



CDTC NEW VISIONS

BICYCLE & PEDESTRIAN ACTION PLAN

Bicycle and Pedestrian Advisory Committee White Paper

September 2015

Capital District Transportation Committee

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ACKNOWLEDGMENTS

Since CDTC's New Visions was adopted in 1997, there has been a Bicycle and Pedestrian Issues Task Force. This Task Force has conducted a comprehensive review of concerns related to bicycling and walking in the Capital District, identified key obstacles to greater use of these modes, and considered a number of possible regional strategies for enhancing our bicycle and pedestrian travel environments. The Task Force, which is now called the Bicycle and Pedestrian Advisory Committee, has met almost every month to discuss, strategize and mobilize to accomplish the bicycling and walking goals set in New Visions.

While there is still plenty of work to be done, walking and biking have risen in priority as viable modes of transportation, as well as effective components to the overall health of the community. Much has been accomplished as a result of the commitment, perseverance and hard work of the Bicycle and Pedestrian Advisory Committee. While all interest and public comment received is greatly appreciated, this effort particularly benefits from the sustained participation and enthusiasm of [insert names of BPAC meeting attendees].

All mapping was provided by Teresa LaSalle of the CDTC staff. Additional mapping, research, and general assistance was provided by Carrie Ward of the CDTC staff and Angel Sanchez, CDTC intern. The content and philosophy of this document is in large part a result of the contributions of the Bicycle and Pedestrian Advisory Committee. Any errors or omission are the responsibility of the principal author.

What is CDTC?

The Capital District Transportation Committee (CDTC) is the designated Metropolitan Planning Organization (MPO) for Albany, Rensselaer, Saratoga and Schenectady counties. The CDTC is composed of elected and appointed officials from each of the four counties; from each of the eight cities in the four counties; from the New York State Department of Transportation (NYSDOT); the Capital District Transportation Authority (CDTA); and the Capital District Regional Planning Commission (CDRPC); the New York State Thruway Authority (NYSTA); the Albany Port District Commission; Albany County Airport Authority; and at-large members representing the area's towns and villages. The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) serve as advisory members. Under federal law, CDTC is the forum for cooperative transportation decision-making, dealing with a wide range of highway, transit, and multi-modal concerns and their influence on regional economic vitality, environmental health, and quality of life. CDTC is responsible, together with NYSDOT and the CDTA, for maintaining a long-range regional transportation plan meeting social, environmental, economic, and travel needs of the area. It is also responsible for developing and maintaining a Transportation Improvement Program (TIP) which assigns federal transportation funds for specific projects. The federal government will not entertain projects in the Capital District unless they are consistent with the plan and have been assigned funds through CDTC.

What is New Visions?

New Visions refers to CDTC's official long-range regional transportation plan for Albany, Rensselaer, Saratoga, and Schenectady counties. Under federal law, CDTC must maintain a 20-year policy vision for the transportation system that reflects the needs of the area. CDTC's New Visions plan was adopted in March 1997 and included numerous public policies, principles, actions and a twenty-year transportation budget. The New Visions plan established a regional technology (ITS) plan; a regional bike system plan; a regional transit plan; and other significant elements. The plan has been instrumental in directing transportation planning and capital investment in the region.

New Visions 2040 describes CDTC's current effort to update the existing plan and extend it to a longer time horizon based on current trends and projections. This Bicycle and Pedestrian Action Plan will serve as the updated bicycle and pedestrian system plan for *New Visions 2040*. It will review the goals established in New Visions, evaluate progress that has been made, and propose new bicycle and pedestrian planning policies, programs and initiatives.

The Bicycle and Pedestrian Advisory Committee

The Bicycle and Pedestrian Advisory Committee (BPAC), formerly known as the Bicycle and Pedestrian Task Force (Bike/Ped Task Force), was established as part of the original New Visions process. The BPAC includes representatives from various state departments, counties, towns, cities and villages, as well as local and statewide advocates and groups. BPAC meetings are open to the public and new people are added to the listserv weekly.

The BPAC meets monthly to discuss bicycle and pedestrian issues in the Capital District. The Task Force deals with issues ranging from public education to project programming and facility planning. Members provide guidance on Community and Transportation Linkage Planning Program projects and other local and state bicycle and pedestrian related improvements throughout the region. Updates, guidance and recommendations are provided to CDTC's Planning Committee and Policy Board.

What is the Action Plan?

As part of the original New Visions effort, the BPAC conducted a comprehensive review of the concerns surrounding cycling and walking in the Capital District, identified the key obstacles to improved travel by these modes, and looked at several possible regional strategies for enhancing the bicycle and pedestrian travel environment. This review resulted in the 1995 *Making the Capital District More Bicycle and Pedestrian Friendly: A Toolbox and Game Plan* document.

In 2007 the BPAC revisited this plan to document how the region exceeded, met or underestimated the goals set forth. The document was revised, updated, and renamed *the Bicycle and Pedestrian Game Plan and Toolbox*. This 2014 update will also serve as documentation of how the region has exceeded, met, or underestimated the goals set forth in the previous *Toolbox*.

CDTC New Visions Bicycle and Pedestrian Action Plan

This document will review CDTC's accomplishments in improving the bicycle and pedestrian travel environment throughout the region and identify any shortfalls. It will propose new goals, with a focus on improving the health and increasing economic activity in the region related to bicycling and walking. The document also includes an implementation plan to help CDTC prioritize bicycle and pedestrian programs, projects and initiatives to have the greatest regional impact and achieve the most goals. This updated document has been renamed the *Bicycle and Pedestrian Action Plan*.

INTRODUCTION

Bicycling and walking are viable modes of transportation and mobility for many people in the Capital District. Everyone has their own transportation preferences but at some point in everyone's trip they become a pedestrian. In fact, Webster's Dictionary includes the word "pedestrian" in its full meaning of traffic: "the movement (as of vehicles or **pedestrians**) through an area or along a route." Bicyclists, formerly known as "wheelmen," joined together across the United States in the late 1800s to advocate for paved roads. At the time, the roads were rutted and made of gravel and dirt and bicyclists faced antagonism from horsemen, wagon drivers, and pedestrians. The success of this advocacy effort ultimately led to our national highway system.

Rates of bicycling and walking are on the rise nationwide, and not just for recreation. Bicycling and walking help reduce emissions, improve health and have a positive impact on economic development. Safe walking and biking is a quality of life measure, and is proving to be a sought-after amenity for house shoppers. Long term trends also show that fatality rates for bicyclists and pedestrians are on the decline.

Numerous communities in the four-County region have adopted Complete Streets ordinances or policies, seeking to more equally consider the needs of bicyclists and pedestrians, as well as transit riders, freight, and automobiles.

The following New Visions Planning and Investment Principle supports bicycle and pedestrian transportation:

Bicycle and Pedestrian Transportation – Bicycle and pedestrian travel is vital to the region's public health, transportation, and the economy.

Encouraging bicycle and pedestrian travel is a socially, economically, and environmentally responsible and healthy approach to improving the performance of our transportation system. Possible bicycle/pedestrian related improvements will be considered from the perspective of developing a system – not just based on whether a particular facility is currently used. That system of sidewalks, bike lanes, and trails will encourage safe bicycle and pedestrian use and will increase accessibility.

Nationwide Bicycling & Walking Trends

Data shows Americans are driving less. Since the early 2000s, vehicle miles traveled (VMT) per capita has steadily declined. This trend has been credited to higher gas prices, new licensing laws, improvements in technology that support alternative transportation, and changes in values. Historically, government investment in transportation infrastructure has been made under the assumption that VMT will increase over time at a steady pace. Changing trends require government to rethink transportation policy to reflect the needs and changing attitudes towards transportation.

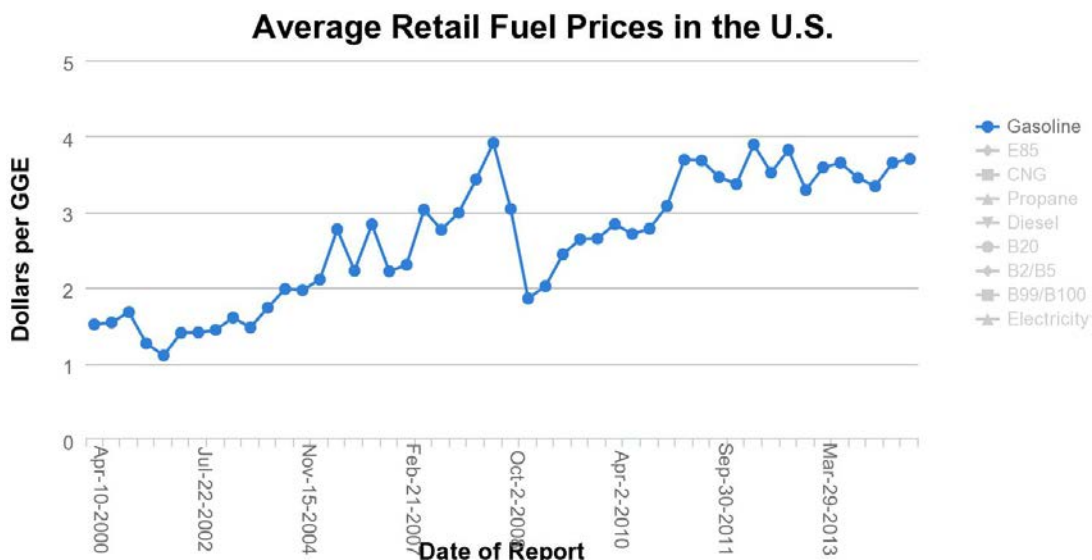
Leading the way on driving less are young people who are often referred to as "Millennials." Whether its been a conscious decision or a decision of necessity, young people are delaying getting their driver's license and taking less trips by car. Expanding communications technologies have developed online

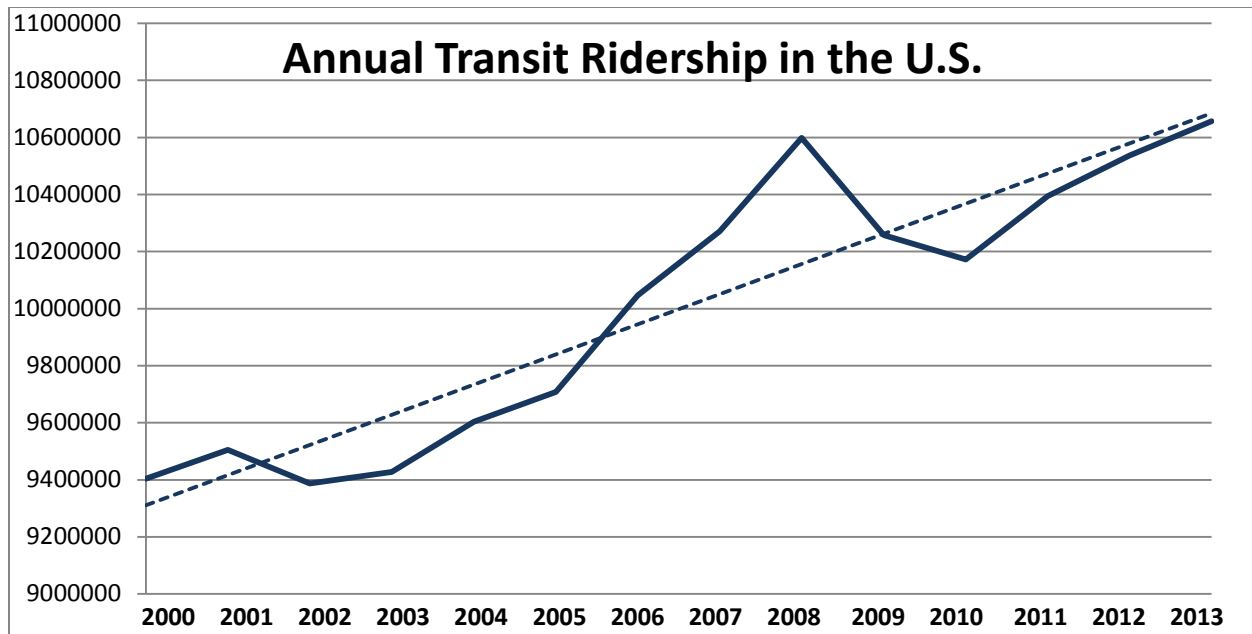
CDTC New Visions Bicycle and Pedestrian Action Plan

socialization that has become a substitute for car trips and has made transportation alternatives more convenient. Websites and Smartphone applications that provide real-time transit data make taking transit easier and more attractive. These same technological advances have opened the door for new transportation alternatives like carsharing and bikesharing.

