

FINAL REPORT

Highland Park/Canalway Trail Planning and Concept Design

The City of Rochester
The Town of Brighton
and The Genesee Transportation Council
Monroe County
New York

prepared by

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Introduction

Qualifying Statement : The following recommendations are conceptual only in nature and do not reflect the exhaustive and thorough analysis required for implementation of the plan. They do reflect the desires and wishes of Town of Brighton and City of Rochester and Genesee Transportation Council staff, knowledgeable volunteers on our Project Advisory Committee and others for the location and configuration of the trail. We offer these recommendations with the full knowledge that some may undergo significant modification or may prove to be unworkable or unnecessary when placed under the scrutiny of more thorough and exhaustive analysis. Specific elements of the recommendations which fall under the jurisdiction of the Monroe County Department of Transportation such as the configuration of road crossings at Westfall Road and Elmwood Avenue, the introduction of traffic lights at those locations, road widening, restriping and the addition of bike lanes on city streets from Highland Park to the Genesee River all must receive the appropriate attention and scrutiny when this project moves into the next stages of design and implementation.

Project Goal:

The goal of the Highland Park/Canalway Trail Planning and Concept Design study is to develop a recommended concept engineering design for a multi-use neighborhood connector trail between the Erie Canal Heritage Trail (the “Canalway Trail”) on the south, Brighton Town Park, Highland Park, and the Genesee Riverway Millennium Trail on the west near Mt. Hope Cemetery (see attached Location Map, **Figure 1A**). The trail would provide connections from neighborhoods in both the Town of Brighton and the City of Rochester to both the Canalway Trail and Genesee Riverway Trail, and would also provide statewide trail users access to several important parks and open space resources in the Town and City. A PAC (Project Advisory Committee) was assembled consisting of representatives of the City of Rochester, Town of Brighton, THE University of Rochester, and the Genesee Transportation Council and important neighborhood organizations. This group was active throughout the course of the project in decision making, review of submitted work, and meeting with consultants.

Project Objectives:

The study objectives are to:

- develop an understanding of the function and likely users of the proposed trail;
- explore alternative locations for the trail;
- select a recommended trail location;
- produce a concept design and cost estimate for the recommended trail, and
- develop an implementation plan which identifies issues involved in implementing the trail, such as land ownership, heavy traffic crossings, wetland mitigation, and funding sources.

Project Approach:

General - Multi-use trail design should employ a context-sensitive design philosophy. Trail design must satisfy two interrelated objectives, first as a transportation facility for bicycles and pedestrians and second as a recreational facility. The Highland Park/Canalway Neighborhood Connector Trail (the 'Trail') needs to satisfy the needs of trail users who fall in either of the two categories. In addition to bicyclists, it is expected that walkers, joggers, in-line skaters, skateboarders, and non-motorized scooter riders will also be using the trail and should be accounted for in the overall design philosophy.

Where twelve (12) ft. wide trails are indicated on the plans, this would be a recommended minimum width for the trail. It may be appropriate, when reviewing data on anticipated use, to build at a width of 10' or 14', however, the 12' width is recommended by FHWA and NYSDOT for higher volume traffic. Likewise, sidewalk widths of 5 ft. are considered minimum and where new or replacement sidewalks can be proposed and built, it would be prudent to consider wider widths based on anticipated use levels and surrounding land uses.

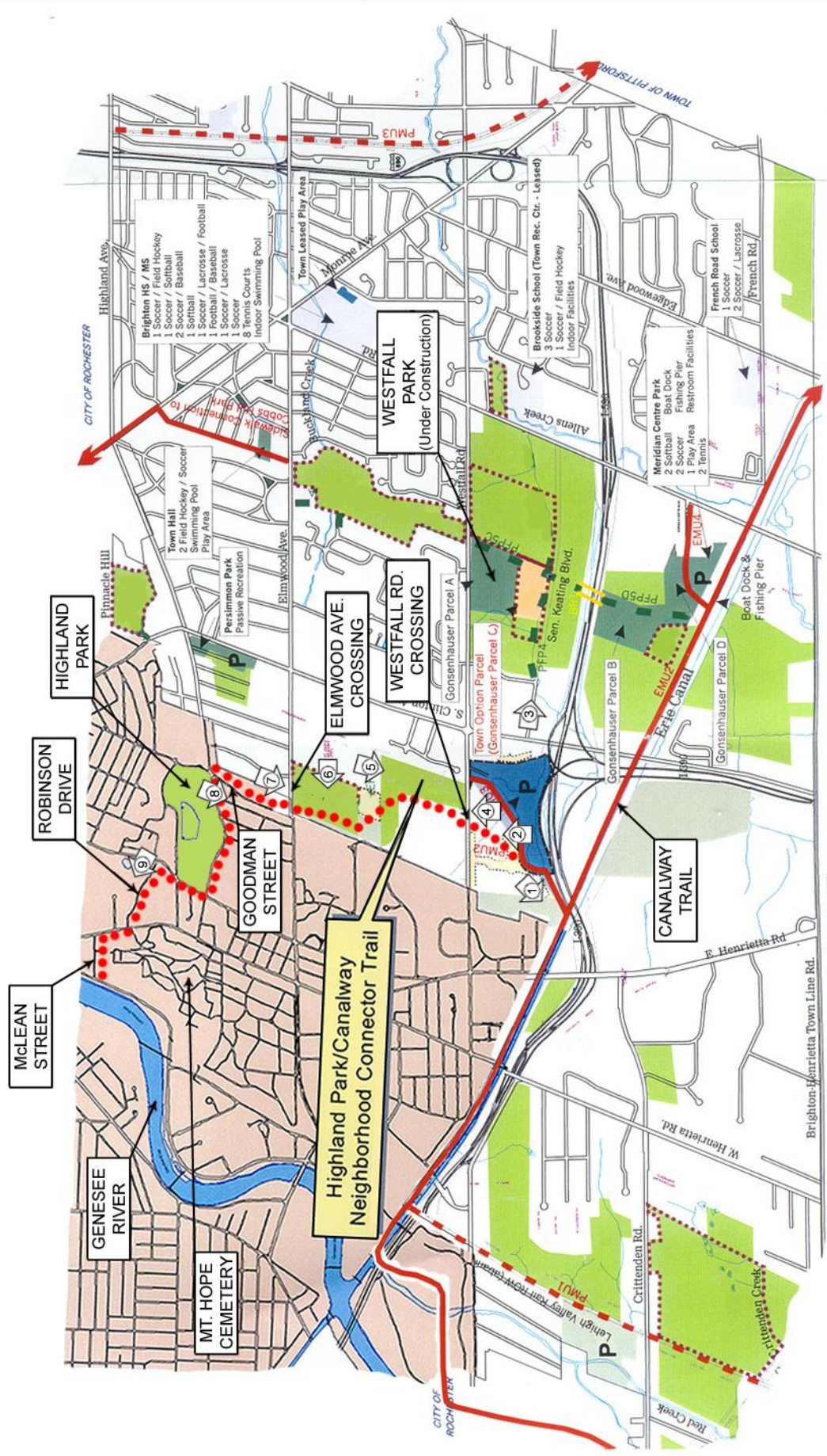
The Trail will likely utilize both public and private lands, including existing streets or street right-of-ways which will require signing and probably other upgrades. This study explores possible trail alignment alternatives such as utilization of existing trails and sidewalks in Highland Park and in lands owned or controlled by Mt. Hope Cemetery (the City of Rochester) and the University of Rochester. In the Town of Brighton, a portion of the proposed Trail alignment passes through or alongside of private lands currently being reviewed for development which contain existing NYSDEC and U.S. Corps of Engineers jurisdictional wetlands. The report will explore the adjacent land uses along the proposed project route including residential, office, and institutional developments and zoned lands and make recommendations for linkages where they are required. The project would involve two road crossings between the Erie Canal and Highland Park - Westfall Road and Elmwood Avenue. As the Trail continues north and westward, the proposed route follows existing city streets.

A memorandum addressing the wetlands and environmental issues has been prepared and is included as an appendix to this report.

A Traffic Report has been prepared as part of this study that addresses the particular concerns involved with the road crossings, and use of city streets and intersections for that portion of the on-street bicycle route. Particular suggestions are made for reconfiguration, re-striping, signage, and other improvements that will make those areas safer for the trail users.

Project Location

Figure 1a is a **Project Location Map** illustrating the general route of the proposed connector trail.



- LEGEND:**
-  PHOTO LOCATION
 -  PROPOSED TRAIL

HIGHLAND PARK / CANALWAY TRAIL LOCATION MAP

NOT TO SCALE

Existing Conditions

The Trail would connect in the south to the Erie Canal Heritage Trail by way of an existing 10 ft. wide asphalt paved trail constructed as part of the I390/I590 interchange by the State of New York, and an extension of this trail constructed in 1998 by the Town of Brighton connecting to Brighton Town Park. The developers of Brighton Meadows Office Park provided an 8 ft. wide, asphalt-paved connection of this trail to Sawgrass Drive and limited parking (6 spaces) where the trail meets Sawgrass Drive. This portion of trail, approximately 320 ft. in length is somewhat overgrown with vegetation on both sides, however the trail surface and the connection all the way to the canal are of relatively recent construction, are in good to excellent condition, and no improvements other than widening of the Brighton Meadows section to a minimum width of 10 ft. and routine maintenance are required or proposed as part of this project.

Figure 1 shows the existing trail as it approaches Brighton Town Park from the south and from the Erie Canal Heritage Trail at I-390.



Figure 1

The photo is taken at a juncture with a sidewalk that leads directly to the north and is a potential location for the pedestrian traffic on the trail. An existing 10 ft. wide sidewalk/“conservation easement” to the Town of Brighton is in place as part of the subdivision of the Brighton Meadows project. The easement follows the west leg of Sawgrass Drive northward to Westfall Road. The pedestrian portion of the trail could use that easement. The completion of the west leg of Sawgrass Drive is anticipated with the development of the remaining 2 lots of the subdivision and a new

intersection at Westfall Road would be constructed as well. The proposed sidewalk would follow the conservation easement eastward from this intersection to the crossing point where it would link up with the proposed bike trail at the entrance to the Monroe Developmental Center.

Figure 2 shows Sawgrass Drive near the existing trail parking area. Sawgrass Drive is a private road and is 28' wide which is sufficient width for shared use by bicycle and vehicular traffic (2-14 ft. wide lanes). There are no sidewalks along Sawgrass Drive in this area. With a 60 ft. wide right-of-way available, there is sufficient space along the east side of the road to construct a separate paved trail, however, the trail would have to cross two existing driveways to large parking lots located to the east, which is generally not desirable. One alternative would be to maintain shared on-street use and construct a sidewalk on one side or possibly both sides of Sawgrass.



Figure 2

Monroe County Department of Transportation has scheduled the reconstruction of Westfall Road for the portion between South Clinton Avenue and East Henrietta Road. The Sawgrass Drive/MDC entrance intersection falls within this area. Separately, the MCDOT has given concept level approval to the provision of a traffic signal that would be installed in the next phase of the development of Brighton Meadows. A signalized intersection could enhance the safety of the crossing for trail users. There is also an opportunity to explore the use of traffic calming devices at this intersection that could add to trail

user safety (e.g., a refuge island similar to the Elmwood and Goodman Street intersection, lane narrowing, and a high visibility crosswalk).

Directly north of the Sawgrass Drive intersection is the Monroe Developmental Center (MDC), the main campus of the Finger Lakes Developmental Disabilities Office. Buildings here house the administrative offices of that organization, and are also home to a large number of persons with severe disabilities. The property is 65.6 acres in size, is mostly flat, open and grassy for large areas, and represents probably the best potential route for the trail continuing northward.



Figure 3

Figure 3 is a view of the east boundary of the MDC property looking north and with Westfall Road in the foreground. The intersection of Westfall Road, Sawgrass Drive and the MDC entrance is to the left out of the view. The photo illustrates a clear and direct route through the MDC property across open lawn areas to the north. Land to the east of the east MDC property line has been subdivided and is zoned residential. Several of the small lots have been obtained through foreclosure by the Town of Brighton and may offer a location for a trail linkage to the east to this subdivision as it becomes developed as well as other

residential development further to the east.

The rear(north) side of this property abuts the recently completed St. John’s Meadows residential neighborhood for seniors, a 7.15 acre ‘reserved parcel’ designated to remain undeveloped, and a



Figure 4

7.35 acre parcel owned by the State Hospital. The reserved parcel is entirely and heavily wooded and contains portions of a designated NYSDEC regulated wetland (BR-10). The Town of Brighton has already developed a trail on this property, which consists of a wood chip path and raised wood boardwalk. **Figure 4** shows a view of the beginning of this trail at St. John’s Meadows where it meets an asphalt-paved sidewalk ringing a detention pond.

