

Active Transportation

2.1 Active Transportation Discussion

As part of the outreach to the community as a whole, there was a significant discussion about the need for active transportation solutions to be integrated into the framework of the City’s Transportation Plan. While not intended to be either more or less important than the addressing of motorized transportation throughout the City, the following section discusses the trends in active transportation at a National and local level and offers insight on many of the City’s neighborhoods and areas.

2.1.1 Active Transportation Perspective

In recent decades, Norwalk has done what many other communities throughout the country have done: made walking and active transportation unnatural, difficult and unsafe. Structural changes to the built environment were made to favor the car over other forms of getting to and from the places we like and need to go. This was done in many ways: with building placement and orientation (strip malls versus urban forms), parking incentives, street designs, school placement and more.

As a result, Norwalk – like the nation – has seen declines in public health, social engagement, social involvement and access to healthy lifestyles. Fewer children get to school on their own. Many older residents are finding that living “in place” limits them, but they do not want to move. More and more people are growing weary of spending significant time in the car. And many people in Norwalk are objecting to how fast cars are traveling through their neighborhoods, a phenomenon that further limits walking and bicycling.

But times are changing. Young people are taking up driving later in life. Baby boomers – who make up a large segment of the population and are at particular risk during crashes – are gaining new interest in transportation options. Many new immigrants prefer not to drive, or find that it is unaffordable. Costs of driving are going up. Indeed, many demographic shifts are now favoring a growth in walking, bicycling and transit. Nationwide, 80 percent of Americans say they want to live in places where they can walk



more. This is a major shift in thinking. But is Norwalk's built environment friendly to this change?

Sidewalks

The most common Norwalk sidewalks are built too narrow, often with utility poles, signal control boxes, and other utilities obstructing travel. Many sidewalks have driveway ramps that are too steep for crossing level surfaces, and inadequate care is taken to provide good or maintained environments near many bus stops. Many other sidewalks are in ill repair, and need to be replaced. It will take time to correct these and other problems and build sidewalks that support active living, but it must be done. Pedestrians are the lifeblood of a community, and their needs must be met. Here are important sidewalk principles:

- ◆ The pedestrian environment should be safe, inviting and accessible to people of all ages and physical abilities. It should connect people to places and be easy to understand.
- ◆ All sidewalks should adhere to Americans with Disability Act (ADA) standards.
- ◆ Driveway aprons should be confined to the Furniture and Curb Zones.
- ◆ Landscaped buffers or fences should separate sidewalks from parking.
- ◆ Sidewalk surfaces should be stable, firm, smooth, and slip-resistant.
- ◆ Pedestrian and driver sight distances should be maintained near driveways.
- ◆ Regulations regarding walls, fencing and foliage near the intersection of sidewalks and driveways should ensure adequate sight distance as vehicles enter or exit.
- ◆ Road widths, and vehicle speeds are of paramount interest to people walking and bicycling. As speeds increase yielding behavior, and even motorist awareness of people outside of the car drops significantly.



Top Photo: East Norwalk's Calf Pasture Beach Road has wide travel lanes, but narrow (4-foot maintained) sidewalks. Pedestrians feel uncomfortable when forced this close to traffic. Bottom photo: Utility poles placed at the back of the R-O-W would not create such significant barriers. These pole placements will be problematic until new development or other opportunities arise.



- ◆ Intersection widths and complexity. Wide intersections not only create significant delays for pedestrians, they may discourage them from walking across streets altogether.

Edges and buffers

People on foot are most comfortable when adequate buffers are created, both to separate them from moving traffic, and toward buildings or open parking lots. In most locations sidewalks are attached to curbs, creating an immediate sense of danger and discomfort. New sidewalk installations should be set back, and planter strips or other buffers offered. Planter strips often include ground cover, rows of trees and other horizontal and vertical separation.

Driveways

Driveways are a danger to pedestrians and to bicyclists. The wider the entry and the higher the speed of entry or exit, the greater the risk involved. Norwalk has many driveways that allow too-fast entries and exits. Driveways should be designed to leave the impression on motorists that they are the intruders, so that they are on alert and expect people on foot.

Parking lots

Parking lots that lack landscape materials, especially between sidewalks and parking areas, create high levels of discomfort. Cities that support walking require attractive physical separation. This can include a low wall, plant materials, and rows of trees or other treatments. Many town codes now call for a minimum of 15% of parking lots be dedicated to green, shade, rain gardens or other ways to minimize the visual impacts of large parking areas. This is important in all parts of a community, but vital in urban areas.



Left Photo: U.S. Route 1. A new sidewalk, perhaps provided by the property owner, is adequate, but the median island, then a lack of sidewalk continuity forces the pedestrian into both the driveway and the street. Right Photo: Norwalk's East Avenue was photographed from the transit station, and competes for one of the poorest defined walkways near any transit line.



Guardrails and barrier walls

People on foot feel uncomfortable with guardrail to the interior of their walk. They prefer that guardrail separate them from vehicular danger. Engineers have more leeway of where guardrail is placed in rural, low walking areas, but in urban and suburban places, guard rail belongs close to roadway edges. Although “end conditions” at intersections create conflicts, and Norwalk’s urban and suburban locations have some intersections, these are few, and speeds should be brought under control to address potential concerns.

