

Western Connecticut Council of Governments

Regional Bicycle Plan

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Introduction

The Western Connecticut region is diverse and yet cohesive. Spanning 532 square miles, its eighteen communities constitute a harmonious combination of high-density coastal towns; suburban and rural villages. The region is oriented toward two major employment areas: one, in the City of Stamford, and to the New York City Metropolitan Area. The region has a strong identity and a wide range of natural resources and neighborhoods that make it an attractive place to live, work and recreate.

Over the years, there have been numerous studies conducted in the cities and towns of Western Connecticut that relate to bicycle infrastructure and safety. In addition to these plans, each of the eighteen municipalities in the region has (or is currently drafting) a Plan of Conservation and Development (POCD).ⁱ To varying degrees, each of these studies documents the existing bicycle infrastructure, sets goals and provides recommendations for improvements.

The Western Connecticut Council of Governments (WestCOG) was established on January 1, 2015 from the merger of the former Housatonic Valley Council of Chief Elected Officials and the Southwest

Regional Planning Agency (SWRPA). WestCOG's charge is to address the fundamental decision-making constraints posed by local governments attempting to solve regional natural resource and infrastructure issues on their own. Many such issues are identified in the above-referenced studies.

As host to the Housatonic Valley Metropolitan Planning Organization (HVMPO) and the South Western Region Metropolitan Planning Organization (SWRMPO) WestCOG plays a major role in planning for and programming funding of the region's transportation system, including bicycle facilities. Accordingly, WestCOG has several initiatives underway to improve bicycling so as to advance regional economic and community development; create a balanced transportation network; stimulate travel and tourism, and positively impact the environment and public health.

WestCOG's purposes in preparing this Bicycle Plan are to: promote its communities' individual bicycle planning efforts; ensure regional coordination among such efforts, and set regional priorities and advocate for supportive policies and funding that generate local and regional benefits. Accordingly, this Plan builds upon the solid foundation of work cited above while proposing some incremental steps communities can take to encourage bicycling, as well

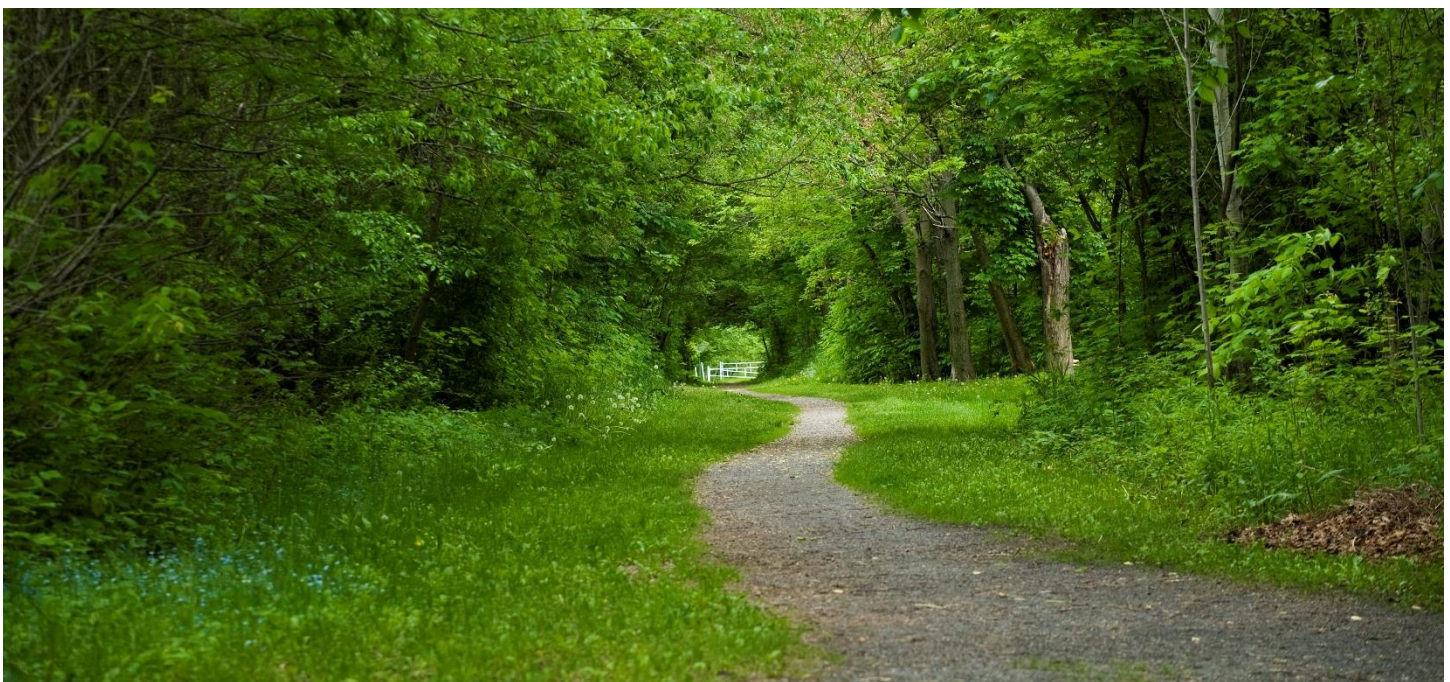


Figure 1. Norwalk River Valley Trail (Photo Credit: Former State Representative Gail Lavielle)

as taking a regional approach to connecting existing and planned bicycle routes.

Accordingly, WestCOG will:

- survey and report upon the region's bikeability;
- track and report upon bicycling safety;
- identify and prepare actions to address unmet bicycling needs;
- set attainable bicycling performance measures, and
- ensure that this Plan is coordinated with the region's development and transportation plans.

Vision Statement

WestCOG seeks to promote bicycling as an active transportation and recreation activity that provides access to essential goods and services while generating a wide range of benefits including tourism, economic development, and improved mental and physical health. The vision will be achieved by making best use of existing bicycling infrastructure while advancing bicycling infrastructure development and educating the public of bicycling's benefits. Advocacy will over time generate more bicycling activity and support for expanded infrastructure and education.

Goals, Objectives, and Accomplishments

Previous Regional Bicycle Plans

In preparing this Plan, goals and objectives set in the [South Western Region Bicycle and Pedestrian Plan](#) (2013) and the [Greater Danbury Regional Bike Plan](#) (2015) were reviewed to assess progress and accomplishments made as well as suitability for carrying goals and objectives forward in this Plan. These goals and objectives are regrouped and condensed as follows, with achievements noted:

Goal 1: Develop and maintain an efficient, accessible, and convenient bicycling system

Objectives:

- Designate an overall network of on-road bicycling facilities: the HVCEO 2015 Bicycling Plan evaluated existing on-road facilities for suitability as a network, identifying roadway segments

suitable for regional travel as well as segments requiring improvement.

- Maintain bicycle facility safety (SGR)
- Improve existing bicycle routes (shoulders, marking and signage)
- Continue developing a network of separated bicycling facilities in both densely developed and rural/suburban areas to offer a wide range of experiences

Accomplishments:

- Network: staff continues to develop a regional bicycle network plan using existing studies, and prepared a region-wide Bicycling Suitability Analysis for state routes based on Average Daily Traffic and shoulder widths
- Safety: staff continues to monitor crash data and to participate in Road Safety Audits to evaluate the need for bicycling improvements as stand-alone or integrated projects.
- Route improvements: for example, the Norwalk Valley Rail Trail (NRVT), a 30.6-mile trail in five of the region's communities, is being developed: 12 miles have been completed and approximately 3 additional miles are in progress.
- Intermodal Connections: Phases 1 & 2 of the \$117 million Stamford Urban Transitway, which includes bicycle lanes and other bicycling amenities, was completed by October 2017.

Goal 2: Integrate and connect the bicycling system with the larger surface transportation system.

Objective:

- Prioritize infrastructure investments that integrate bicycling and other transportation modes

Accomplishments:

- Local Transportation Capital Improvement Program (LOTICIP): this Program has funded a wide range of projects more flexibly, and in the WestCOG region the following projects include improvements that benefit bicyclists. Examples include:
 - Roadway Improvements: US-202 (Brookfield)
 - Intersection improvements: Brookfield, Darien, Greenwich, New Milford, Norwalk, Stamford, Westport
 - Roundabout installation: New Milford

- Streetscape Improvements: Brookfield, Norwalk
- CT Bicycle and Pedestrian Advisory Board (CBPAB): the WestCOG Executive Director, as an appointee to the CBPAB, continues to advise the State upon bicycling systems, their effectiveness, and need for improvements.
- Coordination/participation in organizations devoted to trail and off-road bicycling: New England Mountain Biking Association; local land trusts, and CT Forest and Park Association.
- Buses and Trains: CTtransit, HART and NTD transit buses are equipped with bicycle racks. Metro North stations are also equipped with bicycle racks. Bike racks on Metro-North Railroad trains allow bikes during off peak travel. Staff has advocated for these improvements.
- Park and Ride Facilities: the staff continues to monitor parking utilization at the region's facilities and documents the presence of bicycle parking and associated amenities.

Goal 3: Support and encourage bicycling connections between neighborhoods, commercial areas, employment centers, schools, state and municipal parks, and other community destinations.

Objectives:

- Develop TOD plans that include accommodations for bicycling
- Adopt Complete Streets policies at the municipal level.
- Encourage developers to accommodate bicyclists in projects
- Travel and Tourism: promoting bicycling

Accomplishments:

- TOD Plans (Danbury Downtown, Danbury Branch, Bethel, Stamford and others) prepared
- Complete Streets Policy (Stamford), adopted January 2015
- Developer accommodation of bicyclists
- Travel and Tourism: information supplied to for-profit and non-profit organizations hosting bicycle tours, including Bike Walk CT and CT Bike Tours.
- Wayfinding and Tourism: for example, the Town of Bridgewater created a "Tour of the Town" downtown bicycling route & map for its town center (2016).

Goal 4: Improve bicycling safety

Objectives:

- Measurement of safety: monitor/analyze crash data
- Conduct Road Safety Audits to evaluate the region's roadways for bicycling safety
- Support for the development of the CTDOT 2017-2021 State Highway Safety Plan (SHSP)
- Regional implementation of the Share the Road Initiative
- Support for the Watch for Me Connecticut Program
- Encourage WestCOG municipalities to participate in the Community Connectivity Program (CCP) and implement recommendations identified through the Road Safety Audit (RSAs)

Accomplishments:

- In 2021, WestCOG finalized the [Regional Transportation Safety Plan](#) (RTSP) which evaluated safety data to identify high-risk locations involving fatalities, serious injuries or crashes involving non-motorized users including bicyclists.. This plan developed a series of safety countermeasures to improve safety at the high-risk locations.
- [CT Community Connectivity Program](#): WestCOG supported its municipalities in participating in this program. To date, 11 Road Safety Audits were completed and over six construction projects were awarded.

Goal 5: Develop and implement educational programs to ensure that transportation facilities will be used safely and responsibly.

Objectives:

- Encourage local officials to sponsor a Mayors' Fitness Initiative in their own communities (a national program)
- Encourage sponsorship of Connecticut Cycling Advancement Program – youth cycling events



Figure 2. Road Safety Audit/Safe Routes to School (Photo Credit: VN Engineers)

- Encourage safety and skills trainings for children and adults
- WestCOG staff participation in bicycle-related trainings and conferences

Accomplishments:

- City of Norwalk Mayor Rilling implemented Fitness Challenge (2016)
- Bike/Walk Groups: Norwalk, New Milford, Ridgefield
- People Friendly Stamford (Complete Streets advocacy)
- Technical assistance to communities establishing trails: Newtown (Al's Trail)
- Coordinated with the UConn T2 Center to complete Road Safety Audits (RSAs) in New Fairfield, Darien, and Stamford.

Goal 6: Provide financial and technical support and obtain funding for the development and construction of bicycle and pedestrian facilities throughout the region.

Objectives:

- encourage CTDOT to enact a consistent policy for providing non-federal match;
- support the use of federal aid funds from all programs eligible for bikeway, trail and walkway projects
- encourage CTDOT to streamline project scoping, design and review
- update regional plan periodically to ensure relevance,

- ensure that regional bicycle and pedestrian working groups meet regularly to address issues and update Plans.

Accomplishments:

- The WestCOG region, in concert with other COGs, worked with CTDOT to implement the LOTCIP Program in 2013.
- This Plan will serve as an update of the SWRPA 2013 and HVCEO 2015 Plans.
- Coordinate with stakeholders on transportation plans and corridor studies: BikeWalk CT; Sound Cyclists Bicycle Club, and People Friendly Stamford

Goal 7: Contribute to public health by providing safe and accessible opportunities to make bicycling a viable means of travel.

Objectives:

- Collaboration with DEEP and DPH, and municipal public health departments to promote bicycling
- Safe Routes to Schools (SRTS) – Construction
 - Norwalk: Roton Middle School, 2018
 - Norwalk: Strawberry Hill Avenue Bike Lane
 - Bethel, CT: Whittlesey Rd, Maple Ave & Plumtrees Rd
 - Stamford: K.T. Murphy School
- Community Connectivity Program – Road Safety Audits: Bridgewater, Brookfield, Danbury, Darien, Greenwich, New Fairfield, New Milford, Norwalk, Ridgefield, Stamford, Weston, and Westport.

Goals, Objectives and Accomplishments

Regional Bicycle Plan

General Goals:

- Improve bicyclist safety and mobility
- Create a cohesive network, built on existing studies' recommendations
- Support cycling as a viable transportation mode – improving public health, increasing transportation options, and spurring economic development

Connectivity Goals:

- Support continued development of North/South & East/West travel corridors
- Connect major routes (Merritt Parkway, US Routes 1 & 7, Western New England Greenway segments) and destinations (Metro-North Stations, employer sites, parks) to the corridors

Implementation Goals:

- Identify some “Quick Build” projects
- Identify sources of funding for bicycle trails and on-road improvements
- Provide a means for bicyclists to report bicycle facility and accessibility issues
- Work with communities to adopt Complete Streets policies

Education Goals:

- Work with BikeWalk CT and other partners to:
 - Bring bike safety and skills into elementary schools' Physical Education curriculum (and possibly Parks and Recreation Departments' programming)
 - Provide “Bike Skills 101” trainings to anyone who wants to become more informed, skilled and comfortable riding a bicycle in traffic

Both the local and the regional approaches combined will result in a more balanced transportation network that makes bicycling a viable transportation mode in western Connecticut.

Demographics

According to data from the American Community Survey (5 year average 2016-2020), approximately 1% of residents in WestCOG commute to work via bicycle.

The [National Household Travel Survey](#) indicates that the most common use of bicycles is for recreational purposes, although the share of other trip purposes is growing over time. Commuting represents the greatest rate of increase among trip purposes.

NHTS data reveal no significant differences between income levels and cycling. However, researchers have suggested that low-income riders are more likely to cycle for employment and basic needs, while upper income riders ride more for recreation and exercise.

Among those bicycling facilities in the region for which usage is sampled every year, the Still River Greenway in Brookfield posts impressive numbers: 182,579 for 2019 = 500/day – 3,500/week. The Norwalk River Valley Trail registered 53,290 users = 146/day – 1,022/week.

COVID-19 and bicycling activity

During the pandemic, bicycling on the region's trails and roadways increased dramatically – particularly in the first half of calendar year 2020. Trail Census CT counts performed in March 2020 showed significant year-over-year increases in trail use during the coronavirus pandemic; in fact, demand upon many existing trails was unprecedented – and in some cases led to crowding and resultant closures. Table 1 shows usage figures for two trails in the WestCOG region in March 2019 and March 2020:

Table 1. Percent Change in Infrared Trail Counts: March 2019 and 2020

Trail	2019	2020	% change, 2019-2020
Norwalk River Valley Trail Wilton	4,705	11,520	144.9%
Still River Greenway Brookfield	13,414	24,235	80.7%

Source: CT Trails Census, [COVID-19 Trail Impact Report](#)

Also, bicycle retail industry representatives reported increased sales during this same period.ⁱⁱ The takeaway is that the stay-at-home policies and mandatory telework for much of the workforce generated increased walking and bicycling. While

the spike in bicycling in February-May 2020 was a unique occurrence, the long-term shift toward remote working and increased flexibility in work schedules will likely continue to generate new demand for bicycle infrastructure – while fewer people may bike a traditional daytime commute, more people will recreate and conduct other business by bicycle during the workday. That existing facilities were often at or above capacity during this period points to the need to advance long-term bicycling infrastructure development throughout the region for many purposes, including public health. During the pandemic, the [World Resources Institute](#) reported that some cities worldwide responded to the demand by creating pop-up bicycling facilities, using excess road capacity.ⁱⁱⁱ



Figure 3. Social-distancing sign on the Norwalk River Valley Trail (source: Friends of the NRVT)

Economics of Bicycling

The CT Trail Census Project has had a counter installed on a segment of the Norwalk River Valley Trail in Wilton which has documented 1,022 users/week (2019) If the lower of the two day-trip expenditure figures (\$43.81) is multiplied by 1,022 users – and 52 weeks, the revenue generated by that segment of trail alone is \$2,228,220 annually.

The economic development impacts – referenced in the general goals of this study – that can be expected from better bicycling infrastructure, are documented. The [2013 “Outdoor Participation Report”](#) conducted by the Outdoor Industry Association (OIA) found that participants involved in nonmotorized recreational activities in Connecticut spent an average of \$60.26 per trip on trail-based recreational day trips and \$43.81 on bicycle related recreational day trips. Overnight trips averaged \$148.89 for trail-based trips and \$150.93 for bicycle related trips.^{iv} This same annual study shows that road bicycling, mountain bicycling and BMX are consistently ranked the third most popular outdoor activity in the US.

The OIA periodically updates its Outdoor Participation Report. Its 2017 Outdoor Participation Report was developed with expanded survey research. Estimations of spending per participant and trip type ranged as shown in Table 2.

Table 2. Overall Spending per Participant Trip

Trip Type	Amount Spent
In-State Day Trip	\$100
Out-of-State Day Trip	\$250
In-State Overnight Trip	\$288
Out-of-State Overnight Trip	\$563

The State of Vermont has also been monitoring use of its’ recreational trails and their impact on the economy. An [“Economic and Fiscal Impact Analysis on of the Vermont Trails and Greenway Council Member Organizations”](#) from October of 2016 showed that over \$30 million in revenue was derived

from visitors to Vermont's trails, as shown in Figure 4^v

Long-term Economic Benefits of Bicycling Infrastructure – Property Values

Bicycling infrastructure - specifically shared-use trails - can also generate long-term benefits to the economy that accrue to property. Resources such as trails and greenways can generate 'preservation'

and 'property valuation' values for properties in the areas surrounding a facility. For example, a 2011 Connecticut Center for Economic Analysis study analyzed values of properties overlooking state parks and/or forests and state trails. Although results varied by region, this study identified a green space bonus of \$41,961 to \$50,124 for properties overlooking Connecticut Department of Energy and Environmental Protection (CTDEEP) managed green

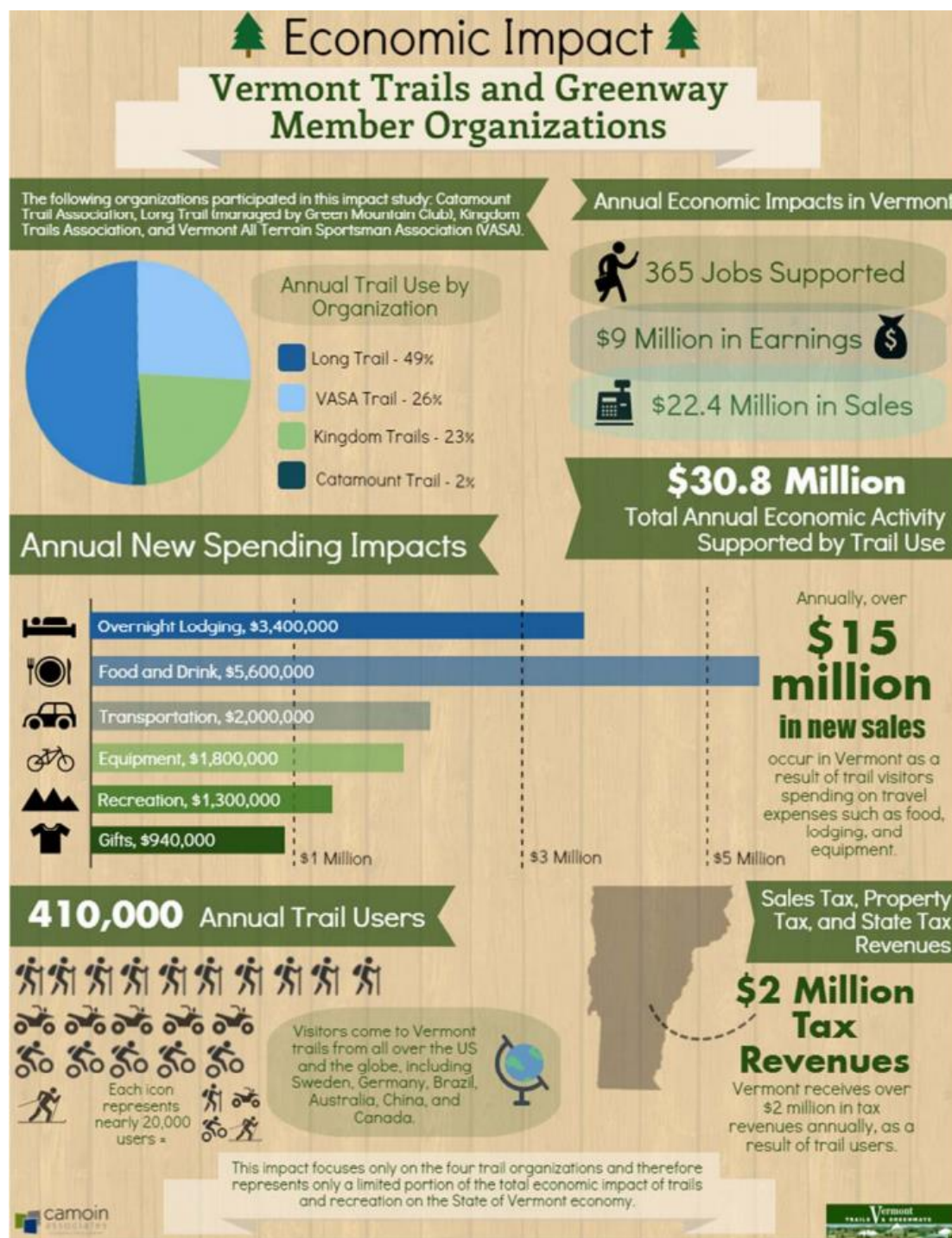


Figure 4. Economic activity generated by Vermont's trail system

spaces compared to properties that did not^{vi}.