Figure 5 photo shows the wood-chip surfaced trail, approx. 8' wide, that takes a looping route through

the ‘reserved’ parcel. This existing cleared trail could potentially be used for the new multi-use trail. From this parcel the trail could lead directly north through a privately owned parcel on which NYSDEC regulated wetlands exist or to the west then north through NY State Hospital owned land (Rochester Psychiatric Center). A trail linkage to this senior residential community can be easily made through a relatively flat, cleared area.

Along the north edge of the MDC property running east and west is a raised berm that appears to have been built many years ago to detain surface drainage on the uphill (south) side of the berm. The berm is about 4 feet in height above the surrounding grade and mostly clear of trees for the 6 foot width of the top of this berm. It could serve as another potential location of the proposed trail. To the south of the berm, wetlands have formed in what appears to be a pond area excavated when the berm was built.



Figure 5

Much of the area along the north boundary of the MDC and both the St. John's reserved parcel and the 7.35 acre State Hospital parcel are heavily wooded and/or are covered with dense brush and undergrowth. All three contain portions of the BR-10 NYSDEC regulated wetlands and wetland buffer areas. Also, the trail will need to cross Buckland Creek at a point either on the reserved parcel or State Hospital parcel. Buckland creek is an excavated channel 10 to 12 ft wide starting at the west end of the berm and continuing northward to the main body of wetlands on the 'Mansions' property (see below). A new trail through this area will need to meet the requirements that may be imposed on such development by the NYSDEC within the boundary of the wetland and its 100 ft buffer area.

Directly north of the reserved St. John's and State Hospital parcels is a 33.74 acre parcel currently the subject of a proposed residential project, 'The Mansions at Brighton'. Plans for development of the property have been submitted to the Town of Brighton and are currently under review. The plans for development currently call for an 'up-scale' high-density townhouse and apartment residential community in this location and include the construction of trails as part of that project. The provision of a trail is in anticipation of the Town of Brighton's need to complete the north/south link of the multi-use trail from the Erie Canal trail to Highland Park and to provide a connection to the existing St. John's parcel nature trail, and to provide passive recreational opportunities for residents. The parcel is mostly flat and heavily vegetated with growth ranging from dense woods to dense brush and undergrowth, to open wet meadow areas. There are substantial areas of wetland on the property already delineated by the NYSDEC. These areas represent the largest area of the wetland known as BR-10 and are also the headwaters of Buckland Creek.

To the west of the 'Mansions' parcel is a 100 ft wide strip of land owned by the State Hospital and the former State Hospital itself on a 40+ acre parcel further to the west. The 100 ft. wide parcel is mostly wooded to the south and mostly open to the north. An existing clearing extends from south to north through this parcel which may serve as a potential alternative trail location. The northeast corner of these properties is an open grassy meadow through which the trail could

pass by way of gradual horizontal curves to approach the Goodman Street/Elmwood Avenue intersection.



Figure 6 is a view looking south from the intersection of Goodman Street and Elmwood Avenue toward the State Hospital (Rochester Psychiatric Center) lands to the right and lands to the left and in the background currently proposed to be developed as 'The Mansion at Brighton'. Elmwood Avenue has recently been reconstructed in this area and sidewalks exist as well as

Figure 6

ramps, and a curbed median island that would serve to provide a refuge and protect trail users crossing the road at this location.

From this point, the trail could follow Goodman Street north to the intersection with Highland Avenue. The open areas on both sides of the road are Monroe County park land. There are currently no sidewalks present on either side of the road despite its close proximity to Highland Park, residential neighborhoods to the east, west and Colgate Divinity School to the north.

Figure 7 is a view looking south with Goodman Street on the right, a portion of Highland Park to the left and the former Rochester Psychiatric Center in the background (tall building in center). Between Elmwood Avenue and Highland Avenue, Goodman Street



Figure 7

is an uncurbed 22' wide roadway in excellent condition - having recently been repaved. Existing asphalt paved shoulders 4' to 6' wide on each side are in poor condition. Bicycle traffic could stay on the road in this area or could be off-road in some fashion. There are no existing sidewalks for pedestrians. Road width is sufficient to accommodate 2-11 ft. wide travel lanes, and 2-6 ft. wide shoulders. Likewise, a separate trail parallel to and on the east side of Goodman could be accommodated. Here there is only one driveway that would need to be crossed which leads to a County Parks maintenance facility. There is insufficient space on the west side of the road for a dedicated trail. We recommend both a dedicated trail, and the provision of 6 foot wide shoulders, the latter being for bicyclists that wish to remain on the street.

Highland Park is a County Park that contains many unique landscaped areas and groves of collection plants including a large lilac collection. It is home to the annual Lilac Festival. Highland Avenue is closed to vehicular traffic during the 10-day festival.

Note: County Parks policy is to not allow bicycle traffic on trails anywhere in the park at any time. Bicyclist who wish to enter the park are required to dismount and walk their bicycles through the park.

During the course of this study, we reviewed the possibility of continuing the trail north on Goodman Street to Pinetum to where the trail would begin heading westward. This route may not be an adequate trail location for several reasons, those being: 1) the steep incline of Goodman and Pinetum, 2) Goodman Street is narrower and curbed north of Highland requiring shared use lanes for bicyclists, and 3) poor vehicle site distance for traffic heading south on

Goodman from the city. Both Doctors Road and Reservoir have deep gutters along both sides of the road which are not considered safe for bicycle traffic. There are no sidewalks on Pinetum or Doctor's Road. There is insufficient space to either side of the road to construct trail facilities due to the nearness of evergreen plant collections to the road. The Pinetum route would, however, bring bicycle traffic into the park and closer to the site of the proposed Children's Pavilion. The drawbacks of this route may outweigh the benefits.

Highland Avenue is wide enough (34 to 36 ft) for nearly its entire length to accommodate two 11 ft. wide (minimum) vehicle lanes and two 6 ft. wide paved shoulders. One problem area exists that deters continuous on-road bicycle use. There is a small area of on-street parking 300 feet long on the north side only located between the 'Lilac Crossing' and the entrance to St. John's Home. Bicyclists going west would be forced here to join a vehicular traffic lane.

The intersection of Highland Avenue with South Avenue is busy has limited available space. Traveling west and approaching South Avenue, there are 4 existing delineated vehicle lanes -



Figure 8

one of which would need to be eliminated to accommodate the 6 ft. wide delineated shoulders. Road capacity versus existing and anticipated vehicle volumes would need to be assessed to reduce the number of lanes. Without a lane reduction, bicyclists on the road would need to merge with vehicular traffic and turn north on South Ave.

Foot traffic can be accommodated by either the sidewalk along the south side of Highland all the way to South Avenue or one of the numerous paved paths in Highland Park.

With the existing 4-lane road striping configuration on South Avenue north of the intersection, there is insufficient width for designated bicycle space. Without some form of re-striping, or road widening, where there is sufficient width to designate a shoulder. Bicyclists may use existing sidewalks. Experienced bicyclists can merge with vehicular traffic, get into the left lane with vehicles and turn left onto Highland Ave. Less experienced bicyclists have the option of dismounting to use existing sidewalks, and negotiating the intersection as pedestrians. Again, to accommodate a reduction in the number of lanes, a study of road capacity would need to be conducted.

South Avenue is wide enough (40 ft) for nearly its entire length to accommodate two 14 ft. wide vehicle lanes and two 6 ft. wide shoulders. From Highland Avenue north to Reservoir, this would entail a reduction in the number of northbound lanes from 2 to 1. Again, to accommodate a reduction in the number of lanes, a study of road capacity would need to be conducted. Foot

traffic can be accommodated by existing sidewalks on either side of the road to Robinson. Although there is adequate space for both vehicles and bicyclists, a left turn onto Robinson can be a relatively unsafe experience mostly due to the curves in the road immediately to the south of Robinson that reduce the sight distance for vehicles approaching from that direction and also the large volume of traffic at certain times of the day. Sight distance is also critical for bicyclists trying to make the left-hand turn.



Figure 9

Robinson Drive is a lightly traveled park road, 24 ft. wide with parking available on the south side. There is sufficient width for 2-12 ft. wide lanes. There are sidewalks on both sides of the road to accommodate foot traffic. This leg of the trail could be the most pleasant and scenic because of the park conditions including the rolling hilly lawns and stately old trees and abundance of shade.

Figure 8 is a view of Robinson Drive looking west. Highland Park is on both sides of the road in this location. There are important plant collections throughout the park in this area. Highland Park is also historic and though the opportunity exists to perhaps cross over park land and create a separate bike trail, this approach would likely meet stiff resistance due to historic preservation issues that would result.

Figure 9 shows Mt. Hope Avenue looking north from the McLean St. intersection toward Robinson Drive. The road here has already been striped with a mostly 3.5 to 4 ft wide shoulder (narrower in some areas). This is not sufficient as a dedicated shoulder for bicycle use however sidewalks are present that could be used as the alternative. Pedestrian traffic could once again be accommodated by the adjacent sidewalks located on both sides of the road.

Mt. Hope cemetery was examined closely in an effort to locate an off-road route for the trail. For several reasons, a route through the cemetery is less desirable than staying on the road. They include:

- 1) the gated nature of the cemetery - it is entirely fenced in and closes at dusk,
- 2) entrapment - gates are closed at dusk and trail users may be left inside,
- 3) history - the cemetery is quite historic, an aspect that may present some hurdles in terms of introducing new roads or a new use to the existing roads and/or particular construction materials such as surfacing materials,
- 4) the remainder of the trail between the river and Goodman Street will likely be located on the existing right-of-way so it makes sense to be consistent with the project as a whole to

- remain on the right-of-way,
- 5) the dense grave and headstone configuration on cemetery ground would mean a route with numerous sharp (90 degree) turns and abrupt changes in grade, and
- 6) steep slopes along the west line of the cemetery would also present a logistical problem in bringing the trail directly to Wilson Boulevard and the Genesee River Trail.



Figure 10

Figure 10 shows McLean Street looking east from the southeast corner of the intersection with Wilson Boulevard. The road here is only 19 feet wide and is designated for one-way west-bound vehicular traffic only. The recently constructed concrete sidewalk (7.5 ft. wide) is owned by the University of Rochester which has indicated that it would like to limit sidewalk traffic to pedestrians only. It currently provides pedestrian access to a new university parking lot on McLean Street and would provide a trail for walking trail users.

Figure 11 shows the sidewalk leading to Wilson Boulevard and the existing crossing that could be utilized by pedestrian trail users as well. The University of Rochester has expressed a desire to allow only pedestrian traffic on the sidewalks here and not bicycle traffic. Across the street is the Genesee Riverway Trail, an asphalt paved 10-ft wide trail that connects to the Genesee Valley Park to the south and downtown Rochester to the north. The nearby pedestrian bridge over the Genesee River as well as the Ford Street and Elmwood Avenue bridges can take trail users to the west side of the river from here.



Figure 11

Recommendations

Recommended Trail Components and Linkages

The southern connection point of the proposed Connector Trail is at the terminus of an 8 ft. wide asphalt paved trail installed as part of the Brighton Meadows Office development when that project was initiated. Plans call for widening this leg of the trail to 10 ft. for a length of approximately 230 ft. to a point where it splits to the east and west meeting an existing 10 ft. wide, asphalt-paved trail. The east leg of this trail leads to Brighton Town Park while the west leg continues approx. 2400 lf. south/southwest along a large pond and Interstate 590 and connects to the Erie Canal Heritage Trail. Signage would be added along this trail to inform users of the approaching Connector Trail route to the north and Brighton Town Park to the east. A new kiosk feature should be placed at the point where the trail meets the Canalway. The kiosk should include a map of the trail route and identify the various significant features and linkages along the route including the Brighton Town Park, the St. John's Meadows nature trail, Highland Park, etc. A second map of the Connector trail should be installed at the connection point in Brighton Meadows where there are 6 parking spaces apparently constructed as part of the initial phase of that project's development.

Sawgrass Drive/Brighton Meadows Section. Two alternative trail alignments were discussed for the Brighton Meadows Office Park from the connection point northward toward Westfall Road and the Monroe Developmental Center (MDC) property. With the selected alternative illustrated on the plans, all trail users would be directed to a separate, designated 10 ft. wide paved trail located on the east side of Sawgrass Drive (Figure below). This trail would be separated from the road by a wide tree lawn (10 ft. wide minimum), and would cross 2 driveways as it approaches the intersection with Westfall Road. Easements from the owner of the adjacent property to the east (formerly General Railway Signal) may be needed to fully accommodate the construction of this trail. The asphalt trail would consist of 2" Type 7 NYSDOT top course on 6" Type II compacted stone base. In some locations, underlying geotextile pavement reinforcement material may be required. The pavement surface should slope to one side or the other throughout at 1/8"/ft. Min. to 1/4"/ft. Max.