On the other end of the spectrum, the fastest growing population segment is people 85 years of age and over. And the second fastest growing population is those who have celebrated their 100th birthday. Nearly three quarters of people between the ages of 50 and 74 rely mostly on driving but that figure drops significantly after the age of 75. Many of those non-drivers face severe restriction on their daily activities and miss doing things they would like to because of transportation obstacles. Providing opportunities for older adults to walk, bike or take transit safely to appointments and social events helps preserve their lifestyle while improving their emotional and physical health.

Increasing fuel prices have made driving more expensive, which has also impacted driving habits. Fuel prices have a greater impact on younger people, who typically have less disposable income. The figures below illustrate increasing fuel prices and increasing transit ridership in the U.S., which both spiked at the beginning of the 2008 financial crisis. Even when fuel prices remained consistent and relatively level, transit ridership continues to grow. In the Capita Region, the Capital District Transportation Authority (CDTA) has been setting ridership records. This has been partly credited to the expansion of the universal access program which provides unlimited access to students at participating area colleges.





Source: American Public Transportation Association

Transit and walkability complement each other. The most used transit stops are those that the most number of people can walk to. Dense, walkable neighborhoods help make transit work more efficiently. People who live in walkable neighborhoods are more likely use transit, walk, or bike. As transit ridership increases and systems expand, it becomes more important to provide safe pedestrian and bicycling facilities to/from and around transit stops.

As demand for transit service increases and technology makes transit easier to use, new alternative transportation services like carshare and bikeshare have developed. Carshare is a model of car rental where people rent cars for short periods of time, often by the hour. This is attractive to people who only make occasional trips by vehicle. It has helped people living in areas well-served by transit, sidewalks, and safe bicycling facilities to give up their cars, saving them money, reducing congestion, and alleviating parking demands in dense neighborhoods. As of January 2014, 24 U.S. carshare operators claimed over 1 million members and over 17,000 shared vehicles. Carsharing compliments transit, walking, and bicycling by filling in gaps and making it easier for people to live without owning a vehicle.

Similarly, bikeshare makes bicycles available to individuals for shared use on a short-term basis. Today, there are roughly 350 bikeshare programs around the world with an estimated fleet of 517,000 bicycles. Bikes are typically located in highly-visible, pedestrian-accessible destinations such as employment centers, dense neighborhood commercial



In July 2014 CDTC conducted a bikeshare demonstration in Schenectady, NY

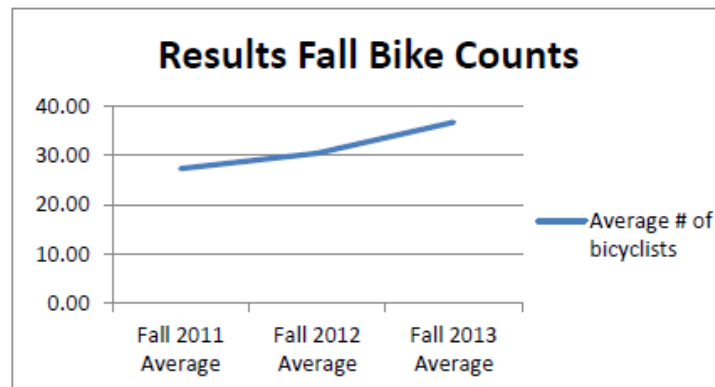
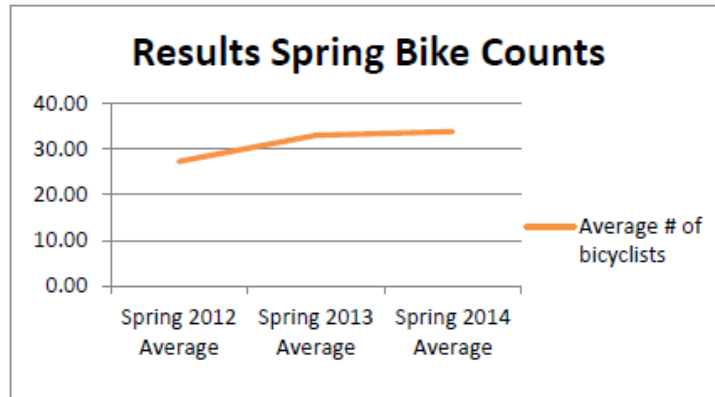
districts, and transit stops. More and more cities are exploring how to implement bikesharing in their city. Again, bikeshare compliments other alternative modes of transportation and is dependent on safe pedestrian and bicycling facilities. As these transportation alternatives expand and new alternatives develop, more people will opt out of car ownership.

Bicycling & Walking in the Capital District

Bicycling and walking trends in the Capital District are consistent with national trends. Data shows that more people are choosing alternative modes to driving. Even more so, people are demanding their community leaders make walking and bicycling a priority in their cities, towns, and villages. This has been demonstrated by the adoption of Complete Streets legislation in various communities, the immense public support for the expansion of trail networks in the Capital District, and the increasing number of communities who have adopted master plans with a focus on walkability, bicycling, and transit.

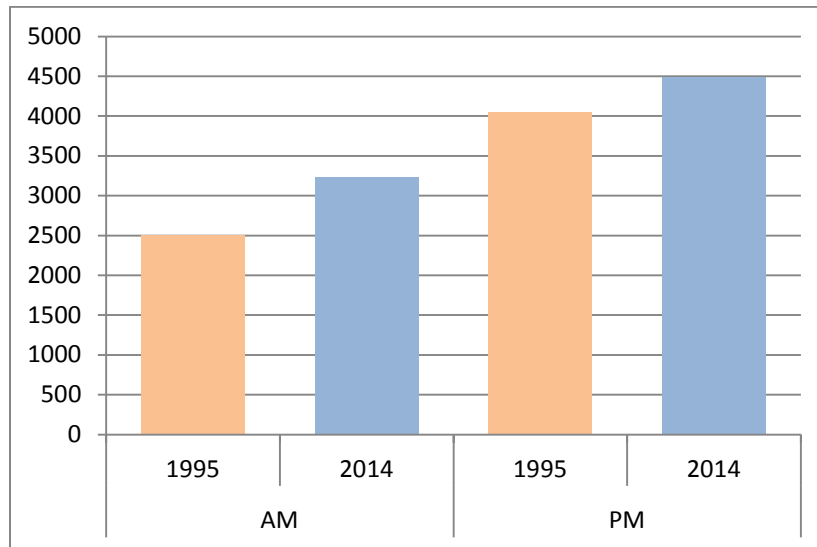
Shortly after Albany completed their Bicycle Master Plan, they began a biannual bike count project to measure bicycling in the City. They had begun installing road markings and signage on roads throughout the City to accommodate bicyclists and wanted to demonstrate their effectiveness in encouraging more people to bike. While the data is still limited to two years, it demonstrates a steady increase in bicycling citywide. There is currently no regional bike count data but communities are observing more bicyclists on the roads and responding with the establishment of Complete Street committees to help assist planning departments in implementing bike plans and pursuing funding for bicycle master plans that designate specific roadways as bicycle routes with recommended improvements. Furthermore, as will be discussed in-depth later in this report, CDTA is reporting over 74,000 bike boardings on its buses annually. This is a considerable increase from the just less than 40,000 boardings in 2008 when CDTA first installed bike racks on its buses. This would suggest that more people are bicycling region-wide.

City of Albany Bike Counts



CDTC collects pedestrian count data regularly throughout the Capital Region. As part of the original New Visions Plan, CDTC identified 15 intersections across the four major cities – Albany, Troy, Schenectady and Saratoga – to collect pedestrian data. The intersections were chosen because of their proximity to major pedestrian generators such as central business districts, colleges and universities, and civic institutions. During the 2014 summer, CDTC revisited these intersections to measure changes in activity. The figure below illustrates that both AM and PM hours yielded considerable increases in pedestrian activity.

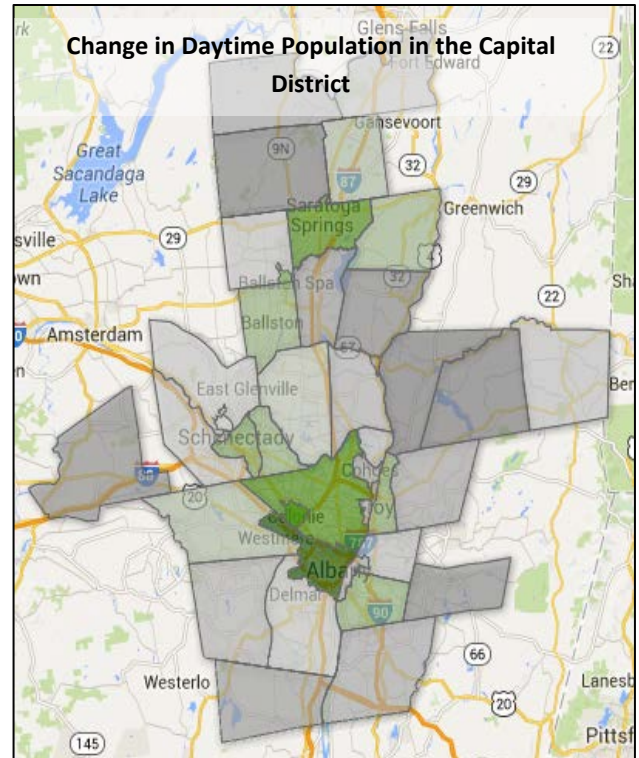
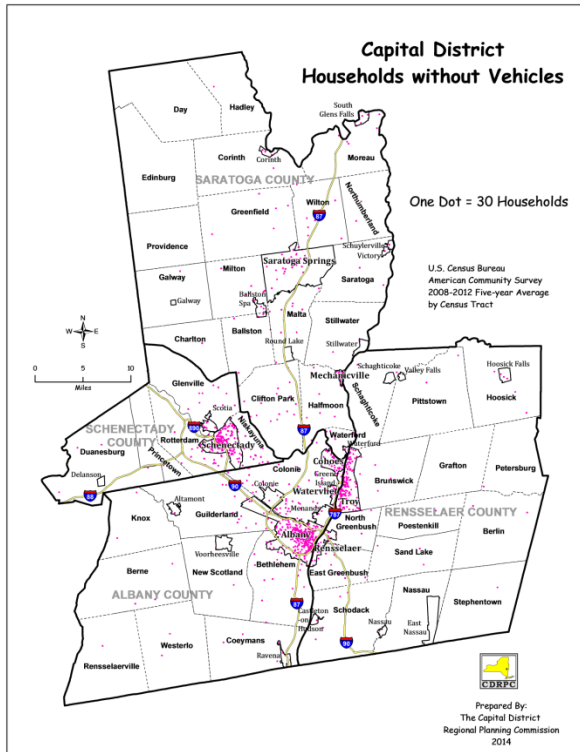
Capital District Pedestrian Count Data



Safe bicycling and walking infrastructure isn't important because it's trendy, it's important because it matters the most for people who do not have access to a vehicle. The map below shows the relative concentrations of households without a personal vehicle. The largest concentrations are in the cities of Albany, Schenectady, and Troy. Safe access to alternative modes of transportation provides employment, health and social opportunities for low-income individuals and families, and people living with disabilities.

These same areas are also where the greatest increases in daytime population occur. They have become employment centers and activity generators because of their surrounding transportation infrastructure. They are accessible by transit and while there is room for improvement, they have reasonable accommodations for pedestrians. Consistent with national trends, CDTA has made improvements to their service with a new bus rapid transit route that connects the Cities of Albany and Schenectady. CDTA has also installed technology that allows riders to track buses in real-time via smartphone application, which has made the service easier to use and more reliable. And CDTA's ridership continues to rise, meaning more people are walking or biking to transit stops throughout the region.

CDTC New Visions Bicycle and Pedestrian Action Plan



This document will discuss the history of bicycle and pedestrian planning at CDTC, accomplishments, CDTC's on-going programs, projects and initiatives and will propose *new* programs, projects and initiatives. This document should serve as the regional "game plan" for increasing the walking and biking mode share while making it more safe and comfortable for all types of bicyclists and pedestrians in the Capital District.

