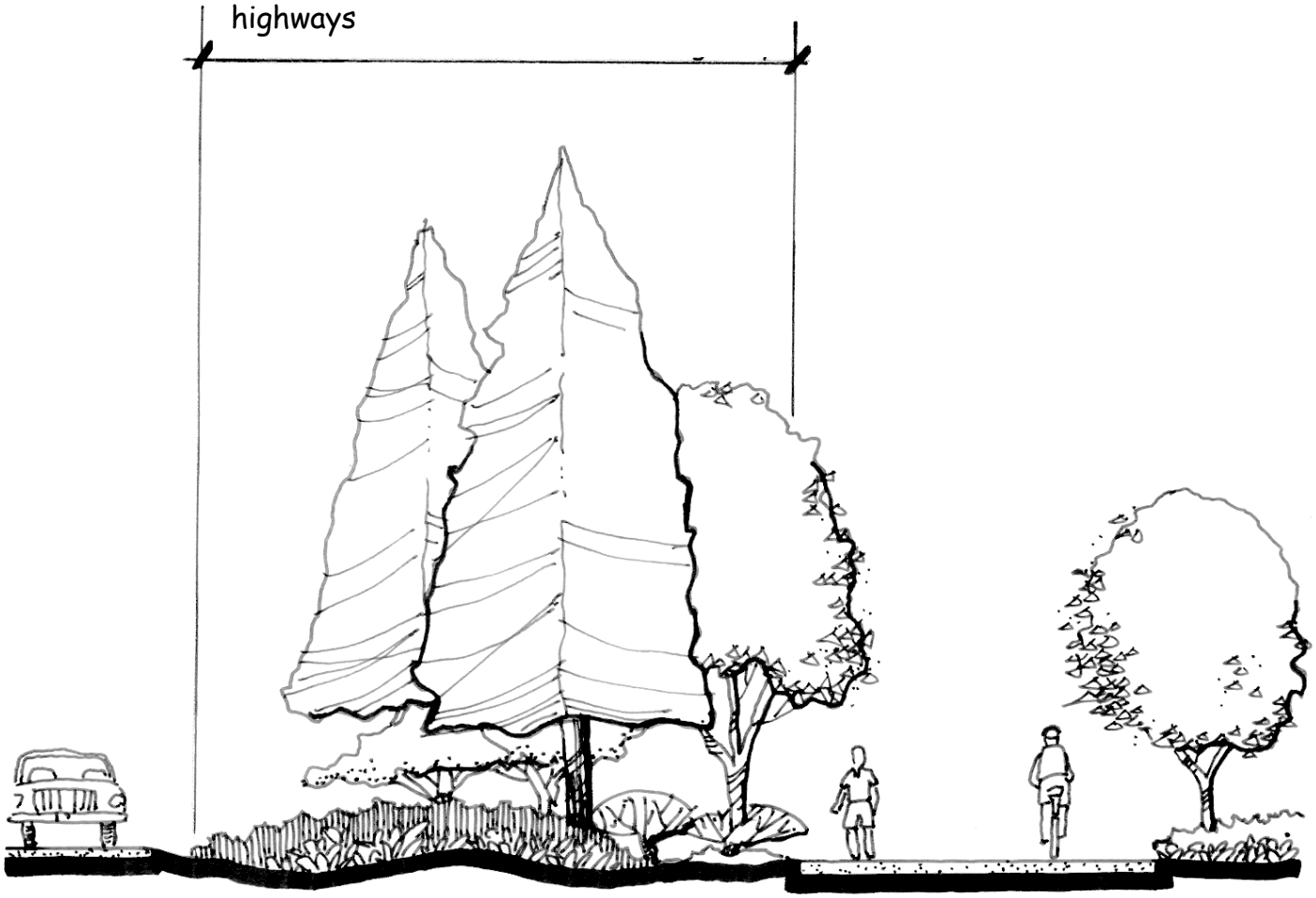


Figure A9	Trail Adjacent to Roadway	GENESEE TRANSPORTATION COUNCIL

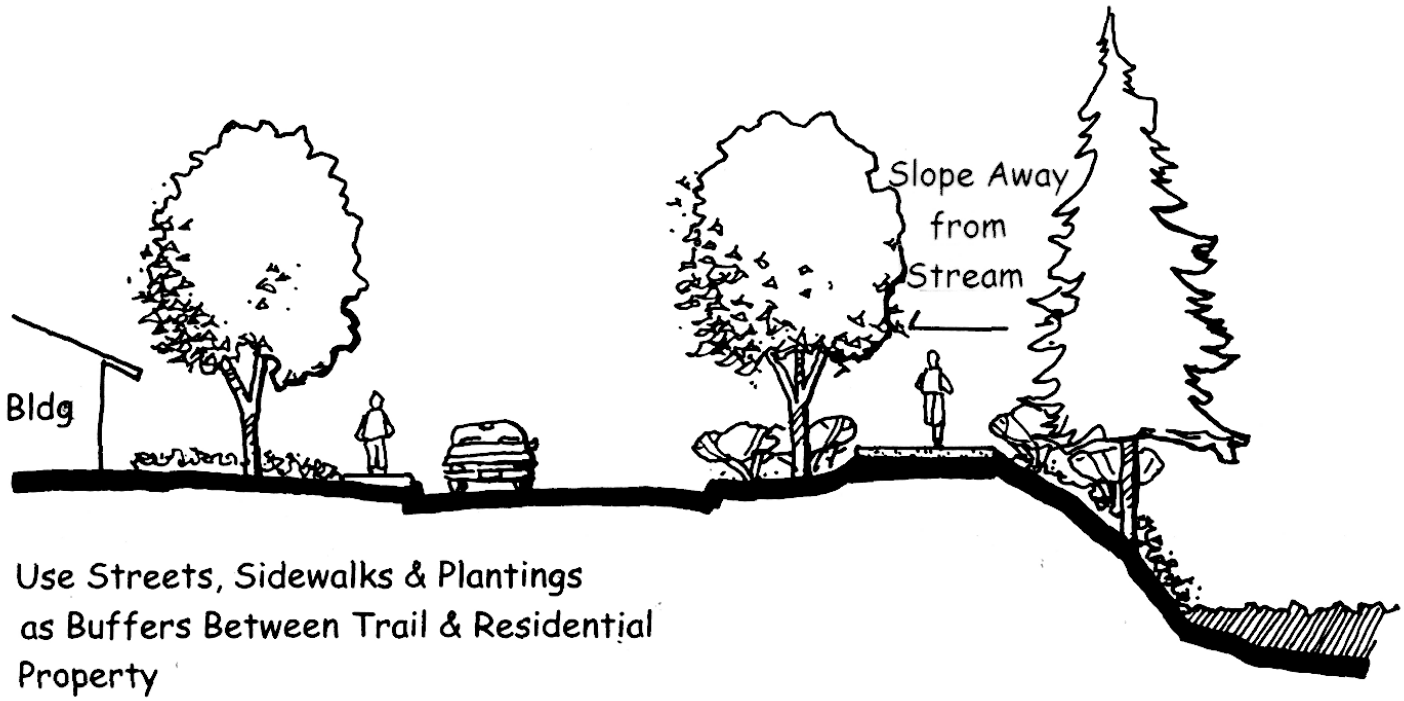
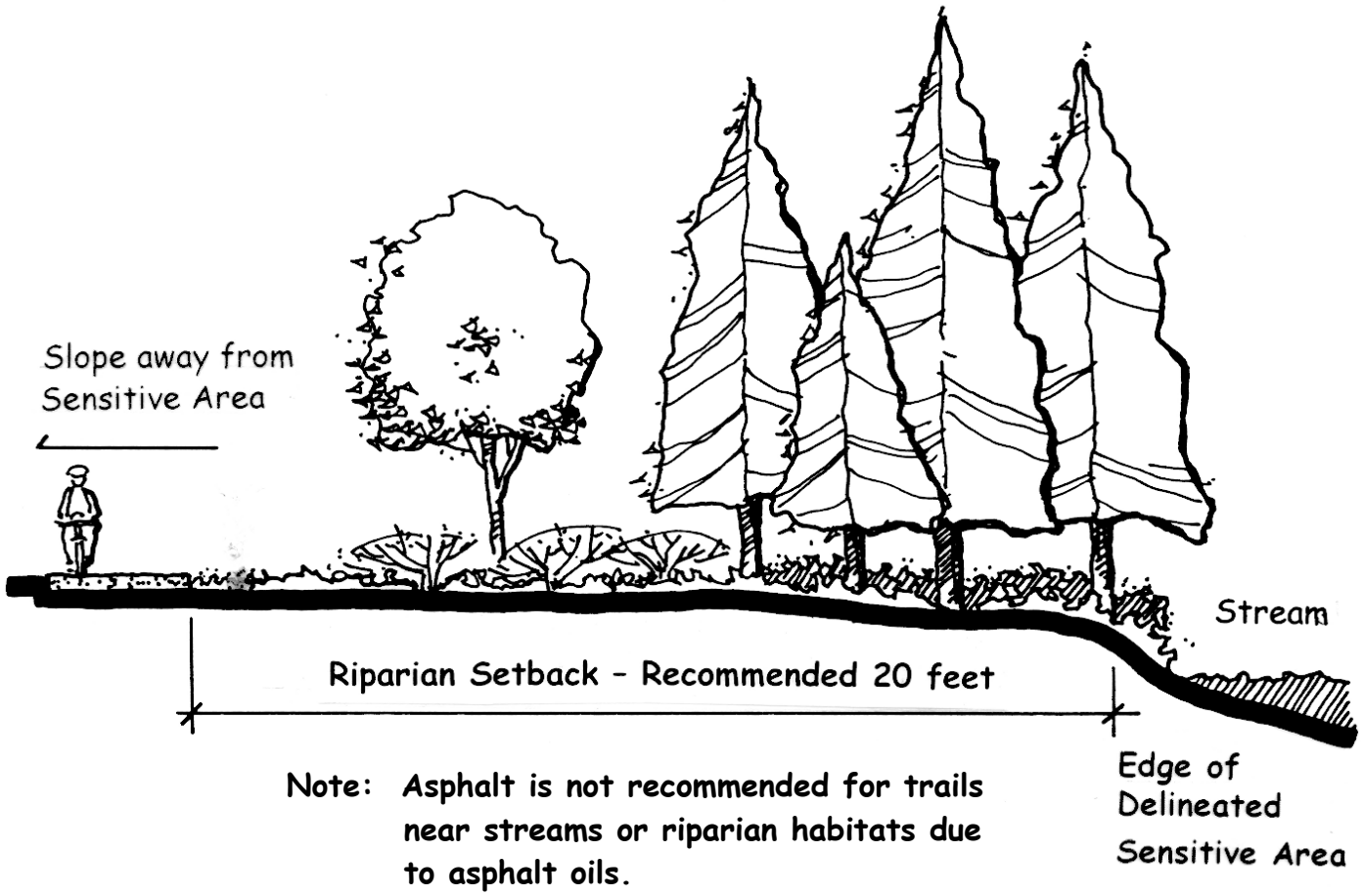
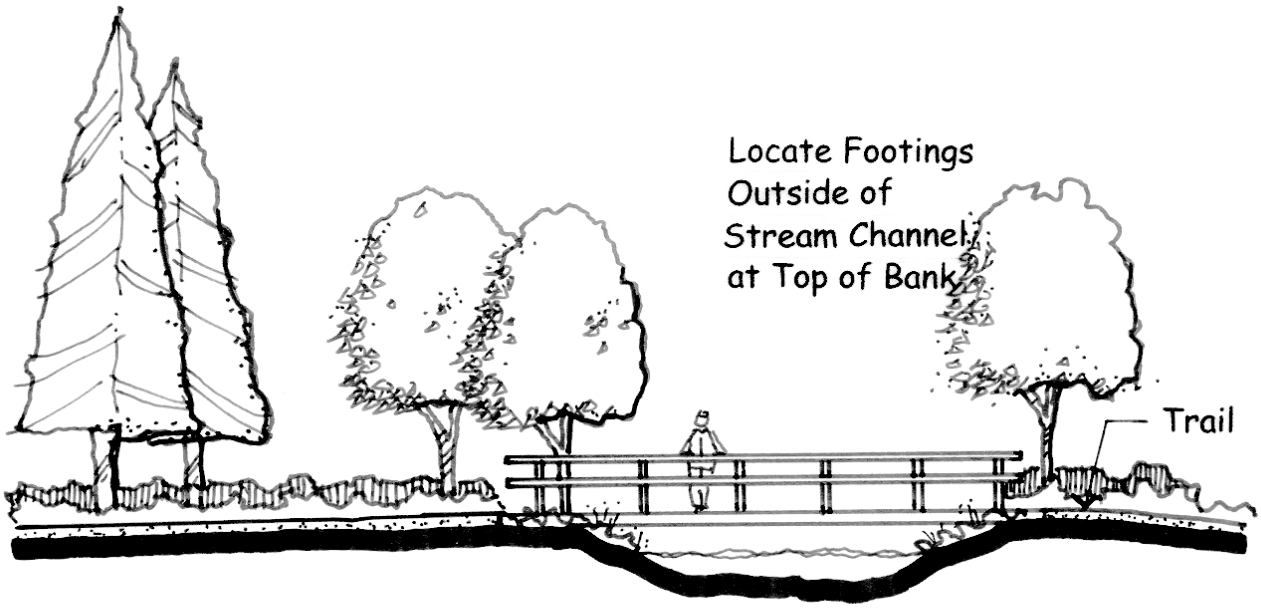


Figure A10	Trail in Relation to Street, Residence and Stream	GENESEE TRANSPORTATION COUNCIL

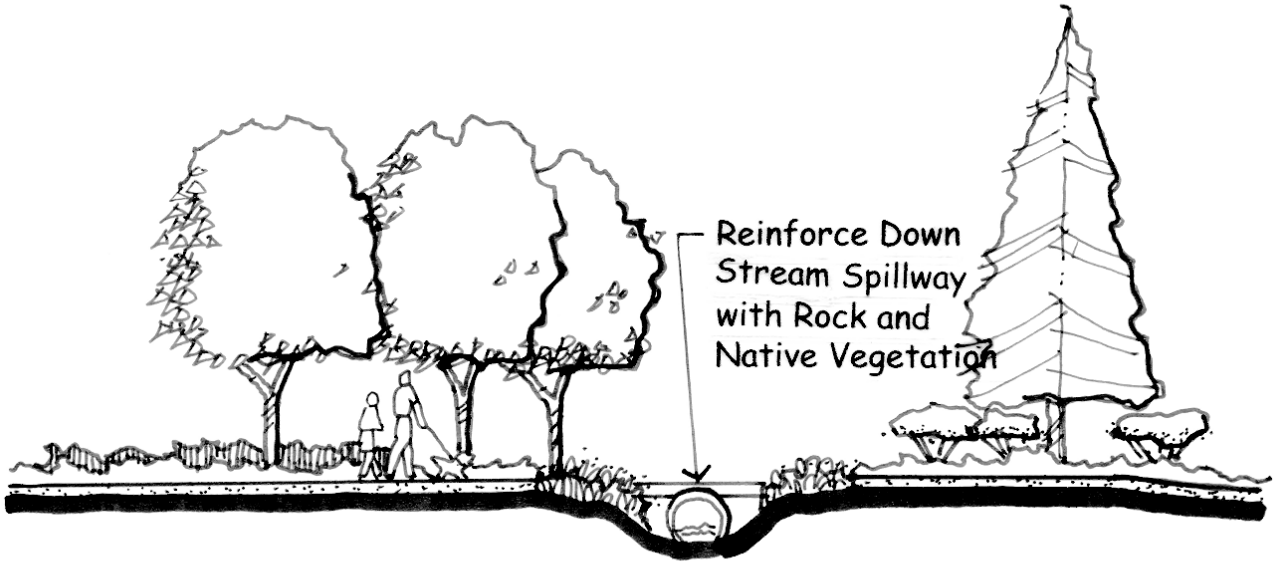


Note: Asphalt is not recommended for trails near streams or riparian habitats due to asphalt oils.

Figure A11	Trail Adjacent to Environmentally Sensitive Area	GENESEE TRANSPORTATION COUNCIL



Major Crossing of Stream or Drainage



Trail Crossing of Small Drainage or Stream

Figure A12	Trail Crossings of Stream or Drainage	GENESEE TRANSPORTATION COUNCIL

There are four main conditions in which a creek trail can occur that affect how a trail is constructed:

1. **on top of a creek bank**
2. **on a slope**
3. **on a steep slope**
4. **along a street**

The top of a bank (or a bench on a slope) is preferred for several reasons:

1. **it is generally flat and can provide a level platform for a trail**
2. **grading is kept to a minimum**
3. **existing vegetation can be preserved**
4. **erosion and bank stabilization problems are minimized**
5. **access to and from streets and by disabled persons is generally easier**