The second alternative would propose to bring bicycle traffic out onto Sawgrass Drive to follow the east 'leg' of that road north to Westfall Road at a point opposite the entrance to MDC.. Bicycles would be on the road, sharing a lane with vehicles in each direction. Pedestrians, skaters and other trail users would follow the existing and proposed sidewalks along the west branch of Sawgrass Drive also to Westfall Road. This sidewalk could be widened perhaps to 10 ft. at some time in the future as the developer of Brighton Meadows has previously granted to the Town of Brighton a 10 ft. wide 'Sidewalk Easement' in this location. The west intersection of Sawgrass and Westfall Road is approximately 900 ft. west of the MDC/ east Sawgrass Drive - Westfall Road intersection. Although it is believed the intent of the easement was to accommodate all trail users, it is believed bicyclists would probably take the more direct east branch route to the intersection with Westfall Road by following the east leg of Sawgrass Drive even with directional signage that could be installed. Non-bicycling trail users (walkers, skaters, etc.) Who find themselves at the 6 parking spaces would also likely be tempted to go directly north to the east intersection - bypassing any

sidewalks located in the 'Sidewalk Easement'.

Westfall Road Crossing. Plans show crossing Westfall Road at the intersection of the entrance to Monroe Developmental Center - opposite Sawgrass Drive. Plans also call for the provision of a traffic signal here to assist and protect trail users as they cross this heavily traveled road. The crossing would be well marked with a high-visibility crosswalk such as a 'piano-key' style walk and designated with appropriate signage and alternative pavement materials. Additional traffic calming measures and a pedestrian refuge feature may be helpful and are described in more detail in Appendix 2 'Traffic Report' and the accompanying Figure A. Also, see Figure 23 illustrating a Typical Road Crossing. Sidewalk ramps, high-visibility crosswalks, and signage are among the improvements that would be recommended here. These pedestrian features should be included with Westfall Road reconstruction design (see below).

Westfall Road is scheduled to be reconstructed in the next few years by Monroe County as part of their capital improvement program. The east section of Westfall Road (from South Clinton to Winton Road) was recently reconstructed (completed in 2001). A signal at Westfall Road/Sawgrass Drive has been conceptually approved as part of the development of Brighton Meadows. The estimated time period for implementation by the developer is late 2004 to early 2005.

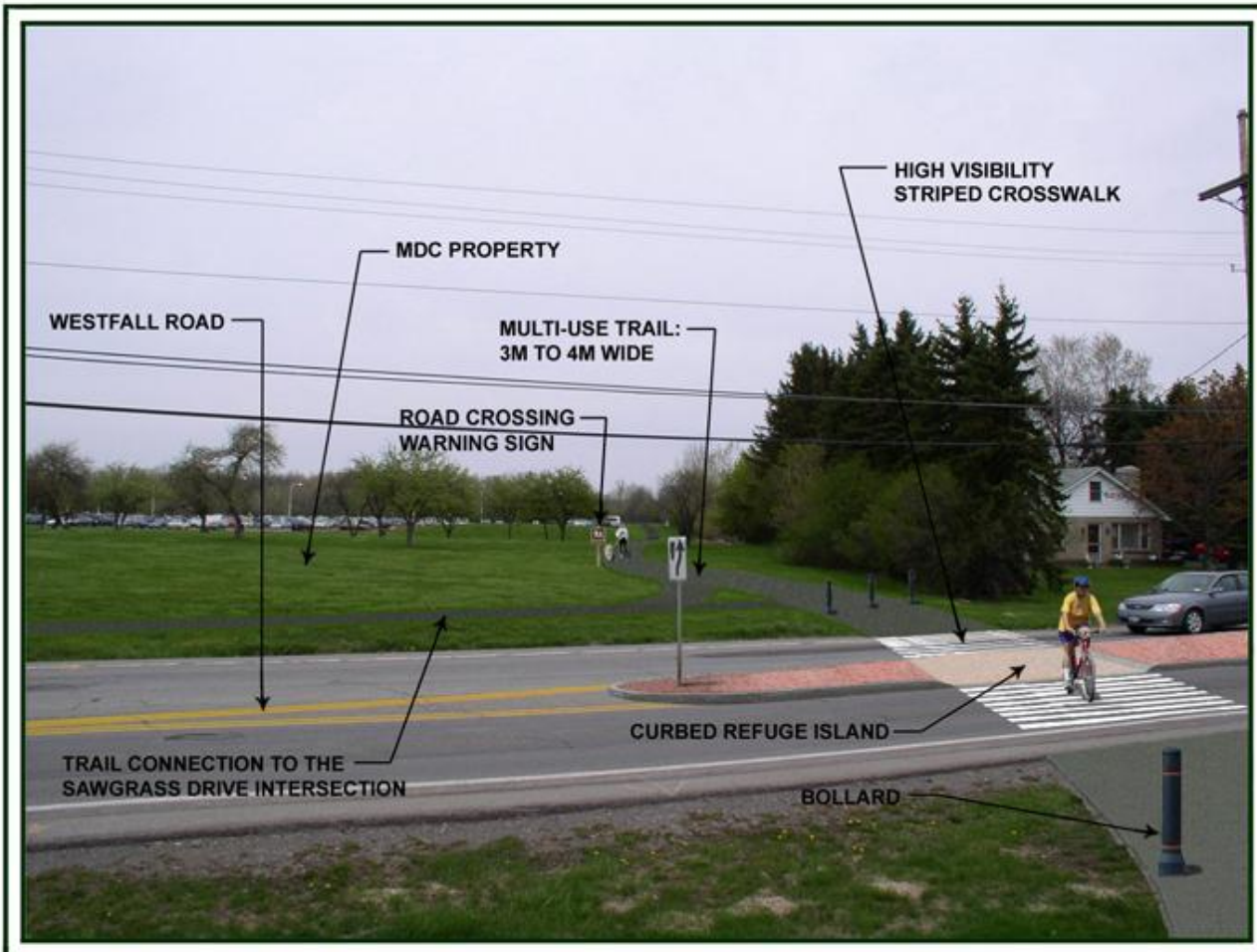
Monroe Developmental Center Section. Upon crossing Westfall Road, the Trail would then extend northward through the MDC property. Although various routes through the property were considered and discussed, the route alternative selected and shown on the plans has met with approval of the Executive and Business offices of MDC. The reasons for selecting this route include the following: sensitivity to the rights of the disabled living at the site, potential for future development of open areas of the site, and minimization of potential conflicts with vehicles, parking, and maintenance staff.

The route identified shows a jog east to the east property line immediately after crossing Westfall Road and entering the property. The trail would then continue north along side of and 15 to 20 ft. from the MDC east property line thus avoiding conflicts with vehicular traffic, parking, and pedestrians elsewhere on the property. The trail could stay to the 'fringe' of the property once it reaches the north line of the MDC property by following an existing berm westward to Buckland Creek. At this point, the trail would cross the man-made ditch and onto Rochester State Hospital lands. **Figure 13** shows a photo simulation of the trail on MDC property turning north at the east property line and continuing northward to the rear of the property.

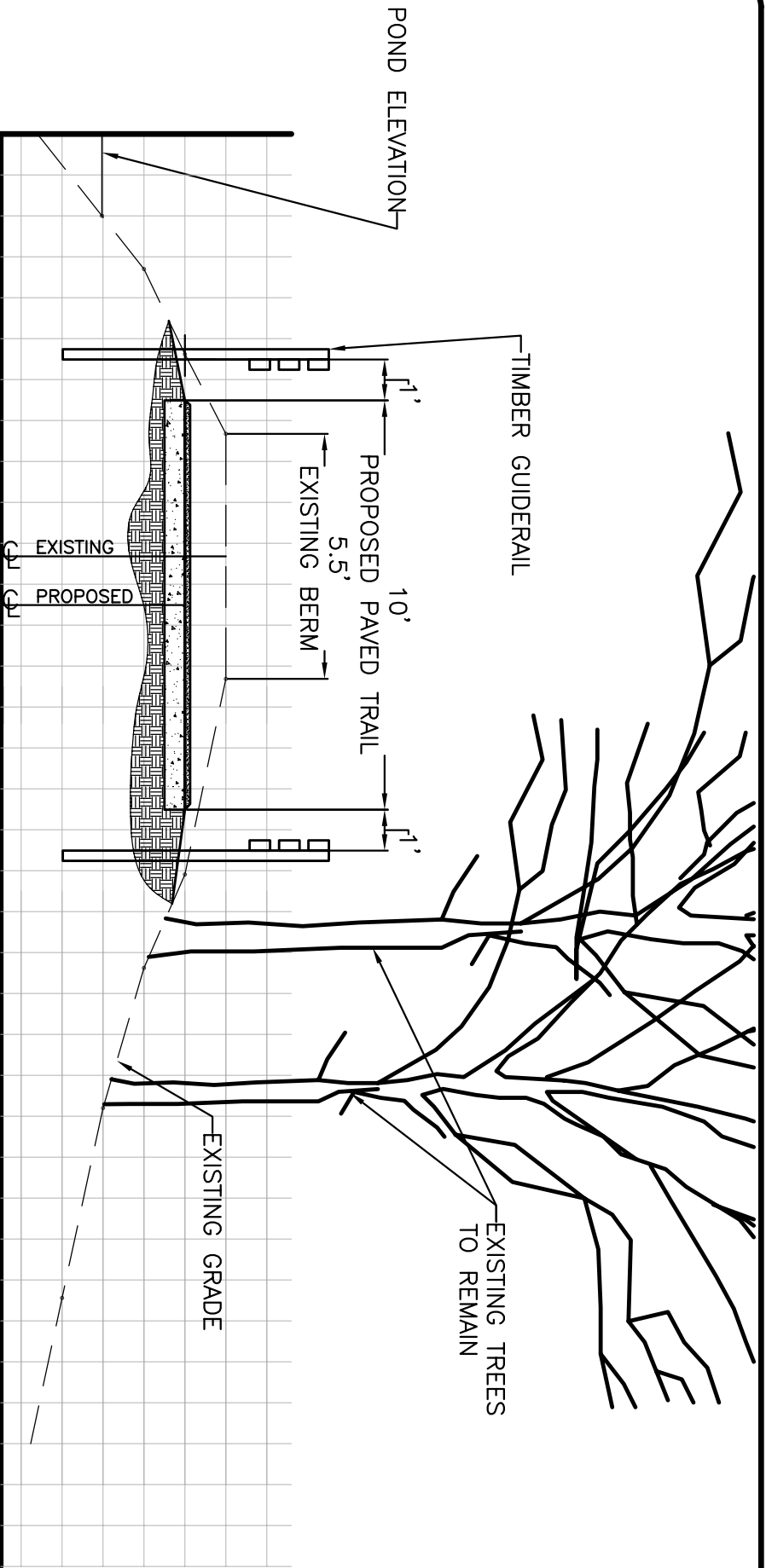
A landscape buffer of evergreen and small flowering trees would be provided along the west side of the Trail to screen the trail from residences in the complex and to screen views of MDC buildings and parking areas from the Trail - as illustrated on the plans.



VIEW No. 4: WESTFALL ROAD CROSSING / MDC PROPERTY - EXISTING CONDITIONS LOOKING NORTH
 PREPARED BY: McCORD LANDSCAPE ARCHITECTURE



VIEW No. 4: WESTFALL ROAD CROSSING / MDC PROPERTY - PROPOSED CONDITIONS LOOKING NORTH
 PREPARED BY: McCORD LANDSCAPE ARCHITECTURE



SECTION A-A

VERT. SCALE: 1" = 4'-0"
 HORIZ. SCALE: 1" = 4'-0"

HIGHLAND PARK / CANNALWAY TRAIL
 CITY OF ROCHESTER
 TOWN OF BRIGHTON

Phone: (561) 218-0300
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A trail connection should be provided to existing paved and wood-chip trails at St. John's Meadows via a proposed 6 ft. wide asphalt paved trail. Trail users could access the existing nature trail and wetlands area via this route. A second connection could be made to the east to a residential subdivision via one of several small properties owned by the Town of Brighton and right-of way already in place.

The development of the Trail within the 100 ft. wide wetland buffer area will include working with the NYS Department of Environmental Conservation and the U.S. Corp of Engineers on the precise route, trail surface materials, guide and rails and fencing that may be required. Plans call for placing the trail on an existing man-made berm as the Trail makes its way through this heavily wooded section. **Figures 14 and 15** illustrate the work proposed for the trail on this berm.

