Report re: Traffic Safety at Yale University

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Table of Contents

Goals & Objectives *Pg. 1*

Traffic Enforcement *Pg. 3*

Infrastructure and Engineering *Pg. 5*

Administration, Education, & Evaluation *Pg. 9*

Appendix I: Elm City Cycling Infrastructure Platform *Pg.13*

Appendix II: Yale Medical Campus Traffic Safety Petition *Pg.15*

Appendix IIIa: New Haven Safe Streets Petition *Pg.17*

Appendix IIIb: New Haven Safe Streets Petition List of Supporting Organizations *Pg.19*

Appendix IV: Open Public Letter to President Levin on Traffic Safety *Pg.22*

Appendix V: City of New Haven Street Smarts Program Material *Pg.25*

Appendix VI: Downtown Bike-Ped "Gap Analysis" Study *Pg.29*

Appendix VII: Federal Highway Administration Safety Guidelines for Sidewalks and Construction Sites *Pg.38*

Goals & Objectives

Mission Statement

To work towards the elimination of traffic-related fatalities and serious injuries on and around the Yale University campus – which has been identified as a key priority of the University community – through a rigorous program of education, enforcement, engineering, and evaluation.

To help coordinate a concerted effort on the part of Yale University, in collaboration with the City of New Haven, State of Connecticut, and community advocates, in order to ensure that the Yale and New Haven communities do not have to face the death or serious injury of any more community members through this violent but ultimately preventable form of injury. Furthermore, these efforts will make New Haven more economically vibrant and sustainable.

Background & Timeline

Campus security and accessibility has been an ongoing concern for the University administration, as well as the wider campus community of students, faculty, and staff. Many members of the University community have been involved in this issue in one way or another. Under President Levin's leadership, Yale University has made a renewed commitment to campus security, with the installation of a blue phone system, the doubling in size of the campus police force, and the expansion of various security awareness, crime prevention, and environmental health programs.

As the campus has expanded in size and grown more tightly interwoven with surrounding city blocks in New Haven, issues of accessibility and traffic safety have become more prominent. Members of the university community are more likely to walk, bicycle or take university and public transit to work than ever before. In addition, overall campus growth and a significant shift away from personal automobile usage have further increased demand for streets that are safe, pleasant, and accommodating for all road users. The increased traffic burden on the city's existing network of streets has dovetailed with the increasing likelihood that members of the University community, particularly students and faculty, will travel farther as they go about enjoying the campus on a daily basis.

The death of Yale Medical Student Mila Rainof in a pedestrian-vehicular collision in April of 2008 was one of many recent incidents resulting in serious injury or death to New Haven

residents (with 12 traffic fatalities reported in New Haven in 2008).

Throughout 2008, the sustained work of the city government, nonprofit organizations, neighborhood associations, various on-campus and off-campus groups, and elected officials contributed to a greatly increased citywide focus on the issue of traffic safety. For instance, the New Haven Safe Streets Petition – designed as a vehicle for education and advocacy – was signed by 2,000 city residents and endorsed by all 12 of the city's Community Management Teams.

In October of 2008, these organizing efforts helped lead the New Haven Board of Aldermen to unanimously vote to approve comprehensive "Complete Streets" legislation, spearheaded by Alderwoman Erin Pascale, Alderman Roland Lemar,and City Transportation Director Mike Piscitelli.

In July of 2008, 16 members of the University community – representing students, alumni, and staff – wrote an open public letter to Yale University President Richard Levin requesting that the University support improved safety and accessibility measures prior to the construction of new residential colleges. This group conducted research by interviewing faculty members, administrators, students, and staff, placing particular emphasis on those involved in the study group to create the new colleges. In August of 2008, President Levin responded by arranging a meeting between this group and the Yale Office of New Haven and State Affairs. Held on November 19th, 2008, roughly 20 members of the University and New Haven communities attended this initial meeting, which revolved around a discussion of current and future measures that could be taken to eliminate traffic injuries and fatalities on and around the Yale campus – a goal universally shared by all those present. This report was identified as the next step in the process.

Report Objective

The purpose of this report is to highlight existing programs designed to improve traffic safety on the Yale University campus, and make recommendations for new programs that are needed to meet the goals of the aforementioned Mission Statement.

Using this report as a reference, the authors of this document hope to collaborate with Yale University administrators and New Haven officials to develop – in a timely manner – a strategic plan to address the specific needs identified by the University community.

Traffic Enforcement

Key Issues & Concerns

1. Lack of driver compliance with existing laws, particularly posted speed limits
2. Lack of resources for enforcement activity
3. Disrespectful pedestrians and cyclists

Traffic Enforcement: Recommendations re: Existing Programs

Existing Programs	*Recommendation*
YPD and NHPD issues educational warnings to errant pedestrians and cyclists	Police should continue to warn pedestrians and cyclists who neglect the law; the YPD should also consider issuing actual tickets when confronted with aggressive or risky behavior
The City of New Haven conducts enforcement against dangerous road users; the City is rolling out expanded traffic enforcement units; 10,000 tickets were issued in 2007, 15,000 tickets were issued in 2008, and there is a goal of 20,000 tickets for 2009	The City should continue expanding its enforcement unit; it should also consider adding a Yale Police Department traffic detail to allow for greater enforcement in areas that impact the safety of the Yale Community (e.g. constant vehicular speeding on Elm Street, drivers ignoring crosswalk at College/Wall, and drivers running red lights at Frontage Road)
City and local advocates are lobbying state and federal government for more bills related to traffic safety, such as legislation related to the enabling of red light cameras and to shared enforcement ticket revenue streams (the current revenue goes entirely to the state)	The University should consider submitting testimonies on the topic in Hartford as community advocates continue pushing for these issues
City of New Haven has created a traffic safety hotline	Yale and City should encourage more people to use the hotline by communicating the call-in number more widely

Traffic Enforcement: Recommendations re: New Programs

Recommended New Program	*Notes*
The YPD and NHPD should enforce punishments for dangerous infractions of traffic laws such as stop sign running and turning right on red where "No Right Turn on Red" signs are present	
The YPD and NHPD should support lowered speed limits as they are rolled out street-by-street through rigorous enforcement	As speed limits are reduced to 15-20 MPH in areas around the campus, the City must coordinate concurrent and rigorous enforcement to ensure compliance among drivers with new measures
The YPD and NHPD should employ more rigorous enforcement of illegal parking so as to ensure that sightlines are not blocked at intersections	The City should look into ways to more rigorously ticket and/or tow vehicles that infringe upon pedestrian safety, such as those parked in the middle of crosswalks (even those parked temporarily)
Yale to ask students to legally register their vehicles when they arrive on campus	This recommended problem may be achieved by including materials in pre-orientation packets
Yale should communicative a “no-tolerance “policy for cell phone use while driving	
The City and/or the University should install portable speed signs and/or cameras	West Hartford has recently installed automatic cameras that take picture of speeding drivers (no tickets until legislation enables)

Infrastructure and Engineering

Key Issues & Concerns

1. Yale invests in City of New Haven roadway infrastructure to the benefit of community members – these projects are to be applauded, but could benefit from additional input from individuals and/or consultants knowledgeable in specific methods used to eliminate traffic-related injury risk

2. "Risk tolerance" for projects around the campus needs to be greatly decreased in order to prevent all traffic-related fatalities and serious injuries; typically, the only way to significantly reduce risk is to reduce top travel speeds to 15-20 MPH, as is done in many European cities

3. Significant "gaps" exist in the pedestrian and bicycle network, notably at Elm Street (between Park and State) and various "missing" crosswalks; these gaps greatly discourage community members from relying on biking and walking as safe options; addressing these gaps is particularly critical for major "gateways" that form the focal points and public image of the Yale campus, such as at Porter Gate near Elm Street, and at all of the Route 34 crossings

4. Signal timing issues are currently frustrating pedestrians and drivers, and often do not allow adequate time for crossing

5. Funding issues are currently preventing large-scale, wholesale traffic-related reconstruction and safety projects

Infrastructure and Engineering: Recommendations re: Existing Programs

Existing Programs	*Recommendation*
Yale University has funded the reconstruction of campus streets and signal systems (example: Prospect/Trumbull reconstruction), plus construction of Farmington Canal through campus, as part of its recent development agreement with the City of New Haven	The City and Yale should re-evaluate reconstruction projects affecting campus pedestrian circulation by requesting feedback from a small group of users and high-level administrators; the City and Yale should also review FHWA guidelines to ensure that the highest possible standards of pedestrian and bicycle accommodation and risk elimination are met (even if traffic flow must be slightly slowed)

Existing Programs (cont.)	*Recommendation* (cont.)
The City of New Haven is currently conducting the Bicycle/Pedestrian "Gap Analysis" Study (funded by SCRCOG), '08-'09. The Study likely will recommend creating cross-town bicycle routes to address key gaps in the bicycle circulation network, particularly gaps like the lack of a viable bicycle route from the west side of campus into Downtown New Haven and to Union Station. The City is also looking for funding sources and will implement recommendations over the course of several phases	The gaps in the bicycle circulation network need to be filled in as soon as possible
The Yale Medical Campus Traffic Safety Group is currently leading an "Intersection Repair" project at Cedar/York in partnership with the City; the City will secure permits to allow community members to "repair" the intersection with markings and paint	The City and community should suggest that other intersections also need similar repair work
The City is replacing walk signals with "countdown" timers going forward at multiple locations	
The City is conducting maintenance of existing crosswalks , such as the recently repainted crosswalk at the Medical School	The City should ensure that all existing infrastructure is well-maintained by, among other things, restriping existing "line" crosswalks with "zebra style" crosswalk markings, and pulling back stop lines where needed so as to improve pedestrian visibility, particularly at night
City and local advocates are lobbying state and federal government for more infrastructure funding re: bicycle/pedestrian improvements, such as traffic calming appropriations and "safe routes to transit" funding	Community advocates will continue to push the issue; University could consider submitting testimony on topic in Hartford
City is conducting a large number of developmental and planning projects along Route 34 that affect pedestrian safety	The City and Yale should continue to work cooperatively on improving Frontage Road crossings, which are currently unsafe due to very high vehicle speeds, large curb returns, and etc.; a long-term vision to establish a more walkable corridor will promote not only pedestrian safety, but also economic development