Public Health

As various on- and off-road facilities that accommodate bicyclists are completed and opened, the regional health benefits from active and frequent use will increase proportionally. As was noted in the NVCOG [Pathway to Revitalization Study](#),^{vii} The relationship between moderate exercise and reduced incidence of various diseases is well established. The development of bicycling facilities throughout the region will greatly increase access to an attractive and convenient venue for exercise, resulting in health benefits accruing to frequent users.

Dr. Clare Safran-Norton, a physical therapist at Harvard-affiliated Brigham and Women's Hospital, [summarized the physical health benefits of bicycling](#) for individuals as follows:

1. It's easy on the joints. When you sit on a bike, you put your weight on a pair of bones in the pelvis called the ischial tuberosities, unlike walking, when you put your weight on your legs.

2. Pushing pedals provides an aerobic workout. That's great for your heart, brain, and blood vessels. Aerobic exercise also triggers the release of endorphins, the body's feel-good chemicals—which may make you feel young at heart.

3. Cycling builds muscle. In the power phase of pedaling (the downstroke), you use the gluteus muscles in the buttocks, the quadriceps in the thighs, and the gastrocnemius and soleus muscles in the calves. In the recovery phase (backstroke, up-stroke, and overstroke), you use the hamstrings in the back of the thighs and the flexor muscles in the front of the hips.

Cycling works other muscles, too. You use abdominal muscles to balance and stay upright, and you use your arm and shoulder muscles to hold the handlebars and steer.

4. It helps with everyday activities. The benefits carry over to balance, walking, standing, endurance, and stair climbing.

5. Pedaling builds bone. Resistance activities, such as pushing pedals, pull on the muscles, and then the muscles pull on the bone, which increases bone density.



Figure 5. Benefits of Bicycling (Source: Capital District Physicians' Health Plan (CDPHP))

Background

Local and Regional Bicycle Planning Initiatives

All of the communities in the region mention bicycle policies and planning in their Plans of Conservation and Development (POCD). Each states a desire to develop more and safer bike routes that connect important destinations. Several of the region's communities specifically mention adoption of a Complete Streets policy to help accomplish this.

Six of the communities that mention bicycle policy or planning in their POCDs have stated a need for improved bicycle parking facilities – and three of those communities specifically call for improved bicycle parking at train stations. Two of the communities reference the League of American Bicyclists' "Bicycle Friendly Community" program.

All of these aspirations – and the policies or planning tools that will help realize them – are discussed in the "Community Level Recommendations" and

“Case Studies” sections of this Plan and its Appendices.

Statewide Bicycle Planning Initiatives

Statewide Bicycle Planning Initiatives include the Connecticut Department of Transportation (CTDOT)’s [Community Connectivity Program](#) and [Statewide Active Transportation Plan](#) (2019).

CTDOT’s Vision and Goals, as stated in the Statewide Active Transportation Plan, are included in the sidebar on this page and provide a context for bicycle (and pedestrian) planning in the state:

The vision and goals of the Statewide Active Transportation Plan are stated as follows:

CTDOT is committed to the principle that walking and bicycling promote healthy lives, strong communities, and more sustainable environments.

The Connecticut Department of Transportation will encourage, promote, and improve walking, bicycling, and other forms of active transportation, so that any person, regardless of age, ability, or income will be able to walk, bicycle, or use other types of active transportation modes safely and conveniently throughout Connecticut. An integrated network of on-road facilities and multi-use trails will connect key destinations, municipalities and regions, while strengthening Connecticut’s links to neighboring states. The three goals to support the vision include:

Goal #1 – Improve Pedestrian and Bicyclist Safety

Goal #2 – Enhance Mobility for Pedestrians and Bicyclists

CTDOT’s Community Connectivity Program was designed to improve conditions for walking and bicycling to and within urban, suburban and rural community centers. The program was intended to encourage more people to use healthy and environmentally sustainable modes of travel. It is also intended to transform Connecticut’s community centers into more attractive and livable places.

Funding

Community Connectivity Program

CTDOT’s [Community Connectivity Program](#) funded road safety audits and other projects – which identified improvements to make conditions for pedestrians and cyclists safer and more accommodating. Road Safety Audits (RSAs) were performed for twelve municipalities in the region. In addition to funding the Road Safety Audits, the Community Connectivity program has provided some funds for on- and off-road bicycle facilities. Two 2019 Program awards for such facilities include: Brookfield (\$207,355) to construct access to the Still River Greenway from the Town Hall, and Norwalk (\$280,000) to install shared lane markings (sharrows) on Route 136 in Norwalk to the Darien and Westport borders. In 2020, the City of Stamford and CTDOT received a regional award for Quality of Life/Community Development by the Northeast Association of State Transportation Officials for the implementation of the Boxer Square Revitalization project. This project was funded \$400,000 by this program. The redesigned intersection has improved traffic operations and provided safer facilities for pedestrians and bicyclists and improved access to transit. In 2021, the City of Stamford also received another grant to implement the Lower Summer Street Promenade project, this redesign includes a dedicated bicycle lane.

Recreational Trail Grants

The Recreational Trails Program also made a large financial commitment to improving or expanding off-road trails throughout the state. The State’s Department of Energy and Environmental Protection (DEEP) has awarded grant funding to several municipalities in western Connecticut. To date, \$680,500 has been invested in trail development. Most recently, the City of Danbury was awarded \$40,000 to complete a study for trail routing. Table 3 includes a few examples of bicycle and trail projects that have been awarded funding in the past few years.

Table 3. Bicycle and Trail Projects in Western Connecticut

Applicant	Project Title	Funding Program	Description	Award
New Milford	New Milford River Trail-Phase 1	CTDEEP Recreational Trails Grant Program	Design of a 2.5-mile extension of the multipurpose New Milford River Trail: Boardman Rd. to MEDInstill Entrance Dr.	\$180,500
Redding - NRV	Norwalk River Valley Trail - Redding Mile	CTDEEP Recreational Trails Grant Program	First section to be constructed in Redding. The design for the trail is complete and was funded with private community donations.	\$300,000
Danbury	Trail Routing Planning Study	CTDEEP Recreational Trails Grant Program	This routing study will identify a connection from the existing Maybrook Trailway East Branch Reservoir (at the state border) to downtown Danbury and other trails in the city.	\$40,000
Brookfield	Still River Greenway Extension	CTDOT Community Connectivity Grant Program	Extend the Still River Greenway by 2,500 feet, connecting it to an existing parking lot at the firehouse on Pocono Road.	\$207,355
Norwalk	Bicyclist and Pedestrian Connectivity Project	CTDOT Community Connectivity Grant Program	Sharrows and signage to be installed on Routes 123 and 136, other various roadways (in design, 2020)	\$280,000
Stamford	Lower Summer Street Promenade	CTDOT Community Connectivity Grant Program	Redesign Lower Summer Street to become a vibrant community destination. The design includes widened sidewalks, a dedicated bicycle lane, new lighting and trees.	\$600,000

Local Transportation Capital Improvement Program (LOTICIP)

[LOTICIP](#) (2013) was created by the Connecticut Department of Transportation as a new funding source for transportation projects (Section 74 of Public Act 13-329). Municipalities applying for LOTICIP funds must complete a Bicycle and Pedestrian Travel Needs Assessment Form.

Since LOTICIP was created, a project in Ridgefield: Farmingville Road Combined Use Trail (\$1.1 million) was funded. A number of other LOTICIP projects have included bicycle improvements - in Brookfield, Norwalk, and Stamford. WestCOG expects to work with its communities to assist with

the development of bicycling infrastructure through the LOTICIP Program in the future.



Figure 6. Bicyclists on the New Milford River Trail (source: New Milford River Trail Association)

Existing Conditions

Facility Types

WestCOG and its member communities continually work with bicycling advocates, state and federal officials, and bicycle-based organizations to plan for safe, convenient and comfortable bicycling facilities. Their approach has evolved from one of 'share the road' to providing separate facilities where feasible. A driver of this approach shift is perception of safety, and a realization that shared use of the right-of-way with motor vehicles worked for experienced cyclists but did not create a broader bicycling culture.^{viii}

Facilities may be grouped according to increased degree of physical separation from other users:

- Advisory Bike Lanes: designed to allow motorists to enter when yielding to approaching traffic in a narrowed travel lane;
- Neighborhood Bikeway: streets with low motor vehicle volumes and speeds that give walking and bicycling the priority.
- Bicycling Lanes: where a portion of a street is designated for exclusive use of bicycles, separated by striping, signage and pavement markings;
- Buffered Bicycling Lanes: lanes with a designated buffer space separating the lane from adjacent motor vehicle travel or parking lanes;
- Separated Bicycling Lanes/Cycle Tracks: exclusive bikeway that is physically separated from motor vehicles and sidewalks, and
- Trails/Shared-Use Paths: separated facilities for two-way travel (walking, bicycling & activities).

Figure 7 shows the range of bicycle lane types described above, from most to least separated

Given the densely developed and heavily traveled nature of roadways in the region's urban areas and

the topography and rights-of-way constraints in much of the region generally, planners have generally focused upon creating bicycling lanes and trails/shared-use paths. To meet the needs of experienced cyclists, planners have focused upon roadway and intersection improvements that include realignments, shoulder widenings, improved lane markings and the use of sharrows in certain locations.

Facilities in the Region

To create an integrated network of multi-use trails, the existing and planned bicycle facilities throughout the region were considered. The existing trails in the region – at various levels of completion – are:

- Norwalk River Valley Trail (Norwalk, Wilton, Ridgefield, Redding, Danbury)
- Western New England Greenway (multi-town)
- East Coast Greenway (Westport, Norwalk, Darien, Stamford, Greenwich)
- Ives Trail (Danbury, Bethel, Ridgefield, Redding)
- Still River Trail (Brookfield)
- Ridgefield Rail Trail (Ridgefield)
- Mill River Greenway (Stamford)
- Al's Trail (Newtown)
- Housatonic Rail Trail/Pequonnock River Trail (Bridgeport, Monroe, Newtown, Trumbull)
- New Milford River Trail (New Milford)^{ix}



Figure 7. Bicycle Lane by Type and Degree of Separation (Source: Stamford Bicycle and Pedestrian Plan)

The **Norwalk River Valley Trail (NRVT)** will provide a north/south “spine” through the region. It begins at Calf Pasture Beach in Norwalk and will end at Rogers Park in Danbury. It will pass through Wilton, Ridgefield, and Redding as individual segments are funded and constructed. Thus far, there are 8.2 miles have been completed. The City of Norwalk has been significant progress in implementing segments of the proposed trail in their city. Most recently, the city completed a critical link between Union Park and New Canaan Avenue (Route 123) with an off-road 10-foot wide trail. Connecting Norwalk and Wilton will create connectivity between three train stations and several large employment centers.

The “**Western New England Greenway**” (WNEG) is a multi-segment, multi-state network of mostly on-road bike routes that will follow the Route 7 Corridor in Connecticut from Long Island Sound to the Canadian Border. It will eventually incorporate the Norwalk River Valley Trail, Still River Greenway, and the New Milford River Trail – and connect with the East Coast Greenway. It follows a route independent of the Norwalk River Valley Trail so as to appeal to recreational riders - the most scenic (and less direct) on-road route from Norwalk, to Brookfield - and points north. The Western New England Greenway has been designated as US Bike Route 7.

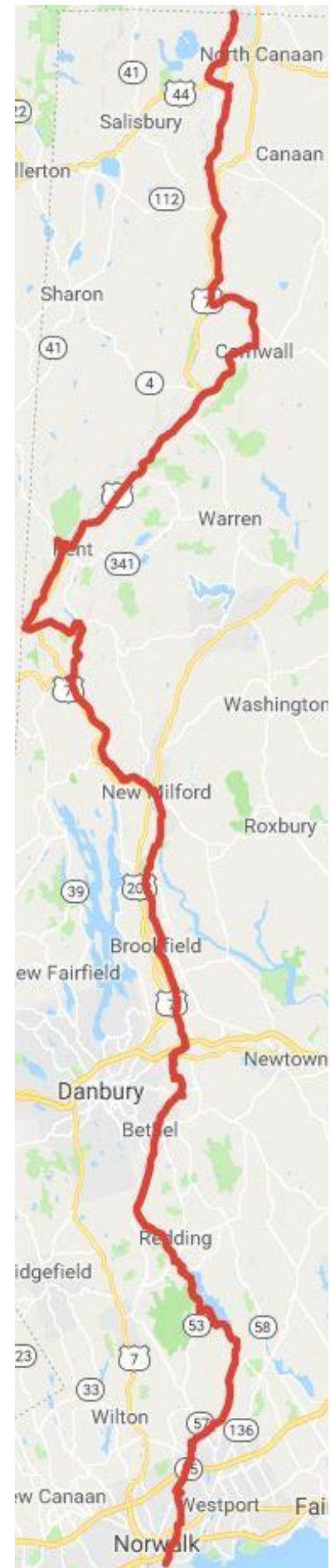


Figure 8. CT segment of the Western New England Greenway on-road route

The New Milford River Trail currently extends for 5 miles from the Boardman Road entrance to Gaylordsville. It runs for 1½ miles on a crushed, gravel surface through Sega Meadows Park, where it joins the unpaved and lightly trafficked River Road and continues for another 3½ miles to the center of Gaylordsville.

construction - the Downtown New Milford section at Young's Field's new riverside park, was completed in Spring of 2017. In 2021, following a grant from CTDEEP's Recreational Trails Grant Program, the town completed additional planning and design work for the trail segment between Boardman Road and the MedInstill entrance.

This is Phase I of the proposed 13-mile trail that will follow the Housatonic River south through downtown New Milford all the way to the town border with Brookfield. Phase II of the trail

As is true of the Norwalk River Valley Trail, the New Milford River Trail will eventually be incorporated into the Western New England Greenway.

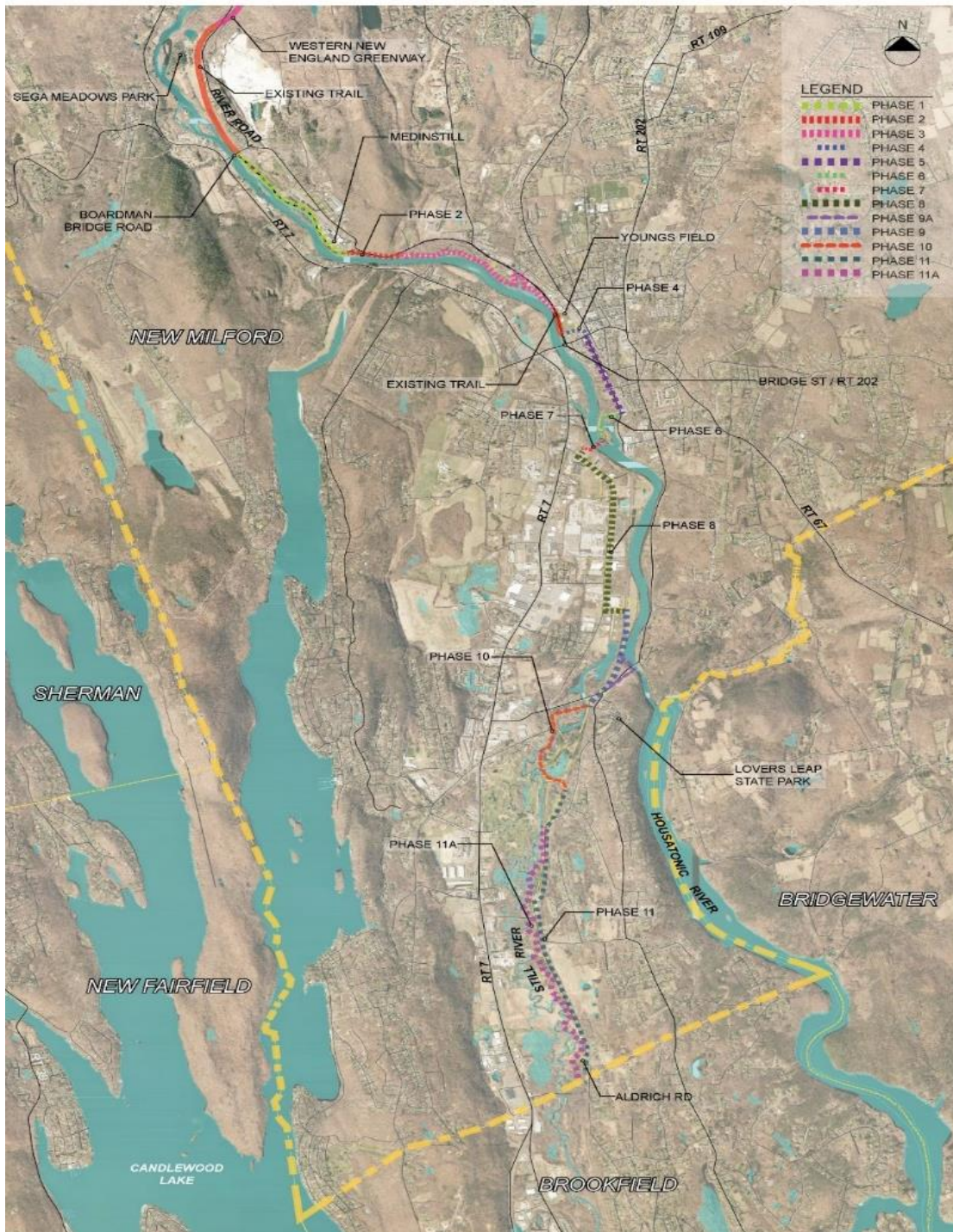


Figure 9. New Milford River Trail vision

The East Coast Greenway (ECG) provides an East/West “spine” through the region. Although the current East Coast Greenway routing through the region is on-road (shown in pink on the map in Figure 10), and close to the coast, there is potential for a trail near sections of the Merritt Parkway (shown in green). However, further determination of the costs and benefits of the trail would need to be weighed – such as the cost and safety of crossing the on- and off-ramps, the impact of the steep grades, and water/wetland crossings.

CTDOT evaluated a concept for a proposed trail near the Merritt Parkway. The study noted that if developed, the trail “an east-west connection to north-south trails in the planning or construction phase, including the Mianus, Rippowam, Norwalk, Pequonnock, and Housatonic Greenway.”



Figure 10. East Coast Greenway, on-street routing (pink) and Merritt Parkway Trail vision (green)

The Ives Trail

The Ives Trail Greenway (Figure 11) is a regional trail that links open spaces in Bethel, Danbury, Redding and Ridgefield. The trail begins at Redding Open Space and continues for 20 miles, to Terre Haute in Bethel, northwesterly to Rogers Park in Danbury, past the Charles Ives Homestead, and then southerly through Tarrywile Park. It then continues southwesterly across Route 7 and through Wooster Mountain State Park to the existing trail systems in Ridgefield’s Bennetts Pond Park and Pine Mountain Park.

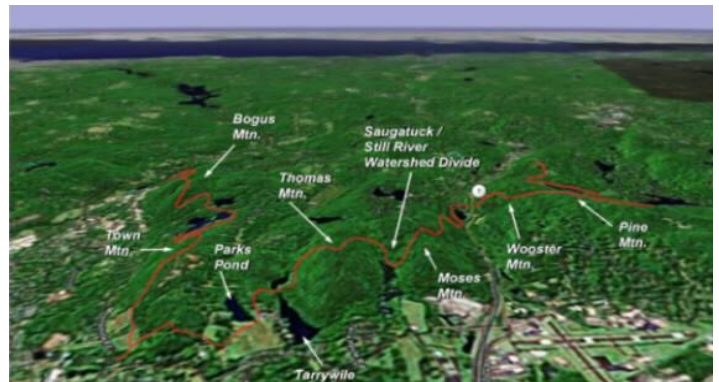


Figure 11. Ives Trail Route

The Mill River Greenway parallels the Mill River and extends over a mile through downtown Stamford’s Mill River Park. It will connect several city parks and open spaces when completed. At full-build, it will provide an alternative to Washington Blvd. for bicyclists and pedestrians between the Stamford Transportation Center, Downtown Stamford, and the Ridgeway neighborhood.



