

Vanderbilt Avenue



Purpose

- Expand traffic calming efforts that began in 2006
- Improve pedestrian safety
- Improve bicycle infrastructure and expand bicycle network

Outreach

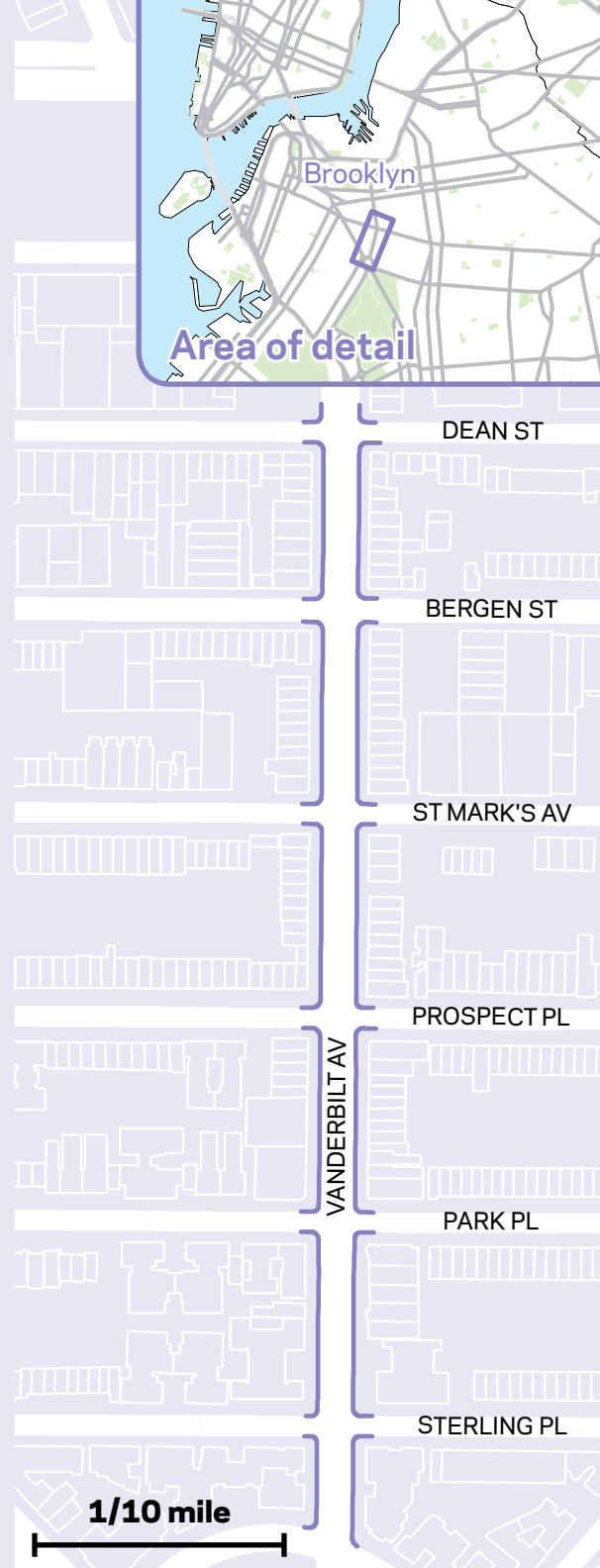
- Presented plans to Community Board 8 and local elected officials
- The proposal received a positive response

Approach

- Installed bike lane after repaving Vanderbilt Avenue
- Built raised island/medians with landscaping
- Changed parking regulations to complement other improvements

Results

- Bicycle ridership increased by almost 80%
- Greened corridor; improved pedestrian environment
- Crashes involving injuries fell below pre-2006 average



This section of Vanderbilt Avenue is a wide, north-south street that connects Atlantic Avenue to Grand Army Plaza in the Prospect Heights section of Brooklyn. It has been a commercial corridor for the neighborhood with basic amenities and the addition of more restaurants, shops and other small businesses in recent years makes it an active pedestrian street.

Brooklyn's Vanderbilt Avenue is a growing commercial corridor with significant pedestrian activity. In order to make the street a safer and more welcoming place for pedestrians, DOT instituted a traffic calming scheme in spring 2006 which reduced speeds significantly without affecting traffic volumes. Prior to the redesign the average speed was 34 m.p.h. The average speed decreased to 28 m.p.h. after the traffic calming. Eliminating a travel lane will often decrease the speeding associated with passing other vehicles. There were small fluctuations in traffic volumes after the changes.

