

## Appendix 1

### Design and Materials Guide

#### Greenway Facilities Classification

Greenways in New York City are classified by type:

##### **Class 1: Multi-Use Trail or Path**

A multi-use trail is separated from the roadway and delineated by pavement markings and regulatory signage. Trails are usually shared by multiple users, including cyclists, pedestrians, joggers, in-line skaters, and wheelchairs. Typical widths are 12 to 16 feet.

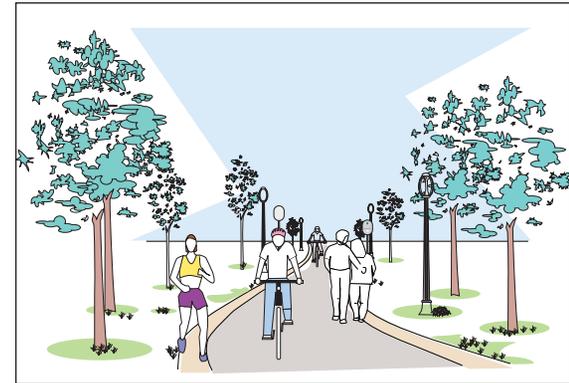
Dual carriageway trails separate foot and wheeled traffic. At trail and roadway intersections the design treatment should include bollards and landscaping to prevent access to the trail by motorized vehicles other than maintenance and emergency vehicles.

##### **Class 2: On-Street Bicycle Lane**

A bicycle lane is part of the roadway and delineated by pavement markings and regulatory signage. The lane is usually next to the curb parking lane, but may also be adjacent to the curb where parking is prohibited. The lane is usually separated from motorized traffic by a striped buffer. A sidewalk complements a bike lane to form a greenway for multiple users. The typical width of a striped bike lane is five feet, with a one-to-five-foot striped buffer.

##### **Class 3: Signed or Bicycle Route**

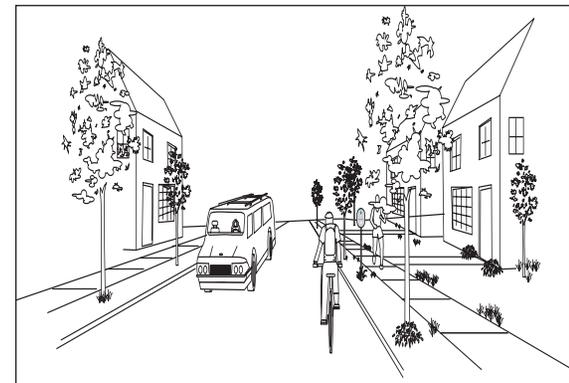
A signed route has informational signage only, usually located at each block along the route. Bicyclists share the roadbed with motorized vehicles without special delineation. A signed route is typically located on lightly-traveled streets, neighborhood streets, or where space constraints do not allow the striping of a separate bike lane. A signed route also provides information directing users to bicycle lanes or multi-use trails.



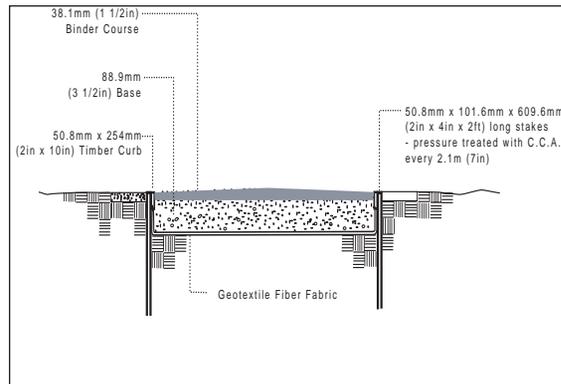
Class 1: Multi-Use Trail



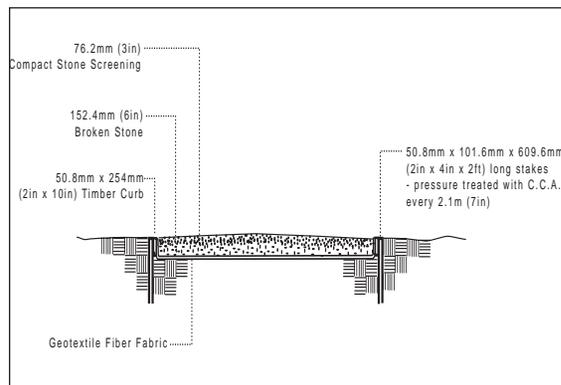
Class 2: On-Street Bicycle Lane



Class 3: Signed or Bicycle Route



Asphalt Trail Cross-Section



Crushed Stone Trail Cross-Section

## Trail Design – Materials

Depending on conditions and environmental aspects a choice of trail materials is available. The two most common materials are discussed below.

### Asphalt Trail

The standard material used for trails consists of hot rolled asphalt with a crushed stone clear zone. An alternative is to use concrete plates, which is more expensive to construct but provides longer durability. Trail widths may vary depending on space availability. The typical design for a two-way multi-use trail is 12 feet with a one-inch timber edge. According to the American Association of State Highway and Transportation Officials (AASHTO), the minimum width for two-way bicycle travel is eight feet.

### Crushed Stone Trail

The crushed stone or chipped wood trail design is often used in environmentally-sensitive areas. Trail width may vary depending on the environmental sensitivity of the natural landscape. Design

standards are the same as for asphalt trails. If bicycle travel has to be excluded for environmental reasons, trail width may be less than eight feet.

