

DESIGNING HEALTHY COMMUNITIES



STAMFORD: A Healthy Community Initiative



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Regional Plan Association
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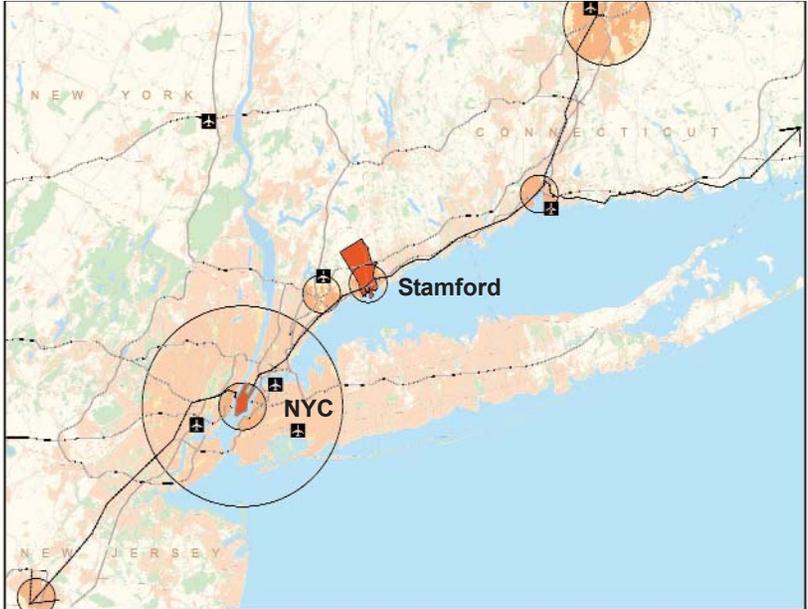
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1 SUMMARY

This Healthy Communities initiative in Stamford, Connecticut, has three primary objectives: to initiate a longitudinal study of the impacts on activity levels of a new strategically located greenway and park design interventions; to raise awareness of health and activity issues in a largely minority and disadvantaged neighborhood in Stamford, Connecticut, that is a typical "first ring suburban neighborhood"; and to build new partnerships between town planning and health professionals. A phone survey of 400 residents was administered in the spring of 2002. Few of the respondents get the recommended 30 minutes of exercise five or more days a week and many have sedentary jobs (5+ hours of sitting a day). About half of the respondents find the West Side to be a walkable environment. Significant numbers indicated that they would walk to the park more often and walk along the Mill River park greenway to get to downtown Stamford or the Transportation Center more often if certain design and programming changes were implemented. This suggests that when the survey is re-administered after the greenway is complete; it may show some impact on activity levels of the design interventions.