Merritt 7 is just one area in Norwalk where the guardrail has been placed at the back of sidewalk. This is a significant comfort and safety issue for people walking or bicycling. The other image shows the proper way to place guard rail so that all members of the public are provided the comfort and safety that they require. The alternative solution is to never place guardrail in urban areas, but to do so would require operating speeds to be set at 25 mph, or lower. In the lower photo note the use of 3" pipe to protect bicyclists from the sharp side of the adjacent guardrail.



Two- and three-lane roadway sections: non-signalized intersections

Many of Norwalk’s non-signalized intersections have adequate or excellent marked crossings. Meanwhile, many neighborhoods we studied lacked marked and signed crossings at important locations. Additional guidelines and consideration should be given to needed placements. Priorities should go to school routes, transit, medical clinics, commercial areas, and parks. When traffic volumes become heavy (3,000 vehicles per day or higher) consideration should be given to the placement of crossing islands. This practice is needed where speeds are above 30 mph, or where sight distances are poor.

In some locations crossing islands also help control the turning movements of motorists, helping bring down their speeds to appropriate levels for the neighborhood.



A variety of materials and applications can be given to pavement markings. Most important is the use of materials and practices that keep markings visible.

Effective night lighting is a priority for crossing areas. Most effective is lighting placed on the island, or near the island to create strong silhouettes of people preparing to cross. If motorists' speeds exceed 25 mph, and yielding rates are not acceptable, then added signing and markings should be considered. Crossing islands benefit from low ground cover and tall vertical trees, which make identification of islands easy for motorists, and which has the effect of reducing their speeds hundreds of feet before the actual crossing.

Two-and three-lane roadway sections: signalized intersections

Norwalk's signalized intersections are reasonably compact, but sometimes lack basic amenities, such as well-marked crosswalks. Each intersection will need to be evaluated for opportunities, and this can come with a future pedestrian master planning effort. Some of those active transportation qualities that should be evaluated for each 2-3 lane intersection include:

- ◆ high emphasis crosswalk marking on all legs of the intersection
- ◆ two curb ramps per corner (whenever possible)





- ◆ countdown pedestrian signals
- ◆ automated recall to walk on each phase (whenever possible)
- ◆ recall to walk when pedestrian arrives at intersection and there is sufficient time to be introduced to the cycle
- ◆ pedestrian lead interval (pedestrian is released before turning motorists)
- ◆ rebuild as a roundabout, especially if a roadway widening is being considered
- ◆ curb extensions, to inset parking and shorten crossing times and distances
- ◆ median crossing islands (especially on side streets)
- ◆ Post-mounted signals on each corner. This helps motorists to look where they should be looking, to better detect their gaps in traffic and the pedestrian at the same time. It also offers a correct location for push buttons for street crossings.

***Multiple-lane roadways
(four to nine lanes):
signalized intersections***

Norwalk's complex four- to nine-lane signalized intersections, such as at Broad Street, pose even more challenges to people on foot or on bike. In general, large intersections in Norwalk have turning speeds that are too high, and often lack modern traffic controls that make it easy for motorists and pedestrians to see one another. Burlington, Vermont has many excellent working examples of modern complex intersections, especially on University Avenue. Some of those active transportation qualities that should be evaluated for each 4- to 9-lane intersection include:

- ◆ High-emphasis crosswalk marking on all legs of the intersection
- ◆ Two curb ramps per corner
- ◆ Countdown pedestrian signals
- ◆ Automated recall to walk on each phase (whenever possible)





- ◆ Recall to walk when pedestrian arrives at intersection and there is sufficient time to be introduced to the cycle
- ◆ Pedestrian lead interval (pedestrian is released before turning motorists)
- ◆ Curb extensions, to inset parking and shorten crossing times and distances
- ◆ Median crossing islands
- ◆ Post-mounted signals on each corner. This helps motorists look where they should be looking, to better detect their gaps in traffic and the pedestrian at the same time. It also offers a correct location for push buttons for street crossings.



East Norwalk's Park Street has wide travel lanes, but narrow (4.0 foot maintained) sidewalks. Pedestrians feel uncomfortable when forced this close to traffic. Center photo: Utility poles placed at the back of the R-O-W would not create such significant barriers. These pole placements will be problematic until new development or other opportunities arise. Bottom photo: U.S. Route 1. A new sidewalk, perhaps provided by the property owner, is adequate, but the median island, then a lack of sidewalk continuity force the pedestrian into both the driveway and the street.

Other crossings

Crossing a street should not be difficult. The experience comes down to the behavior of the person walking and the person driving, combined with the design of the intersection or crossing. A variety of factors influence whether a person driving will stop for a person attempting to cross the street, including vehicle speed. A driver going slowly has time to see, react to and stop for the pedestrian. The number of pedestrians present also influences drivers: in general, more people walking raises drivers' awareness of the likelihood of pedestrians crossing the street.

- ◆ Crossings should be well marked, and all legs of an intersection should provide crossing support (some limited exceptions).
- ◆ All crossing areas should be well lit
- ◆ All crossing areas should provide a minimum of 6 seconds of "discovery time" by approaching motorists.



- ◆ Although midblock crossings are necessary depending on context, they should be discouraged if possible as they tend to violate driver expectancy. If required, guidelines should be followed to ensure pedestrian safety. Midblock crossings are generally not permitted on State roadways.