## Typical Details

### Bicycle Lanes

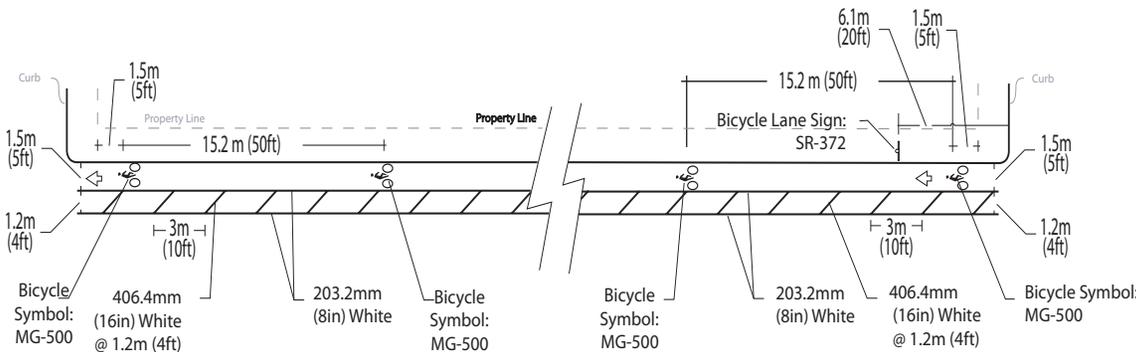
A bicycle lane is used to channel one-way bicycle travel. The design may vary depending on roadway width and traffic conditions. According to AASHTO the minimum width for bicycle lanes is five feet; in several U.S. cities four-foot bike lanes may be found.

A bike lane may be accompanied by a striped buffer zone to provide additional space separating the bicycles from the automobile lane and to increase the visibility of the bicycle lane. The width of the buffer zone depends on the available roadway space. One foot is the minimum; the typical width is four to five feet. Bicycle symbols and diamonds further identify the lane.

### Pedestrian Lanes

The use of pedestrian lanes as part of a greenway route is an infrequent recommendation. With a lack of sidewalks, the obvious solution would be to build sidewalks along properties lacking them. However, sidewalk construction costs must be incurred by the property owner. Pedestrian lanes, a less costly alternative which allow people to walk in the street, may temporarily allow for safe pedestrian circulation.

Pedestrian lanes are most suitable on roads that may safely accommodate a pedestrian lane and two-way traffic. These roads usually carry low vehicular volumes and are wide enough to delineate a pedestrian lane.

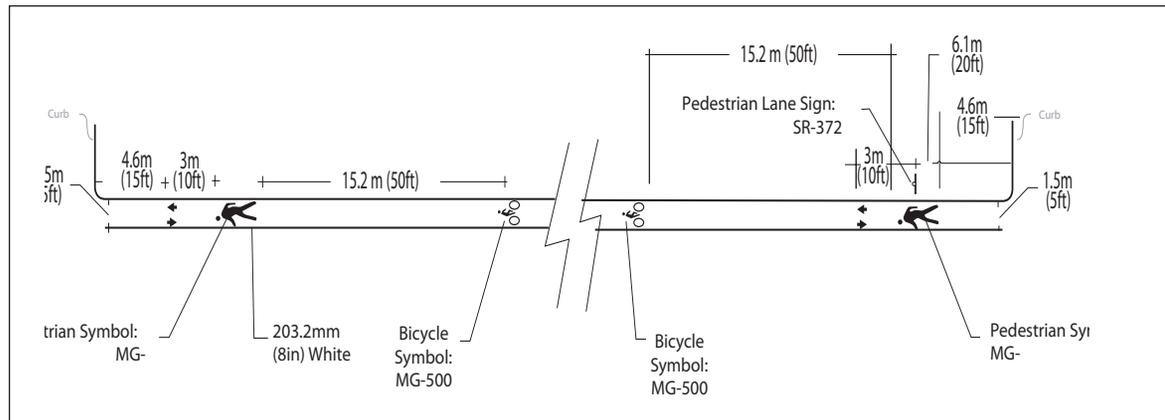


Typical Bike Lane Design

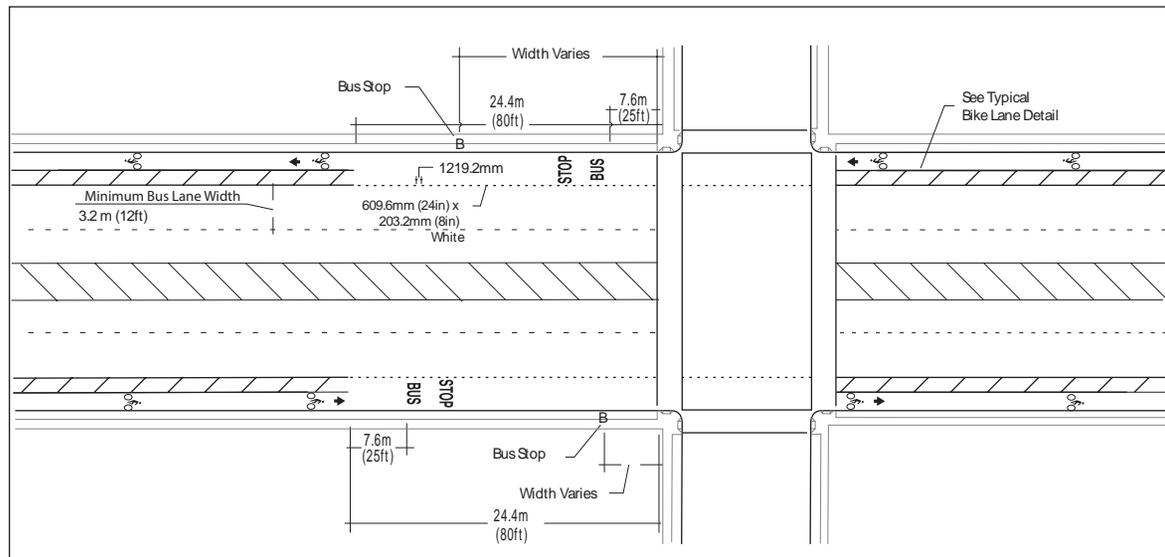
### Bus and Bike Interface

The design for the convergence of a bus and a bike lane includes signage and pavement markings, warning both bus driver and cyclist in advance of the convergence area.