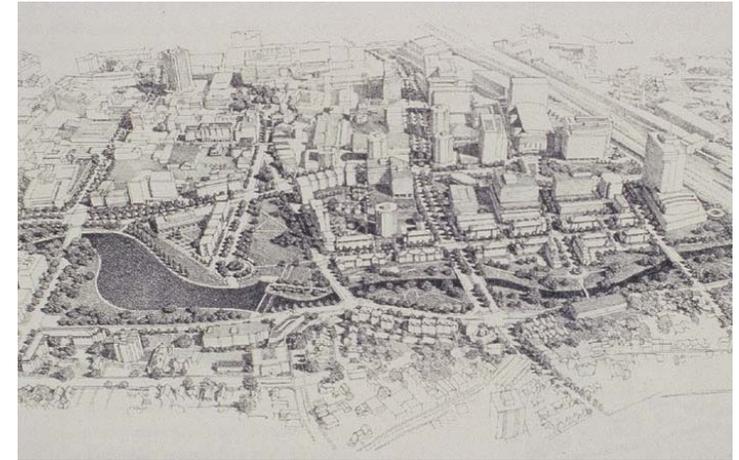


Stamford: Regional location map

2 PROJECT BACKGROUND

A. Purpose and History

The City of Stamford is making a major public investment in the Mill River corridor with the creation of a new park system in the downtown and with the commitment, in the new Master Plan, to a larger greenway network extending from the Merritt Parkway to the South End waterfront. The revitalization plan to improve the Mill River Park provides residents new linkages for bicycles and pedestrians as part of a public health agenda that enables and promotes more active lifestyles as a way of addressing increasing rates of obesity, heart disease and other ailments linked to sedentary living, especially in the disadvantaged and largely minority neighborhoods on the west side. The project will measure activity levels in this neighborhood before and after the greenway as constructed in an attempt to measure the health impacts of community design interventions. Project partners include the Yale-Griffen School of Public Health, The City of Stamford Health Department and other city agencies, and the Connecticut State Department of Health.



Aerial perspective of the proposed Mill River Greenway and downtown Stamford. (Sasaki Associates)

This study has several concurrent goals related products:

- Initiate a longitudinal study to measure the impacts on activity levels of the Mill River Greenway, a new park and greenway project between the West Side neighborhood and the redesigned Mill River Park, Downtown Stamford and the Stamford Transportation Center.
- To better understand the characteristics of the West Side neighborhoods that promote or discourage walking and biking activity.
- To better understand health issues for a largely minority and disadvantaged neighborhood.
- To educated the neighborhood population on health and activity issues.
- To impact the final design of the Mill River Greenway and pedestrian connections to it by using the information garnered from the survey.

- To build new partnerships between health and town planning professionals and advocates.

This project built on RPA's work on the comprehensive revision to the city's Master Plan which supported the Healthy Communities Agenda: promoting transit-friendly development patterns, redesigning roadway corridors for pedestrians and bicycles, creating a pedestrian-friendly downtown and promoting alternative forms of mobility, especially through an extensive greenway network. For this project, a multidisciplinary team was put together that includes transportation planning, urban design, health science (Yale-Griffen Preventative Research Center), city and state departments of health, town planning, and governance.



Neighborhood shopping on Stillwater Avenue.

B. Why the West Side?

The West Side is an excellent laboratory for measuring the relationship between community design and activity levels for several reasons.

First, the West Side community is an at-risk population that can most benefit from the design interventions. Second, it is a well-defined study area with strong if not absolute edges (see discussion of Edges in the Physical Environment section). Third, it is a study area that in terms of its physical characteristics and land use mix is representative of a lot of other "inner ring" suburbs throughout the New York Metropolitan region.

Finally, the principal design intervention - the new Mill River Park and Greenway - is at a strategic location that facilitates a variety of new connections and types of mobility to Downtown (shop, work, recreate), the Transportation Center (journey to work), and the open space activities within the Park itself (recreation). In addition, there are relatively few major connecting corridors from the neighborhood to the Mill River Greenway, enabling a series of targeted questions about the characteristics of those corridors, and suggestions for a series of targeted interventions.

3 HEART DISEASE IN CONNECTICUT & STAMFORD

From a health perspective as well, the West Side is a microcosm of Connecticut. Cardiovascular disease is Connecticut's leading killer and leading cause of hospitalization. Lack of physical activity and obesity - the centerpiece of the Healthy Communities initiative - are represented in Stamford in parallel to the state as a whole.

A. Smoking

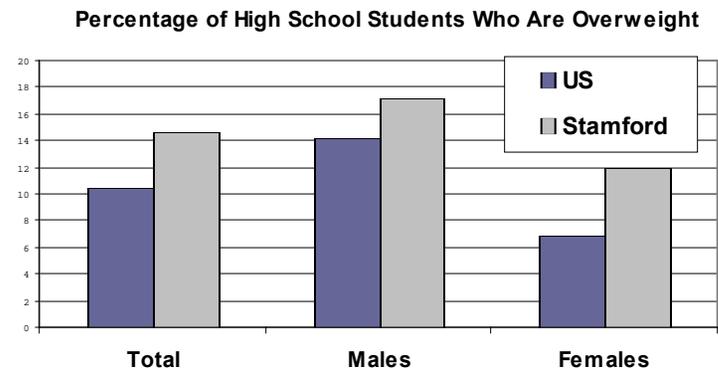
The CVD mortality fraction attributable to cigarette smoking ranges between 7% and 66% depending on the type of CVD. In 1999, cigarette smoking caused 1,733 CVD deaths in Connecticut or about 15% of all CVD deaths. Approximately 1 in 5 Connecticut adults (547,900) smoke cigarettes. In Stamford, 16.6% of residents smoke cigarettes. Among Hispanics the rate is 15%. However, among African Americans in Stamford, this percentage rises to 26.1%. Among Stamford's low-income population (<\$25,000/year), smoking rates are 17.1%.

