

A Pedestrian Agenda



In the U.S. more people walk to work than use buses, rail lines or bicycles — and most people are pedestrians for part of their daily journeys in cars or transit. Yet walking as a transportation mode is often ignored or trivialized.

So while not revolutionary, refocusing attention on pedestrian issues is mandatory for places striving to create a livable balance between community and mobility. But how does one convince city agencies, even in a pedestrian-oriented place like New York, that walking is a transportation mode worthy of attention?

In New York, the Department of Transportation is responsible for designing and maintaining streets (transit is the responsibility of a regional agency). Like its counterparts in other cities, it has long focused on moving vehicles.

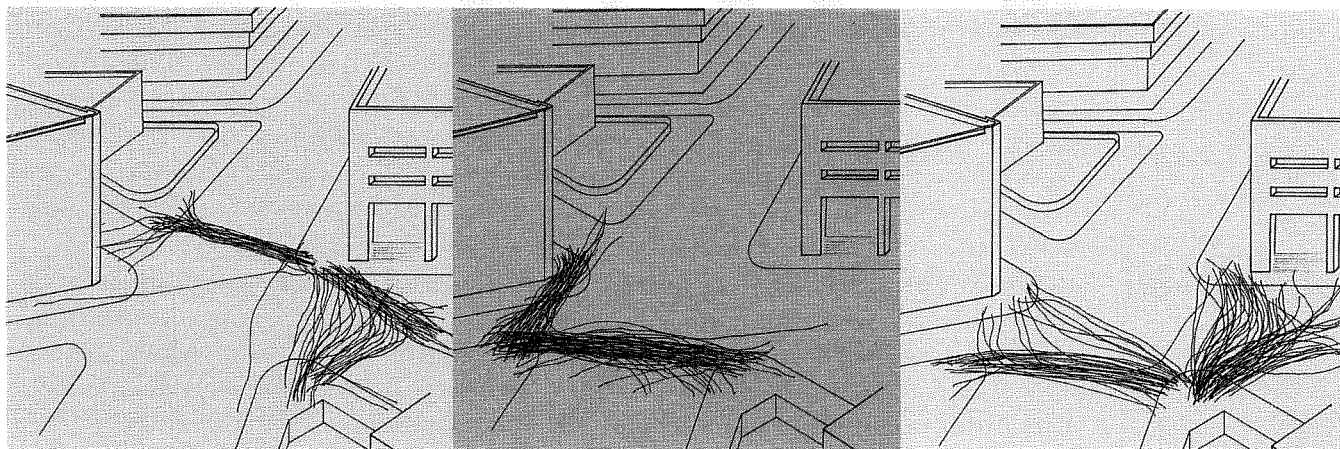
In 1994, several DOT staff organized a conference on traffic calming, and the department created its Pedestrian Projects Group shortly afterwards. The conference gave voice to both cautious and

enthusiastic viewpoints about traffic calming and gave community advocates, engineers and urban designers a chance to debate design options for specific sites throughout the city. The assurance and successes presented by the guest speakers convinced Commissioner Lou Riccio that traffic calming and pedestrian issues were worth addressing.

Once our program was launched, we had to be opportunistic in advancing our agenda. For exam-

and evaluating pedestrian conditions, comfort and behavior. We used new graphic techniques to help educate people about pedestrian dynamics.

As we began to consider what a program of pedestrian improvements might be, we realized that it would be useful to put site specific issues into a broader planning context. We interviewed staff at every community planning board and every police precinct, collecting information about



ple, pedestrian projects have to compete for funds with the needs of aging bridges and highways, education and the battle against crime. Fortunately, the federal Intermodal Surface Transportation Efficiency Act promotes similar philosophies.

We have had to overcome the misconception that pedestrian improvements are simply beautification projects, which are considered a luxury in a time of austerity. So we argued that the real issues were safety and the efficiency of movement for all transportation modes, as well as a sense of place. In 1995, for example, 236 people died while walking in New York, and an average of forty pedestrians are hit by vehicles every day.

Traffic engineers are accustomed to viewing pedestrian movement as a hindrance to traffic flow, so we learned to evaluate pedestrian movement in terms traffic engineers could understand (such as levels of service and delay). We introduced objective and qualitative approaches for expressing

locations with high pedestrian volumes, important pedestrian links, pleasant walking streets and pedestrian problems. Although the responses were perceptual, they helped us prioritize sites and issues. For example, three of the five boroughs said pedestrian lighting was a top priority, so we initiated a demonstration project in East New York.

When we mapped the responses and superimposed additional information, such as land use and accident data, other opportunities and conflicts became evident. For example, the location of accidents involving children could be compared to school and playground sites and locations with recorded complaints of speeding to identify schools that would benefit most from traffic calming.

Once we identified problems, sites and opportunities, we had to develop tools to address them. Traffic calming offers devices such as speed humps, traffic circles, diverters, sidewalk widening and pinch points as self-enforced methods of

Field research and testing are important elements of pedestrian projects in complicated settings. At Mulry Square in Greenwich Village (opposite page, left) multiple traffic and pedestrian movements are possible. Consultants tracked pedestrian crossing patterns then designed new crossings. DOT crews used green paint and heavy plastic bollards to indicate the areas that would eventually be sidewalk (opposite page, right). Graphics and photos courtesy Project for Public Spaces and New York City Department of Transportation.

slowing down traffic. But these represent a challenge to conventional traffic management approaches, which stress improving the flow of traffic. And some engineers fear that litigation may arise: is a city creating potentially hazardous traffic conditions in the course of taming traffic?

We addressed this by developing specific criteria for the use and design of traffic calming devices. These criteria were established after a great deal of research into practices elsewhere, and they were developed by teams that included personnel from various disciplines. These criteria make it easier to integrate pedestrian projects with existing operations and give institutional support to professional decisions.