Effective traffic management can address concerns about traffic speed and volume. Most tools addressing crossing challenges are engineering treatments, but tools from the enforcement, education, and planning toolboxes are also important in developing effective and successful crossings.

Providing marked crosswalks is only one of the many possible engineering measures. Thus, when considering how to provide safer convenient crossings for pedestrians, the question should not simply be: "Should we provide a marked crosswalk or not?" but instead, "What are the most effective measures that can be used to help people cross this street safely and conveniently?" Deciding where to mark or not mark crosswalks is only one consideration in meeting the objective to create safe pedestrian crossings.

Bikeways

People riding bikes should have safe, convenient and comfortable access to all destinations. In fact, every street is a bicycle street, regardless of whether it includes a designated bikeway or trail or not. Street designs should accommodate all types, levels and ages of bicyclists. Also, bicyclists should be separated from pedestrians.

Bikeway facilities should take into account vehicle speeds and volumes. For example, on streets with low vehicle volumes and low vehicle speeds, the travel lanes can be shared between bicyclists and motorists. Where higher vehicles volumes and speeds are present, the two types of street users should be separated.

Overall, bikeway treatments should provide clear guidance to enhance the safety for all roadway users. Bike lanes are needed most on higher speed and higher volume roadways. In urban areas, the addition of bike lanes is one of the greatest new safety benefits for all roadway users, and especially for motorists, buses and freight. There are 22 benefits of bike lanes



When bicyclists are seen riding on commercial sidewalks it is a sign that riders perceive the streets to have fast moving or unfriendly traffic. A system of quality on-road treatments, and lower speed traffic, will make bicycling, walking and motoring more comfortable for all. Bottom photo: Low speed traffic will meet the needs of some bicyclists, while separate trails may be more comfortable for others.





and paved shoulders, and only 2 are specifically for bicyclists. Bike lanes add more turning radius for getting into and out of a roadway, they add more sight distance to all vehicles, they serve as a temporary breakdown lane, help motorists get into and out of parked cars, assist with mail deliveries, emergency response and many other uses. As a general rule, when bike lanes are added to principal roadways, a full five-foot bike lane is needed. When parking is used, the needed width increases to a minimum of 13 feet. In such a placement it is suggested that the parking "tics" or lines be kept to a depth of six feet, and the bike lane be placed as seven feet.

Bike lanes

Bike lanes in Norwalk are limited to only a few locations presently. There is ample opportunity to add many additional bike lanes or paved shoulders. There are a number of paved shoulders in Norwalk, which may one day be considered part of a connected system. At such a time signs and stencils can be applied.

Bike trails

Bike lanes in Norwalk are limited to only a few locations presently. There is ample opportunity to add many trails.

Sharrow lanes

Norwalk has many lanes that are too narrow, or inappropriate for bike lanes. The use of a Sharrow marking delivers the message that bicycles are anticipated and that they are to slow down and only pass when safe to do so. Sharrows are appropriate for many categories of 2-lane and multiple lane roadways.

Green sharrow lanes

Special shared lanes are possible on some of those lower speed multi-lane



commercial streets with good signal saturation or other conditions where speeds should be kept low. This Belmont Shore treatment in Long Beach is producing outstanding results, keeping cycling off of sidewalks, and mixed into a proper blend of 10-15 mph traffic. This road handles 38,000 vpd.

Bike parking

Bike parking should be provided on every block in popular destination locations. By organizing parking in areas of highest security, and out of walkways, bicycling becomes noticeable and a supported part of the transport system. Small scale (as shown) racks are often the most appropriate. They take up less space and provide greater convenience and watchfulness.

2.1.2 Specific Pedestrian/Bicycle Actions

The following is a summary of specific locations that repeatedly came up in the public outreach discussions about pedestrian and bicycle needs.

2.1.2.1 Strawberry Hill Avenue

This one-mile stretch from the I-95 to Norwalk High School includes a long climb, a crest and a descent. Sidewalks are on most parts of both sides of the street. Four separate schools are concentrated here, including the high school. Tierney joins at a very wide, skewed T-intersection. The west side of Strawberry Hill has attached sidewalks, but most sections are continuous. The east side has detached sidewalks, but some sections have no sidewalks, and the sidewalks are generally narrow.

Speed and Volume of Traffic

- ◆ Speeds and volume of traffic is moderate.
- ◆ Most sections of this two-lane road are 32 feet wide, from curb to curb.
- ◆ Curb radii on most streets are too wide, creating crossings 50 to 80 feet across.

Connectivity

- ◆ Sidewalks are continuous for most sections.
- ◆ Some sections on the east side have no sidewalks, and are generally narrow.
- ◆ Sidewalks are largely in fair to poor condition. Some are being replaced.

Access and Destinations

- ◆ Four schools are in the area, along with parks, retail and work centers within a mile.
- ◆ Four separate schools are concentrated here, including the high school.



Density and Demographics

- ◆ This neighborhood has a rich mix of single family homes and nearby apartments, making it a desirable place to emphasize walking and bicycling.

Safety

- ◆ Potential safety issues include the lack of adequate crossings, and relatively high speeds for an area that should have many children accessing their schools.
- ◆ The only crosswalk at Tierney Street is 101 feet across with a crossing island near the middle.
- ◆ There are no crosswalks of Strawberry Hill Avenue, except for a set at the Nathan Hale Middle School, and a poorly located mid-block crossing. Curb radii on most streets are generous, creating crossings from 50 to 80 feet.