ACCOMPLISHMENTS: 2007 BICYCLE AND PEDESTRIAN GAME PLAN AND TOOLBOX

The 2007 *Bicycle and Pedestrian Game Plan and Toolbox* outlined some of CDTC's accomplishments related to improving and expanding the bicycle and pedestrian network and environment in the Capital District. It also proposed strategies and actions to improve bicycling and walking between 2007 and 2030. Below are the strategies and actions from the 2007 Plan and Toolbox with a description and update on progress and activity since these were established.

Bicycle Signage Guidelines –

Strategy or Action: Continue referencing and distributing Bicycle Signage Guidelines and assign funding priority to consistent projects.

In 2001 the group formerly known as the Bicycle and Pedestrian Task Force developed the *Bicycle Signage Guidelines for the Capital District*. This guidebook was developed in response to the variety of off-road and on-road bicycle facilities with varying signage. Signage uniformity will help create a higher awareness of bicycle information that is being conveyed. Facility design and signage can both make bicycling easy, as well as safer, which will increase bicycling in the region. The guidebook is not intended to be a replacement for the state Manual of Uniform Traffic Control Devices (MUTCD).

The MUTCD, as well as the NYS Supplement to the MUTCD have been updated since 2001. The *Bicycle Signage Guidelines for the Capital District* has been updated to reflect those changes. This document should be used as a guide by communities interested in creating consistency in the regional trail and bike network. The guide highlights certain sections of the NYS MUTCD Supplement along with the state designated sign reference numbers. Where the NYS MUTCD Supplement does not cover certain aspects of signage, municipalities can refer to the Federal Highway Administration's MUTCD. CDTC encourages municipalities to refer to this guide when designing on-road and off-road bicycle and pedestrian facilities, Linkage Studies, grant applications and other transportation planning and design activities.

One topic of significant discussion since 2007 has been sharrows. A sharrow, or shared-lane marking, is a street marking installed in the travel lane to indicate that bicyclists may use the full lane. The sharrow was added to the MUTCD in 2009 and final guidance on implementation was provided by NYSDOT in 2013 in TSMI 13-07 (See Appendix X). According to NYSDOT a sharrow should only be used to indicate the presence of a narrow lane, which is considered less than 14 feet wide and does not allow motorists and bicyclists to safely travel side-by-side within the lane.

Sharrows were introduced to the Capital Region first in the City of Albany in 2009 (?) and are now on over a dozen roadways throughout the region. The sharrow has many benefits, including:

Bicyclists:

- Ride farther away from parked cars
- Follow a more predictable path
- Ride with the flow of traffic.

Motorists:

- More aware bicyclists may be present
- Pass bicyclists more carefully
- Missing Content

While the introduction of sharrows in the Capital Region is positive and has contributed to bicycle safety and progress in promoting bike culture, CDTC does not recommend sharrows replace the installation of bike lanes.

The Pedestrian Infrastructure Inventory & Bicycle Level of Service Data

Strategy or Action: Explore expanding the Pedestrian Infrastructure Index to each signalized intersection in the Capital District and incorporate data into the project evaluation process.

During the previous New Visions Update, CDTC staff developed a *Pedestrian Infrastructure Index* in order to evaluate the ‘friendliness’ of intersections to pedestrians throughout the Capital District. Based on a set of specific characteristics, 853 signalized intersections were evaluated and scored according to how many features the intersection has related to pedestrian travel. Some of these features include crosswalks, pedestrian push buttons, and countdown timers. The intersections were given letter grades (A through F). This very valuable data has been used to by CDTC staff to build a comprehensive intersection database for the Capital Region.

This Index was linked in an ArcGIS format with turn count data at intersections in 2013. This data has been used in safety data analysis with respect to pedestrian and intersection crashes, which have been noted in New York State as being one of the top three emphasis areas for safety. This database will continue to grow and be updated and used in CDTC’s safety planning efforts.

The Bicycle Level of Service (BLOS) is an evaluation method that measures perceived safety with respect to motor vehicle traffic and bicyclist comfort in using a specific roadway. Traditionally, engineers have used level of service (LOS) ratings to measure how well an intersection is functioning for vehicles. Both of these models are similar in that roadway conditions are rated on an alphabetical scale and use many of the same inputs, such as vehicle volumes. However, BLOS is different in that it quantifies the comfort level of a typical *bicyclist* whereas vehicle LOS measures delay time.

CDTC staff calculated the BLOS for various roadways in the Capital Region, based on the Bruce Landis’s report, *Real-Time Human Perceptions: Toward a Bicyclist Level of Service*. The 2010 Highway Capacity Manual includes formulas for multi-modal LOS, including formulas specifically for pedestrian and bicyclist LOS. Other groups have dissected the formulas and modified them as appropriate, developing software and online tools to guide planners and engineers. The League of Illinois Bicyclists has developed an online BLOS tool (<http://www.bikelib.org/roads/blos/blosform.htm>) which CDTC will explore for future use. CDTC staff will continue to use BLOS in Linkage and other planning studies and explore new opportunities to use it as well.

Linkage & Planning Studies

Strategy or Action: Include a task to consider nonmotorized transportation on the bridges of any Linkage Study that includes a river crossing in the study area, and invite a task force member to participate in linkage studies with a large bicycle or pedestrian component.

The CDTC Community and Transportation Linkage Program is a nationally recognized planning program created to implement New Visions. The program was established in 2000 and, to date, has funded 79 collaborative, jointly-funded studies totally about \$5.5 million in federal, state and local funds. Studies funded through the Linkage Program are required to espouse New Visions' 31 planning and investment principles that are rooted in smart growth and livability concepts. All Linkage Studies consider the needs of bicyclists and pedestrians but more recently local communities have requested studies with a special emphasis on bicycle and pedestrian planning.

When appropriate, BPAC members have been invited to participate as Study Advisory Committee (SAC) members. It has been customary that the BPAC receive monthly Linkage status updates and be given the opportunity to comment on final recommendations. At the end of each study the consultant team is invited to present to the BPAC. Nonmotorized transportation on bridges has not been a focus in Linkage or other planning studies but CDTC recognizes these important connections. As the Linkage Program continues, CDTC will continue to invite BPAC members to SACs as appropriate and solicit feedback on Linkage Studies from the SAC. Nonmotorized transportation on bridges will be considered in all Linkage and planning studies, as well as in TIP project evaluations. Recent studies with a focus on bicycle and pedestrian infrastructure are discussed below. All final Linkage Study documents can be found on the CDTC website at <http://www.cdtcmpo.org/linkage>.

Albany Bicycle Master Plan (2009)

The City of Albany applied to the Linkage Program for assistance in identifying a network of bicycle routes to improve cycling as a viable mode of transportation throughout the City. The Study was led by a consultant, the IBI Group with Rick Manning, Landscape Architect. The final plan includes policy, infrastructure and education-related recommendations. This study was significant because of the large public participation. Almost 200 residents and stakeholders came to the first public workshop and demonstrated a notable interest in seeing an improved bicycling environment in Albany. It also illustrated a high demand for bicycle safety outreach and education, which inspired the Capital Coexist bicycle safety campaign mentioned earlier.

Altamont Pedestrian & Bicycle Master Plan (2009)

The Village of Altamont is a small, historic, village of less than 2,000 residents in the Capital Region. The Village applied to the Linkage Program because of its interest in improving sidewalks, safe crossings and enhanced bicycle facilities throughout the village. The study was led by Alta Planning & Design and identified realistic projects, policies and programs to make the village a more pedestrian and bicycle friendly community.

CDTC New Visions Bicycle and Pedestrian Action Plan

Watervliet Bicycle Master Plan (2013)

The City of Watervliet's Bicycle Master Plan was twofold – identify a network of bicycle routes to link activity centers within the City and identify connections between the Mohawk Hudson Bike Hike Trail that runs through the City with the same activity centers as well as connections to the regional trail system. The study was led by Alta Planning & Design and was broken up into two separate reports – the Mohawk Hudson Bike Hike Trail Connection and Intracity Connections. Both reports outlined infrastructure, policy and educational recommendations for the City to undertake in order to become more bike-friendly. The final reports are of high-quality and contain valuable information that can be applied to many other Capital Region communities.

Albany Bike Share Feasibility Study (2013)

The City of Albany Bike Share Feasibility Study was done in tandem with the Albany Bicycle Signage and Wayfinding Strategy plan. Both were requested as a follow-up to the Albany Bicycle Master Plan, mentioned above. The study, led by Alta Planning & Design, outlines the feasibility of a bike share system within the city. The final report includes an introduction to bike sharing technology and its history, a discussion of the benefits of bike sharing, a summary of comparable systems in North America, an analysis of the local context and a list of recommendations and next steps for the City. This study was important to CDTC because it was the first to study the feasibility of bike share in any Capital Region community and inspired the 2014 Capital Region Bike Share Month demonstration project. CDTC has committed funds in its Unified Planning Work Program (UPWP) to support the implementation of bike share in the Capital Region. While the main takeaway from this study is that a significant amount of infrastructure is still needed in Albany, and UPWP funds cannot be used for capital projects, it is CDTC's goal to provide any technical assistance, outreach, and education services needed by the city or other Capital Region community interested in bike share.

Albany Bicycle Signage & Wayfinding Strategy (2013)

This Bicycle Signage & Wayfinding Strategy study was done in tandem with the Bike Share Feasibility Study referenced above. The final report includes an existing conditions inventory of relevant bicycle-related planning documents and analysis of bicycle traffic in Albany. The implementation strategy includes overall guidance on the type and design of proposed signage, as well as the identification of 11 priority wayfinding signage routes with detailed maps and cost estimates. This study was an important piece of Albany's efforts in becoming a bicycle-friendly community.

Trails & Greenways

Strategy or Action: Encourage multi-jurisdictional improvement projects on the Mohawk-Hudson Bike Hike Trail.

Strategy or Action: Distribute "Schenectady County Analysis of the Mohawk Hudson Bike Hike Trail" to each municipality in CDTC planning area and post to CDTC website.

Strategy or Action: Continue to explore Big Ticket Initiatives including a Regional Greenway Concept.

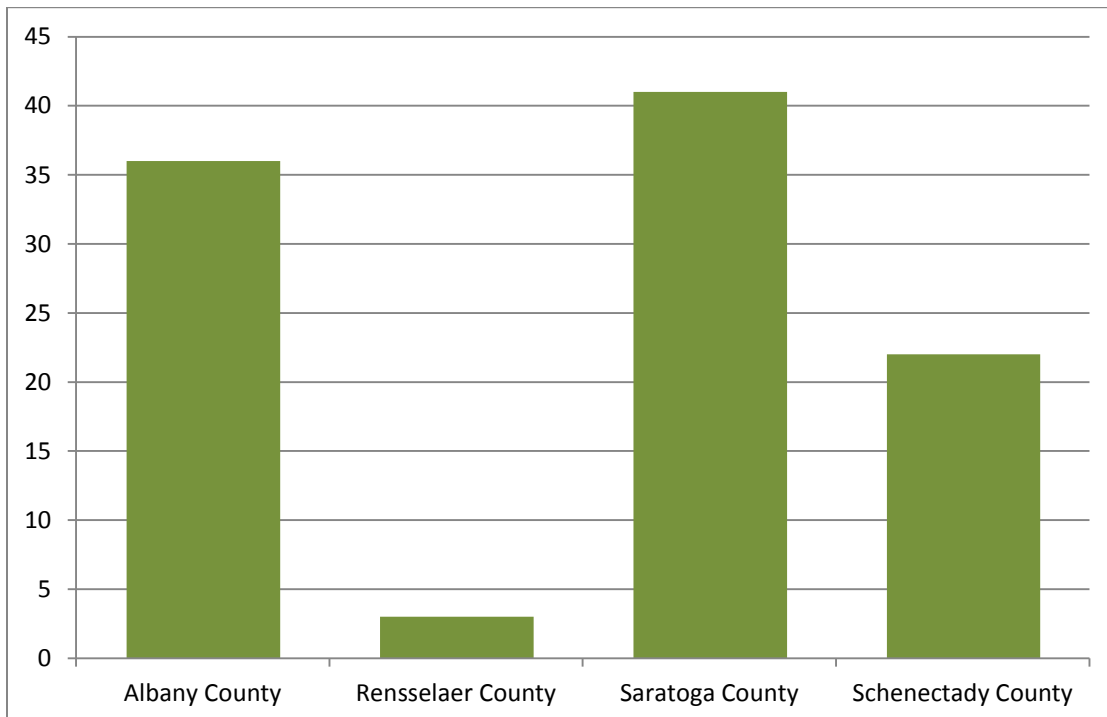
Strategy or Action: Encourage Saratoga County to continue to complete the Zim Smith Trail.