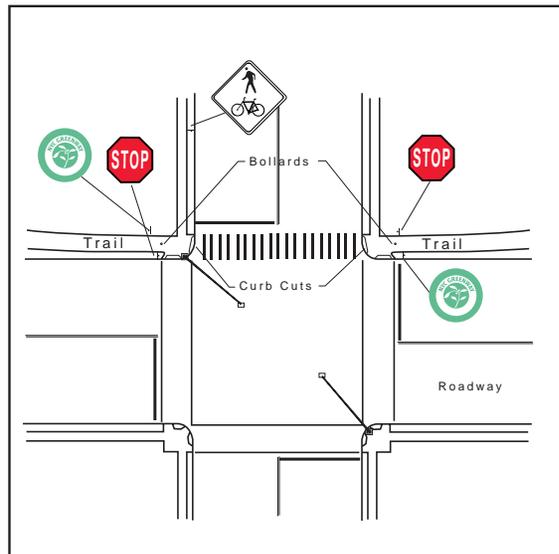
At a bus stop the bike lane is typically discontinued for approximately 80 feet. Bikes and buses share the same road space. Regular striping of the bike lane continues past the bus stop.



Typical Pedestrian Lane Design



Bus and Bike Lane Interface



A: Trail Crossing at Signalized Intersection

### Trail and Roadway Interface

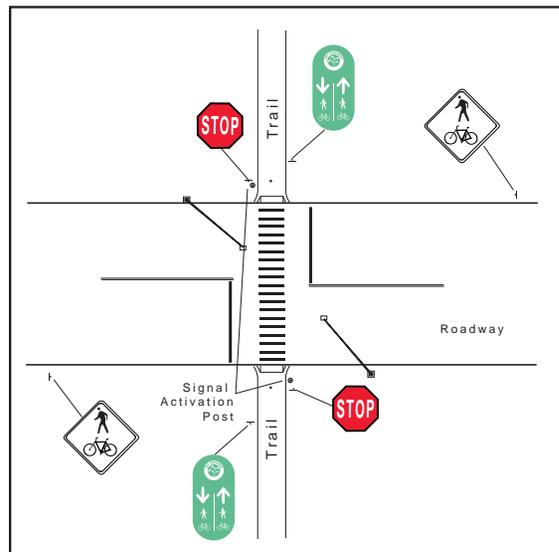
The design of a trail and roadway interface is extremely important in greenway or trail development. AASHTO provides design guidelines as shown in the diagrams and also recommends the following:

- Traffic controls (signals, stop signs, etc.) should be located so that motorists and cyclists are not confused by which controls apply to them.
- When a path terminates at an existing road, the path should be safely integrated into the system of roadways.
- Path intersections and approaches should be on relatively flat grades; stopping sight distances at intersections should be checked and adequate warning should be provided.

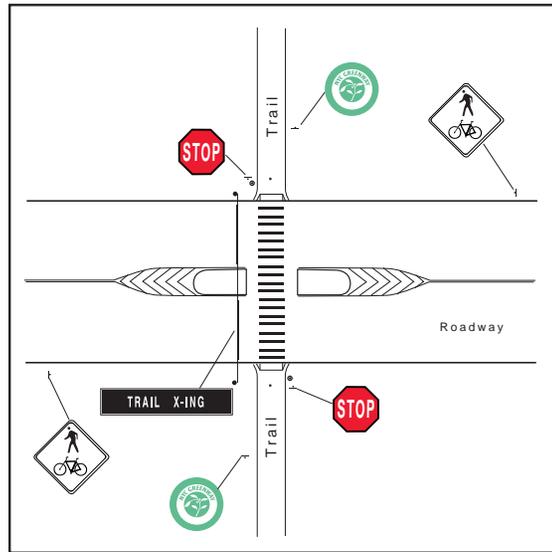
- Ramps and curb cuts at intersections should be the same width as paths, providing a smooth transition between the path and roadway.

Some typical design elements include warning and regulatory signage, located in advance of the junction. Where roadway crossings occur, traffic signals may be used. If the crossing occurs at a timed, signalized intersection, trail users cross with the green phase (see figure A).

When a trail crosses mid-block, there are two possible design treatments, depending upon the roadway's vehicular volume. The first design treatment, for a roadway with modest vehicular volumes, uses a traffic signal, activated by trail users only. This allows for continuous vehicular travel until a trail user needs to cross (see figure B). The second design treatment, for a roadway with higher vehicular volumes, utilizes traffic islands for refuge while crossing (see figure C). High-visibility pavement markings demarcate the crossing.



B: Mid-Block Trail Crossing with Signalization on Demand



C: Mid-Block Trail Crossing with Signage

## Appendix 2

### Bridges and Tunnels

The **Pulaski Bridge** spans the Long Island Expressway and Newtown Creek, the Queens-Brooklyn border. Built in 1954 and operated by the city, it is a counter-balanced drawbridge (bascule). It has three travel lanes in each direction and a multi-use path on the west side of the structure. The bridge was reconstructed in 1994 at a cost of \$40 million.

The **Queens-Midtown Tunnel** carries four lanes of traffic in two tubes under the East River for over a mile between Hunters Point and East 42nd Street. The tunnel, a tolled facility operated by MTA Bridges and Tunnels, was constructed in 1940. It carries almost 26 million vehicles annually.

The **Queensboro Bridge**, also called the 59th Street Bridge, is a designated city landmark. Built in 1909 to connect Long Island City and Midtown Manhattan, the two-deck cantilever bridge spans almost 7,000 feet. The bridge has nine travel lanes, carrying an average of 180,000 vehicles per day (2000), and a well-used 12-foot multi-use path on the North Outer Roadway.