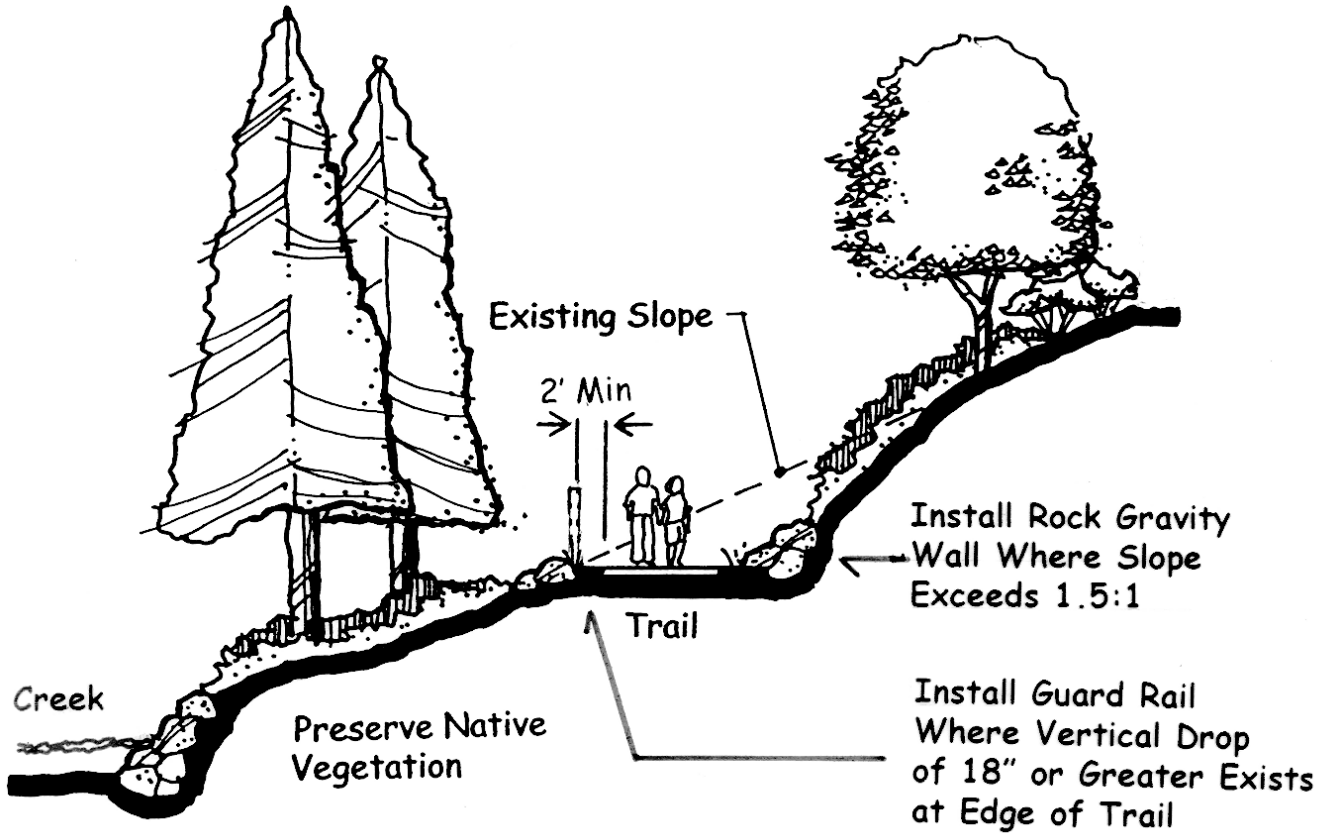


Figure A13	Creek Trail on Slope	GENESEE TRANSPORTATION COUNCIL

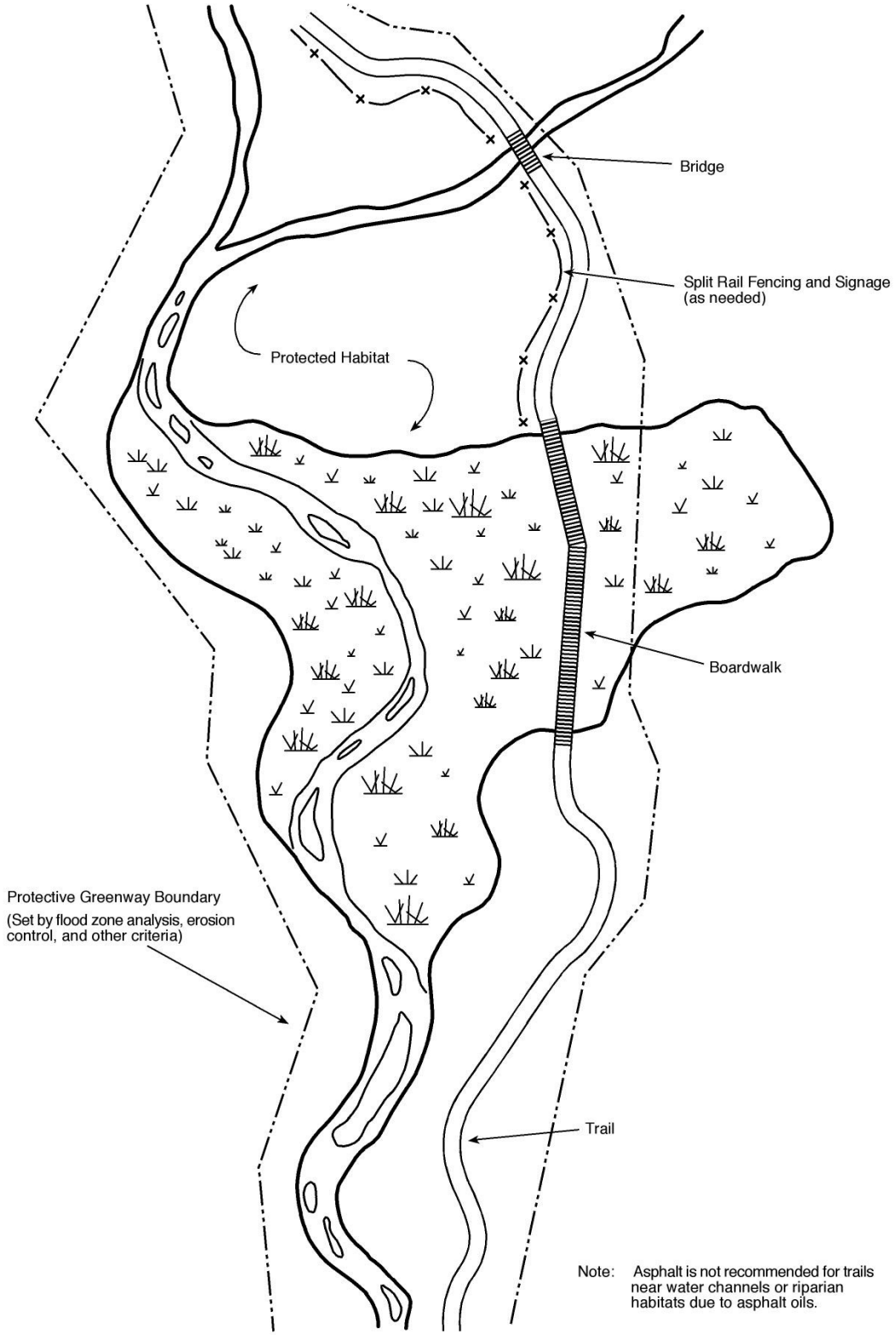


Figure A14	Riparian Corridor Trail	GENESEE TRANSPORTATION COUNCIL

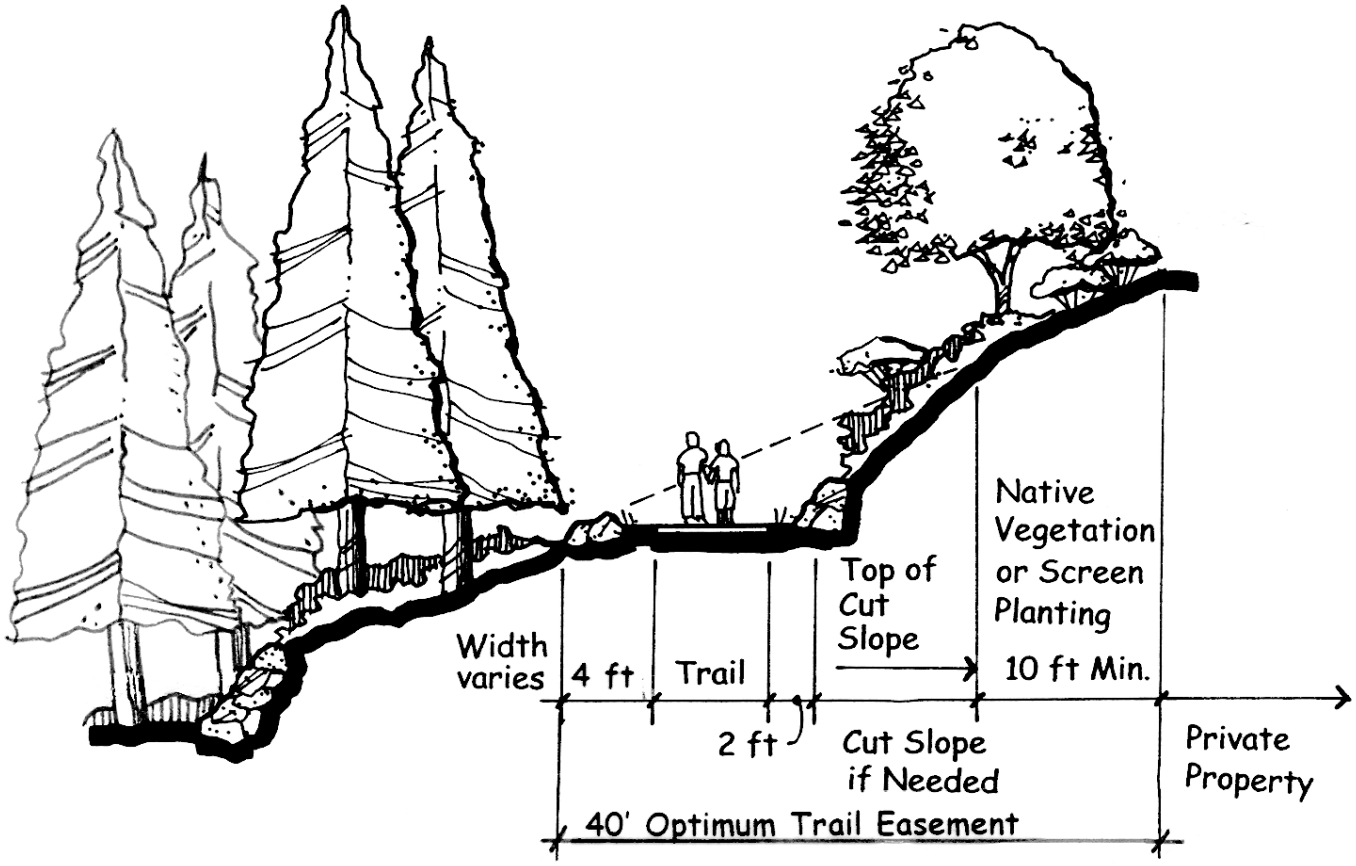


Figure A15	Trail Adjacent to New Development	GENESEE TRANSPORTATION COUNCIL

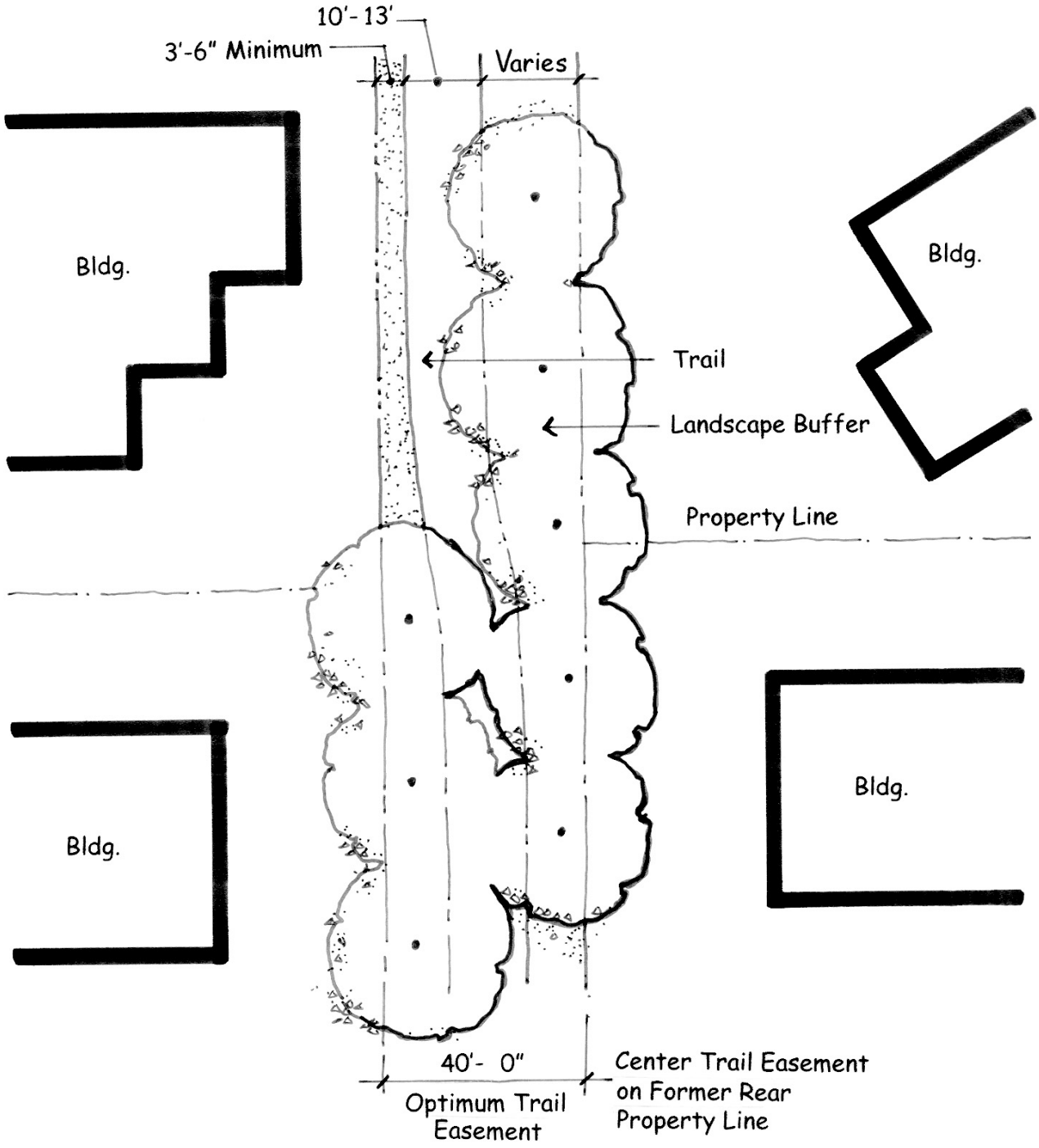


Figure A16	Trail Easement in Developed Area	GENESEE TRANSPORTATION COUNCIL

Figure A17	Trails Through Existing Developments	GENESEE TRANSPORTATION COUNCIL

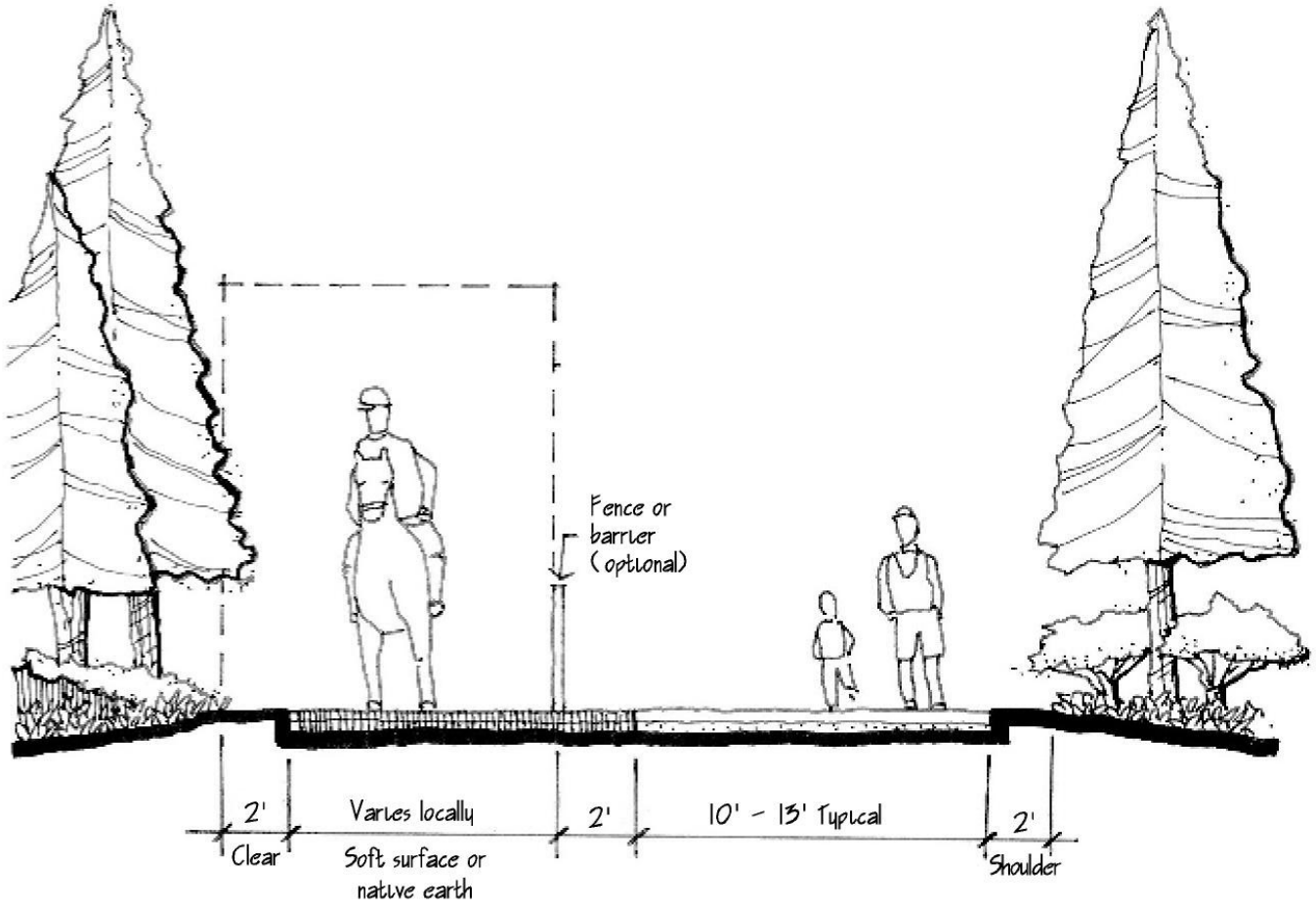


Figure A18	Trail with Equestrian Use	GENESEE TRANSPORTATION COUNCIL

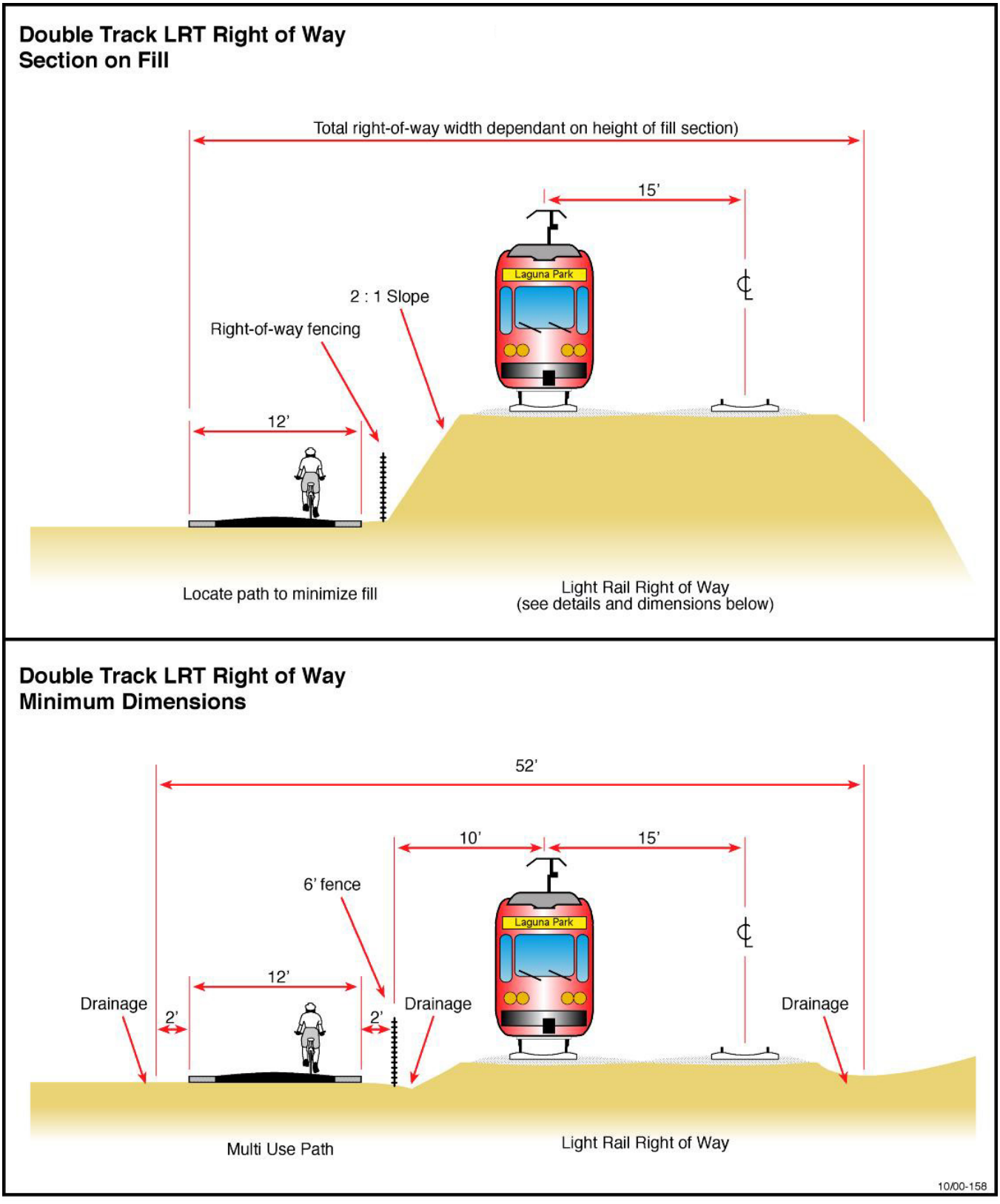


Figure A19	Rail With Trail Alignments	GENESEE TRANSPORTATION COUNCIL

BRIDGES, OVERCROSSINGS & UNDERCROSSINGS

Like most trails in urban areas, the region's trails must cross roadways at certain points. These roadway crossings may be designed at-, below-, or above-grade. At-grade crossings create a potentially high level of conflict between trail users and motorists. However, well-designed crossings have not historically posed a safety problem, as evidenced by the thousands of successful trails around the United States with at-grade crossings. Designing safe grade crossings is a key component to safe implementation of the projects in this report.

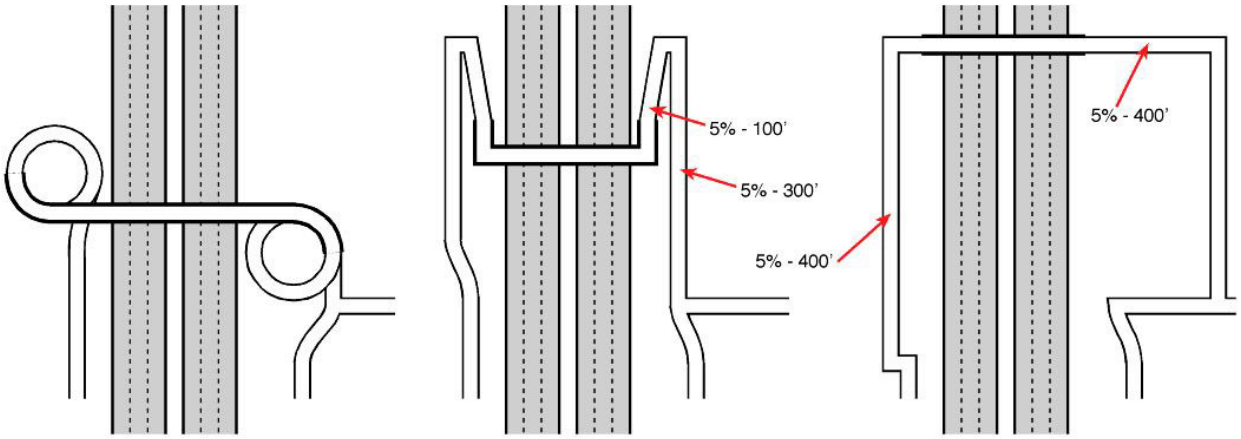
When considering a proposed separated trail and its required crossings of roadways, it is important to remember two items:

1. Trail users will enjoy a largely auto-free experience and may enter into an intersection unexpectedly.

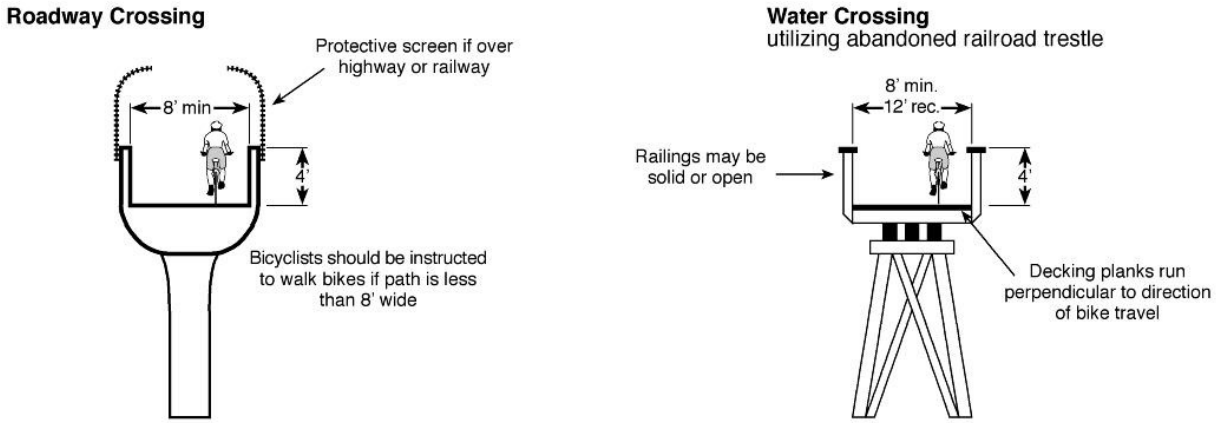
2. Motorists will not expect to see bicyclists shooting out from an unmarked intersection into the roadway. In some cases, a required bikeway crossing may be so dangerous or expensive (e.g., to build an overcrossing or undercrossing) as to affect the feasibility of the entire alignment. In most cases, bikeway crossings at-grade can be properly designed to a reasonable degree of safety and to meet existing traffic and safety standards.

Evaluation of bikeway crossings involves analysis of traffic patterns of vehicles as well as trail users. This includes traffic speeds, street width, traffic volumes (average daily traffic, peak hour traffic), line of sight, and trail user profile (age distribution, destinations).

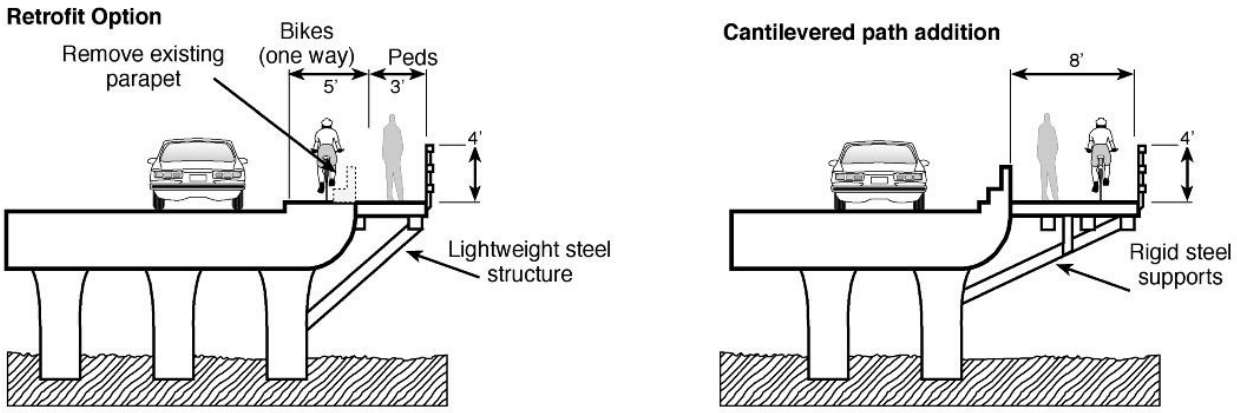
Figures A20 and A21 illustrate prototype over- and undercrossings.