Existing Programs (cont.)	*Recommendation* (cont.)
In-street pedestrian signs: The City tested 5 signs in Fall of '08; they are very low-cost and extremely effective at improving crosswalk safety; the City will be rolling out many additional signs in '09, locations to be determined	City should install signs on a year-round basis, as is done in many other cities and towns throughout New England; in New Haven, they are currently removed during winter months; the signs should be rolled out on a year-round basis throughout the City's neighborhoods and around Yale' campus; the YPD should help monitor signs and ensure that they remain in place; more permanent in-street signage and/or small pedestrian traffic medians similar to those used throughout London and many other cities should also be considered

Infrastructure and Engineering: Recommendations re: New Programs

Recommended New Program	*Notes*
A more rigorous review of pedestrian and vehicular signal timing should be undertaken	The timing of the review should be coordinated with reduced speed limits; crosses with signal ("green wave") should be added at more intersections; green signs should be coordinated for drivers when possible to reduce frustration; maximum walking speeds should be lower to time pedestrian signals in areas with high concentrations of older or disabled pedestrians, such as near hospitals; the City and University should ensure that pushbuttons garner prompt responses on signals
The City should eliminate "Right Turn on Red" throughout Downtown area	The City and Yale should introduced consistent signage and coordination with walk signals
The City and Yale should reduce top travel speeds to 15-20 MPH in busy pedestrian district (such as York Street, Chapel Street, Elm Street, and Broadway)so as to reduce injury risks	The City and Yale should consider "test" programs of reduced speed limits, along with prominent roadway markings similar to those used in European cities

Recommended New Program (cont.)	*Notes* (cont.)
The City and Yale should address the following key "problem intersections" as soon as possible: (i) crossing at PW Gym; (ii) Sachem/Whitney; (iii) Elm Street (all intersections); (iv) Prospect/Edwards; (v) Grove/College; (vi) Prospect/Sachem; (vii) College/Wall; (viii) Cedar/York; (ix) Chapel/High; and (x) Howe/Edgewood	The City and Yale should explore short-term solutions for reducing risk – such as: better signaling/paint, better lighting, and improved drainage where puddles collected – followed by longer-term improvements; traffic speeds should be slowed to reduce risk
The City and Yale should address the currently dangerous lack of mid-block crosswalks within the pedestrian circulation system: (i) Elm at Porter Gate; (ii) High at Old Campus Gate; (iii) College at Old Campus Gate; (iv) York in front of Pierson College; (v) Park at Edgewood; (vi) Hillhouse at St. Mary's Church; and (vii) the corner of Audubon and Whitney; no crosswalks currently exist at any of the aforementioned locations, causing the vast majority of community members to jaywalk; interestingly, given the nature of the intersections and the geography of certain pedestrian paths, jaywalking is actually legal in some of the aforementioned cases, creating a pressing set of not only safety hazards, but also liability issues	These concerns should be addressed as soon as possible through various measures, such as removing parking where necessary to accommodate the crossings, curb extensions, and raised surfaces; slower traffic speeds will also reduce risk
Bicycle boxes should be installed to indicate that it is appropriate for bicycles to pull into the center of intersections so as to make left turns across traffic	Consistent signage should be installed and coordination with walk signals should be suggested
Potholes along major cycling routes should be fixed; priority cross-town cycling routes, such as Sachem Street, must be maintained at a higher road surfacing standard than regular city streets	Major cycling routes also require lowered vehicular travel speeds in order to be attractive to less experienced cyclists
An exploration should be undertaken of the creation of a "Class A" bicycle route from Downtown to West Campus, and from Downtown to Yale Athletic Facilities	Relationships with West Haven should be developed

Administration, Education, & Evaluation

Key Issues & Concerns

1. Dearth of methods for addressing campus safety issues or complaints

2. Need for improved communication across University offices

3. Need for prioritization of traffic safety as a critical issue in all campus development projects; this is especially timely insofar as, by altering established routes, construction projects can create new and confusing situations that can lead to dangerous mistakes and conflicts

4. Need for increased campus traffic safety awareness, particularly among new students, faculty, and staff

5. Need for increased communication of traffic safety programs – such as planned construction projects – to the University community (there should be some constant measurement of ongoing progress in this area)

6. Lack of definitive Campus Bicycle/Pedestrian "Master Plan" that could greatly work on, and expand upon, cyclist and pedestrian accommodations in the long term

Administration, Education, & Evaluation: Recommendations re: Existing Programs

Existing Programs	*Recommendation*
Yale and the City of New Haven convened public input meetings for road construction projects on North Frontage Road that resulted in the University and City making formal commitments to extend curbs and provide for better pedestrian accommodation alongside the Route 34 corridor	City officials should ensure that projects are completed according to agreed-upon specifications
Yale conducts public input meetings and makes presentations to the City Plan Commission for university development projects (e.g. chiller line at Science Park and the construction of Yale Biology Building)	Yale should encourage a community input process on all development projects, present projects to Downtown Management Team, and ask for input related to pedestrian/bicycle safety

Existing Programs (cont.)	*Recommendation* (cont.)
Oversight Committees: Yale currently convenes University Safety Committee meetings several times per year	Yale should ensure that those with interest/expertise in traffic safety issues – including City representatives – are present at meetings; Yale should consider an "expert subcommittee" or other administrative force to conduct research into higher standards for campus safety so as to make Yale University a national leader in this area; Yale should also ensure that when priorities overlap, traffic safety recommendations must be part of the ultimate solution
Yale University's campus and construction planning processes currently incorporate bike/pedestrian safety reviews; some of these decisions are reviewed by the City of New Haven	Yale should work with the City to develop ways to ensure that construction projects on central campus have a much lower "risk tolerance"; construction should meet the highest possible standards for accommodation and safety around construction sites; specifically, University safety measures should include precautionary measures such as inflatable speed bumps, specialized signaling, and presence of police officers to assist pedestrians, cyclists, and drivers in safely negotiating construction sites; the US DOT FHWA guidelines provide suggested standards on construction site safety
Contractors: The existing contractor hiring/work policies of both Yale and City require that planning guidelines and City laws are followed as per standard contract language	Yale and City should review the aforementioned policies to ensure that contractors do not block sidewalks and maintain a continuously accessible path for pedestrians; Yale and City should help ensure that contractors follow all traffic rules and regulations; Yale and City should ensure that contractors, including delivery vehicles, do not block sight-lines at major intersections when parked (e.g. in front of Yale Post Office); Yale and City should hold all contractors strictly accountable for any policy transgressions

Existing Programs (cont.)	*Recommendation* (cont.)
Educational programs: University currently conducts training on how to bike safely to work, in addition to discussing issues at Freshman Orientation on an annual basis; the University is working with the City's "Street Smarts" educational campaign and is a contributor to the panel; the website for the campaign will be launched in April 2009	Yale should add a traffic safety educational program for international students and new employees; Yale should increase bike safety education and provide additional training sessions so that the entire community is accommodated; Yale should ensure that all current and future orientation programs are strongly staffed and reviewed for consistency
Yale Shuttle policy: Complaints are currently directed to Donald Relihan; Yale has established an educational program for drivers to ensure that they are aware of the safety issues of cyclists and pedestrians	Yale should communicate procedures for directing complaints or feedback by, among other measures, creating online tools and posting phone numbers on bus interiors; the University should continue to give feedback to drivers so as to ensure that shuttles follow speed limits and traffic laws; the University should also consider the adoption of a "three strikes" policy, along with a GPS tracking system to ensure speed limit compliance
Yale currently measures the commuting patterns of the University community.	Yale should continue its successful survey program in order to establish benchmarks. Commuters should be asked about their key priorities for safety improvements.

Administration, Education, & Evaluation: Recommendations re: New Programs

Recommended New Program	*Notes*
Yale should create and distribute a newsletter about its traffic safety initiatives	The city should consider the creation of a city-wide report; Yale could consider community examples
Yale should include a public safety section in its annual "State of the University" report	
Yale should communicate an official traffic safety "policy statement" in University documents and plans; President Levin should coordinate a public announcement to reiterate the policy	

Recommended New Program (cont.)	*Notes*
Yale should coordinate an annual press event to announce ongoing and planned traffic safety initiatives affecting the broader University neighborhood	
Yale should describe improvement projects in progress on a new website and/or on SeeClickFix (example: Prospect/Trumbull reconstruction) to raise community awareness	
Yale Shuttle policy: Complaints are currently directed to Donald Relihan; Yale has established an educational program for drivers to ensure that they are aware of the safety issues of cyclists and pedestrians	Yale should communicate procedures for directing complaints or feedback by, among other measures, creating online tools and posting phone numbers on bus interiors; the University should continue to give feedback to drivers so as to ensure that shuttles follow speed limits and traffic laws; the University should also consider the adoption of a "three strikes" policy, along with a GPS tracking system to ensure speed limit compliance
Yale currently measures the commuting patterns of the University community.	Yale should continue its successful survey program in order to establish benchmarks. Commuters should be asked about their key priorities for safety improvements.
The University should create a "master plan" for campus cyclist/pedestrian issues	Consult with other urban universities and make the planning (and decision-making) process open to the University community
Yale should measure the number and locations of traffic-related injuries or incidents affecting members of the Yale community each year in order to develop benchmarks	
Yale should communicate standard procedures for reporting traffic safety and security concerns across the University (example: "if you see something, say something")	Yale Police could handle ongoing complaints, both of an emergency and non-emergency nature

Recommended New Program (cont.)	*Notes* (cont.)
Yale should create an University walking and bicycling map for incoming students with an emphasis on traffic safety; the map should include information on relevant procedures and contacts for problem reporting	
Yale should raise awareness of traffic safety problems by having Chief Perrotti send out periodic emails, including alerts if any Yale community member is injured in the vicinity of the campus	Safety tips could also be included at the bottom of regular emails, much like how the current tips regarding walking in groups at night are included at the bottom of the current e-mails from Chief Perrotti

Appendix I: Elm City Cycling (ECC) Infrastructure Platform

Draft of ECC Infrastructure Platform // January 2008

a. Bike Racks:

   i. ECC advocates for the incorporation of adequate, safe and usable bicycle racks (bicycle parking) at all municipal buildings, schools, major transportation hubs, hospitals, major employment sites, major retail corridors and supermarkets within the New Haven area.

   ii. ECC advocates that adequate racks will be installed in a timely fashion and the need for such bicycle facilities will reevaluated by municipal and state officials on an annual basis, given the growing number of users.

b. Bicycle Routes:

   i. ECC advocates for safer bicycling routes throughout New Haven, with an emphasis on those that link Downtown New Haven with every City neighborhood and to each of the surrounding municipalities in the region.

   ii. ECC advocates for safer bicycling routes that circulate within Downtown New Haven, including from Downtown to Union Station.

   iii. ECC advocates that local and state government conducts a regular evaluation of all bicycle route "facilities", particularly signage and road markings, to see if such "facilities" are appropriate for the number of cyclists, traffic volume and road conditions.

   iv. ECC advocates that government ensures that bicycles have full rights and responsibilities of the road.

c. Greenways and Multi-Use Trails

   i. ECC advocates that governments work to complete, as soon as possible, the major proposed Greenway systems in our region. These include:

      1. The Farmington Canal Greenway, which connects Cheshire (as well as points north to Northampton, MA) with Hamden and New Haven (Newhallville, Science Park, Yale, Downtown, and New Haven Harbor).