Known as the Welfare Island Bridge when it opened in 1955, the **Roosevelt Island Bridge** provides vehicular, pedestrian, and bicycle access to the Roosevelt Island street system from 36th Avenue in Queens. The vertical lift moveable bridge, operated by the city, has a single travel lane in each direction and a narrow sidewalk.

The **Triborough Bridge** connects Queens, Manhattan, and the Bronx, carries over 62,000,000 vehicles per year to points throughout the metropolitan region, and provides access to open spaces and municipal facilities on Ward's and Randall's islands. A suspension bridge designed by O.H. Amman and built in 1936, it is a "whole highway

system, trestled and bridged..." A tolled facility operated by the MTA, it has eight total traffic lanes and pedestrian paths in each direction. Bicyclists are not permitted to ride on the facilities and must walk their bikes.

The **Hell Gate Bridge**, completed in 1916, was the longest steel-arch span in the world at the time and the only four-track long-span railroad bridge ever built. It marked the culmination of American railroad power and prosperity. Construction began in 1912 on this 3.2 mile long viaduct, which still today carries high-speed trains from Boston to New York. With a span length of 977 feet (298 meters) the bridge crosses the East River at Hell Gate. This fantastic design, for a four-track railway, was created by Gustav Lindenthal.

The **Rikers Island Bridge**, a fixed bridge completed in 1966, provides access between Queens and the city's jail on the 440-acre Rikers Island in the East River.

## Appendix 3

### Traffic Accident Analysis

Accident data was analyzed for the three-year period between 1998 and 2000, the most recent full years for which data is available, in order to assess the safety of existing and proposed routes. All data was obtained from the New York State Department of Motor Vehicles (NYSDMV) accident database, which summarizes information from local New York City Police Department (NYPD) accident reports. The NYSDMV designates motor vehicle accidents as reportable if they result in physical damages of \$1,000 or more or if there is an injury or fatality. Accidents resulting in less monetary damage or no injuries are designated as non-reportable (which does not mean that no police report was filed). Pedestrian and bicycle accidents are reportable by their very nature.

Accidents in the study area in general were low, even along main roads such as Vernon Boulevard, 20th Avenue, and 23rd Avenue there is a somewhat 'even' distribution of accidents at the intersections with cross streets.

**Segment 1** shows a cluster of accidents at the intersection of Jackson Avenue and the Pulaski Bridge, and Jackson Avenue and Vernon Boulevard (see map *Total Reportable Accidents 1998-2000, Segment 1*). The intersection of the Pulaski Bridge at Jackson Avenue had a total for the three-year period of 44 reportable accidents, which included one pedestrian and four bicycle accidents. A total of 20 reportable accidents occurred at the intersection of Jackson Avenue and Vernon Boulevard. No pedestrian or bicycle accidents occurred. There was one pedestrian fatality reported on Vernon Boulevard between 48th Avenue and 47th Road in 1998. The accident occurred mid-block when a pedestrian darted out from behind a parked vehicle.

**Vernon Boulevard** between 43rd Avenue and Astoria Boulevard/Main Avenue does not have any clusters of high accident locations and no fatalities. There is an even distribution of one to two accidents per year at some intersections or mid-block, with three to four reportable accidents at the intersection of the Roosevelt Island Bridge, 33rd Road, and Broadway. These numbers are low and do not indicate any accident hot-spots.

This is also true for the remainder of **Segments 2, 3, and 4**. Reportable accidents did occur along Shore Boulevard and 20th Avenue, but they only averaged one to four accidents per year.

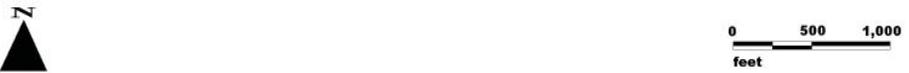
Not included in this data is the fatal accident involving a child bicyclist at the intersection of **Ditmars Boulevard and 75th Street**, which took place in April 2003. The NYC Department of Transportation has since installed traffic lights at the intersections of 75th and 76th streets and Ditmars Boulevard, thereby increasing the safety of pedestrians and bicyclists who are attempting to cross or connect to Ditmars Boulevard.

The intersection of **82nd Street and 23rd Avenue** had 67 total reportable accidents between 1998 and 2000, which included one pedestrian accident (see map *Total Reportable Accidents 1998-2000, Segment 4*). High traffic volumes and multiple turning movements contribute to the high total.

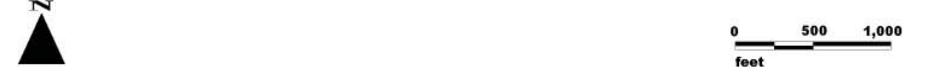
Higher numbers of accidents occurred in **Segment 5**. The intersection of 94th Street and 23rd Avenue had a total of 23 reportable, which includes two pedestrian accidents, and 94th Street and Ditmars Boulevard, with a total of 51 reportable accidents, including two pedestrian accidents, over the three-year period. (See map *Total Reportable Accidents 1998-2000, Segment 5*.) The intersection of 100th Street and Ditmars Boulevard had 20 accidents, with one pedestrian and one bicycle involved in a collision. The roundabout at 23rd Avenue and Ditmars Boulevard had ten reportable accidents, including one pedestrian collision. Other high-

accident locations are along the Grand Central Parkway and are not relevant to the study.

### High Reportable Accident Locations 1998-2000 Segment 1



### High Reportable Accident Locations 1998-2000 Segment 4



# High Reportable Accident Locations 1998-2000 Segment 5



## Appendix 4

### Shared-Use Sidewalks

#### General

Grade-separated, curbside bicycle lanes (as multi-use sidewalks are called) are recommended in the *New York City Bicycle Master Plan*, the Department of City Planning's 1999 document *Making Streets Safe for Cycling*, and in Transportation Alternative's 1993 *Bicycle Blueprint: A Plan to Bring Bicycling Into the Mainstream in New York City*.