B. Lack of Physical Activity

People who are sedentary have twice the risk of heart disease of those who are active. In 1998, 27.2% of Connecticut adults (about 679,600 individuals) were sedentary, engaging in no leisure time physical activity. Furthermore, 4 in 5 Connecticut adults (1,987,900 people) did not meet the recommended guidelines of 30 minutes of moderate activity, 5 or more days per week. In Stamford, 79.0% of residents engage in at least 10 minutes of physical activity per week. This percentage is slightly less for African-Americans (74.6%), and Hispanics (61.7%). When asked about participation in vigorous exercise, only 33.8% of Stamford residents acknowledge that they do. Among African-Americans that percentage drops to 25.4% and among Hispanics it is 21.1%.

C. Poor Nutrition, and Obesity

People who are overweight are at higher risk for heart disease. About 7 in 10 Connecticut adults consume less than 5 daily servings of fruits and vegetables. In all 1,219,000 Connecticut adults (50.6%) are overweight or obese. In Stamford, 32% of Stamford high school students are overweight or at risk for becoming overweight. Among African-Americans and Hispanics the rates are slightly higher at 34.2% and 34.5%, respectively.



4 STUDY DESIGN

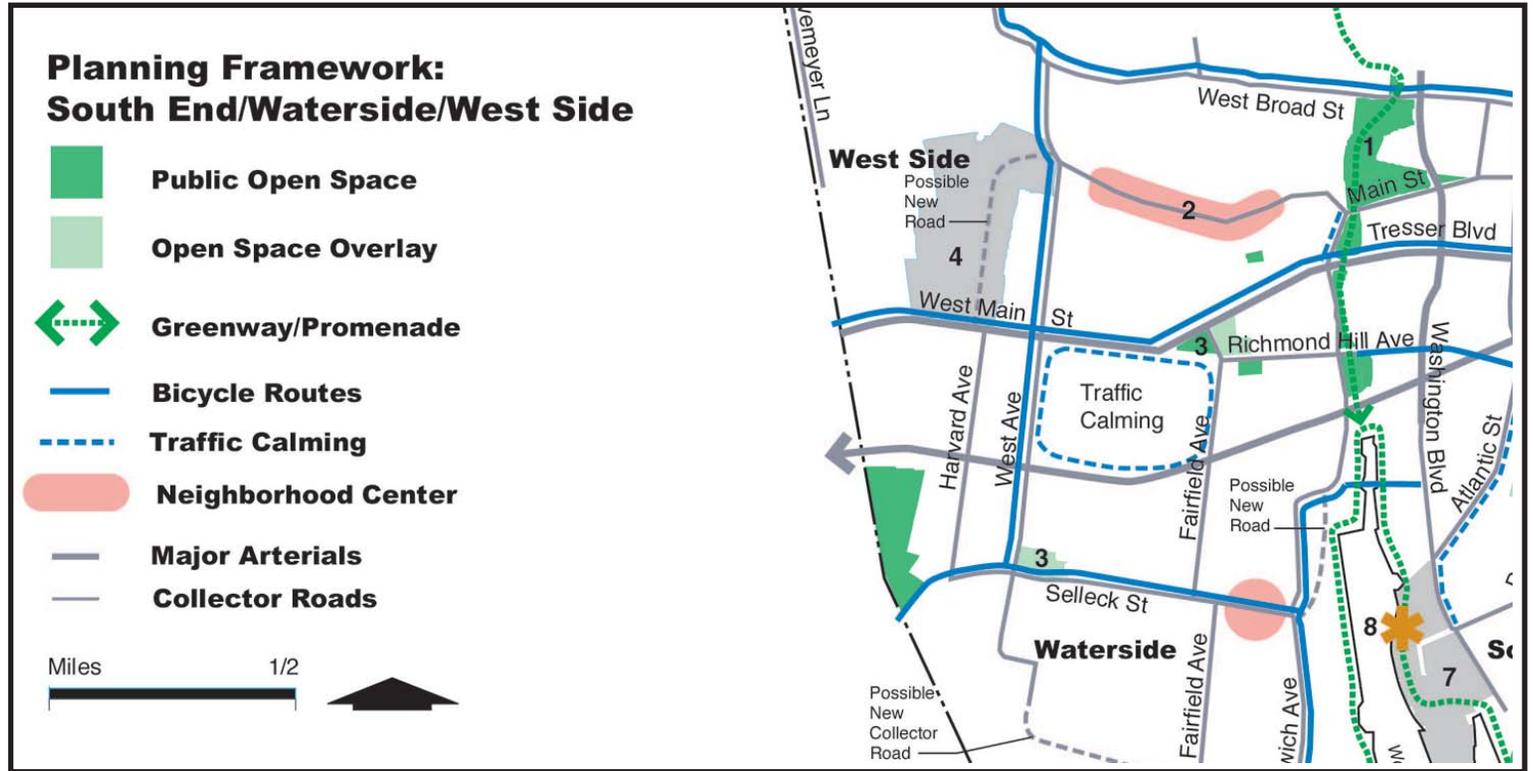
The Steering Committee settled on a phone survey methodology. In part this was a default from the difficulties of organizing and managing a direct observation study. At the initiation of this project, review of the research revealed that there was still no consensus about assessment tools. To develop this instrument, RPA, Yale-Griffin and Stamford Health Department, collected and reviewed some 25 instruments.

The final questionnaire was organized in terms of three categories:

- **Neighborhood Bikability/Walkability:**
These were selected from the various tools, that were not place-specific and that seemed to recur in each of these instruments.
- **Context-Specific Questions:**