Opportunities

Short term

- ◆ Provide a “climbing” bike lane on both of the two grades, then provide bike lanes on both sides for more level terrain.



- ◆ Apply 10- to 12-inch wide edge stripes the length of the corridor.
- ◆ Conduct an engineering study for the entire corridor, and place additional crossings where needed.
- ◆ Complete sidewalk gaps.
- ◆ Complete all ADA ramps.
- ◆ Use both sides of sign poles to “Double sign” all crossings, putting signs on both sides of an approaching driver’s field of vision. When crossing islands are used, this can include “triple signing.”

Mid and long term

- ◆ Place medians on overly wide streets, those that are 34 feet across or wider.
- ◆ Plant trees along roadways to create a “vertical wall,” which helps to calm traffic and reduce speeds.
- ◆ Colorize turn lanes and bike lanes.
- ◆ Reduce vehicle travel lanes to 10 feet wide.



2.1.2.2 Silvermine Road and other Rural Roads

Silvermine Road and the greater area that includes Musket Ridge Road and Old Kings Highway were chosen for their rural character and challenges. Roads are narrow, hilly and have numerous curves and other sight restrictions. People are found walking in the street. Density is very light. Some very narrow paved trails have been placed in this and similar neighborhoods, providing a near-woods walking experience.

Speed and Volume of Traffic

- ◆ Speeds and volume are moderate in most places, but in some areas vehicles travel too fast for conditions, such as driveways with poor sight lines, people accessing their mail, walking or bicycling.

Connectivity

- ◆ Sidewalks and trails are lacking through most of the area. Many of those that do exist are far too narrow – about two feet wide. Sidewalks are continuous for some limited sections.
- ◆ In some areas, people walk in the streets, since brush, drainage, snow and other features prevent any other places to walk.

Access and Destinations

- ◆ Several schools are in the general area
- ◆ Parks, retail and some work centers are within one to two miles

Density and Demographics

- ◆ This area has such light density that most travel is by auto.

Safety

- ◆ The lack of sidewalks and trails presents a safety risk.

Opportunities

Short term

- ◆ Apply 10- to 12-inch wide edge stripes.
- ◆ Reduce travel lanes to 10-foot wide where appropriate. This can be done with edge stripes.
- ◆ Consider testing the possibility of a mini-circle in at least one location, where sight lines are good.
- ◆ Analyze for trails opportunities.
- ◆ Determine if removing the center stripe is appropriate for some areas, and emphasize narrower lanes.

Mid and long term

- ◆ Plant trees along roadways to create a “vertical wall,” which helps to calm traffic and reduce speeds. This is especially important on long sections of road.
- ◆ Add more mini-circles over time, where appropriate.
- ◆ Add medians around important curves where vehicle speeds are high.



2.1.2.3 South Norwalk (SoNo)

South Norwalk (SoNo) a historic and culturally rich neighborhood with a pleasant walking environment. Block forms are reasonably compact. Due to the presence of on street parking on most streets, there are often adequate buffers to moving traffic. A number of intersections are overly wide, and some turning speeds are high. But, overall, this is the best place to walk in Norwalk. Combined with the rail station, this area is a very desirable place to live auto-lite.

Speed and Volume of Traffic

- ◆ Speeds and volumes are moderate.

Connectivity

- ◆ Sidewalks are continuous for most sections.
- ◆ Many sidewalks are new, and most others are well maintained and have adequate widths.

Access and Destinations

- ◆ The areas includes restaurants and bars, the Metro-North Railroad station, the Maritime aquarium, post office, banks and many other commercial uses.

Density and Demographics

- ◆ This is one of the more dense and diverse neighborhoods in Norwalk. There is a mix of housing and income.

Safety

- ◆ Improved crossings and addressing complex intersections will provide greater safety.

Opportunities

Short term

- ◆ Paint in parking lanes
- ◆ Conduct an engineering study for the entire corridor, and place additional crossings where needed.
- ◆ Evaluate a possible roundabout for Washington and Water street intersection.
- ◆ Complete sidewalk gaps and schedule maintenance on those needing repair.
- ◆ Complete all ADA ramps.
- ◆ Use both sides of sign poles to “Double sign” all crossings, putting signs on both sides of an approaching driver’s field of vision. When crossing islands are used, this can include "triple signing."

Mid and long term

- ◆ Plant additional trees.
- ◆ Reduce vehicle travel lanes to 10 feet wide, where appropriate.



2.1.2.4 Highland Avenue

Highland Avenue is an important two-lane north-south connector for the Rowayton and Flax Hill neighborhoods. The street is just over two miles long and links many streets and destinations in the area.

Speed and Volume of Traffic

- ◆ moderate speeds and volumes

Connectivity

- ◆ Sidewalks vary in their condition, but generally are narrow and close to the roadway edge, when they exist. Some areas lack sidewalks altogether.

Access and Destinations

- ◆ Four schools are in the area, along with parks, a library and other centers, including Brookside Elementary, Rowayton School, Roton Middle School, Brian McMahon Middle School and the Rowayton Library.
- ◆ Small retail is in the general area, but not on Highland.

Density and Demographics

- ◆ This area has moderate density, and can produce a number of walking trips with the right infrastructure on the ground.