The recommendations for shared-use sidewalks in this document are based on criteria that were developed for this study. Shared-use sidewalks should be implemented in places where on-street travel is unsafe or traffic conditions and space do not permit bicycles to be ridden on the street safely. Shared-use sidewalks are recommended for corridors under the following circumstances:

- The facility should be planned along corridors with low-density land uses that do not require the loading and unloading of goods and people.
- Driveways, cross streets and parking lots/garages along the corridor should be minimal.
- The corridor sidewalks should have light pedestrian volumes.
- Sidewalks should be at least 15 feet wide, with street furniture, where existing, aligned in a curbside amenity strip.
- Intersections should have wide curb cuts to provide easy bicycle access to and from the multi-use sidewalk.
- Crosswalks should be marked at all intersections to ensure safety and the continuity of the path.

- Standard greenway signs should be installed to identify the route.

The installation of a shared-use sidewalk raises issues of maintenance and legal responsibility that would have to be clarified and agreed upon before installation. The City's revised Administrative Code gives property owners other than one-to-three family homes the responsibility for the maintenance and legal liability of the sidewalks abutting their property. The City, either DOT or Parks & Recreation, depending on the sidewalk's location and jurisdiction, would have to designate and design the shared-use sidewalk and assume all responsibility for its operation.

Concerns over pedestrian safety are often raised in relation to shared-use sidewalks. The sidewalks, however, would be similar to greenways, where pedestrian safety is not an issue. The proposed shared-use sidewalk would be an eight- to ten-foot shared-use path, striped on the existing sidewalk to separate users. This approach has been used by Parks & Recreation on the sidewalk along Pelham Bay Park in the Bronx. A centerline separating wheeled- and non-wheeled users is effective even when applied on heavily-used facilities, such as the Hudson River Greenway on Manhattan's west side and the East River Greenway on the east side. Use of different paving materials (asphalt and concrete) and signage would be installed along the sides to instruct greenway users and identify the route.

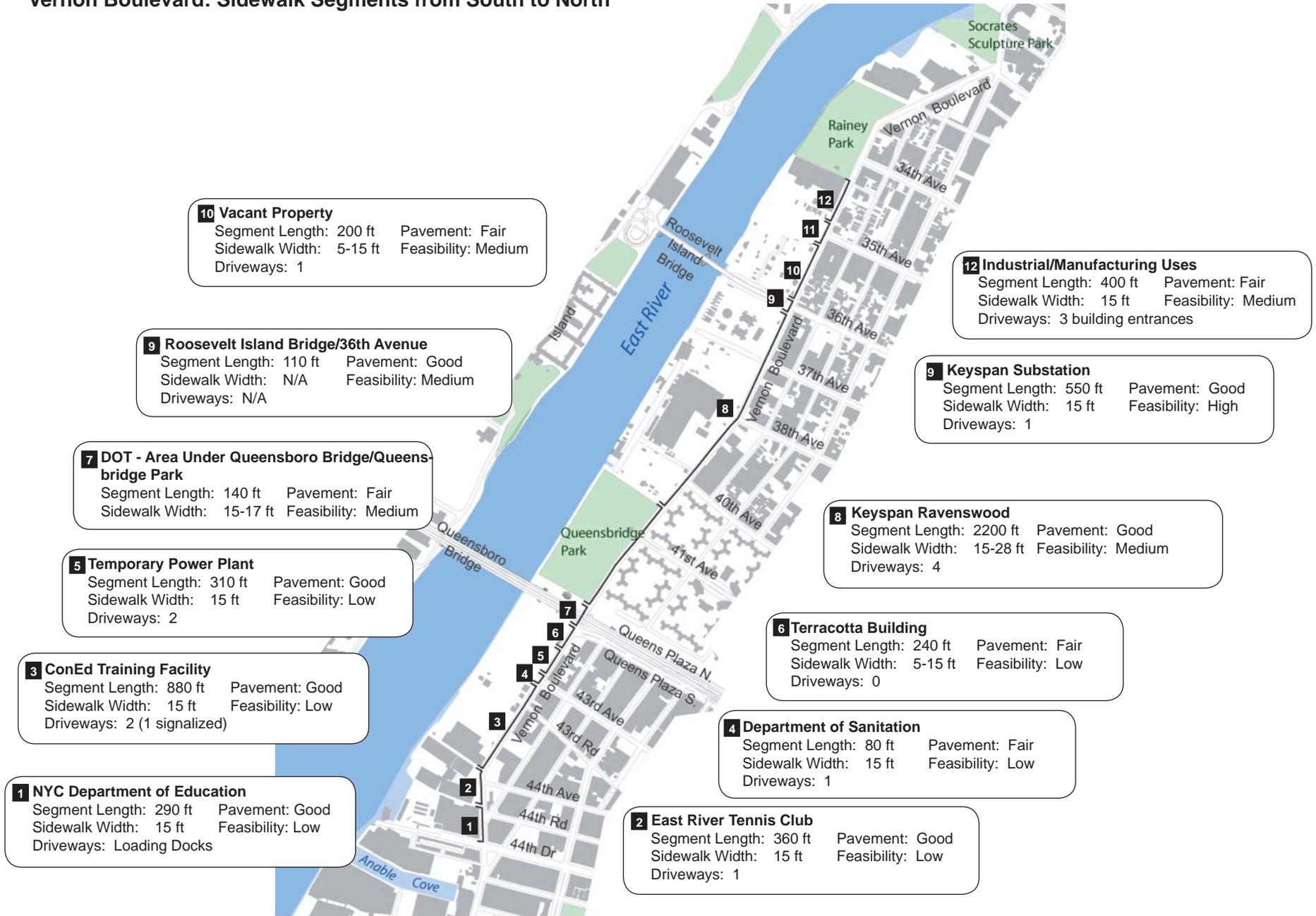
It is also worth noting that children under 14 are legally allowed to ride their bikes on the sidewalk (and frequently do without regard for other users), thus making all city sidewalks de facto shared-use paths.