Figure 12. Mill River Park in downtown Stamford

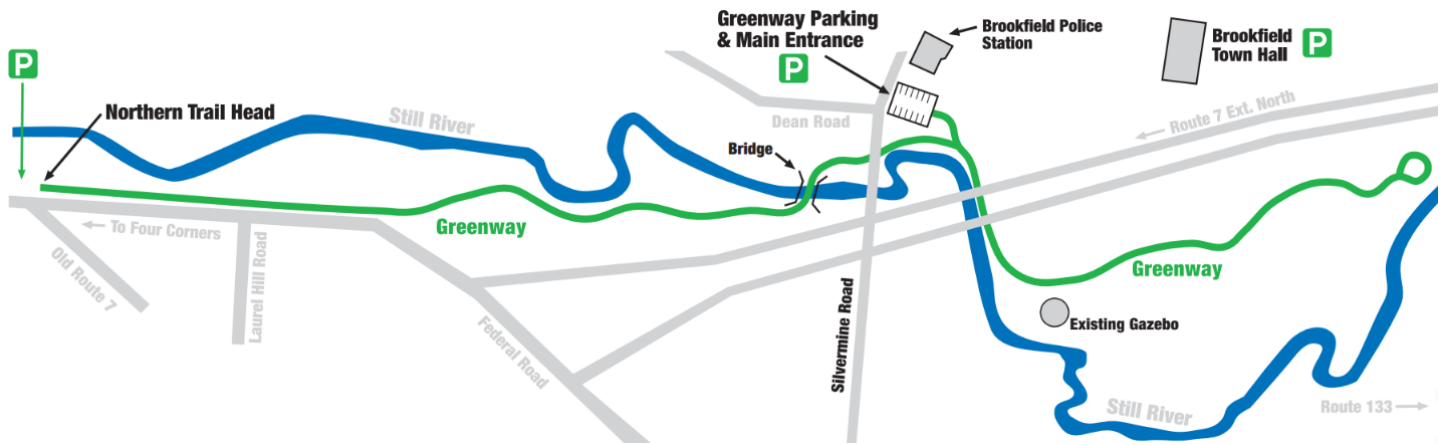


Figure 13. Still River Trail in Brookfield

The Still River Trail is a paved multi-use trail and greenway along the Still River in Brookfield. The trail is 2.25 miles long and runs from the Brookfield Municipal Center to the "Four Corners" district at Brookfield's Town Center. The other section of the trail runs from the Municipal Center, and loops around in the woods. The town has continued work to identify a route to connect this trail north to New Milford.

The Ridgefield Rail Trail follows the old Branchville Connecticut rail corridor for 2.3 miles from Ridgefield to Branchville. It was donated to the town of Ridgefield by Connecticut Light and Power in 2000. While it does not currently allow bicycling, there have been discussions in recent years to change this policy. If expanded, it could connect to the Norwalk River Valley Trail.

Al's Trail in Newtown is a natural surface trail between Fairfield Hills and the Upper Paugussett State Forest. It connects Fairfield Hills to Sandy Hook Village. The trail requires some cleanup, and efforts are underway to improve it.



Figure 14. Al's Trail in Newtown, at the end of Dayton St.

The Housatonic Rail Trail/Pequonnock River Trail is a 13.6-mile trail that starts just north of the Bridgeport Transportation Center on Housatonic Ave./Water St. (Bridgeport) and ends about a mile north of Pepper Street in Monroe at the Monroe-Newtown town line. The trail follows an abandoned rail line and its surfaces are asphalt and crushed stone.



Figure 15. Housatonic Rail Trail/Pequonnock River Trail near the border to Newtown in Monroe

Regional and Interregional Connectivity

Strategies to enable a connected off-road bicycle network are discussed in the “Regional Planning Recommendations” section. Regional planning efforts must take the Naugatuck River Greenway and Housatonic River Trail into account, although they are outside western Connecticut, in order to develop a network of bicycle facilities. Figure 16 depicts most of the of the [Statewide Active Transportation Plan’s map of trails](#) that have been prioritized in the region.

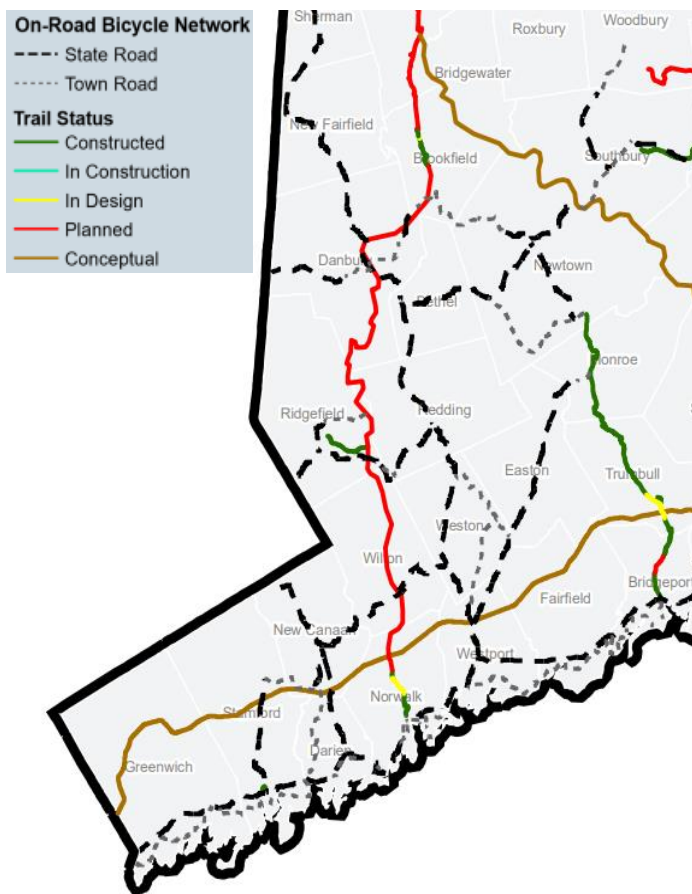


Figure 16: Trails of regional significance – and on-road options – from the CT Statewide Active Transportation Plan

Technology

The basics of bicycling technology have changed modestly over the years with respect to motive power -i.e. the rider - and yet there are innovations. A recent such innovation is the electric bicycle or e-bike, which allows the rider an assist up to certain speeds. According to the Rails to Trails

Conservancy, there are currently three classes of e-bikes:

- Class I: Pedal-assist only, where the pedal-assist cuts off at 20 mph, and the user must pedal manually to go faster;
- Class II: Throttle on demand—which operate by a throttle, by pedal-assist or by both—where the throttle cuts off at 20 mph, and the user must pedal to go faster, and
- Class III: Pedal-assist only, where the pedal-assist cuts off at 28 mph, and the user must pedal to go faster.^x

In general, electric bicycles come in a wide variety of configurations and for the most part resemble standard bicycles, excepting the presence of a battery pack which is often mounted on the frame.

The Conservancy’s position is that there is a need to more clearly define in law (at the state and/or local level) the distinctions between bicycles with motors and motorized vehicles. Motorized vehicles—with the exception of motorized wheelchairs and snowmobiles – are prohibited on certain federally funded trails.



Figure 17. Example of an electric bicycle (Source: Wikimedia)

In Connecticut, the use of e-bikes is subject to provisions of the Connecticut General Laws. Highlights:

- Riders must possess a valid Connecticut Driver’s License;
- Class I and II electric bicycles are permitted on trails and bikeways;
- Class III electric bicycles are not permitted on trails and bikeways, and

- E-bikes are not permitted on unsurfaced trails or ways.

Safety

Safety statistics

The region from 2017-2021 had 346 crashes involving a bicyclist; of these 25 reported serious injuries, and 3 fatalities occurred. The locations of these crashes are distributed across the Region. However, concentrated areas or 'hot spots' can be seen on the map (Figure 18).

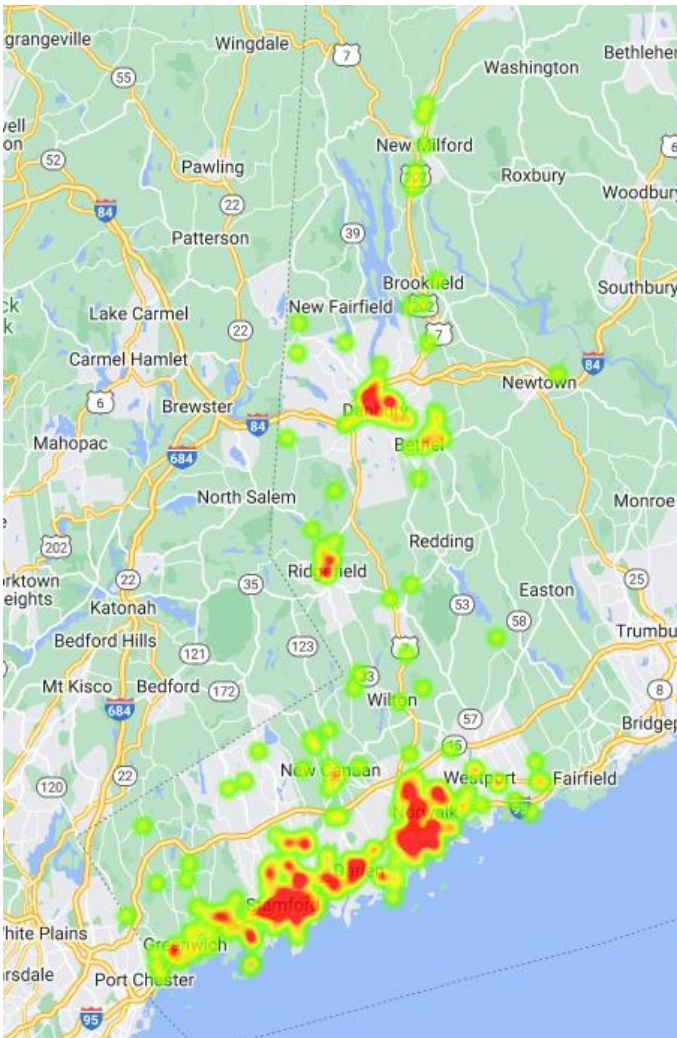


Figure 18. Heat map of crashes involving bicyclists

Improvements can be made to the bicycle and pedestrian network in the Region, as many of the facilities may not feel safe to users. This limits potential non-motorized transportation. Crashes are primarily centered where there is a high volume of motor vehicles, bicyclists, and pedestrians. As shown in Figure 18, high volumes are seen in dense urban centers and coastal communities.

Though vehicle volumes are lower in suburban and rural areas, there have been serious injuries in 9 out of 18 municipalities in the Region between 2017-2021. A lack of signage, shoulder lines, sharrows, or dedicated bike lanes may cause bicyclists to utilize the vehicle travel lane. Additionally, municipalities may have ordinances which prohibit bicyclists to utilize sidewalks. Although bicyclists tend to be most active in pleasant weather conditions, they also are some of the most vulnerable users of transportation infrastructure. Most crashes occur in daylight with dry pavement conditions. Out of the 346 crashes involving a bicyclist between 2017-2021:

- 90.5% occurred on dry road surface
- 89.3% occurred on a clear day
- 82.9% occurred during daylight hours

Past Plans (SWRPA, 2013) identified safety corridors based upon activity and crashes/injuries/fatalities.

- Putnam Avenue (US-1), Greenwich
- Tresser Boulevard (US-1) Stamford
- Washington Boulevard (US-1) Stamford
- East Main Street (US-1) Stamford
- Connecticut Avenue (US-1) Norwalk
- Main Street (CT-123) Norwalk
- Post Road, Westport (US-1/CT-33)

In the 2013 SWRPA Plan, Countermeasures were recommended for high-crash locations. Most improvements are likely to be implemented in concert with larger-scale projects; some improvements, such as sharrows on CT-123 in Norwalk, are underway as of 2020.

A subsequent WestCOG analysis of US-1/CT-33 in Westport recommended a menu of safety improvements (signalization, pavement markings, signage and access management, as well as bicycle accommodations (sharrows, lanes, pathways and signage) for Riverside Avenue (CT-33).

Other facilities of concern for safety based upon crash activity include:

- CT-53 (Bethel, Danbury and Redding);
- West Street (Danbury);
- US-6 (Danbury and Bethel);
- CT-302 (Bethel), and
- US-7 and US-202 (New Milford).

Safety Perceptions and Promotion

Perceptions of safety are also important, as they may influence a person's decisions. An individual's perception of safety will lead them to choose a particular route, what time of day to ride, or to bicycle at all. Although bicycling on sidewalks is prohibited in several communities throughout the Region, inexperienced bicyclists may choose to ride on sidewalks when the roadway is perceived as unsafe. The survey section of this plan provides regional insight into human behavior and the aspect of bicycle safety.

The following promotes safety through education and training:

- Share The Road Campaign (2008): Connecticut General Statute Section 14-232, effective October 1, 2008, requires CT motorists to allow for at least three feet of separation in overtaking and passing cyclists.
- The Connecticut Safety Circuit Rider Program (2016): In partnership with the CT Technology Transfer (T2) Center at UConn, the program is designed to provide safety-related information, training, and direct technical assistance to agencies responsible for local roadway safety.
- Watch for Me CT Program (2017): The CTDOT statewide program, in partnership with the CT Children's Injury Prevention Center, seeks to reduce the number of crashes of bicyclists and pedestrians with motor vehicles through public service messages, special events, and sponsorships.
- Bike safety workshops: Organizations such as Bike Walk CT administer cycling education and safety programs for both children and adults. These educational events are often co-sponsored with local clubs, nonprofits, and schools. Safety curriculums can be designed for school settings, and the Smart Cycling Manual from the League of American Bicyclists is relied on.
- FHWA Performance Measures- Safety Targets (2020): There are five safety performance management measures for the purpose of carrying out the Highway Safety Improvement Program, this includes the Number of Non-Motorized Fatalities and Serious Injuries. In 2020 the MPO policy boards endorsed safety targets set by CTDOT for the State of Connecticut. As a comparison, WestCOG calculated additional data specific to the region

for the Number of Non-Motorized Fatalities and Serious Injuries. The data, which includes bicyclists, showed the following:

- The 5-year moving average for Non-Motorized Fatalities and Serious Injuries in the HVMPO did not increase or decrease.
- The 5-year moving average for Non-Motorized Fatalities and Serious Injuries in the SWRMPO decreased by 1 per year.
- WestCOG Regional Transportation Safety Plan (2021): The plan identifies high crash locations and determines if infrastructure, behavioral education and/or enforcement improvements are needed. Bicycle and pedestrian facilities make up a significant portion of the plan.
- Some of the region's communities are in the process of setting their own bicycling safety measures or performance goals. For example, the Stamford Bicycle and Pedestrian Plan recommended that the City adopt [Vision Zero](#) policies and a "safe system" approach to traffic safety that places an emphasis on improving the safety of the most vulnerable road users – people on foot and on bicycle.^{xi} In 2022, the City of Stamford was the first municipality in Connecticut to adopt a Vision Zero Policy committing to eliminate roadway fatalities by 2032.

Challenges

The region presents special challenges to bicycling including topography, narrow rights-of-way, weather conditions, and severe congestion along roadways where bicyclists ride. Speeds are an issue too; winding roadways present safety challenges without offering sufficient shoulder width. Finding facilities that meet a variety of users – those who bike of necessity have different needs from those who are recreational riders. Who to plan for – what type of facilities are most needed – must be balanced with available resources. Maintenance of bicycling facilities, while a challenge, has benefited greatly from 'friends of the trail' groups; municipalities have also made progress in addressing infrastructure maintenance in an incremental way as roadway and other transportation projects are undertaken.

Survey

In 2019, WestCOG developed a survey to better understand current challenges and opportunities to improve bicycling in western Connecticut. The survey was circulated to residents, local bike shops, advocates, and other MPO members and stakeholders. The survey results helped identify the level of bicycling activity and preferences for on-road versus off-road facilities, and asked respondents to prioritize improvements to bicycling infrastructure. Results from this survey helped inform this plan and a copy of the survey questions can be found in Appendix G of this report.

At a high level, the survey showed that the vast majority of those cycling in western Connecticut were doing so for recreation or exercise – but 11 percent were riding a bicycle for travel to work. The most common answer to the question that ascertains what would encourage someone to ride a bike – or ride more – was “safe bicycle routes.” This shows that there may be opportunity to encourage more carbon-free commuting if bicycle infrastructure is safer. The highest priorities for improvements to bicycle infrastructure were “more on-road routes,” and “a more connected network of bicycling routes.” More survey analysis follows.

Bicycling Behavior

I ride a bicycle for the following reasons - please select all that apply:

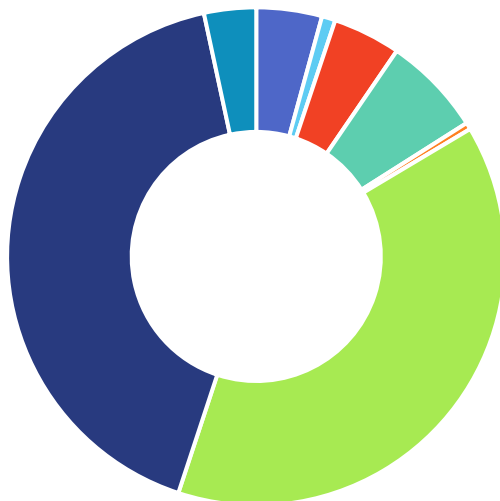
- ☐ I don't ride a bicycle
- ☐ It's my primary form of transportation
- ☐ Shopping
- ☐ Travel to work
- ☐ Travel to school
- ☐ Exercise
- ☐ Recreation
- ☐ Other:

Do you ride a bicycle on roads, or do you ride on trails?

Check all that apply

- ☐ Roads
- ☐ Paved Trails
- ☐ Unpaved Trails

Figure 20. Survey



- I don't ride a bicycle
- It's my primary form of transportation
- Shopping
- Travel to work
- Travel to school
- Exercise
- Recreation
- Other

Figure 19. Responses to the question “I ride my bicycle for the following reasons”

Community	Responses
Wilton	60
Bethel	56
Norwalk	48
Stamford	37
Danbury	12
Westport	12
Darien	10
Newtown	9
Southbury	9
Brookfield	9
Fairfield	8
Trumbull	7
New Milford	6
Weston	6
Monroe	5
Sandy Hook	5
Stratford	4
Shelton	3
Greenwich	3
Ridgefield	2
New Canaan	2
Redding	2
Bridgewater	1
Sherman	1
Other	43
Total	359

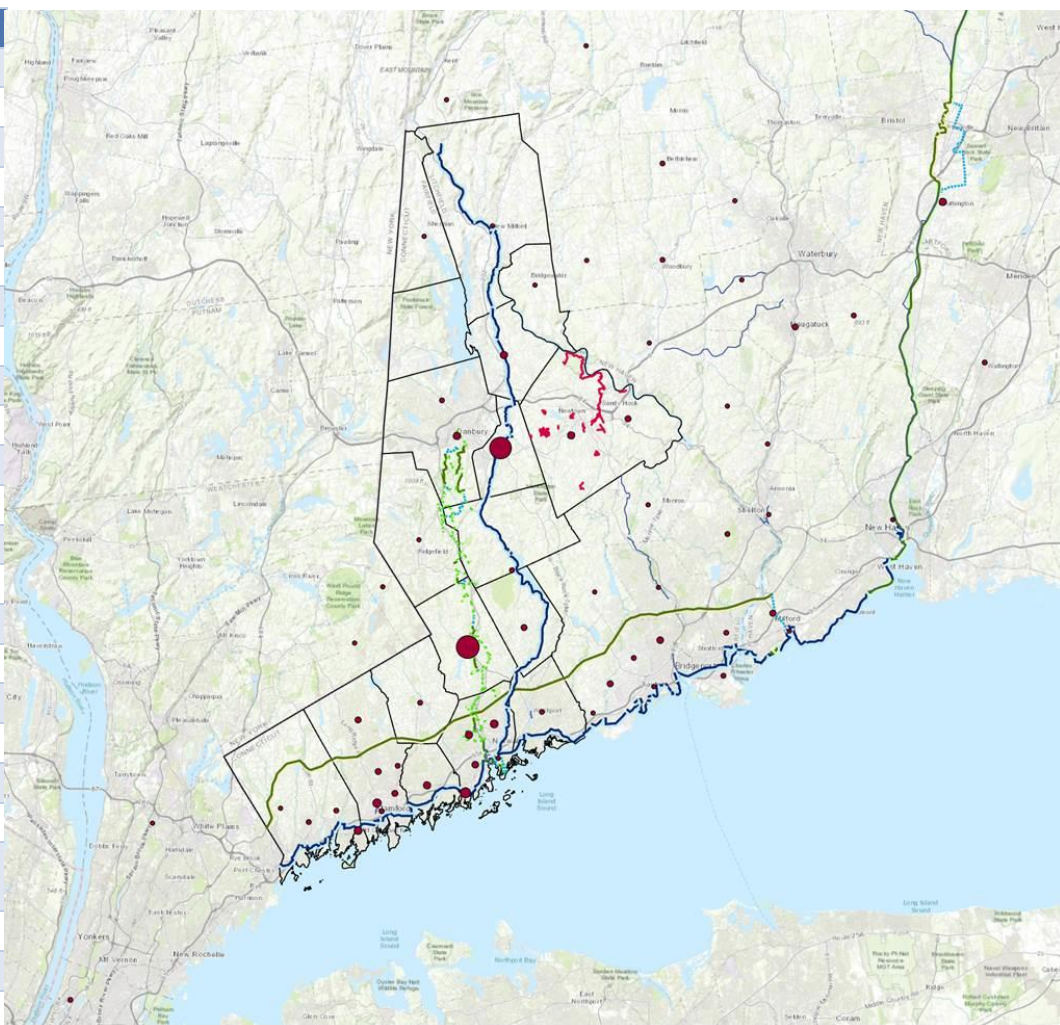


Table 4 and Figure 21. Distribution of survey respondents

Figure 21 shows the distribution of survey responses by town or city, as does Table 4.

