

Allen and Pike Streets



Purpose

- Improve safety for pedestrians, drivers and cyclists
- Expand and connect pedestrian mall spaces
- Enhance and improve bicycle connections
- Enhance streetscape

Outreach

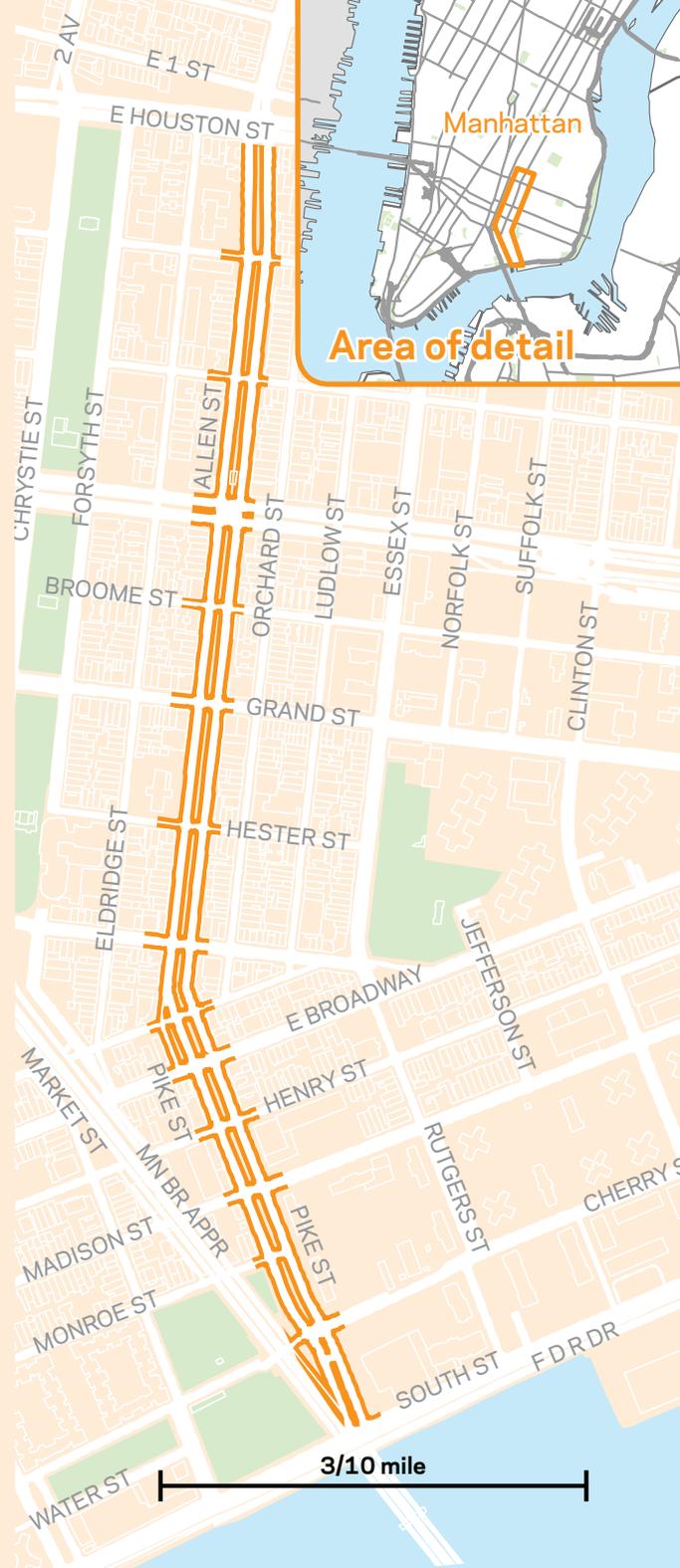
- The community initiated and participated in design workshops that called upon DOT and the New York City Department of Parks and Recreation (Parks) to transform Allen and Pike Streets into a pedestrian-friendly boulevard
- DOT presented plans to the Manhattan Community Board 3 Transportation Committee (CB3) in February 2009
- DOT met with CB3 in March 2009 to address questions and concerns and received support for the plans along with specific recommendations from CB3
- DOT modified plans based on community input and presented the final plan to CB3 in April 2009
- DOT distributed notices regarding project implementation to community businesses and residences in August 2009
- DOT updated CB3 on project progress in September 2009

Approach

- Narrowed the roadway from three moving lanes to two moving lanes in each direction
- Installed left-turn bays and added a dedicated signal phase for vehicles turning left
- Created pedestrian plazas and widened malls
- Installed new crosswalks to connect pedestrian malls
- Relocated bicycle lane from right-side curb to left-side curb next to mall; provided nine-foot buffer between bicycle lane and travel lanes; provided connection to East River Greenway

Results

- 35% reduction in both motor vehicle crashes and bicycle crashes involving injuries along Allen and Pike Streets from Houston Street to South Street
- Daily traffic volumes decreased by 18% for northbound and 23% for southbound traffic
- Bike ridership increased by 43% in the northbound direction and by 60% in the southbound direction from 7 a.m. – 7 p.m.



Allen and Pike Streets run north and south from Houston Street to South Street at the East River waterfront in Manhattan. Located in the Lower East Side and Chinatown, the corridor has a diverse mix of people and businesses and a long history as home to various immigrant groups.