#### Project-Specific

The option of a shared-use sidewalk is most critical on Vernon Boulevard, which is not wide enough to permit a standard Class 2 bicycle facility and has usually heavy traffic and truck volumes. The shared-use sidewalk is recommended for a stretch of 6860 feet (1.3 miles) between 44th Drive and Rainey Park (34th Avenue) on the west side of Vernon Boulevard, although its implementation south of the Queensboro Bridge is unlikely given the new Silver Cup West development.

Since the shared-use sidewalk recommendation extends across two study segments, it is being discussed in its entirety in this chapter. The purpose is to highlight the opportunities to use existing portions of sidewalk, point out gaps in the existing sidewalk, and describe recommendations for improvement. The map on the following page gives an overview of the existing sidewalk segments, adjacent uses, and the number of driveways.

**Vernon Boulevard: Sidewalk Segments from South to North**



Inventory of uses and driveways along the west side of Vernon Boulevard between 44th Drive and Rainey Park, from south to north:

Adjacent Use/Owner:	Length of Segment:	Number of Driveways/ Access Points:
1 Department of Education (Purchasing Dept.)	290 ft	Several Loading Docks
2 East River Tennis Club	360 ft	1
3 ConEd Training Facility	880 ft	2 (one is signalized)
4 Department of Sanitation (Salt Storage)	80 ft	1
5 NY Power Authority (Temp. Power Plant)	310 ft	2 (one main, one service access)
6 Terracotta Building	240 ft	0
7 DOT (under Bridge) Queensbridge Park	140 ft 1100 ft	1 3
8 Keyspan Ravenswood	2200 ft	4 (one main entrance)
9 Crossing of Roosevelt Island Bridge	110 ft	
10 Keyspan Ravenswood Substation	550 ft	1 (main access on south side)
11 Vacant Property	200 ft	1
12 Industrial/Manufacturing Uses	400 ft	approx. 3 building entrances
<b>Total</b>	<b>6860 ft</b>	

## Detailed Discussion

### 1. Department of Education – 290 feet

The 15-foot sidewalk abuts a building of the Purchasing Department of the NYC Department of Education. The building has loading docks on its east and south side, a use that would typically not encourage a shared-use sidewalk. However, 44th Drive south of the building offers a signalized access point to the sidewalk, while there is no easy and safe access point to the north. Bicyclists would be directed to dismount during business hours, but would be able to use the facility during off-hours and weekends.



Vernon Boulevard at 44th Drive



Department of Education building

## 2. East River Tennis Club (site of future residential development) – 360 feet

The 15-foot sidewalk continues along the East River Tennis Club, which has one driveway at 44th Avenue. Street lights and some utilities occupy the curb side of the sidewalk, but eight to ten feet of sidewalk could be dedicated for a shared-use path.

As mentioned, the tennis club site is to be developed as mixed-use residential and commercial buildings, thereby increasing motorized and pedestrian traffic. The shared-use sidewalk could, however, provide for improved access to the site from Vernon Boulevard and possibly connect to the proposed waterfront promenade.



15-foot sidewalk along East River Tennis Club

## 3. Con Edison Training Facility – 880 feet

The 15-foot sidewalk has a five-foot curbside amenity strip with planted trees and utilities. There are two access points to the training facility. 43rd Road is signalized for vehicles and pedestrians. The sidewalk is in very good condition. It is bordered by a fence along the property and a tree line that buffers noise and traffic from Vernon Boulevard. Bicyclists have been observed riding on the sidewalk.



15-foot sidewalk continues along ConEdison's training facility



Sidewalk along ConEdison; 15 feet with a five-foot amenity strip



Sidewalk along ConEdison; signal at 43rd Road

#### 4. Department of Sanitation (salt storage) – 80 feet

The sidewalk continues past the Con Edison facility, but is interrupted by a driveway into the Sanitation Department's salt storage site at 43rd Avenue. The roadbed is covered by salt and sand, making it less easy to cross for bicyclists. The installation of wider curb cuts and keeping the access free of salt would provide for a seamless connection of the shared-use sidewalk.



15-foot sidewalk at 43rd Avenue



Driveway to salt yard

#### 5. NY Power Authority, temporary power plant – 310 feet

The 15-foot sidewalk along the temporary power plant is in good condition and has a five-foot amenity strip with trees. One main entrance and one service entrance serve the site. Silvercup West will be taking over the site, but as it is now the shared-use sidewalk could continue without impediments. Future waterfront access may make a shared-use sidewalk unnecessary. But because of increased traffic due to the Silvercup West development, the realization of a shared-use sidewalk is unlikely.



15-foot sidewalk along temporary power plant

#### 6. Terracotta Building – 240 feet

The fence surrounding the Terracotta Building occupies much of Vernon Boulevard's sidewalk, narrowing it to five feet with a 3-foot amenity strip. At the end of the building the fence is set back and the sidewalk is 15 feet wide, but only five feet is evenly paved; the rest is gravel or covered with uneven pavers. If a shared-use sidewalk were to be implemented significant improvements would have to be made to the site.

Silvercup West will also be taking over this site, so the need for and chance of a shared-use sidewalk are as in the previous segment.



Sidewalk narrows along Terracotta Building



Five-foot paved sidewalk with three-foot gravel strip along Terracotta Building

### 7. DOT, under Queensboro Bridge – 80 feet, Queensbridge Park – 1100 feet

The area underneath the Queensboro Bridge is fenced, but there is a 17-foot sidewalk, five feet of which are concrete, the remainder dense gravel. The shared-use sidewalk would require that the full width of the existing sidewalk be paved.