Approach variations to highway overcrossings

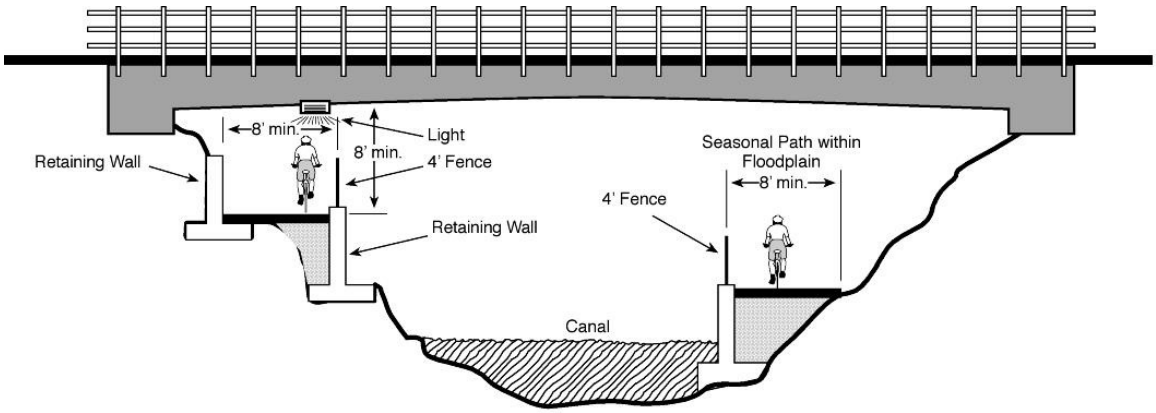


Crossing structure types

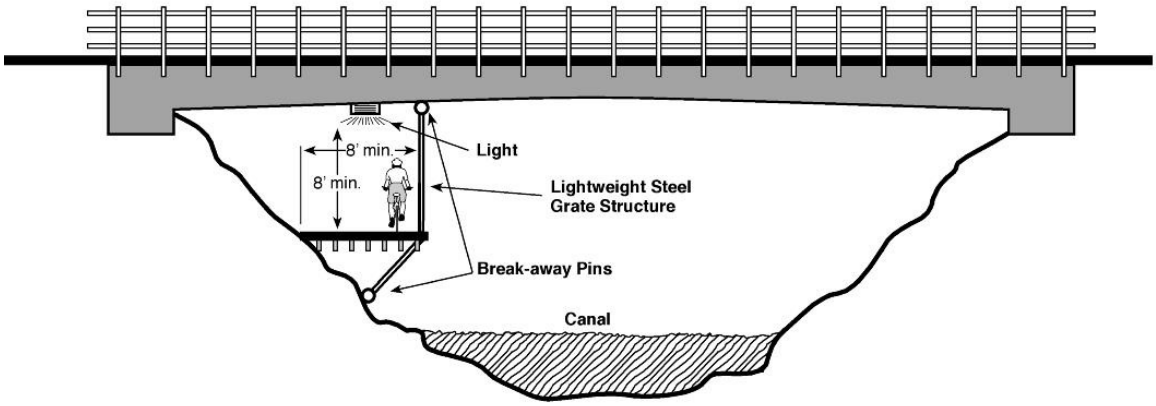


Adding paths to existing bridges

Figure A20	Overcrossings	GENESEE TRANSPORTATION COUNCIL



Widths between 4 and 8 feet may be required if bicyclists are required to dismount



Structure designed to collapse in the event of a flood

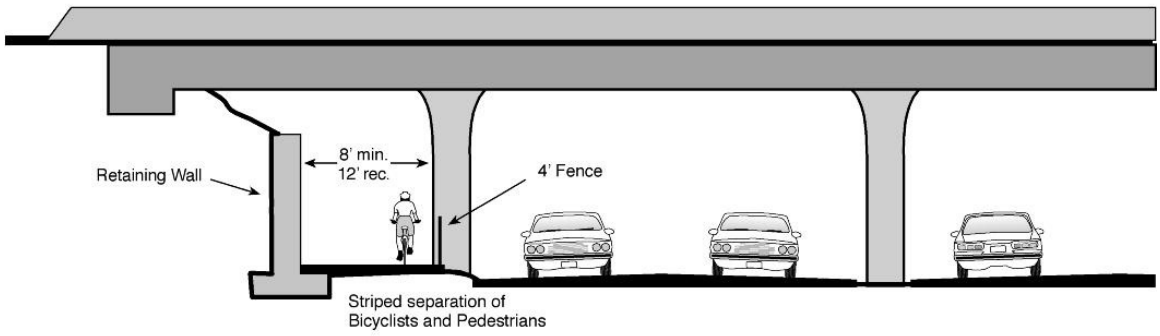


Figure A21	Undercrossings	GENESEE TRANSPORTATION COUNCIL

BASIC CROSSING PROTOTYPES

The proposed intersection approaches in this report are based on established standards, published technical reports, and the experiences of existing facilities. Virtually all crossings fit into one of the four basic categories described below:

Type 1: Unprotected/Marked – Unprotected crossings include mid-block crossings of residential, collector, and major arterial streets.

Type 2: Divert Users to Existing Intersection - Trails which emerge near existing intersections may be routed to these locations.

Type 3: Signalized/Controlled – Trail crossings which require signals or other control measures due to traffic volumes, speeds, and trail usage.

Type 4: Grade-separated – Bridges or undercrossings provide the maximum level of safety but also generally are the most expensive and have right of way, maintenance, and other public safety considerations.

TYPE 1: UNPROTECTED/MARKED CROSSINGS

A Type 1 unprotected crossing consists of a crosswalk, signing, and often no other devices to slow or stop traffic (see photos). The approach to designing crossings at mid-block locations depends on an evaluation of vehicular traffic, line of sight, trail traffic, use patterns, road type and width, and other safety issues such as the proximity of schools. The following general thresholds outline where unprotected crossings may be acceptable:

- Install crosswalks at all locations
- Maximum traffic volumes:
  – 10,000-15,000 average daily traffic (ADT),
  – 1,000-1,500 peak hour
- Maximum 85th percentile speeds:
  – 35-45 mph
- Maximum trail user volumes:
  – 50-75 per hour, 300-400 per day
- Maximum street width:
  – 60 feet (no median)
- Minimum line of sight:
  – 25 mph zone: 100 feet;
  – 35 mph zone: 200 feet;
  – 45 mph zone: 300 feet

Type 1 treatment examples

On residential and collector streets below 10,000 ADT, crosswalks and warning signs ("Bike Xing") should be provided for motorists, and STOP signs and slowing techniques (bollards/geometry) used on the trail approach. Care should be taken to keep vegetation and other obstacles out of the view line for motorists and trail users.

Collector streets up to 15,000 ADT require a higher level of treatment for crossings than residential streets. In addition to the features described for residential streets, signing locations may need to be moved further upstream and made more visible for motorists. A flashing yellow beacon may be used, preferably one that is activated by the trail user rather than operating continuously. Some jurisdictions have successfully used a flashing beacon activated by motion detectors on the trail, triggering the beacon as trail users approach the intersection. This equipment, while slightly more expensive, helps keep motorists alert.

Crossings of higher volume arterials over 15,000 ADT may be unprotected in some circumstances – for example, if they are located near a signalized intersection, a median island is present, and there are substantial gaps in traffic. Such crossings would not be appropriate, however, if a significant number of school children used the trail.

TYPE 2: DIVERT USERS TO EXISTING INTERSECTION

Crossings within 250 feet of an existing signalized intersection with pedestrian crosswalks are typically diverted to the signalized intersection for safety purposes. For this option to be effective, barriers and signing would be needed to direct trail users to the signalized crossings. In most cases, signal modifications would be made to add pedestrian detection and to comply with the American with Disabilities Act. In many cases the intersections are directly adjacent to the crossings and are not a significant problem for trail users.

Type 2 treatment example

TYPE 3: SIGNALIZED/CONTROLLED CROSSINGS

New signalized crossings are recommended for crossings more than 250 feet from an existing signalized intersection and where 85th percentile travel speeds are 45 mph and above and/or ADT's exceed 15,000 vehicles. Each crossing, regardless of traffic speed or volume, requires additional review by a registered engineer to identify sight lines, potential impacts on traffic progression, timing with adjacent signals, capacity, and safety.

Type 3 treatment example

Trail signals are normally activated by push buttons, but also may be triggered by motion detectors. The maximum delay for activation of the signal should be two minutes, with minimum crossing times determined by the width of the street and trail volumes. The

signals may rest on flashing yellow or green for motorists when not activated, and should be supplemented by standard advanced warning signs.

TYPE 4: GRADE-SEPARATED CROSSINGS

Grade-separated crossings are needed where ADT's exceed 25,000 vehicles, and 85th percentile speeds exceed 45 mph. Safety is a major concern with both overcrossings and undercrossings. In both cases, trail users may be temporarily out of sight from public view and may have poor visibility themselves.

Type 4 Undercrossing

Undercrossings, like parking garages, have the reputation of being places where crimes occur. Most crime on trails, however, appears to have more in common with the general crime rate of the community and the overall usage of the trail than any specific design feature.

Overcrossing

Design and operation measures are available which can address trail user concerns. For example, an undercrossing can be designed to be spacious, well-lit, equipped with emergency phones at each end, and completely visible for its entire length prior to entering.

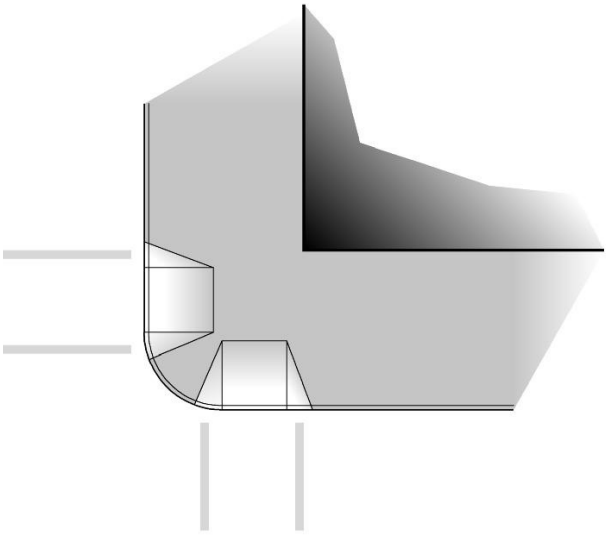
Other potential problems with undercrossings include conflicts with utilities, drainage, flood control, and maintenance requirements. Overcrossings may cause concerns about visual impact and functional appeal.

ADA ACCESSIBILITY

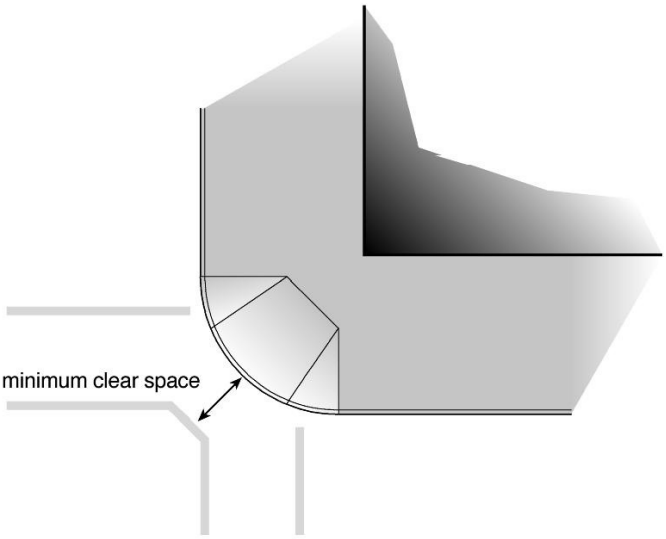
The basic trail needs for handicap accessibility is entryway ramping, a continuous smooth travel surface, and accessible pedestrian push buttons at roadway intersections. Trail characteristics such as grade, cross-slope and surface type all have an impact on its level of accessibility. The ramps themselves also require a variety of critical elements including tactile guide strips and detectable warning surfaces, to make them safely usable by the disabled community.

CURB RAMPS

Curb ramps provide critical access between the trail and the street for people with mobility impairments. They are most commonly found at intersections but may also be used at midblock crossings and medians. Curb ramps can be configured in a variety of patterns, depending on the location, type of street, and existing design constraints. They are categorized by their position relative to the curb line with the three most basic configurations called perpendicular, parallel and diagonal.



Two perpendicular curb ramps with level landings maximize pedestrian access at intersections.



When diagonal curb ramps are used, a clear space should be provided to allow wheelchair users enough room to maneuver into the crosswalk.

Although there are a variety of curb ramp designs, each type comprises some or all of the following elements:

Landing – level area of trail at the top of a curb ramp facing the ramp path.

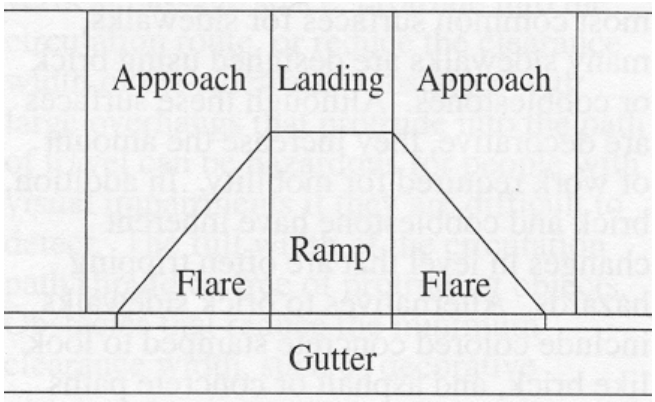
Approach – section of the accessible route flanking the landing of a curb ramp.

Flare – sloped transition between the curb ramp and the trail surface. (Flares are not considered an accessible path of travel because they are generally steeper than the ramp and often feature significant cross-slopes.)

Ramp - sloped transition between the street and the trail where the grade is constant and the cross-slope is at a minimum (preferably less than 2 percent)

Gutter – trough or dip used for drainage purposes that runs along the edge of the street and the curb or curb ramp.

Curb ramps should be designed to minimize the grade, cross-slope, and changes in level experienced by users. The Americans with Disabilities Act Accessibility Guidelines (ADAAG) states that the least severe slope should be used in every situation.



ADAAG requirements of a curb ramp are listed below:

1. Width of the ramp (36" min.)
2. Main slope of the ramp, perpendicular to the street (8.33% max.)
3. Cross-slope of the main part of the ramp, parallel to the street (2% max.)
4. Slope of each side, or flare, of the ramp, parallel to the street (10% max.)
5. Presence of 12" grooved border around all sides (required)
6. Depth of the top landing (48" min. - perpendicular ramps, 60" min. - parallel ramps)
7. Retaining curb at back of ramp, if required by site condition and type of ramp
8. Slope of the transition to the sidewalk (2% max. for 4-feet)
9. Ramp surface slip-resistant (required)
10. Truncated domes present if main slope is less than 6.67% (required)

11. Flush transition to street, without crack, lip, or abrupt changes (required)

12. Slope of gutter pan or street immediately in front of ramp

13. Bottom landing in street 48" x 48" min., with 5% max. slope, if applicable

14. Common landing for 2 ramps 48" x 48" min., with 2% max. slope, if applicable

15. Flared sides having at least 24" long segment of straight curb, if applicable

16. Curb ramp not located to be obstructed by parked vehicle (required)

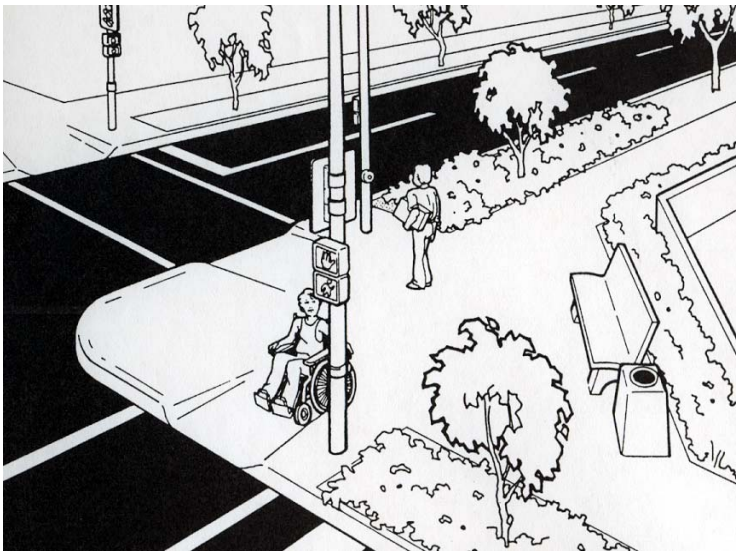
17. Presence of guide strips

SURFACE CONDITION

Condition of the trail surface and presence of obstructions or other hazards such as grates, railroad tracks and potholes make travel on the trail more difficult. Soft surfaces like sand and gravel are more difficult for all users to negotiate, but particularly hard for wheeled devices like wheelchairs, strollers and skateboards. High-use trails are commonly surfaced with pavement, crushed rock, or soil mixed with stabilizing agents to minimize the impact of the user traffic. The asphalt and limestone trail sections shown earlier in this report both provide good wheelchair access.

SIGNALIZED INTERSECTIONS

Whenever a trail crosses a signaled roadway, pedestrian demand signals should be placed at the top of each curb ramp to allow the user to stop vehicular traffic for safe crossing. All hardware for the signal should be located out of the walk zone, and sufficient sight lines must be provided for both vehicles and trail users. Audio/tactile pedestrian signal systems should be used in areas with large elder and disabled populations.



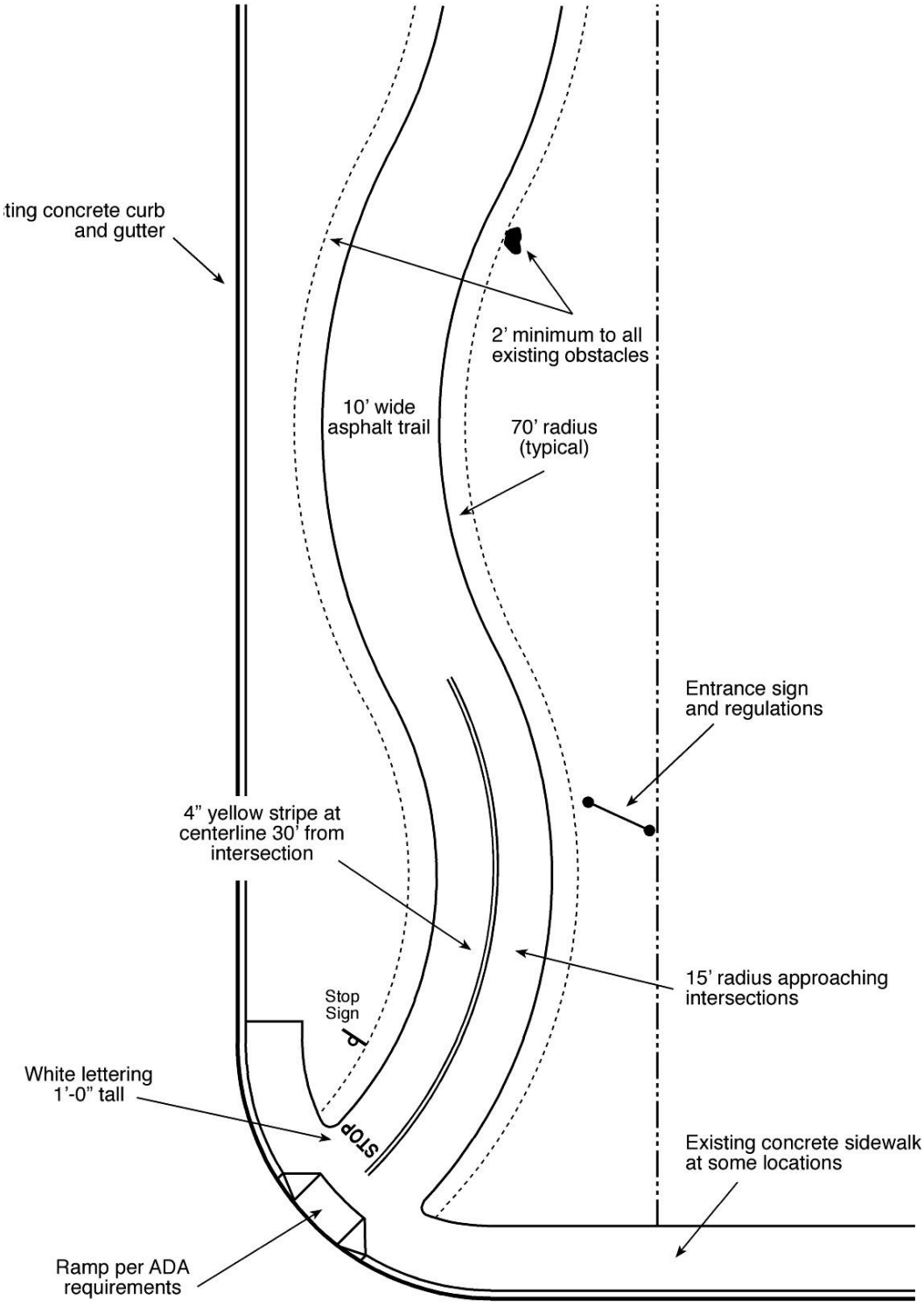


Figure A22	Multi-use Trail Intersection at Corner	GENESEE TRANSPORTATION COUNCIL

TRAILHEADS & AMENITIES

Trailheads can be an asset to a region's trail system, as they may feature a variety of amenities that will encourage use of the trails. The region's multi-use trails attract pedestrians, bicyclists, equestrians, joggers, skaters, dog walkers, and others. Trailheads and their amenities must therefore be designed to meet the needs of a diverse set of users. Typical amenities recommended at trailheads include the following:

- Informational kiosks with trail rules, maps, interpretative information, and hazards
- Restrooms
- Picnic shelters
- Drinking fountains
- Trash and recycling receptacles
- Auto and bicycle parking
- Handicapped parking spaces
- Equestrian amenities (horse trailer parking, water trough, hitching/mounting post)

The trails in the TMA already have some trail amenities and design details in use that can be developed into a regional theme, if desired. Use of a common aesthetic in developing the regional trails will be a valuable tool in creating a cohesive trail network, although for certain trails an individually distinctive design aesthetic may be more appropriate.