CDTC New Visions Bicycle and Pedestrian Action Plan

Trails are an integral part of the transportation system. While trails offer off-road opportunities for recreational walking, bicycling, roller blading, and other activities, they also provide alternative routes for commuting and other non-recreational trips. Across the country, multi-use trails are proving to be both popular with local residents and a wise economic investment for the communities through which they pass. Studies have shown that in addition to providing many intangible quality of life benefits, they help stimulate local economies by attracting regional, state and national/international tourists to an area. These tourists and local users alike help attract and revitalize businesses, create jobs, and increase public revenue.

There are over 100 miles of paved off-road trails and greenways in the Capital Region. The region's paved trails and greenways make up about 18% of the Bicycle and Pedestrian Priority Network. Given the wonderful natural setting and the numerous cultural and historic resources in the Capital Region, there is tremendous opportunity to provide one of the best trail and greenway systems in the Country. The CDTC prioritizes trail projects by including them on the Priority Network and identifies investment opportunities in trails and greenways in all Linkage and Planning Studies. Through CDTC support, many trail improvements and extensions have been made. Signage and other safety improvements have been made on the Mohawk-Hudson Bike Hike Trail by the various municipalities along the trail and Saratoga County continues to close the gap on the Zim Smith Trail.

Miles of paved off-road Trails/Greenways in the Capital Region



The largest trail facility in the CDTC-area is the Mohawk-Hudson Bike Trail. This trail connects communities along the Hudson and Mohawk Rivers from Albany to Schenectady County. It is part of the Erie Canalway Trail system that stretches across the state from Albany to Buffalo, which once completed

CDTC New Visions Bicycle and Pedestrian Action Plan

will ultimately be a 524 continuous trail along New York's historic Erie, Oswego, Cayuga-Seneca, and Champlain canals. Hundreds of thousands of people visit the CDTC-area segment of the trail every year.

A Regional Trail and Greenway System remains a New Visions "Big Ticket Initiative." While progress in expanding and filling gaps in the regional trails and greenways system since 2007 has been notable, gaps remain and regionally significant proposed trails remain unfunded. Other challenges include a lack of comprehensive trail GIS data, updated user counts on trail facilities throughout the region, and data on local economic activity generated by trails. The BPAC recommends CDTC pursue the following efforts to support the continued growth of a regional trail and greenway system:

- Develop a system to track trail projects – this will help ensure CDTC has or can collect comprehensive regional trail data which can help monitor gaps and progress made in trail improvements.
- Revisit the Tech Valley Trails report from 2007 that outlines opportunities for new trails, filling gaps and developing a regional Greenbelt trail that encompasses the Capital Region. As development occurs and populations grow or migrate, new opportunities may occur.
- Update the Trail User Survey conducted in 2006 to track user needs as well as the number of people who have access to trails and the number of people who are using trails in the Capital Region.
- Find partners, such as Tourism and Visitor Bureaus and Chambers of Commerce to conduct an economic analysis of activity generated by bicycle and pedestrian infrastructure, especially trails.

Trail Maps

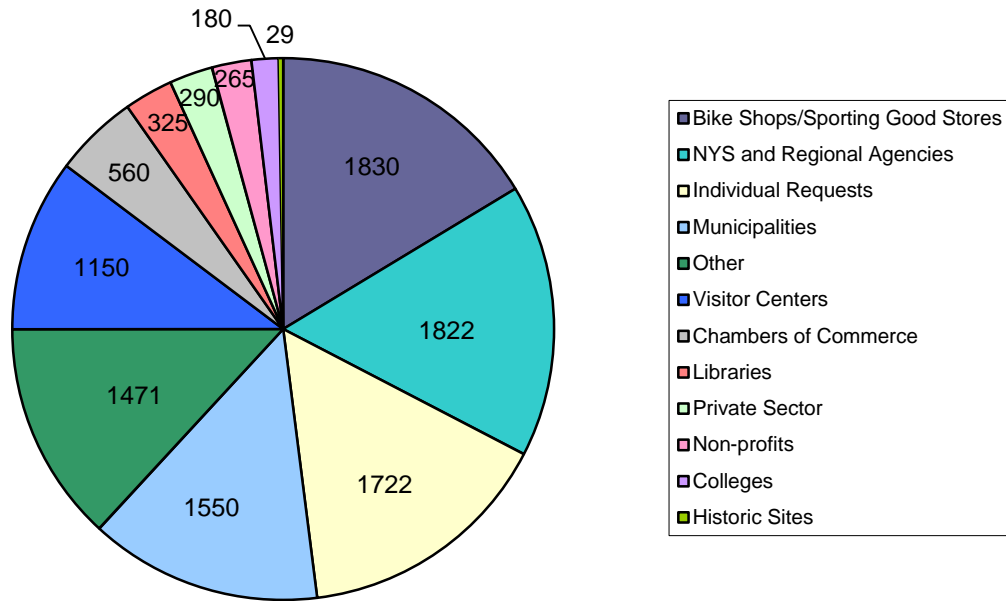
Strategy or Action: Update Bike Maps every two to four years using newest technology available.

The Regional and Mohawk-Hudson Bike Hike Trail maps are CDTC's most requested documents. The last Regional Trail map was produced in 2006 and Mohawk-Hudson Bike Hike Trail map was last updated and printed in 2010. Due to the growth of the trail system and changes in technology, CDTC will explore new strategies and tools for distributing maps. Some ideas gathered from the BPAC include smartphone and web-based applications. Below is a summary of the CDTC map production and distribution since 2006.

CDTC's Regional Bike - Hike Trail Map

The Regional Bike Map was last printed in the spring of 2006. Approximately 12,000 maps were printed. The supply lasted about six years until June of 2012. The distribution breakdown is indicated in the chart below:

Capital District Regional Bike-Hike Trail Map Distribution

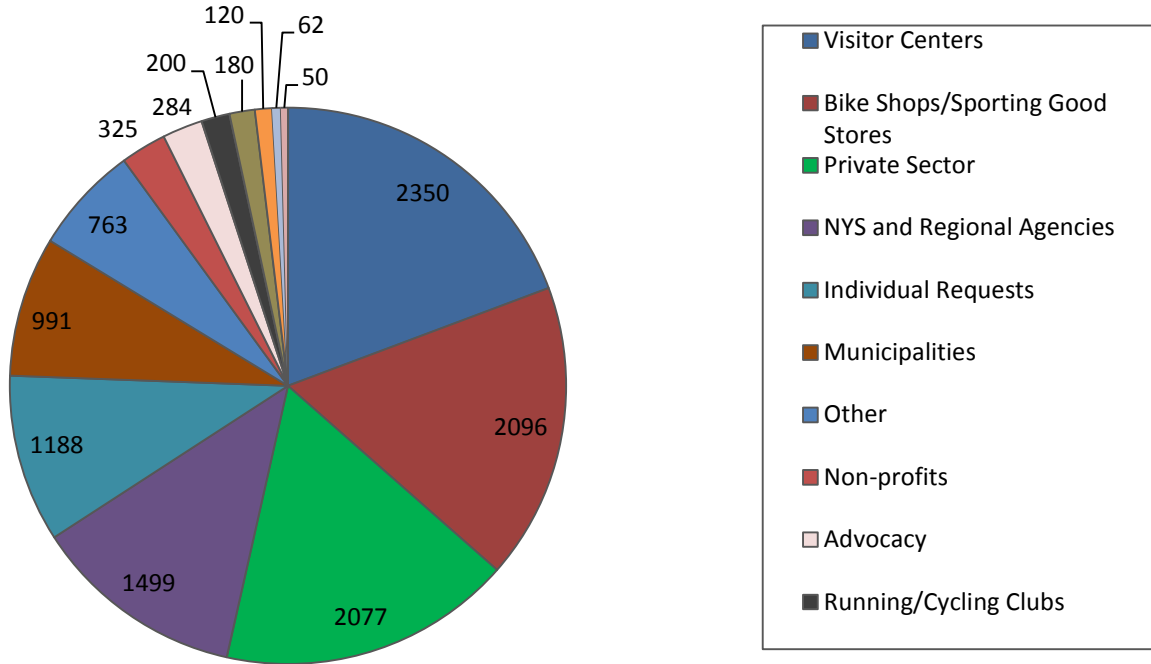


Currently, there are no plans to produce an updated printed version of CDTC’s Regional Bike-Hike Trail Map. An updated and enhanced interactive web version will be produced in the future. The 2006 version will still be accessible in PDF format via CDTC’s website until an updated online version can be produced.

CDTC’s Mohawk Hudson Bike - Hike Tail Map

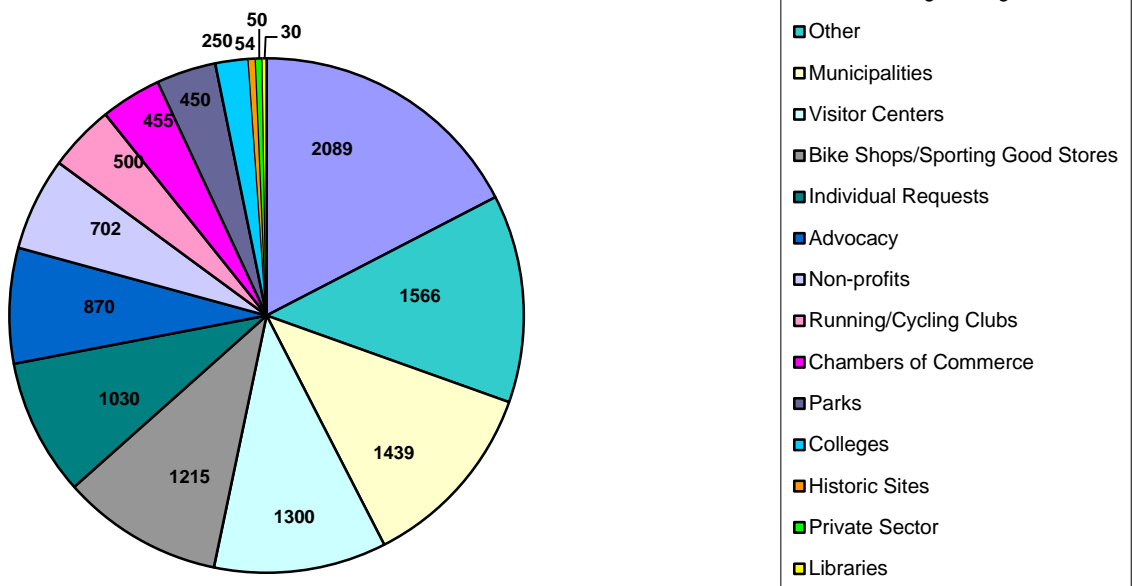
The Mohawk Hudson Trail Map was last printed in January of 2010. Approximately 12,000 maps were printed. The supply lasted nearly five years, until the fall of 2014. As CDTC’s most requested publication, this version as well as earlier versions of the trail map has been distributed throughout the United States, Canada and even Europe to those interested in walking and/or cycling in the Capital District. The distribution breakdown for the 2004 and 2010 versions is indicated in the charts below:

2010 Mohawk-Hudson Bike-Hike Trail Map Distribution



When comparing the distribution to that of the 2004 version, it is clear that distribution to municipalities and state and regional agencies has decreased. However, distribution to visitor centers and bicycle shops/sporting goods stores have increased. The distribution breakdown for 2004 is indicated in the chart below:

2004 Mohawk-Hudson Bike-Hike Trail Map Distribution



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The Mohawk Hudson Trail Map will be updated in 2015 to include trail alignment changes, new connecting trails and new trail amenities. The 2010 version will still be accessible in PDF format via CDTC's website until updated printed and online versions can be produced.

Funding Bicycle and Pedestrian Projects

Strategy or Action: Continue the Spot Improvement Program, explore gradual increase to \$250,000 over next five TIP updates, and streamline a process to assist municipalities with administrative responsibilities.

Strategy or Action: Include pedestrian specific improvements in projects and attempt to track costs of bike/ped components of larger projects.

Strategy or Action: Submit prioritized list of Transportation Enhancement Program projects to NYS DOT, include members of the Task Force on review committee, and prioritize bicycle and pedestrian safety and mobility.

Strategy or Action: Discuss the Second Chance Enhancement Program for funding at the Planning Committee each time there is a new round of the Transportation Enhancement Program.