Existing sidewalk underneath Queensboro Bridge

### 8. Keyspan Ravenswood – 2200 feet

The sidewalk along the Keyspan power generating plant is the longest segment. The sidewalk is continuous and the concrete pavement is in good condition. There are four access points to the site but no major traffic during daytime. The sidewalk width varies between 15 and 28 feet.

The first section of 280 feet, between Queensbridge Park and 40th Avenue, contains a planted amenity strip of less than five feet, with a remaining sidewalk width of 10 feet, of which only five are currently paved. A shared-use sidewalk would require the entire 10 feet to be paved and striped. Just south of 40th Avenue is a bus shelter in marginal condition, with no side glass walls. This shelter should be removed for the shared-use sidewalk.

Between 40th and 38th avenues the sidewalk widens to almost 28 feet for almost 650 feet. A tree buffer of five feet runs along the curb. A bus shelter is located near 40th Avenue.

At 38th Avenue the sidewalk narrows back to 15 feet, five of which are an amenity strip with trees. This section is 1000 feet long and extends to the Roosevelt Island Bridge. Just south of the bridge a bus shelter occupies a section of the sidewalk. The shelter would either have to be removed or bicyclists using the shared-use sidewalk would have to dismount.

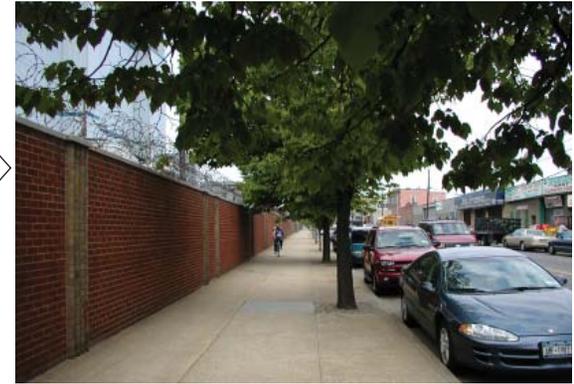
Currently the intersection of the Roosevelt Island Bridge with Vernon Boulevard is signalized. Pedestrian crosswalks are marked at the north and east sides of the intersection. People using the west side of the sidewalk on Vernon Boulevard are trapped without a signalized crossing at the end of the sidewalk. Recommended are the installation of a pedestrian signal and a shared-use crosswalk to connect the proposed shared-use sidewalk north and south of the bridge, and the installation of a pedestrian signal and a marked crosswalk on the south side of the intersection. See photos on next page.



Paved portion of the sidewalk narrows along Keyspan, just north of Queensbridge Park. Total sidewalk space is 15 ft.



North of 40th Avenue, sidewalk widens to 28 feet for approximately 650 feet



15-foot sidewalk stretches for 1000 feet between 38th Avenue and Roosevelt Island Bridge



Sidewalk along Keyspan, between Queenbridge Park and 40th Avenue



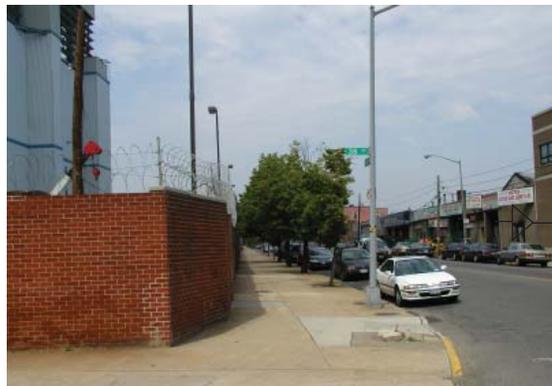
28-foot wide sidewalk along Keyspan, just south of 38th Avenue



15-foot sidewalk just south of Roosevelt Island Bridge. Bus shelter causing bottleneck.



Bus shelter at 40th Avenue causes bottleneck



Sidewalk width returns to 15 feet at 38th Avenue

### 9. Crossing at Roosevelt Island Bridge – 110 feet

The intersection of Vernon Boulevard, the Roosevelt Island Bridge, and 36th Avenue is signalized and crosswalks are marked on the north and east sides of the intersection. The installation of a combined bicycle/pedestrian crosswalk is recommended to connect the sidewalk along the west side of Vernon Boulevard. For design specifics see this same recommendation for the crossing at the Grand Central Parkway in Segment 5. A pedestrian signal and crosswalk should be installed on the south side of the intersection to provide a safe connection between the east and west sidewalks of Vernon Boulevard.



Intersection of Roosevelt Island Bridge/36th Avenue and Vernon Boulevard. Install signalized crosswalk on south side of intersection.

### 10. Keyspan Ravenswood Substation – 550 feet

North of the Roosevelt Island Bridge the 15-foot sidewalk continues along the entire substation. There is one driveway, but the main entrance to the site is from the south side of the property. The sidewalk contains a five-foot amenity strip with trees and is in good condition. The shared-use sidewalk could be striped on the remaining ten feet.



Keyspan sidewalk ends at Roosevelt Island Bridge, with a connection north of the intersection. Install shared-use crosswalk.



15-foot sidewalk along Keyspan substation, ending at 35th Avenue

### 11/12. Vacant Property/Industrial and Manufacturing Uses – 600 feet

Along a 50-foot section of the currently vacant property the paved sidewalk narrows to around 10 feet. The sidewalk is uneven and partly overgrown. A bus shelter on the sidewalk would cause a bottleneck for Greenway users, who would have to dismount; preferably the bus shelter would be removed.

The remainder of the sidewalk to Rainey Park is almost 15 feet wide, with some trees planted along the curb. The pavement is rather uneven, with different materials, and there are several building entrances. Parts of the structures seem abandoned. These sites are currently pending a rezoning. The shared-use sidewalk should be included into any future development designs.