The majority of respondents reported that they ride:

- for recreation (73 percent) or exercise (68 percent) – followed by travel to work (11 percent)
- on roads (69 percent) – followed by paved trails (50 percent) and unpaved trails (35 percent)
- once or twice/week (27 percent) – followed by 3-4 times/week (25 percent)
- 21-50 miles (20 percent) – 50 miles or more (17 percent)

Almost 8 percent ride a bike for shopping trips, but only 1.6 percent of survey respondents cited bicycling as their primary form of transportation. The smallest group of respondents was those who ride a bicycle to travel to school (0.8 percent).

When asked “what would encourage you to ride a bicycle (or to ride more)?” 69 percent of respondents said that “safe bicycle routes” was very important, while 42 percent of respondents stated that “easy access to a direct route was very important”. That was followed by “more off-road bike routes” (38 percent). Better signage,

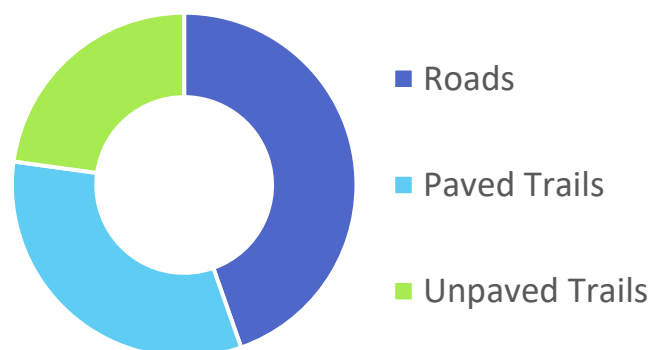


Figure 22. Responses to the question “Do you ride a bicycle on roads, or do you ride on trails?”

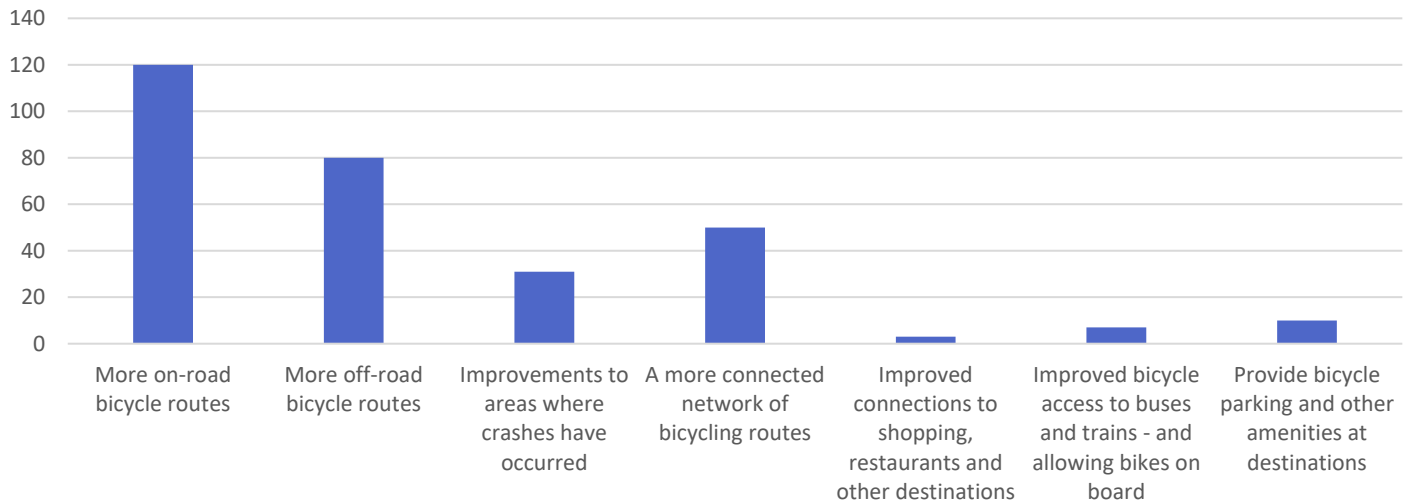


Figure 23. Responses to the question "What factors should be used to prioritize bicycle improvements?"

information, or maps showing where to ride, was considered very important to 33 percent of respondents.

When ranking priorities for improvements to bicycle infrastructure, "more on-road bicycling routes" ranked as priority one. "A more connected network of bicycling routes" was the second – and the third – highest-ranked priority.

In response to the question "what would encourage you to ride (or ride more)?" 29 percent of respondents ranked "Feeling confident or comfortable on a bicycle" as "very important."

Twenty two percent of respondents said that "I don't know how to ride a bicycle" – and rated that as a "very important" factor in encouragement to ride a bicycle. This informs the study's educational outreach recommendations.

The most common response to the statement "I have 1 or more school-aged children who don't ride a bicycle to school because:" was "concerns about road safety" (26 percent), followed by "other safety concerns" (9 percent).

The age/gender breakdown was 55-64 years (22 percent); 45-54 years (20 percent), followed by the next largest age demographic was 65+ (15 percent) - and male (41 percent) / female (36 percent).

Almost half of all survey respondents provided written comments. The largest percentage of them related to the provision of more or better on-road bicycle facilities. Bike lane creation was mentioned 62 times – and usually preceded by the words "separated" or "wider." The next most common topics of comments were more or better off-road bicycle facilities and bicycle safety.

On the topic of regulation, most comments asked for more enforcement of driving rules. Five people asked for more signs or education of motorists around the 3-foot rule – requiring motorists to allow 3 feet between their vehicle and a bicyclist, when passing.

Most of the comments about road maintenance mentioned the poor condition of roadways. Specific comments included requests to fix potholes and crumbling or cracked pavement, and also to improve sidewalk conditions.

In terms of signage, wayfinding and information, the most common suggestion was to install signs stating that bicycles can take the full lane. There were more comments about signs that educate

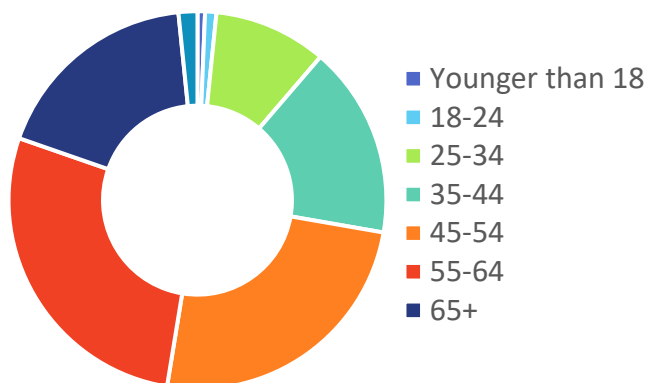


Figure 24. Responses to the Question "What is your age?"

drivers than about wayfinding, but there were several comments about signage indicating the locations of trails as well.

Comments were also made about specific cities and towns, driving and bicycling culture, geography, e-bikes, and connections between on- and off-road facilities and between existing trail systems.

Summary of Existing Conditions and Trends

The majority of on-road bicycle facilities in the region are in municipalities that have invested in bicycle (or bicycle and pedestrian) plans. An almost equal number of survey respondents stated that they use on-road bicycle facilities as well as off-road facilities when they ride. Most respondents also said they bike for recreation or exercise. If on-road facilities connect to off-road trails in the region, higher usage of the trails could be expected, and this can generate more public support for trail expansion. The economic development impacts of this connectivity are significant, as shown in the example of the Wilton segment of the Norwalk River Valley Trail. Connecting the destinations to which people currently drive with bicycle facilities will encourage more bicycle use for general transportation.

Recommended Strategies for Cities and Towns in Western Connecticut

Fundamentally, municipalities in western Connecticut should review codes, ordinances and policies for opportunities to increase support for bicycle accommodation in municipal decision making. The following recommendations provide solutions that will augment that process with some visible “quick build” strategies that are implementable in a relatively short timeframe and at relatively low cost. The recommendations are organized into the categories of Infrastructure, Policy and Education.

Infrastructure

Recommendation 1: Community Bike Route or Loop

- Plan a bicycle route or loop within the community – or between communities. This forms the foundation upon which to build a

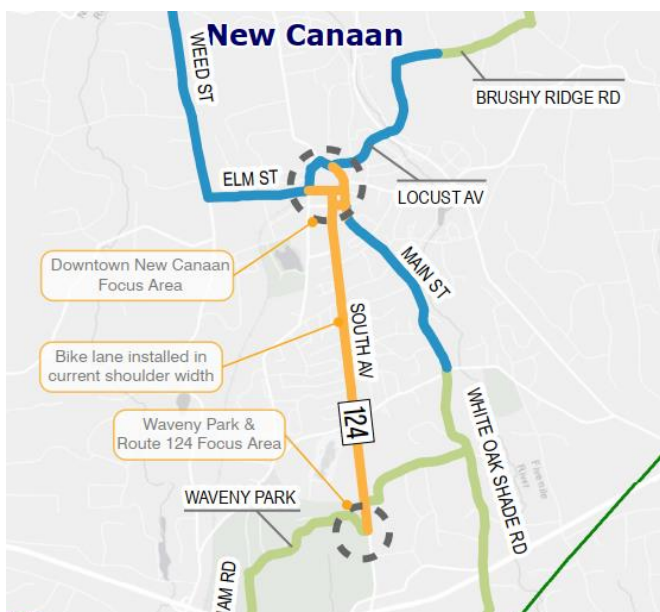


Figure 25. Proposed segment of New Canaan-Darien Bike Loop

bicycle network.

- Case Study: Darien/New Canaan Bicycle Loop (see Appendix A)

Recommendation 2: Build a bicycle network

- By narrowing travel lanes – with “Road Diets” and reallocating space, bicycles can be accommodated as part of routine resurfacing.
- The **Federal Highway Administration’s (FHWA) *Workbook for Building On-Road Bike Networks through Routine Resurfacing Programs*** can assist communities with this task by means of this publication: https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/resurfacing/resurfacing_workbook.pdf
- Weston suggests “Identify opportunities, during regular road maintenance to provide a wide, well-paved shoulder(s) without impinging on private property rights.” in their current Plan of Conservation and Development.
- Hope Street in Stamford was reconfigured in 2020 according to a Road Diet principle in 2020; a portion of the preexisting roadway was restriped for bicycling lanes during a repaving project. This project is a good example of the Road Diet approach and should be publicized.

Recommendation 3: Allocate funds from the annual paving or Department of Public Works or other municipal budget for bicycle facilities

- Darien suggests “Evaluate bicycle potential as part of any roadway improvement or pavement striping project in Darien.” in their current Plan of Conservation and Development.

Recommendation 4: Allow the public to request, and comment on, bicycle facilities

- A “Bicycle Project Request Form” has been developed and can be easily linked from a municipality’s website. This is provided in Appendix C.
- Wilton uses See Click Fix as a platform that allows feedback on public facilities – as shown in Figure 26:

Recommendation 5: Improve all transit stations/hubs/pulse points to include secure bicycle parking

- The [Noroton Heights Station Study](#) (2018) proposed the creation of an on-street network of bicycle facilities for accessing the station by

bicycle, and on-site bicycle parking – among other bicycle-related amenities.^{xii}

Recommendation 6: Create a bike rack request form

- Allows local citizens and businesses to suggest a location for a bike rack. New Haven does it through this [Transportation, Traffic and Parking web page](#):

Request a Public Bike Rack

As funds become available, the City of New Haven is installing bike racks within the public right-of-way in various high-traffic, high-demand

areas around the City. Racks are typically installed in the area between the curb and the main sidewalk area. Racks can be installed at lower cost if this area is already paved with concrete.

To request a bike rack, please use the bicycle rack request category in See Click Fix at [seeclickfix.com](#).

- Stamford's Bike Rack Request Form is included in Appendix D.

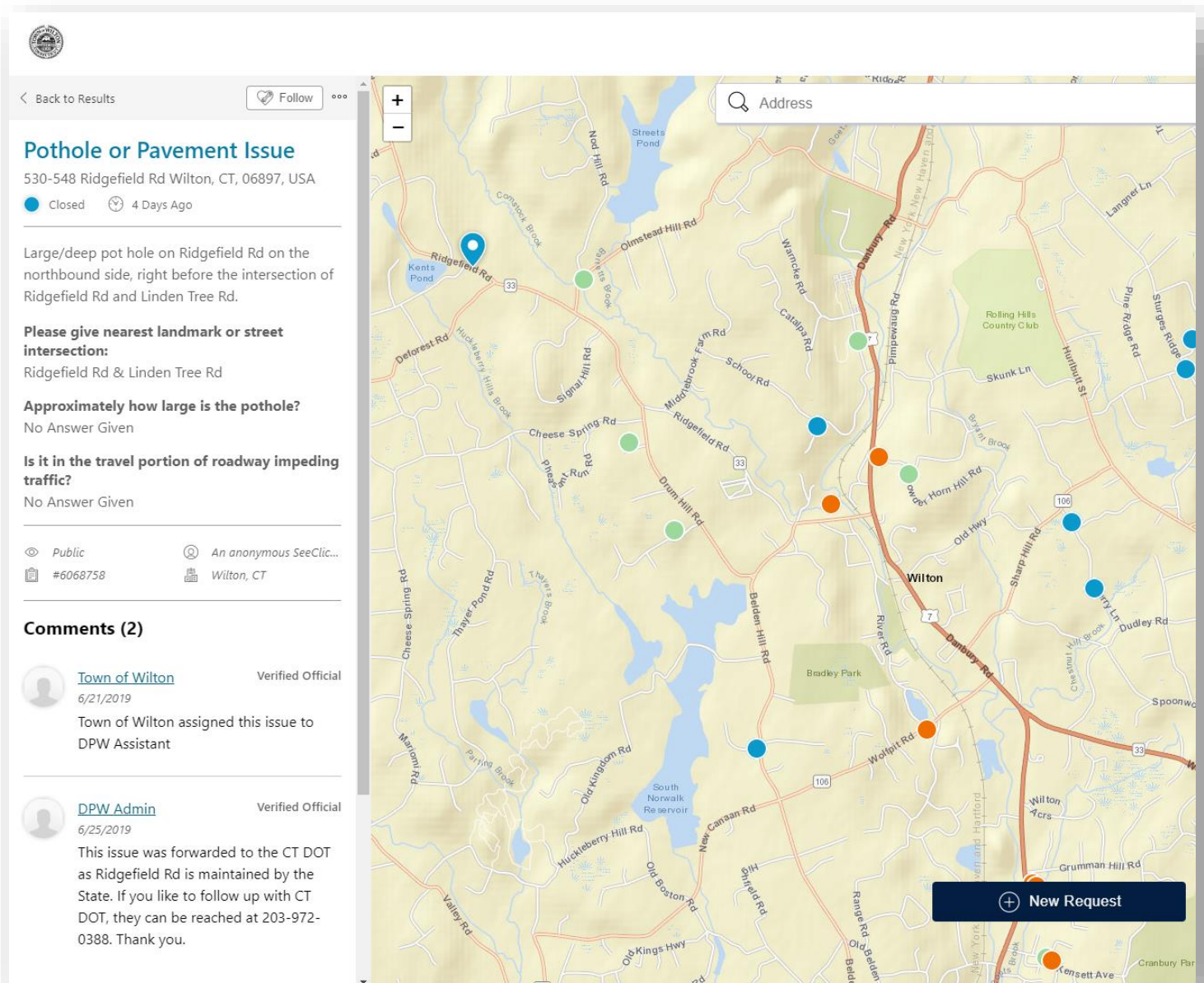


Figure 26. See Click Fix request for pothole repair in Wilton, CT

Policy

Recommendation 7: Adopt a Complete Streets policy

- As discussed in the report's Background, a Complete Streets policy is referenced in several of western Connecticut's Municipal Plans of Conservation and Development. "Complete Streets" involves designing and operating roads for all users, including pedestrians, bicyclists, disabled citizens and transit users. The Connecticut Department of Transportation adopted Complete Streets in 2014 and has formalized it through policy revisions to design manuals and education of staff. Examples of Complete Streets provisions include sidewalks, bike lanes, wider shoulders, pavement markings, signing, traffic signal enhancements, bus turnouts, and appropriate landscaping. Implementation does not mean an immediate retrofit of all streets, but rather incremental changes to the built environment resulting from a shift in everyday planning and engineering

practices. Whenever construction on existing roads, reconstruction, or new construction are planned, the accommodation of all transportation mode users should be considered. Stamford has a Complete Streets Policy, and Madison and Fairfield, CT both made the list of "Top 10 Complete Streets Policies" in the US in 2018. Portland, CT's Policy is included as well – as an example of a rural community adopting Complete Streets.

- Stamford, Fairfield, and Portland, CT Complete Streets Policies can be found in Appendix B.

Education

Recommendation 8: Bring Bike Walk CT's Youth bike safety education program to local schools or Parks and Recreation Departments

- Bike Walk CT has an elementary school program that provides bicycle education in communities across the state with the goal of

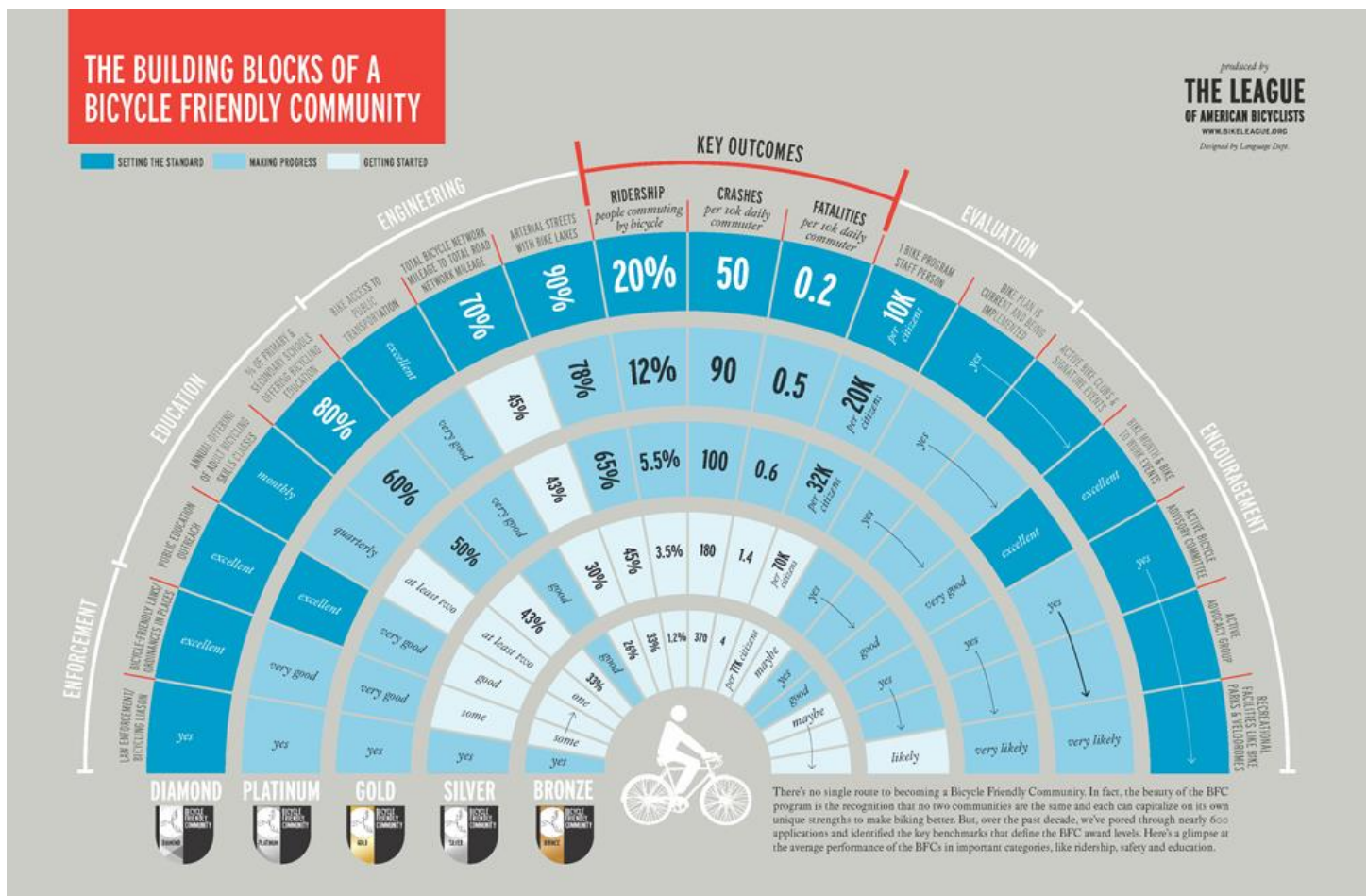


Figure 27. The League of American Bicyclists' Building Blocks of a Bicycle Friendly Community

having such programs becoming self-sustaining through local funding. Bike Walk CT has infrastructure in place to instruct 60-75 elementary students per week. Each student receives 6 hours of instruction (in-class & on-bike). The goal in 2019 is to teach up to 600 students this bicycle education curriculum, which includes:

- 4 days of 90-minute classes, 3 classes per day, student groups of 20-25 per class.
- League Cycling Instructors & physical education teachers working side-by-side to teach students.