The Transportation Improvement Program (TIP)

One of the most important responsibilities of CDTC is to program for the implementation of the products of the planning process through development of a staged multi-year program of transportation improvements (referred to as the TIP). Federal regulations require that transit, highway and other transportation improvement projects within the Capital Region metropolitan area be included in this TIP if these projects are to be eligible for federal capital or operating funds. The eligibility and evaluation process for TIP projects is how CDTC best enforces the New Visions policies and philosophies. The previous Toolbox included recommendations for programming bicycle and pedestrian projects to the TIP, such as increasing the amount of available funding for certain types of projects and requiring projects sponsors to include bicycle and pedestrian amenities in larger reconstruction and maintenance projects.

CDTC's Spot Improvement Program was endorsed in the 1997-2002 TIP. The program originally set aside \$100,000 per year of STP-Flex funds for projects whose scopes were too small for other programs like the Transportation Enhancements Program (TEP), such as infrastructure improvements that address problems at specific intersections, short lengths of roadway or a single destination. These projects are distinguished from other bicycle and pedestrian-related projects such as development of new trails in that they bridge physical or functional gaps in the system rather than in and of themselves providing new routes.

The first project funded under this program was the Bikes on Buses program which piloted the use of bike racks on buses, and is explained in detail later in this document. The project was so successful CDTA adopted a policy of installing bike racks on all of its buses and today sees about 70,000 bike boardings annually. Numerous small-scale sidewalk, multi-use trail and intersection improvement

CDTC New Visions Bicycle and Pedestrian Action Plan

projects have been funded since it was established. While the CDTA-area is no longer eligible to receive Congestion Mitigation and Air Quality Improvement Program (CMAQ) funding, CDTC made over \$1.6 million in flexible Surface Transportation Program (STP-Flex) and Highway Safety Improvement Program (HSIP) funds available for 6 separate projects across the Capital Region.

The CDTC will continue to explore new and/or alternative sources of funding for bicycle and pedestrian projects and increase funding available each year of funding.

Federal & State Transportation Policies

The most significant change since the previous *Toolbox* has been transportation policy at both the federal and state levels. In July 2012 *Moving Ahead for Progress in the 21st Century* (MAP-21) was signed into law, about 3 years after the previous transportation bill, the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU) expired. While MAP-21 provides much-needed funding for vital transportation infrastructure, it cut available funding for bicycle and pedestrian projects. Specifically, 3 distinct programs with their own funding – Transportation Enhancements, Safe Routes to School, and Recreational Trails – were combined into a single program, Transportation Alternatives (TAP). The new legislation also gives states the ability to opt out of the program. These changes amount to a 33% cut in funding for bicycle and pedestrian projects, or a 66% cut if states exercise their opt-out capacity. Nonetheless, CDTC decided to increase funding in CDTC's bicycle/pedestrian set-aside to compensate for this decrease.

In addition to funding cuts, new program procedures make it more difficult for non-infrastructure projects like Safe Routes to School education programs to compete. Bicycle and pedestrian projects that fall outside the purview of TAP are then competing with bridge and paving projects for Highway Safety Improvement and Surface Transportation Program funds at a time when all vital infrastructure also has a great need for funding. This is compounded by CDTC's loss of CMAQ funding which has traditionally been the funding source for key bicycle and pedestrian projects as well as the Spot Improvement Program.

In New York, the Complete Streets Act, requiring state, county and local agencies to consider the convenience and mobility of all users when developing transportation projects that receive state and federal funding, was passed in August 2011. CDTC supports this legislation and views it as integral to expanding bicycle and pedestrian infrastructure in the Capital Region and across the state. However, as deteriorating infrastructure outpaces funding, New York has also adopted a "Preservation First" policy making the highest priority to preserve the functionality of the existing system which inherently bars the expansion or enhancement of bicycle and pedestrian infrastructure.

CDTC's ability to secure \$1.6 million in STP-Flex funding for the Spot Improvement Program demonstrates its commitment to funding and expanding bicycle and pedestrian infrastructure in the Capital Region. As stated above, CDTC will continue to explore new and/or alternative sources of funding for bicycle and pedestrian projects as legislation changes and challenges arise. It is CDTC's policy to prioritize funding for incremental improvements to bicycle and pedestrian infrastructure as

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part of a vision for a comprehensive network, despite dedicated funding for such projects or reductions in funding for all transportation projects.

As funding allows, CDTC will consider a “Second Chance Enhancements” program to help fund high quality, priority bicycle and pedestrian infrastructure projects in each round of TAP. CDTC will continue to participate in the evaluation of TAP applications, coordinating with NYSDOT to submit a list of prioritized projects in accordance with TAP guidelines.

Tracking Spending

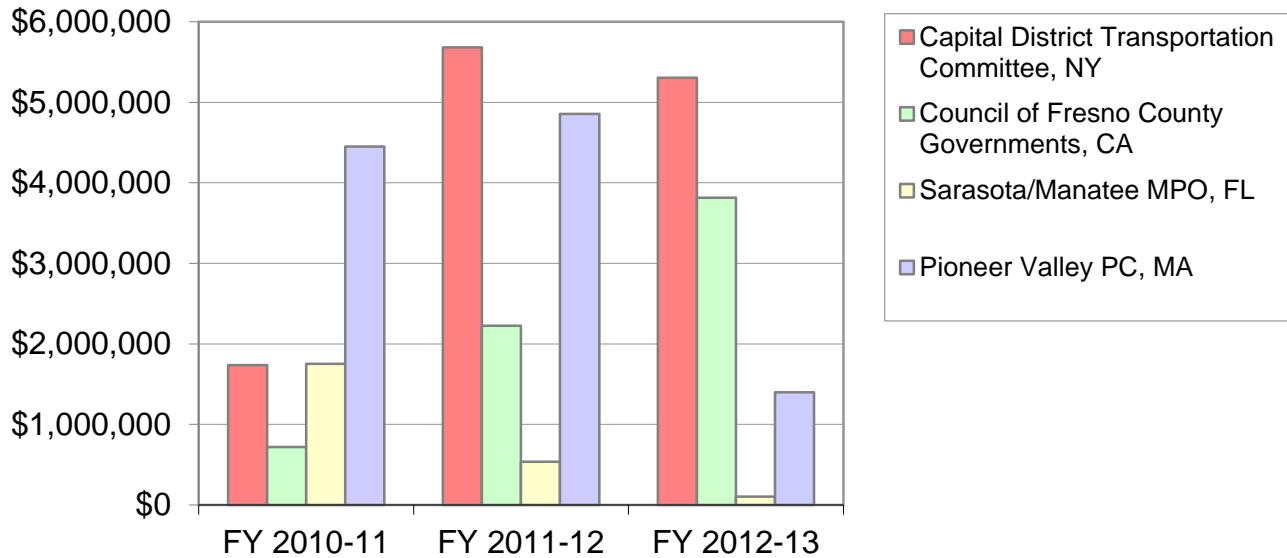
Bicycle and pedestrian projects amount to less than 1.5% of the entire federal transportation program. Other federally-funded highway and bridge projects include bicycle and pedestrian infrastructure but are harder to track because each state reports and tracks their projects differently. In New York, dedicated bicycle and pedestrian spending is a little over 1.5% of the total program. However, compared to all highway and bridge projects, less than 1% include bicycle and pedestrian facilities.¹

CDTC has made significant efforts to include specific improvements to bicycle and pedestrian infrastructure through its TIP project evaluation process, prioritizing highway and bridge projects that improve safety for bicyclists and pedestrians over projects that do not include such facilities. It is CDTC’s philosophy that despite fiscal or other challenges, incremental progress should be made to the vision of a comprehensive network of bicycle and pedestrian facilities. This has been done through the development of the Bicycle and Pedestrian Priority Network and the CDTC STEP model. Because of this process, over 4%, compared to less than 1% for the state, of funds have been programmed for projects that include bicycle and pedestrian infrastructure elements in NYSDOT Region 1, which includes CDTC’s planning area.

The CDTC collected bicycle and pedestrian spending data from peer MPOs with similar urbanized area populations. Below is a chart that illustrates CDTC’s commitment to investing in bicycle and pedestrian infrastructure. While this should be applauded, CDTC must continue to work towards increasing the percent of its TIP that includes bicycle and pedestrian projects and prioritize highway and bridge projects that include bicycle and pedestrian infrastructure elements.

¹ Tri-State Transportation Campaign

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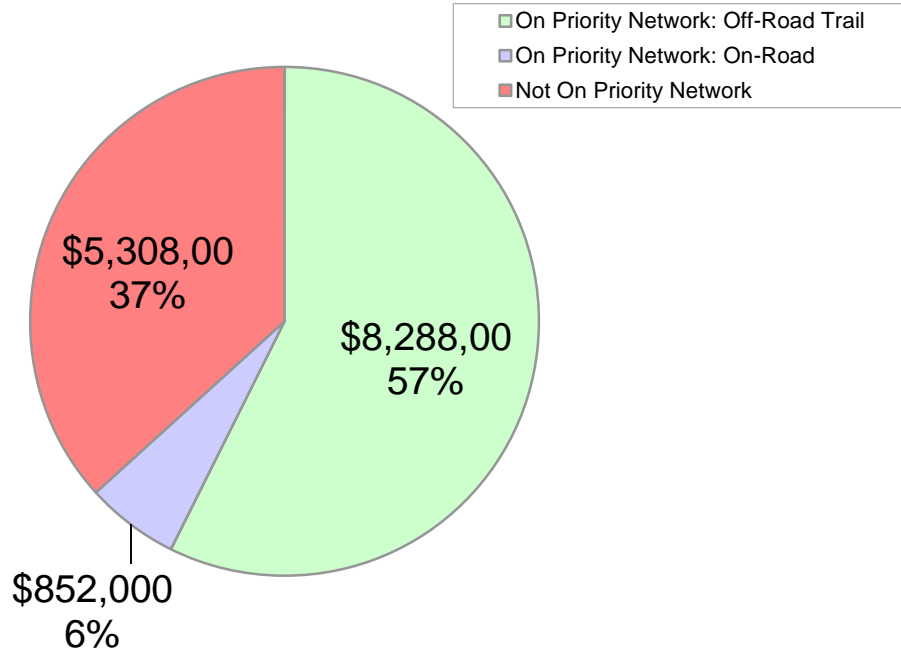


The Bicycle & Pedestrian Priority Network

Strategy or Action: Update the Priority Network on a regular basis to include facilities that meet the criteria and use the Network as the primary performance measure for determining success in accommodating bicyclists and pedestrians.

The Bicycle and Pedestrian Priority Network was developed with the BPAC as part of the original New Visions process. The objective of the Priority Network was to identify desirable bicycle and pedestrian travel corridors that lacked facilities for bicyclists and pedestrians and prioritize projects located on these corridors for funding. As part of the current New Visions update, the BPAC revisited the Priority Network to evaluate its effectiveness. In general, significant investment has been steered to the Priority Network; however the majority of this investment has been off-road. Trails and multi-use paths are automatically considered part of the Network. The break-down of Bicycle and Pedestrian Project funding since 2010, which includes Safe Routes to School, Transportation Enhancements, and the Spot Improvement Program, is broken down below.

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This is not a perfect evaluation because it does not include highway and bridge projects that might include bicycle and pedestrian infrastructure elements. Highway and bridge projects that include bicycle and pedestrian infrastructure elements receive higher funding priority than those that do not. However, these projects have been more challenging for CDTC to track, and not all highway and bridge projects are constructed as originally proposed. The BPAC has recommended CDTC develop a system to better track bicycle and pedestrian projects as well as highway and bridge projects that include bicycle and pedestrian facilities.

Major revisions to the Bicycle and Pedestrian Priority Network have been proposed as part of this New Visions update. The proposed revised Bicycle and Pedestrian Priority Network is different than the former Priority Network in several ways. First, it introduces the concept of Pedestrian Districts to address the concern that the existing network is too linear in nature and therefore more focused on enhancing bicycle travel than accommodating pedestrian travel. Secondly, it is no longer limited to Federal Aid-eligible roadways. Feedback received from the BPAC indicated that communities use the CDTC Bicycle and Pedestrian Priority Network as a base for their own local priority routes and wanted to see more than just Federal Aid-eligible roadways. Because the proposed Priority Network includes more than just Federal-Aid eligible roadways it might be useful for evaluating more than TIP projects. Regarding the TIP, the BPAC has recommended the proposed Priority Network be used to evaluate all TIP projects regardless of funding, and reward or subtract points/priority based on the type of improvement proposed for the facility. For example, a proposed repaving project that removes a bike lane on the Priority Network would lose points whereas a proposed repaving project that added a bike lane or included high-visibility crosswalks would receive priority points for each proposed improvement.