Figures A23 through A26 illustrate trailhead layout options for various locations and expectation of use, and examples of standard amenities.

Information kiosk on Canalway Trail

Picnic shelter along Genesee River Trail

Restrooms in Greece Canal Park

Neighborhood access points and spur trails connecting to primary regional trails enable community members to use the trails without relying on any forms of motorized transportation to reach them. Access points must be designed to address local concerns related to attracting non-residents to isolated or secluded neighborhoods, parking, noise, lighting, and private property trespassing. Trail entry points can be identified by many techniques, including vegetation, bollards, fencing, signage, and seating.

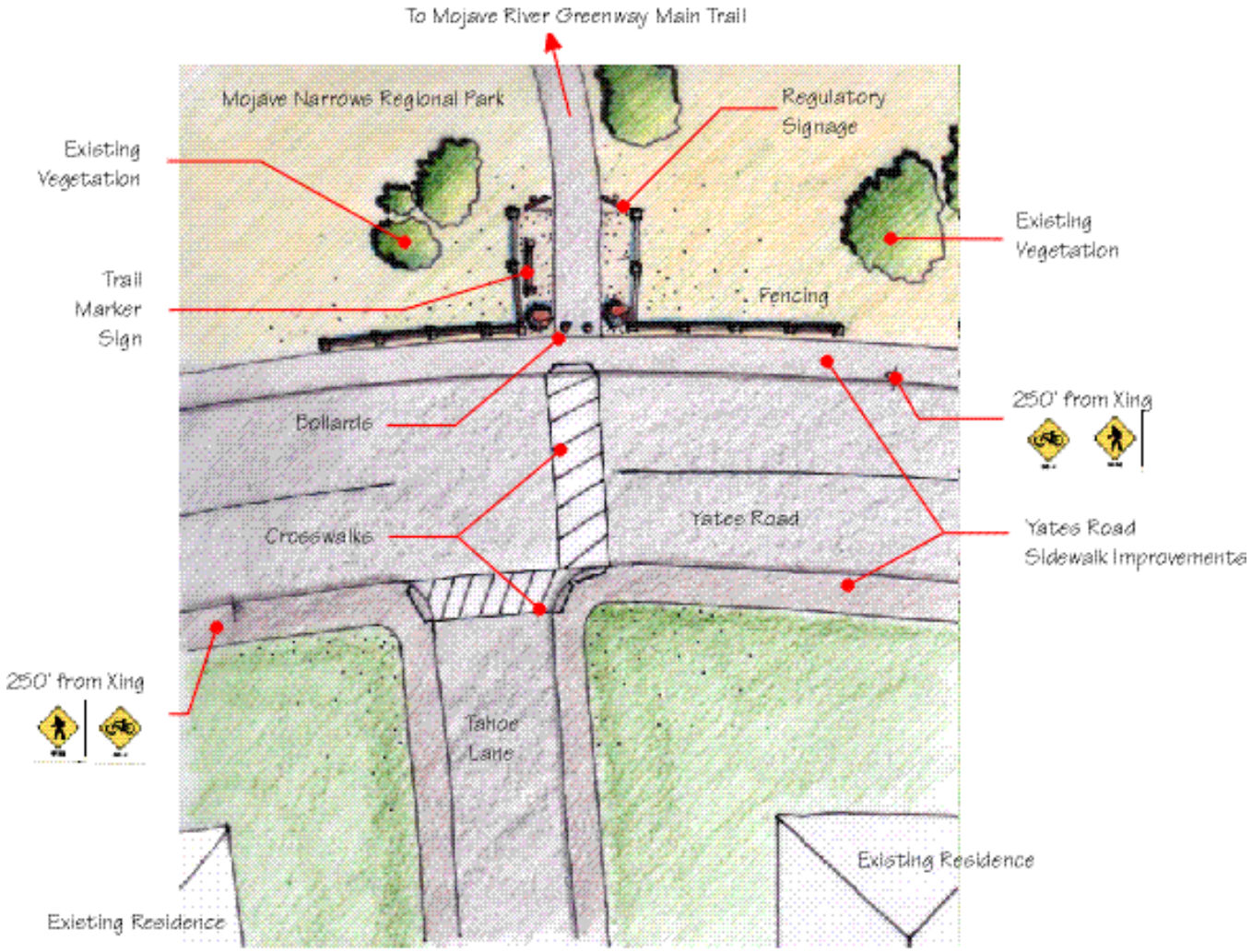


Figure A23	Neighborhood Trail Access	GENESEE TRANSPORTATION COUNCIL

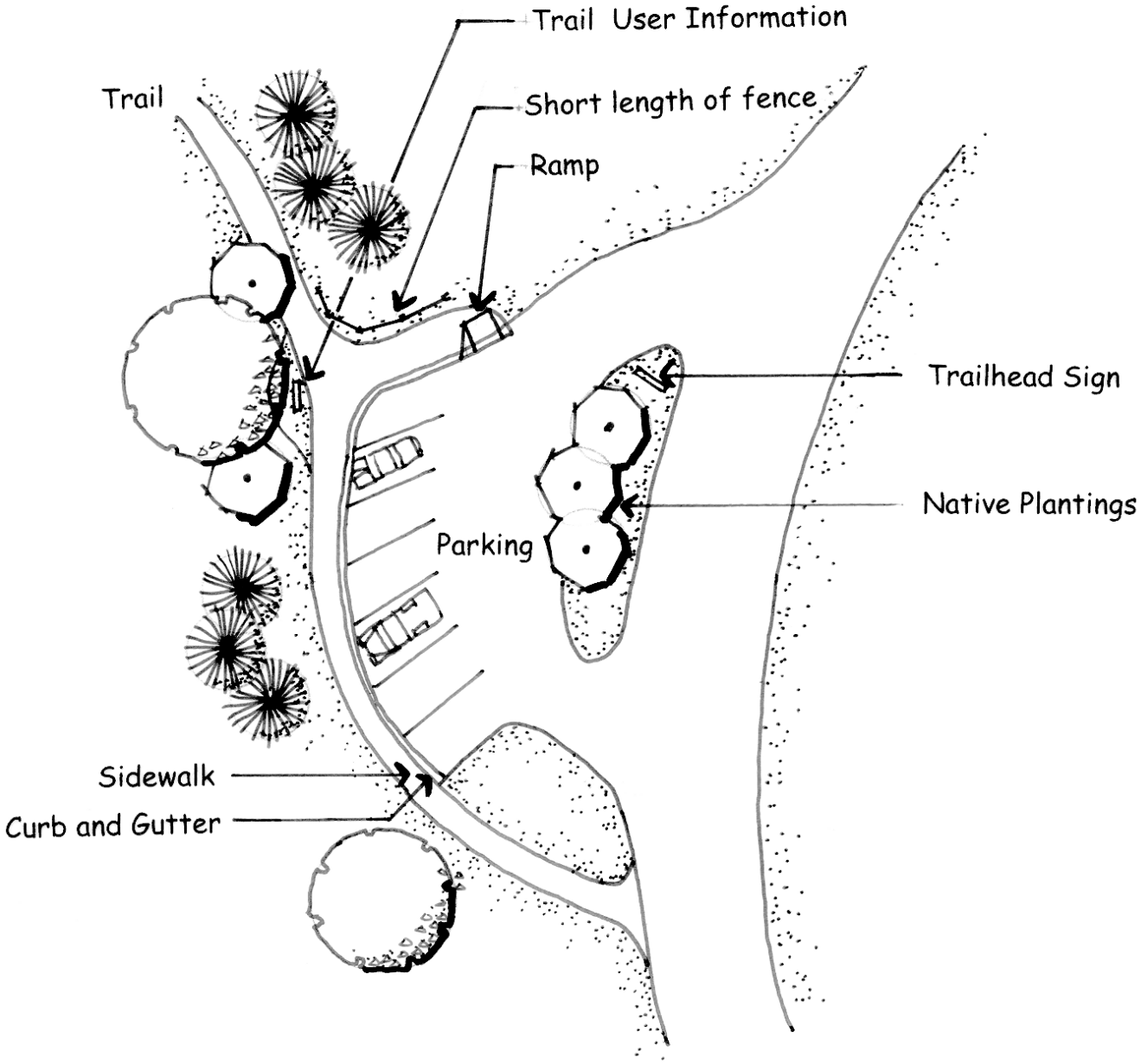


Figure A24	Small Trailhead with Parking	GENESEE TRANSPORTATION COUNCIL

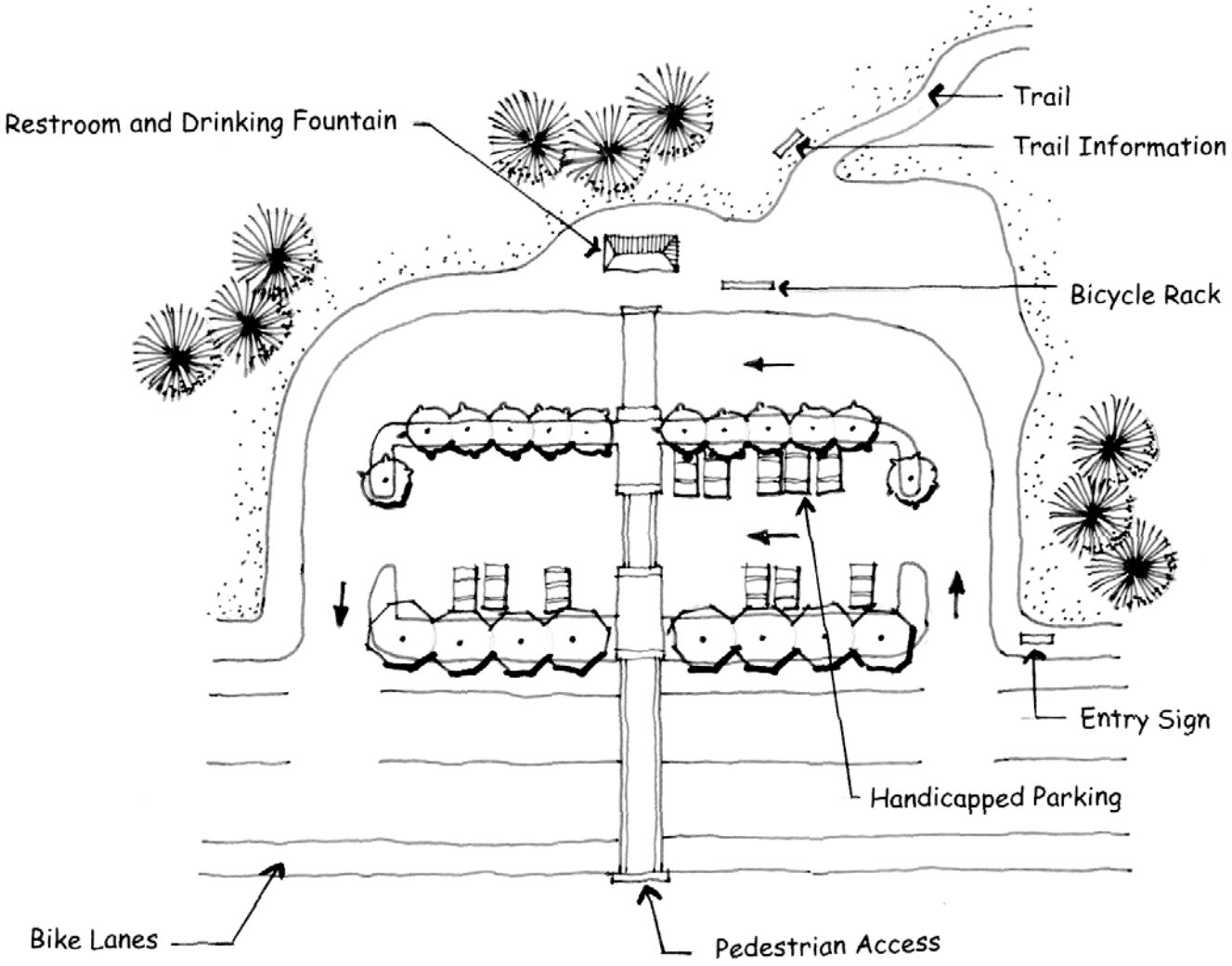


Figure A25	Major Trailhead with Parking	GENESEE TRANSPORTATION COUNCIL

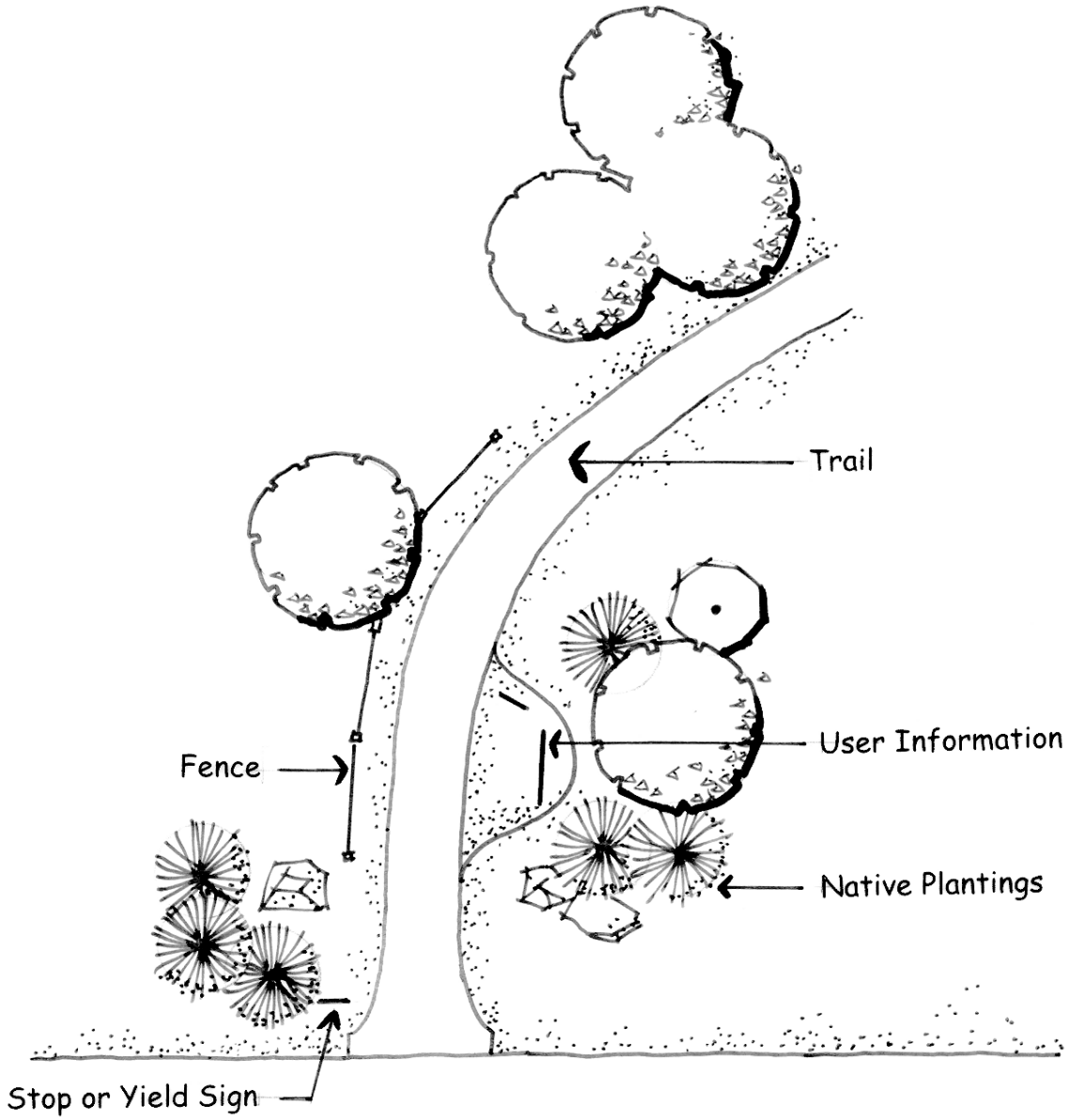
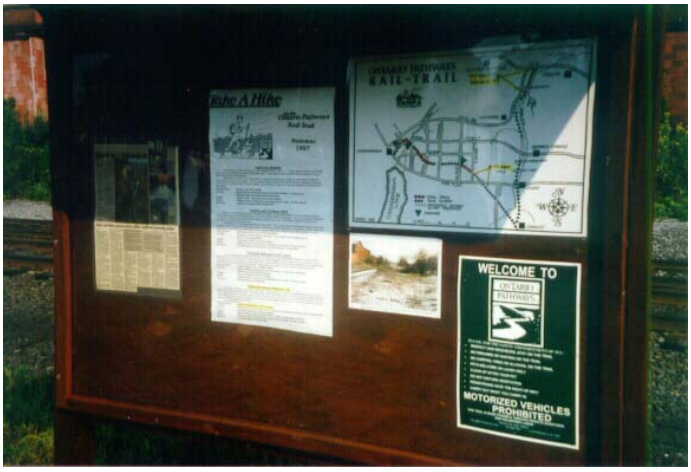


Figure A26	Trail Entry Staging Area	GENESEE TRANSPORTATION COUNCIL

Information kiosks are the primary sign used for orienting and informing visitors about a place or trail system. These signs contain information pertaining to the region, park, community, trail segment, etc. that is being entered.

They typically contain area maps, brochures, regulations, restoration/volunteer activities, international symbols and local interpretive information. Interpretive signs often also appear along trails at points of interest.



An informational kiosk on the Ontario Pathways Trail

Posted trail regulations are critical for public safety and law enforcement. They should also identify the agencies responsible for addressing emergencies, vandalism or maintenance issues, and trail improvement suggestions.

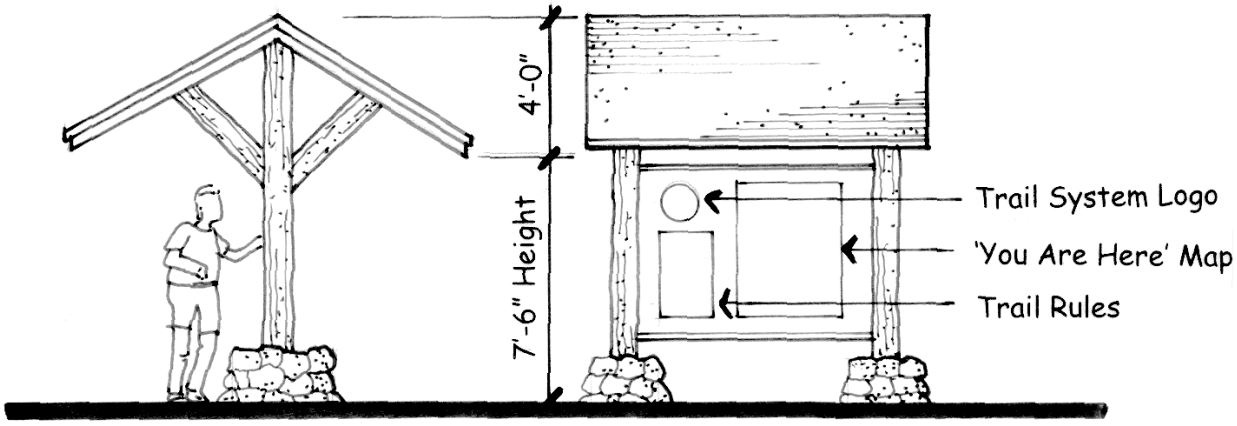
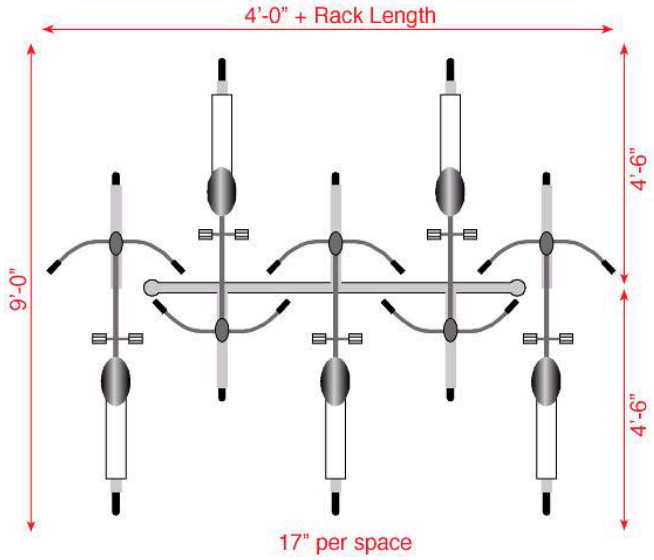
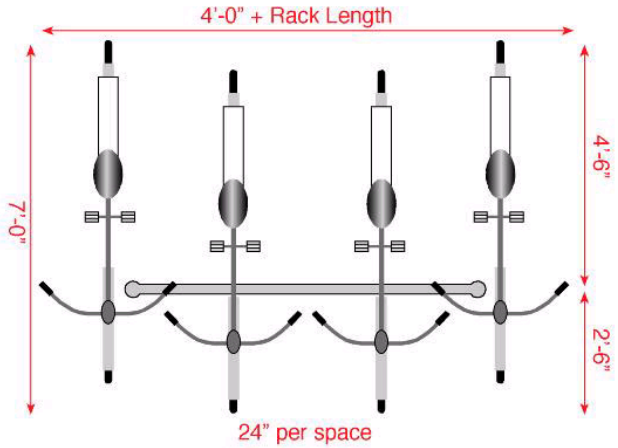


Figure A27	Information Kiosk	GENESEE TRANSPORTATION COUNCIL

Ribbon, Spiral, or Freestanding Racks
(with access from opposing sides)



Ribbon, Spiral, or Freestanding Racks
(with access from only one side)



Hitching Post or Staple Racks

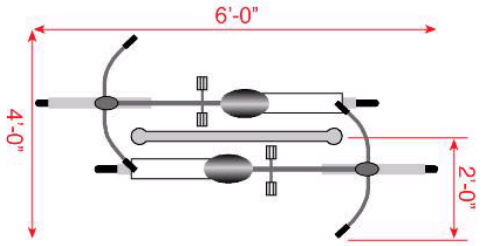


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Figure A28	Bicycle Racks	GENESEE TRANSPORTATION COUNCIL