Recommendation 9: Apply to the League of American Bicyclists’ [“Bicycle Friendly America”](#) program

- The “Bicycle Friendly America” program provides a roadmap, hands-on assistance, and recognition for

states, communities, universities and businesses to make bicycling a real transportation and recreation option for all people. Communities, businesses, and colleges/universities may apply. Bicycle Friendly Community applications are solicited on an annual basis. WestCOG may be able to act as facilitator for Bicycle Friendly Business/Community/University applications – keeping and updating information about its’ communities existing bicycle amenities.

Achieving bronze-level (or higher) Bicycle Friendly Community status also adds points to a community’s Sustainable CT rating.

5.1 Implement Complete Streets

5 – 110 Points

PRINT
GET PDF

Action Updates	
Objective	<p>5. Achieve at least bronze-level status in the League of American Bicyclist Bicycle Friendly Community designation program. (10 points)</p> <p>Submit: A pdf of your most recent Bicycle Friendly Community report card.</p>

Figure 28. Excerpt from the Sustainable CT website - Action 5.1 (<https://sustainablect.org/actions-certifications/actions/#open/action/39>)

Strategies for Regional Bicycle Planning in Western Connecticut

As additional on-and off-road bicycle facilities are planned in the region, future connectivity to the Norwalk River Valley Trail (NRVT) and East Coast Greenway (ECG), as well as to other on- and off-road facilities in the region should be considered - funding, local support, and geography permitting. With the exception of Stamford's recent Bicycle and Pedestrian Plan – which geography does not include the Norwalk River Valley Trail – most recent planning documents support the NRVT and ECG/Merritt Parkway Trail as shown in Table 5 below:

Table 5. Recent Plans in the Region

	Supports ECG/Merritt Parkway Trail Concept	Supports Norwalk River Valley Trail Concept
Norwalk Pedestrian & Bikeway Transportation Plan (2012)	✓	✓
Southwestern Region Bicycle and Pedestrian Plan (2013)	✓	✓
Greater Danbury Regional Bike Plan (2015)	✓	✓
HVMPO and SWRMPO Long Range Transportation Plans (2019 and Draft 2023)	✓	✓
Connecticut (Statewide) Active Transportation Plan (2019 & Draft 2023)	✓	✓
Stamford Bicycle and Pedestrian Plan (2019)	✓	N/A

Some communities have planned on-street bicycle facilities as part of a municipal bicycle and pedestrian plan or other local planning initiative. As

future transportation projects are considered in all of western Connecticut's communities, they may be prioritized based on their ability to create a network of on- and off-road bicycle facilities by connecting to the trails and roadway network shown on the maps that follow. Projects that contribute to a bicycle network could be elevated in the funding process based on their contribution to regional connectivity.

Developing the Regional Network

While many of the communities in Western Connecticut have planned and started to build their intramunicipal bicycle facilities, no previous plan has mapped all of these facilities in one place. Before a regional network could be evaluated and planned, the location of existing and planned facilities were documented through a series of steps:

1. Collected existing geographic information system (GIS) files of existing and planned facilities.
2. Digitized planned facilities and routes from municipal plans of conservation and development, municipal bicycle plans, regional trail plans, corridor studies, etc.
3. Confirmed existing or newly built facilities using aerial photographs and google street view.

After mapping the planned and existing facilities, gaps in the intermunicipal network were identified as potential connections. A set of priorities was used to narrow down the specific locations of facilities proposed in this plan that included: available right-of-way and shoulder width, elevation change, access to transit hubs and stops, proximity to schools and parks, connection of urbanized areas and villages, and the extent the new facility would connect the regional and greater regional network. The proposed on-road and multi-use trail connections recommended in this plan can be found in the following map (Figure 29) and are discussed in further detail in the next section. Please note, these maps reflect general concept facilities for planning purposes. These concept facilities are meant to highlight existing gaps and where connections are needed, the final alignment of a specific bicycle facility requires further planning and analysis.

Facility Types

On-Road Facility Complete: includes bicycle facilities in or directly adjacent to a roadway that provides a degree of protection for a bicyclist. The types of facilities included are bike lanes, buffered bike lanes, side paths or cycle tracks.

On-Road Routing Complete: includes bicycle routes that are marked with signage and/or sharrows. This category also includes the East Coast Greenway and on-road sections of the Western New England Greenway; both routes may be missing signage in segments, but the full routing is available online.

On-Road Routing Planned: includes on-road routes and facilities that have been recommended in municipal, regional or intermunicipal trail plans (NRVT).

On-Road Routing Proposed: on-road routes or facilities recommended by this plan to fill missing gaps in the complete and planned network. The feasibility, facility type and alignment would need to be investigated in future studies.

Multi-use Trail Complete: high-capacity trails that were built to accommodate bicyclists, pedestrians, and other non-motorized users through natural corridors, not in the road right-of-way.

Trails Complete: includes trails not in the road right-of-way that are designed for lower capacity use by bicyclists and pedestrians. Trails generally require more technical maneuvering around obstructions compared to multi-use trails. In the future, studies should be conducted to determine if a trail should be upgraded to a higher capacity, multi-use trail.




Multi-Use Trails Planned: includes higher-capacity trails that have been recommended in municipal, regional or intermunicipal trail plans (NRVT).

Multi-Use Trails Proposed: multi-use trail recommended by this plan to fill missing gaps in the complete and planned network. The feasibility and exact alignment would need to be investigated in future studies.

TBD On-Off Road Facility Planned: includes planned facilities where the location (on- or off-road) has not yet been finalized.

Western Connecticut Regional Bicycle Plan

Legend

- TBD On-off Road Facility Planned
- Multi-use Trail Complete
- Trail Complete
- Multi-use Trail Planned
- Multi-use Trail Proposed
- On-road Facility Complete
- On-road Routing Complete
- On-road Routing Planned
- On-road Routing Proposed
-  Train Station
-  College/University
-  Hospitals
- ★ Employment Center

0 4 8 16 Miles

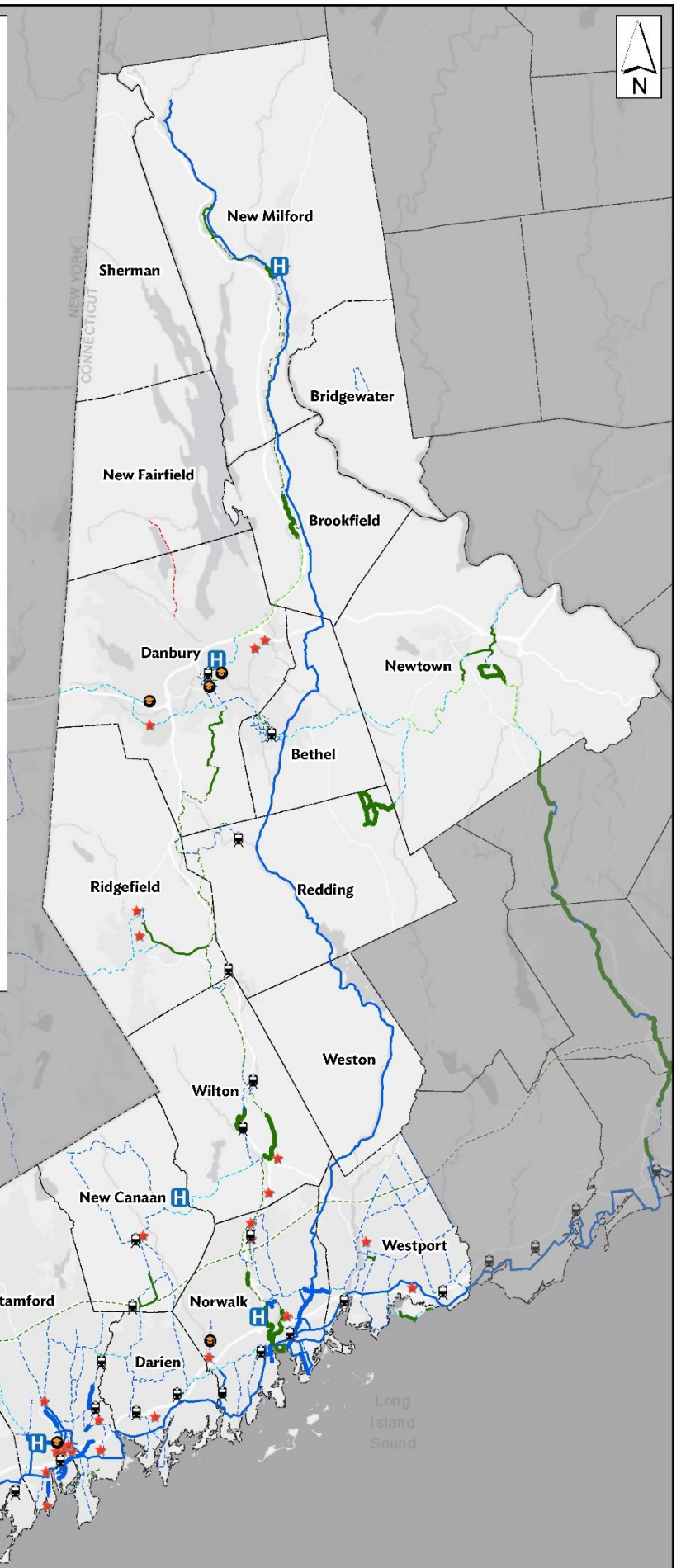


Figure 29. Western Connecticut Regional Bicycle Plan -

Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

Major highlights

As discussed in the Existing Conditions chapter of the plan, the regional network will build off of north-south and east-west spines. The north-south spine is made up of the Norwalk River Valley Trail, Still River Greenway and New Milford River Trail. However, a crucial gap exists in the plans for these facilities- from the northern end of the Norwalk River Valley Trail in Danbury to the southern terminus of the Still River Greenway in Brookfield. Future studies will be needed to determine the exact alignment of the facilities but the plan recommends an on-road facility through downtown Danbury that would connect to a multi-use trail following the alignment of Route 7 that flows into the Still River Greenway (see Figure 30).

For the east-west spine of the network, the East Coast Greenway has been identified as the major corridor that connects the municipalities along the shoreline in the south. With the greater Danbury area over 20 miles from the East Coast Greenway, a second east-west corridor has been recommended. This mostly on-road facility will connect at the New York border through major retail locations, both Western Connecticut State University campuses, parks, downtown Danbury and Bethel, and finally connecting with the Fairfield Hills campus in Newtown. An important aspect of this facility is that it will intersect with the Norwalk River Valley trail for bicyclists to access destinations to the south and the north.

This east-west spine will not only be important as a regional connection but it is also a crucial link in the greater-regional network. One of the final segments of the Maybrook Trailway was recently completed and now connects the New York/Connecticut border in Danbury with Brewster, NY and via the Empire State Trail to Manhattan in the south and the Adirondacks, Buffalo, NY and Canada in the north. On the east side of this new, east-west spine it would connect to the Housatonic Valley Rail Trail

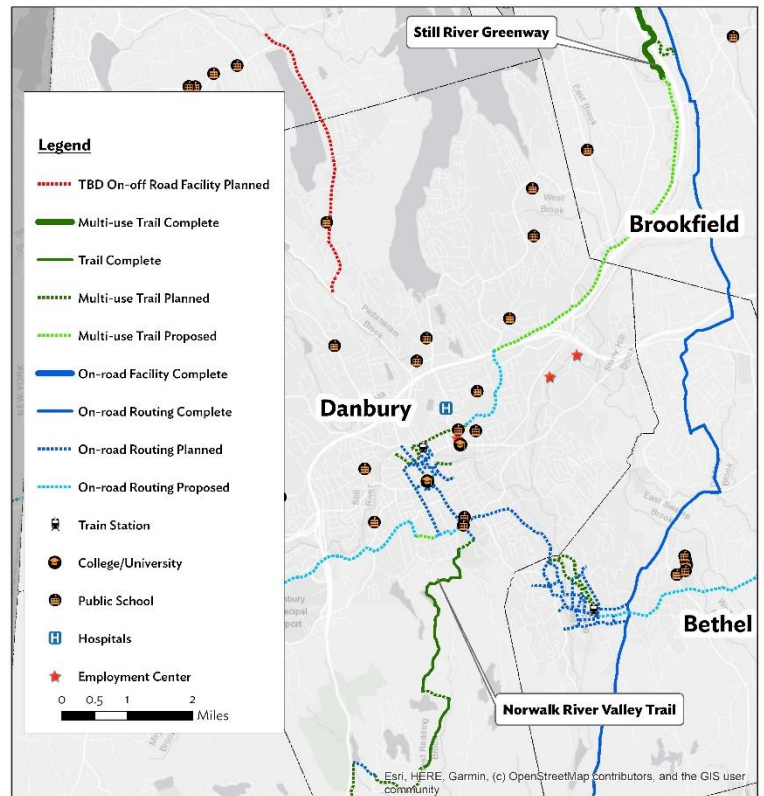


Figure 30. Link NRVV (Danbury) to the Still River Greenway (Brookfield)

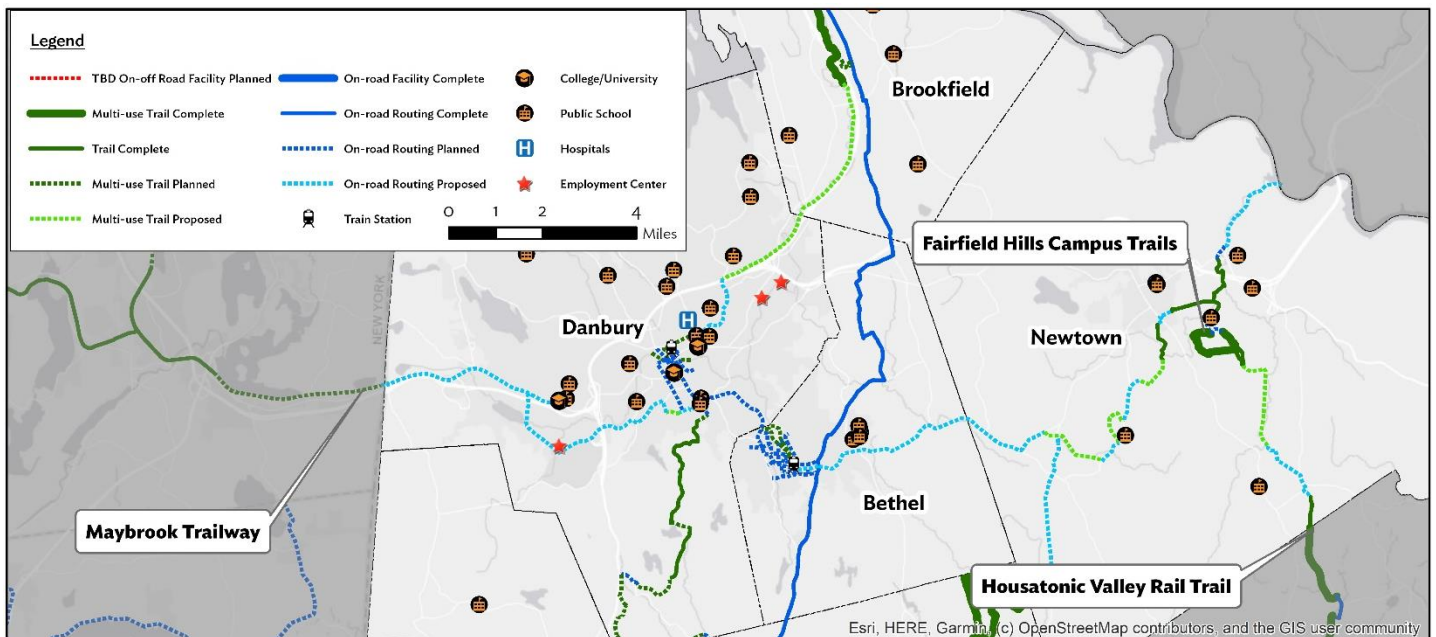


Figure 31. East-West Spine from Maybrook Trailway (Brewster, NY) to Housatonic Valley Rail Trail (Monroe)

in Newtown with a nearly complete connection to Bridgeport (see Figure 31).

Finally, efforts were focused on connecting municipally planned and existing facilities to create an overall more connected regional network. These shorter connections expand the reach of the municipally planned bicycle networks to neighboring communities which is important for access to more employment opportunities, access to transit stops and train stations, safe routes to schools by bicycle, and to fulfill shopping and recreation needs. Examples of these proposed facilities are shown in Figure 32 where there is a dense network of existing and planned facilities.

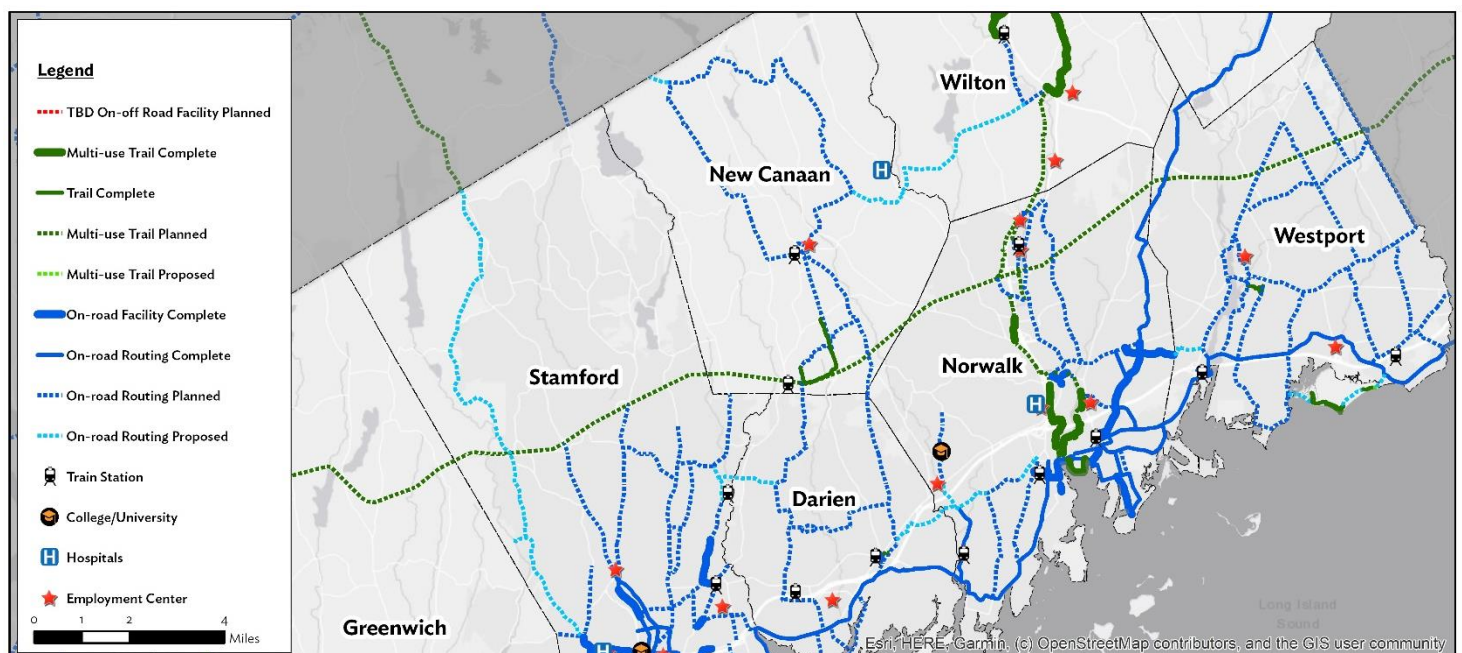


Figure 32. Example of proposed on-road connections between planned and existing facilities.

Performance Management

WestCOG, as the host to SWRMPO and HVMPO, utilizes various data sources and methods to track performance of the transportation system. This performance-based approach helps inform the transportation planning process and aids in decision-making by developing performance measures, targets, and achievement timeframes.

The following goals have been established for this plan and were informed by the Federal Highway Administration's [Guidebook for Developing Pedestrian & Bicycle Performance Measures](#):

Goal 1: Increase the number of miles of on- and off-road bicycling facilities

Target: increase the number of miles by 10%

Measurement: # of miles of on- and off- road bicycle facilities constructed

Timeframe: five years from the development of this Plan

Associated Goals: supports Connectivity and Implementation

Goal 2: Increase % in bicycling mode share for commuting

Target: increase by 2%

Measurement: Census Journey to Work data

Timeframe: five years from the development of this Plan

Associated Goals: Improve bicyclist safety and mobility; support cycling as a viable transportation mode



Goal 3: Reduce the number of nonmotorized serious injuries and fatalities

Target: Support CTDOT in achieving the safety targets which are updated annually.