      2. The Harborside Greenway, which enables cycling along the entirety of New Haven Harbor, basically following the coastline from the Kimberly Avenue interchange in City Point to Lighthouse Point.

      3. The East Coast Greenway, which connects cities from Florida to Maine and which includes major sections in Connecticut from the New York border,

through Fairfield County to New Haven, then from New Haven (along the Farmington Canal Greenway) to Hartford and points north.

4. The Fair Haven Greenway, a system of linear parks and bicycle trails enabling access to the waterfront in Fair Haven, along the Mill River, New Haven Harbor and Quinnipiac River systems.

5. The West River Greenway, a proposed linear park and bicycle trail following the West River from City Point through the Hill, Edgewood and Westville.

ii. ECC advocates appropriate signage for Greenways to provide directions and identify them as facilities that connect to a wider, regional network of bicycling infrastructure.

d. Traffic Calming

i. ECC advocates for reasonable traffic speeds within the New Haven Region, particularly in densely-populated neighborhoods, which include all of the City of New Haven. Reasonable traffic speeds help ensure the safety of bicyclists and pedestrians.

ii. ECC advocates that local governments will work with neighborhoods to conduct a regular evaluation of methods that can be used to slow traffic speeds, particularly in conjunction with roadway designs involving major bicycle and pedestrian routes. Following such evaluation, we advocate that governments will implement such measures in a timely fashion.

e. Other Infrastructure

i. ECC advocates improvements to other aspects of bicycling infrastructure, including but not limited to:

1. Specialized recreational or educational facilities, such as velodromes and youth training centers;

2. Adequate bicycle parking and bicycle accommodation on regional trains, buses, trolleys and other forms of mass transit;

3. Shared, public and/or rental bicycles;

4. Educational signage and markers that serve to raise the profile of bicycling infrastructure (including routes and Greenways) and bicycling in general.

Appendix II: Yale Medical Campus Traffic Safety Petition

Letter to Improve Traffic Safety in the New Haven Medical District // May 2008

The tragic death on April 20th, 2008, of Mila Rainof, a brilliant and caring student on the verge of graduating from Yale University School of Medicine and entering a career in Emergency Medicine, has made our community painfully aware of the great danger in our transportation network. Each year, over 42,000 people die in crashes on America's roads. Motor vehicle crashes are the leading cause of death for people aged 2 through 34. In Connecticut, 300 people are killed every year.

Health professionals are especially cognizant of the costs in lives, disability and hospital resources attributable to motor vehicle collisions. Those of us who daily cross the dangerous North and South Frontage Road intersections to work or study in the medical district are keenly aware of the hazards of our city streets. While we recognize there are some ongoing and planned efforts to improve traffic safety in New Haven, it is time for an immediate, concerted effort to make our streets more livable.

We call upon our community, hospital and university administrators, security and police departments, and our local politicians to work together to improve traffic safety in the medical district and in the City of New Haven. We request that the following actions be taken immediately:

- Personally, we will commit to obeying traffic laws and sharing the road with pedestrians and cyclists. We will demonstrate this commitment by enrolling in the City of New Haven's Pace Car program. We will walk, bike, carpool, and use shuttle services or public transit when possible.

- Yale-New Haven Hospital administrators should increase efforts to reduce motor vehicle traffic in the medical area through parking demand management.

- Yale New-Haven Hospital and Yale School of Medicine should train employees and students about traffic and pedestrian safety in New Haven and the medical area.

- The City of New Haven should enact traffic calming measures in the medical area specifically:
    - Increase police enforcement of speed limits and red light adherence
    - Provide pedestrian safety guards
    - Improve signage indicating the hospital and pedestrian zone
    - Make crosswalks more visible
    - Reduce speed limits to 20 miles per hour

- The State of Connecticut should support efforts at the local level to improve traffic safety:
    - Approve red light cameras to consistently ticket drivers who run red lights
    - Increase funding for traffic calming on city streets, including pedestrian and bicycle infrastructure

    - Support local efforts to improve traffic safety when state roads are involved, such as Route 34 in New Haven

- Planned measures to improve traffic safety should occur in a timely manner and with community input. Planned projects include replacement of traffic signals along North and South Frontage Roads and the redevelopment of the Route 34 Corridor.

We hope that Yale-New Haven Hospital, Yale University, the City of New Haven, the State of Connecticut and community groups will work together in matters of planning and funding in order to achieve the above goals. We call for the establishment of a high level Traffic Safety Committee comprised of individuals from these institutions to ensure that progress is made.

Appendix IIIa: New Haven Safe Streets Petition

New Haven Safe Street Petition // May 2008

WHEREAS, speeding traffic and various traffic violations are a major ongoing problem in the City of New Haven, resulting in dozens of serious and fatal injuries in 2008 alone, as well as measurable amounts of noise, pollution, negative impacts on child development and the erosion of neighborhood communities;

WHEREAS, as supporters of this petition, we commit to respecting all traffic laws and advocating for safer streets citywide, with the immediate goal of reducing the number of traffic injuries and fatalities within our communities by 50% by 2009;

WHEREAS, safe streets contribute to the perceived quality of life and physical safety of city residents, employees and visitors; and therefore are urgently needed to promote public health and long-term economic growth within our community;

WHEREAS, increased traffic safety is particularly necessary in dense downtown districts, major retail corridors, areas around schools, and medical center districts with high concentrations of pedestrians, bicyclists, young children and disabled individuals;

WHEREAS, marginally slower traffic speed limits and law-abiding traffic does not result in longer commute times to work, but actually may increase traffic efficiency, while resulting in exponential increases to public safety (for example, USDOT figures show a 5% fatality rate for pedestrians hit at 20MPH versus a 40% fatality rate for pedestrians hit at 30MPH);

WHEREAS, the Director of Transportation Michael Piscitelli has been a great ally in promoting long-term transportation improvements that benefit the entire city and region, but may require additional institutional infrastructure to implement his long-term vision for the city;

The undersigned supporters of this petition hereby request that the City of New Haven resolve to:

- Beginning immediately, reestablish and enforce a strict 25MPH speed limit throughout all streets and arterial roads in New Haven, by deploying vigorous and consistent traffic enforcement;

- Beginning immediately, strictly enforce all traffic regulations related to stop lights, stop signs, bicycle lanes, pedestrian crosswalks, and cell phone use while driving;

- Beginning in the 3rd Quarter of 2008 and continuing once every quarter, issue a citywide public report on the above two measures, including metrics on enforcement actions taken by neighborhood and number and type of penalties issued;

- Beginning immediately, develop long-term measures to greatly increase traffic safety through updated street design protocols such as those used in other major cities, and appoint a pedestrian and bicycle coordinator who can plan for such improvements more proactively;

- By the end of 2008, establish strict 15-20MPH speed limits in all areas with dense concentrations of pedestrians and bicyclists, including the areas immediately surrounding Yale-New Haven Hospital, the Hospital of Saint Raphael, and the Chapel Street retail corridor, and deploy improved pedestrian signage, lighting and signaling within those districts;

- Develop a high-level task force to explore the creation of 15-20MPH speed limits in all citywide residential districts, particularly along slower neighborhood streets and school zones where children frequently play on or near the street, with a report to be issued by the end of 2008 and a program of reduced speed limits in designated zones to be implemented by the 3rd Quarter of 2009;

- Develop a high-level task force to explore new citizen-led and school safety initiatives, traffic enforcement incentives, and the implementation of higher penalties for moving violations, aggressive driving, and motor vehicle assault, with a report to be issued by the end of 2008;

- Annually measure and reevaluate traffic safety initiatives with the goal of reducing the number of traffic-related injuries and fatalities on city streets and arterial roads by 50% by 2009, 75% by 2012 and 90% by 2015.

Appendix IIIb: Safe Streets Petition List of Supporting Organizations

New Haven Safe Streets Petition // May 2008

The following groups and individuals have elected to officially endorse the Petition:

12 of 12 City of New Haven Community Management Teams (CMTs):
+ Downtown-Wooster Square CMT
+ Fair Haven CMT
+ Westville-West Hills CMT
+ Whalley-Edgewood-Beaver Hills (WEB) CMT
+ Hill South CMT
+ Hill North CMT
+ Newhallville CMT
+ Quinnipiac East CMT (QEMT)
+ East Shore CMT
+ East Rock CMT
+ Dwight CMT
+ Dixwell CMT (DECMT)

These endorsements per official member voting.