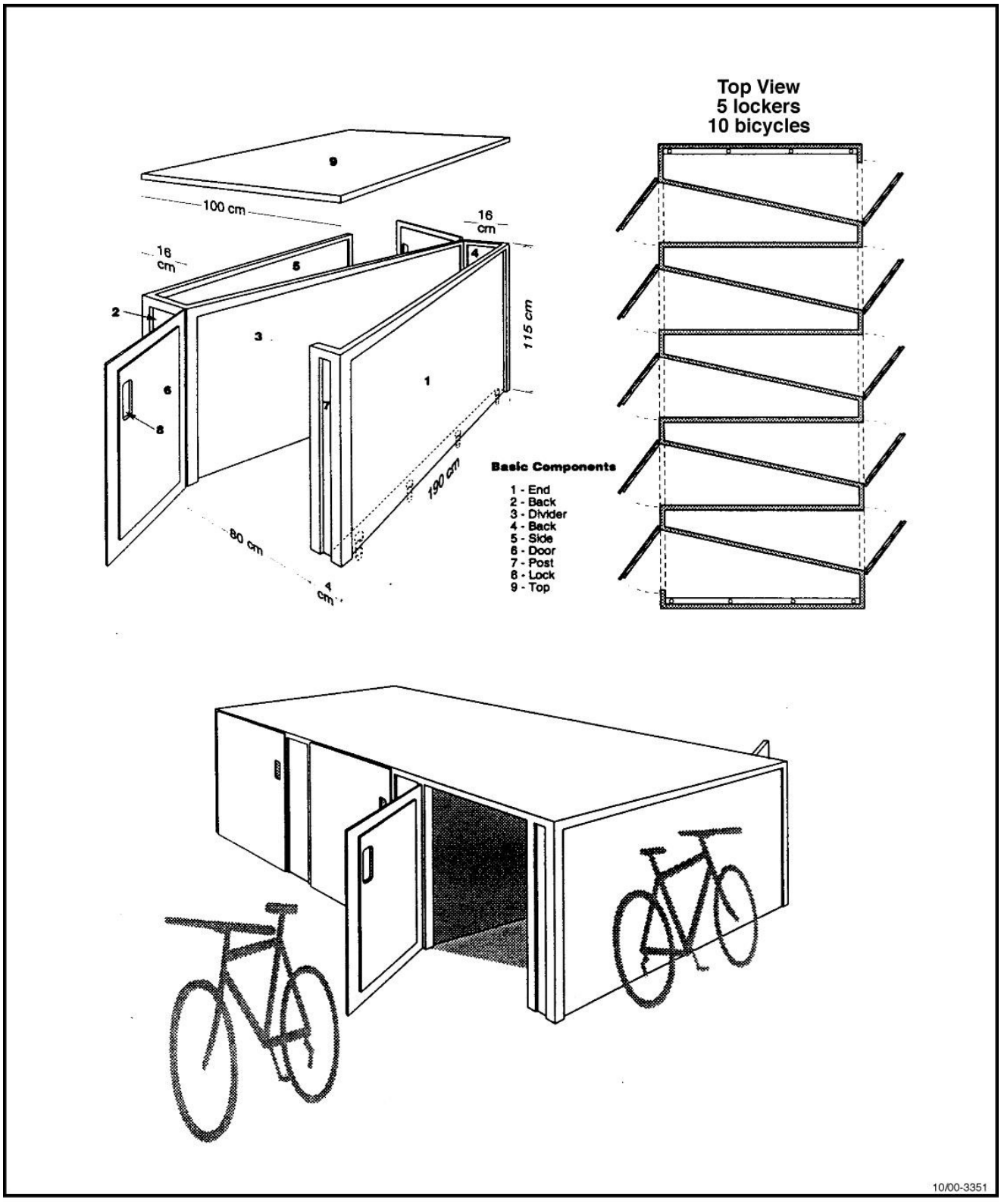


Figure A29	Bike Lockers	GENESEE TRANSPORTATION COUNCIL

SIGNAGE

Signage is important to both trail function and trail identity. They can inform users where the trails are, identify a trailhead, and provide trail users with important information about trail safety, hours of operation, history and interpretation, directional and destination information, and basic operational standards such as when to stop or yield for other users. Major trailheads or trail junctures are critical locations for these informational signs.

Signage can also provide a trail with a unique identity by the repetitive use of a regional logo or material. Consistency throughout the region for any sign program developed is critical. The TMA currently has a variety of signage types in use, as shown on this page.

All signs should be made with high quality construction materials that will be vandal-proof and weather resistant. They must also be easy to maintain and aesthetically pleasing. Wood, concrete, and metal are typical sign materials. Of these, wood may look most compatible in a natural environment, but concrete and metal may be the most vandal-proof. Ceramic signs (mounted to another backing material) are becoming a popular solution for enduring and attractive signage.

Location of signage is critical for them to actually be read by trail users. Some typical heights and locations of signs near trails are shown in Figures A30 through-A32. On paved trails, signs may be painted on the trail surface, rather than or in addition to, a sign on a post. Signs used to warn motorists of an upcoming trail intersection must be easily read from the street to provide adequate stopping distance.

Directional signing should be used at interesctions with roads or other trails, and where trails could be confused. For motorists, a sign reading "Bicycle Trail Xing" along with a trail emblem or logo will help to both warn and promote use of the trail itself. For trail users, directional signs with street or trail names at

crossings and distances to the next town, trail intersection or destination are very helpful.

Interpretative signage is generally located along trails to provide information relevant to the local plants, wildlife, historic landmarks, points of interest, features and cultural issues.

Crossing signage should be located at all roadway/trail intersections and include warning signs both for vehicles and trail users. The type, location, and other criteria are identified in the Manual for Uniform Traffic Control Devices (MUTCD). Consideration must be given for adequate warning distance based on vehicle speeds and line of sight, with visibility of any signing absolutely critical. Catching the attention of motorists jaded to roadway signs may require additional alerting devices such as a flashing light, roadway striping, or changes in pavement texture. Signing for trail users must include a standard "STOP" sign and pavement marking, sometimes combined with other features such as bollards or a kink in the trail to slow trail users. Care must be taken not to place too many signs at crossings or they may lose their impact.

A number of **striping patterns** have emerged over the years to delineate trail crossings. A median stripe on the trail approach will help to organize and warn trail users. The actual crosswalk striping is a matter of local and state preference, and may be accompanied by pavement treatments to help warn and slow motorists. The effectiveness of crosswalk striping is highly related to local customs and regulations. In communities where motorists do not typically defer to pedestrians in crosswalks, additional measures may be required.

All bikeway signing in the TMA should conform to the signing identified in NYSDOT's Manual of Uniform Traffic Control Devices. Any new signs and markings included in the 2000 Federal MUTCD, but not covered under the State's MUTCD, are also accepted. These documents give specific information on the type and location of signing for the primary bike system. A list of bikeway signs from the Federal MUTCD are shown in Figure A30.

Item	Location	Color	MUTCD Designation
No Motor Vehicles	Entrances to trail	B on W	R5-3
Use Ped Signal/Yield to Peds	At crosswalks; where sidewalks are being used	B on W	R9-5 R9-6
Bike Lane Ahead: Right Lane Bikes Only	At beginning of bike lanes	B on W	R3-16 R3-17
STOP, YIELD	At trail intersections with roads and Coastal Bikeways	W on R	R1-1 R1-2
Bicycle Crossing	For motorists at trail crossings	B on Y	W11-1
Bike Lane	At the far side of all arterial intersections	B on W	D11-1
Hazardous Condition	Slippery or rough pavement	B on Y	W8-10
Turns and Curves	At turns and curves which exceed 20 mph design specifications	B on Y	W1-1,2 W1-4,5 W1-6
Trail Intersections	At trail intersections where no STOP or YIELD required, or sight lines limited	B on Y	W2-1, W2-2 W2-3, W2-3 W2-4, W2-5
STOP Ahead	Where STOP sign is obscured	B,R on Y	W3-1
Signal Ahead	Where signal is obscured	B,R,G	W3-3
Bikeway Narrows	Where bikeway width narrows or is below 8'	B on Y	W5-4
Downgrade	Where sustained bikeway gradient is above 5%	B on Y	W7-5
Pedestrian Crossing	Where pedestrian walkway crosses trail	B on Y	W11A-2

Figure A30	Recommended Bikeway Signage	GENESEE TRANSPORTATION COUNCIL

Item	Location	Color	MUTCD Designation
Restricted Vertical Clearance	Where vertical clearance is less than 8'6"	B on Y	W11A-2
Railroad Crossing	Where trail crosses railway tracks at grade	B on Y	W10-1
Directional Signs (i.e. U.C. Davis, Downtown, Train Station, etc.	At intersections where access to major destinations is available	W on G	D1-1b(r/l) D1-1c
Right Lane Must Turn Right; Begin Right Turn Here, Yield to Bikes	Where bike lanes end before intersection	B on W	R3-7 R4-4
Trail Regulations	All trail entrances	B on W	n/a
Multi-purpose Trail: Bikes Yield to Pedestrians	All trail entrances	n/a	n/a
Bikes Reduce Speed & Call Out Before Passing	Every 2,000 feet	B on W	n/a
Please Stay On Trail	In environmentally-sensitive areas	n/a	n/a
Caution: Storm Damaged Trail	Storm damaged locations	B on Y	n/a
Trail Closed: No Entry Until Made Accessible & Safe for Public Use	Where trail or access points closed due to hazardous conditions	n/a	n/a
Speed Limit Signs	Near trail entrances: where speed limits should be reduced from 20 mph	B on W	n/a
Trail Curfew 10PM - 5AM	Based on local ordinance	R on W	n/a

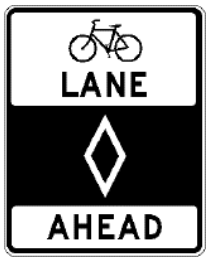


Figure A30 (continued)	Recommended Bikeway Signage (Continued)	GENESEE TRANSPORTATION COUNCIL

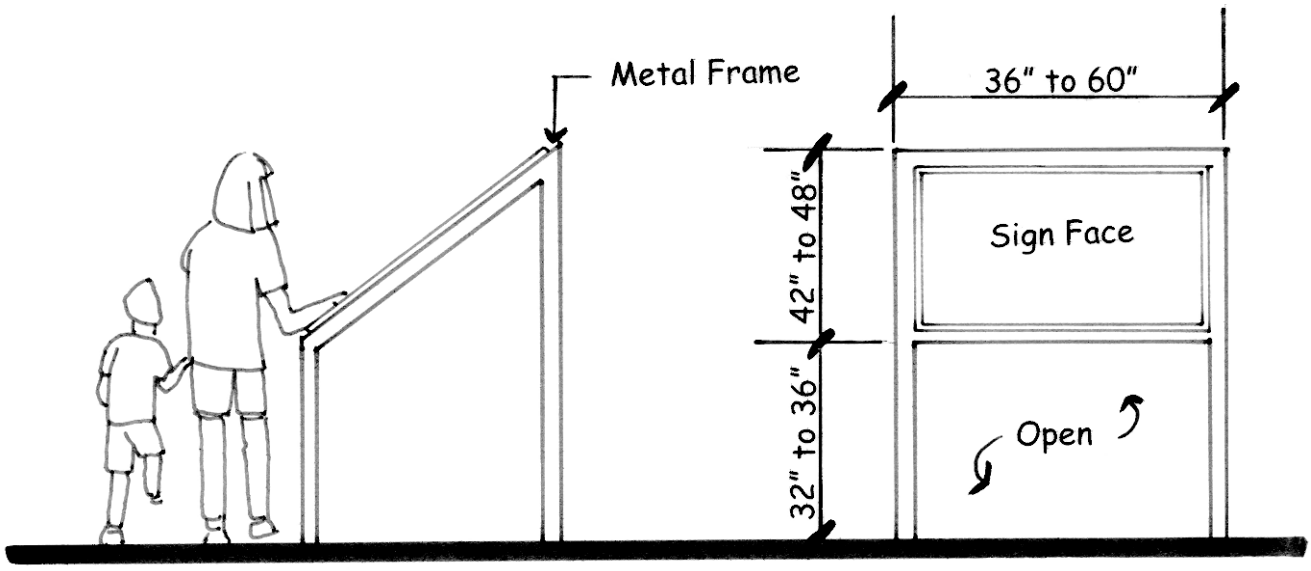


Figure A31	Interpretive Signage	GENESEE TRANSPORTATION COUNCIL

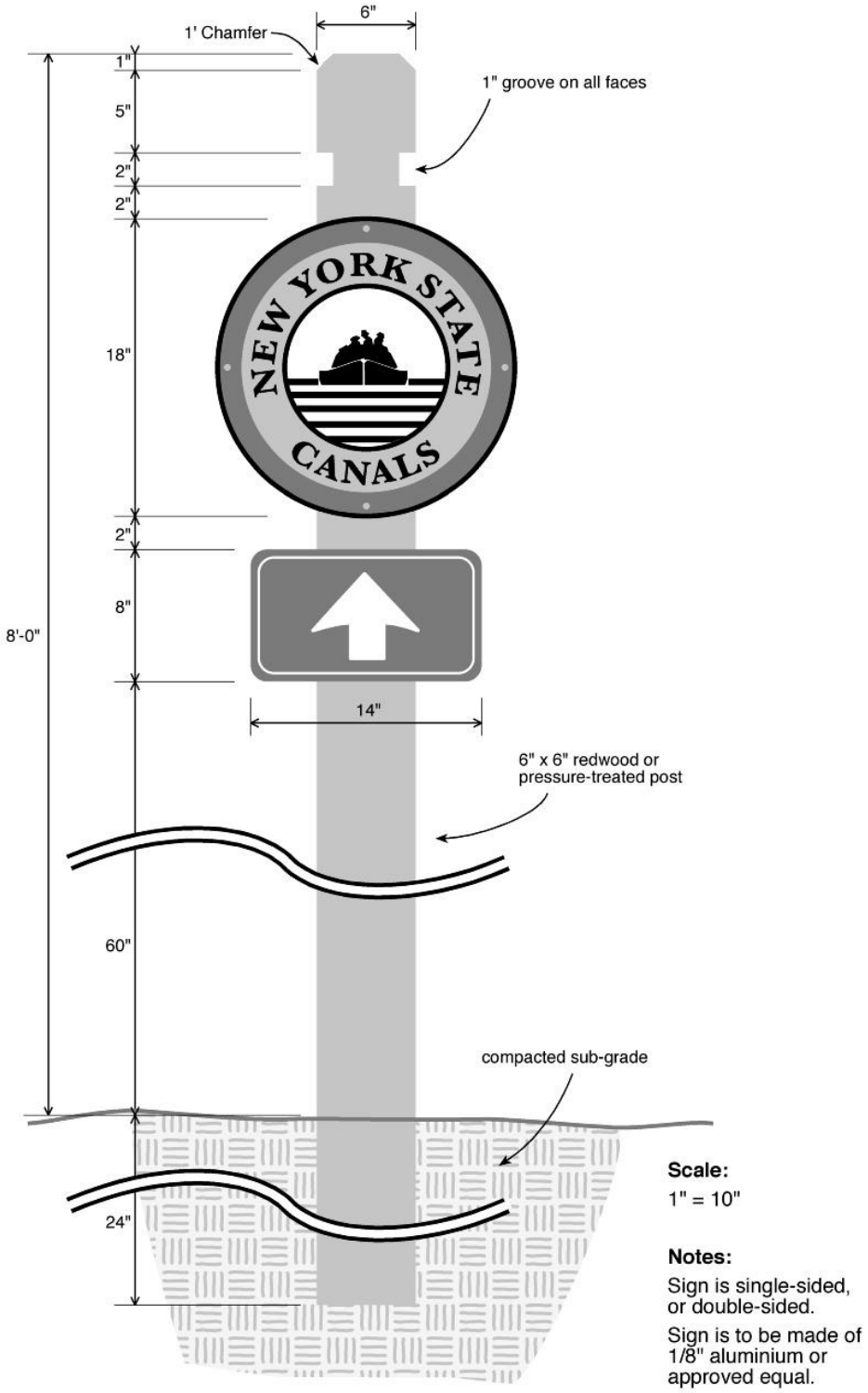


Figure A32	Typical Trail Marker	GENESEE TRANSPORTATION COUNCIL

FENCES, GATES & OTHER BARRIER TREATMENTS

Trail barriers can serve a variety of functions throughout the regional trail system, and can be made of many different materials. In some areas, gates will be desired to mark a trail entryway, in other areas fencing will be used to keep trespassers out of adjacent private property, and vegetation can serve either a barrier or aesthetic function along trails. Fencing style varies considerably, from chain link to wire, wrought iron, vinyl, steel picket, and wooden rail (Figure A33).

Gates currently in use at Canalway Trail trailheads

In the case of separating a trail from an active railroad, trail developers should adhere to the request or requirements for fencing by the railroad company. Except where a railroad company has requested something different, Rail with Trails should be separated by a fence when less than 7.6 m (25 ft) exists between the trail and a track with moderate or high train speed and frequency. Fencing height ranges from 0.8 m (36 in) to 1.8 m (72 in), although the typical height is 0.8 to 1.2 m (36 to 48 in).

VEGETATION BARRIERS

Whether natural or planted, vegetation can serve as both a visual and physical barrier between a trail and its surroundings. The density and species of plants in a vegetative barrier determine how effective the barrier can be in deterring potential trespassers from entering neighboring properties. A dense thicket can be, in some cases, just as effective as a fence (if not more so). Industrial and commercial areas adjacent to trails should be screened by native vegetation buffers when the facilities are considered unaesthetic.

It is important to establish vegetative buffers between trails, streams and wetlands, to minimize the disturbances to these environments. It is recommended to establish riparian and streamside management zones within which trail influences such as drainage, disturbance and trail width are thoughtfully designed, and effects on riparian habitats are minimized. Ornamental landscaping should be avoided in 'natural' trail environments.

Planted barriers typically take a few years before they become effective barriers. Separation between the trail and the property or environment may need to be augmented with other

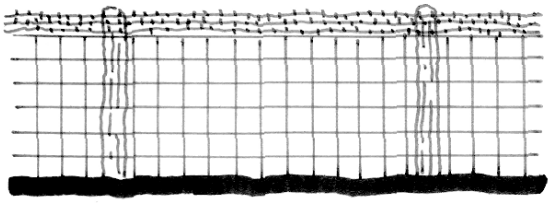
temporary barriers until planted trees and hedges have sufficiently matured. Native plants are recommended.

FENCES AND WALLS

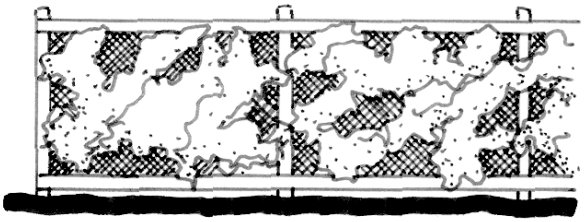
Fences and walls are the most common type of physical barrier used along trail corridors. The height and type of material used on these barriers determines their effectiveness in discouraging trespassing. A tall wall or fence constructed with materials that are difficult to climb should deter all but the most determined trespasser. Walls are often the most expensive barrier option to construct, and are recommended only where trail user safety or trail stability would be improved.

Use of wood fencing at Canalway Trail trailhead

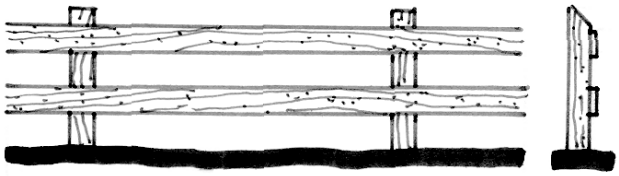
Particularly for an urban trail in an area with crime problems, it may be important to maintain visual access to the trail corridor from adjacent land uses, so that portions of the trail do not become isolated from public view. Fence design in these instances should not block visual access to the trail corridor. Tall fences that block views can cause sight distance problems at intersections with roadways – both for motorists who must be able to view approaching trail users, and for trail users who need adequate sight lines to view traffic conditions.



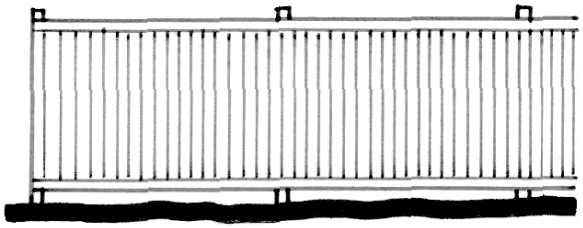
Stock Fence



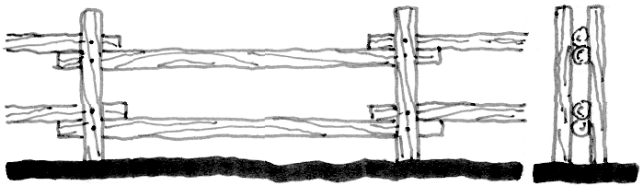
Wood and Chain Link with Vine Planting



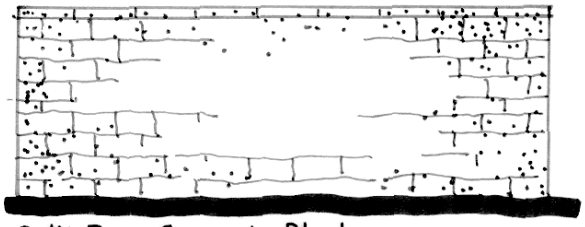
Two Rail Fence



Solid Wood Fence



Log Fence



Split Face Concrete Block

Figure A33	Fence Types	GENESEE TRANSPORTATION COUNCIL

Collapsible bollards are appropriate at trail locations where access control is important but regular entry is anticipated by maintenance, law enforcement, or emergency services vehicles. The bollards can be quickly folded to ground level, providing sufficient clearance for even low vehicles. Current models are operable with a simple wrench/key device. Collapsible bollards can be substituted for fixed bollards at any trail location.