In order to build on the success of the 2006 traffic calming efforts, DOT proposed further improvements in spring 2008 aimed at enhancing the streetscape and pedestrian environment and providing a dedicated space for cyclists.

DOT made a presentation to Brooklyn's Community Board 8 in April 2008 for replacing the painted medians with concrete islands/medians and adding a striped bike lane. The proposal was received positively. Also present at that meeting were members of the local New York Police Department (NYPD) precinct and City and State elected officials.

Prior to the 2006 improvements Vanderbilt had two travel lanes in each direction and curbside parking. After the traffic calming project, the curbside parking remained but now there was only one travel lane in each direction separated by a painted median and left turn bays. The 2008 project decreased the width of the travel lanes and the center buffer to

make space for a five foot bike lane. The new bike lanes provide important links to the bike network, namely the bike lanes on Dean and Bergen Streets, around Grand Army Plaza and in Prospect Park.

Another important element of the 2008 project was to make the center buffers a more permanent feature. A raised concrete median was constructed between Prospect Place and St. Marks Avenue. Refuge islands were built on the south side of Park Place and Dean Street and the north side of Bergen Street.

DOT also changed the parking regulations along four blocks of Vanderbilt Avenue; on three blocks the parking restrictions were removed during the morning and along one block evening parking restrictions were upgraded to 24-hour restrictions.

To assess the 2008 project DOT analyzed data from the NYPD on the number of crashes involving injuries along the study area (Vanderbilt Avenue from Dean Street to Sterling Place) and collected data on the number of cyclists using the new lanes.



The newly designed Vanderbilt Avenue accommodates all users and has not impacted congestion.

Crashes with Injuries along Vanderbilt Avenue Dean Street to Sterling Place

Year	Before			After		
	2004	2005	2006	2007	2008	2009
Total Crashes with Injuries	10	7	2	1	2	2
Number of Crashes with Injuries to:						
Motor Vehicle Occupants	8	4	0	0	2	2
Pedestrians	2	2	1	1	0	0
Bicyclists	1	1	1	0	0	0

The initial traffic calming was implemented in May 2006. The data for each year was collected from June of the prior year to May of the year indicated, e.g. 2004 is data from June 2003 through May 2004. The sum of the three specific categories may not equal "Total Crashes with Injuries" because some crashes involved injuries in multiple categories. See page 72 for further information on crash data source and analysis methodology.

80% increase in cyclists using Vanderbilt Avenue after bike lane was installed.

Following the installation of the new bike lanes there was an 80% increase in the number of cyclists. There were 558 cyclists observed along Vanderbilt Avenue prior to the installation of the new bike lane. In the same time period a year later 1,004 cyclists were observed using the newly installed bike lane. This increase is likely the result of providing a dedicated space for cyclists. A less measurable but equally important benefit that comes with the new bike lanes is the improved connections it provides for cyclists moving throughout Brooklyn.

Crash rates showed an unusually high level of variation prior to the 2006 traffic calming, ranging as high as 21 in 2000 and 10 in 2003. From 2007 to 2009, crash rates

were below the pre-2006 average. (for crash analysis methodology, see page 72)

The benefits of an increase in bicyclists and improved environment came without reducing the street's ability to carry traffic. This project has recreated a section of the street network to better serve all users.

**Northbound Vanderbilt Avenue Traffic Volumes
Park Place to Dean Street**

	Before	After	% Change
7-10 a.m.	790	773	-2%
4-7 p.m.	390	357	-9%
Daily	390	376	-4%

Before data collected in 2005. After data collected in 2007 following installation of the painted median. Daily represents volumes between 5 a.m. and 12 a.m. Volumes shown in average vehicles per hour.

**Southbound Vanderbilt Avenue Traffic Volumes
Dean Street to Park Place**

	Before	After	%Change
7-10 a.m.	447	470	5%
4-7 p.m.	883	803	-9%
Daily	488	497	2%

Before data collected in 2005. After data collected in 2007 following installation of the painted median. Daily represents volumes between 5 a.m. and 12 a.m. Volumes shown in average vehicles per hour.



Refuge islands and a landscaped median improve the environment for this retail and pedestrian corridor.