These were questions that were specifically about the West Side and its relationship to the Mill River corridor.
- **Physical Activity:**
For the purposes of assessing physical activity, the team decided to use the International Physical Activity Questionnaire (IPAQ) to facilitate comparison with other studies.

The questionnaire was administered in March of 2003, achieving a high response rate.

The questionnaire was also reviewed by a group of community-based stakeholders who made several significant contributions. Interestingly, the Mill River Park project was not without controversy and it was important for the project to be presented not as the work of the Land Use Bureau which was identified with the redevelopment, but with the Health Department which was perceived by the community as a benevolent and trusted partner.



5 WEST SIDE NEIGHBORHOOD PHYSICAL ENVIRONMENT

In many ways the West Side is a characteristic "1st ring suburb" that developed largely in the 40's and 50's. There is a well-connected network of streets and blocks in a distorted grid with reasonably sized blocks.

A. Land Uses

Most of the blocks are populated with single-family homes. Over the years several blocks have been developed with low-rise attached apartments. Most of the units are owner-occupied. There are several mid-rise to high-rise housing projects that are out of scale with the neighborhood.

There are several institutions in the neighborhood study area. The Stamford Hospital is the single largest institution, a campus of buildings occupying more than 10 acres of land. In terms of schools, there is only one elementary school in this area, Westover Elementary School.



Typical West Side neighborhood street.

There are two, principle commercial corridors - Stillwater Avenue, in the middle of the neighborhood and West Main Street, and at one time the "Boston Post Road" (US-1). These two commercial areas are very different in character and function for the neighborhood (see corridor discussion below).