Rochester State Hospital (RSH) Section. Upon leaving the MDC property, the Trail is proposed to proceed north/northwest through a 7.35 acre Rochester State Hospital (RHS) parcel, through wetlands (portions of NYSDEC BR-10) and a somewhat densely wooded (undergrowth) area. The trail will be raised off the ground on a boardwalk where it crosses the man-made ditch and designated wetland areas. The boardwalk may be similar in nature to that currently in place as part of the nearby nature trail but wider to accommodate bicycle as well as pedestrian traffic. The Trail would proceed northward through RSH lands to the 'Mansions at Brighton' property which is similarly densely wooded and extends northward to Elmwood Avenue. Work done on the Trail and boardwalk would, again, need to be coordinated with the NYSDEC and USCOE as well as New York State.

The Mansions at Brighton Section. The property directly north of the 7.35 acre Rochester State Hospital parcel is currently under review by the Town of Brighton for a residential townhouse/attached single family home development known as the 'Mansions at Brighton'. The concept plan for the project includes a trail along the west boundary of the property which, if developed as the Connector Trail, would serve as the next link northward to Elmwood Avenue. The Trail is shown on MLA plans as a 10 ft. wide asphalt paved trail and in essentially the same location as is shown on the 'Mansions' plan. The Trail veers west as it nears Elmwood Avenue and for a distance of approximately 140 ft would be on RHS property - crossing over to a point directly opposite the Goodman Street intersection with Elmwood.

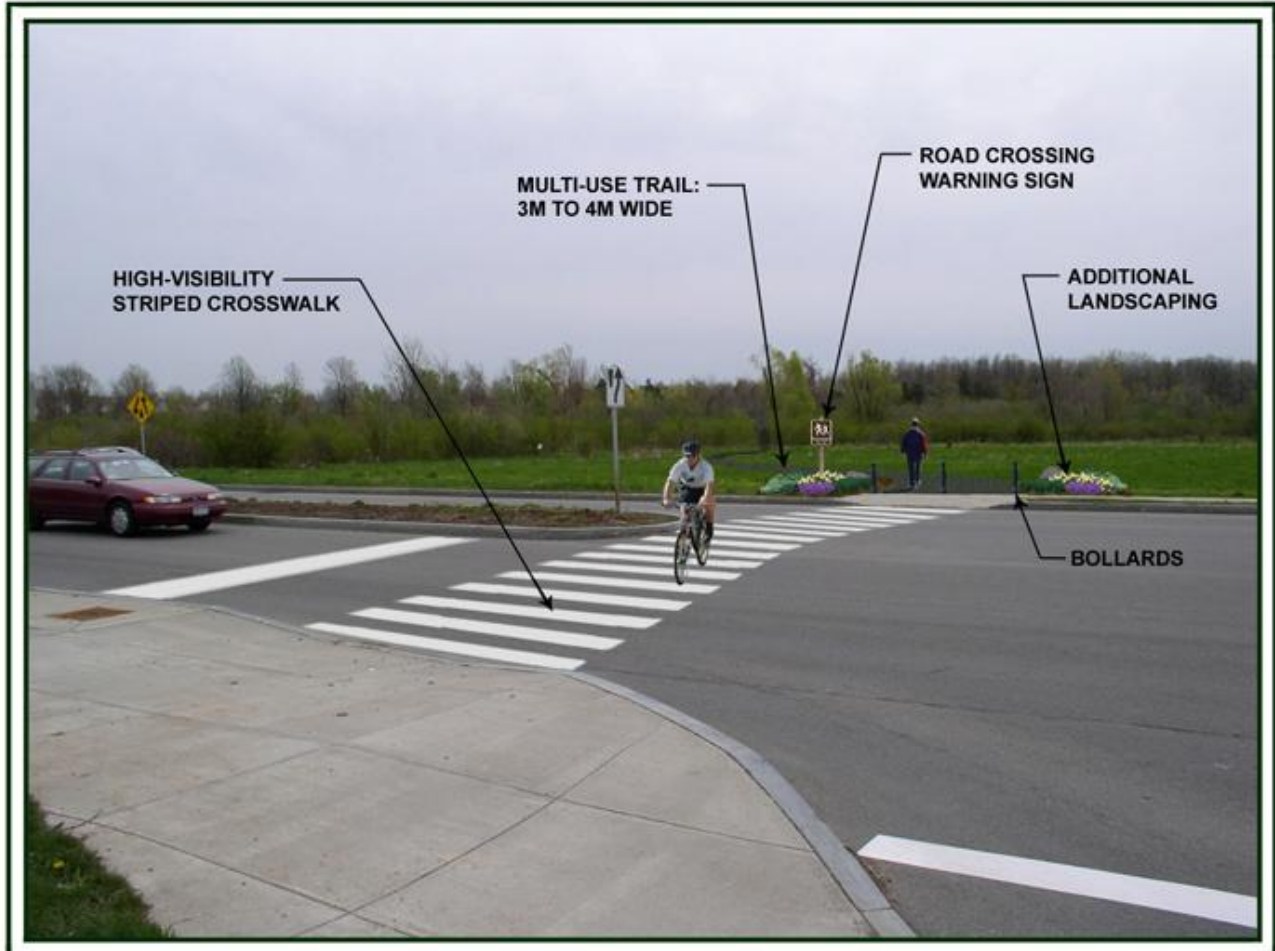
The 'Mansions' plan also calls for additional trails and/or boardwalks through the wetland area, linkages to the Town developed nature trail, and to the St. Johns Meadows trail system. This study is in full support of those linkages as they would tend to serve as another reason for development of the Connector Trail.

A second alternative route would continue west from the 7.35 acre RSH parcel to other RSH lands including a 100 ft. wide strip of land extending all the way to Elmwood Avenue. The status of all of the RHS properties at this writing is in flux as the State of New York has ceased operations at the Hospital and is reportedly weighing the option of selling it or re-using it for other operations.

Elmwood Avenue Crossing. Elmwood Avenue is perhaps the busiest road the Trail will need to cross at grade. Upon crossing the road, the trail would continue northward parallel to Goodman Street. Goodman runs through a flat and southernmost portion of Highland Park. An existing curbed traffic median



VIEW No. 7: ELMWOOD AVENUE TRAIL CROSSING AT GOODMAN STREET - EXISTING CONDITIONS
PREPARED BY: McCORD LANDSCAPE ARCHITECTURE



VIEW No. 7: ELMWOOD AVENUE TRAIL CROSSING AT GOODMAN STREET - PROPOSED CONDITIONS
PREPARED BY: McCORD LANDSCAPE ARCHITECTURE

on Elmwood at the intersection with Goodman presents perhaps the best opportunity to cross with some degree of traffic control and trail user safety. The median would act as a refuge area as it exists and would be modified with ramps, perhaps an additional curbed section to define the Trail at the island, and special pavement material to accommodate the Trail traffic. There are no known plans by Monroe County DOT or the City of Rochester to signalize this intersection or add stop signs and warrants are currently not met for provision of either device. However, we recommend a study to evaluate existing and future conditions to see if warrants might be met. See **Figure 23** and page 2 of the Traffic Analysis, Appendix 2 of this report for specific improvements suggested for this crossing. A ‘gap analysis’ would be required to justify a crosswalk. No further analysis is provided as part of this report. Figure 16 illustrates a photo simulation of this intersection looking south from near the Highland Park sign. Sidewalk ramps, high-visibility crosswalks, and signage are among the improvements that are also proposed here.

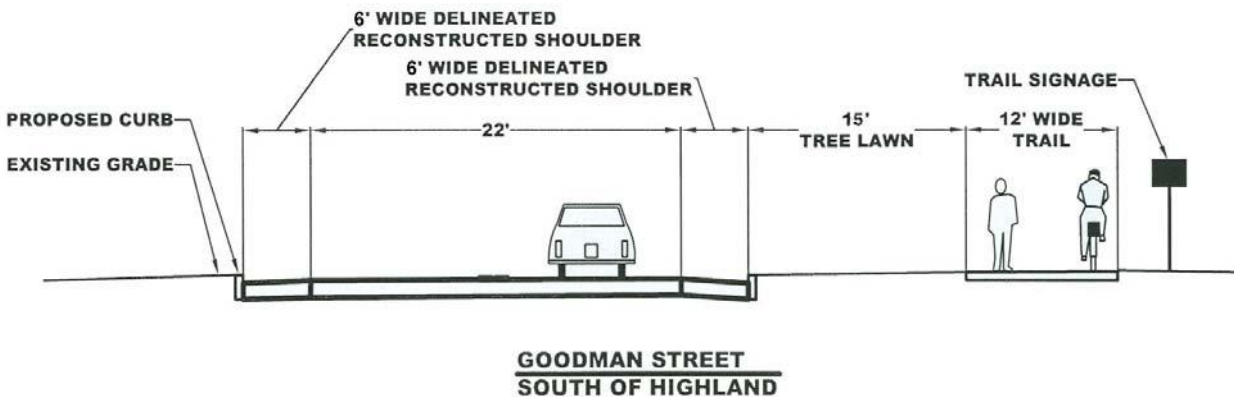


Figure 17

Goodman Street/Highland Park Section. The selected alternative would continue with a dedicated 12 ft. wide asphalt paved trail through this property along the east side of, and parallel to, Goodman Street. The trail would be separated from the roadway by a wide tree-lawn strip planted with trees. The trail in this area could be perhaps wider than the trail to the south - perhaps 14 ft. wide to accommodate the increase in trail traffic during the annual Lilac Festival and from the surrounding densely populated neighborhoods to the east and west the rest of the year. The plans also illustrate improvements to Goodman Street under this alternative that would include provision of new curbing and reconstructed, 6 ft. wide shoulders to accommodate those bicyclists who wish to remain on the street. **Figure 17** illustrates a section of the proposed trail in relation to Goodman Street and possible road improvements.

A second alternative was discussed that would provide the 6 ft. wide shoulders, one on each side of the road along with a 6 ft. wide sidewalk on the east side of the road for pedestrians, skaters, and slower bicyclists. The sidewalk would be separated from the roadway by a wide (10 to 15 ft.) tree lawn strip heavily planted with trees to reinforce the separation of road traffic from pedestrians and to reinforce the park aesthetics. This alternative would be more expensive than the off-road trail and would require the previously described road improvements.



VIEW No. 8: GOODMAN STREET LOOKING SOUTH - EXISTING CONDITIONS
PREPARED BY: McCORD LANDSCAPE ARCHITECTURE



VIEW No. 8: GOODMAN STREET LOOKING SOUTH - PROPOSED CONDITIONS
PREPARED BY: McCORD LANDSCAPE ARCHITECTURE

A kiosk feature would be located at the southeast corner of Goodman Street and Highland Ave. The kiosk feature would have a decorative pavement surface, benches, directional signage, and a kiosk with a trail map, rules, and interpretive information. It would also explain park rules including the County Parks Department policy of not allowing bicycle or skating traffic on park trails. Concrete sidewalk connections should be provided from this corner that connect to existing sidewalks on Goodman Street to the north and Highland Avenue to the east. Directional signs to the trail should be added at various locations in neighborhoods around Goodman Street to the north of the Goodman/Highland intersection. Any future realignment of Goodman Street to create the ‘parkway’ design suggested by the early Olmsted plans should include the bike trail and widened shoulders in the new configuration.

Highland Park Section. Routes through and around Highland Park were discussed in detail during the course of this trail study. Specifically, the **Goodman-Pinetum-Doctor’s/Reservoir** route was not considered a viable alternative for the following reasons:

1. The bicycle/vehicle conflicts anticipated at the Goodman/Pinetum intersection. Goodman is quite busy in this area, especially during rush hour.
2. The intersection is not signalized, nor is there any plan in place to provide a signal. A mid-

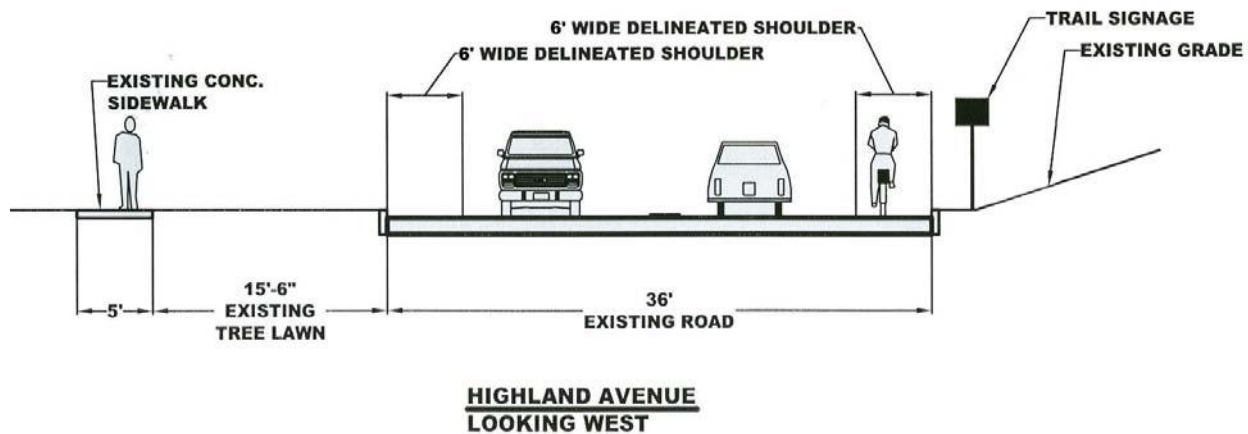


Figure 18

block crossing is something that would need to meet appropriate warrants and gap study criteria to be approved by Monroe County Department of Transportation.