Safety

- ◆ Potential safety issues include the lack of adequate crossings, and relatively high speeds for an area that should have many children accessing their schools.

Opportunities

Short term

- ◆ Apply 10- to 12-inch-wide edge stripes.
- ◆ Conduct an engineering study for the entire corridor, and place additional crossings where needed.
- ◆ Consider development of a roundabout for Tierney Street.
- ◆ Complete sidewalk gaps and all ADA ramps.
- ◆ Double sign all crossings.

Mid and long term

- ◆ Plant trees along roadways to create a “vertical wall,” which helps to calm traffic and reduce speeds.
- ◆ Place medians in overly wide sections, those that are 34 feet across or wider.

- ◆ Build an elliptical mini-circle at Wilson.
- ◆ Reduce vehicle travel lanes to 10 feet wide, where appropriate.



2.1.2.5 Roton Avenue

Roton Avenue is a two-lane road, about 3,700 feet long, that connects Bayley Beach Park and Pine Point Road with numerous beach residential units, outward to Wilson Avenue. It also connects with the Rowayton retail district. Although volumes and speeds are moderate, they can be reduced to safer levels for walking and bicycling.

Speed and Volume of Traffic

- ◆ Much of this road, south of McKinley, should be considered for a Slow Street, on which vehicle speeds are kept to no more than 20 mph.

Connectivity

- ◆ Most areas lack sidewalks. There is little remaining right-of-way, so placement of sidewalks on even one side of the road could be challenging.

Access and Destinations

- ◆ It connects many residential units, beach destinations, parks and a local school.

Density and Demographics

- ◆ This area has many homes, and thus has high potential for high levels of walking.



Safety

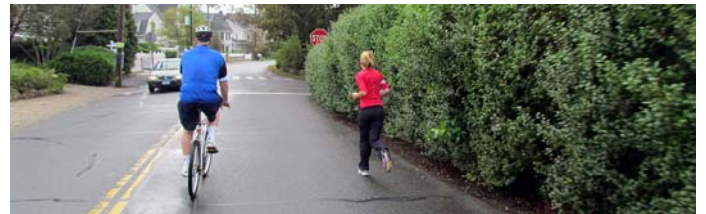
- ◆ Potential safety issues include the lack of adequate crossings, and relatively high speeds for an area that should have slow street conditions. There are many children in the area.



Opportunities

Short term

- ◆ Apply 10- to 12-inch-wide edge stripes.
- ◆ Conduct an engineering study for the entire corridor, and place additional crossings where needed.
- ◆ Fill in sidewalk gaps. Where sidewalks can't be added, keep vehicle speeds low.



- ◆ Use both sides of sign poles to “Double sign” all crossings, putting signs on both sides of an approaching driver’s field of vision. When crossing islands are used, this can include “triple signing.”
- ◆ Build a low-domed mini circle at the intersection with Pine Point Road.
- ◆ Build a low-domed mini circle at the junction with Richmond Road. A raised median may also work in this location, in lieu of a mini circle.

Mid and long term

- ◆ Approach homeowners & neighborhood association about possibly working to acquire right of way in exchange for sidewalks along the corridor.
- ◆ Speed tables can be used with new street crossing locations.
- ◆ A mini circle should be considered for the Sammis Street trail and park connector. This can be a low-domed mini circle.
- ◆ Consider adding “sharrow lanes.”
- ◆ Model McKinley for a roundabout.



2.1.2.6 Rowayton Avenue and Devils Garden Road

Rowayton Avenue runs over 4,500 feet in length as a narrow 2-lane shoreline roadway. Its width varies, but ranges from 20-28 feet. Rowayton connects many shore line homes to a small marine district, retail and entertainment area, as well as small parks, churches and schools. Sidewalks vary, but generally are narrow, attached to the street, and as often as not appear on only one side of the roadway. Some areas have no walkways. Those that have walkways also tend to have numerous driveways. Pedestrians were seen walking in the roadway in most areas. Devils Garden completes an important connector to numerous roads, Bryon McMahon High School and the rail station (Rowayton).

Speed and Volume of Traffic –

- ◆ moderate speeds and volumes

Connectivity –

- ◆ Sidewalks lack continuity for many sections

Access and Destinations –

- ◆ Small schools, parks and limited retail are found in the area.

Density and Demographics –

- ◆ This a moderately dense area, with small lot sizes for the most part.

Safety –

- ◆ Potential safety issues include the lack of adequate crossings, and speeds higher than are comfortable for some areas.

Opportunities

Short term

- ◆ Use wide (10-12" wide) edge stripes the length of the corridor.