For example, DOT recently installed 24 speed humps, after years of hesitancy. Months of research and meetings finally resulted in design guidelines and criteria for their placement.

An unexpected source of resistance to speed humps was that a successful trial might result in a flood of requests that DOT might not be able to respond to quickly. The firm commitment of a new commissioner (Christopher Lynn) to test the humps helped us move forward.

Nevertheless, the installation placed extra demands on already busy resurfacing crews. It was a masonry crew, headed by Patsy Carafano, an Italian mason from a line of proud craftsmen, who built a test hump in order to reassure skeptics of its safety and develop experience in its construction. His energy, curiosity and joy of experimentation created a positive atmosphere that was passed on to the asphalt crews. (He even built a hump that boasted marble chips, placed in the best terrazzo fashion.)

Clearly, it helps if other DOT units take ownership of projects. At the intersection of Midland and Mason avenues, on Staten Island, commuter traffic and trucks conflict with children on their way to school. Midland Avenue is a 50-foot wide collector with volumes as high as 1,000 vehicles per hour in each direction and typical speeds ranging from 40-44 m.p.h. in a 30 m.p.h. zone.

The Mason Avenue crossing is particularly dangerous for pedestrians, as evidenced by the number and severity of accidents there.

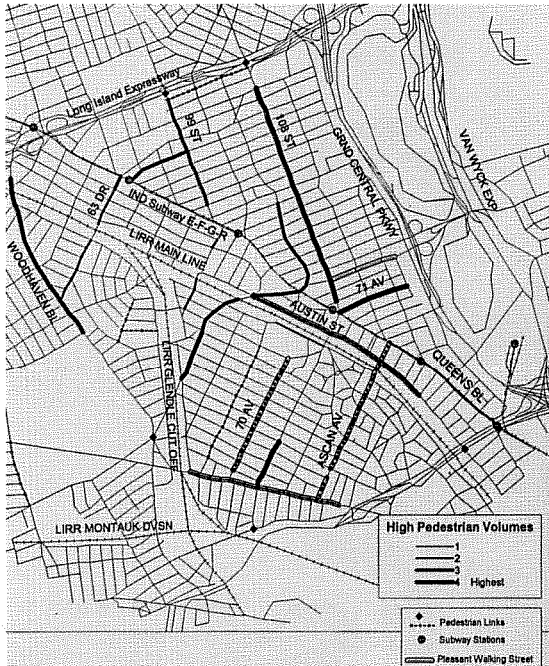
No conventional or traffic calming method seemed appropriate here. Engineers from DOT's safety and traffic units, instead of dismissing traffic calming altogether, designed an alternative that would be more accommodating to all users. They placed large oval islands in the approaches to the intersection, forcing traffic to adjust as it entered.

Speeds dropped by 3.8 m.p.h., but after a year they returned to previous levels. Yet the islands are considered an improvement because they provide refuge for pedestrians, especially children, crossing the street. And the process can be viewed as a success since several DOT units participated in a design process protecting pedestrians.

Cooperation among programs can lead to unexpected success. For example, communities often request traffic signals to improve pedestrian safety at dangerous intersections. In some cases, DOT's Intersection Control Unit can verify the problem but cannot install signals because of federal standards. Now it forwards those projects to the Pedestrian Projects Group.

A case in point is Francis Lewis Boulevard, which snakes through the Cambria Heights neighborhood, in Queens. The street is more than seventy feet wide but has a peak volume of only 400 vehicles per hour in the busier direction, and typical speeds are 47 m.p.h. At one intersection there is a gentle merge, and at the next there is a wide-angled right turn ramp — features that tempt drivers to violate existing stop signs. We proposed constructing a wide median and redesigning the merges as right-angled intersections that would force traffic to slow, if not stop; the project is now being advanced as a construction project.

Sometimes tests are useful, if not necessary, for winning departmental and public support for complicated or experimental projects. At Mulry Square, a busy and confusing intersection in Greenwich Village, we joined with Project for



Public Spaces to propose reconfiguring the crosswalks to accommodate the paths pedestrians really took through the intersection. This required building sidewalk extensions (or “neck-downs”) at the corners and reversing the direction of traffic on one block of West 11th Street.

First DOT painted the changes in the roadway. Several weeks later, crews added green paint and heavy plastic bollards to further distinguish the areas that would eventually be sidewalk. (Unfortunately, tests are often uglier than carefully designed construction projects, so the full benefit of a project may not be apparent.) After nine months of testing, most people favored reversing 11th Street back to its original operation but supported the alignment changes.

The test design was incorporated, with slight adjustment, into a capital reconstruction project. Had it originally been presented to the community as a construction project, instead of a test, it probably would have been rejected due to uncertainty about the impacts.

Although pedestrian projects are often modest in scope, they relate operations to capital planning,



The Pedestrian Projects Group has developed analytical approaches and graphic techniques that resemble those used by traffic engineers. Left: Classification of streets in Forest Hills, Queens, according to pedestrian characteristics. Right: Pedestrian-vehicle accident frequencies in Greenwich Village. Courtesy New York City Department of Transportation.

land use to street activity, and aesthetics to safety. This interdisciplinary nature is both the beauty and the challenge of pedestrian projects, and it means that opportunity may lie in unexpected places.

Our office now has fourteen staff members and is managing programs worth \$17 million. We need to continue to learn about pedestrians through research and outreach, to communicate effectively with both engineers and the public, and to integrate pedestrian issues with every discipline and administrative process possible — from roadway projects to zoning issues. Our proudest moments are not when a project is completed with great fanfare, but when others take our agenda in order to see accident rates and speeds drop, complaints diminish and communities thrive.