Advocacy Organizations and Nonprofits:
+ Yale Medical Campus Traffic Safety Group
+ Elm City Cycling
+ CT Livable Streets Campaign
+ New Haven Urban Design League
+ DesignNewHaven
+ Tri-State Transportation Campaign
+ Transportation Alternatives
+ America Walks
+ Keep Kids Alive Drive 25
+ Yale Public Health Coalition
+ New Haven Environmental Justice Network
+ Connecticut Bicycle Coalition
+ Sierra Club - Connecticut Chapter
+ Safe Kids Connecticut - Greater New Haven Chapter
+ Connecticut Public Health Association

Neighborhood Associations, Business Improvement Districts and Religious Organizations:
+ Chatham Square Neighborhood Association
+ Christ Church - New Haven
+ Church on the Rock - New Haven
+ Coalition for a Livable Whallev
+ Congregation Beth El-Keser Israel
+ Edgewood Neighborhood Association
+ Edgewood Park Defense Patrol

+ First Unitarian Universalist Society of New Haven
+ Friends of East Rock Park
+ New Haven Bioregional Group
+ New Haven 828
+ Quinnipiac River Community Group (QRCG)
+ Ronan-Edgehill Neighborhood Association
+ Town Green Special Services District, per unanimous vote of Board of Commissioners
+ Upper State Street Association
+ Westville Village Renaissance Alliance
+ Whalley Avenue Revitalization (WAR)
+ Whalley Avenue Special Services District (WASSD)
+ Yale College Council (per resolution)

Individual Residents and Businesses:
+ Over 1,900 area residents have signed the petition, along with a number of small businesses.

Local and State Elected Officials:
+ New Haven Ward 1 Alderwoman Rachel Plattus (Downtown/Yale)
+ New Haven Ward 2 Alderwoman Gina Calder (Dwight)
+ New Haven Ward 3 Alderwoman Jacqueline James (Medical District/West River)
+ New Haven Ward 5 Alderman Jorge Perez (Hill)
+ New Haven Ward 6 Alderwoman Dolores Colon (Hill)
+ New Haven Ward 7 Alderwoman Bitsie Clark (Downtown)
+ New Haven Ward 8 Alderman Michael Smart (Wooster Square)
+ New Haven Ward 9 Alderman Roland Lemar (East Rock)
+ New Haven Ward 10 Alderman Allan Brison (East Rock)
+ New Haven Ward 14 Alderwoman Erin Sturgis-Pascale (Fair Haven)
+ New Haven Ward 15 Alderman Joseph Rodriguez (Fair Haven)
+ New Haven Ward 16 Alderwoman Migdalia Castro (Fair Haven)
+ New Haven Ward 17 Alderman Alphonse Paolillo Jr. (Annex)
+ New Haven Ward 18 Alderwoman Arlene DePino (East Shore)
+ New Haven Ward 19 Alderwoman Alfreda Edwards (Newhallville/Prospect Hill)
+ New Haven Ward 20 Alderman Charles A. Blango (Newhallville)
+ New Haven Ward 21 Alderwoman Katrina Jones (Dixwell/Newhallville)
+ New Haven Ward 22 Alderman Greg Morehead (Dixwell)
+ New Haven Ward 23 Alderman Yusuf I. Shah (West River)
+ New Haven Ward 24 Alderwoman Elizabeth McCormack (Edgewood)
+ New Haven Ward 25 Alderwoman Ina Silverman (Westville)
+ New Haven Ward 26 Alderman Sergio Rodriguez (Westville)
+ New Haven Ward 27 Alderman Tom Lehtonen (Westville)
+ New Haven Ward 29 Alderman Carl Goldfield (Westville)
+ New Haven Ward 30 Alderwoman Michelle Sepulveda (West Hills)
+ New Haven Democratic Town Committee Chairwoman Susan Voigt
+ State Senator Toni N. Harp, Deputy President Pro Tempore, 10th Senatorial District (New Haven/West Haven)
+ State Senator Martin M. Looney, Senate Majority Leader of the General Assembly, 11th Senatorial District (New Haven/Hamden)
+ Representative Juan Candelaria, 95th Assembly District (New Haven)
+ Representative Patricia Dillon, Assistant Majority Leader, 92nd Assembly District (New Haven)

+ Representative Robert W. Megna, Assistant Majority Leader, 97th Assembly District (New Haven)
+ Representative Toni E. Walker, Deputy Majority Leader, 93rd Assembly District (New Haven)

Local and State Candidates for Elected Office:
+ Katie Harrison, Candidate for Ward 1, New Haven
+ Mike Jones, Candidate for Ward 1, New Haven
+ Minh Tran, Candidate for Ward 1, New Haven

Appendix IV: Open Public Letter to President Levin on Traffic Safety

Open Public Letter to President Levin on Traffic Safety // July 2008

Published: Monday, July 28, 2008

'Safe Streets' to Levin: Improve traffic, pedestrian safety

Today, a group of alumni and current students, who are residents of New Haven and supporters of the New Haven Safe Streets Coalition, submitted the following open letter to President Richard Levin regarding Yale's expansion.

The letter calls on President Levin to improve campus-wide traffic safety and walkability prior to the construction of any new buildings, and urges the University to establish a high-level traffic safety commission charged with taking steps to eliminate traffic-related injuries and fatalities on and around the campus.

Dear President Levin,

As current Yale students, alumni and residents of New Haven, we are writing to offer our congratulations on the approval of Yale's expansion to fourteen colleges. We were particularly impressed by the thoroughness of the Study Group report, which is perhaps the finest planning document ever produced by a university administration.

If our company of scholars and friends wishes to preserve the intimacy of Yale by ensuring that the new residential colleges feel less remote from the traditional campus center -- one of the key goals of the Study Group report -- the number one priority must be for the streets of New Haven to be made safer, more walkable and bikeable. The distances involved in this project, though significant in their own right when compared with the unique density of the central campus, are primarily psychological -- particularly to students who must cross extremely dangerous streets such as Elm and Grove several times per day on foot. This problem has been exacerbated by recent construction sites across the campus that do not make express accommodation for pedestrians, with blind corners, concrete bollards and fencing that endanger lives and lack appropriate signaling, signage, traffic calming or other progressive traffic safety measures.

Particularly in light of 11-year-old Gabrielle Lee, who was killed in a hit and run on Whalley Avenue in June, and the astonishing (but largely unpublished) number of Yale students severely injured in traffic-related incidents in New Haven just within the past two years, including Mila Rainof MED '08 who was killed near the Yale School of Medicine in April, it is clear that now is the time for urgent action on this issue.

If our city and campus streets were designed for our community's health and enjoyment, rather than for moving the greatest number of automobiles as rapidly as possible through them, the entire dynamic of our city and the Yale campus -- socially, culturally, economically and environmentally -- would change. Hundreds of traffic-related injuries could easily be prevented. Distances would feel shorter due to the expansion of the average walking radius.

The problem of perceived distance was referred to many times in the Study Group report, but the specific importance of traffic safety issues was not adequately addressed as part of it. Within the immediate vicinity of the Yale campus in particular, where pedestrian traffic (and therefore, risk) is very high, most speed limits should be reduced to a 15-20 m.p.h. pace – the highest speed at which a pedestrian-motor vehicle collision is not likely to be fatal. Curb extensions that improve pedestrian visibility, medians, narrowed, raised or marked crosswalks, in-street signage and other traffic calming measures are desperately needed.

Although Yale deserves significant praise for promoting sustainable transportation systems, for developing an excellent relationship with the city of New Haven, and for important infrastructure improvements (including, near the site of the new colleges, cash commitments for additional pedestrian signalization, commuter lockers and showers, bicycle/pedestrian infrastructure and the completion of the Farmington Canal Greenway), additional measures must be taken by all parties involved — and as the Study Group recommends, completed prior to the construction of any new residential colleges. The University should consider creating a high-level traffic safety commission with the broad powers, resources and responsibilities needed to immediately improve the safety of our community around all areas of the Yale Campus and at the new West Campus. One of the greatest legacies of your administration could be ending the epidemic of serious traffic-related injuries and deaths that occur on and around the University every year.

Beyond the immediate purview of the Yale campus, all levels of local, regional and state government, private institutions, nonprofit organizations, major employers and individual citizens must continue to work cooperatively on this issue and begin planning our city using 21st-century principles that emphasize safety, economic viability, and alternative forms of transportation along with more traditional concerns such as motor-vehicle capacity. Every street in New Haven must be reevaluated for its impact on safety. Organizations such as the Yale Medical Campus Traffic Safety Group, one of the founding members of the newly-created New Haven Safe Streets Coalition, are actively working for pedestrian and driver education programs directed towards students, employees and area residents, improved enforcement of traffic laws and progressive infrastructure improvements, and will need the continued support of the University.

Best regards,

Mark Abraham, YC '04
Carole Bass, YC ’83, MSL '97
Hon. Ward 2 Alderwoman Gina L. Calder, YC '03, EPH '08
Hon. Ward 6 Alderwoman Dolores Colon, YC '91
Kevin Currey, YC '09
Justin Elicker, FES/SOM '10
Doug Hausladen, YC '04
Angel Hertslet, YC '08
Erica Mintzer, MED '09
Tiffany Ng, YC '05
Hon. Ward 1 Alderwoman Rachel Plattus, YC '09
Adler Prioly, YC '09
Rob Rocke, GRD '97
Hunter Smith, LAW '10

Jason Stockmann, GRD '10
Rachel Wattier, MED '09

The authors are supporters of New Haven Safe Streets, a coalition of individual neighborhood associations, business districts, organizations and residents advocating for the adoption of a citywide strategy to reduce the number of traffic-related injuries in New Haven.

Appendix V: City of New Haven Street Smarts Program Material

City of New Haven Street Smarts Program Material // October 2008

Bike Smart

Driving on the road requires care and courtesy whether you are driving a car or bicycle. As road users, bicyclists must be predictable and obey all traffic laws by riding in a responsible manner.

Maintain and regularly inspect your equipment. Be safe and keep your bike tuned up. Take it to a bike shop at least twice a year for professional inspection.

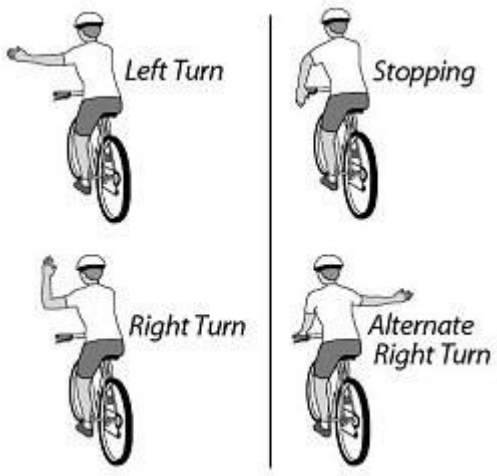
Wear a helmet correctly. Always wear your helmet to prevent head injury. You helmet should be level and snug. You should be able to see the helmet brim.