- ◆ Remove double yellow stripes where acceptable for Devils Garden.
- ◆ Provide a climbing lane for Devils Garden
- ◆ Conduct an engineering study for the entire corridor, and place additional crossings where needed.
- ◆ Model a raised intersection for McKinley
- ◆ Complete sidewalk gaps
- ◆ Complete all ADA ramps
- ◆ Double sign all crossings

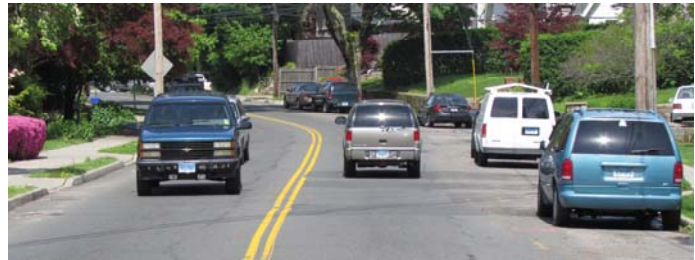
Mid and long term

- ◆ Model a roundabout for County Street
- ◆ Plant trees along roadways to create a “vertical wall,” which helps to calm traffic and reduce speeds.
- ◆ Place medians in overly wide streets, those that are 34 feet across or wider.
- ◆ Reduce travel lane widths to 10 feet



2.1.2.7 Flax Hill Road and Neighborhood

Flax Hill Road is a two-lane roadway with poor walking and bicycling conditions along much of its length of 1.75 miles. Roadway widths mostly vary between 32 and 36 feet, but some sections are as narrow as 28 feet. Sections have old walkways on only one side, and often they are placed at the back of the curb. Center line stripes are used throughout the corridor length. Some intersections, especially side streets, are much wider than necessary.



Speed and Volume of Traffic

- ◆ Moderate to aggressive speeds and volumes were observed

Connectivity

- ◆ Some sidewalk sections are new, with planter strips on both sides.

Access and Destinations

- ◆ Four schools are in the area, along with parks, small retail shops and work centers within a mile. This area has access to the U.S. Route 1 corridor.

Density and Demographics

- ◆ This neighborhood has good density and diversity of populations.

Safety

- ◆ Potential safety issues include the lack of adequate crossings, and relatively high speeds for an area that should have many children accessing their schools.

Opportunities

Short term

- ◆ Apply edge stripes that are 10 to 12 inches wide along the length of the corridor, narrowing traveled portions to no less than 20 feet.

- ◆ Conduct an engineering study for the entire corridor, and place additional crossings where needed.
- ◆ Model a mini-circle for Soundview Avenue.
- ◆ Complete sidewalk gaps.
- ◆ Use both sides of sign poles to “Double sign” all crossings, putting signs on both sides of an approaching driver’s field of vision. When crossing islands are used, this can include “triple signing.”

Mid and long term

- ◆ Model a roundabout for County Street.
- ◆ Plant trees along roadways to create a “vertical wall,” which helps to calm traffic and reduce speeds.
- ◆ Place medians in overly wide streets, those that are 34 feet across or wider.
- ◆ Colorize turn lanes.
- ◆ Complete all ADA ramps.



2.1.2.8 Merritt 7 and Route 7 (Main Avenue and Danbury Road)

This three-mile-long roadway is mostly four lanes, but swells to five lanes at many left turns. Turning radii onto most side streets encourage vehicles to go fast as they turn. Most segments are 50 feet wide and at left turn, expand to 60 feet. Northern sections are 40 feet wide. Despite a number of transit stops, there is only one crossing in the three miles of roadway.

Speed and Volume of Traffic

- ◆ Speeds and volumes are high.

Connectivity

- ◆ Sidewalks are missing for most sections.

Access and Destinations

- ◆ The area has significant employment centers, hotels, residential units, and connectors back into neighborhoods.

Density and Demographics

- ◆ The greater area has moderate densities.

Safety

- ◆ The roadway lacks marked crossings. Other safety issues include high speeds for an area that provides high employment. This is one of the least walkable areas of Norwalk.

Opportunities

Short term

- ◆ Place marked crossings at all transit stops. In some places, it may be wise to relocate transit.
- ◆ Use half signals if transit stops are more than 200 feet from a signalized intersection.
- ◆ Reduce vehicle travel lanes to 11 feet wide, and apply 10- to 12-inch, strong edge stripes.



Mid and long term

- ◆ Rebuild as a true boulevard street.
- ◆ Provide sidewalks with planter strips in all sections.
- ◆ Prioritize areas for rebuild based on local origin/destination studies, but place an emphasis on the portion near the Merritt 7 where there is a higher concentration of services.
- ◆ Provide bike lanes along the corridor length.



2.1.2.9 East Avenue

East Avenue links Seaview Avenue to Park Street and Wall Street. It provides valuable connections to the East Norwalk rail station and I-95 ramps, as well as Norwalk's City Hall. Although major portions are only two lanes, the more northern sections are either three lanes or four lanes. Some crossings exist at signalized intersections, and several are too wide. The Winfield T-intersection, for instance, is 70 feet across and the crossing is only for one side of the street; the remaining legs are left unmarked. Sidewalks vary, but are often narrow and in poor condition. Northern sections have newer and better walkways, and often have planter strips.

Speed and Volume of Traffic

- ◆ Speeds and volumes are moderate. Several signals and other conditions create the potential for speed, though peak hour traffic moderates this speed considerably.

Connectivity

- ◆ Sidewalks are continuous for most sections, but vary widely in their condition. There are numerous missing sidewalk segments, especially in the more southern end.

Access and Destinations

- ◆ East Norwalk rail station, numerous stores, civic services and other commercial nodes make this an important corridor.