3. The site distance for vehicles traveling south on Goodman Street versus the required stop distance to make way for bicycle traffic turning onto Pinetum is considered unsafe.
4. The grade up Goodman Street and then up Pinetum is greater than 5% which is undesirable because the ascents are difficult for many bicyclists and the descents cause some bicyclists to exceed the speeds at which they are competent or comfortable. The route also would exceed the ADA recommended length for an acceptable recreational pedestrian trail route with a grade of more than 5%.
5. Both Reservoir Avenue and Doctor’s Drive have deep gutters that may present challenges for bicycle traffic and would likely need to be improved.

Highland Avenue is a good route for the trail because the road is wide enough from Goodman Street west to South Avenue for delineated shoulders on each side, 6 ft. wide in each direction.

There are relatively few driveways - especially along the north side (the 'lilac collection' side). Traffic is relatively light when compared with traffic on both Goodman Street and South Avenue. **Figure 18** illustrates the road section and delineated shoulders that would accommodate bicycle traffic.

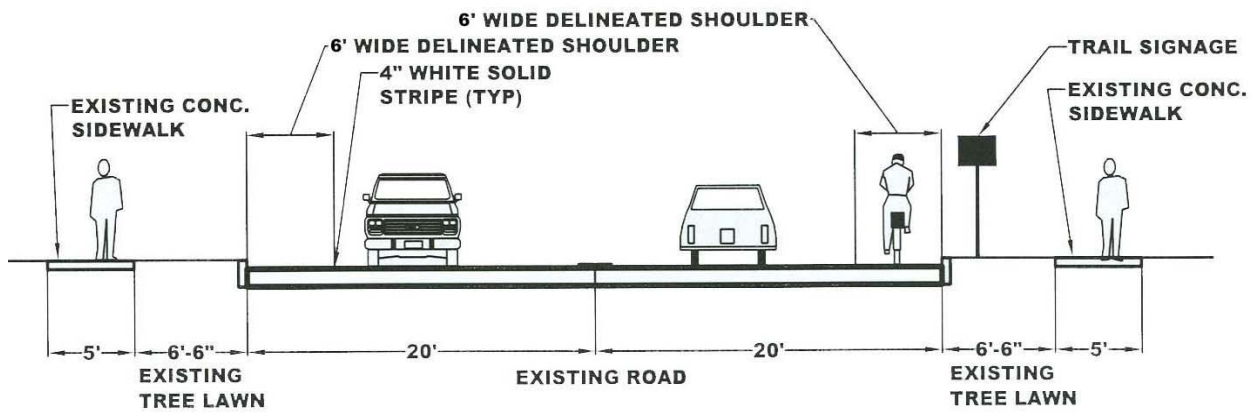
A second alternative, the **Highland Park Trail** route would follow Highland Avenue to the 'Lilac Crossing', at which point users would turn north, enter the park on the existing paved 10 ft. wide trail. They would follow existing trail all the way to Reservoir Avenue at the Conservatory, cross Reservoir and take a new trail next to and just east of the Conservatory all the way to the intersection of Robinson Drive and South Avenue. This route is considered less desirable than the selected route for the following reasons:

1. The County Parks Department currently does not allow bicycle traffic on park trails of any sort (paved or otherwise). This provision of the regulations would need to be changed in order to allow for bicyclists.
2. Additional signage would be required to keep bicyclists on only the one connecting or proper route - assuming the County would approve use of only the most direct path up to the Conservatory from the Lilac Crossing on Highland Avenue.
3. Part of the route has grades greater than 5% which, again, is undesirable because the ascents are difficult for many bicyclists and the descents cause some bicyclists to exceed the speeds at which they are competent or comfortable. The steep portion of the route may exceed the ADA recommended length for a recreational pedestrian trail route with a grade of more than 5%..
4. Any use of Reservoir Avenue for trail purposes would require safety improvements to that street due to the deep gutters along both sides of the street.

The selected trail route, the **Highland Avenue to South Avenue Trail**, follows Highland Avenue to South Avenue where it turns north. This route is considered the best for the reason stated above regarding the adequacy of Highland Avenue for bicycle traffic. It has two drawbacks. One is a 300 ft. length of on-street parking (12 to 14 vehicles) on the north side of the road (west-bound). The parking is located between the 'Lilac Crossing' (pedestrians) and the entrance to St. John's Home. It eliminates the possibility of a delineated shoulder in that area and signs would be required to alert bicyclists to the abrupt change to a shared 11 to 12 ft. wide lane. Plans are underway at the time of this writing to remove building(s) on the St. John's property and construct new parking areas. County and City personnel consulted on the matter were unable to confirm if or when the parking might be removed but were also in agreement that if the on-street parking were no longer needed, it should be removed, which would allow for the recommended on-street bicycle traffic configuration.

The second drawback is that, within a few hundred feet of the South Avenue intersection, the number of lanes would need to be reduced from 4 to 3 to allow for the delineated shoulders. Alternatively, if lanes cannot be eliminated due to traffic volumes, bicycle traffic would share existing lanes with vehicles or trail users would walk bicycles on the concrete sidewalks for the area near the intersection. The delineated shoulders would end before reaching South Avenue due to existing traffic lanes and pavement width constraints.

The existing concrete sidewalk along the south side of the road is continuous and 5 ft. wide and



SOUTH AVENUE

Figure 19

would accommodate pedestrian traffic. As an alternative, a second sidewalk, 5 ft. wide on the north (or ‘Lilac Collection’) side of Highland Avenue should be investigated with a 6 ft. wide minimum tree lawn to additionally accommodate pedestrian traffic. This sidewalk would continue west to where it would meet the existing sidewalk adjacent to the St. John’s Home.

South Avenue Section. The Highland Park / South Avenue intersection is one of the busiest and challenging section of the proposed trail, particularly for bicycle traffic. The Traffic Report (Appendix 2 - Figure A) of this document describes and shows proposed improvements to the intersection including re-striping from 4 to 2 lanes and delineation of shoulders. The 40 ft. width of the existing South Avenue road section allows ample room for a 6 ft. delineated shoulder along with one 14 ft. lane in each direction. Under existing conditions, both Highland Avenue and South Avenue approach the intersection with 2 lanes in each direction, striped to allow for a left turn lanes in each direction. Without the re-striping proposed, delineated shoulders (bicycle lanes) through the intersection in either direction are not possible and, if lanes cannot be eliminated due to traffic volumes, bicycle traffic would share existing lanes with vehicles or trail users would walk bicycles on the concrete sidewalks for the area near the intersection.

From Highland Avenue, the route proceeds north to the intersection with Robinson Drive where the trail route turns west. The delineated 6 ft. wide shoulders would continue north (with 2-14 ft. wide drive lanes) to where a left turn lane is recommended just south of and onto Robinson Drive. The paved shoulder width would narrow to 4 ft. to allow for the three vehicle lanes within the existing road cross section. Due to the volume of traffic on South Avenue, this left turn from South Avenue onto Robinson is one that will also be challenging for bicyclists traveling on the street. The left turn lane would accommodate vehicular and bicycle traffic and would require the appropriate lane-narrowing striping on the north side of the intersection to slow down traffic. See Appendix 2, Figure ‘B’ for more on recommended improvements to this intersection. **Figure 19** illustrates the road section and delineated shoulders that would accommodate bicycle traffic. A traffic analysis would be required to determine whether a left turn lane is warranted and whether it would work with traffic volumes.

The existing 5 ft. wide concrete sidewalk along both sides of the road are continuous and are sufficient to accommodate pedestrian traffic. Pedestrian traffic following the trail would be encouraged with appropriate signs to cross at the signalized, Highland Avenue intersection. The

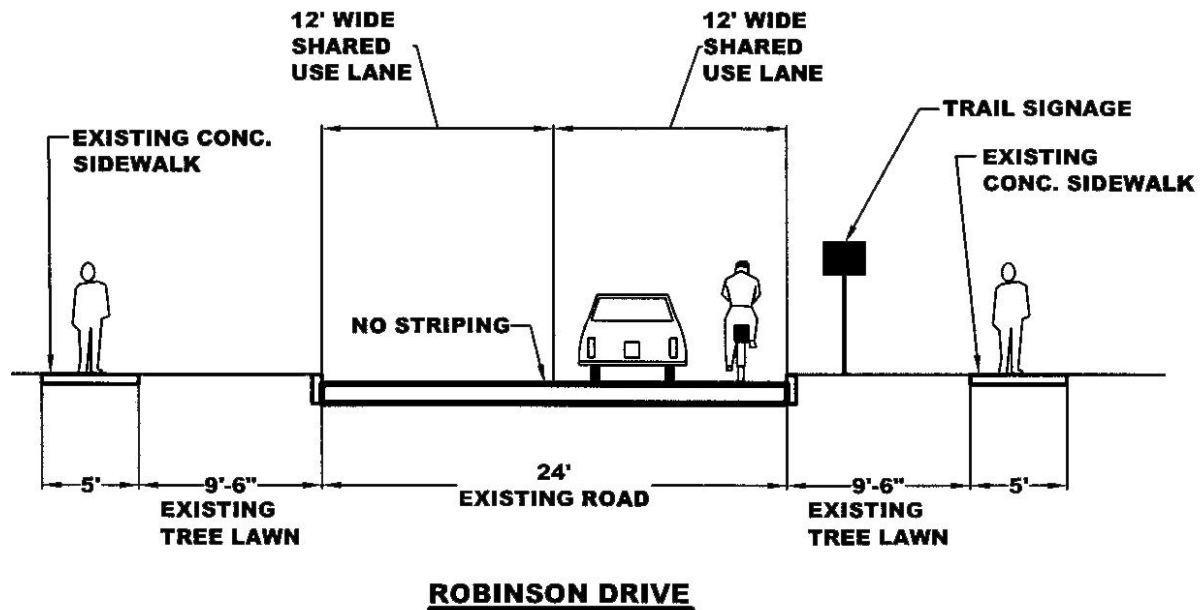


Figure 20

existing concrete sidewalks along the both sides of the road are continuous and 5 ft. wide and are sufficient to accommodate pedestrian traffic.

Robinson Drive Section. Although other possible alternatives were discussed, including off-road dedicated trail, sidewalk widening, and curb relocation to accommodate parking, Robinson Drive is proposed to continue accommodating 2-way vehicular traffic as well as the proposed trail traffic in the existing two lanes - without any improvements to the road itself. Traffic counts are relatively low on this road and will continue to be low for the foreseeable future. It will likely be a more relaxing section of the trail. Intermittent parking along the south side of the road is not a desirable condition considering the narrowness of the road, however, given the light traffic flows, this was not considered a major obstacle for on-street bicycle traffic.

Figure 20 illustrates the road section and the proposed shared-lane accommodation for bicycle traffic.

Pedestrian trail traffic will utilize the existing concrete sidewalks on either side of the road.

If traffic counts were to increase on Robinson Road, consideration should be given to widening of the road to better accommodate shared use of the road by vehicles and bicyclists. Parking could be located along the road in specific areas in the same fashion parking is located along the entrance road to Genesee Valley Park.

Any proposal to construct a dedicated separate trail through the important plant collections in this area, or widening of the existing sidewalk to 10 ft wide minimum to accommodate the trail would likely both meet substantial resistance from both the Monroe County Parks Department and the public park preservation groups. Thus, this option was determined infeasible.

Mt. Hope Boulevard Section. Mt. Hope Boulevard is already striped for 3.5 to 4.5 ft. wide

shoulders. This does not meet the minimum width for a bicycle lanes according to NYSDOT or AASHTO. We are not proposing any roadway improvements at this time due to the existing confined right-of-way parameters and the relatively recent reconstruction of Mt. Hope Avenue in this area. Additional signing and pavement marking are recommended at this time. The existing concrete sidewalks along the both sides of the road are continuous and 5 ft. wide and are sufficient to accommodate pedestrian traffic. High visibility crosswalks are recommended for pedestrians crossing at both Robinson Drive and McLean Street intersections. A 'gap analysis' traffic study would be required to justify the provision of either or both crosswalks. Pedestrian crossings at either Robinson or McLean are without benefit of a traffic signal although one should be considered with any future reconstruction of the road.