Be visible and predictable. Wear bright colors. Ride straight in a predictable manner. Plan ahead to avoid obstacles. Signal before changing directions.

Ride with traffic. Always ride on the right side. Do not pass motorists on the right. If you approach an intersection with a right turn lane and intend to continue straight, ride with through traffic. When a road is too narrow for cars and bikes to ride side by side "take the travel lane" which means riding in or near the center.

Watch for potential hazards. Scan the road 100 feet ahead for hazards – drains, potholes, tracks or debris. Allow time to maneuver around these hazards and negotiate with traffic. Avoid riding into open car doors by giving yourself 3 or 4 feet.

Signal all turns. Look back before you make a lane change or turn. Signal safely in advance using one of these signals.



Making left hand turns. You may turn left, the same as any vehicle, by moving into the left side of the travel lane (or left turn lane). OR Cross like a pedestrian by stopping, dismounting, and walking across crosswalks.

Walk Smart

Safety tips for Pedestrians:

Make yourself visible to drivers

- Wear retroreflective materials and bright/light colored clothing. Many people are unaware that they are virtually invisible to drivers at night. Clothing with retroreflective materials (such as vests for runners/bikers) can make you visible from up to 500 feet away.
- Carry a flashlight when walking at night. Don't wear headphones. Use extreme caution when crossing the street—assume that drivers cannot see you.
- Stand clear of buses, hedges, parked cars, or other obstacles so drivers can see you.

Avoid dangerous behaviors

- Always walk on the sidewalk; if there is no sidewalk, walk facing traffic.
- Be aware of the dangers of drinking and walking—walking while impaired increases your chance of being struck.
- Watch for cars reversing in parking lots and near on-street parking spaces.

Look before you step

- Cross streets at marked crosswalks or intersections if possible.
- Obey traffic signals such as walk/don't walk signals.
- Don't rely solely on pedestrian signals; look left, right, behind you, and left again before crossing a street or stepping into traffic.
- Watch for turning vehicles; make sure the driver sees you and will stop.
- Look across all lanes you must cross and make sure each lane is clear before proceeding.

Drive Smart - Cyclists

Bicyclists have the same rights and responsibilities as drivers of motor vehicles. The Bike Smart module of Street Smarts educates all bicyclists that they too must obey the rules of the road. As a motorist, you should drive carefully around a bicyclist because the slightest mistake by you or the bicyclist can result in injury or death.

The biggest differences between bicyclists and motorists as road users is that bicycles are less visible, quieter, and don't have a crumble zone around them. Always be aware of bicyclists that may be on the road. Here are some guidelines to help you share the road with bicyclists.

Reduce your speed when passing bicyclists, especially if the roadway is narrow.

Don't blast your horn when approaching bicyclists – you could startle them and cause an accident.

When the road is too narrow for cars and bikes to ride safely side by side, bicycles will "take the travel lane", which means riding in or near the center of the lane.

Recognize situations and obstacles which may be hazardous to cyclists, such as potholes, debris, and drain grates. Give bicyclists adequate space to maneuver.

Do NOT pass bicyclists if oncoming traffic is near. Wait as you would with any slow-moving vehicle. Your patience will only take a few seconds and can help prevent a serious crash or worse.

In bad weather, give bicyclists extra trailing and passing room, just as you would other motorists.

When uncertain in any situation, **SLOW DOWN** until it's safe to pass.

Give at least three feet of passing space between the right side of your vehicle and a bicyclist, just as you would with a slow-moving vehicle.

After passing a bicyclist on your right side, check over your shoulder to make sure you have allowed enough room before moving over. Experienced bicyclists often ride 25-30 mph and may be closer than you think.

Do not pass bicyclists if you will be making a right hand turn immediately afterward. Always assume bicyclists are traveling through unless they signal.

When turning left at an intersection, yield to oncoming bicyclists just as your would yield to oncoming motorists.

Before opening your car door, always look for bicyclists who may be approaching.

Children on bicycles are often unpredictable – expect the unexpected.

Drive Smart - Pedestrians

Safety tips for drivers:

Watch for pedestrians at all times

- Scan the road and the sides of the road ahead for potential pedestrians.
- Before making a turn, look in all directions for pedestrians crossing.
- Don't drive distracted or after consuming alcohol or other drugs.
- For maximum visibility, keep your windshield clean and headlights on.

Yield to pedestrians at crossings

- Stop or yield to pedestrians at crosswalks, whether marked or unmarked.
- Stop or yield to pedestrians when making right or left turns at intersections.
- Do not block or park in crosswalks.

Drive the speed limit and avoid aggressive maneuvers

- Never pass/overtake a vehicle that is stopped for pedestrians.
- Obey speed limits and come to a complete stop at stop signs.

Always be prepared to stop for pedestrians, especially in residential areas and near schools.

Appendix VI: Downtown Bike-Ped "Gap Analysis" Study

Downtown Bicycle and Pedestrian Traffic Gap Analysis // December 2008

Preliminary Comments from members of the Elm City Cycling Bike Plan Subcommittee, Downtown-Wooster Square Community Management Team Public Safety Subcommittee, and Yale Medical Campus Traffic Safety Group

Draft

Compiled by Mark Abraham (contact newhavensafestreets@gmail.com for details)

Contents

A. BACKGROUND
B. OVERALL INFRASTRUCTURE PRIORITIES
C. LIST OF SPECIFIC GAPS WITHIN BIKE NETWORK

    1. CRUCIAL GAPS
    2. CURRENT ROAD CONDITION ISSUES

D. LIST OF SPECIFIC GAPS WITHIN PEDESTRIAN NETWORK

    1. CRUCIAL GAPS
    2. CURRENT ROAD CONDITION ISSUES

A. BACKGROUND

According to South Central Region's FY2009 and FY2010 Unified Planning Work Program at http://scrcog.org/toc_files/upwp_2009_2010_draft_April9.pdf, the overall plan for next year includes a study on the following: City of New Haven Downtown Bicycle and Pedestrian Gap Analysis: Review bicycle and pedestrian circulation in the downtown, as defined by the historic Nine Squares. The analysis shall:

- Review bicycle and pedestrian circulation in the downtown, as defined by the historic Nine Squares.
- Inventory the existing condition of bicycle and pedestrian facilities.
- Prepare a gap analysis based upon user experience and technical data.
- Make detailed recommendations with preliminary cost estimates to enhance bicycle and pedestrian conditions and address crucial gaps.

We are very excited about the Gap Analysis and are pleased to have the opportunity to submit comments.

B. OVERALL INFRASTRUCTURE PRIORITIES

1. ECC infrastructure platform. One year ago, Elm City Cycling adopted an infrastructure platform. The platform specifically called for prioritized attention to the following issues related to Downtown bicycle and pedestrian facilities:

   Adequate, safe and usable bicycle racks at all municipal buildings, schools, major transit hubs, hospitals, employment sites, retail cooridors and supermarkets. The lack of secure, sheltered bicycle parking at Union Station has been identified as a particularly urgent concern.

2. Safe and attractive bicycle routes linking Downtown New Haven with every city neighborhood, and to each surrounding municipality. The lack of truly safe routes to each neighborhood has been an ongoing concern. Of particular concern is the need for connections from Westville to Downtown, from Fair Haven to Downtown, and an improved route to the New Haven Green from East Rock. These needs can be addressed in part by addressing downtown infrastructure gaps, such as the lack of a safe west to east bicycle route between Dwight/Westville and the New Haven Green (currently Elm Street, a high volume arterial, is the only connection).

3. A safe and attractive route from Downtown to Union Station.

   Currently, the station is difficult to access by bicycle, limiting the number of people who choose to bike to and from the station.

4. The completion of the regional system of greenways: Farmington Canal, Harborside Greenway, Fair Haven Greenway, West River Greenway.

   These routes should also be signed and identified as part of a regional network. The Farmington Canal Greenway, which currently ends at the edge of Downtown, is slated for construction at some point in the future, but in the meantime an alternative route to the New Haven Green and New Haven Harbor should be identified. The Harborside Greenway -- which is the main route from Downtown to all points along the shoreline, including City Point, West Haven and East Shore -- connects to a "Vision Trail" leading into Downtown. This trail is not very well maintained, despite its importance as part of this system.

5. Traffic calming on major streets throughout the City of New Haven.

   New Haven is a densely populated urban area -- the high speed of traffic observed on many streets is not only dangerous, it is a serious impediment to encouraging the mode shift to walking, cycling and transit use. This is particularly true of Downtown New Haven.

   The New Haven Safe Streets Petition, which was signed by over 2000 individuals plus Elm City Cycling, Yale Medical Campus Traffic Safety Group, Town Green Special Services District, Whalley Avenue Special Services District and every Community Management Team in New Haven, advocates for top target speeds of 15-20mph on all streets with especially dense concentrations of pedestrians and cyclists, which includes

major retail corridors such as Chapel Street and areas around Yale-New Haven Hospital, among others. Furthermore, the experience of other cities has shown that bicycle boulevards, which prioritize bicycle traffic and have top speeds in the 15mph range, are needed to encourage bicycle use on a widespread scale.

6. Route 34 Corridor. The Yale Medical Campus Traffic Safety Group and Downtown-Wooster Square Management Team have worked on many of the issues identified above. Along with ECC, these groups have also been particularly active in advocating for pedestrian safety improvements along the Route 34 corridor. Currently, many intersections lack pedestrian crossing lights and crosswalks, have extremely high travel speeds, or other safety problems such as dangerous curb return radii.