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The new Priority Network will consist of two components— pedestrian districts and a linear bicycle network. The network has evolved to acknowledge that bicyclists and pedestrians have different needs and what improves safety for pedestrians doesn't necessarily improve safety for bicyclists and vice versa. To develop the Pedestrian Districts, CDTC staff, under advisement of the BPAC, began by mapping fixed route transit, low-income individuals, zero vehicle households, residents 65 years of age or older, residents 65 years of age or older living below the poverty level, and residents reporting a disability. These were mapped to illustrate and identify locations where the most need for safe pedestrian infrastructure exists. Areas of population and employment density were also mapped. For the most part, the identified populations overlapped areas of population and employment density. The next steps incorporated environmental justice populations which identify areas of low-income and/or minority populations, and destinations that generate pedestrian activity which include shopping centers, schools, trails, hospitals and parks. Intersection density, as defined above, and which corresponds to street connectivity, was also mapped.

The data layers mentioned above helped guide CDTC staff to draft Tier 1 and Tier 2 Pedestrian Districts. Tier 1 Districts highlight areas that have population and employment density and met at least two of the following additional criteria: proximity to schools, shopping centers, hospitals, parks or trails and Environmental Justice population areas. Intersection density (the number of Intersections containing greater than 3 legs) was also used to identify and evaluate areas of street connectivity in relation to population and employment density. Tier 2 Districts consist of the remaining incorporated areas of all cities and villages that did not meet the criteria used to define Tier 1 Districts.

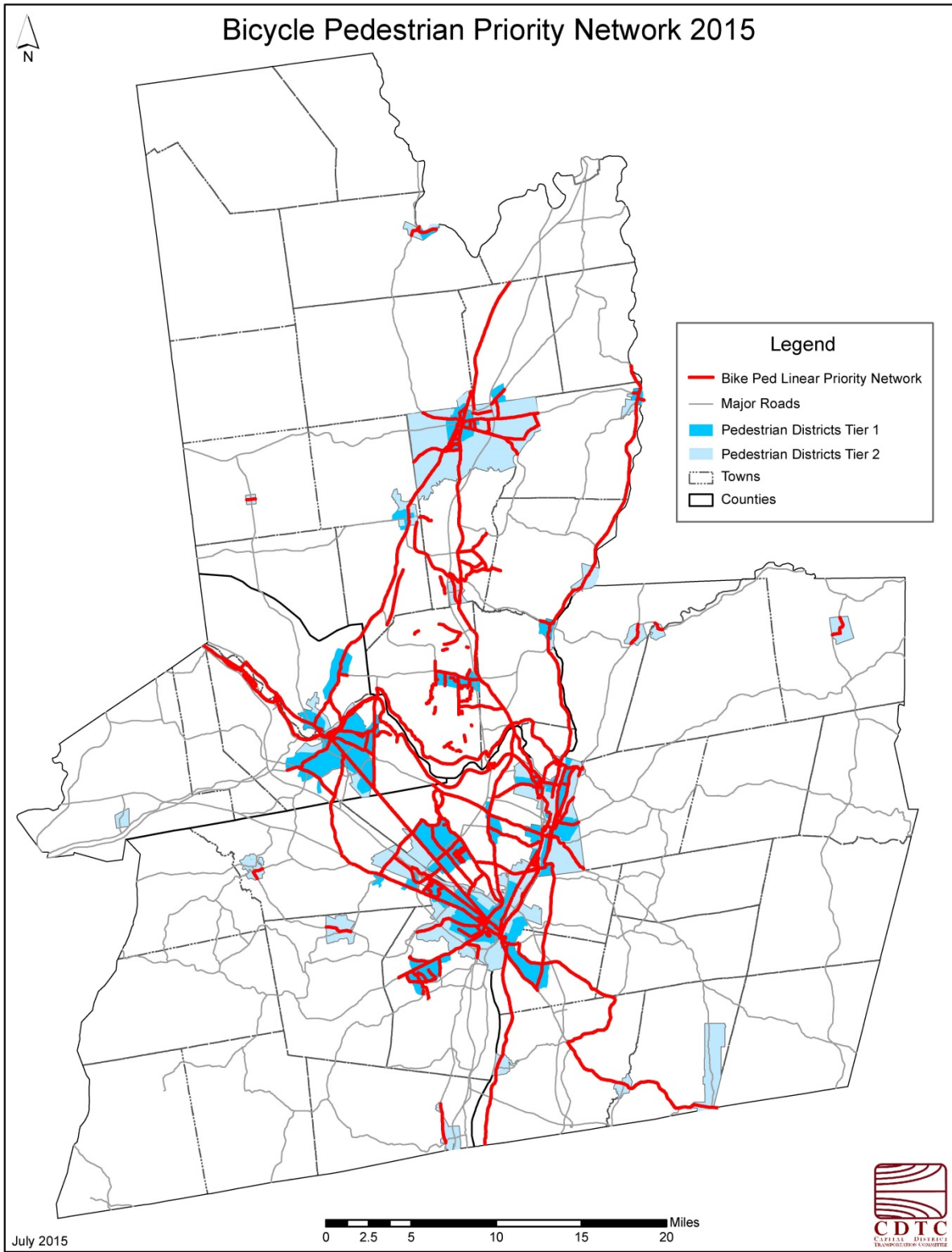
Pedestrian Districts were created to highlight and address the fact that pedestrian movement is more fluid than linear and that investments in pedestrian infrastructure should be made strategically, where there are greater densities of people living or working and in close proximity to pedestrian generating destinations. When a new TIP project evaluation system is adopted, proposed Tier 1 District projects will receive more points than proposed Tier 2 District projects.

The Bicycle Network is a linear network that connects the Pedestrian Districts via major travel routes, as well as making connections to identified pedestrian generators that may be located outside of the proposed Pedestrian Districts. Studies indicate that, like motorists, bicyclists prefer the most direct routes. Again with the advisement of the BPAC, CDTC staff began by mapping Federal-Aid eligible roadways with an annual average daily traffic volume of 10,000 vehicles or more, where bicyclists are not prohibited from traveling on. After reviewing these roads, the following criteria were developed to define the linear network:

- Roads located within a Tier 1 or Tier 2 Pedestrian District (automatic inclusion)
- Roads that are part of a designated bike route (automatic inclusion)
- Roads located within a population and employment density area (automatic inclusion)
- Roads that are part of the Mohawk Towpath Scenic Byway (automatic inclusion)
- Roads that do not meet any of the automatic inclusion criteria but do connect at least two pedestrian generators (schools, parks, trails, hospitals and shopping areas).
- All existing and newly built paved off-road trails and multi-use paths will remain part of the Bicycle Network.

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The basis was that these longer routes are attractive to bicyclists and manageable to travel by bicycle, whereas walking would be less feasible. Other Non-Federal Aid eligible and lower volume roads were added to make needed connections. This network will be used in the TIP evaluation process to prioritize proposed projects. Proposed projects on the linear network will receive more points than other proposed projects. The BPAC recommends that project sponsors be held accountable for including bicycle and pedestrian infrastructure elements that are included in TIP applications. If a project is a high funding priority based on its location on the Priority Network and proposed improvements to the bicycle and pedestrian environment, the project must be implemented how it is proposed to maintain the integrity of the Priority Network and TIP evaluation process. Ensuring TIP accountability will require CDTC to develop a system to track TIP projects through completion.



Public Health

Strategy or Action: Explore possibilities of including data on leisure time walking, bicycling, and running into regional transportation planning models and decision making.

Walking and bicycling are viable modes of transportation but they can also be enjoyable leisure activities. CDTC believes pedestrian and bicycling infrastructure are essential parts of the transportation system because they help get people from place to place. However, this policy can also help promote healthy lifestyle choices, such as exercise. Safe walking and bicycling facilities have a direct relation to public health. Studies have shown that people who live in walkable neighborhoods exercise more and are less likely to be overweight or obese, which can lead to many chronic diseases. Safe pedestrian and bicycle infrastructure can help reduce air pollution, prevent traffic injuries and deaths, and lower obesity, diabetes, cardiovascular disease, and cancer rates.

The CDTC works with the New York State and various County Departments of Health in the Capital Region. As Departments of Health develop policies to combat chronic diseases, they have promoted Complete Streets and have been allies of New Visions policies and philosophies. It has become increasingly important to consider health amongst the goals of transportation policy and land use planning as public health deteriorates and healthcare costs rise.

Some transportation agencies are employing health impact assessments (HIAs) to help address potential health effects of proposed transportation projects, plans or policies before they are built or implemented. The transportation planning process in MPOS has many stages. A Long Range Transportation Plan, like New Visions, sets the vision for transportation over a 20-year timeline. The TIP identifies which projects will be funded and constructed over a 4-year time period. As a policy tool, transportation HIAs can help prioritize local project proposals by identifying the health value. This tool can encourage bicycle and pedestrian infrastructure elements to be included in all transportation projects in the Capital Region. The BPAC recommends CDTC work with Departments of Health to research and adopt HIAs in the TIP project evaluation process.

Outreach & Training

Strategy or Action: Work with collaborating agencies to provide more Walkable Communities Workshops.

Connecting local planners and engineers with resources on designing walkable communities and bicycling facilities is key to achieving the goals outlined in New Visions. CDTC has hosted a number of trainings and workshops in conjunction with the Federal Highways Administration (FHWA) and other organizations. As new tools, roadway treatments and traffic control devices are developed it is important for CDTC to educate local planners and engineers on how to implement them in their communities. CDTC will continue to research and collaborate with other agencies and organizations such as FHWA, Smart Growth America and the Association of Pedestrian and Bicycle Professionals

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(APBP) to host meaningful workshops and trainings as well as webinars to keep local planners and engineers informed of the most up-to-date best practices and transportation system design guidelines.

ACCOMPLISHMENTS: INITIATIVES UNDERTAKEN SINCE 2007

Capital Coexist – Education campaign, Enforcement training, etc.

After completing the Albany Bicycle Master Plan, CDTC evaluated the feedback received from the public through the study process. As a result of that feedback, CDTC initiated a localized bicycle safety education campaign geared towards cyclists and motorists safely coexisting on the region's roadways. It was influenced by a variety of bicycle safety campaigns across the country, but especially the COexist campaign developed by the City of Fort Collins, Colorado. CDTC staff collaborated with the City of Albany Planning Department and BPAC to outline messages and materials that were thought to be the most valuable to both cyclists and motorists.

In 2009, CDTC contracted with Zone 5, an Albany-based communications and design firm to design four separate messages – Share the Road, Be Seen, Ride Right, and Eyes on the Road – and build a website. The Capital Coexist website was anticipated to become a bicycle education resource clearinghouse for the Capital Region, essentially a one-stop shop for bicycle safety tips, current bicycle projects, events and other educational materials. It is currently the home for bicycle safety information, links to other resources, a calendar for all bicycle and pedestrian related events and meetings at CDTC, a discussion page and contact page that links to various Capital Coexist social media.



Capital Coexist was officially launched in April 2010. The launch was timed that the messages would be promoted before Bike Month in May. The launch included the Capital Coexist website (www.capitalcoexist.org), and the four messages displayed on posters, rack cards and king-size bus wraps. The posters and rack cards were distributed and displayed around the region. The bus wraps were displayed on several buses that moved along Albany's most heavily traveled routes (i.e. Central Ave / Route 5).

Public outreach has been a key piece of Capital Coexist since launch. CDTC staff has attended numerous community events to promote bicycle safety such as Malta Community Day, the Madison Avenue Street Fair, the Albany Bicycle Expo, Green Your Commute Day, etc. Staff has participated in helmet fitting events and bicycle rodeos that are often coordinated by local police and or county traffic safety departments. Capital Coexist messages have also been aired on Radio Disney and displayed at the Tri City Valley Cats games. In more recent years, CDTC has received an increasing number of requests for materials for school-aged children. As a result CDTC has requested permission to reprint three bicycle safety publications: the *Getting There* activity book, *Sprocket Man* comic book, and *Chuggington Traffic*

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Safety Activity Book. These books have been printed and distributed to local schools for National Bike and Walk to School Days, bicycle rodeos, and other events.