Photo Image

Detail

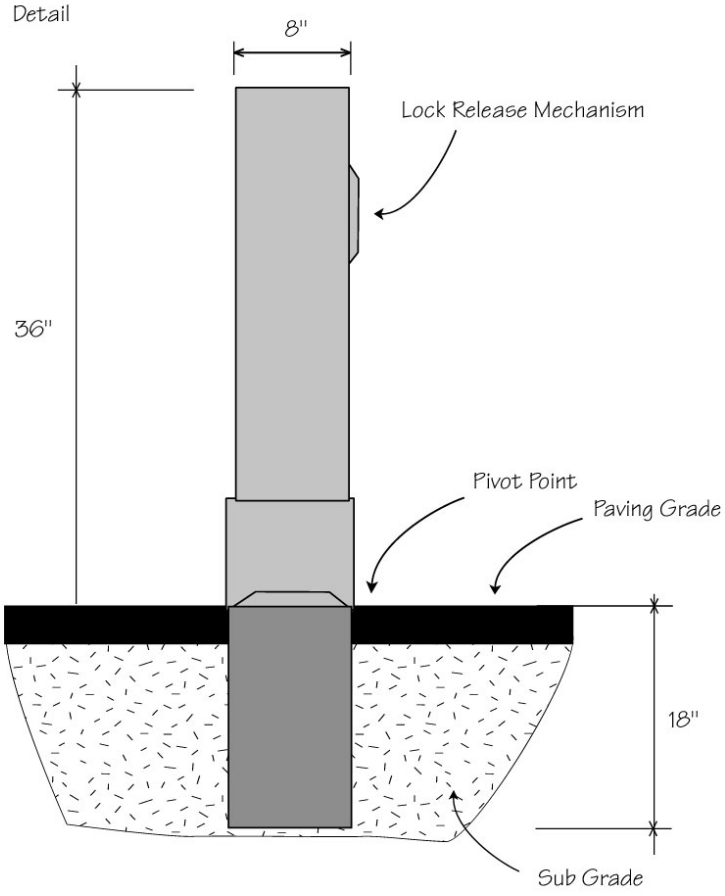


Figure A34	Collapsible Bollard	GENESEE TRANSPORTATION COUNCIL

Fixed bollards are utilized at trailheads, neighborhood access points and trail intersections where vehicular access to the trail is prohibited. Bollards can be very helpful in urban and suburban areas for keeping unwanted vehicles off of highly used trails, thereby preserving the safety of its users. In rural locations where there is easy access to trails from adjacent lands, bollards may not serve a meaningful purpose.

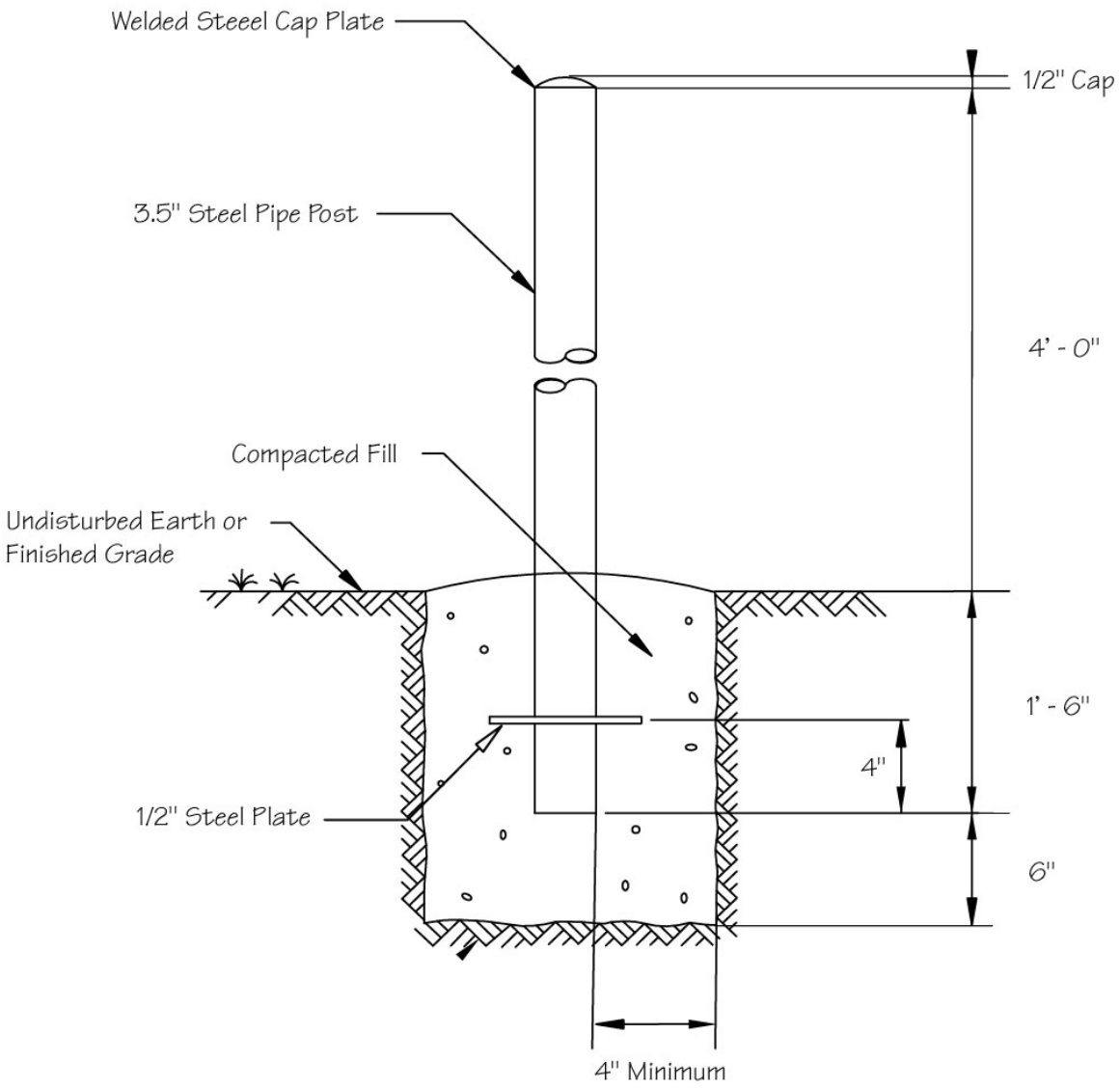
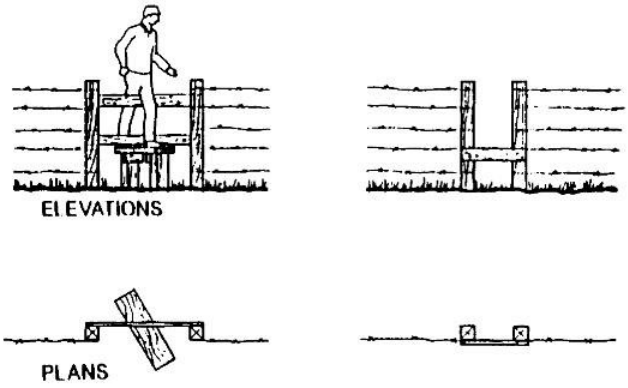
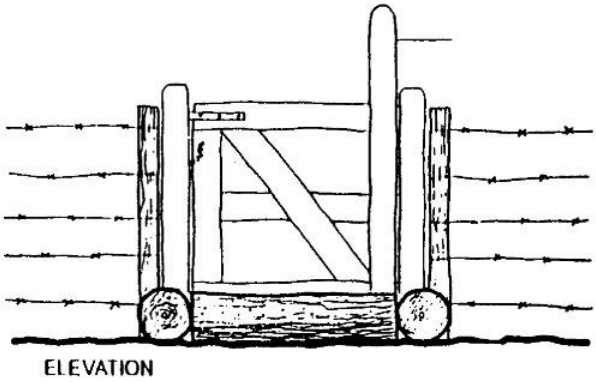


Figure A35	Fixed Bollard	GENESEE TRANSPORTATION COUNCIL

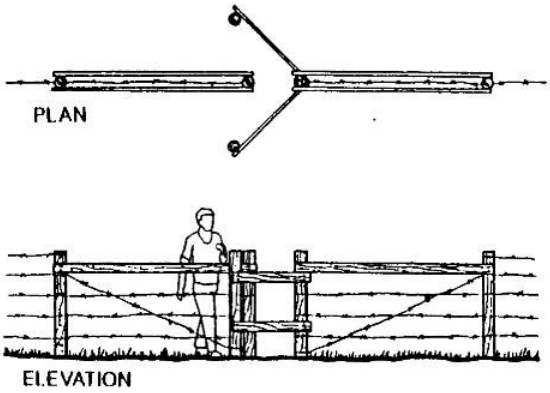
Step-Over Hiking Stiles



Self-Closing Trail Gate (with motorcycle barrier)



Walk-Through Hiking Stile



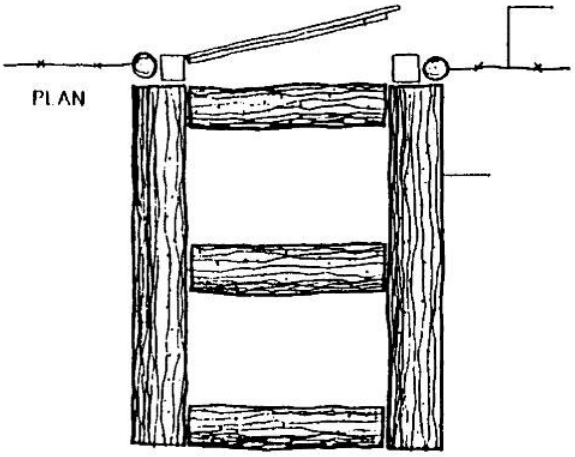


Figure A36	Trail Stiles and Gates	GENESEE TRANSPORTATION COUNCIL

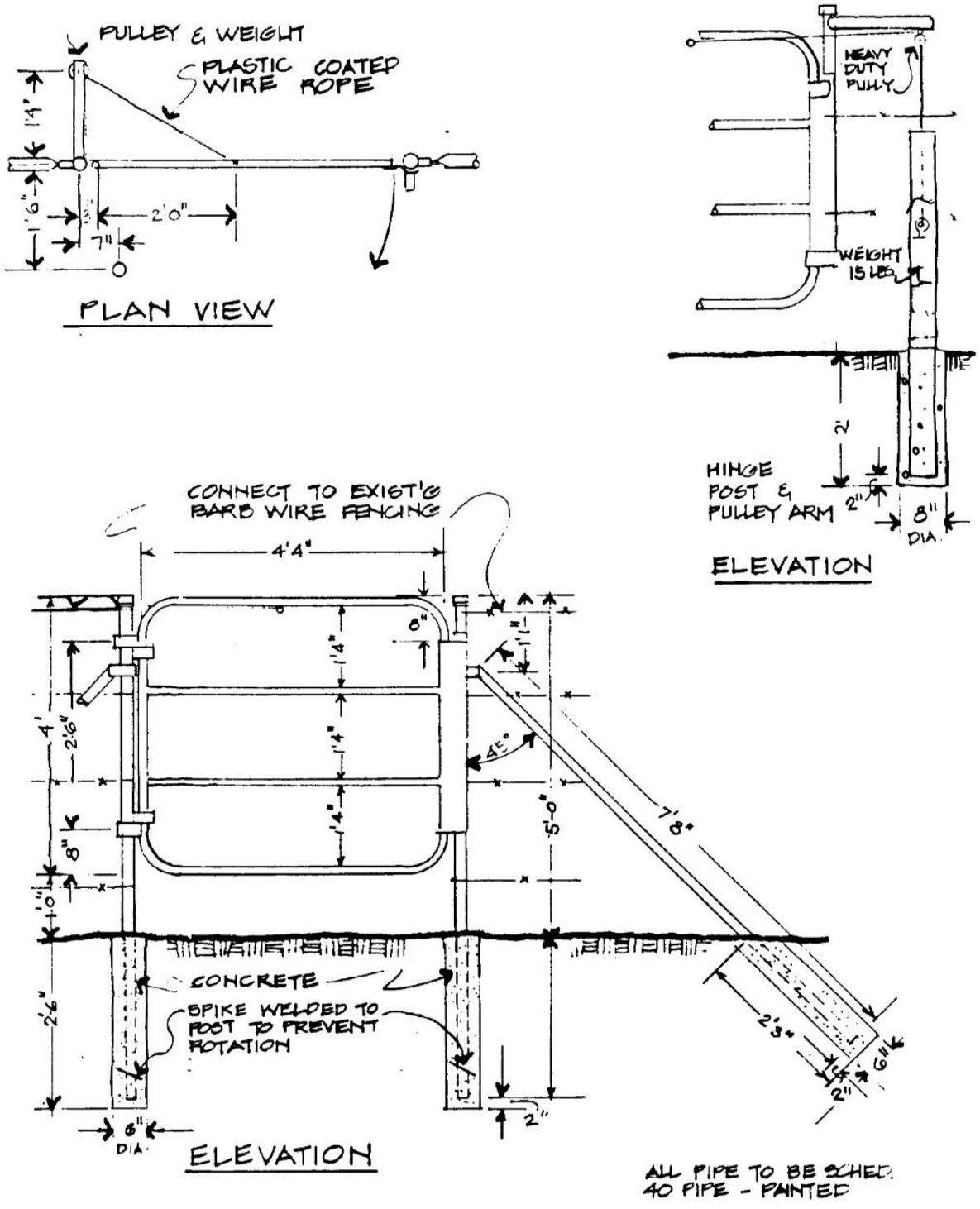


Figure A37	Self-closing Steel Gate	GENESEE TRANSPORTATION COUNCIL

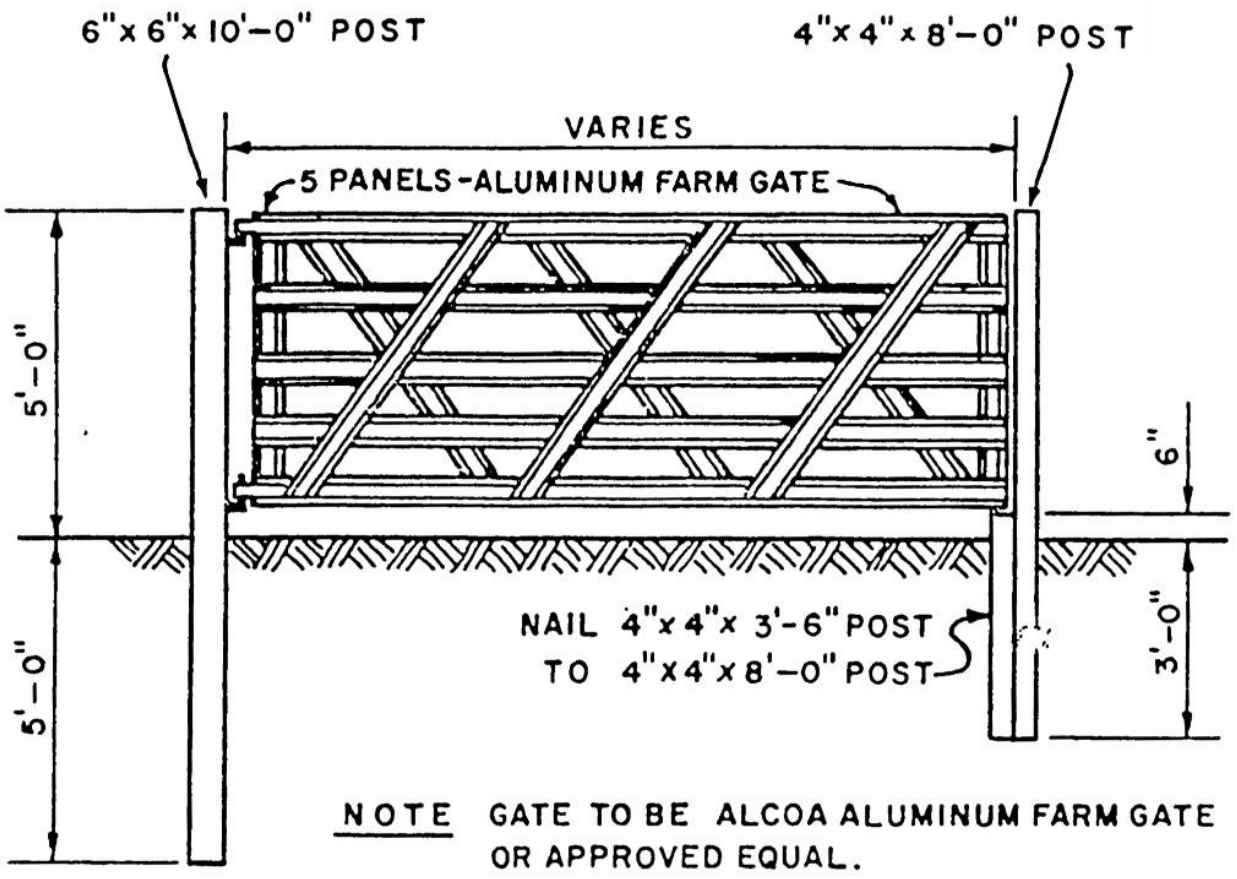
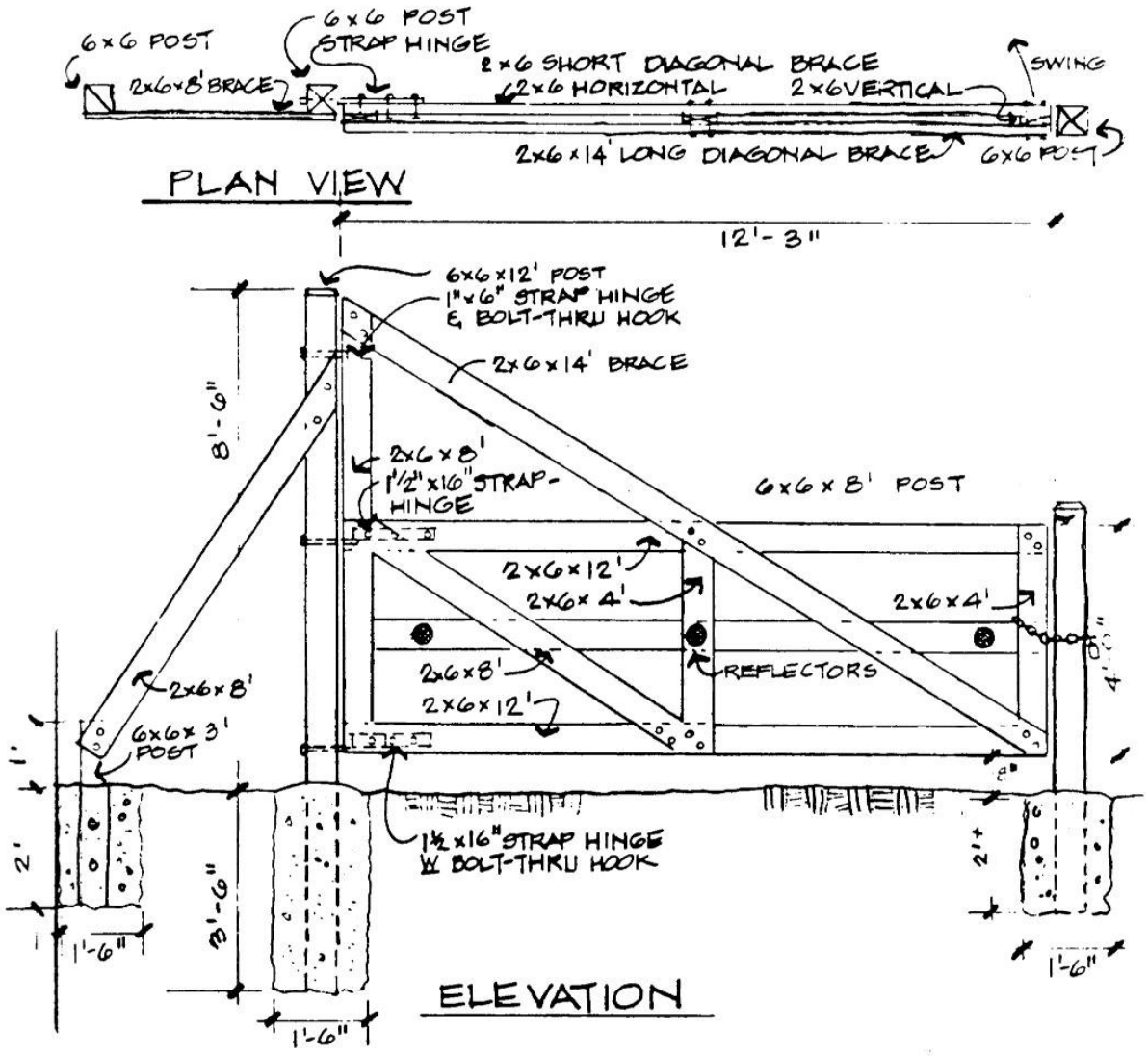


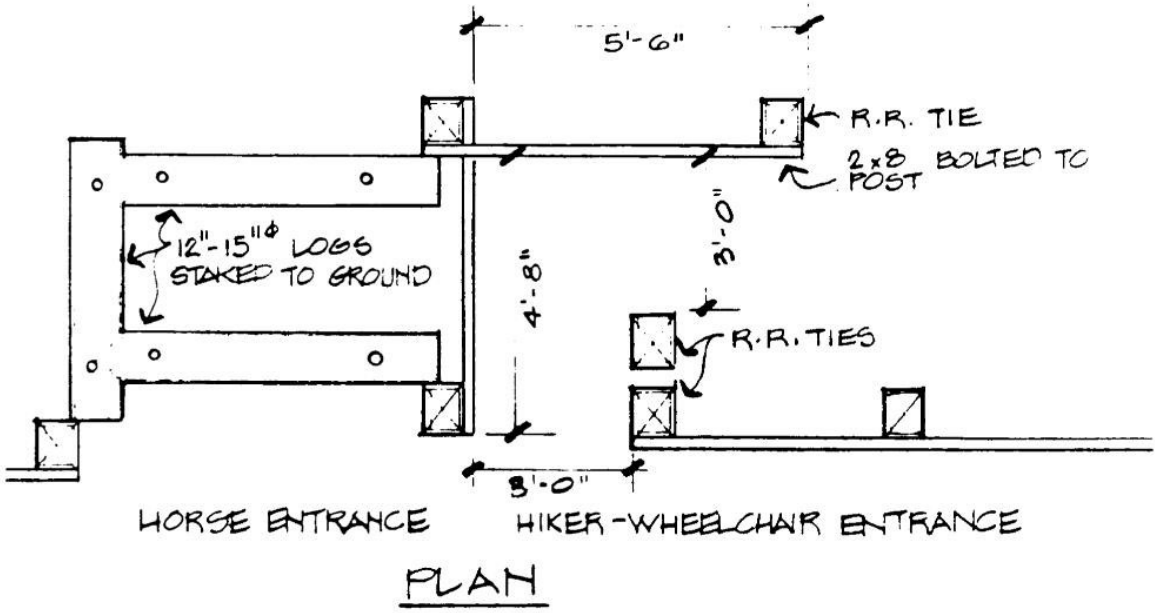
Figure A38	Metal Gate	GENESEE TRANSPORTATION COUNCIL



NOTES

ALL WOOD TO BE ROUGH-REDWOOD OR P.T. DOUG. FIR
ALL HARDWARE TO BE GALV.
USE WASHERS W CARRIAGE BOLTS

Figure A39	Wood Vehicular Gate	GENESEE TRANSPORTATION COUNCIL



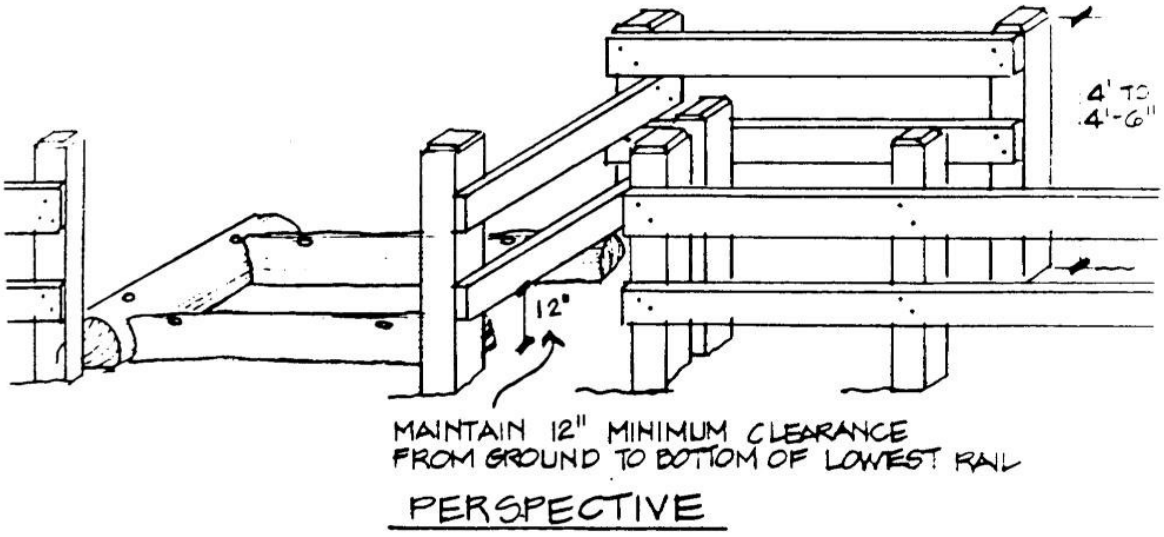


Figure A40	Motorcycle Barrier	GENESEE TRANSPORTATION COUNCIL

UNIQUE FEATURES

The Greater Rochester area public made many comments requesting the incorporation of public art along the regional trails. Public art can be a contentious issue, as it is always difficult to please the majority of tastes with any single piece of art. Community art projects may receive greater support than the selection of a single artists' work, since the local populace would have a participatory role in the selection and/or creation of the art to be installed.