7. Pedestrian walk signals should favor pedestrian access and mobility and encourage safe and legal pedestrian behavior. Pedestrians are sensitive to delays and will often violate walk signals if forced to wait for prolonged intervals. The current signal timing of many New Haven pedestrian walk signals provides an inadequate crossing time and clearance interval. Furthermore, prolonged wait times during the vehicle phaseinterrupt pedestrian traffic and precipitate unsafe behavior out of frustration. Timing of signals should be based on a maximum walking speed of 3.5 ft/s with slower maximum speeds allowed in areas with a high concentration of older and/or disabled pedestrians. Timing should also account for the number of pedestrians waiting to cross, providing longer intervals for crosswalks with high volumes of pedestrian traffic. At crosswalks with frequent pedestrian traffic, pedestrian phases should be automatic with every cycle. At crosswalks with infrequent pedestrian traffic in which the cycle is initiated via a pushbutton, there should be a prompt response when the button is pushed, and the button should be easily accessible. Signal cycles should be shortened to reduce delay. Although exclusive pedestrian phasing may be safer for high traffic areas, pedestrian wait times are longer and pedestrians often violate these signals.

   Concurrent pedestrian phasing would be more appropriate for areas with lower pedestrian volume and slower vehicle speeds. For signals with concurrent phasing, a leading pedestrian interval should be provided to allow pedestrians to enter the crosswalk prior to giving motorists a green light.

8. These groups also wish to support "placemaking" strategies for New Haven. Such strategies would argue for the prioritization of pedestrian and bicycle improvements which contribute to the city's overall sense of place and the number and quality of urban public spaces, contributing opportunities for retail uses and informal social interaction - the latter being the key to any successful city in the modern economy. Chapel Street between College and High, which has wider sidewalks due to "bumpouts," has become a national example of such "placemaking" strategies. The reduction of traffic speed and noise, and accessibility to all user groups, are also important considerations to the creation of places where people truly want to spend time.

9. Downtown's grid of one way streets have been identified as a core issue of concern by many, not only because they increase overall VMTs and tend to increase average speeds, but also because they are generally very unfriendly to cyclists. With a one way grid, cyclists must travel longer-than-needed distances (and therefore, use significantly more energy) when navigating the Downtown core. This is a problem throughout Downtown,

and along particular bicycle routes.

An example: traveling from Chapel/High to College/George requires a very circuitous and inefficient route.

10. Connectivity is a key concern for pedestrians. Having short blocks and a number of alternative routes to any given destination is one of the keys to a walkable city. Luckily, some of New Haven's longer blocks have pedestrian "cut throughs", such as Court Street heading towards the Green, and Sherman's Alley/Parking Lot between Chapel and Crown. More of them would be a welcome addition to the ped network.

11. Poorly coordinated vehicle traffic lights. Especially along Chapel, turning onto College from North Frontage, and turning onto Church from South Frontage, lead to unnecessary backups and motorist frustration, adding to the potential friction between motorists and pedestrians. In each of these cases, one light will turn green, only to be followed by an immediate red light just yards away.

C. LIST OF SPECIFIC GAPS WITHIN BICYCLE NETWORK

1. CRUCIAL GAPS (no particular order)

    a. BICYCLE Lack of bicycle connection from the west end of Downtown and Dwight neighborhood to New Haven Green. Currently, Elm Street is the only west to east route. From Broadway to State Street, the road has a high traffic volume and high traffic speeds. This discourages cyclists from entering Downtown from virtually all points west. A bicycle facility is needed along this entire route, or a comparable alternative route.

    b. Overall lack of bicycle connection from Downtown to Union Station.

    c. There are no signage indications or bike-friendly routes from Union Station to Downtown, and vice versa. Turning into the station drop off, and access in general, is currently very difficult, which is one factor leading many cyclists to illegally ride on the sidewalks in the vicinity.

    d. Lack of adequate, secure, sheltered bicycle parking at Union Station and State Street Station.

    e. Lack of secure, sheltered, easily accessible bicycle racks at City Hall.

    f. Lack of secure, sheltered bicycle racks near key cultural destinations at Yale University, such as Yale University Art Gallery, Yale Center for British Art, Yale theaters, etc.

    g. Lack of secure, sheltered bicycle racks at most sites of major employment, retail areas, etc.

h. Almost complete lack of secure, sheltered bicycle racks in the area around the Yale Medical Campus and Yale-New Haven Hospital.

i. Difficult to cross Lincoln Street at Trumbull (Lincoln Street is a major cycling route from East Rock into Downtown), due to the very high volume of automobile traffic. Crosswalks are provided, but that requires dismounting from a bicycle, and drivers do not always yield.

j. Difficulty navigating State & Chapel intersection due to high volumes and speeds, large width of intersection and oncoming traffic.

k. Route 34 and Frontage Roads are almost impossible to cross and navigate via bicycle, a situation which cuts Downtown in half.

l. Motorists drive excessively fast on Grove Street, especially when it becomes Tower Parkway, and pass cyclists too closely. Grove Street is a very important east-west bicycle route through Downtown, but isn't particularly attractive.

m. Where Chapel narrows down, as it crosses College going north, there are sometimes bicycle-vehicle conflicts as the lane narrows. Perhaps the road should be clearly marked as a bicycle route, increasing visibility for all users, with Copenhagen-standard signage and intersection paint. This is a particular problem when city buses try to pass.

n. Difficult to travel through the New Haven Green on Temple street, three lane road becomes one lane of parked busses and two lanes of fast traffic Temple Street in front of the Omni Hotel is made difficult by parked delivery trucks and the purposefully enlarged sidewalks Orange Street Bicycle lane ends at Humphrey Street and never picks up again, even though many if not most cyclists continue southbound on Orange Street to get into the Downtown.

o. College Street bicycle route, which comes in from East Rock, ends abruptly at the intersection College & Elm. It is difficult to get from that point to other points within downtown, e.g., Church & Chapel, because no routes have been identified.

p. Getting from Sachem Street to southerly sections of East Rock (e.g., Orange and Bradley) requires a very long jog around either Humphrey or Trumbull, or an illegal cut-through through the Yale campus.

q. [NOT DOWNTOWN]--The Tomlinson Bridge is the only good way into town from points east but is essentially suicidal [NOT DOWNTOWN]--Humphrey Street between James St and State St.

2. CURRENT ROAD CONDITION ISSUES (no particular order)

a. BICYCLE Cyclists heading southbound on College, at corner of Elm, encounter a very dangerous intersection due to very limited visibility at the corner. Drivers turning left onto College, from Elm, often speed around the corner, trying to make it through the red light. As cyclists pull forward on the green light signal,

they seriously risk being clipped by turning vehicles.

b. Potholes at College and Elm.

c. Potholes at Orange between Court and Chapel.

d. Very dangerous Prospect & Trumbull intersection, for variety of reasons.

e. General lack of bicycle boxes or any other markings indicating that it is appropriate for bicycles to pull into the center of intersections, in order to make left turns across traffic.

f. High speeds on State Street can make it unpleasant for riding.

g. Families and inexperienced cyclists seem to avoid this street completely.

h. Signed bike route from East Rock to Downtown has potholes and is not particularly bicycle friendly over many sections.

i. Many traffic lights in New Haven do not turn green when on a bicycle, like when turning left on to Water Street from State Street.

j. Whitney Ave. has many potholes, as well as high traffic speeds and volumes that encourage illegally riding on the sidewalk.

k. [NOT DOWNTOWN]--Orange Street and Clinton Street suffer from bike lanes that are too close to car doors. There may be other examples of this.

D. LIST OF SPECIFIC GAPS WITHIN PEDESTRIAN NETWORK

l. CRUCIAL GAPS (no particular order)

a. PEDESTRIAN Lack of walk signals at Orange & Elm.

b. Lack of walk signals at Park & Chapel.

c. Lack of walk signals at High & Chapel.

d. Lack of walk signals at Trumbull & Prospect.

e. Lack of walk signals at Edgewood & Howe.

f. Lack of walk signals at Park & Howe.

g. Lack of walk signals at adequate intervals along State St, between Humphrey and Grove intersections. Although this is an area of infrequent pedestrian traffic, the road is wide and traffic speeds are high. This would be an excellent location for pedestrian-actuated signals.

h. Lack of walk signals at College and North Frontage Lack of walk signals and/or crosswalk at Audubon Street and Whitney.

i. Without a pedestrian crossing here, the block between Grove and Trumbull is far too long to be considered "walkable."

j. Lack of walk signals and/or crosswalk at Crown and Howe.

k. Lack of crosswalk at Cedar and York, on the north side of the intersection.

l. Lack of crosswalk at College Street, at Phelps Gate leading to pathway into New Haven Green.

m. Lack of crosswalk at Elm Street between High and College, leading to pathway into Cross Campus area. The high volume of pedestrian traffic in this area must be recognized and safe, appropriate facilities provided. The sidewalks between York and College are not wide enough to accommodate pedestrian traffic, particularly if pedestrians are expected to use them to reach the crosswalks along Elm rather than jaywalking.

n. Lack of crosswalk at Center and Church.

o. Lack of mid-block crosswalk on Chapel, between Church and Orange - a very dense, high volume pedestrian area that currently has a lot of jaywalking.

p. State Street is considered too wide to cross comfortably, with overall perception affected by the railroad crossing immediately to the east.

q. This dramatically affects the perception of walkability between Downtown and Wooster Square.

r. Route 34 and Frontage Roads are almost impossible to cross or walk along at almost every intersection, a situation which cuts Downtown in half. Frontage roads have no sidewalks on one side.

s. Crosswalk mid-block on Temple Street between Elm and Chapel blends in with the pavement and becomes invisible to motorists.

t. Drains at Crown and Park always back up and form huge reservoirs in the street, limiting pedestrian mobility and threatening them with tidal waves from each passing car.

u. Drains at York and George (North East corner) always back up and form huge reservoirs in the street, limiting pedestrian mobility and threatening them with tidal waves from each passing car.

2. CURRENT ROAD CONDITION ISSUES (no particular order)

    a. PEDESTRIAN At Broadway, Elm and York intersection, the vehicle traffic signals are set too far back from the crosswalk on Broadway. Motorists often ignore the stop line, then drive underneath the signals. Not seeing the signal anymore, they then approach the intersection as if it were completely unsignalized, often driving into the path of pedestrians who have a walk signal (while the vehicle light is red).

    b. Cars turning into pedestrians at High and Chapel, along Chapel.

    c. Not enough signal crossing time at Chapel and Church, when crossing Chapel.

    d. Numerous intersections where pedestrian signals show red unnecessarily (examples below). This causes confusion to unfamiliar pedestrians, who quickly learn to ignore the pedestrian signals, leading to potentially dangerous scenarios. All that needs to be changed is the programming of the pedestrian signals.