In terms of open space resources, there are several small parks and playgrounds, primarily in the eastern portion of the neighborhood. There are two major open space resources. The first is Lione Park in the northwest corner of the neighborhood study area. This has a mixture of passive and active (ball fields) recreation space. The other major open space resource is the Mill River Park. At the moment, Mill River Park consists primarily of two open spaces which straddle the river in the area between West Main Street and Broad Street. (The larger portions of the park are on the west side of the river). Elsewhere, there is affordable but marginal, and in some cases substandard, housing.

The Mill River redevelopment plan calls for new low-rise housing, particularly on the Downtown side of the river, and for a continuation of the park on both sides of the river going south where connections to



the Transportation Center (regional rail, local and regional bus) are possible. In the very long term - and beyond the scope of this study - the downtown portion of Mill River Greenway is part of a larger citywide greenway network that extends north through the city to other employment centers, neighborhood and other open space resources.

B. Edges

As noted above, the West Side is a well-defined study area with strong if not absolute edges so that the geography of the overall study area within which health and activity data are collected, corresponds to the geography within which residents are likely to walk, shop and recreate. The edges are created for the most part by major roads (to the north and south), discontinuities in the street network (to the west), and the Mill River Park and Greenway which has the capability of being not only an edge, but a seam joining this neighborhood to the Downtown.

C. Corridors

Another feature of this area that supports this project is the fact that there are only four connecting corridors from the neighborhood to the Mill River Park and Greenway. Two of these are basically residential corridors which handle different levels of traffic, 36.6% of respondents said they used West Broad Street to get to Downtown or the Mill River, only 8.8% use Richmond Hill Avenue. The other two are mixed-use corridors. Stillwater Avenue in the middle of the neighborhood is a spine of neighborhood-oriented retail and services, a portion of which has been improved with a variety of streetscape improvements-paving, lighting. Fifteen percent of respondents use this road to get to Downtown or to the Mill River. West Main Street, like many historic thoroughfares, is caught in transition between its historic role as a neighborhood-scale road and regional transportation patterns. As such, it is a narrow road with neighborhood-scale uses but also at times handles large volumes of traffic. In the survey, 31.7 % of respondents said that they use West Main Street to go to Mill River, the transportation center, or Downtown. The fact that there are few primary corridors enables the questions about walkability to be targeted to specific places and interventions.

6 FINDINGS

A. Demographics

Demographics of the West Side neighborhood are significant when looking at the risk factors of cardiovascular disease. The majority of residents are over the age of 65, placing them at a higher risk of type II diabetes. The greater number of respondents were women (55%) and black residents (51%), which is significant when blacks suffer disproportionately from premature death from heart disease - almost twice the rate of whites among men and almost three times the rate of whites among women. Black women have the highest stroke death rate, significantly higher than their white counterparts.

B. Physical Activity Levels on the West Side

Physical Inactivity imparts on increased risk for both CVD and type II diabetes, and has been shown to be a risk factor for CVD mortality. According to the results almost all respondents do not get the recommended 30 minutes of exercise 5 or more days a week. The average number of days respondents conducted moderate to vigorous activities either at work, home, at their leisure was 3-4 days. The time spent conducting these activities does vary from 1-2 hours for each day.

Time spent sitting on weekdays and weekends was also an alarming statistic when sedentary lifestyles are linked with obesity, which substantially increase the risk of morbidity from hypertension, dyslipidemia, type II diabetes, coronary artery disease, and stroke. The average respondent spent at least 5+ hours each day of the week sitting, which includes time at work, home, and at leisure.

Respondents spent an average of 1 hour and 41 minutes conducting moderate activities in the garden or yard. The average number of days in a week conducting these activities was 3.4. An average of 1 hour and 52 minutes was spent conducting moderate physical activities in the home each day. The average number of days in a week conducting these activities was 4.5. Respondents, who traveled, spent an average of 1 hour and 33 minutes traveling in a car, bus, train, or other kind of motor vehicle each day they traveled.