Opportunities for physically displaying art are many, and depending on the type of art installed (sculpture, painting, mosaics, structures, etc.) and the materials they are made of (ceramic, metal, wood, tile, stone, etc.), the art work(s) can be temporary elements or permanent installations. Small art works best seen up close can be located immediately adjacent to the trail within any landscaping or shoulder, and larger pieces can be placed at a distance within any adjacent land area within the trail corridor. The trail management agency or property owner must, of course, be alerted to any desire for a public art installation, as liability or other issues may be of concern to them.

Some opportunities for public art displays include:

1. Enhancement of utility boxes, trash receptacles, or other utilitarian elements through a community painting project.

2. Insets of tile mosaics at urban paved trailheads, trail junctures, or picnic areas

3. Development of unique information kiosks throughout the region through a local artists competition

4. Well crafted sculpture that interprets the community/regional history or natural resources

5. Rotating local art exhibits along trail segments that change with the seasons, holidays, or other locally relevant events

6. Children's decorative tile displays installed permanently on concrete structures or furniture pieces (benches, tables, walls, etc.)

7. Creative wall exhibits on restroom facilities

APPENDIX B

PUBLIC INPUT – NOVEMBER/DECEMBER 2001

PUBLIC COMMENTS – FALL/WINTER 2001

The following comments were received verbally from the public at the fall and winter 2001 public workshops. Written comments received at the meetings or after the meetings are summarized separately in Appendix D. In order to gauge which trail issues are of the most concern to the public, meeting participants were asked to prioritize the comments given during the meeting. The top five priorities from each meeting are indicated below in ***bold and italicized text.***

GREECE CANAL PARK PUBLIC INPUT WORKSHOP – NOVEMBER 13, 2001

EXISTING TRAILS/CONDITIONS

- ***Bumps on the trails are a problem—maintenance needs to be improved***
- The Genesee Valley Greenway trail has poor parking; the Brooks Road parking area for the Greenway is regularly used as a teenage party location (lots of litter)
- The Canal Corporation does little to maintain the Canalway Trail; they tend to look to the local communities or volunteers to maintain their system
- Thankful for the City of Rochester's initiative to repave a 1.4 mile section of the Canalway Trail this summer with their own funds
- Trails are often too circuitous to be efficient for transportation purposes

NEW TRAILS/DESIRED CONNECTIONS

- ***Need more trail loops developed, connections to other trails, and variety of trail types***
- Would like to utilize both the trails and safer streets to create loops and connections

TRAIL AMENITIES/ANCILLARY FACILITIES

- ***Trails need better facilities: water fountains, rest rooms, information kiosks, parking areas, trash receptacles. Landscaping (flowerbeds, etc.) is also desired.***
- More parking areas need to be added for people to access trails. Parking vehicles along road shoulders can create hazardous conditions on some roadways
- Bicycle parking along the trails is needed so one can dismount and enjoy the surroundings

- Parks located along trails have poor bicycle facilities and generally no bicycle parking
- Landscaping along trails would be nice, improve the setting

TRAIL SAFETY AND SECURITY

- ***Security in trail parking lots should be improved, especially at the Canalway Trail parking areas off Edgewood Avenue, South Clinton Avenue, and Clover Street. Break-ins during the day are common.***
- Bicycle patrols (like the City's Park Rangers and the Brighton Police bicycle patrol) on area trails are great idea but we need more of them
- Pedestrians have the right of way on trails – this needs to be clearly stated
- Pedestrians should be separated from bicycles on trails – the difference in speed between these users makes sharing the trail space unsafe sometimes
- Paved trails increase speed and often prove unsafe, especially for older people using trails
- The Canalway Trail is too crowded at times and often users are oblivious to others, creating unsafe conditions on the trails
- General concerns about personal security (i.e. muggings on trails)
- There is a wider variety of user types and skill levels on trails – need to be take this into consideration when planning and building trails

GENERAL COMMENTS

- ***Trail re-surfacing and repair should become a regular municipal maintenance activity***
- Stone dust is better than paving
- If trails are developed for transportation purposes, they should be paved for both efficiency and maintenance (of bicycles)
- Trails should provide recreational opportunities in natural, park-like settings

MARKETING THE REGION'S TRAIL NETWORK

- People need to be aware that safety is still an issue when they are using trails; collisions with other users are possible and road crossings need to be taken with care
- Parking areas/trail access points need to be clearly mapped

OTHER

- Bicycles are prohibited on trails within County parks -- this is an on-going issue and needs to be addressed, especially if the regional trails network incorporates parks into the transportation plan
- Roads should be built for safe travel by all modes, not just people in cars
- Wide, paved shoulders should be added to roads to provide space for bicycling and walking (where sidewalks are not built for pedestrians)

ROCHESTER DOWNTOWN CENTRAL LIBRARY PUBLIC INPUT WORKSHOP – NOVEMBER 14, 2001

EXISTING TRAILS/CONDITIONS

- General improvements to area trails need to be made
- The completion of the Genesee Riverway Trail should be a priority as it can serve a dense population for transportation and recreation purposes

NEW TRAILS/DESIRED CONNECTIONS

- ***Trails should be connected to create loops***
- ***Focus on connecting to trails in parks***
- Create a trail (along the rail corridor) to connect City neighborhoods to the Rochester Public Market
- Create a better interface between trails and the transportation network (streets, transit)
- Create better connections to downtown Rochester
- Utilize the abandoned railroad bridge over the Genesee River to create another connection across the Genesee River and to the University of Rochester [near the Plymouth/Exchange (PLEX) neighborhood]
- Link Highland Park and the proposed Children's Pavilion
- Improve access to neighborhoods on the bluff above Irondequoit Bay
- Connect trails to Port of Rochester and Fast Ferry
- Develop a trail from Pinnacle Hill to Cobbs Hill in the City
- More trails are needed in Livingston County; presently there is only the Genesee Valley Greenway

- Develop the abandoned Hojack Line in the Town of Greece as a trail

TRAIL AMENITIES/ANCILLARY FACILITIES

- ***Include public art along the trails, thereby creating unique destinations, particularly in urban areas***
- Trails need more facilities: bathrooms, fountains, benches, bike racks
- Need more and improved places to park cars to access trails

TRAIL SAFETY AND SECURITY

- Concerns were expressed about a hazardous area of the Genesee Riverway Trail near Ford Street (conflict between church parking lot on Exchange Street and a trail crossing point). (Note: City is fixing in summer 2002)

GENERAL COMMENTS

- Trails cannot be constructed to serve all needs and destinations so they must be well-integrated with the street, sidewalk, and transit systems
- Trails can support waterfront development
- Gravel or dolomite trails surfaces are unsafe; paved surfaces are better
- Coordinate fundraising efforts and unify trail building projects

MARKETING THE REGION'S TRAIL NETWORK

- ***Interpretation (historic, natural) on trails brings out other users***
- ***Create interest in the region's trails by integrating Rochester's history (e.g. railroad/transportation, natural history, women's rights, abolitionist movement, Native American, etc.)***
- Post trail routes and related information on-line
- Market trails to all people in our community as a means to help improve health of our citizens
- Sell Rochester as a "Trails Mecca"
- Find ways to generate more enthusiasm among people who aren't usually interested in trails

- Perhaps RGRTA can market transit connections to trails for one-way excursions (instead of having to go out and back)

OTHER

- Find more ways to legitimize bicycles as real transportation
- Provide better on-street bicycle and pedestrian facilities
- Organize excursions to experience "out and back" trips
- Improve the education of motorists about the rights of bicyclists and pedestrians
- Trails offer opportunities to preserve and access green space

PERINTON TOWN HALL PUBLIC INPUT WORKSHOP – NOVEMBER 15, 2001

EXISTING TRAILS/CONDITIONS

- ***Pave the Canalway Trail section from Pittsford to Fairport***
- Complete the Canalway Trail within the region
- Extend the Route 104 Trail in Webster to the Bay (past Bay Road)

NEW TRAILS/DESIRED CONNECTIONS

- ***Create trail loops and connect them to towns, restaurants, and other destinations***
- ***Bicyclists need a safer, more efficient way to get across Irondequoit Bay. Empire Boulevard is not a good sole option***
- ***Connect the RS&E Trolley Trail directly to Canalway Trail and the Lehigh Valley Trail to the Genesee Valley Greenway***
- ***Complete the Auburn Trail from Victor through Pittsford to Brighton/Rochester***
- Overcome barriers to get children safely to/from school
- Build trails close to employment centers (employees can use trails to travel to/from work or on breaks to exercise)
- Connect trails to the Arboretum in eastern Webster, possibly a north/south trail along the proposed Monroe County Water Authority line (the "Chiller" line)

- Connect trails to Port of Rochester and Fast Ferry
- Complete the north/south connection along both sides of the Genesee River from Ontario Lake to downtown Rochester
- Connect trails to the area's great cultural clusters and its great terrain
- Connect area hiking trail systems to multi-use trails
- Create north/south trails in Wayne County to connect Seaway Trail [on-road Scenic Byway] and the Canalway Trail, etc.

TRAIL AMENITIES/ANCILLARY FACILITIES

- More trail signage is needed
- More parking for trail use is needed
- Develop a trailhead for the Route 104 Trail at Bay Road in Webster

TRAIL SAFETY AND SECURITY

- Need a safer crossing at Bay Road in Webster (western terminus of the Route 104 Trail)
- Pedestrian trail users often feel threatened by faster trail users (bicyclists, skaters)

GENERAL COMMENTS

- Incorporate equestrians into multi-use trails where desired/appropriate
- Build creative, landscaped sidewalks to accommodate users along roadways
- All levels of government need to be involved in trails

MARKETING THE REGION'S TRAIL NETWORK

- Tie trails to historic sites through web sites, local economic development agency, and brochures
- We need to market trails to both residents and visitors

OTHER

- Get high school students involved in trail development and maintenance; recognize and integrate students' work on trails into their regular curriculum

- Improve the education of motorists about the rights of bicyclists and pedestrians
- Install more "Share the Road" signs on area roads to enhance safety and create awareness that bicyclists are legal users of the roads
- Find more ways to legitimize bicycles as real transportation
- Bicycling should be allowed on trails within parks [currently prohibited in most municipal and County parks in Monroe County]. User conflicts could be resolved by allowing certain trail uses on alternating days of the week (e.g. mountain biking on Wednesday and Saturday, equestrian on Thursday and Sunday, hiking on all days) or restricting some trail uses to certain trails or parks where they can best be accommodated.

CANANDAIGUA CITY HALL PUBLIC INPUT WORKSHOP – DECEMBER 12, 2001

EXISTING TRAILS/CONDITIONS

- The Ontario Pathways trails are being primarily used for recreation (walking, exercise, dog-walking) and all being well used year-round
- Schoolchildren are using the Ontario Pathways trails to get to school, especially the Middle School (for children in the Townline Road area)

NEW TRAILS/DESIRED CONNECTIONS

- ***Construct a new trail through the City of Canandaigua on the unused half of the Finger Lakes Railroad corridor to connect the Ontario Pathways trail to Main Street and the schools***
- ***It is critical that some group or person is looking out for trail corridors and key properties so that opportunities are not lost and new connections can be gained either through land purchases or easements***
- ***Creating trail connections (both on-street or off-street) between trails and key destinations is critical***

TRAIL AMENITIES/ANCILLARY FACILITIES

- ***Signage is often missing at key decision points. These need to be added to enhance safety and trail experience***
- Consistency in signage from trail to trail is important, especially identifying the allowed uses on a trail
- Enhanced trailheads with parking are needed on most trails in the region

- Create a trailhead with local historical information across the street from City Hall for the proposed Finger Lakes Railroad corridor trail through the City of Canandaigua
- The type, design, and prevalence of trail amenities (signage, benches, parking, lighting, etc.) should be related to the character of the trail's setting and community preferences
- Locals often know about trails in their area, but to encourage tourism we need to add better signage

TRAIL SAFETY AND SECURITY

- There was a suggestion to add lighting to some trails. Additional comments on trail lighting included only using lighting in more developed areas, using solar-powered lighting (like landscaping lights), and using low-level lighting
- Bollards at trail access points are often hazardous – they must be well-marked and properly spaced
- The more a trail is used by legitimate users, the safer it will be
- The prevalence of cell phone ownership probably lessens some security concerns

GENERAL COMMENTS

- ***We need to build partnerships between public agencies and citizens/trail groups. The ideal situation would be for municipalities to do the more complicated maintenance tasks (using heavy equipment for mowing, plowing, surface maintenance) and volunteers to do small maintenance projects that are labor-intensive (litter clean-up, small trimming)***
- Municipalities should take the lead on trail maintenance
- Local volunteers and Adopt-a-Trail groups can supplement public agencies' maintenance activities but they need to indemnify volunteers [provide liability insurance]
- Ontario Pathways' goal is to maintain the rural character of its trail corridors
- Surface materials should depend on proposed trail's setting and community preferences
- Asphalt is generally higher cost and higher maintenance than a natural surface

MARKETING THE REGION'S TRAIL NETWORK

- How do we make trails a tourism draw for the region? Trail connections to businesses, recreation areas, and tourist destinations are important

OTHER

- Look at how the snowmobile clubs in New York State fund trail development and maintenance (possible model for local communities and trail organizations)
- In Canandaigua, some people are starting to use motorized scooters. It is not legal to ride these on the street or on the sidewalk. Should they be allowed on trails?

WALWORTH TOWN HALL PUBLIC INPUT WORKSHOP – DECEMBER 17, 2001

EXISTING TRAILS/CONDITIONS

- The primary use of trails in Wayne County is for recreation, however, they could have a transportation benefit if they connected neighborhoods to schools, parks, etc.
- Many touring bicyclists use the Seaway Trail National Scenic Byway route to travel through the area, but most of these bicyclists are experienced riders that are comfortable riding with higher speed traffic
- Route 31 is a barrier for trail users trying to cross from the Canalway Trail to Macedon Park and the baseball fields
- Some of the bridges over the Erie Canal are not conducive for making trail connections (one-lane wide, no sidewalks, steel-decked, etc.)
- The Canalway Trail should be paved between the Villages of Macedon and Palmyra. The Canal Corporation had originally planned to pave it but did not due to the cost
- Concern expressed about the prevalence of unauthorized ATV use on trails. ATV users need a place to ride but cause a lot of damage on trails
- Many schoolchildren use the Canalway Trail to travel between Macedon and Palmyra

NEW TRAILS/DESIRED CONNECTIONS

- ***Construct a trail parallel to the Seaway Trail National Scenic Byway route. Most families are too intimidated to travel on the roadway with 55 mph-plus traffic***
- Lake Ontario is a huge draw, particularly in Wayne County, so trails should be developed to connect to the parks and communities along the waterfront

- Road shoulders should be improved to accommodate bicyclists and pedestrians or consider building trails along roads to accommodate less skilled trail users
- Develop north-south connections between Lake Ontario and the Canal, perhaps using Walworth Road and Route 350. This route was investigated before but crossing Route 104 is problematic
- There are still some sections of the abandoned RS&E Trolley Line that may be available for public use (particularly in the Town of Galen, Wayne County). Investigate the sections of the RS&E corridor in Macedon to create a connection between Perinton's RS&E Trail and the Canalway Trail in Macedon (loop between Perinton and Macedon)

TRAIL AMENITIES/ANCILLARY FACILITIES

- ***Trail signage, both on trails and within communities and parks to direct people to trails, is missing in most areas. Signage needs to be added so non-residents can take advantage of trails in a community (critical for tourism)***
- ***Trailheads and parking are needed – there are not enough available and existing locations are not well known***
- More frequent access points are needed. Consider obtaining easements from property owners to create Village or neighborhood access to trails

TRAIL SAFETY AND SECURITY

- Some adjacent landowners have balked at trails passing near their properties due to concerns about liability, trespassing, privacy, etc.
- The remoteness of some trails in rural areas may be a concern for some trail users, particularly women.

GENERAL COMMENTS

- Support for trails in rural areas may not be as strong as in suburban and urban areas.
- Stone dust trail surfaces are hard enough to bicycle on but soft enough to walk and run on. However, asphalt may be good in village settings, particularly for skating.
- Stone dust is lower cost and easier to maintain than asphalt but "wash outs" can occur

MARKETING THE REGION'S TRAIL NETWORK

- ***The Erie Canal's history is a huge attraction, which can generate interest in other local features (natural, historic, cultural, etc.). Completing the Canalway Trail in Wayne County and enhancing its connections into villages and other key locations will help sell Wayne County as a destination.***

OTHER

- ***Liability is a big concern of many landowners in rural areas when approached about allowing an easement for trail development. Many are concerned about the expense (money, time) to defend themselves in a lawsuit, even if the lawsuit is unfounded.***
- The NYS General Obligations law does provide strong protections for landowners who allow public recreational activities on their land. Perhaps the number of suits related to trails should be investigated to see if landowners have to defend themselves in lawsuits frequently. Could a legal defense fund be established to assist landowners?

AVON VILLAGE HALL PUBLIC INPUT WORKSHOP – DECEMBER 18, 2001

EXISTING TRAILS/CONDITIONS

- The primary use of trails in Livingston County is for recreation (walking/jogging, bicycling, horseback riding, snowmobiling).
- Businesses are benefiting from trails in the area. Trails are being used to access the Genesee River for kayaking excursions and restaurants and motels are benefiting from large groups of bicyclists and snowmobilers traveling through trail communities.
- The Genesee Valley Greenway has problems with unauthorized ATV use in some areas. However, generally speaking, there have been few problems with the trail.
- Much of the Genesee Valley Greenway is flat and surfaced with cinders, which is generally accessible to most people. However, signage is key to informing people with physical or mental challenges about what lies ahead.
- The Genesee Valley Greenway is striving to create an accessible trail. In some areas, ramps to improve accessibility are being constructed even though it is not required.

NEW TRAILS/DESIRED CONNECTIONS

- ***Create trail loops to connect community features (longer loops for bicyclists, horseback riders, etc. and shorter loops for hikers)***
- Investigate using the City Water Bureau's corridor between the City of Rochester and Hemlock Lake in Livingston County. The corridor has several intact bridges over Honeoye Creek. This corridor could be a great north-south trail in the region.
- Routes 5 and 20 within Livingston County have wide shoulders throughout their corridors that can easily accommodate bicyclists. Many bicyclists ride these routes, especially in the summer.
- Sidewalks within villages can be used to bring trail users into local services and destinations and can bring local residents and visitors from villages to the trails.
- There is an old railroad line from Honeoye Falls to Hemlock Lake (the old train station remains near the Lake), which passes through the Town and Village of Lima. This corridor should be considered as a priority north-south trail corridor for development.

TRAIL AMENITIES/ANCILLARY FACILITIES

- ***Signage is critical. The Genesee Valley Greenway has signs on the trail and at trail access points, but signage is needed within communities to direct people to trails.***
- ***Security elements, thorough signage, parking areas, and other access points need to be planned from the beginning when developing a trail.***
- For long-distance trails to work as tourist draws (e.g. multi-day trips by hikers or bicyclists), services and lodging need to be located near the trails.

TRAIL SAFETY AND SECURITY

- ***Trail/road intersections need to be carefully designed and constructed***
- The planned extension of the Route 390 Trail in the Town of Greece is needed greatly as it will make an important connection with the Canalway Trail. However, the trail will have to cross Ridgeway Avenue and Route 390, which will be problematic.
- Lighting along trails should be considered in some areas as it can extend the usability of trail, especially in the winter when days are shorter, and can enhance personal security.
- Increased use of trails can lead to increased security ("more eyes on the trail").

- Perhaps emergency phones should be installed along the trail (e.g. trailheads), particularly in areas that are not close to a village or hamlet where a public phone could be accessed.

GENERAL COMMENTS

- ***Trails should be usable in all seasons for walking, jogging, bicycling, horseback riding, cross-country skiing and snowmobiling.***
- Trails should be paved in areas where there is a demand for it (e.g. within villages). Paved trails do allow users to travel faster, which may be undesirable to some trail users.
- If a trail is to be paved, it needs to be built like a road for it to last. Maintenance will be a problem if proper construction techniques are not used – "you just can't lay down a few inches of asphalt and expect it to last." Paved trails should be striped as well.