Measurement: number of non-motorized crashes involving bicyclists.

Timeframe: five years from the development of this Plan

Associated Goals: Improve bicyclist safety and mobility; provide Bike Skills 101 trainings to anyone who wishes to develop or improve bicycle riding skills, particularly in traffic

Goal 4: Increase the number of residents participating in bicycling education training sessions/programs over the next five years

Target: increase by 10%

Measurement: number of participating residents

Timeframe: five years from the development of this Plan

Associated Goals: bring bike safety and skills into schools and parks/recreation programs and provide Bike Skills 101 trainings to anyone who wishes to develop or improve bicycle riding skills, particularly in traffic.

Goal 5: Increase the availability of bicycling facilities in communities where transportation-disadvantaged populations reside.

Target: increase by 20%

Measurement: number of bicycling facilities

Timeframe: five years from the development of this Plan

Associated Goals: Improve bicyclist safety and mobility; support cycling as a viable transportation mode

Figure 33. Bicycling 101 Training Class (courtesy of the [League of American Wheelmen](#))

Conclusion

The Regional Bicycle Plan's purpose is to analyze current bicycling conditions in the region; discuss policies and projects that would benefit bicycling, and integrate bicycling with the region's overall transportation planning efforts. This Plan has incorporated elements and content from several preceding bicycle plans that were prepared for the HVMPO and SWRMPO regions and covers the eighteen communities that are WestCOG members.

Western Connecticut already offers an attractive place to ride a bicycle. In recent years, the region has continued to plan new routes, seek grant funding to construct bicycle facilities and trails, and enhance safety and wayfinding for bicyclists. Together, these improvements have helped the municipalities become more bicycle-friendly. While these improvements are certainly to be commended, the work to enhance bicycling in the region is never finished. This Plan offers a regional perspective on bicycle facilities and best practices and provides recommendations to improve upon over the next five to ten years. These recommendations focus on routing, planning, education, policy and construction activities. The Plan should be used as a resource within the region and WestCOG will update the Plan on a regular basis to evaluate completed projects, assess progress towards achieving goals, and develop new recommendations.

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Appendix A: Darien/New Canaan Bike Route Case Study

Darien and New Canaan Bicycle Route

This initiative started as an idea brought forth by New Canaan and Darien in an effort to identify a route to connect key destinations between the two municipalities. WestCOG staff reviewed maps showing Average Daily Traffic (ADT) on local roads to develop a preliminary route for further exploration. The roads with the lowest ADT were considered to be the best starting point. The preliminary route stretched from northern New Canaan, through both downtown areas, and south to the beaches in Darien. Along the way, this route connects a number of destinations including schools, parks, local businesses, and transit stations.

In summer 2019, this initiative became a pilot project through the Active Transportation component of DPH's State Physical Activity and Nutrition (SPAN) grant. A consultant, Fitzgerald and Halliday Inc. (FHI), was tasked with evaluating the feasibility of this route, identifying safety challenges and recommending the final routing and facility types.

In consultation with Darien and New Canaan, FHI developed a 25.5 mile route of various facility types including sharrows, bike lanes, and buffered bike lanes. Figure 34 displays the alignment of the bicycle route and the corresponding facility type.

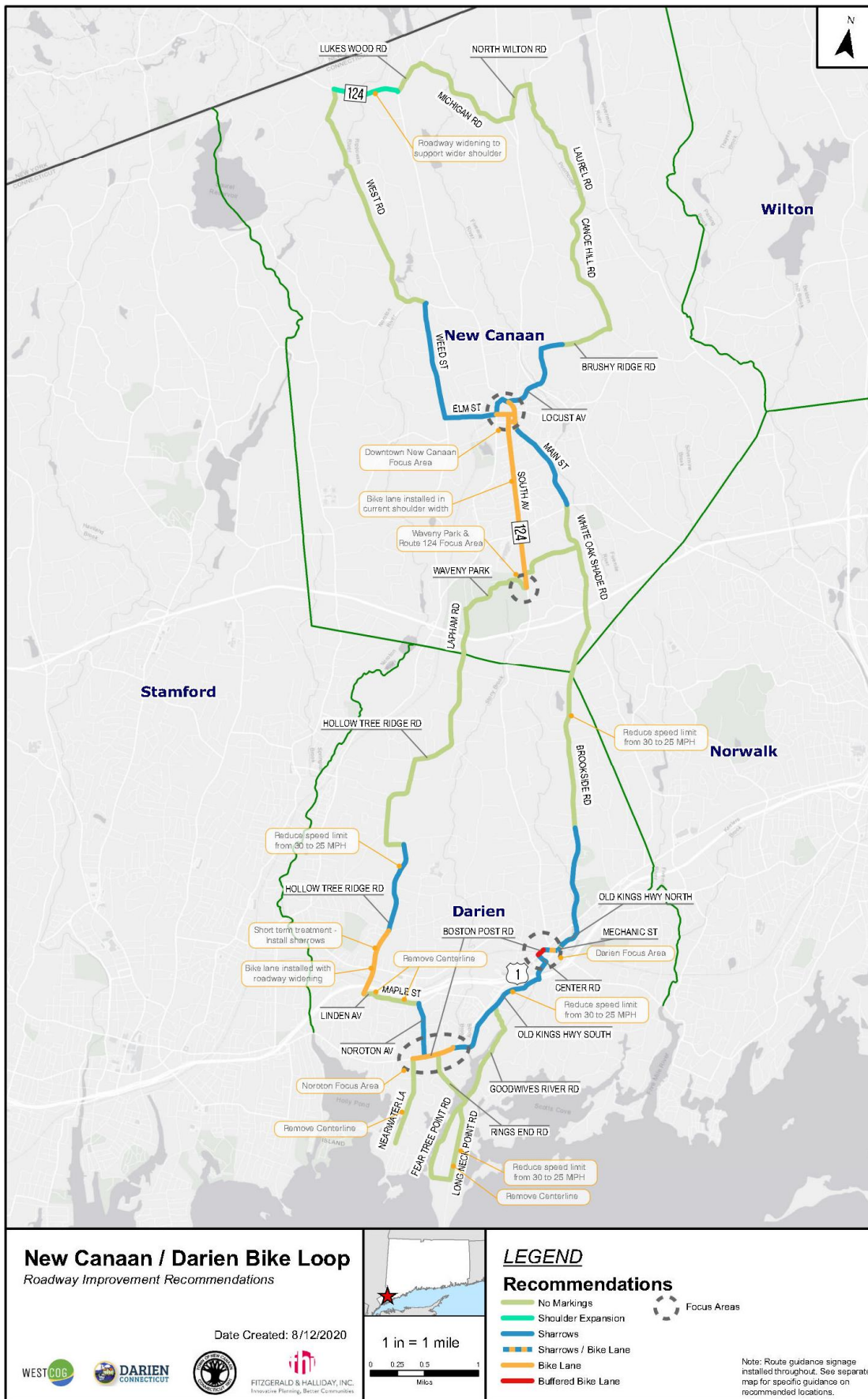


Figure 34. Proposed Darien and New Canaan Bicycle Loop

Other resources for planning a bicycle route

The State of Connecticut DOT's website has maps of ADT by town at https://portal.ct.gov/DOT/PP_Bureau/Documents/Maps.

Two excellent resources when considering where and how to plan a bicycle route are the [Strava Heat Map website](https://www.strava.com/heatmap) [www.strava.com/heatmap] and the [Best Bike Rides Connecticut book by David Streever](#).

The Strava heatmap is populated with data from bicyclists, walkers, hikers and runners who use the roads and trails and track their trips with GPS. The lightest colored routes on a map show the heaviest use. The map can be filtered for walking or cycling trips:

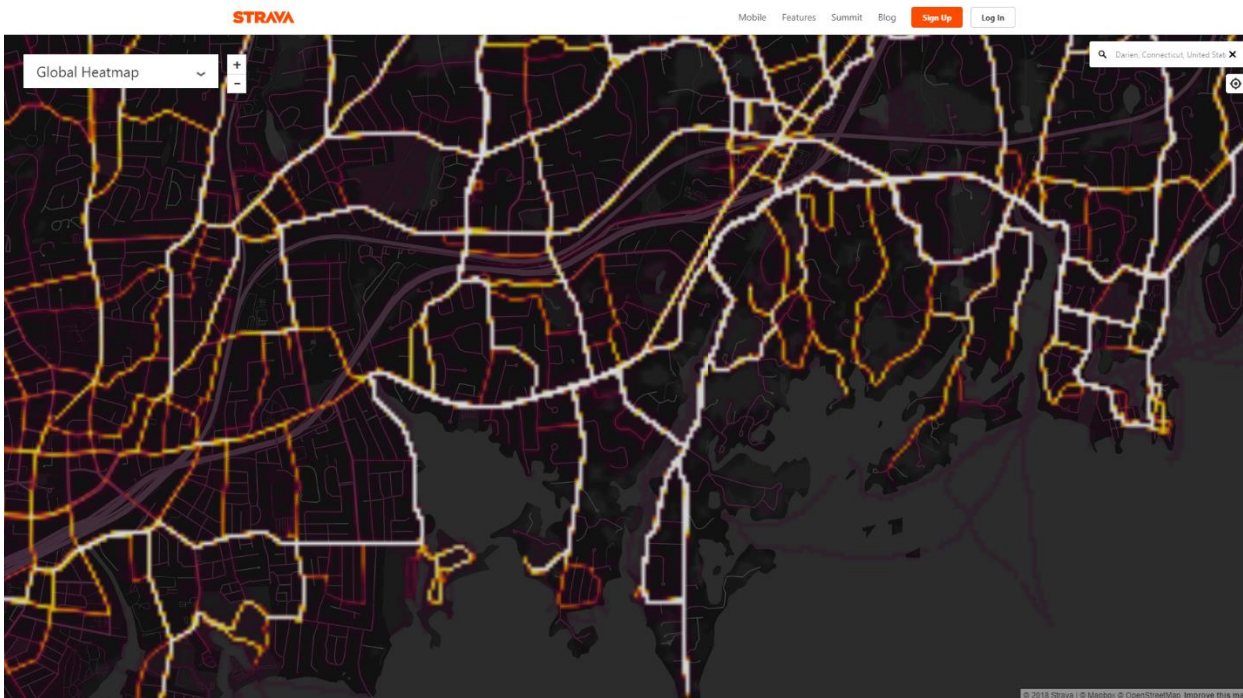


Figure 35. Example of a Strava Map

The *Best Bike Rides in CT* book documents several bike routes in the state that can serve as examples. Riding a few of these routes will help route planners understand and appreciate what makes a good route from the perspectives of traffic, roadway infrastructure, amenities connections to desirable destinations, signage, and parking. It is important to consider multiple access points that people can get to by car – where parking is available.

Once a bike route has been established in a community, connecting it to other routes that serve important destinations begins to create a network. The [Bike Network Mapping Idea Book](#) developed by the Federal Highway Administration (FHWA) in 2016 suggests these next steps:

1. Identify a consistent set of bicycle facility types and community destinations that can serve as a baseline for bicycle network planning efforts across jurisdictions and geographic locations. The tables below are intended to inform this conversation.
2. Undertake a significant national push to research, apply, and document methodologies for measuring bicycle network connectivity and tracking change in connectivity over time.
3. Examine ways to integrate bicycle network infrastructure data into national infrastructure databases and data management systems.

4. Continue to identify and promote strategies for integrating bicycle network planning into ongoing planning processes at the local, MPO, and State level (e.g. resurfacing, TIP and STIP, Highway Safety Improvement Program, project design and development, MPO certification review).^{xiii}

BICYCLE FACILITY TYPES
<ul style="list-style-type: none"> • Bike Lane • Buffered Bike Lane • Climbing Lane (i.e., bike lane on uphill side only) • Separated Bike Lane or Protected Bike Lane or Cycle Track • Bike Boulevard • Shared Use Path • Other (such as shared lane marking and paved shoulder)

COMMUNITY DESTINATIONS		
<ul style="list-style-type: none"> • Bike share stations • Bus stops • Community centers • Community colleges • Community service center • High density residential 	<ul style="list-style-type: none"> • Major retail and entertainment • Parks • Places of worship • Public libraries • Retirement homes • Schools 	<ul style="list-style-type: none"> • Government offices • Universities or colleges • Major tourist destinations • Hospitals and other health care facilities • Transit centers

Appendix B: Complete Streets Policies

Referenced below is a copy of Stamford's Complete Street's Policy. Other municipalities in Connecticut, including Fairfield and Portland, may offer other language or policies that are helpful when crafting a new policy for a western Connecticut municipality.

Stamford, Connecticut Complete Streets Policy:

ARTICLE XII. - COMPLETE STREETS

Sec. 231-78. - Title.

This Article shall be entitled the Complete Streets Ordinance.

Sec. 231-79. - Definitions

As used in this Article, the following terms shall have the meanings indicated:

Complete Streets. Roadways that are designed and operated to provide safe and convenient access to all Users.

Users. Are all people that use roadways, including pedestrians, bicyclists, public transportation riders, and motorists and includes people of all ages and abilities, including children, seniors and individuals with disabilities.

Transportation Improvement Project. Any public or private investment within the public right-of-way, regardless of funding source, including, but not limited to, new construction, reconstruction, alteration and maintenance inclusive of road resurfacing, except that a Transportation Improvement Project shall not include routine upkeep such as cleaning, sweeping, plowing or spot repair.

Sec. 231-80. - Implementation

This Article shall require the implementation of Complete Streets in appropriate locations within the City of Stamford by the Office of Operations, as follows:

- (a) The Office of Operations shall review all Transportation Improvement Projects being designed for implementation within the City limits and explore opportunities to meet the needs of all Users, including but not limited to motorists, pedestrians, bicyclists, and transit vehicles.
- (b) All Transportation Improvement Projects located within 1,000 feet of a school, commercial center, or bus stop shall include infrastructure designed to accommodate pedestrians.
- (c) The requirements of this Article shall not apply to Transportation Improvement Projects:
 - (1) where specific users are prohibited by law (e.g. interstate highways or pedestrian-only paths); or
 - (2) where the cost of the accommodations necessary to implement Complete Streets is excessively disproportionate to the need or probable use; provided, however, that the Director of Operations must document the rationale for exemption from the Complete Streets Ordinance in such cases.

Sec. 231-81. - Complete Streets Manual.

A Complete Streets Manual, detailing the steps to be taken to implement this Ordinance, shall be adopted by the Office of Operations and approved by the Board of Representatives.

INTRODUCTION

PORTLAND COMPLETE STREETS POLICY

The purpose of the Portland Complete Streets (CS) Policy is to guide a transition from traditional automobile-focused transportation planning to a more comprehensive approach that accounts for all users including children and seniors, persons with disabilities, and those that travel by foot, bicycle, and transit. The Policy was developed through an extensive public process spearheaded by the Portland Complete Streets Group with input from elected officials, town staff (including EMS), business owners and residents.

In addition to the policy, a set of three maps graphically illustrates desirable outcomes of the policy. Map One indicates the Complete Streets Priority Area - predominantly the center village district and all streets within walking distance to Portland public schools. Map Two indicates gaps in the sidewalk network and suggests areas of improvement. Map Three depicts favorable bike routes, the path of the Air Line Trail and possible connection between the trail and the center district.

The Policy provides guidance in seven related areas:

1. Principles: The rationale for the CS Policy is explained by emphasizing that it addresses all users and modes of travel, all transportation projects, a comprehensive network approach, Connecticut state law, jurisdiction, design standards, exceptions, land use context, and performance standards.
2. Users and Modes: All users of the transportation system shall be considered in planning and design.
3. Procedures: All transportation projects shall follow a path from concept to implementation that considers Complete Streets options.
4. Jurisdiction and Network Connectivity: Town-owned streets are the focus of the Policy but the State of Connecticut shall be encouraged to follow both the Town's and State's CS Policies on state right-of-ways. A priority of the Policy shall be to facilitate the completion of gaps in the sidewalk and trail network with emphasis on streets near schools and the Air Line Trail.
5. Design Guidance and Performance Standards: The most current design guidance provided by authoritative organizations such as AASHTO and FHWA shall be referenced in the formulation of projects.
6. Inclusions and Exceptions: The Policy addresses all transportation improvements but allows for exceptions where specific criteria prevent implementation of CS improvements.
7. Policy Implementation and Performance Measurement: The progress of CS improvements shall be measured and reported on a periodic basis.

Implementation of the Policy is expected to be gradual as new projects, repairs and major maintenance take place. Certain projects may be eligible for State or Federal grant programs.

TOWN OF PORTLAND, CONNECTICUT COMPLETE STREETS POLICY

I. VISION, GOALS & PRINCIPLES

VISION

To improve the streets of Portland making them safer and more accessible for all users including pedestrians, cyclists, people with mobility challenges, transit users, and motorists. To encourage non-motorized modes of transportation and a Complete Streets culture that promotes healthy living.

GOALS

The overarching goal of this policy is to gradually transform Portland from a community that disproportionately encourages automobile travel to one that invests in transportation infrastructure equitably across all modes to the benefit of all citizens. Specific goals are the following:

1. Make Portland roads safer by increasing the capacity for various uses while decreasing the rate and severity of vehicle, pedestrian and bicycle crashes;
2. Enable healthier lifestyle choices by providing an expanding variety of walking and bicycling options;
3. Promote a Complete Streets culture in Portland through education and events,
4. Encourage private sector economic development that will benefit from, and contribute to, a more livable community;
5. Expand the network of safe walking and bicycling routes to schools;
6. Connect with other town/citizen's action groups in Portland that have goals related to Complete Streets.

PRINCIPLES

The National Complete Streets Coalition states: "By planning, designing, and constructing Complete Streets, communities of all sizes – whether rural hamlets, small towns, or booming metropolises – are able to provide the quality access to jobs, health care, shops, and schools their residents deserve, while also achieving greater economic, environmental, and public health benefits." Application of Complete Streets policy is not a one size fits all process. Some streets are more adaptable to change than others. The following principles shall guide the planning and implementation of all Complete Street improvements:

1. All Users and All Modes: All users and all modes should benefit from Complete Streets improvements;
2. All Projects & Phases: All transportation projects shall incorporate Complete Streets improvements – from new construction to maintenance, it is anticipated that most complete streets improvements will be planned and completed concurrently with other scheduled roadway projects, but some complete streets improvements may be implemented independently of other road improvements and maintenance. Priority or special consideration shall be given to locations/improvements identified in the Complete Streets Policy Maps discussed in more detail in Section III;
3. Network: Complete Streets policy should encourage a network understanding/approach to the town's transportation system;
4. State law: Public Act 09-154 states: "From funds received by the department or any municipality for the construction, restoration, rehabilitation or relocation of highways, roads or streets, a reasonable amount shall be expended to provide facilities for all users, including, but not limited to, bikeways and sidewalks with appropriate curb cuts and ramps. On and after October 1, 2010 not less than one percent of the total amount of any such funds received in any fiscal year shall be so expended."
5. Jurisdiction: Complete Streets policy shall address all agencies involved in transportation: Department of Public Works (DPW), Emergency Management Services (EMS), CT Department of Transportation (CTDOT), Middletown Area Transit (MAT);
6. Design: Standards and guidelines shall refer to latest editions of guidance documents published by American Association of State Highway and Transportation Officials (AASHTO), Federal Highway Administration (FHWA),

Institute of Transportation Engineers (ITE), American Planning Association (APA), National Association of City Transportation Officials (NACTO), and the U.S. Access Board;

7. Exceptions: Shall be made according to clear criteria and authorization stipulated within this policy document;
8. Context Sensitivity: Land use context and flexibility shall be considered relative to potential Complete Streets improvements;
9. Performance Standards: Performance standards shall be established with measurable outcomes.

II. USERS AND MODES

This transportation system shall be designed and operated in ways that improve the safety, comfort and convenience of pedestrians, bicyclists, public transit users, assistive mobility device users, motorists, emergency management services, freight providers, and users of other common modes of transportation.

When there is conflicting needs among users and modes, the following prioritization will apply:

1. Safety is the highest priority, followed by mobility;
2. Among modes, pedestrian needs shall receive priority, followed by the next most vulnerable user in each case;
3. Strive for balance among all modes involved in each case. It is recognized that all modes cannot receive state of the art accommodation within every right-of-way (ROW – the publicly owned transportation corridor), but the overall goal is that all users of varying ability can safely and conveniently use the transportation network.