        EXAMPLES: West side of College and South Frontage, walking south, will show a red pedestrian signal when the one-way traffic on South Frontage is stopped. North side of Temple and Chapel, walking either direction, shows red pedestrian signal when one-way traffic on Temple is stopped.

    e. Inadequate sidewalk width along Chapel, between Church and Orange.

    f. Inadequate sidewalk width along Church, between Crown and Chapel.

    g. Severely inadequate sidewalk widths along Crown Street, during weekend evenings when nightclubs are active. Street is sometimes barricaded by police during these times.

    h. Pedestrian traffic along Chapel is so high that longer walk signals, or a pedestrian priority zone along with lower traffic speeds, should be considered.

    i. Drivers do not yield to pedestrians at Wall & Orange crosswalk, at Wall & College, Olive & Court, Orange & Court, Trumbull & Lincoln, and at other crosswalks in the area. This is a serious issue causing significant pedestrian inconveniences.

    j. Very dangerous Prospect & Trumbull intersection, for variety of reasons.

    k. Speeds are very high on Elm Street, which can be dangerous and discouraging to pedestrians.

    l. Parking garage curb cuts are not marked in some cases. Exiting drivers conflict with pedestrians walking along the sidewalks. This seems particularly true of the College/Crown garage.

m. Speeds are extremely high all along the Route 34 corridor, which makes walking very difficult.

Appendix VII: Federal Highway Administration Safety Guideline for Sidewalks and Construction

Federal Highway Administration (FHWA) Safety Guideline for Sidewalks and Construction

Chapter 10. Sidewalk Maintenance and Construction Site Safety

All facilities, including sidewalks, require regular maintenance to reduce the damage caused over time by the effects of weather and use. However, many maintenance issues can be reduced if properly addressed in the planning and designing phases before construction even begins. Proper maintenance is essential to promote user safety, to ensure ease of access, and Sidewalk Maintenance and Construction Site Safety to encourage the use of a designated route. The implementing regulations under Title II of the Americans with Disabilities Act require all features and equipment that are required to be accessible to be maintained in operable working condition for use by individuals with disabilities (U.S. Department of Justice, 1991a).

Figure 10-1. Regular sidewalk maintenance can prevent or correct sidewalk conditions, such as changes in level.

10.1 Facility maintenance

Accessible designs are useless if maintenance is neglected and sidewalks are allowed to degrade to a state where they cannot be used or must be avoided during travel. Frequently identified roadway safety and sidewalk design problems include:

- Sidewalk surfaces in poor repair, such as uneven or broken concrete and slabs uplifted by tree roots; and
- Lack of regular sidewalk maintenance, including overhanging trees and excessive snow on sidewalks.

Maintenance strategies should be included in the preliminary planning stages of new construction and alterations. Maintenance plans should also address existing facilities. The extent and frequency of maintenance schedules will vary greatly depending on the location, amount of use, and resources available. It is recommended that a plan be developed that clearly specifies the frequency of maintenance activities and how reported maintenance concerns will be addressed.

10.1.1 Assessment techniques

In order to maintain passable sidewalk conditions, current and potential problems must be identified through an objective assessment process. There are many methods available for identifying maintenance needs on existing sidewalks. For example:

- Large cities may devote a branch of their Public Works department solely to sidewalk inspection and repair;
- The Sidewalk Assessment Process (SWAP) records and prioritizes maintenance needs on sidewalks (see Chapter 11);
- Pedestrians may identify and report maintenance problems (see Section 10.3); and
- A city may establish an improvement program that identifies sites requiring improvements, access, or maintenance.

For a maintenance program to be effective, it must identify conditions that can impede pedestrian access and quickly respond with prompt repairs. Any citizen complaints reported should be given first consideration for improvement or repair if the reporting involves a safety or access issue.

Figure 10-2. Sidewalk cracks and broken concrete are common sidewalk maintenance problems that inhibit pedestrian access to sidewalks.

10.1.2 Sidewalk maintenance problems

Sidewalk inspectors should look for conditions likely to inhibit pedestrian access or cause injuries. The following list of common sidewalk maintenance problems was generated from promotional material created for homeowners by the Bureau of Maintenance in the City of Portland, Oregon (1996) and the Division of Engineering for the Lexington-Fayette County Urban Government (1993):

- **Step separation** - A vertical displacement of 13 mm (0.5 in) or greater at any point on the walkway that could cause pedestrians to trip or prevent the wheels of a wheelchair or stroller from rolling smoothly;

- **Badly cracked concrete** - Holes and rough spots ranging from hairline cracks to indentations wider than 13 mm (0.5 in);
- **Spalled areas** - Fragments of concrete or other building material detached from larger structures;
- **Settled areas that trap water** - Sidewalk segments with depressions, reverse cross slopes, or other indentations that make the sidewalk path lower than the curb. These depressions trap silt and water on the sidewalk and reduce the slip resistant nature of the surface;
- **Tree root damage** - Roots from trees growing in adjacent landscaping that cause the walkway surface to buckle and crack;
- **Vegetation overgrowth** - Ground cover, trees, or shrubs on properties or setbacks adjacent to the path that have not been pruned can encroach onto the path and create obstacles;
- **Obstacles** - Objects located on the sidewalk, in setbacks, or on properties adjacent to the sidewalk that obstruct the passage space. Obstacles commonly include trash receptacles, utility poles, newspaper vending machines, and mailboxes;
- **General Safety** - Any safety issue that a pedestrian or sidewalk inspector believes should merit attention;
- Blocked drainage inlets and inadequate flow planning;
- Temporary construction interruptions; and
- Inadequate patching after utility installation.

10.1.3 Maintenance responsibilities

Although sidewalks are usually elements of the public right-of-way, some city charters assign the responsibility for sidewalk upkeep to the owner of the adjacent property. City charters commonly specify that the city cannot be held liable for any accidents or injuries incurred due to sidewalk conditions.

When homeowners and businesses are responsible for sidewalk maintenance, they are allowed to decide whether to hire a contractor, perform repairs on their own, or have the city do the repair. Homeowner associations in some neighborhoods address right-of-way maintenance as a group to minimize the cost to individual members. In some areas, the city will subsidize property owners for sidewalk repairs. Local laws may also dictate whether or not a homeowner must hire a professional contractor to undertake sidewalk repair. Regardless of the approach for sidewalk maintenance, municipal inspectors should review and approve all repairs to guarantee that the improved sidewalk meets pedestrian access needs.

10.2 Information maintenance

In addition to maintaining the physical characteristics of sidewalks, agencies should also maintain signs, signals, and other information regarding crossing construction and general pedestrian facility conditions. Periodic reassessment of sidewalks should be conducted to verify that conditions have not changed. Assessment data should also be verified after a catastrophic event, such as a flood or an earthquake.

Signs should comply with MUTCD and ADAAG specifications. In general, signs should also be reevaluated periodically and replaced when age and weathering reduces legibility. The design of the sign and signal should consider the information that is being displayed, as well as actions taken to reduce theft or vandalism. Signs should be removed or replaced when messages are no

longer needed, the content of the information has changed, or information is not being provided for people with visual impairments.

CITIZEN WHEELCHAIR RAMP REQUEST
City of Seattle Wheelchair Ramp Program

Please provide a written description or sketch of the location(s) where wheelchair ramps would make your travel more safe and convenient.

LOCATION: NE NW SE SW All corner(s) of the
(please circle appropriate locations)

intersection between _____
(please list intersecting streets above)

N

[Street Name]

[Street Name]

PLEASE PROVIDE BELOW
Comments, Suggestions or Other Information that may assist us in providing a better service to you!

Please mark intersection corners needing wheelchair ramps with an "X".

REPORTED BY: Name _____ Day Phone _____
Address _____ Zip _____ Date _____

Please return to: Wheelchair Ramp Program
Rm 708 Municipal Building
Seattle, WA 98104

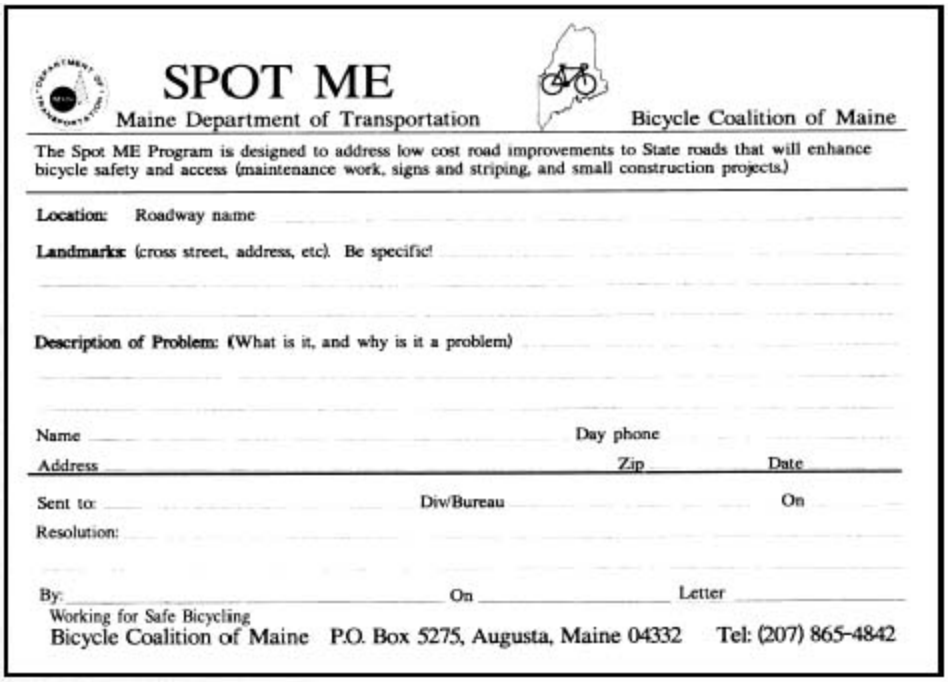
For more information,
Contact Pam Hamlin
at 684-5377

Figure 10-3. Residents of Seattle can request the installation of a wheelchair ramp at an intersection by completing this form and submitting it to the City's Wheelchair Ramp Program.