McLean Street. McLean Street is a 19 ft. wide pavement section curb to curb and currently operates one way (west-bound). The proposal for the Trail is to introduce a contra-flow east-bound bicycle lane 5 ft. wide separated from a shared use 14 ft. wide lane by a 12 inch wide double yellow stripe. McLean is a relatively lightly traveled road and there is no known reason to anticipate increases in vehicular traffic flow in the near future. **Figure 22** illustrates the road section, shared use lane, and delineated contra-flow lane that would accommodate bicycle traffic. The existing 7.5 ft. wide sidewalk is ample width to accommodate pedestrian traffic. Use of this sidewalk was considered, but the University of Rochester, which owns and maintains the sidewalk, would like to restrict use to only pedestrian traffic.

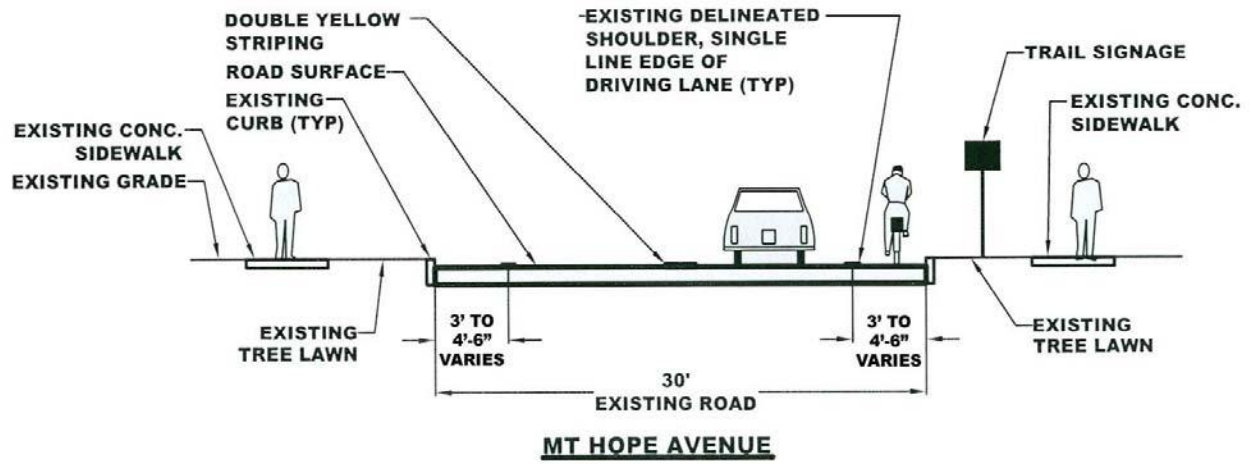
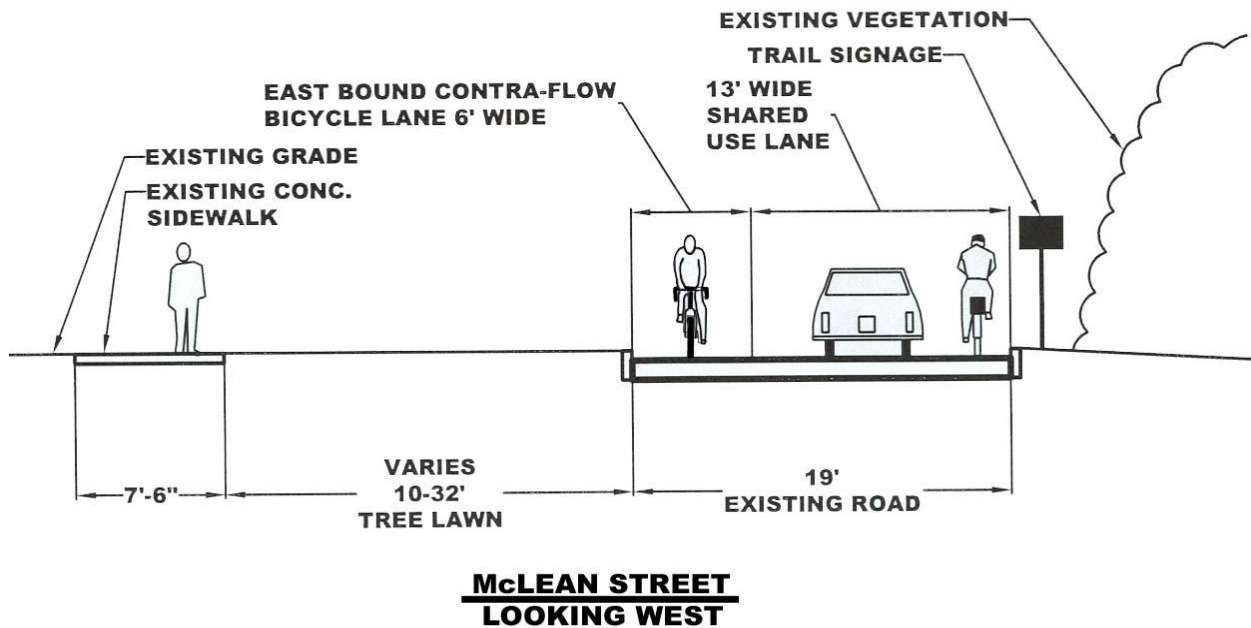
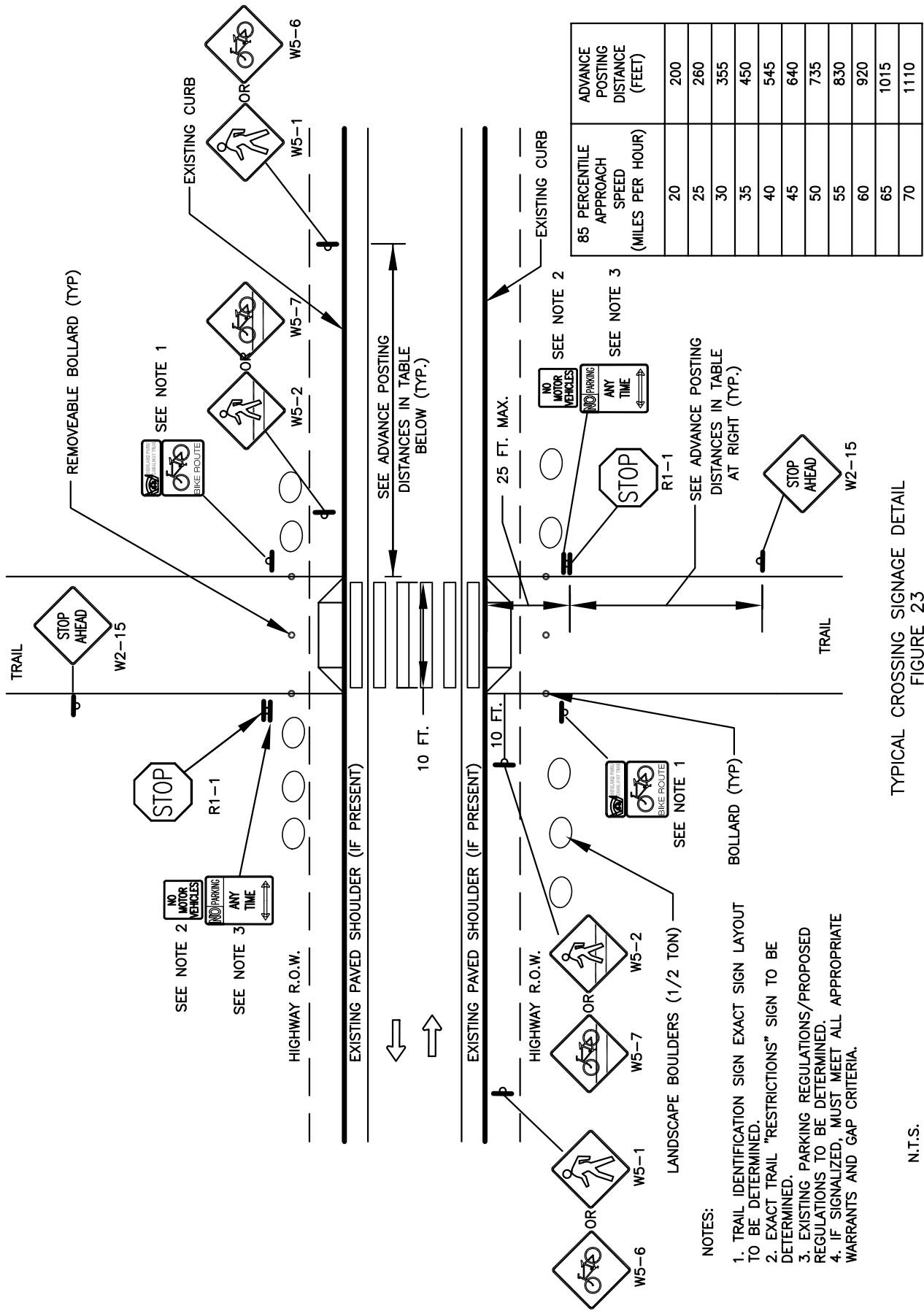


Figure 21





85 PERCENTILE APPROACH SPEED (MILES PER HOUR)	ADVANCE POSTING DISTANCE (FEET)
20	200
25	260
30	355
35	450
40	545
45	640
50	735
55	830
60	920
65	1015
70	1110

- NOTES:
1. TRAIL IDENTIFICATION SIGN EXACT SIGN LAYOUT TO BE DETERMINED.
 2. EXACT TRAIL "RESTRICTIONS" SIGN TO BE DETERMINED.
 3. EXISTING PARKING REGULATIONS/PROPOSED REGULATIONS TO BE DETERMINED.
 4. IF SIGNALIZED, MUST MEET ALL APPROPRIATE WARRANTS AND GAP CRITERIA.

TYPICAL CROSSING SIGNAGE DETAIL
FIGURE 23

N.T.S.

HIGHLAND PARK / CANALWAY
CONNECTOR TRAIL
TYPICAL ROAD CROSSING

NO SCALE
MARCH 15, 2004
REVISED: OCTOBER 5, 2004

McCord
Landscape
Architecture
Douglas C. McCord, ASLA
2129 Five Mile Lane
Pawnee, New York 14256

Phone (585) 218-0300
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Implementation

General

The Genesee Transportation Council, the City of Rochester, and the Town of Brighton should undertake the capital investments required to develop the new Connector Trail as described herein and as shown on the plans. The proposed action plan assumes the recommendations of this plan will be implemented over the next five to ten years. It makes no assumptions about where funding for various portions of the project will come from, however we propose methods to obtain funding from a variety of sources to support the development of the facility.

Resources of both federal and state transportation improvement/enhancement programs must be recognized as important contributors to meeting the funding needs for construction of the Trail.

Five to Ten Year Capital Improvements Proposal and Cost Estimate

The following capital improvements are based on those recommendations of this plan which are believed to be feasible and reasonable within the five year period of the plan.