Another interesting Capital Coexist project has been its enforcement training efforts. In 2012 CDTC partnered with the Adirondack Glens Falls Transportation Council (AGFTC) and *WEBike's* Peter Fluke to conduct a Continuum of Training in Pedestrian and Bicycle Safety for Law Enforcement. The continuum of training has proven to be very successful at increasing officers' pedestrian and bicycle safety knowledge and has resulted in increased pedestrian and bicycle safety enforcement activity and a greater sense of security for pedestrians and bicyclists of all ages and abilities. The trainings were conducted in the Spring and Fall of 2012 and about 50 officers from over a dozen different enforcement agencies attended. Officers who attended the trainings learned how the 3 E's must work together to make the walking and bicycling travel environment safer for people of all ages and abilities.

Since www.capitalcoexist.org was launched, the site has received over 17,000 page views from almost 4,500 visitors (source: Google Analytics). Capital Coexist has also utilized both Facebook and Twitter as additional media to help promote bicycle safety education. Currently, the Capital Coexist Facebook page has 366 "Likes" and there are 166 followers of the Capital Coexist Twitter with over 100 retweets. The website will be updated to include the pedestrian safety messages and materials developed by NYSDOT and NYSDOH, *Be Seen* initiative. The website update is anticipated to be completed in 2014.

Complete Streets

The term "complete streets" refers to a road/street that is designed and built to accommodate all users, which includes all modes, range of abilities, and ages. Complete streets have a variety of benefits such as improved safety and health, increased use and attractiveness of public transportation, lower transportation costs, more livable communities, increased economic activity and better accommodation of children, older adults and people with disabilities. The complete streets movement is a reaction to decades of auto-centric roadway design and has spread all over the country with many local and state governments passing complete streets legislation requiring all roadway projects to consider all users. Implementing complete streets has been challenging but has ultimately led to strengthened relationships between municipal and elected officials, departments and between citizens and transportation professionals.

Since the previous New Visions update, several Capital District communities have passed Complete Streets legislation. Additionally, New York State passed the Complete Streets Act in 2011 requiring state, county and local agencies to consider the convenience and mobility of all users when developing transportation projects that receive state and federal funding. In 2013, NYSDOT conducted workshops across the state to solicit feedback on opportunities for further institutionalizing Complete Streets principles. Representatives of various stakeholder groups, such as MPOs, counties, cities, towns, and villages participated, including the CDTC and two representatives from the BPAC. Lessons learned through the workshops will be applied in the implementation of NYSDOT's transportation capital program.

Currently, in the Capital District, the Town of Bethlehem, City of Albany, City of Saratoga Springs and City

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of Troy all have some form of Complete Streets legislation and citizen advisory groups to coincide. In reaction to the growing interest in complete streets and how to incorporate complete street principles into the project development process, CDTC established the Complete Streets Working Group (CSWG). A Purpose and Planned Outcomes statement was developed by the Complete Streets Advisory Committee and reads:

Purpose: The Complete Streets Advisory Committee's purpose is to assist in identifying opportunities and mechanisms to assist roadway improvement project implementers and municipalities, in partnership with roadway owners, in integrating complete streets elements into a variety of project types as listed below.

The group will research, learn and then share learned information with the Planning Committee and Policy Board, as appropriate, on complete streets tools and techniques that should be integrated into projects across a range of project types. Initial emphasis will be on low cost techniques and partnerships to assist CDTC, NYSDOT, the four counties and municipalities to meet stated goals for improved transportation safety, a multimodal transportation system serving all users, and sustainability goals. Fostering improved communication between project planners and designers to achieve integration is a major goal.

Applicability: There are three broad categories of projects:

- Preservation First/Maintenance and Operations projects (Includes projects currently on the adopted/draft TIP and those to be selected through upcoming preservation set aside project solicitations)
- Existing TIP infrastructure projects (Includes projects currently on the adopted/draft TIP which are considered "beyond preservation")
- Land development/redevelopment initiated improvements

Planned Outcomes:

- Revised TIP Project Justification Package/Solicitation Materials and Project Selection process that includes questions and evaluation criteria to incentivize incorporation of complete streets elements into "preservation first"/maintenance and operations type projects.
- Identification of complete streets elements that can be integrated into various categories of project types (i.e. repaving/restriping projects, signal timing improvements, etc.) with an emphasis on low cost or shared cost elements.
- A list identifying "beyond preservation" projects on the TIP currently in the pipeline where there's a window of opportunity to identify and implement complete streets elements.
- Institutionalization of a process between NYSDOT, CDTC and municipalities to foster enhanced communication and to provide an ongoing mechanism to provide meaningful input that will be utilized in the design process to integrate complete streets elements into projects. Determination of the points in the project development/design process representing windows of opportunity for this input. Identification of the most effective means of communication and

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input such as a regularly set meeting schedule (bi-monthly?) or based on NYSDOT's project development/design schedule.

- Improve communication and coordination between NYSDOT and municipalities to ensure a unified approach and complete streets oriented outcomes as a result of development site plan review and approvals. In these fiscally challenging times, one key avenue for integration of complete streets elements into the capital region's roadways and realization of a multi modal transportation system that serves the capital region's communities is incremental improvements related to newly developed or redeveloped sites along major roadways. Incremental improvements are typically required as part of mitigation of development impacts to these roadways. To achieve this there needs to be more consistency among the region's municipalities in requiring private sector participation in appropriate development mitigation as well as consistent support from and ongoing coordination with NYSDOT, CDTA, other agency and municipal partners.

The NYS Association of Metropolitan Planning Organizations (NYSAMPO) Safety Working Group developed a *Complete Streets Fact Sheet* that can be found in Appendix X. In 2013 the Safety Working Group released an updated fact sheet titled *Complete Streets Fact Sheet 2.0* which can also be found in the Appendix.

Bike Rack Program

The Capital Region Bike Rack program was a new addition to the set of Travel Demand Management (TDM) strategies in 2009. This was a cooperative program between CDTC and CDTA to increase the quantity of secure bicycle parking in the region. As a TDM pilot, the program received an annual budget of \$50,000 for three years.

The program had the following features:

- 50/50 cost sharing for private sector applicants;
- Free racks to public and non-profit applicants;
- Recipients must use the Association of Pedestrian and Bicycle Professionals' Bicycle Parking Guidelines to ensure that installation sites meet "best practice" requirements;
- Five-year maintenance and indemnification agreements for received bike racks;

| Year | 2010 | 2011 | 2012 |
|---------------------------|----------|----------|----------|
| Number of organizations | 77 | 30 | 30 |
| Number of bike racks | 334 | 241 | 145 |
| Dollar value of all racks | \$50,000 | \$36,531 | \$21,000 |
| Number of parking spaces | 900 | 529 | 333 |

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The following table shows the distribution of applicants' intended locations over the three years, by county, compared to population (US Census Bureau 2009 population estimates).

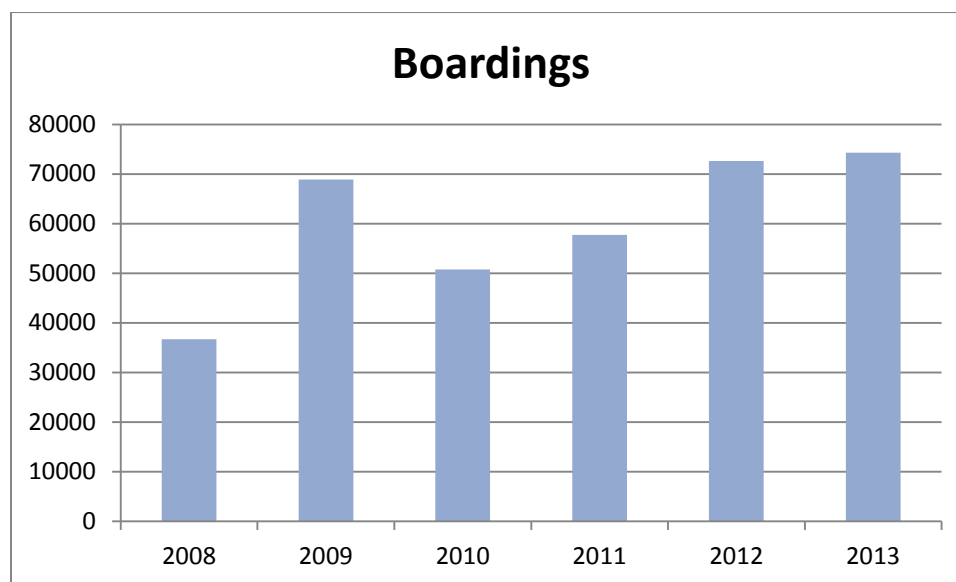
| County | Albany | Rensselaer | Saratoga | Schenectady |
|---------------------|--------|------------|----------|-------------|
| Applications | 54% | 13% | 20% | 11% |
| Population | 36% | 19% | 27% | 18% |

The distribution by type of entity is as follows:

| Type of Organization | Percent |
|-------------------------|---------|
| Nonprofit | 27% |
| Government | 31% |
| Other For profit | 14% |
| Schools/Colleges | 20% |
| Church/Religious Groups | 6% |

Bikes on Buses

The Bikes on Buses program was the first project to be awarded funds through the CDTC Spot Improvement program, or bike/ped set-aside, in 1998. It began as a pilot and its popularity influenced CDTA to gradually install bike racks on its entire fleet. This program has been a vital link in the region's bike network, extending the distance of many trips by bike. As illustrated in the figure below, bike boardings continue to increase each year.



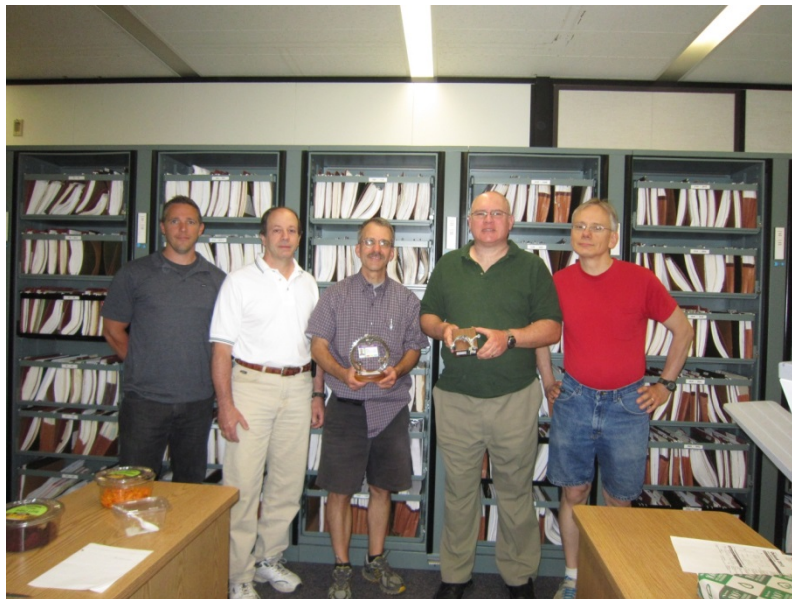
Bike Skills Trainings

Another one of the needs identified by CDTC's Bicycle and Pedestrian Task Force was educational programming related to the safety of bicyclists while also encouraging bicycling. CDTC entered into an agreement with the New York Bicycling Coalition to partner on the provision of the League of American Bicyclists' (League) "Traffic Skills 101" courses, which give participants the confidence to ride safely and legally in traffic or on the trail. They learn how to conduct bicycle safety checks, fix a flat, on-bike skills and crash avoidance techniques. League certified instructors held the course in Albany, Saratoga Springs, Schenectady, and Troy. Participants paid \$5 toward the participant course cost. A total of 17 residents participated in the 1.5 day course held between the end of April and mid-June 2014.

Bike to Work Day Challenge

Bike to Work Day is an annual event held each spring throughout the country that promotes bicycling as a fun way to commute to work. A group called Bikeatoga in Saratoga County has organized a Bike to Work Day competition for the last few years, and in 2014 worked with CDTC to implement their program throughout CDTC's area. Almost 350 people registered for the challenge on May 16 in Albany, Rensselaer, Saratoga, and Schenectady Counties, amounting to over 3,500 bicycle miles, replacing about 148 gallons of fuel, 2,900 lbs. of CO₂, and burning about 159,000 calories! A survey was distributed, which 51 registrants completed. About 90% of survey respondents did bike to work, and the average number of miles was 11.2 round-trip.