10.3 Citizen reporting

Those responsible for sidewalk maintenance should provide users with a convenient means to report sites in need of maintenance. The following techniques have been used successfully by a variety of municipalities to obtain maintenance input from users:

- Publishing a comprehensive maintenance guide with easy to follow guidelines that highlight the local maintenance goals and procedures;
- Using mass mailings to send self-addressed stamped forms for requesting a repair. For example, the Maine Department of Transportation's "Spot Me" program sends residents a postcard asking for small repair/improvement suggestions along bikeways. This type of a program could also be used to improve sidewalk access;
- Using additional signs or adhesive stickers attached to existing signs, to instruct pedestrians on how to submit maintenance/improvement requests;
- Periodically placing information flyers in local newspapers; and
- Making maintenance information available at public and school libraries.



SPOT ME

Maine Department of Transportation

Bicycle Coalition of Maine

The Spot ME Program is designed to address low cost road improvements to State roads that will enhance bicycle safety and access (maintenance work, signs and striping, and small construction projects.)

Location: Roadway name

Landmarks: (cross street, address, etc). Be specific!

Description of Problem: (What is it, and why is it a problem)

Name Day phone

Address Zip Date

Sent to: Div/Bureau On

Resolution:

By: On Letter

Working for Safe Bicycling

Bicycle Coalition of Maine P.O. Box 5275, Augusta, Maine 04332 Tel: (207) 865-4842

Figure 10-4. The Maine Department of Transportation sends to its residents this "Spot Me" postcard. Residents use the postcard to suggest small repairs and improvements along streets and sidewalks.

Citizens' Request programs can provide local maintenance agencies with an efficient way of repairing facilities. Residents living in an area can often identify issues quicker than a centralized agency.

Pedestrians who take the time to submit problems to the appropriate agency need to receive a timely written response or see quick results to feel their efforts were worthwhile. If timely action or notification of pending action is not taken, participants could become frustrated and be less likely to spend time in the future identifying problems. If problems are to be resolved in an upcoming project, then the citizen can be notified of the plan.

Figure 10-5. PROBLEM: Construction sites should include temporary ramps and should be blocked off with solid fencing. The thin tape in this illustration is not detectable using a long white cane.

10.4 Construction safety

Construction sites contain a variety of hazardous conditions such as work areas, workers, tools, equipment, machines, and stockpiles of materials that are potential obstacles and dangers to pedestrians when not correctly cordoned off from public use. Roadway and sidewalk maintenance and construction activities can adversely affect pedestrian access by:

- Removing entire street sections and/or sidewalks from public circulation;
- Failing to provide a continuous, accessible path of travel around or through construction;
- Not providing adequate warning and rerouting signs so that pedestrians can avoid the affected area;
- Placing potentially dangerous equipment and machines in close proximity to pedestrians;
- Reducing or blocking the pedestrian zone with materials or equipment;
- Failing to ensure that people with vision impairments can easily detect and avoid the construction site;
- Restricting the use of crosswalks by blocking access to available curb ramps;
- Not providing a safe and accessible alternative route around the construction site to adjacent businesses and destinations; and
- Using ineffective or unusable barriers such as plastic tape around the site.

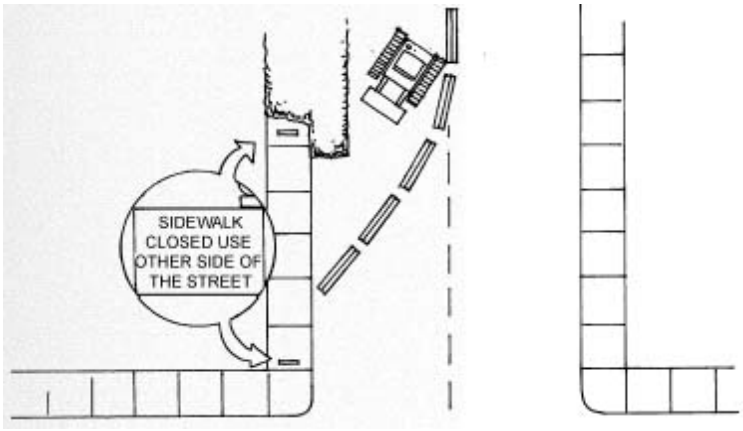


Figure 10-6. Signs notifying pedestrians of damaged sites or construction work should be located at the corner to prevent pedestrians from reaching the problem and having to turn around. Note: When technology improves, audible information of sidewalk closures should be provided for pedestrians with visual impairments.

A variety of measures can be taken to reduce potential safety and access problems at or near construction sites. A continuous route for all pedestrians must be maintained at all times. It is not acceptable to simply close a sidewalk without identifying an alternate circulation route. The alternate route must enable pedestrians to bypass the construction site without retracing their steps or going significantly out of their way. Additional consideration should be given to the needs of pedestrians with disabilities since they may not have the ability to improvise (e.g., balancing along the curb or a very narrow path) or use unofficial alternatives (e.g., using an adjacent grass surface). When a temporary route is established, it must be accessible to people with disabilities.

Information sources should be used to provide advance warning to pedestrians of the presence of the sidewalk construction site and to clearly mark the alternate circulation routes available. Information sources should use a variety of methods (e.g., signs, audible information, and electronic information sources) to convey this information to pedestrians. It is particularly important to ensure that all information sources are accessible to people with vision and cognitive impairments that may not be able to access signs or written information sources that have traditionally been used. To ensure the highest level of accessibility, information sources should:

- Conform to ADAAG for items such as finish and contrast, raised and Braille characters, character proportion and height, pictorial symbol signs (pictograms), and mounting height;
- Recognize that many people with cognitive impairments will be unable to read or understand written text and graphics;
- Utilize simple language and graphics that are easily understood;
- Make pedestrians aware of the sidewalk construction site location and the impact on the circulation route at each intersection or cross street location prior to the construction site, so pedestrians can alter their route before they arrive at the site;
- Make all pedestrians, including those with vision impairments, aware of the problem site and intended repairs as soon as identification of the problem has been recognized by the municipality before the repair or construction work begins;
- Discourage contractors from blocking sidewalks and parking lane to provide contractor parking;
- Indicate the duration of the construction work and any changes to the regular circulation route at the proposed site a reasonable amount of time before the construction takes place so that pedestrians who use the route on a regular basis have sufficient time to plan and learn alternate routes to their destination;
- Clearly delineate the alternate circulation route location and any instructions required for its use (e.g., altered crosswalk signal locations);
- When it becomes available, use technology that provides audible information to people with vision impairments at construction sites. A small broadcasting device that gives recorded instructions when activated by a motion sensor is one method of providing effective audible information to people with vision impairments; and
- Consider using traffic lanes to continue pedestrian access since most pedestrians will walk in the street. Jersey barriers can provide protection for pedestrians from traffic, while parking lanes can provide a temporary pathway.

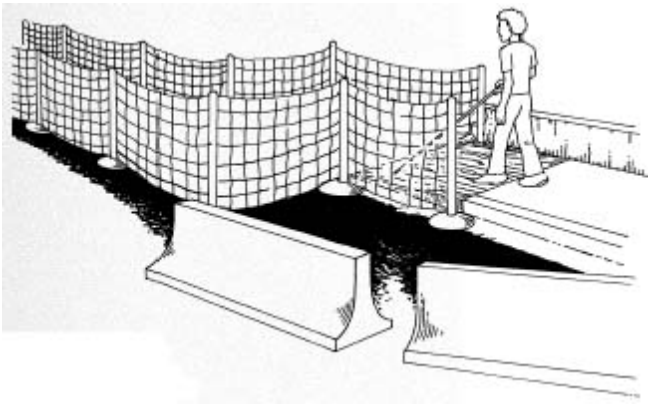


Figure 10-7. GOOD DESIGN: Mesh fencing and temporary ramps are critical features at construction sights.

Additional information can be provided via off-site information sources, including the internet or a telephone information line. However, these should be used only to supplement on-site information sources. Off-site information sources are beneficial since they allow pedestrians to obtain information in advance of their travel to or near the construction site. Advance information makes it easier for pedestrians to plan an alternate route to avoid the construction site.

It is essential that ground level, solid, continuous barriers be constructed to prevent pedestrians from entering the construction site either intentionally or unintentionally. Pedestrian safety is compromised because of the obstacles and hazards that will be present if access to the construction site is permitted. The use of flagging tape, ribbon, or signs to identify a site without a solid barrier is inappropriate. Barriers should also be used for all temporary closures, such as window cleaners and painters working overhead.

Barriers defining the alternate route should:

- Be a minimum of 915 mm (36 in) in height and continuous with the ground surface;
- Extend around the entire perimeter of the construction site or the entire length of the alternate circulation route;
- Have no breaks or gaps along the full length of the barrier;
- Have a solid, continuous bottom rail between 10 mm (4 in) and 305 mm (12 in) in height;
- Be of a high contrast color and material;
- Provide temporary ramps and boardwalks as required to ensure a smooth and continuous surface that complies with ADAAG;
- Have a level landing, at least 1.525 m x 1.525 m (60 in x 60 in) in size, at the top and bottom of any slopes greater than 5 percent; and
- Include the area encompassing a smooth transition from the permanent to the temporary route.

Strong consideration should be given to closing off one lane of the street to traffic if pedestrians need to be diverted off of the sidewalk at a site location. This allows the outside (curb) lane for motorists to be used as the alternate pedestrian circulation route. It is easier and quicker for vehicles to find an alternate route than pedestrians, especially those with vision, cognitive, or mobility impairments. Construction contractors should also ensure that supervisors, contractors, and workers at the site are sensitized to the potential pedestrian conflicts that may occur. In this way, they can be alert to changing hazards and conditions that might impact pedestrian safety (e.g., the delivery of a new load of materials) and provide any assistance that pedestrians may require.