Finally, the shared-use sidewalk would connect to the designated greenway paths in Rainey Park, leading greenway users to the waterfront.



15-foot sidewalk along manufacturing uses just south of Rainey Park. Uneven pavement conditions.

## Acknowledgements: Technical Advisory Committee

Astoria Homeowners and Tenants Association	Con Edison	Goodwill of Greater NY/NJ
Rudy Sarchese	Carol Conslato	Gail Harris
Astoria Houses Tenants Association	Costco, Public Relations	Hunters Point Community Coalition
Carolyn MacArthur	Mike Ferraro	Thomas Paino
Astoria Residents Reclaiming Our World	Friends of Astoria Park	KeySpan
Sandra Robishaw	Lucille DeBiase	April Dubison
Community Board 1, Queens	Friends of Gantry Neighborhood Parks	Landmarks Preservation Commission
	Cindy Van Houten	Brian Hogg
Community Board 2, Queens	Friends of Queensbridge Park	LIC Business Development Corporation
Dolores Rizzotto, District Manager	Elizabeth McQueen	Dan Miner
Community Board 3, Queens	Friends of Ralph DeMarco Park	LIC Community Boathouse
Giovanna Reid, District Manager	Rahul Prakash	Erik Baard
Community Board 7, Queens	Friends of the Travers Park	LIC Roots
Marilyn Bitterman, District Manager	Len Maniace	Noah Kaufman
Community Environmental Center	Greater Astoria Historical Society	Metropolitan Waterfront Alliance
Richard Cherry	Bob Singleton	Loren Talbot

## Neighborhood Open Space Coalition

Dave Lutz

NYS Assembly

Queensbridge Tenants Association

Honorable Jeffrion Aubry, District 35

Nina Adams

Noguchi Museum

Honorable Michael Gianaris, District 36

Heather Brady

Honorable Catherine T. Nolan, District 37

Queens Borough President's Office

Honorable Helen Marshall

NYC City Council

NYS Senate

Irving Poy, Planner

Honorable Eric N. Gioia, District 26

Honorable George Onorato

Honorable Hiram Monserrate, District 21

Queens Historical Society

Honorable Peter E. Vallone, Jr., District 22

NYS Department of Environmental Conservation

Stanley Cogan

Jim Gilmore

NYC Department of Environmental Protection

Queens West Development Corporation

Bob Alpern

NYS Department of Transportation

Alex Federbush

Roger Weld

NYC Department of Transportation

Ravenswood Tenants Association

Constance Moran, Former Queens Commissioner

NYS Office of Parks, Recreation and Historic Preservation

Carol Wilkins

Dan Orlando, Alternative Modes

William Ledwitz

Holly Haff, Alternative Modes

Silvercup Studios

Andrew Vesselinovitch, Alternative Modes

Mark Gold

Plaxall

NYC Housing Authority

Mathew Quigley

Socrates Sculpture Park

Michael Cornelius

P.S.1 Contemporary Art

Alyson Baker

Howard Marder

Alanna Heiss

The Sunnyside Foundation

Dorothy Morehead

Transportation Alternatives

Noah Budnick

David Snetman

United Community Civic Association

Rosemarie Poveromo

US Congress

Honorable Carolyn Maloney

Vernon Realty Holdings, LLC

Marshall Weisman

Walk Long Island City

Jack Eichenbaum

Woodside on the Move

Tomas Ryan

## Credits

NYC Department of City Planning

Amanda M. Burden, AICP, Director

Richard Barth, Executive Director

Sandy Hornick, Deputy Executive Director of  
Strategic Planning

Elizabeth Mackintosh, Director of Planning  
Coordination

Ellen Ryan, Intergovernmental Affairs

NYC Department of City Planning,  
Transportation Division

Jack Schmidt, Director

Kevin Olinger, Deputy Director

Scott Wise, Team Leader, Pedestrian, Bicycle,  
and Greenway Program

Angela Kelly, Project Manager

Kate Dyson, Former Project Manager

Britta van Aartsen, Former Project Manager

Cornelius Armentrout, Planner

Richard Berger, Former Intern

Indradeep Chakrabarty, Urban Designer

Monica Peña Sastre, Planner

Amy Pfeiffer, Former Planner

NYC Department of City Planning,  
Queens Office

John Young, Director

Joy Chen, Planner

Kate Dunham, Former Urban Designer

Neil Gagliardi, Associate Urban Designer

Fred Lee, Associate Urban Designer

Penny Lee, Planner

Jed Weiss, Former Planner

NYC Department of City Planning,  
Waterfront and Open Space

Bill Woods, Director

Sheila Metcalf

NYC Department of Parks & Recreation

Adrian Benepe, Commissioner

NYC Department of Parks & Recreation  
Planning Division

Joshua R. Laird, Chief

Jennifer Hoppa, Deputy Director

Jennifer Kao, Project Manager

Becky Alter, former Project Manager

NYC Department of Parks & Recreation  
Capital Division

Charles McKinney, Chief of Design

Angelyn Chandler, Queens Team Leader for  
Capital Projects

Shirley Kindler-Penzi, Deputy Team Leader for  
Queens

Helen Ogrinz, Design Supervisor of Queens

Ellen Macnow, Interagency Planning Coordinator

NYC Department of Parks & Recreation

Queens Borough Office

Dorothy Lewandowski, Borough Commissioner

Richard Murphy, former Borough Commissioner

Joanne Amagrande, Chief of Staff

Jacqueline Langsam, Chief of Operations

David Bentham, Park Manager

Eric Goetz, Park Manager

NYC Department of Parks & Recreation

Partnerships for Parks

Emily Maxwell, Astoria/LIC Catalyst Coordinator

Tamara Greenfield

Helen Ho