MARKETING THE REGION'S TRAIL NETWORK

- Livingston County's tourism committee is well aware of the Genesee Valley Greenway and is interested in marketing the trail as part of the many amenities in the County.
- Historic, cultural, and natural features, parks, and unique community assets should be highlighted as part of the trail experience (e.g. Gananodagan, historic Canal features).

OTHER

- Snowmobiling season is short but there are many organized clubs that could be good partners in trail development and maintenance. In fact, snowmobile clubs maintain some sections of the Genesee Valley Greenway.
- Multiple users can co-exist on trails if trails are well designed and well signed. In addition, the type of users should be appropriate to the setting. For example, snowmobilers and equestrians can more easily share trails with bicyclists, pedestrians, and cross-country skiers in rural areas where trail traffic is lower.

APPENDIX C

PUBLIC INPUT – MARCH 2002

PUBLIC COMMENTS – SPRING 2002

The following comments were received verbally from the public at the March 2002 public workshops. Written comments received after the meetings are summarized separately in Appendix D.

ROCHESTER CENTRAL LIBRARY PUBLIC INPUT WORKSHOP – MARCH 18, 2002

- Why are so many paved trails identified in the recommendations? Paved trails are more expensive to build and maintain than stone dust and allows trail users to travel faster, thus increasing the probability for user conflicts.

- There is a need to share information about trail resources with many different agencies and groups. For example, the Visitor's Guide to Rochester has no mention of all the trails in the greater Rochester area, and the NYS Erie Canal map shows the Canalway Trail but none of the intersecting trails like the Genesee Riverway Trail and the Genesee Valley Greenway. These information gaps need to be corrected.

- If someone wanted to make a donation or bequest related to trails, how would one go about doing this? This information needs to be determined and outlined for the public.

- The Rochester Area Community Foundation could serve as the receiver of donations for regional trail development efforts.

- The Seabreeze/Charlotte/Seneca Trail is very important – can the completion of this project be quickened?

- There once was an old trolley line around Irondequoit Bay. It traveled from the west side of the Bay (near Bay West Park) across the Floating Bridge at the base of the Bay and then north of where Route 104 is now. Is there any information on this corridor? Is it still available to be converted to a trail?

- Since acquisition of an abandoned rail corridor or similar property is so critical to trail development, consider separating out the acquisition of corridors from their development. Saving these corridors should be of higher priority than developing them because once saved, they can be developed as funding permits.

- We usually have a lot of snow in Rochester in the winter; we should encourage cross-country skiing on trails.

- The Genesee Riverway Trail is being used as a corridor for youths to travel up to the lakefront in the summer and steal bicycles from Ontario Beach Park/Charlotte area. You will often see groups of teenagers riding northward two to a bicycle, and then you will see them returning along the trail all on individual bicycles.

- Do not put trails to close to roads and expressways – many people are looking to get away from the noise of traffic and experience more natural settings.

- More trailheads will help more people get access to trails.

- Please investigate a new crossing of Irondequoit Bay sooner rather than later. This is a huge barrier to east-west travel for bicyclists and pedestrians.

- Secure bicycle parking is a real necessity area-wide. People will use trails more to travel if they know they can secure their bikes at their destinations.

- Connect the Irondequoit Creek Trail through East Rochester (south of Near Term Project #4).

- Improvements to Calkins Road should extend from Route 15 past Route 15A to at least the Tinker Homestead and Nature Center. Preferably improvements should be made to the road all the way to Pittsford. Development and traffic is increasing out there, which makes it less safe for walking and bicycling.

- Buffalo Road is generally good for bicycling – why is it on the Recommended Roads for Improvement list?

- The Hojack Trail corridor to the Arena's Party House parking lot in Webster has been developed but needs surface improvements (stone dust). Trail users can then link to North Ponds Park from Orchard Street. There is an existing trail from the northern part of the park to the Route 104 Trail but it is very narrow.

- Mid-Term Project #34 (Route 104/Irondequoit Bay Bridge Bicycle/Pedestrian Crossing) is critical to construct.

- Mid-Term Project #36 (Hojack Trail/Lake Road Connection) may be difficult to develop as the railroad right-of-way is now privately owned.

- Mid-Term Project #37 (Route 104 Trail Upgrade – North Ponds Park to Salt Road) should perhaps be done sooner because of significant root damage to the trail surface. It should be resurfaced now, not later for safety reasons.

- Mid-Term Project #39 (Brighton Trail Development) should be moved to the west and connect Brighton Town Park with Highland Park via the Monroe County Developmental Center property.

- How can landowners contact the right agencies or organizations to donate or sell property, corridors, stream frontages, etc. for trail use? Is there a central contact for something like this?

- The opportunity to develop a trail along Salmon Creek is now, not later. There are very few landowners along the creek, which may make it easier to develop a trail along the creek.

- There is a problem with the Genesee Valley Greenway running into Route 390 south of Avon. This barrier needs to investigated and fixed.

- Could Allens Creek be considered for trail development?

- A Tryon Park to Ellison Park connection is needed – there is some private property in between these two parks but there is also an old road easement between them that should be investigated.

- The Friends of Webster Trails is trying to create a trail loop throughout the Town of Webster to link the Hojack Trail, Route 104 Trail, North Ponds Park, Xerox's complex, Irving Kent Park and the Arboretum, and Webster Park. This project should be included.

- Can a trail spur be developed to connect to Webster High School and the town library?

GREECE TOWN LIBRARY PUBLIC INPUT WORKSHOP – MARCH 19, 2002

- Max Streibel, Deputy Supervisor of the Town of Greece, read a letter from Supervisor John Auberger confirming his support of the Lake Ontario State Parkway Trail projects, the conversion of the former Hojack Railroad corridor into a trail, the extension of the Route 390 Trail to the Erie Canal, and the improvement of the northern terminus of the Route 390 Trail at the Lake Ontario State Parkway.

- The conversion of the Hojack corridor (in the Near Term projects list) would require some type of bypass of Route 390, the repair or replacement of a dilapidated bridge, and an agreement with RG & E (the current owner). It is seen as an asset because it provides a connection west to Hilton and would connect to the Route 390 Trail.

- This whole Initiative is great. How can we make it happen faster? What role can citizens play?

- It was noted that community groups like trail groups and Boy Scouts have been involved in trail improvements efforts for many years (e.g. re-decking bridges, making signs, doing litter clean-up or brush removal). Cinders from Kodak's furnaces are also being used as a cost-effective sub-base for trail construction.

- Has the Town of Wheatland provided any input? There is old railroad property between Oatka Creek Park and the Village of Scottsville that should be investigated.

- The Town of Greece allowed a disc (Frisbee) golf course to be constructed in Basil Marella Park. The course crosses the Route 390 Trail, which is a safety hazard to trail

users and is actually against the national disc golf association's course recommendations. The Town seems to be unresponsive to trail users' requests to reroute the course, and they have even allowed advertising signs to be put up all over the course. This is a detriment to the trail and the park.

- Could funding be raised by selling a mile of trail to area corporations, philanthropists, etc?

- Is there a centralized source of information on how Adopt-a-Trail programs can be set up and which trails already have them?

- Obesity, even among children, is a growing epidemic in this country. Trails built close to where people live and work could help people be more active on a routine basis, which could combat this trend. Trails dovetail nicely with Strong Health's Healthy Community campaign.

- Consider taking the proposed trail on the west side of Irondequoit Bay (Project #24 - Irondequoit Bay East and West Connector Trails) north of Irondequoit Bay West Park.

- Project #24 (Irondequoit Bay East and West Connector Trails) should also be extended north of Irondequoit Bay East Park to the Route 104 Trail in Webster.

- The construction of a trail adjacent to the Lake Ontario State Parkway is very important to residents in Greece.

- Trails should connect people to places of employment like factories and offices. However, it is critical that secure bicycle parking is provided by employers so employees can bicycle to work, either out of necessity or by choice.

- Marketing research should be conducted about trail use, trail knowledge, and trail interest in this area.

- There may still be several abandoned railroad bridges over the Erie Canal near Spencerport and Brockport that could be rehabilitated and used to cross trail users over the Canal. These should be investigated.

- Project #52 (NYC Falls Road Branch Rail-to-Trail Conversion) should be moved up to the Near-Term Implementation window. This corridor is a great west side resource and should not be allowed to be broken up.

- Project #33 (Black Creek Stream Corridor Trail) would likely have significant construction and maintenance challenges as there are steep slopes on the south side of the creek in areas, the north side is prone to regular flooding, and several creek crossings would probably be necessary to create a continuous trail.

- A connection into Irondequoit from the proposed bicycle/pedestrian crossing of Irondequoit Bay along Route 104 needs to be included.

- How can we encourage businesses to support trails and trails enhancing existing businesses or even fostering new ones (e.g. bicycle rental business)?

- Edgemere Drive between Long Pond Road and Island Cottage Road does not have good bicycle or pedestrian accommodations. Many people live out here and may bicycle and walk more if Edgemere was improved. Improvements would enhance the connection to the Route 390 Trail tremendously.

- Trails should be integrated into the Port of Rochester Harbor Improvement project so that ferry users can get to and from the Port via bicycle or on foot.

- Lighting is needed at trailheads along the Canalway Trail (suggested locations include Lyell Avenue and Buffalo Road).

- Can the Canalway Trail be separated more from the tanker operations in the Town of Gates? This site is very unattractive.

- Project #61 (Oatka Creek Stream Corridor Trail) would be very difficult to construct and maintain because there is a constant flooding problem along this stream corridor.

- I use the trails on the west side to get to work, but parking is a real problem once I get there. Employers need to provide secure bicycle parking for their employees and patrons.

PERINTON TOWN HALL PUBLIC INPUT WORKSHOP – MARCH 20, 2002

- The main problem with some of our existing trails is that critical pieces are missing. These gaps should be high priorities.

- Public officials throughout the area need to be on board to help implement the Initiative.

- Who can serve as a watchdog to make sure that critical corridors or properties are not sold off or developed over? This is particularly important for those former railroad corridors that are now owned by communities or utility companies.

- Planning boards need to be aware of potential trail opportunities in their communities so they do not allow development to break up a corridor or destroy a connection. Planning boards could be instrumental in preserving or creating trail opportunities when they review development proposals and site plans.

- Vocal interest from the public in trail projects will help them keep on track, even in times of fiscal constraints and budget cuts.

- Empire Boulevard in the Town of Webster is being reconstructed – the conditions for bicycling should be much improved over the current conditions.

- Could the RS & E Trolley Trail be extended into Macedon, Wayne County (and then connected to the Canalway Trail)? Can GTC check on the ownership of the abandoned corridor in Wayne County?

- The Long Term Implementation window should contain more conceptual linkages than it does. It should also be more aggressive and comprehensive.

- The Rochester Bicycling Club is aware of the conditions of many roads in the area. They should be consulted about unknown road conditions and allowed to review these recommendations.

- An outer loop "on street" route should be identified using Route 19, Routes 5 & 20, and Route 444 connecting the proposed Salmon Creek Trail from Northhampton Park through the Towns of Ogden, Riga, Wheatland, Caledonia, Avon, Lima, West and East Bloomfield, Victor, Perinton to the proposed Chiller Line Trail in Webster. Monroe, Livingston, and Ontario Counties should work on this together.

- Can a trail be built along Route 590? Some improvements to Route 590 are planned in the near future (Can of Worms to Norton Street is slated for resurfacing, for example) – can trail development be piggy-backed on projects like this?

- GTC should investigate the status of the old trolley line on the east side of Irondequoit Bay. It could provide a connection to the Route 104 Trail and Irondequoit Bay Park East if it is still intact.

- Trail access in parks needs to be allowed in Monroe County. Monroe County should study the feasibility of allowing off-road bicycling on some trails in some of its parks – the demand and interest is there and is a logical extension of the regular trail network.

- A connection between the Village of Fairport and the proposed Chiller Line Trail (Project #63) should be pursued if the Chiller Line Trail becomes a reality in the future. This would connect people from Webster and Penfield to the Canalway Trail and to the RS & E Trolley Trail.

CANANDAIGUA CITY HALL PUBLIC INPUT WORKSHOP – MARCH 25, 2002

- The Lehigh Valley Railroad Corridor between the Genesee River and the Village of Caledonia should be moved up from the Long-Term Implementation Window. There are only two private owners along this corridor – a supporter of the Genesee Valley Greenway and Niagara Mohawk (utility company), which may make it easier to purchase the corridor outright or obtain permanent or long-term easements to build and operate an extension of the LVRR Linear Trail into Livingston County.

- The Lehigh Valley Linear Trail project described on the "Trails Under Development" exhibit (Exhibit 2) should clearly state the bridge across the Genesee River to the Genesee Valley Greenway is included in this project.

- The description of the LVRR-Caledonia corridor should mention its potential direct connection to the Genesee Valley Greenway and the LVRR Linear Trail under development in the Towns of Rush and Mendon.

- Union Street (listed in the On-Street Improvement Recommendations) is not Route 332. It should be listed as North Main Street.

- Located at the western border of the City and Town of Canandaigua is some green space and a rail corridor. The City and Town are discussing the possibility of developing this area.

AVON VILLAGE HALL PUBLIC INPUT WORKSHOP – MARCH 26, 2002

- There is a great potential for longer distance travel on trails in this area similar to the Appalachian Trail. This kind of travel, however, requires support services like lodging, food stops, services, and attractions to be located along trails.

- We seem to forget how rich this region is in terms of history and natural beauty. For example, the Avon area– it was once the site of a Seneca Indian village and was a popular destination for baths, springs, and herbal medicine. How can you connect traditional tourism information to trails information so residents and visitors (and potential visitors) can grasp the whole picture?

- The former Erie Railroad – Mount Morris Branch from Avon to Mount Morris was an electric trolley line originally. It arrived in Avon over the Five Arch Bridge, which still stands today. Edward Harris of the Harris Beach law firm once owned much of the corridor.

- There is a lot of interest in the Lehigh Valley Linear Trail that is being developed in Mendon and Rush. When the trail crosses the Genesee River in Avon, can it be connected to the Genesee Valley Greenway and extended westward into Caledonia?

- Local and county real estate officers and tax personnel know about the history and ownership of many of the former railroad corridors in the region. They should be tapped for their knowledge.

- There was a railroad spur from the Lehigh Valley Railroad corridor in Henrietta to Rush where the transportation museum stands today. What happened to this corridor?

- The Village of Avon developed a short trail (¾ mile long) from Driving Park to the Five Arch Bridge -- it is used heavily by residents.

- Many bicyclists use Rochester Street and East River Road in this area. East River Road intersects with the Lehigh Valley Linear Trail in Rush. These roads should also be considered for improvements.

- What is the status of the old G & W railroad corridor in the Town of York (ran north-south). There were east-west spurs that ran off this corridor, including one that transported salt. Another spur connected into the old railroad switching yard outside Caledonia as you travel west to LeRoy.

- What are the steps that a local community needs to take to get a review of an abandoned railroad bridge by the State Historic Preservation Office (SHPO)? The Village of Avon is very interested in pulling together an effort to rehabilitate the old Erie Railroad bridge over the Genesee River to connect with the Genesee Valley Greenway in Caledonia.

- If it is determined that the Town or Village of Avon or Livingston County owns the Erie Railroad bridge over the Genesee River, can this project be moved up into the Near-Term Implementation window? Public ownership certainly would make this project more feasible.

- There is a lot of winter activity in the region, including hiking, cross-country skiing, snowshoeing, and snowmobiling. We should maintain and promote trails for wintertime use.

- This region is also rich in geological history (glacial deposits and remains), which should be interpreted along area trails.

- Can we benchmark what other regions are doing to market trails? Right now, most tourism promotion is done county-by-county. This region needs to sell the region as a whole to residents and tourists. We need to improve the "connectivity of information" to reflect the total picture of what this region has to offer.

- Schools should be used as a way to get children and teens interested in trails and trail-related activities. Trails can also be educational outlets when combined with the information on this region's varied history and natural features.

WALWORTH TOWN HALL PUBLIC INPUT WORKSHOP – MARCH 28, 2002

- Investigate the current property ownership of the former RS & E Trolley corridor in the Town of Macedon. Currently, the Town of Perinton operates a trail on its portion of the corridor, but it stops at the county line. Could this trail be extended into Wayne County?

- The original RS & E Trolley Line station still stands outside the Village of Macedon. It can be seen from Route 31.

- The proposed project tables list estimated project costs. What are the estimated trail maintenance costs for all of these proposed trails? Who is going to do the maintenance and pay for the maintenance?

- Where is the money going to come from to build these proposed trails?

- Is the goal for all trails to be accessible? Some trails may not be able to be made accessible due to topography or other issues.

- Trail maintenance along the Erie Canal is critical. This seems to be a real problem in most areas.

- A Macedon Town Planning Board member recently came to a Macedon Trails Group meeting and expressed interest in knowing how the Planning Board could help build trails through site plan review and other Board actions.

- Future development in the Town of Macedon off Route 31 and Canandaigua Road could facilitate the opportunity to use Town Planning Board power to piece the RS & E Trolley corridor back together.

- A high-quality system will automatically generate a lot of users, which may help to self-police the trail and do some minor maintenance (e.g. trail users picking up litter while out using the trail because of pride and interest in the trail).

APPENDIX D

SURVEYS & WRITTEN COMMENTS

TRAIL USER SURVEYS

A total of 80 trail user surveys have been received from the public during the public input process. The results for the six survey questions are as follows:

CURRENT LEVEL OF TRAIL USE

Generally speaking, survey respondents are regular trail users, with:

- 11% using trails at least once per day
- 56% using trails 1-6 times per week
- 30% using trails 1-3 times per month
- 3% very rarely using trails.

USE OF TRAILS

- Walking and biking are the major trail uses with 86% of respondents walking and 82% bicycling on the existing trails.
- 41% of respondents cross country ski in winter. "Other" trail activities include dog walking (37%), jogging (15)%, and skating (4%).

TRAIL TRIP PURPOSES

Trail users' frequent trip purposes vary:

- recreation/exercise (97%)
- shopping/errands (30%)
- commuting to work (19%)
- bird watching (7%)
- commuting to school (4%)

TRAILS USED

Auburn Trail (Pittsford)	8% of respondents
Auburn Trail (Victor)	15% of respondents
Canalway Trail (Gates/Greece)	34% of respondents

Canalway Trail (City/Brighton)	34% of respondents
Canalway Trail (Pittsford)	41% of respondents
Canalway Trail (Perinton)	26% of respondents
Canalway Trail (Macedon)	19% of respondents
Canalway Trail (other areas)	11% of respondents
Erie Canal Towpath (Pittsford)	41% of respondents
Genesee Valley Greenway	38% of respondents
Genesee Riverway Trail (City)	38% of respondents
Hojack Trail (Webster)	19% of respondents
Lehigh Valley Trail (Mendon)	8% of respondents
Route 104 Trail (Webster)	15% of respondents
Route 390 Trail (Greece)	19% of respondents
RS&E Trolley Trail (Perinton)	15% of respondents
Other Trails	49% of respondents

TOP THREE ISSUES WITH TRAILS

- Lack of trail continuity /connectivity
- Lack of directional and informational signage
- Poor trail maintenance

TOP THREE IMPROVEMENTS DESIRED

- Completion of proposed trail projects
- Various gap closure suggestions among existing trails and to key destinations
- Installation of directional and informational signage

WRITTEN COMMENTS

The following comments were mailed to the GTC in response to the public meetings or articles in local newspapers advertising the meetings. The comments fell into categories similar to the verbal comments received at the public meetings. Copies of the original letters, faxes and emails received during the 30-day public review period are also included at the end of this Appendix.

EXISTING TRAILS/CONDITIONS

- First priority should be to maintain/repair existing trails. Tree roots buckling asphalt paths should be smoothed. Crushed stone is preferred unpaved material.
- Irondequoit: Get rid of the "boulders" on the paths.
- Henrietta: add wide shoulders to Jefferson Road during its reconstruction, and to sections of Culver Road that are south of Ridge Road.
- Develop loop trails as much as possible.

NEW TRAILS/DESIRED CONNECTIONS

- Convert the abandoned Auburn Railroad from Victor to the Canal in Pittsford into a trail.
- City of Rochester: create a bikeway down University Avenue/Andrews Street to the Genesee Riverway Trail.
- Expand trails north along both sides of Genesee River from Court St. to Lake Ontario, and south along the west side of the river.
- Greece: Please pursue making the RG&E (the old Hojack rail corridor - west of Route 390, north of Latta Road) into an unpaved multi use path.
- Greece: develop the west side's Hojack Railroad line as a trail.
- Greece: develop the section of the Erie Canal towpath between Weiland and Long Pond.
- Help pursue funding for the Sierra Club-sponsored multi-use trail from Highland Park to the Canalway Trail through Brighton Town Park.

TRAIL AMENITIES/ANCILLARY FACILITIES

- Signage regarding leashing dogs on trails is critical.
- Greece: post signage that keeps bicycles off pedestrian-only trails in the parks.

- Post signage that keeps bicycles off the hiking-only Finger Lakes Trail.
- Trails should have lanes marked for two-way traffic.
- Keep the trail surroundings natural and park-like, and include a variety of surface and terrain to keep them visually interesting.
- Trailheads should be accessible to bicyclists and pedestrians, and not require a car to reach them.

TRAIL SAFETY AND SECURITY

- Greece: A disc (Frisbee) golf course has been installed over a section of the bike trail in Greece (within Basil Marella Park between English Road and Vintage Lane). Please help remove this dangerous activity from the trail's vicinity.
- Improve traffic signals and road signs at all trail intersections.
- City of Rochester: improve industrial/commercial sections of the Genesee Riverway Trail on the east side of river that currently feel isolated and insecure.
- Perinton: Route 31 must be made safer with signage, shoulders or a marked bike lane, and intersection improvements that slow traffic and allow easier bike navigation.

OTHER

- How can I become involved with moving trail development forward? How can I join the GTC Steering Committee?
- Where is the equestrian representative on the Steering Committee?
- The City and county should provide an updated map with safer intersections and trail links.
- Public events should offer bike racks and/or safe bike storage.
- Shopping malls should offer bike lockers, which offer greater protection than open bike racks.
- Require all major road renovations to include accommodation for bike lanes and good signaling.
- Require business to subsidize mass transit programs, coordinate carpooling programs with other businesses, and install shower facilities and bike lockers for their employees. Encourage insurance companies to offer reductions to businesses supporting these healthy commute alternatives.
- Alter the State Motor Vehicle driving test to focus on bike/pedestrian/autos road sharing awareness.

- Develop city and county programs that encourage non-fossil fuel vehicles and bike commuting.