Members of the Lower East Side and Chinatown communities contacted DOT about the need for pedestrian and traffic safety changes in the area and the opportunity to create a landscaped promenade to the waterfront along Allen and Pike Streets. Allen Street and Pike Street had concrete malls separating northbound and southbound traffic, a legacy from demolition of the Second Avenue elevated train line and several blocks of tenement housing, a stark contrast to the park space between Chrystie and Forsyth Streets to the west. The Allen and Pike Street malls were underutilized and presented an opportunity to significantly improve pedestrian access and safety in both Chinatown and the Lower East Side.

In response to requests from the Lower East Side BID and community organizations, DOT began to look for specific areas of improvement along the corridor. Although few neighborhood residents own cars, the area is a major conduit for vehicular traffic due to the proximity of the Williamsburg and Manhattan Bridges. Both bridges also attract many cyclists, though the existing bicycle lanes on Allen and Pike Streets were frequently blocked by double-parked vehicles and delivery trucks.

The northern portion of the project area has a concentration of restaurants and stores while the land uses in the southern area of the project are a mix of retail and residential. The street configuration was three lanes in each direction plus bicycle and parking lanes on both sides, divided by malls that are 20 or more feet wide. Due to the wide roadway, vehicles would weave through the three lanes and make unpredictable movements. The road width also made for longer crosswalks. Another safety issue resulted when left-turning vehicles queued between the malls blocking traffic and pedestrians.

DOT met with CB3 to outline the project plans in February 2009, and started a dialogue that continued in the following months. In March, DOT addressed questions and concerns and the committee voted to support the overall project. DOT modified the plans based on community feedback and presented the changes to CB3 in April. In August DOT distributed notifications of the project and its implementation to local businesses and residences along the entire corridor.

DOT removed a travel lane in each direction, narrowing the roadway from three lanes in each direction to two. The bicycle lane was relocated from the curb adjacent to parking to the interior space next to the mall. A nine-foot buffer was installed between the bicycle lane and the travel lanes to protect cyclists. The newly protected bicycle lane provides a connection to the East River Greenway and adds 1.9 miles to the City's bicycle network.

Left-turn bays and dedicated left-turn signal phases were added to separate left-turning vehicles from pedestrians and cyclists. Crosswalks were installed between malls where cross streets remain open to traffic. At four cross streets with low traffic volumes, pedestrian plazas were created along the corridor by connecting the malls. The pavement at the plazas was colored to differentiate the space from the roadway. Planters, additional signage and flexible bollards were also installed to help reduce driver confusion and keep vehicles out of the new plazas. Plants and benches were added at each plaza to enhance the new public spaces.



A bird's eye view of the project showing the new bicycle lane, buffer space and a pedestrian plaza created by connecting the malls.



Safety for cyclists was improved by moving the bike lane next to the mall and providing a nine-foot buffer between the bike lane and vehicle travel lanes.

Injuries from vehicular crashes and bicycle crashes along Allen and Pike Streets both decreased by 35%, a statistically significant reduction in crashes.

Vehicular volumes decreased for all time periods in both northbound and southbound directions. Daily northbound volumes decreased by 18% and southbound volumes declined by 23%. Bike volumes increased on this corridor in response to the protected bike lane. From 7 a.m. to 7 p.m., bike volumes increased by 43% for the northbound direction and 60% in the southbound direction.

The number of crashes involving injuries to motor vehicle occupants decreased by 35% from an average of 22.7 crashes per year during the three years prior to implementation to an annual rate of 14.7 since the project was completed. This decline represents a statistically significant reduction in crashes. In addition, the annualized crash rate involving injuries to motor vehicle occupants after implementation was lower than the number of crashes in any of the 10 prior years (for crash analysis methodology, see page 72).

In the three years prior to implementation there was an average of 12.3 crashes per year involving injuries to bicyclists. Since the project was completed, that number has been reduced by 35% to an annual rate of eight crashes, a statistically significant reduction.

This project demonstrates how relatively inexpensive materials and infrastructure such as signals, pavement markings and planters have vastly improved pedestrian and bicycle access and safety. The project area today provides inviting and safe public spaces and a welcoming connection to the East River Greenway. The mall construction has begun at the south end of the project between Henry Street and South Street. When funding has been secured the temporary treatments will be built with permanent materials and landscaping along the entire project corridor.



One of the new pedestrian plazas located at Hester Street. Plants and benches were added at each plaza to enhance the new public space.

Bike Volumes on Allen Street Grand Street to Hester Street

	Before	After	% Change
Northbound	309	443	43%
Southbound	199	318	60%

Before data collected in June 2009. After data collected in August 2010. Volumes shown are for time period 7 a.m.-7 p.m. on a weekday.

Crashes with Injuries along Allen and Pike Streets Houston Street to South Street

	Before* (three previous years)			After
Total Crashes with Injuries	56	53	45	45.3
Number of Crashes with Injuries to:				
Motor Vehicle Occupants	25	23	20	14.7
Pedestrians	22	15	14	22.7
Bicyclists	11	15	11	8

*Before columns show the crash history for each of the three years immediately prior to project implementation. After column shows number of crashes since implementation (through October 2010) at annual rate. See page 72 for further information on crash data source and analysis methodology. The sum of the three specific categories may not equal "Total Crashes with Injuries" because some crashes involved injuries in multiple categories.