III. PROCEDURES

The Town of Portland commits to applying Complete Streets principles at the outset of all transportation improvement projects. Each project shall be approached as an opportunity to improve the safety and accessibility of the street/ROW for all users. Projects may include, but not be limited to, subdivision, new development, new construction, major maintenance (such as resurfacing, storm drainage, curb repair, etc.), and privately-funded projects. Improvements through planning, programming, design, and ROW acquisition shall be considered. Examples of such projects may be specific such as sidewalks and crosswalks or general such as traffic calming, enhanced traffic enforcement, and 'Road Diets'. Priority or special consideration shall be given to locations/improvements identified in Complete Streets Policy Maps:

1. Complete Streets Priority Areas (attached as pdf file "Complete Streets Map final 6-23-16")
2. Existing & Possible Sidewalks (attached as pdf file "Sidewalks Map Final 6-21-16")
3. Possible Bike Routes & Multi-Use Paths (attached as pdf file "Bike Routes Map final 6-21-16")

The following procedural guidelines shall be followed:

1. A new project is identified and brought to the attention of the First Selectman / Board of Selectmen;
2. Input is gathered from relevant stakeholders - The CSG, Town Engineer, Planning, Public Safety and Public Works departments - regarding current Complete Streets needs in the area of the project;
3. Planning, Public Works, and Finance departments will develop a project budget to include recommended Complete Streets improvements and present for approval to the Board of Selectmen.

IV. JURISDICTION & NETWORK CONNECTIVITY

This Policy shall apply to all Town owned streets and land within public ROWs. Additionally, the State of Connecticut controls three principal transportation corridors that traverse the town including routes, 66, 17, and 17A. The Town shall work cooperatively with Connecticut Department of Transportation to plan and implement Complete Streets improvements within these ROWs. At a minimum, PA 09-154 An Act Improving Bicycle and Pedestrian Access and the

Connecticut Complete Streets Policy EX.O.-31, shall be applied to all planning, design, construction and major maintenance within state-controlled ROWs. Wherever possible, the Town's Complete Street policy shall be considered, especially where a state ROW provides Complete Streets network connectivity identified in the Town's Plan of Conservation and Development. Owners of privately owned streets and ways shall also be encouraged to adhere to the policy.

Private utility companies operate within Town and State ROWs. Their planning, construction, and major maintenance can create both opportunities and barriers to Complete Streets improvements. The Town shall coordinate with the private utilities to ensure that utilities projects and Complete Streets improvements are coordinated wherever possible.

The Portland School District encourages students to walk to school and has established standards that stipulate the distance a student can be expected to walk if sidewalks and safe crossings are provided. The Town shall coordinate Complete Streets improvements to ensure safe routes to schools including sidewalks, road crossings and multi-use routes that encourage walking and bicycling to school.

The Town shall also coordinate Complete Streets planning and construction with Middletown Area Transit, River COG (Council of Governments), and adjacent municipalities to facilitate effective application of resources.

NETWORK CONNECTIVITY

The Town shall identify gaps in the sidewalk and trail network that upon completion will improve connectivity and facilitate completion of a Complete Streets network. Ideally there should be non-motorized ways to get to key areas in Portland including the recreational areas, the economic development areas, and schools. Connections between the Village District/Town Center and Riverfront Recreation area are specifically mentioned in the town's 2016 POCD. These improvements are considered high priority projects.

Existing pedestrian crossings shall be evaluated for safety and functionality. The expansion of the sidewalk network will require the implementation of new crossings. All new crossings shall be determined based on accepted standards related to speed limit, site lines, stopping distance, etc.

The Air Line Trail (ALT) will provide unprecedented connectivity across the southern part of town for bicyclists and pedestrians. Additional multi-use pathways shall be investigated that connect to the ALT such as the existing north-south utility corridors. Town and State open space areas shall also be evaluated for potential multi-use trail connectivity.

V. DESIGN GUIDANCE & PERFORMANCE STANDARDS

All Complete Streets improvements within public ROWs shall conform to the following standards. Of the following list, AASHTO and MUTCD are considered the definitive design guides for changes within the State ROW. Because Complete Streets design is an evolving field, the latest edition of these standards shall be referenced for design guidance:

American Association of State Highway and Transportation Officials (AASHTO)

- A Policy on Geometric Design of Highways and Streets

- Guide for the Development of Bicycle Facilities

- Guide for the Planning, Design and Operations of Pedestrian Facilities

American Planning Association (APA)

- Complete Streets: Best Policy and Implementation Practices

- U.S. Traffic Calming Manual

Federal Highway Administration (FHWA)

- Manual of Uniform Traffic Control Devices (MUTCD)

- PEDSAFE: Pedestrian Safety Guide and Countermeasures Selection System

Institute of Transportation Engineers (ITE)

Designing Walkable Urban Thoroughfares: A Context Sensitive Approach

National Association of City Transportation Officials (NACTO)

Urban Bikeway Design Guide

Urban Street Design Guide

U.S. Access Board

Accessible Public Rights-of-Way: Planning and Designing for Alterations

VI. INCLUSION & EXCEPTIONS

The Town of Portland commits to applying Complete Streets principles at the outset of all transportation improvement projects. Each project shall be approached as an opportunity to improve the safety and accessibility of the street/right of way for all users.

Exceptions shall be made if the following criteria render Complete Streets improvements unworkable:

1. Where specific users are prohibited by law from using the ROW (i.e. pedestrians and bicyclists within a limited access highway);
2. Cost is disproportionate to the current need or projected future need for Complete Streets improvements or funding is not available;
3. There is an absence of current and future need (i.e. a rural road that carries low Average Daily Traffic (ADT) and is remote from neighborhoods, schools, or points of interest);
4. Emergency repairs within Town ROWs (pre-existing Complete Streets elements impacted by these repairs must be restored to their original condition).

Protocol - Exceptions shall be granted according to the following:

The town shall issue Request for Exceptions (RFE) at the earliest project phase by posting the RFE on Town website and distribute to stakeholders including Complete Streets Group. Allow a 14 day public comment period and record comments as an Exhibit to the RFE.

Decisions regarding exceptions shall be decided by the First Selectman (Local Traffic Authority) in consultation with other Selectmen, a designated Complete Streets Group member, Directors of Public Works and Planning, and considering public input. A determination of exception will conform to one or more of the four allowable exceptions listed above.

VII. POLICY IMPLEMENTATION AND PERFORMANCE MEASUREMENT

Implementation of Complete Streets improvements represents a continuum that will require periodic and sustained evaluation to measure progress and effectiveness. To facilitate that regular evaluation, the Director of Public Works shall provide a written report to the Board of Selectmen on an annual basis by the first of February on the progress and effectiveness of the Complete Streets policy and any exceptions granted during the previous calendar year. If requested, CSG can work with the Public Works Department, to help create a form that can be used to provide the annual written report. The measurement of all Complete Streets Improvements for the previous calendar year are to include the following:

I. Funding:

Total dollar amount spent on Complete Streets Improvements

- a. Town funds
- b. Grant funds
- c. Other funds

II. Sidewalks/Pedestrian/Transit Improvements:

1. Lineal feet of sidewalks and other pedestrian accommodations built or improved
 - a. Within ½ miles of schools
 - b. Outside ½ miles of schools
2. Number and description of crosswalks installed or improved
3. Number and description of Americans with Disabilities Act (ADA) accommodations installed or improved
4. Number and description of public or private transit accessibility improvements installed or improved by type and number

III. Bicycling Improvements:

1. Lineal feet of bicycle lanes, routes, or trails built by width and type
2. Number and description of bicycle parking facilities installed

IV. Traffic Calming:

1. Number and description of traffic calming measures implemented
2. Number of new traffic control signs/signals installed that assist with the town's Complete Streets policies
3. Number of street trees planted

V. Maintenance Activities:

Description of Maintenance Activities of existing Complete Streets Facilities

VI. User & Crash Data:

1. Bicycle and pedestrian traffic counts
2. Motor vehicle, bicycle and pedestrian accident data

VII. Exceptions:

Number of Request for Exceptions requested and approved, including dates and committee members

END

Town of Fairfield Complete Streets Policy

Prepared by the Fairfield Bicycle and Pedestrian Committee
Endorsed by the Board of Selectmen on September 26, 2018



Background

In March of 2010, the Town of Fairfield created the Fairfield Bicycle and Pedestrian Plan Advisory Committee under former First Selectman Kenneth Flatto. This committee was then restructured in April of 2012 by First Selectman Michael Tetreau. With technical assistance from the Greater Bridgeport Regional Council, this committee developed the Fairfield Bicycle and Pedestrian Master Plan. The Plan was endorsed by the Board of Selectmen on June 19, 2013.

The Fairfield Bicycle and Pedestrian Master Plan indicated several recommendations including the formation of a standing Bicycle and Pedestrian Committee, and the development of a Complete Streets Policy. In November of 2014, the Town appointed the initial Fairfield Bicycle and Pedestrian Committee, which consists of 9 citizens and several Town staff advisors. In December of 2015, a subcommittee was formed to develop the Fairfield Complete Streets Policy.

Executive Summary

Complete Streets by definition are streets, highways, roadways, travel ways and corridors that are designed and operated to enable safe and comfortable access for all users. All users include pedestrians, bicyclists, public transit riders, and people of all abilities, cars, trucks, buses, and other modes of transportation.

Any future transportation project to which this policy is applicable should be sensitive to the context of the surrounding neighborhood and community, as there is not a one size fits all approach to Complete Streets design and implementation. The policy for Fairfield reflects this understanding.

The Fairfield Complete Streets Policy is based upon research and guidelines provided by the National Complete Streets Coalition, a division of Smart Growth America.

The National Complete Streets Coalition Steering Committee consists of: AARP, AECOM, America Walks, American Public Transportation Association, American Society of Landscape Architects, Association of Pedestrian and Bicycle Professionals, Institute of Transportation Engineers, MIG | SvR, National Association of City Transportation Officials, National Association of REALTORS®, Nelson\Nygaard Consulting Associates Inc., Smart Growth America, SRAM, Stantec, VHB, Voices for Healthy Kids, and the Washington State Department of Transportation.

The following list of items describes background information and many of the benefits of Complete Streets:

Complete Streets Saves Lives

Streets that, where appropriate, include sidewalks, better bus stop placement, traffic calming measures, treatments for disabled users, children and the elderly, save lives. From 2005-2014, 376 people were killed while walking in CT. The most threatened populations are children and older adults (info from Smart Growth America).

There is little or no cost associated with developing a Complete Streets Policy

The policy requires transportation planners to consider all users at the onset of transportation projects. Exceptions and exemptions are noted for projects where expected users would not include pedestrians, bicyclists, or public transit users, and considerations where costs would be too prohibitive.

Complete Streets Policies are expanding locally and nationally

Over 1,200 policies are now in place nationwide, and growing, including over 950 municipalities. Several CT municipalities have developed policies, including West Hartford, Middletown, Portland, Enfield, South Windsor, Hartford, Stamford and New Haven.

A Complete Streets Policy reinforces existing regulations

Zoning regulations require sidewalks in certain new construction and renovation projects as well as considerations for pedestrians and bicyclists. Regulations also require development of a bicycle and pedestrian plan as part of the Site Plan review process. The 2016 Fairfield Plan of Conservation and Development recommends a significant number of implementation measures to improve biking and walking in town. A Complete Streets Policy will support existing regulations and guidelines.

Complete Streets are the law in Connecticut

Complete Streets Law enacted in 2009 (CGS §13a-153f and §13b-13a) requires nearly all highway, road, and street programs and projects in Connecticut to accommodate pedestrians, bicyclists, and transit riders. The Connecticut Department of Transportation adopted a Complete Streets Policy in 2014 and encourages municipalities to do the same.

Complete Streets benefit the local economy

Many communities throughout the country that have completed Complete Streets designed projects saw an increase in private development creating the potential to revitalize neighborhoods and corridors. Complete Streets projects are supportive of new businesses and show increases in property values.

A Complete Streets Policy can lead to more funding

Funding for transportation projects that include Federal and/ or State funds usually require considerations for all users of the roadways and a Complete Streets design approach. Without a policy in place, Fairfield could be at a disadvantage when competing with other municipalities in the State for funding of transportation or infrastructure projects.

Complete Streets are flexible

Complete Streets improvements can be achieved in urban, suburban, and even rural areas. In a rural area, consideration can be made to have a paved shoulder for walking and biking as opposed to a sidewalk or other infrastructure. The policy promotes a balance of safety and convenience for everyone on the road.

View the entire Complete Streets Plan at:

[https://www.fairfieldct.org/filestorage/10726/10994/15957/73404/Complete Streets Policy.pdf](https://www.fairfieldct.org/filestorage/10726/10994/15957/73404/Complete%20Streets%20Policy.pdf)

Appendix C: Bicycle Project Request Form

BICYCLE PROJECT REQUEST FORM



Project Name
Project Location and Limits
Contact
Brief Description of Project
Project Impetus
Project Goals
Estimated Cost of Project (if known)
Funding Sources (if known)
Describe project context, including adjacent land uses, neighborhood character, and existing transportation system
Classification of affected street(s)

CONSISTENCY WITH COMPLETE STREETS POLICY & GUIDING PRINCIPLES

Describe how the proposed project supports Guiding Principles for Complete Streets. See the last page of this form for descriptions of each principle.

Safety and slow vehicle speeds
Connectivity
Human health
Livability
Context
Equity
Aesthetics
Economic development
Environment

COMPLETE STREETS GUIDING PRINCIPLES

Safety and Slow Vehicle Speeds

Traffic injuries and fatalities are predictable and often preventable, and there is a direct correlation between vehicle speeds and injury/fatality rates. Streets should be designed with safety of all users as a priority, and vehicle speeds limited, with the goal of reducing injuries and fatalities.

Connectivity

Connectivity is essential if non-motorized transportation is to be a viable and desirable option. Streets should be designed to provide connectivity that satisfies travel needs with redundant routes in an intact network system.

Human Health

Streets should be designed to increase opportunities for active transportation (walking, cycling, etc.) and to decrease air pollution and particulate levels caused by motor vehicles.

Livability

Livable cities are characterized by a built environment that enhances quality of life, strengthens community ties, encourages civic engagement, and promotes health. Public spaces (streets) should be designed with livability in mind, with the goal of enhancing quality of life in our city.

Context

Streets should be designed to respect and enhance the distinctive identity of our town/city, its character, and its cultural and historical context.

Equity

Public spaces such as streets should embody the democratic ideals of equality, freedom, individual rights and responsibilities, protection of minorities, transparency, accountability and the rule of law. Streets should be designed to provide for the needs and safety of all users, particularly people with disabilities, the elderly, children, and people who cannot afford a private vehicle.

Aesthetics

Aesthetically pleasing surroundings – such as public art, well-maintained landscaping, and human-scale architecture – enhance the experience of using a street and make it a place where people want to be. Streets should be designed with consideration for aesthetic elements, including materials, lighting, landscaping, street furniture, and maintenance.

Economic Development

Well-designed streets support economic vitality by drawing customers to businesses and providing access and transportation options for reaching businesses. Streets should be designed to support a framework for current and future development and contribute to the town or city's economic vibrancy.

Environment

Streets should be designed to support and encourage non-motorized transport, thereby decreasing vehicle miles travelled (VMT), leading to reductions in both air pollution and carbon emissions and better management of storm water runoff.

Appendix D. City of Stamford Bike Rack Request Form



Request a Bike Rack Program

Three easy steps

1. Request

2. Evaluation

3. Rack Installation



The City of Stamford is offering free sidewalk bicycle racks for businesses, organizations and institutions to encourage people to commute, take short trips or run errands on a bike. This program provides a free bike rack with the capacity to lock two bikes. The racks are designed to accommodate locking both the wheel and the frame.

When the City receives a request for a bike rack, it will be evaluated based on safety, available space, and whether it is in a location with the potential for high bicycle ridership. If the on-site evaluation is approved, the rack will be included in the next bike rack order. After installation, the bike rack remains the property of the City of Stamford. The City assumes responsibility for the bike rack, but not bicycles parked at the rack. These racks are not intended to serve as long-term bike parking.

Bike racks are sited to avoid interference with normal pedestrian flow and street activities. The following requirements must be met for the approval of a bike rack request:

- City-owned property with concrete surface
- Minimum sidewalk width of 10'
- In the amenity zone at least 1.5' from curb
- At least 3' clearance from utility grates and tree wells
- At least 5' clearance between street signs, light poles, parking meters or garbage bins
- At least 15' clearance between fire hydrants and bus shelters

Bike Rack Request Form

Type or print clearly. Email completed form to Emily Provonsha, EProvonsha@stamfordct.gov or mail to:

Stamford Transportation, Traffic & Parking Bureau

888 Washington Blvd, Floor 7

Stamford, CT 06901

Requester

Your Name: _____

Your Address: _____ Apt#: _____

City: _____ State: _____ Zip Code: _____

Phone: _____ Email: _____

Relation to Establishment: _____

Proposed Bike Rack Location

Name of Business or Establishment: _____

Street Address: _____

From (Cross Street): _____ To (Cross Street): _____

Phone: _____ Email: _____

Nearest Bus Route(s) and Stop: _____

Addition Information/Comments

How did you hear about this program?

Appendix E: Recent Studies Referencing Bicycle-related Initiatives & Policy

Community	Planning Document referencing bike/ped facilities	Notes
Bethel	Bethel Forward Plan 2016	Coordinate a pedestrian and bicycle priority network, integrated to the infrastructure plan to ensure parks and green linkages are aligned to pedestrian and bicycle priorities Adopt the proposed “Complete Streets” Toolbox that has been customized for Bethel and prioritize areas within the right-of way in order to facilitate implementation by the various municipal departments. These tools should be further tailored to the type of streets in which they occur.
	Greater Danbury Regional Bike Plan 2015	Park & Ride map for commuting cyclists Conduct safety studies on Rt 53 & 302: where there have been a high # of bike crashes
	POCD 2020	Develop a Bicycle Master Plan that identifies preferred bicycle routes throughout town. Expand bicycle parking at town facilities such as public schools, parks and open spaces, and town offices. Adopt a Complete Streets Policy.
Bridgewater	Greater Danbury Regional Bike Plan (2015)	Plan walkways & bike access around the town center [since '15, developed “Tour of the Town” downtown bicycling routes & map]; Restripe and sign Hut and Clapboard Roads to increase shoulder width Provide greater pedestrian (and bicycle) links from the Town center to the outlying Recreational Center and Senior Center Develop a feasible, appropriate plan to ease traffic along Main Street and Village Green.
Brookfield	POCD (2015)	Alleviate areas of vehicular congestion and address safety issues for pedestrians and cyclists on southern Federal Road. Identify funding opportunities for complete street plan improvements. Goal: Improve safety and accessibility for bikers in Brookfield, both recreational users and bike commuters. Collaborate with CT DOT, bike advocates and DPW to improve safety for bikes in the vicinity of Federal Road, White Turkey Road and Candlewood Lake Road. Develop a town-wide Bike Plan Consider how to work with the Bike Friendly Communities network to improve bike safety in Brookfield
	Greater Danbury Regional Bike Plan 2015	Continue to develop Still R Greenway Trail & connections to Danbury; support WNEG; Develop bike route concept plan w signage and markings
Danbury	Danbury POCD (2023)	Adopt a Complete Streets Policy that prioritizes the provision of pedestrian, bicycle, transit, and traffic calming

		<p>improvements in transportation infrastructure and maintenance projects.</p> <p>Develop a bicycle plan and provide bike lanes and pathways where feasible as a means of accommodating bicyclists.</p> <p>Review zoning regulations and amend as necessary to require the provision of bicycle parking.</p>
	Downtown Danbury TOD Study (2019)	Explore opportunities to link Downtown Danbury to pedestrian or bicycle paths in other areas such as Brookfield, Brewster, and the Norwalk River Valley Trail.
	Greater Danbury Regional Bike Plan 2015	<p>Create a Bike/Ped Access Plan that includes multiuse trails, as recommended in the POCD Support WNEG & NRV</p> <p>Install sheltered bike racks at Park&Ride lots</p> <p>Make trail connections</p>
Darien	POCD (2016)	<p>Consider bicycle access and amenities during the site plan review process</p> <p>Seek to establish a system of safe bicycle routes throughout the community</p> <p>Encourage and support provisions for bicycling.</p> <p>Evaluate bicycle potential as part of any roadway improvement or pavement striping project in Darien.</p> <p>Place funds in the Capital Improvement Program to establish and enhance bicycle routes.</p> <p>Encourage provision of safe, locking storage for bicycles.</p>
	SWRPA Route 1 Corridor Study 2012	The Route 1 Study includes “Complete Streets Strategies and Tools for Boston Post Road, Darien”
Greenwich	Route 1 Greenwich – Stamford Study (2011)	Route 1 “Safety Corridor” referenced also in the 2013 SWRPA Bicycle and Pedestrian Plan. Bicycle Master Plan was published in 2001.
	POCD 2019	Implement traffic controls and pedestrian and bicyclist safety improvements on roads that meet the Town standards, especially near schools; , Provide bicycle racks at businesses, municipal facilities, train stations, schools and multi-family residences.
New Canaan	POCD (2014)	<p>Enhance Bicycle Circulation</p> <p>As part of a “complete streets” policy, seek to provide for a cohesive and expansive bicycle route network in New Canaan.</p> <p>Enlist a committee comprised of local cyclists to look at local streets and establish a comprehensive system of bicycle routes in New Canaan, coded by potential suitability.</p> <p>Seek to identify and field mark roads for bicycle suitability (symbols on traffic signs, roadway markings, etc.).</p> <p>Make a bicycle suitability map available on-line.</p> <p>Work to become recognized as a “bicycle friendly community” by the League of American Bicyclists.</p> <p>Provide convenient and safe bicycle storage areas in downtown and other hub areas.</p> <p>Identify “scenic loops” and “exercise loops” in New Canaan.</p>
New Fairfield	Greater Danbury Regional Bike Plan	Establish a town Bike/Ped Committee