In terms of walking, respondents, who walked for at least ten minutes as part of their work, spent an average of 2 hours and 56 minutes doing so each day. Respondents who walked to and from work spent an average of 58 minutes, when walking from place to place each day.

C. Environment for Walking and use of the Mill River Greenway.

In general, residents find the West Side to be a walkable environment. Researchers asked respondents a series of questions related to the Westside neighborhood, and asked if they strongly agreed, somewhat agreed, somewhat disagreed, or strongly agreed.

| | |
|--------------------------------------------------------------------------------------------|-----|
| There is enough room to walk safely | 83% |
| Sidewalks are in good condition | 83% |
| Sidewalks are continuous | 82% |
| When walking on the sidewalk, I feel protected from traffic | 81% |
| There are stores, shops, schools, and other amenities within walking distance from my home | 81% |
| It is pleasant to walk in the neighborhood | 76% |
| Feel safe walking in the neighborhood | 75% |
| There is too much traffic in the neighborhood | 70% |
| It is easy to cross the street in my neighborhood | 69% |
| The bus service in my community is good | 67% |
| Drivers yield to pedestrians in the neighborhood | 66% |
| Hills in my neighborhood are a barrier to walking | 41% |



Respondents indicated that the West Side is a walkable neighborhood.

Of those who do not feel safe walking in their neighborhood, 73% attributed this to crime/violence, 19% to traffic, 5% to dangers to children, 3% to the perception that this is a "bad part of town," and 3% to the fact that sidewalks were absent.

Finally, in terms of walking to, or along the Mill River Greenway, currently, only 36% of Westside residents have ever visited the Mill River Park, while 64% have not. The following table provides a list of reasons respondents have not visited the park:

| | |
|------------------------------|-----|
| Nothing to see or do | 12% |
| Too far | 12% |
| Not interested/no reason | 12% |
| Unsafe | 10% |
| Don't know where the park is | 8% |
| No time | 8% |
| Don't like that park | 5% |
| Not well maintained | 4% |
| New to area | 3% |

7 PRELIMINARY CONCLUSIONS & NEXT STEPS

Overall residents consider the West Side to be "walkable". Over half of respondents strongly agreed that safety, the condition of sidewalks, protection from traffic, pleasant walking experience, ease in crossing the street, and drivers yielding to pedestrians all supported walking.

While a significant percentage of respondents (40%) agreed that topography was an issue - something for which, obviously, there is no intervention - significant percentages agreed that they would walk through or along Mill River Park more often if the kinds of things which the redevelopment plan contemplates are addressed:

- Respondents indicated they would visit the Mill River Park more if more activities were offered (62%), if the park was maintained (49%), and if they felt safer in the park (48%).
- Almost half of all respondents (47%) would walk through or along the Mill River Park more often if it was along a more convenient route. 11.5% do not walk through the Park more often since they do not feel safe, while 17% do not walk through or along the Mill River Park more due to the way the park is maintained.
- Further, the majority of residents interviewed agreed with the need of additional facilities at the park: Picnic area, play equipment, parking, basketball court, volleyball court, and tennis court.

The project will test the extent to which new populations can be persuaded to walk Downtown and to the Transportation Center:

- In terms of journey-to-work trip, only 15.8% of respondents said that they walk through or along the Mill River Park as a way of getting to the Transportation Center.
- Roughly half of the respondents who walk downtown walk through or along the Mill River Park as a way of getting there (journey to work/shop).

In both cases, and especially in the case of the trip to the Transit Center, the Mill River Park improvements have the potential for significant impacts.



The West Side's new greenway will connect to a larger city-wide greenway network.

Some portion of the 27% of respondents who would rather drive to downtown are also a potential target for increased activity. Of the respondents, 14.5% chose their route to Downtown because it was the most pleasant, suggesting that streetscape improvements to the corridors connecting to, and through the Mill River Park can have a positive impact on activity levels.