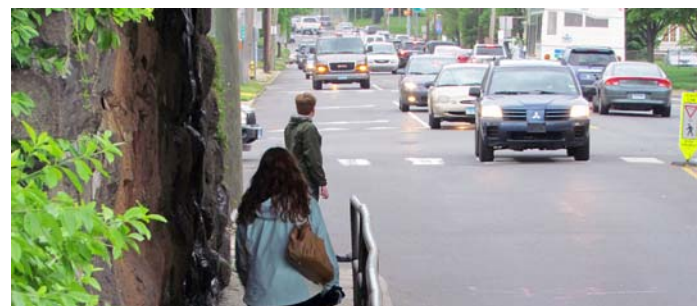
Density and Demographics

- ◆ East Avenue provides services to a mix of people. Land-use densities are good to excellent. Walking can be a featured mode.



Safety

- ◆ Potential safety issues include the lack of adequate crossings, and relatively high speeds for some portions of East Avenue. There are many families in the area, and greater focus



on speed control is essential for high rates of both walking and bicycling

Opportunities

Short term

- ◆ Install crosswalks at all signalized intersections, and conduct an engineering study for placement of additional crossings, especially at transit stops.
- ◆ Use wide (10- to 12-inch-wide) edge or parking stripes for the entire length of the corridor.
- ◆ Model a roundabout for East Avenue at Winfield. Determine the feasibility of bringing Gregory forward for a single roundabout to service both intersections.
- ◆ Complete sidewalk gaps and complete all ADA ramps.

Mid and long term

- ◆ Plant trees along roadways to create a “vertical wall,” which helps to calm traffic and reduce speeds.
- ◆ Place medians in overly wide streets, those that are 34 feet across or wider.
- ◆ Colorize turn lanes.
- ◆ Colorize bike lanes.
- ◆ Reduce vehicle travel lanes to 10-11 feet wide.



2.1.2.10 Soundview Avenue

Soundview Avenue is a curvy, two-lane roadway about 3,400 feet long. It provides access to Brookside Elementary School, many homes and a few small businesses. Generally, sidewalks are missing or exist only on one side of the street. They are often in fair or poor condition.

Turning radii on streets like Michael Street are too wide, creating crossings from 40 to 70 feet wide. Crossings are generally well marked. There is service by Norwalk Transit the length of Soundview Avenue. All portions of Soundview have double yellow center lines. A few portions have on-street parking, but parking is inconsistent.



Speed and Volume of Traffic

- ◆ Speeds are moderate to high and volumes are moderate.

Connectivity

- ◆ There is low connectivity, with few sidewalks, and many that are not ADA accessible, due to driveways, missing ramps and other problems.

Access and Destinations

- ◆ Brookside Elementary is in the area, along with a few small parks, small businesses and other destinations.

Density and Demographics

- ◆ This neighborhood has good density and diversity.

Safety

- ◆ Potential safety issues include the lack of adequate crossings and wide turning radii on side streets.

Opportunities

Short term

- ◆ Place edge stripes to create an 18 foot wide common lane,.
- ◆ Apply 10- to 12-inch-wide edge stripes.
- ◆ Place a mini-circle at Soundview Avenue and Cliff Road. An initial mini-circle can be domed.

Mid and long term

- ◆ Provide a long term mini-circle at Soundview and Cliff Road.
- ◆ Place medians in overly wide streets, those that are 34 feet across or wider.
- ◆ Complete all missing sidewalks.
- ◆ Consider curb extensions as an alternative to mini-circles and crossing islands.



2.1.2.11 Connecticut Avenue (U.S. Route 1)

This two-mile long section of Connecticut Avenue runs from Richards Avenue to Belden Avenue. Major portions have sidewalks on only one side of the roadway, and these sidewalks are often narrow and attached to curbs. The number of driveways creates conflict points for pedestrians. About half of the area is five lanes, while the other half – mostly on the east side - is four lanes. Travel speeds and volumes are high. Crossings are limited, and typically not marked or poorly marked. The area is mostly strip development, much of which is aging and decayed. This route is ready for major reinvestment. Despite the many negatives, there are many crossovers of the parallel I-95 freeway.



Speed and Volume of Traffic

- ◆ Speeds and traffic volumes are high.

Connectivity

- ◆ Major portions have sidewalks on only one side of the roadway, and these sidewalks are often narrow and attached to curbs.

Access and Destinations

- ◆ Several schools are in the area, along with significant shopping, a few parks, and work centers along the corridor.

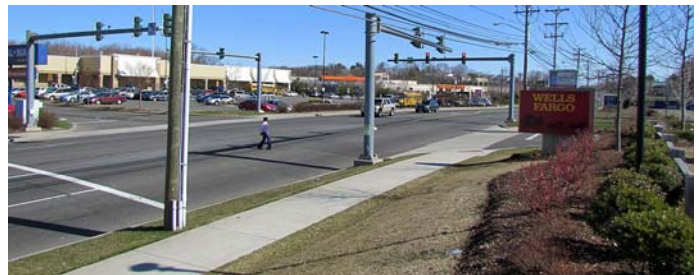
Density and Demographics

- ◆ This corridor supports high densities and diverse populations within an easy walk of the corridor.

Safety

- ◆ High speeds and volumes of traffic, combined with challenges to cross, make this one of the highest crash locations in Norwalk.

Exhibit 1.11. Connecticut Avenue is a well-worn street that poses major problems to people walking and bicycling. Meanwhile, there is promise of building several very attractive villages, which will reduce driving distances, and provide distinct shopping districts.