Canalway/Highland Park Connector Trail Project Estimate

Preferred Alternative

MLA Project No. 478

A. Off-Road Trail Sections

<u>Item</u>	<u>Cost</u>
[Town of Brighton]	
1. Sawgrass Drive Trail Section	
a. Asphalt Paved Trail, minimum 12 ft. wide - 735 LF @ \$41/LF	\$ 30,135
b. Widen existing asph. Trail from 8' to minimum 12', 412 LF @ \$18/LF	7,416
c. Road Crossings - complete with ramps, bollards, boulders, and crosswalk @ \$3,500/EA	7,000
d. Signage (LS- materials only - installed by the Town of Brighton or City of Rochester)	3,000
e. Kiosk Feature Area	12,000
	Subtotal: \$ 59,551
2. Westfall Road Crossing, complete with ramps, bollards, boulders, and crosswalk -1 @ \$4,500/EA (traffic signal funded in part by Brighton Meadows Developer)	4,500
3. Monroe Developmental Center Trail Section	
a. Asphalt Paved Trail, minimum 12 ft. wide - 2,615 LF @ \$41/LF	\$ 107,215
b. Asphalt Paved Trail, 6 ft. Wide - 220 LF @ \$26/LF	5,280
c. Clearing along the north property line, LS	5,720
d. Textured/colored 10 ft. Wide Trail surface -625 LF @ \$42/LF	26,250
e. Signage (LS)	2,400
f. Landscape Screen Planting 35 Evergreen Trees @ \$200/EA & 15 Dec. Trees @ \$350/EA	12,250
g. Regrading along the north property line and at Westfall Road & Misc. Drainage, LS	20,000
h. Timber Rail / fence, 180 LF @ \$30/LF	5,400
	Subtotal: \$ 184,515
4. Rochester State Hospital Trail Section	
a. Raised Boardwalk, 180 LF @ \$300/LF	54,000

b. Asphalt Paved Trail, minimum 12 ft. wide - 300 LF @ \$34/LF	12,300
c. Textured/colored minimum 10 ft. wide trail surface -100 LF @ \$42/LF	4,200
d. Clearing, Grading, and Drainage LS	15,000
d. Signage (LS)	800
Subtotal:	<u>\$ 86,300</u>

5. Mansions of Brighton Trail Section

a. Asphalt Paved Trail, minimum 12 ft. wide - 1,418 LF @ \$41/LF	\$ 58,138
b. Clearing, Grading, and Drainage LS	30,000
c. Signage (LS)	1,400
Subtotal:	<u>\$ 89,538</u>

[City of Rochester]

6. Elmwood Avenue Crossing- complete with ramps, bollards, boulders, and crosswalk - LS (crossing amenities by municipality developing the trail)	40,000
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7. Highland Park/Goodman Street Trail Section

a. Asphalt Paved Trail, minimum 12 ft. wide - 2,125 LF @ \$41/LF	87,125
b. Street Tree Planting 35 Trees @ \$450/EA	15,750
c. Kiosk Feature Area	12,000
Subtotal:	<u>\$ 114,875</u>

Total estimated cost: Off-road trail, Canalway Trail to Highland Park:	Total:	\$ 579,279
--	--------	------------

Design, Administration and other contingency (20%):		\$ 115,856
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Grand Total, Say: \$ 695,135

B. On-road Trail Sections

1. Highland Avenue - Road Re-striping, Crosswalks, & Signage (LS) *	\$ 20,000
2. South Avenue - Road Re-striping & Signage (LS) *	\$20,000
3. Robinson Drive - Route Signage (LS) *	\$ 4,800
4. Mt. Hope Avenue - Crosswalks & Road Signage (LS) *	4,500
5. McLean Street - Road Re-striping & Signage (LS) *	<u>4,800</u>

Total estimated cost: On-road Trail From Goodman Street to the Genesee River Trail:	Subtotal:	\$ 54,100
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Design, Administration and other contingency (LS):	Total:	<u>\$ 30,000</u>
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Grand Total: \$ 53,300

Total estimated Project Cost (On-Road and Off-Road), Say: \$ 780,000

* Work required by the preferred alternative would include shifting traffic signal heads, replacing traffic signal loops, rearranging parking, etc.

Additional costs for traffic studies and design of facilities, Town of Brighton and City of Rochester administration, and other contingencies are also taken into account. Assuming an amount of 20% (\$115,856) to cover these cost for the off-road trail sections and a lump sum \$30,000 to cover these cost for the on-road trail sections, we have a total estimated development cost of \$ 780,000. All cost estimated numbers are in 2004 dollars and should be revised to reflect current costs at such time as these items are scheduled for implementation. Costs do not identify property and/or easement acquisition costs that may be necessary to construct certain segments of the trail.

Traffic Studies

Traffic Studies

A significant portion of the proposed trail route falls on existing streets and public rights-of-way, a substantial effort will be required in determining the appropriateness of the various recommendations based on existing and anticipated traffic flows including vehicular, bicycle and pedestrian traffic. The following traffic study activities are anticipated prior to moving forward with recommendations contained in this report:

- A signal warrant analysis to re-affirm the need for a traffic signal at the Westfall Road/Sawgrass Drive intersection.
- A signal warrant analysis to affirm the need for a traffic signal at the Elmwood Avenue/Goodman Street intersection. A 'gap study' to address the need for the delineated crosswalk and other traffic calming measures.
- A 'gap study' to address the need for the delineated crosswalks at the McLean Street and Robinson Drive intersections with Mount Hope Avenue.
- A capacity analysis of the South/Highland Avenues intersection to determine if the proposed re-striping is feasible from a capacity standpoint.
- A capacity analysis and left turn warrant analysis of the South Avenue/Robinson Road intersection to evaluate the feasibility of the proposed striping changes.

Operating and Maintenance Costs

The Plan as proposed and when fully implemented, would require an additional expenditure of \$30,000 to \$35,000 annually (based on 2004 cost estimates for similar trails) for maintenance. This figure would include the costs of such maintenance items as crack and pothole repair, fence and boardwalk repair, sign and kiosk repair or replacement, and the like. The figure is based on an estimated operation and maintenance cost of \$4.00 to 4.50 per linear foot for off-road trails and 7,700 lf of trail. It is expected that numerous entities may be involved with maintenance of trail facilities including the Town of Brighton and the City of Rochester, and possibly the Monroe County Parks Department, and the Monroe County Dept. of Transportation. Some economies of scale should be anticipated as the trail inventory increases with a potential modest decrease in per-linear foot costs.

The Brighton Town Board has a consistent record with respect to appropriating the necessary funds and manpower to support parks and recreation facilities. The Board can draw on the advice of both the Parks, Recreation, and Community Service Citizens Advisory Board and the Community Services Committee to solicit ideas for handling the various new maintenance responsibilities. Both of these entities advise on policy, program, budget, and related matters on a regular basis.

The Brighton Department of Public Works maintains the Town highways and trails. The Department draws from its staff of full-time maintenance personnel and seasonal full-time employees to provide the necessary services. A significant portion of maintenance activities would be mowing, brush trimming and removal, and maintenance of drainage facilities that impact the trail. These services can be provided by the individual property owners in the cases of the Monroe Developmental Center and Monroe County Parks. At certain locations such as on Rochester State Hospital and Brighton Meadows, the Town may need to provide such services or they can be contracted out.

Snow plowing, if desired, could be done by the Department of Public Works. Snow plowing would support year-round use of the trail. Both the City and Town of Brighton have extensive plowing capacity and/or contracts for plowing. This route serves dense residential housing, several parks, several employment sites, a private college (Colgate Divinity School) and a major university (U. Of R.). It should be open year-round.

Funding Sources

FINANCING TRAIL PROJECTS

General

Federal, state, and local resources may be combined with local funding for maximum benefit. Other local towns have already been successful at obtaining matching grants of this nature to fund development of the new trail projects. Non-profit organizations may be helpful vehicles for obtaining land or funds that might not otherwise be feasible.

The availability of federal and state assistance can vary widely from year to year. Continual monitoring of appropriations, funding programs, qualifying criteria, application procedures and schedules, and unique opportunities is particularly important. In the past 2 years, funding on the state level has been reduced dramatically from pre-2002 levels. This has affected the Environmental Protection Act funding as well as the Clean Air/Clean Water Bond funding in recent years.

A case could be made for acquisition of the 7.2 Acre Rochester State Hospital parcel by the Town of Brighton since the State is currently re-evaluating the long-term need for this land to meet State goals and objectives. Since some of the property is DEC-regulated wetland and it is contiguous to other parcels with preserved wetland and passive recreational land uses, this may prove to be a valuable and natural addition to the Town's recreational land inventory.

Federal and State Sources

This year, the Transportation Equity for the 21st Century (TEA-21), which has provided federal funding for transportation projects since 1998, will be replaced by new multi-year federal transportation legislation. Specific details about the new legislation are pending, including available funding levels and federal funding programs. Possible federal funding options based on the previous federal transportation legislation include:

1. Surface Transportation Program (STP) funds are allocated through the Genesee Transportation Council for all types of transportation projects. STP-funded projects must be selected by the GTC for inclusion in the bi-annually created Transportation Improvement Program (TIP). The process for submitting and selecting projects for the 2005-2010 TIP will begin in October 2004.
2. Transportation Enhancement Program (TEP) funds are a ten percent set-aside from the STP funds.¹ The project selection process is administered by the New York State Department of Transportation (NYSDOT). In order to maximize the use of the available TEP funding, this program provides innovative financing alternatives for local matching requirements. The list of activities eligible for Transportation Enhancement Program has expanded, but all

¹ U.S. Department of Transportation, FHWA, www.fhwa.dot.gov/environment/te/index.htm
Highland Park/Canalway Trail
Page 34

projects must relate to surface transportation. The proposed trail is potentially eligible for TEP funding under two categories:

1. Preservation of Abandoned Railway Corridors, including conversion and use for Pedestrian and Bridge Trails;
 - b) Provision of facilities for bicyclists and pedestrians.
3. Recreational Trails Program - A total of \$25 million *nationally* in contract authority apportioned for fiscal year 2004 to provide and maintain recreational trails.² States must establish a State Recreational Trails Advisory Committee that represents both motorized and non-motorized recreational trail users. Of funds distributed to a State, 30 percent must be used for motorized trails, 30 percent must be used for non-motorized trails, and the remaining 40 percent can be used for either type of trail. A typical RTP award is \$50,000-\$100,000. The New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) administers this program in New York State.

Notes:

1. Federal funding sources provide up to 80% federal funding and require a 20% local match. “Soft” match provisions are allowed, including soft matches from public agencies. Examples of soft matches includes force account work by municipal forces, volunteer labor, private cash donations, and property donation.
2. Under Section 61 of the State Finance Law, any project constructed with federal funds that are administered by NYSDOT require:
 - Funds used to construct/reconstruct highways, streets, and other transportation infrastructure projects require a 20-year project life;
 - Funds used to acquire land for recreation projects require a 20-year easement/guarantee of ownership or permit to use.
4. Community Development Block Grant Program - Department of Housing and Urban Development Title I of the Housing and Urban Development Act of 1974, as amended, is intended to assist in the “development of viable urban communities by providing decent housing and a suitable living environment and expanding economic opportunities, principally for persons of low and moderate income”.

The program's objective of benefitting lower income areas reduces the probability of applying this program toward recreational land acquisition or development in Brighton. Small grants for renovations to town facilities, ADA compliance, and similar improvements may be available.
5. Land and Water Conservation Fund - Department of Interior - This is a federal grant in aid program which provides up to fifty percent reimbursement for acquisition, development

² U.S. Department of Transportation, FHWA,
www.fhwa.dot.gov/environment/rectrails/index.htm

and/or rehabilitation of outdoor park and recreation facilities. New applications have not been accepted for a number of years, however, a new round of funding was scheduled to begin in 2000. The program was previously administered in New York State through the Office of Parks, Recreation and Historic Preservation. Funded projects must be identified in, or further a specific goal of, the SCORP and must be available to the general public.

6. Environmental Protection Act of 1993 - Title 9 - Grants are available from New York State for acquisition and/or development of municipal parks and for historic preservation projects. Municipal or nonprofit agencies may apply. Grants are for a maximum of fifty percent reimbursement of eligible costs.

In 1995, the initial funding period, \$3,000,000 was made available statewide for municipal parks. Demand for the relatively limited funds was very high and a small percentage of applicants were funded, frequently at less than the requested amounts. Funding has continued and increased in subsequent years, but remained low in relation to demand. Only projects meeting very specific criteria are funded. It has been projected that funds available for grants in future years will increase. The original intent was that this be a predictable and consistent on-going source of assistance. The municipal parks grant program is currently administered through the New York State Office of Parks, Recreation and Historic Preservation.

7. Environmental Protection Act of 1993 - Title 3 - Acquisition of open space conservation projects is provided for in Title 3 of this act. Conservation of open spaces which have been prioritized in the 1995 State Open Space Plan may be by either the Department of Environmental Conservation or Office of Parks, Recreation and Historic Preservation. While acquisition may be by either of the two state agencies, there may be opportunities for cooperative local and state participation such as state purchase and lease back to a town of lands for recreational use. The program is primarily administered by the New York State Department of Environmental Conservation with cooperation from the Office of Parks, Recreation and Historic Preservation.
8. New York State Clean Water/ Clean Air Bond Act of 1996. - This act, approved by referendum in November 1996, authorizes the State to issue \$1.75 billion in bonds for “long term improvements to the state's environmental infrastructure and natural resources above and beyond those paid for by the Environmental Protection Fund or other sources of state funding.” Fifty million dollars is proposed to be available for municipal park projects, historic preservation, and heritage area projects. State assistance would be not more than fifty percent of the cost of developing, expanding, or enhancing public access to water bodies, promoting water based recreation, or enhancing the natural, cultural, or historic aspects of water bodies.

Funded projects must be available to the general public.

9. Legislative Appropriations - State appropriations for projects of local interest, such as acquisition and development of parks and recreational facilities are initiated through state legislative representatives and acted on by the state legislature. This is an important ongoing source of potential funding.

Private and Community Sources

Community foundations provide charitable contributions which may be a potential source of funding. They operate much like a private foundation, but their funds are derived from many donors rather than a single source. Furthermore, community foundations are usually classified under the tax code as public charities and therefore are subject to different rules and regulations than those which govern private foundations.