Trophies were donated by Bikeatoga, Albany Bicycle Coalition's Lorenz Worden, Troy Bike Rescue's Dakota and Sheila, and Steven Rolf Kroeger and were distributed within each County. Trophies are to remain with the current year's winner until the next annual Bike to Work Day.



One of the 2014 winning teams in Albany County, the State Bureau of Environmental Radiation Protection

Capital Region Walking Guide

CDTC developed a walking guide in 2013 to both encourage walking and improve knowledge of pedestrian-related safety and laws. This guide includes the following sections: The Benefits of Walking, Get Walking!, Accessorize for Exercise, Know Your Streets in New York State, Know Your Signals, Tips for Walking and Running, Extend Your Trip with CDTA, Walking Maps and Guides, Organized Walks, Route Mapping, Trip Logging, and Walking Groups, and Useful Resources. 1,000 were printed.

Capital Moves

Capital Moves is a website providing information about the region's transportation options. It was funded by a \$15,000 grant from NYSERDA and NYSDOT and completed in 2011.

Major sections of the site are local or Capital Region travel, long distance travel, frequently asked questions, news, and an employer section. Additional links on every page are a travel calculator, guaranteed ride home, alternative fuel stations, and the region's only comprehensive inventory of park and ride lot locations. The bulk of the website is located within the Capital Region travel section, with information on carpools, carsharing, vanpools, buses, walking and biking, and driving smart. The travel calculator compares the cost, emissions, and calories expended for each travel mode. In 2014, the site was used to host information about bike share pilots in the region. CDTC staff keeps the site current, including by Facebook and twitter accounts. In 2012, over 3,500 people visited the site and in 2013 about 4,600 people visited.



In 2013, responsibility for the site transitioned from CDTA to CDTC and the site is now hosted by Zone 5.



ANALYSIS

What's working?

In general, data like bicycle and pedestrian counts, bike boardings on busses and increases in bicycle and pedestrian project spending over time demonstrate walking and biking as viable modes. Furthermore, the recent installation of sharrows and new bike racks as well as expanding trail networks have enhanced the region's bicycle and pedestrian infrastructure. This has all been done through what are referred to as the 4 E's: *encouragement, engineering, enforcement and education*.

Encouragement

The CDTC promotes bicycling and walking as viable alternative modes of transportation. Initiatives that have specifically aimed to promote bicycling and walking include the production of the two most popular pieces of CDTC printed material – the Mohawk – Hudson Bike-Hike Trail Map and Capital District Regional Bike-Hike Trail Map. As mentioned earlier, CDTC has distributed over 30,000 copies of its maps over the last 10 years, mostly across the region but also throughout the state, country and world. Other initiatives like the 2014 Bike Share demonstration, production of the Capital Region Walking Guide, and daily updates to Capital Coexist social media aim to support current bicyclists and pedestrians while encouraging others to bike or walk because they are fun, healthy and economical modes compared to driving.

Engineering

CDTC works closely with engineers during the engineering and design process of transportation projects. In fact, millions of dollars in federal funding have been programmed at the CDTC table specifically for pedestrian and bicycling infrastructure. Whenever possible, CDTC advocates for better designs of roadways and other facilities that improve safety and ease of walking and biking. NYSDOT and consultants often present draft designs to the BPAC and the recently established Complete Streets Working Group meets regularly with NYSDOT to coordinate local plans with projects on state-owned facilities.

Enforcement

The enforcement aspect is almost exclusively the responsibility of law enforcement. The CDTC has worked to build and grow relationships with local and state law enforcement agencies by working alongside police officers on bicycle and pedestrian safety plans and initiatives and providing enforcement training related to the Vehicle and Traffic Law. As part of Capital Coexist, CDTC hosted an Enforcement Training Workshop in the spring of 2012 that was well-attended by local law enforcement agencies. CDTC continues to work with law enforcement through the Route 5 / Central Avenue Pedestrian Safety initiative.

Education

Of the 4 E's, CDTC is best suited for this role. As a regional transportation forum, CDTC provides

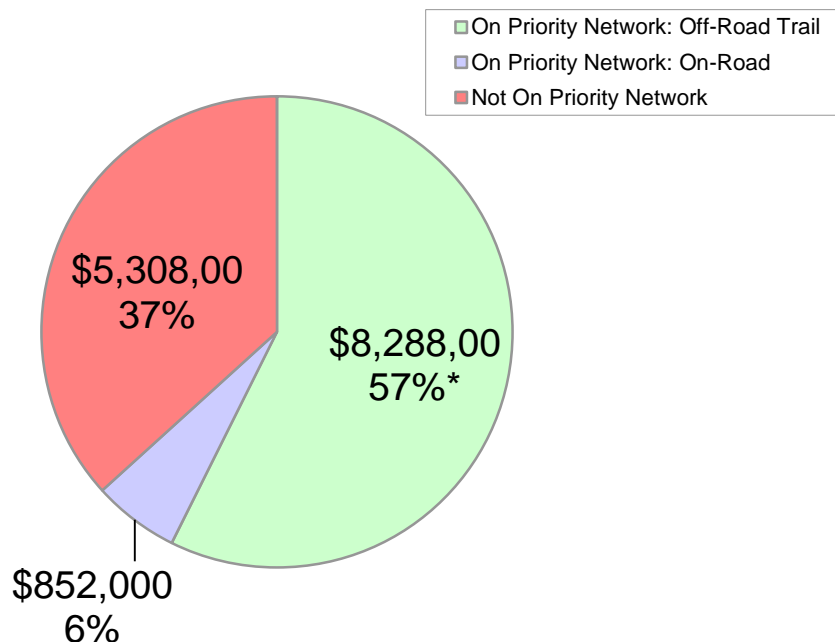
CDTC New Visions Bicycle and Pedestrian Action Plan

guidance and technical assistance to 78 municipalities in the Capital Region. CDTC has introduced terms like “Complete Streets” and “Smart Growth” through its practices and programs, guiding communities towards adopting plans and policies that are consistent with regional transportation goals. CDTC has also developed or been involved with the development of guides, safety campaigns and initiatives, advisory committees and public events that aim to educate planners, engineers and the public about important issues and planning topics relevant to the Capital Region. The best example of this has been the bicycle safety campaign Capital Coexist.

What’s not working?

While data illustrates increases in bicycling in walking throughout the region there is still room for improvement. The previous *Bicycle and Pedestrian Game Plan and Toolbox* laid out short-, mid-, and long-term goals to enhance bicycle and pedestrian travel in the Capital Region. CDTC can confidently say that significant progress has been made towards some of these goals but others have fallen short. One issue CDTC would like to improve upon is the percent of funding programmed toward the Bicycle and Pedestrian Priority Network. This is the motivation for revising the network. As shown below, only 6% of TIP funds have been programmed for projects on the existing on-road priority network. Even though the Tri-State Transportation Campaign found that CDTC has programmed comparatively more of its funds toward bicycle or pedestrian related projects than nearby regions in New York, New Jersey, and Connecticut, CDTC would like to increase this amount.

Priority Network Funding



*All off-road trail facilities are considered on the “priority network.”

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The second issue CDTC highlights is the lack of a uniform bike signage and route system throughout the region. Several municipalities have their own locally designated bike routes and have shared this information with CDTC but there is still a lack of comprehensive data and furthermore, a lack of a regionally connected, signed, on-road bicycle routes. In May 2001 CDTC released *Bicycle Signage Guidelines for the Capital District* to promote a uniform system of on- and off-road bicycle facility signage and wayfinding. There has been interest in local bicycle route wayfinding signage and uniform signage for specific off-road bicycle facilities but the Capital Region has yet to develop a connected system. CDTC encourages communities in the Capital Region to refer to or adopt the *Bicycle Signage Guidelines for the Capital District*.

Objectives & Performance Measures

1. Improve safety; reduce the number of vehicle crashes involving bicyclists and pedestrians.
 - a. Measure: crashes involving bicyclists and pedestrians
2. Increase the number of bicycle and pedestrian trips (esp. commuting trips) in the Capital Region.
 - a. Measure: rate of bicycling and pedestrian commuting (Census & local counts)
3. Reduce obesity rates, heart disease and other chronic illnesses related to inactivity.
 - a. Measure: rate of obesity, heart disease and other chronic illnesses in the Capital Region
4. Increase economic activity related to biking and walking.
 - a. Measure: combine expenditures for major running and bicycling events in the Capital Region with those at bicycle-pedestrian-oriented businesses (ex. bicycle shops, running/hiking shoe stores).
5. Increase funding for bicycle and pedestrian projects, particularly on the on-road portions of the bicycle and pedestrian priority networks.
 - a. Measure: dollars in the TIP program

Implementation Plan

The purpose of the Bicycle and Pedestrian Action plan is to outline what projects CDTC has initiated to support its goal of increasing access to bicycling and pedestrian infrastructure, the rate of bicycling and walking, and the amount of funding available for bicycle and pedestrian infrastructure projects. The most direct impact CDTC has on improving the bicycle and pedestrian environment is programming of the Transportation Improvement Program (TIP). To direct funding towards projects that make meaningful improvements to the access, safety, and efficiency of bicycle and pedestrian travel, the Action Plan proposes updates to the TIP project evaluation methodology. These updates include rebuilding the Bicycle and Pedestrian Priority Network, as discussed on page 24, and changing the point system in the evaluation methodology. For example, if a proposed project intends to remove vital bicycle or pedestrian infrastructure, the project will lose points. Also, there should be a range of points depending on the type of bicycle and/or pedestrian infrastructure proposed, so that a bike lane receives more points than a sharrows and a concrete sidewalk with curbing receives more points than an asphalt path. This type of point structure will be further explored.

Recommendations

The purpose of the Bicycle and Pedestrian Action plan is to outline what projects CDTC has initiated to support its goal of increasing access to bicycling and pedestrian infrastructure, the rate of bicycling and walking, and the amount of funding available for bicycle and pedestrian infrastructure projects.

1. Update TIP evaluation methodology
2. Develop bicycle and pedestrian priority matrix – help prioritize projects that have greatest potential impact on New Visions goals

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3. Develop and maintain inventories - ADA Transition Plans, sidewalks, bicycle infrastructure, highway shoulders, etc.
4. Measure the economic impacts of bicycling, walking, and transit infrastructure in the Capital District.
 - a. Business
 - b. Health – work with state and county health departments
 - c. Evaluate existing projects
5. Develop and distribute a potential user survey – what types of infrastructure are desired and what are the perceived and real barriers to biking and walking in the Capital District.
6. Find local project champions, especially to help garner support to close gaps in regional bicycle and pedestrian networks, like trails.
7. Research and establish a program managed by CDTC to leverage dollars by coordinating group purchases for amenities such as bike racks, signage, and materials for pavement markings for pedestrians and/or bicyclists.
8. Research the feasibility of and potential fund source(s) of a regional revolving loan fund specifically for bicycle and pedestrian infrastructure projects.
9. Support the Complete Streets Advisory Committee in developing a Complete Streets guidebook that outlines specific types of improvements by street typology, including retrofits, and a Complete Streets user checklist.
10. Recommend funds be carved out in the New York State Consolidated Funding Application (CFA) specifically for bicycle and pedestrian infrastructure and education projects.
11. Inventory parking and utilization in the Capital District to help establish new parking maximums, which consider access to alternative modes of transportation.
12. Continue to incrementally increase funding available for bicycle and pedestrian projects through the CDTC Bicycle/Pedestrian Network Set-Aside.
13. Complete the following trail/greenway projects:
 - Uncle Sam Bikeway
 - Patroon Creek Greenway
 - Mickey Mahar Trail
 - Zim Smith Trail
 - Albany County Rail Trail with a connection to the Corning Preserve trail

CONCLUSION

It is safe to say that we have moved beyond trying to convince people of the benefits of walkability and safe bicycling facilities and are now responding to public demand for them. The two biggest obstacles to a walkable and bikable Capital District are education and funding. This Action Plan outlines how CDTC has moved the region forward and recommended new tools and actions for continuing this trend.

As America's changing attitudes, demographics and landscape change, policy-makers need to have the dexterity and vision to meet these changing needs. In the case of transportation, policy-makers need to pave a path to a cleaner, more resilient transportation system that is safe, reliable and interconnected

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for bicyclists and pedestrians. A change in transportation policy will have positive economic, health and safety impacts for all users of the transportation system. The CDTC will continue to prioritize transportation investments that include safe bicycle and pedestrian facilities and develop tools and programs to help communities prepare, design and maintain communities that are accessible and safe for all road users.