Opportunities

Short term

- ◆ Provide bike lanes on both sides of all sections of Connecticut.
- ◆ Apply 10- to 12-inch-wide edge stripes.
- ◆ Conduct an engineering study for the entire corridor, and place additional crossings where needed.
- ◆ Complete sidewalk gaps and widen sidewalks to at least five feet where possible.
- ◆ Complete all ADA ramps.
- ◆ Use both sides of sign poles to “Double sign” all crossings, putting signs on both sides of an approaching driver’s field of vision. When crossing islands are used, this can include “triple signing.”

Mid and long term

- ◆ Place crossing islands at each signalized intersection, and select other streets.
- ◆ Plant trees along roadways to create a “vertical wall,” which helps to calm traffic and reduce speeds.
- ◆ Colorize turn lanes.
- ◆ Colorize bike lanes.
- ◆ Reduce vehicle travel lanes to 10 feet wide.



2.1.2.12 Calf Pasture Beach Road

This 3,400-foot-long corridor includes a boulevard, four travel lanes, and sidewalks on each side of the roadway. Sidewalks are mostly narrow, and in some places are very narrow. Pedestrians are forced into the street in too many segments. Some areas for walking are underwater after storms, and bicycling in the four-lane section is uncomfortable. Traffic volumes are low to moderate, and speeds are moderate. Marvin Elementary School, a nearby park, and a destination waterfront and trail link are served by Calf Pasture Beach Roadway.



Speed and Volume of Traffic

- ◆ Speeds are moderate and volumes are moderate to high.



Connectivity

- ◆ Sidewalks are mostly narrow, and in some places are very narrow. Pedestrians are forced into the street in too many segments. Some areas for walking are underwater after storms.
- ◆ Meandering sidewalks do separate from roadway in places which provides for a more aesthetically pleasing walking route.



Access and Destinations

- ◆ A school, a park, and a major beach access are in the area. Stores are missing, but within bicycling range.

Density and Demographics

- ◆ Homes in this area come in at many price points, with town homes, single family and other housing stock.

Safety

- ◆ Potential safety issues include the lack of adequate crossings, speed, moderate to high seasonal traffic volumes, and poor walking and bicycling conditions in places.

Opportunities***Short term***

- ◆ Conduct engineering study (and implement if feasible) shared bicycle lane along corridor from Marvin Street to beach.
- ◆ Apply wide, 10- to 12-inch edge stripes on each side of the bike lanes along the entire corridor.
- ◆ Conduct an engineering study for the entire corridor, and place additional crossings where needed.
- ◆ Complete sidewalk gaps.
- ◆ Complete all ADA ramps.
- ◆ Use both sides of sign poles to “Double sign” all crossings, putting signs on both sides of an approaching driver’s field of vision. When crossing islands are used, this can include “triple signing.”

Mid and long term

- ◆ Address drainage issues that affect walkways.
- ◆ Plant additional trees along the roadway to create a “vertical wall,” which helps to calm traffic and reduce speeds.
- ◆ Colorize bike lanes, as needed.
- ◆ Conduct engineering study to determine if implementing a road diet in the existing right-of-way is feasible. This could be accomplished by removing two vehicle travel lanes and adding a bike lane with parking. Consideration of transit and other corridor needs should be taken into account.



2.1.2.13 Downtown (Main, High and Knight)

Downtown Norwalk is focused around three north-south streets: Main, High and Knight. Each runs about 1,300 feet for a single block. There is insufficient east-west connectivity. Overly wide turning radii at intersections such as Burnell Boulevard (which is an 80-foot crossing) create safety issues for people walking. Considering that this is a one-way, a 5 foot radius on the left side is reasonable. More on-street parking should be installed to not only provide the additional parking spots but also to help visually narrow the overly wide street. In general, streets through downtown are not treating this area as a destination, but largely making it into a pass-through space. There is a lack of pedestrian activity downtown, and it is Norwalk's most significant overlooked opportunity. The area is surviving, but that is about all.



Speed and Volume of Traffic

- ◆ Speeds and volumes are moderate. Vehicles don't regularly yield to pedestrians.

Connectivity

- ◆ Sidewalks are continuous for most sections of the downtown, and many street crossings are manageable.

Access and Destinations

- ◆ Downtown has many destinations including a library, transit hub, work centers, retail shops, and residential units.

Density and Demographics

- ◆ There are many homes within a ten-minute walk of downtown, and there is a variety of housing types.

Safety

- ◆ Potential safety issues include the lack of adequate crossings, and long sections of north-south roads that allow higher speeds than reasonable for a downtown.

Opportunities

Short term

- ◆ Consider returning one-way streets to two-way streets to improve traffic circulation and reduce vehicle speeds.
- ◆ If one-way streets remain, narrow each one to a single lane and add curb extensions that keep crossings and the street openings to no more than 14 feet across.
- ◆ Model a roundabout for Main and North.
- ◆ Model a roundabout for Burnell and Main.
- ◆ Complete sidewalk gaps.
- ◆ Complete all ADA ramps.
- ◆ Use both sides of sign poles to “Double sign” all crossings, putting signs on both sides of an approaching driver’s field of vision. When crossing islands are used, this can include “triple signing.”

Mid and long term

- ◆ Place medians in overly wide streets, those that are 34 feet across or wider.
- ◆ Plant trees along the roadways to create a “vertical wall,” which helps to calm traffic and reduce speeds.
- ◆ Colorize turn lanes.
- ◆ Reduce vehicle travel lanes to 10 feet wide.