1. The Rochester Area Community Foundation is the local community foundation in Monroe County. The Rochester Area Community Foundation manages more than 500 funds that provide grants for a wide variety of arts, education, social services, and other civic purposes in the Genesee Valley region of upstate New York.
2. The Eastman Kodak Company, The Conservation Fund, and the National Geographic Society, provide small grants to stimulate the planning and design of greenways in the U.S. through the Kodak American Greenways Awards Program. The annual grants program was instituted in response to the President's Commission on Americans Outdoors recommendation to establish a national network of greenways. Made possible by a generous grant from Eastman Kodak, the program also honors groups and individuals whose ingenuity and creativity foster the creation of greenways.
3. Bikes Belong Coalition is a membership organization founded by bicycle industry leaders with the mission of "putting more people on bikes more often." Bikes Belong Coalition aims to put more people on bicycles more often by distributing grants for bicycle facility, education, and capacity projects.
4. The Genesee Region Trails Coalition has developed a small granting program for trails within the 10-county area it covers. For more information, visit the GRTC web site at www.grtcinc.com
5. The Trust for Public Land The Trust for Public Land is a national nonprofit conservation organization which has received funding from the Ford Foundation to assist it in establishing a Property Acquisition Revolving Fund to purchase real estate on behalf of community based nonprofit organizations or public agencies such as a town. Essentially, the Fund acts as a land bank until the sponsor is able to buy the property. The property must fulfill an important community development objective and may include environmental and recreational improvements and historic properties. Preference is given to properties that incorporate an open space or land conservation component as well as other criteria. Administered through the Regional Office, The Trust for Public Land, New York City.

Trail Information Resources

- 1) **American Trails** is the only national, nonprofit organization working on behalf of all trail interests, including hiking, bicycling, mountain biking, horseback riding, water trails, snowshoeing, cross-country skiing, trail motorcycling, ATVs, snowmobiling and four-

wheeling. American Trails members want to create and protect America's network of interconnected trails. We support local, regional, and long-distance trails and greenways, whether they be in backcountry, rural or urban areas. Our goal is to support America's trails by finding common ground and promoting cooperation among all trail interests. We're involved in everything from training trails advocates to providing increased trail opportunities for individuals with disabilities. For more information, visit www.americantrails.org.

- 2) **Genesee Regional Trails Coalition** is an organization whose mission is to help local communities develop and maintain a regional system of multi-use trails and promote responsible trail usage as a healthy and inexpensive recreational opportunity for all seasons. The geographic area covered by the Coalition includes the counties of Allegany, Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Wayne, Wyoming and Yates. For more information visit www.grtcinc.org.
- 3) **National Center for Walking and Biking (NCBW)** is the major program of the Bicycle Federation of America, Inc. (BFA), a national, nonprofit [501(c)(3)] corporation established in 1977. Our mission is to create bicycle-friendly and walkable communities. The NCBW is governed by a volunteer board of directors and operates from offices located in Washington, DC (headquarters), Middlebury, Vermont, and Missoula, Montana. Ongoing NCBW activities include:
 - Providing specialized consulting services in the areas of long-range planning, policy development, public involvement, route selection, planning and design guidelines for bicycle and pedestrian facilities;
 - Training programs for public health and transportation agencies;
 - Economic development and tourism planning and analysis;
 - Organizing and managing workshops and conferences, including the biennial Pro Bike / Pro Walk conference.

For more information, visit www.bikewalk.org.

- 4) **National Transportation Enhancements Clearinghouse (NTEC)** can help you learn how to use TE funds to revitalize the transportation experience in your community. In addition to the information offered on this Web site, we offer free technical support and documents on TE. Visit www.enhancements.org.
- 5) **New York Parks and Conservation Association (NYPCA)** is a non-governmental, not-for-profit, statewide membership organization. Our mission is to protect and advocate for existing parks and the state's natural and historic resources, and to promote the creation of new kinds of parks such as greenways, rail trails, and heritage corridors. For more information, visit www.nypca.org. [NYPCA will be renamed *Parks & Trails NY* as of June 2004]
- 6) **Rails-to-Trails Conservancy** is a 501(c)(3) nonprofit organization with the mission to enrich America's communities and countryside by creating a nationwide network of public

trails from former rail lines and connecting corridors. RTC has more than 100,000 members and supporters. Founded in 1986, Rails-to-Trails Conservancy is located in Washington, D.C. and has offices in California, Florida, Massachusetts, Michigan, Ohio and Pennsylvania. For more information, visit www.railtrails.org.

- 7) The Pedestrian and Bicycle Information Center (PBIC) is a clearinghouse for information about health and safety, engineering, advocacy, education, enforcement and access and mobility. The PBIC serves anyone interested in pedestrian and bicycle issues, including planners, engineers, private citizens, advocates, educators, police enforcement and the health community. For more information, visit www.bicyclinginfo.org and www.walkinginfo.org.
- 8) Trails and Greenways Clearinghouse provides technical assistance, information resources and referrals to trail and greenway advocates and developers across the nation. Services are free and available to individuals, government agencies, communities, grassroots organizations and anyone else who is seeking to create or manage trails and greenways.

The Clearinghouse is a project of Rails-to-Trails Conservancy, with support from the National Park Service's Rivers, Trails and Conservation Assistance Program and countless greenway advocates and trail builders who have provided much of the information and expertise reflected on this site. For more information, visit www.trailsandgreenways.org.
- 9) U.S. Department of Transportation, Federal Highway Administration web site provides many useful resources for state and local government program managers and practitioners. For more information, visit www.fhwa.dot.gov/environment/bikeped/index.htm.

Other Sources of Funding

Parks and Recreation Trust Fund

New residential development within the Town of Brighton generates additional demands for parks and recreational facilities. The trust fund is an important source of funds for capital acquisition and development in the future. The fee for each new dwelling unit should be periodically reviewed by the Town as increases may be justified based on the anticipated average prices of new homes. Fees in nearby towns range from \$600 to \$ 1,000 and are much higher in some areas of the State. It is recommended that the fee be reviewed periodically, perhaps annually, and adjusted to reflect both the Town's needs and prices of new homes in the Town.

Bonding

Bonding is an appropriate form of financing capital projects. Bonds generate immediate financing and are used for specific purposes. General obligation bonds can be used for projects which benefit the public at large.

They are secured by a town's credit and taxing ability and may be subject to a permissive referendum, if so petitioned. Parks and recreational facilities are acceptable types of projects to be bonded. Bond anticipation notes are sometimes used as 'bridge' financing, particularly when expenditures are expected to be reimbursed, as with reimbursable state and federal grants.

Other Sources

Several other minor sources of financial assistance for specific types of parks and recreational facilities are available through state and federal programs. Continual monitoring of state and federal grant in aid programs is necessary to enable timely participation.

Land Purchase and Sale

The cost of land acquisition can be offset under certain circumstances by selling off a portion of the land purchased. Under the proper circumstances, this is a valid and desirable method of acquiring parkland while maintaining high value taxable land on the tax rolls. An example would be to purchase a parcel of land and resell the majority of the roadway frontage. It is important to sell off the land which is not needed for park purposes before dedicating it as parkland. State and federal grants in aid should not be used to purchase land which will be subsequently sold or otherwise alienated.

Land Rights Less than Fee Simple

Leases, permits, or easements may enable the beneficial use or control of land for long or short terms without, and often at less cost than, outright purchase. If permanent facilities are to be developed on leased land, the agreement should be sufficiently long term to cover the useful life expectancy of the improvements, to protect the Town's investment, and to qualify for financing.

RESOURCES AVAILABLE FOR OPERATIONS AND MAINTENANCE

The municipal public works departments need to take the lead in all on-going maintenance trail facilities, followed by ancillary support from volunteers. The trail is a public facility, like a road, and needs to be maintained with similar considerations

Real estate tax revenues will for the foreseeable future to be the primary source of funds for administration, operations, and maintenance. It is expected that tax revenues and appropriations for parks and recreation will increase to reflect increases in the tax base, built facilities, and demands.

Volunteerism has been demonstrated to be a valuable resource in other towns. Individuals, service clubs, 'friends' organizations, interest groups, local foundations, and corporations can be sources of money, services, knowledge, and advocacy. Basic trail maintenance and security are just two areas in which these groups may be helpful.

Sponsorship, particularly corporate sponsorship, is a form of Volunteerism which is particularly adapted to special events programs of city-wide and town-wide interest. Foot races such as the Lilac 10-K and other celebrations, concerts, and similar events may be useful in providing funding for maintenance activities. Appropriate recognition can help encourage sponsorships.

Multi-Use Trail Planning, Design, and Development Resources

Guide for the Development of Bicycle Facilities, American Association of State Highway and Transportation Officials, August 1999. [A copy is available at the GTC library for in-office use or can be purchased from AASHTO at www.transportation.org]

Trails for the 21st Century, 2nd Edition, Charles A. Flink, Kristine Olka, and Robert M. Searns, Island Press, 2001. [A copy is available at the GTC library for in-office use or can be purchased from the Rails-to-Trails Conservancy at 202-331-9696 or www.railtrails.org]

Greenways: A Guide to Planning, Design, and Development, L. Schwarz, C.A. Flink, and R.M. Searns, Island Press, 1993. [A copy is available at the GTC library for in-office use or can be purchased at your local bookstore]

Designing Sidewalks and Trails for Access – Part I: Review of Existing Guidelines and Practices, July 1999. [A copy is available at the GTC library for in-office use or can be viewed or downloaded from <http://www.fhwa.dot.gov/environment/bikeped/Access-1.htm>.]

Designing Sidewalks and Trails for Access – Part 2: Best Practices Design Guide, September 2001. [A copy is available at the GTC library for in-office use or can be viewed or downloaded from <http://www.fhwa.dot.gov/environment/sidewalk2/index.htm>.]

Regulatory Negotiation Committee on Accessibility Guidelines for Outdoor Developed Areas: Final Report, The Access Board, September 30, 1999. [A copy of this report is available in the GTC Resource Library for on-site use or it can be viewed or downloaded from www.access-board.gov/outdoor/outdoor-rec-rpt.htm]

Rails with Trails: Design, Management, and Operating Characteristics of 61 Trails Along Active Rail Lines, Rails-to-Trails Conservancy, November 2000. [A copy of this report is available in the GTC Resource Library for on-site use or it can be viewed or downloaded from www.railtrails.org.]

Rail Trails and Liability: A Primer on Trail-Related Liability Issues & Risk Management Techniques, Rails-to-Trails Conservancy, September 2000. [A copy of this report is available in the GTC Resource Library for on-site use or it can be viewed or downloaded from www.railtrails.org.]

FHWA Bicycle/Pedestrian/Trails Program
www.fhwa.dot.gov/environment/bikpedtr.htm

The Federal Highway Administration's Bicycle and Pedestrian Program Office is responsible for promoting bicycle and pedestrian transportation accessibility, use, and safety. This site contains many links to other web-based trail resources.

Rails-to-Trails Conservancy
www.railtrails.org

RTC is the largest trails organization in the United States and the only one dedicated to converting abandoned railroad corridors into multi-use trails. RTC provides technical assistance, public education, and advocacy for trail development.

National Transportation Enhancements Clearinghouse

www.enhancements.org

The NTEC is an information service sponsored by the [Federal Highway Administration](#) and [Rails-to-Trails Conservancy](#). It provides professionals, policy makers, and citizens with timely and accurate information necessary to make well-informed decisions about transportation enhancements.

Trails and Greenways Clearinghouse

www.trailsandgreenways.org

The Clearinghouse provides technical assistance, information resources, and referrals to trail and greenway developers and advocates in the United States. Services are free and available to individuals, government agencies, communities, grassroots organizations, and anyone else who is seeking to create or manage trails and greenways.

American Trails

www.americantrails.org

American Trails' mission is to create and protect America's network of interconnected trails -- local, regional, and long-distance trails and greenways, whether they be in backcountry, rural, or urban areas. American Trails supports trails by finding common ground and promoting cooperation among all trail interests. The organization is involved in everything from training trails advocates to providing increased trail opportunities for individuals with disabilities.

The Access Board

www.access-board.gov

The Access Board (officially known as the U.S. Architectural & Transportation Barriers Compliance Board) is an independent Federal agency devoted to accessibility for people with disabilities. The Access Board develops and maintains accessibility requirements for the built environment, transit vehicles, telecommunications equipment, and for electronic and information technology; provides technical assistance and training on these guidelines and standards; and enforces accessibility standards for *federally funded facilities*.

USDOT Pedestrian Information Clearinghouse

www.walkinginfo.org

USDOT Bicycle Information Clearinghouse

www.bicyclinginfo.org

NYS Hudson River Valley Greenway Conservancy

www.hudsongreenway.state.ny.us

International Mountain Biking Association

www.imba.com

IMBA promotes mountain bicycling opportunities that are environmentally sound and socially responsible. IMBA encourages low-impact riding, volunteer trail work participation, cooperation among different trail user groups, and innovative trail management solutions