	2015	
	POCD (2016)	Improve opportunities for bicycle and pedestrian traffic for a dedicated Bicycle and Pedestrian Committee; compete for Safe Routes to School funds to make improvements that allow children to walk safely to school; and organize more community events around getting out of the car
New Milford	New Milford River Trail Alignment Study & Preliminary Engineering Report 2018	Provides alignment, right-of-way, and cost evaluations and recommendations for the New Milford River Trail.
	Greater Danbury Regional Bike Plan 2015	Create a bike lane/signage on the shoulder of Rt 7 by restriping and narrowing (car) travel lanes (bicycle crashes sited). Install "Share the Road" signs and sharrows on back roads that are an alternative to Rt 7.
	New Milford Transportation Mgt Plan 2013	Includes bicycle access strategy and recommendations for Bridge St (bicycle crashes sited).
	POCD 2021	Consider a town-wide or downtown study to determine where to install appropriate bicycle facilities Continue to move forward with the design and construction of the New Milford River Trail as funding allows Use inexpensive strategies to improve safety for bicyclists
Newtown	Greater Danbury Regional Bike Plan 2015	Complete a bicycle & ped access plan which would include the study of multi-use trails as suggested by the Newtown Trails Cttee. Support extension of the Pequonnock River Trail into Newtown from Monroe.
	POCD (2014)	Advocate for trail systems as recreation and transportation needs that will give health, safety and economic benefits to the community; Develop a plan that places trails where people want to live, where they can walk or bike to both work and play. The Newtown Trail Committee meets monthly to reach these goals and to continue growing the trail system in Newtown; Suggestions have been raised concerning the extension of the Monroe rails to trails pedestrian/bikeway facility into Newtown and there was a proposal for the construction of a bike lane on Glen Road (SR 816) that would connect the Sandy Hook Village center with Southbury.
Norwalk		
	Pedestrian and Bikeway Plan (2012)	Makes strategic recommendations for walking and bicycling in the City of Norwalk
	Connectivity Plan (2012)	Provides a planning framework for a safer and more efficient pedestrian, bicycle, car, and transit-friendly environment to transform the various segmented areas in Norwalk's core into one vibrant Downtown with a denser urban center.
	Citywide Plan (POCD) (2019)	Support investment in new bicycle and walking facilities equitably distributed throughout the city; Provide roads that serve the needs of Norwalk residents and commerce, and that facilitate safe and convenient access to transit, bicycle facilities, and pedestrian facilities; Make multimodal

		transportation a high priority by promoting pedestrian access, bicycle use, and transit options within Norwalk and to surrounding communities; Expand Norwalk's pedestrian and bicycle networks.
Redding	Redding POCD (2020)	Plan and support pedestrian paths, bikeways and greenways for non-motorized travel wherever feasible; Research and document roads with special character or need for protection, including roads with outstanding scenic qualities, roads long unused and eligible for discontinuance (including the possibility of their retained use for passive recreation or other minor use), and roads suitable or desirable for roadside pedestrian paths or bikeways.
	Greater Danbury Regional Bike Plan (2015)	Complete a study of roads suitable or desirable for roadside multi-use paths. "Redding Mile" segment of the NRVF is funded from 2019 DEEP Trails funds.
Ridgefield	POCD (2020)	Consider adopting a "complete streets" policy in Ridgefield. Seek to enhance and expand the trail network in Ridgefield including the Branchville Rail Trail and Norwalk River Valley Trail. Prepare and share maps of on-road and off-road bicycle facilities. Investigate ways to create a system of signs and/or pavement markings to identify appropriate on-road and off-road bicycle routes. Seek to enhance bicycle connections from the Branchville train station to other parts of Ridgefield. Encourage new development and redevelopment to provide bicycle amenities. Support accommodations and improvements which will enhance bicycle use in Ridgefield (on-road and off-road).
	Greater Danbury Regional Bike Plan (2015)	Implement recommendations of the town Bicycle Trail Study; The Ridgefield Rail Trail runs 2.3 miles from downtown Ridgefield to Branchville
Sherman	Greater Danbury Regional Bike Plan (2015)	Identify areas where multiuse trails between proximate dead-end roads would be feasible. Study feasibility of a multiuse trail between Town Center and Volunteer Park along Rt 39.
	POCD (2013)	Greenways and trails, particularly in areas of significant or unique geologic or biologic interest, are as important to people as they are to wildlife. To promote outdoor enjoyment, gaps in individual trails or between pieces of the State's trail network should be filled.
Stamford	Bicycle and Pedestrian Plan (2019)	Minor and Major Improvements proposed for the road network to accommodate bicyclists – primarily in the southern half of Stamford.
	Route 1 Greenwich – Stamford Study (2011)	Route 1 bicycle lanes would provide a connection to the existing bicycle lanes on Sound Beach Avenue and the trails in Stamford's Mill River Greenway
	POCD (2014)	Fund and create a City-wide bicycle and pedestrian plan [done]

		<p>Adopt a Complete Streets ordinance [done]</p> <p>Establish clearly delineated bicycle route(s) between Downtown and the South End</p> <p>Encourage the use of the National Association of City Transportation Officials' (NACTO) Urban Street Design Guide where appropriate</p>
Weston	POCD (2020)	<p>Increase pedestrian and bicycle connectivity to enhance quality of life:</p> <p>The desire for biking on Routes 53 and 57 and Valley Forge Road was expressed at the Plan workshops. This may warrant the committee of biking stakeholders further exploring options and recommendations for these ideas.</p>
Westport	POCD (2017)	<p>Improve Facilities for BICYCLES</p> <p>Create a better bicycle system throughout Westport.</p> <p>Deploy signage and pavement markings as appropriate to inform vehicles and drivers about bicycle usage.</p> <p>Continue to make better provisions for cycling (bike lane, shared right-of-way, and other approaches) where possible.</p> <p>Consider the need for bicycle facilities (racks, lockers, etc.) at the train stations, business locations, or elsewhere.</p>
Wilton	POCD (2019)	<p>Improve bike and pedestrian connections along Danbury Road and Route 57 that connect to the Branchville TOD area and Main Street (Redding)</p> <p>Improve bike and pedestrian linkages throughout Wilton, especially connecting neighborhoods to Wilton Center/ villages and other commercial areas, schools, active and passive recreation areas and the NRV</p> <p>Significant progress has been made in planning and building the NRV over the last five years. Additional opportunities exist to better integrate the trail by building bicycle and pedestrian connections to the surrounding neighborhoods.</p> <p>Improve bike/pedestrian connections to Wilton Center (consider appropriate connections during Master Planning process as discussed above)</p> <p>In any major road reconstruction project, consider opportunities for bike lanes, sidewalks and other pedestrian/bike improvements</p>

Appendix F: Connecticut Statewide Transportation Study

Selected results of the [CT Statewide Household Transportation Survey \(2017\)](#)

Statewide Results

In the weighted analysis, driving trips comprise approximately 82.8 percent of the total trips in the statewide dataset. These trips can be split further in the following manner: 48.2 percent of trips are made by Single Occupant Vehicle (SOV) mode, with the remaining 34.6 percent of trips involve some form of carpooling. Walk/bike is the next most popular mode accounting for 9.2 percent of all trips. Public transit serves 3.2 percent of all weekday trips in Connecticut.

SOV is the most popular mode for all types of trips except for school trips and escorting trips. 76.5 percent of work trips are made by SOV mode. About 50 percent of shopping, personal business and home trips are made by SOV mode as well. 28.4 percent of school trips are made by family carpool and 27.6 percent are made using school bus.

Western Connecticut Results

Slightly more trips are taken by SOV in western Connecticut than in the rest of the state and the rate of walking and biking in the region is almost two percentage points lower in western Connecticut than is average for the rest of the state. Data segmented out for WestCOG can be found in the images below, taken from a project handout (see Endnote ⁱⁱ).

What is the Connecticut Statewide Transportation Study?

The study collected information on average daily travel behavior of representative group of residents in the state of Connecticut including how they travel, where they go, why they travel, and how long it takes. Additionally, the study collected household and person level demographic information.

How are the statistics compiled?

The statistics were generated using travel survey data from the 2016 Connecticut Statewide Transportation Study. All statistics reported are based on weighting analysis to match characteristics of CT residents from the 2009-2013 American Community Survey.

What else should I know about the statistics reported?

Where appropriate, imputed, or logically estimated, values are utilized to supplement the collected data from the survey. As with any survey, the statistics are subject to error and bias.

How can I learn more about the study?

Please visit:
ct.gov/dot/cwp/view.asp?a=1383&Q=586922
for more information.

CONNECTICUT STATEWIDE TRANSPORTATION STUDY

CT Household Transportation Study
Western CT COG Statistics



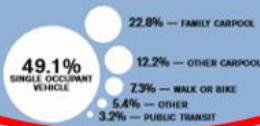
Key Travel Characteristics

How many trips do CT Residents make on an average weekday?

Total individual trips made is about 2.0 million. These are made by nearly 0.6 million CT residents residing in 0.2 million households.



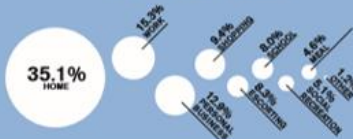
How do they travel?



How long do they travel for?



Why do they travel?



Key Household Characteristics

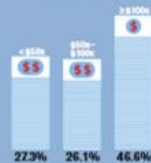
What is the composition of households?



What is the profile of vehicle ownership?



What is the distribution of household income?

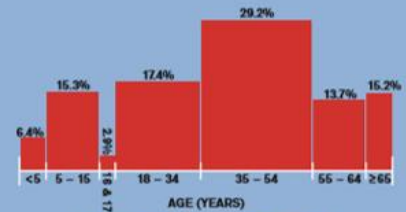


What are the different housing types?



Key Person Characteristics

What is the age distribution of residents?



What is the gender profile?

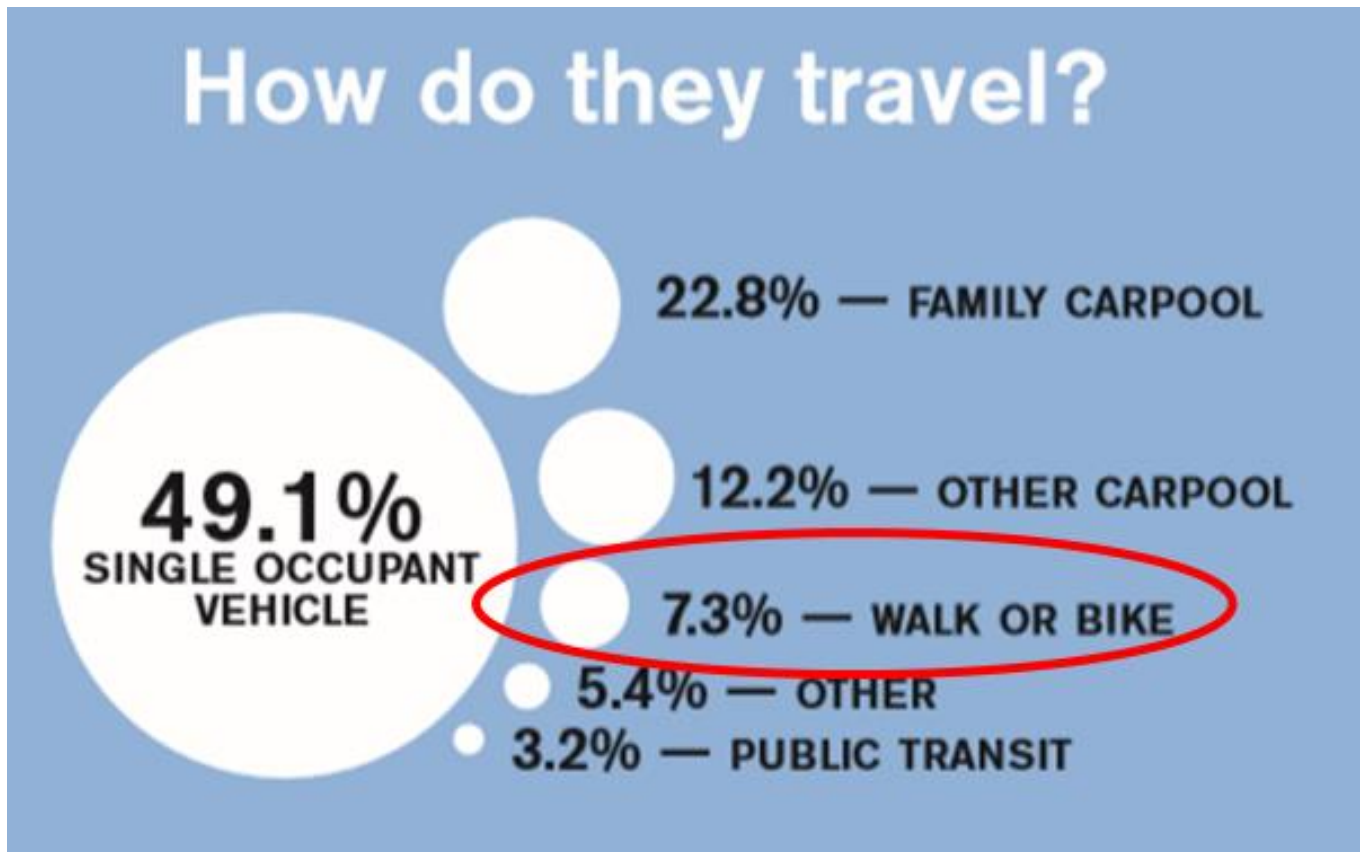


What is the distribution of employment status?



What is the distribution of driver's license status?





Appendix G: Western Connecticut Bicycle Survey

Overview

Below is a summary of a survey that was circulated to better understand the current needs and opportunities to improve bicycling in western Connecticut. The results of this survey were reviewed to help inform the strategies and goals of this Plan. The survey responses included in this appendix are the opinions of the survey respondents and do not necessarily reflect the official views or policies of the Western Connecticut Council of Governments.

Survey Instrument

The Western Connecticut Council of Governments would like your input on bicycling in the region. **It will take 5-10 minutes.**

Your responses will help guide transportation recommendations that improve bicycle safety and accessibility. If you would like to be entered into a raffle for one of three \$25 Amazon Gift cards, please answer all questions and provide your contact information at the end. Your contact information will not be used for any other purpose, and your **responses to the survey will remain anonymous.**

There are 13 questions in this survey.

-
- Q1. What is your home Zip Code? (This question is mandatory)
 - Q2. Please provide the names of the TWO streets that intersect close to your home.

Example: Main Street & Elm Street

Q3. I ride a bicycle for the following reasons - ***please select all that apply:***

(This question is mandatory)

- ☐ I don't ride a bicycle
- ☐ It's my primary form of transportation
- ☐ Shopping
- ☐ Travel to work
- ☐ Travel to school
- ☐ Exercise
- ☐ Recreation
- ☐ Other:

Q4. Do you ride a bicycle on roads, or do you ride on trails?

Check all that apply

- ☐ Roads
- ☐ Paved Trails
- ☐ Unpaved Trails

Q5. During the time(s) of year you ride a bicycle, how much do you ride?

- ☐ less than once/week
- ☐ once or twice/week
- ☐ 3 to 4 times/week
- ☐ 5 or more times/week

Q6. On average, how far do you ride your bicycle in a week?

- ☐ A mile (10-20 minutes or less)
- ☐ 5 miles (50-60 minutes or less)
- ☐ 5-10 miles (more than 50 minutes)
- ☐ 11-20 miles (1-2 hours)
- ☐ 21-50 miles (2-5 hours)
- ☐ 50 miles (5 hours or more)

Q7. What would encourage you to ride a bicycle (or to ride more)?

	Not Important	Somewhat Important	Very Important
Having a bicycle (I don't have one currently)			
Easy access to a direct route			
Safe bicycle routes			
More off-road bicycle routes			

More destinations (grocery store, job, shops, school, park, transit station) close by			
Good bicycle parking at my destination			
Having the ability to safely carry packages, children, etc.			
Knowing how to ride a bicycle			
Feeling confident or comfortable on a bicycle			
Better signage, information, or maps showing where to ride			
Availability of group bicycle rides			
Maintenance for my bicycle			

Q8. What factors should be used to prioritize bicycle improvement projects?

[Please rank your top 3 answers. All your answers must be different, and you must rank in order. Double-click or drag-and-drop items in the left list to move them to the right - your highest ranking item should be on the top right, moving through to your lowest ranking item.]

1. More on-road bicycle routes
2. More off-road bicycle routes
3. Improvements to areas where crashes have occurred
4. A more connected network of bicycling routes
5. Improved connections to shopping, restaurants and other destinations
6. Improved bicycle access to buses and trains - and allowing bikes on board
7. Provide bicycle parking and other amenities at destinations

First Priority (provide number from list above) _____

Second Priority (provide number from list above) _____

Third Priority (provide number from list above) _____

Q9. I have one or more school-aged children living in this region who don't ride a bicycle to school because (select all that apply):

- ☐ Not applicable
- ☐ Our school district requires busing
- ☐ They have no interest in bicycling
- ☐ They don't have a bicycle
- ☐ They are not skilled enough on a bicycle
- ☐ Concerns about road/traffic safety
- ☐ Other safety concerns
- ☐ We live too far from school

Q10. Is there anything else that would encourage you or your family members to ride a bicycle (or ride more) that was not mentioned? If so, please explain:

Q11. What is your age?

- ☐ Younger than 18
- ☐ 18-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55-64
- ☐ 65+

Q12. What best describes your gender?

[Choose one of the following answers]

- ☐ Female
 - ☐ Male
 - ☐ Prefer not to say
 - ☐ Prefer to self-describe _____
 - ☐ No answer
-

Endnotes

-
- ⁱ [Route 1 Greenwich – Stamford Study](#) (2011)
[Norwalk Connectivity Plan](#) (2012)
[Norwalk's Pedestrian & Bikeway Transportation Plan](#) (2012)
[South Western Regional Planning Authority Bicycle – Pedestrian Safety Corridors Study](#) (2012)
[Darien Route 1 Corridor Study](#) (2012)
[Southwestern Region Bicycle and Pedestrian Plan](#) (2013)
[New Milford Transportation Mgt Plan](#) (2013)
[New Milford River Trail Alignment Study & Preliminary Engineering Report](#) (2018)
[Southwestern Region Route 1 Corridor Study](#) (2013)
[Greater Danbury Regional Bike Plan](#) (2015)
[Stamford Bicycle and Pedestrian Plan](#) (2019)
[Connecticut \(Statewide\) Active Transportation Plan](#) (2019)
[HVMPO and SWRMPO Long Range Transportation Plan](#) (2019)
Connecticut DOT Community Connectivity Program Route 1 Road Safety Audits in [Darien](#), [Greenwich](#), [Norwalk](#), [Stamford](#), [Westport](#)
[Connecticut DOT Community Connectivity Program Road Safety Audits](#) in Bridgewater, Brookfield, Danbury, New Fairfield, New Milford, Norwalk, Greenwich, Ridgefield, Stamford, Weston, and Westport
- ⁱⁱ Bicycle Retailer and Industry News, “This Could Be The Start of Bike Boom 2020”, 19 March 2020
<https://www.bicycleretailer.com/opinion-analysis/2020/03/19/heather-mason-could-be-start-bike-boom-2020#.XrAxqW5FxPY>
- ⁱⁱⁱ World Resources Institute, “Biking Provides a Critical Lifeline During the Coronavirus Crisis” 17 April 2020
- ^{iv} “Outdoor Participation Report” The Outdoor Foundation (2013) – as referenced in [this presentation](#) by Bruce Donald for the 2016 CT ASLA Conference
- ^v [Economic and Fiscal Impact Analysis on of the Vermont Trails and Greenway Council Member Organizations \(2016\)](#)
- ^{vi} Gunther, P., Parr, K. E., Graziano, M., & Carstensen, F. V. (2011). The Economic Impact of State Parks, Forests and Natural Resources under the Management of (Connecticut) Department of Environmental Protection. Connecticut Center for Economic Analysis (CCEA) University of Connecticut, p. 17. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2195058. Adapted from Pathway to Revitalization Economic Impacts of Phased Completion of the Naugatuck River Greenway, March 2017, prepared by the Naugatuck Valley Council of Governments (NVCOG) in partnership with the University of Connecticut College of Agriculture, Health and Natural Resources Department of Extension and The Connecticut Center of Economic Analysis.
- ^{vii} Pathway to Revitalization, p. 45.
- ^{viii} City of Stamford, CT: Stamford Bicycle and Pedestrian Plan (2019), p. 6-4.
- ^{ix} The Housatonic Rail Trail / Pequonnock River Rail Trail currently ends in Newtown at Swamp Road, near the border with Monroe
- ^x Rails to Trails Conservancy, [E-Bikes on the Trail https://www.railstotrails.org/resourcehandler.ashx?id=11762](https://www.railstotrails.org/resourcehandler.ashx?id=11762)
- ^{xi} Stamford Bicycle and Pedestrian Plan, p. 11.3.
- ^{xii} [Noroton Heights Station Area Study, Western CT Council of Governments, October 2018](#)
- ^{xiii} [FHWA Bike Network Mapping Idea Book \(2016\)](#)